

## PHYSICAL CONSTANTS OF INORGANIC COMPOUNDS

The compounds in this table were selected on the basis of their laboratory and industrial importance, as well as their value in illustrating trends in the variation of physical properties with position in the periodic table. An effort has been made to include the most frequently encountered inorganic substances; a limited number of organometallics are also covered. Many, if not most, of the compounds that are solids at ambient temperature can exist in more than one crystalline modification. In the absence of other information, the data given here can be assumed to apply to the most stable or common crystalline form. In many cases however, two or more forms are of practical importance, and separate entries will be found in the table.

Compounds are arranged primarily in alphabetical order by the most commonly used name. However, adjustments are made in many instances so as to bring closely related compounds together. For example, hydrides of elements such as boron, silicon, and germanium are grouped together immediately following the entry for the parent element, since they would otherwise be scattered throughout the table. Likewise, the oxoacids of an element are given in one group whenever a strict alphabetical order would separate them (e.g., sulfuric acid and fluorosulfuric acid). The Formula Index following the table provides another means of locating a compound. There is also an index to CAS Registry Numbers.

The following data fields appear in the table:

- **Name:** Systematic name for the substance. The valence state of a metallic element is indicated by a Roman numeral, e.g., copper in the +1 state is written as copper(I) rather than cuprous, iron in the +3 state is iron(III) rather than ferric.
- **Formula:** The simplest descriptive formula is given, but this does not necessarily specify the actual structure of the compound. For example, aluminum chloride is designated as  $\text{AlCl}_3$ , even though a more accurate representation of the structure in the solid phase (and, under some conditions, in the gas phase) is  $\text{Al}_2\text{Cl}_6$ . A few exceptions are made, such as the use of  $\text{Hg}_2^{+2}$  for the mercury(I) ion.
- **CAS Registry Number:** Chemical Abstracts Service Registry Number. An asterisk\* following the CAS RN for a hydrate indicates that the number refers to the anhydrous compound. In most cases the generic CAS RN for the compound is given rather than the number for a specific crystalline form or mineral.
- **Mol. Weight:** Molecular weight (relative molar mass) as calculated with the 2005 IUPAC Recommended Atomic Weights. The number of decimal places corresponds to the number of places in the atomic weight of the least accurately known element (e.g., one place for lead compounds, two places for compounds of selenium, germanium, etc.);

a maximum of three places is given. For compounds of radioactive elements for which IUPAC makes no recommendation, the mass number of the isotope with longest half-life is used.

- **Physical Form:** The crystal system is given, when available, for compounds that are solid at room temperature, together with color and other descriptive features. Abbreviations are listed below.
- **mp:** Normal melting point in °C. The notation tp indicates the temperature where solid, liquid, and gas are in equilibrium at a pressure greater than one atmosphere (i.e., the normal melting point does not exist). When available, the triple point pressure is listed.
- **bp:** Normal boiling point in °C (referred to 101.325 kPa or 760 mmHg pressure). The notation sp following the number indicates the temperature where the pressure of the vapor in equilibrium with the solid reaches 101.325 kPa. See Reference 8, p. 23, for further discussion of sublimation points and triple points. A notation "sublimes" without a temperature being given indicates that there is a perceptible sublimation pressure above the solid at ambient temperatures.
- **Density:** Density values for solids and liquids are always in units of grams per cubic centimeter and can be assumed to refer to temperatures near room temperature unless otherwise stated. Values for gases are the calculated ideal gas densities in grams per liter at 25°C and 101.325 kPa; the unit is always specified for a gas value.
- **Aqueous Solubility:** Solubility is expressed as the number of grams of the compound (excluding any water of hydration) that will dissolve in 100 grams of water. The temperature in °C is given as a superscript. Solubility at other temperatures can be found for many compounds in the table "Aqueous Solubility of Inorganic Compounds at Various Temperatures" in Section 8.
- **Qualitative Solubility:** Qualitative information on the solubility in other solvents (and in water, if quantitative data are unavailable) is given here. The abbreviations are:
  - i insoluble
  - sl slightly soluble
  - s soluble
  - vs very soluble
  - reac reacts with the solvent

Data were taken from a wide variety of reliable sources, including monographs, treatises, review articles, evaluated compilations and databases, and in many cases the primary literature. Some of the most useful references for the properties covered here are listed below.

### List of Abbreviations

|                                 |                                    |                            |                                  |
|---------------------------------|------------------------------------|----------------------------|----------------------------------|
| <b>Ac</b> - acetyl              | <b>blk</b> - black                 | <b>cub</b> - cubic         | <b>exp</b> - explodes, explosive |
| <b>ace</b> - acetone            | <b>brn</b> - brown                 | <b>cyhex</b> - cyclohexane | <b>extrap</b> - extrapolated     |
| <b>acid</b> - acid solutions    | <b>bz</b> - benzene                | <b>dec</b> - decomposes    | <b>flam</b> - flammable          |
| <b>alk</b> - alkaline solutions | <b>chl</b> - chloroform            | <b>dil</b> - dilute        | <b>gl</b> - glass, glassy        |
| <b>amorp</b> - amorphous        | <b>col</b> - colorless             | <b>diox</b> - dioxane      | <b>grn</b> - green               |
| <b>anh</b> - anhydrous          | <b>conc</b> - concentrated         | <b>eth</b> - ethyl ether   | <b>hc</b> - hydrocarbon solvents |
| <b>aq</b> - aqueous             | <b>cry</b> - crystals, crystalline | <b>EtOH</b> - ethanol      | <b>hex</b> - hexagonal, hexane   |

|                              |                                |                                 |   |
|------------------------------|--------------------------------|---------------------------------|---|
| <b>hp</b> - heptane          | <b>orth</b> - orthorhombic     | <b>s</b> - soluble in           | <b>tp</b> - triple point                  |
| <b>HT</b> - high temperature | <b>os</b> - organic solvents   | <b>silv</b> - silvery           | <b>trans</b> - transition, transformation |
| <b>hyd</b> - hydrate         | <b>peth</b> - petroleum ether  | <b>sl</b> - slightly soluble in | <b>tricl</b> - triclinic                  |
| <b>hyg</b> - hygroscopic     | <b>pow</b> - powder            | <b>soln</b> - solution          | <b>trig</b> - trigonal                    |
| <b>i</b> - insoluble in      | <b>prec</b> - precipitate      | <b>sp</b> - sublimation point   | <b>unstab</b> - unstable                  |
| <b>liq</b> - liquid          | <b>pur</b> - purple            | <b>stab</b> - stable            | <b>viol</b> - violet                      |
| <b>LT</b> - low temperature  | <b>py</b> - pyridine           | <b>subl</b> - sublimes          | <b>visc</b> - viscous                     |
| <b>MeOH</b> - methanol       | <b>reac</b> - reacts with      | <b>temp</b> - temperature       | <b>vs</b> - very soluble in               |
| <b>monocl</b> - monoclinic   | <b>refrac</b> - refractory     | <b>tetr</b> - tetragonal        | <b>wh</b> - white                         |
| <b>octahed</b> - octahedral  | <b>rhom</b> - rhombohedral     | <b>thf</b> - tetrahydrofuran    | <b>xyl</b> - xylene                       |
| <b>oran</b> - orange         | <b>r.t.</b> - room temperature | <b>tol</b> - toluene            | <b>yel</b> - yellow                       |

## References

- Phillips, S. L., and Perry, D.L., *Handbook of Inorganic Compounds*, CRC Press, Boca Raton, FL, 1995.
- Trotman-Dickenson, A. F., Executive Editor, *Comprehensive Inorganic Chemistry*, Vol. 1-5, Pergamon Press, Oxford, 1973.
- Greenwood, N. N., and Earnshaw, A., *Chemistry of the Elements, Second Edition*, Butterworth-Heinemann, Oxford, 1997.
- Wiberg, N., Wiberg, E., and Holleman, H. F., *Inorganic Chemistry, 34th Edition*, Academic Press, San Diego, 2001.
- GMELIN Handbook of Inorganic and Organometallic Chemistry*, Springer-Verlag, Heidelberg.
- Chase, M.W., Davies, C.A., Downey, J.R., Frurip, D. J., McDonald, R.A., and Syverud, A.N.; *JANAF Thermochemical Tables, Third Edition, J. Phys. Chem. Ref. Data*, Vol. 14, Suppl. 1, 1985; Chase, M. W., *NIST-JANAF Thermochemical Tables, Fourth Edition, J. Phys. Chem. Ref. Data*, Monograph No. 9, 1998.
- Landolt-Börnstein, Numerical Data and Functional Relationships in Science and Technology, New Series*, IV/19A, "Thermodynamic Properties of Inorganic Materials compiled by SGTE", Springer-Verlag, Heidelberg; Part 1, 1999; Part 2, 1999; Part 3, 2000; Part 4, 2001.
- Lide, D. R., and Kehiaian, H.V., *CRC Handbook of Thermophysical and Thermochemical Data*, CRC Press, Boca Raton, FL, 1994.
- Kirk-Othmer Concise Encyclopedia of Chemical Technology*, Wiley-Interscience, New York, 1985.
- Dictionary of Inorganic Compounds*, Chapman & Hall, New York, 1992.
- Massalski, T. B., ed., *Binary Alloy Phase Diagrams, 2nd Edition*, ASM International, Metals Park, Ohio, 1990.
- Dinsdale, A.T., "SGTE Data for Pure Elements", *CALPHAD*, 15, 317-425, 1991.
- Madelung, O., *Semiconductors: Group IV Elements and III-IV Compounds*, Springer-Verlag, Heidelberg, 1991.
- Lidin, R. A., Andreeva, L. L., and Molochko, V. A., *Constants of Inorganic Substances*, Begell House, New York, 1995.
- Gurvich, L. V., Veyts, I. V., and Alcock, C. B., *Thermodynamic Properties of Individual Substances, Fourth Edition*, Hemisphere Publishing Corp., New York, 1989.
- The Combined Chemical Dictionary on CDROM, Version 9:1*, Chapman & Hall/CRC, Boca Raton, FL, & London, 2005.
- Macdonald, F., Editor, *Chapman & Hall/CRC Combined Chemical Dictionary*, <<http://www.chemnetbase.com/scripts/ccdweb.exe>>.
- Sangeeta, G., and LaGraff, J. R., *Inorganic Materials Chemistry, Second Edition*, CRC Press, Boca Raton, FL, & London, 2005.
- Stern, K. H., *High Temperature Properties and Thermal Decomposition of Inorganic Salts with Oxyanions*, CRC Press, Boca Raton, FL, & London, 2001.
- Donnay, J.D.H., and Ondik, H.M., *Crystal Data Determinative Tables, Third Edition, Volumes 2 and 4, Inorganic Compounds*, Joint Committee on Powder Diffraction Standards, Swarthmore, PA, 1973.
- Robie, R., Bethke, P. M., and Beardsley, K. M., *Selected X-ray Crystallographic Data, Molar Volumes, and Densities of Minerals and Related Substances*, U.S. Geological Survey Bulletin 1248, 1967.
- Carmichael, R. S., *Practical Handbook of Physical Properties of Rocks and Minerals*, CRC Press, Boca Raton, FL, 1989.
- Deer, W. A., Howie, R.A., and Zussman, J., *An Introduction to the Rock-Forming Minerals*, 2nd Edition, Longman Scientific & Technical, Harlow, Essex, 1992.
- Linstrom, P. J., and Mallard, W. G., Editors, NIST Chemistry WebBook, NIST Standard Reference Database No. 69, June 2005, National Institute of Standards and Technology, Gaithersburg, MD 20899, <<http://webbook.nist.gov>>.
- Phase Diagrams for Ceramists, Volumes 1-8; ACeS-NIST Phase Equilibrium Diagrams, Volumes 9-13*, American Ceramic Society, Westerville, Ohio, 1964-2001.

| No. | Name                                    | Formula  | CAS Reg No. | Mol. weight | Physical form          | mp/°C  | bp/°C    | Density g cm <sup>-3</sup> | Solubility g/100 g H <sub>2</sub> O | Qualitative solubility           |
|-----|---|--|-------------|-------------|------------------------|--------|----------|----------------------------|-------------------------------------|----------------------------------|
| 1   | Actinium                                | Ac   | 7440-34-8   | 227         | silv metal; cub        | 1050   | 3198     | 10                         |                                     |                                  |
| 2   | Actinium bromide                        | AcBr <sub>3</sub>  | 33689-81-5  | 467         | wh hex cry             |        | 800 subl | 5.85                       |                                     | s H <sub>2</sub> O               |
| 3   | Actinium chloride                       | AcCl <sub>3</sub>  | 22986-54-5  | 333         | wh hex cry             |        | 960 subl | 4.81                       |                                     |                                  |
| 4   | Actinium fluoride                       | AcF <sub>3</sub>   | 33689-80-4  | 284         | wh hex cry             |        |          | 7.88                       |                                     | i H <sub>2</sub> O               |
| 5   | Actinium iodide                         | AcI <sub>3</sub>   | 33689-82-6  | 608         | wh cry                 |        |          |                            |                                     | s H <sub>2</sub> O               |
| 6   | Actinium oxide                          | Ac <sub>2</sub> O <sub>3</sub>   | 12002-61-8  | 502         | wh hex cry             | 1977   |          | 9.19                       |                                     | i H <sub>2</sub> O               |
| 7   | Aluminum                                | Al   | 7429-90-5   | 26.982      | silv-wh metal; cub cry | 660.32 | 2519     | 2.70                       |                                     | i H <sub>2</sub> O; s acid, alk  |
| 8   | Aluminum acetate                        | Al(C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> ) <sub>3</sub>         | 139-12-8    | 204.113     | wh hyg solid           | dec    |          |                            |                                     | s H <sub>2</sub> O; sl ace       |
| 9   | Aluminum diacetate                      | Al(OH)(C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> ) <sub>2</sub>     | 142-03-0    | 162.078     | wh amorp powder        |        |          |                            |                                     | i H <sub>2</sub> O               |
| 10  | Aluminum ammonium sulfate               | AlNH <sub>4</sub> (SO <sub>4</sub> ) <sub>2</sub>                      | 7784-25-0   | 237.146     | wh powder              |        |          |                            |                                     | sl H <sub>2</sub> O; i EtOH      |
| 11  | Aluminum ammonium sulfate dodecahydrate | AlNH <sub>4</sub> (SO <sub>4</sub> ) <sub>2</sub> · 12H <sub>2</sub> O | 7784-26-1   | 453.329     | col cry or powder      | 94.5   | >280 dec | 1.65                       |                                     | s H <sub>2</sub> O; i EtOH       |
| 12  | Aluminum antimonide                     | AlSb   | 25152-52-7  | 148.742     | brn cub cry            | 1065   |          | 4.26                       |                                     |                                  |
| 13  | Aluminum arsenide                       | AlAs   | 22831-42-1  | 101.903     | oran cub cry; hyg      | 1740   |          | 3.76                       |                                     |                                  |
| 14  | Aluminum borate                         | 2Al <sub>2</sub> O <sub>3</sub> · B <sub>2</sub> O <sub>3</sub>        | 11121-16-7  | 273.543     | needles                | ≈1050  |          |                            |                                     | i H <sub>2</sub> O               |
| 15  | Aluminum borohydride                    | Al(BH <sub>4</sub> ) <sub>3</sub>                                      | 16962-07-5  | 71.510      | flam liq               | -64.5  | 44.5     |                            |                                     | reac H <sub>2</sub> O            |
| 16  | Aluminum bromate nonahydrate            | Al(BrO <sub>3</sub> ) <sub>3</sub> · 9H <sub>2</sub> O                 | 11126-81-1* | 572.826     | wh hyg cry             | 62     | >100 dec |                            |                                     | s H <sub>2</sub> O               |
| 17  | Aluminum bromide                        | AlBr <sub>3</sub>  | 7727-15-3   | 266.694     | wh-yel monocl cry; hyg | 97.5   | 255      | 3.2                        |                                     | reac H <sub>2</sub> O; s bz, tol |

| No. | Name                                    | Formula  | CAS Reg No. | Mol. weight | Physical form              | mp/°C                  | bp/°C            | Density g cm <sup>-3</sup> | Solubility g/100 g H <sub>2</sub> O | Qualitative solubility                    |
|-----|---|--|-------------|-------------|----------------------------|------------------------|------------------|----------------------------|-------------------------------------|---|
| 18  | Aluminum bromide hexahydrate            | AlBr <sub>3</sub> · 6H <sub>2</sub> O  | 7784-11-4   | 374.785     | col-yel hyg cry            | 93                     |                  | 2.54                       |                                     | s H <sub>2</sub> O, EtOH, CS <sub>2</sub> |
| 19  | Aluminum carbide                        | Al <sub>4</sub> C <sub>3</sub>   | 1299-86-1   | 143.958     | yel hex cry                | 2100                   | >2200 dec        | 2.36                       |                                     | react H <sub>2</sub> O                    |
| 20  | Aluminum chlorate nonahydrate           | Al(ClO <sub>3</sub> ) <sub>3</sub> · 9H <sub>2</sub> O                           | 15477-33-5  | 439.473     | hyg cry                    |                        |                  |                            |                                     | vs H <sub>2</sub> O; s EtOH               |
| 21  | Aluminum chloride                       | AlCl <sub>3</sub>  | 7446-70-0   | 133.341     | wh hex cry or powder; hyg  | 192.6                  | 180 sp           | 2.48                       | 45.1 <sup>25</sup>                  | s bz, ctc, chl                            |
| 22  | Aluminum chloride hexahydrate           | AlCl <sub>3</sub> · 6H <sub>2</sub> O  | 7784-13-6   | 241.432     | col hyg cry                | 100 dec                |                  | 2.398                      | 45.1 <sup>25</sup>                  | s EtOH, eth                               |
| 23  | Dichloromethylaluminum                  | AlCl <sub>2</sub> CH <sub>3</sub>  | 917-65-7    | 112.923     | cry                        | 72.7                   | 95 <sup>10</sup> |                            |                                     | s bz, eth, hc                             |
| 24  | Chlorodiethylaluminum                   | AlCl(C <sub>2</sub> H <sub>5</sub> ) <sub>2</sub>                                | 96-10-6     | 120.557     | col liq                    | -74                    |                  | 0.96                       |                                     | react H <sub>2</sub> O                    |
| 25  | Chlorodiisobutylaluminum                | AlCl(C <sub>4</sub> H <sub>9</sub> ) <sub>2</sub>                                | 1779-25-5   | 176.664     | hyg col liq                | -40                    |                  | 0.95                       |                                     | s eth, hx                                 |
| 26  | Aluminum diboride                       | AlB <sub>2</sub>   | 12041-50-8  | 48.604      | powder                     | >920 dec               |                  | 3.19                       |                                     | s dil HCl                                 |
| 27  | Aluminum dodecaboride                   | AlB <sub>12</sub>  | 12041-54-2  | 156.714     | yel-brn prisms             | 2070                   |                  | 2.55                       |                                     | s hot HNO <sub>3</sub> ; i acid, alk      |
| 28  | Aluminum ethanolate                     | Al(C <sub>2</sub> H <sub>5</sub> O) <sub>3</sub>                                 | 555-75-9    | 162.163     | liq, condenses to wh solid | 140                    |                  |                            |                                     | react H <sub>2</sub> O; sl xyl            |
| 29  | Aluminum fluoride                       | AlF <sub>3</sub>   | 7784-18-1   | 83.977      | wh hex cry                 | 2250 tp (220 MPa)      | 1276 sp          | 3.10                       | 0.50 <sup>25</sup>                  |   |
| 30  | Aluminum fluoride monohydrate           | AlF <sub>3</sub> · H <sub>2</sub> O  | 32287-65-3  | 101.992     | orth cry                   |                        |                  | 2.17                       | 0.50 <sup>25</sup>                  |   |
| 31  | Aluminum fluoride trihydrate            | AlF <sub>3</sub> · 3H <sub>2</sub> O   | 15098-87-0  | 138.023     | wh hyg cry                 |                        |                  | 1.914                      | 0.50 <sup>25</sup>                  |   |
| 32  | Aluminum hexafluorosilicate nonahydrate | Al <sub>2</sub> (SiF <sub>6</sub> ) <sub>3</sub> · 9H <sub>2</sub> O             | 17099-70-6  | 642.329     | hex prisms                 | >500 dec               |                  |                            |                                     | s H <sub>2</sub> O                        |
| 33  | Aluminum hydride                        | AlH <sub>3</sub>   | 7784-21-6   | 30.006      | col hex cry                | >150 dec               |                  |                            |                                     | react H <sub>2</sub> O                    |
| 34  | Aluminum hydroxide                      | Al(OH) <sub>3</sub>  | 21645-51-2  | 78.004      | wh amorp powder            |                        |                  | 2.42                       |                                     | i H <sub>2</sub> O; s alk, acid           |
| 35  | Aluminum hydroxychloride                | Al <sub>2</sub> (OH)Cl · 2H <sub>2</sub> O                                       | 1327-41-9   | 210.483     | gl solid                   |                        |                  |                            |                                     | s H <sub>2</sub> O                        |
| 36  | Aluminum iodide                         | AlI <sub>3</sub>   | 7784-23-8   | 407.695     | wh leaflets                | 188.28                 | 382              | 3.98                       |                                     | react H <sub>2</sub> O                    |
| 37  | Aluminum iodide hexahydrate             | AlI <sub>3</sub> · 6H <sub>2</sub> O   | 10090-53-6  | 515.786     | yel hyg cry powder         |                        |                  |                            |                                     | vs H <sub>2</sub> O; s EtOH, eth          |
| 38  | Aluminum lactate                        | Al(C <sub>3</sub> H <sub>5</sub> O <sub>3</sub> ) <sub>3</sub>                   | 18917-91-4  | 294.192     | powder                     |                        |                  |                            |                                     | vs H <sub>2</sub> O                       |
| 39  | Aluminum molybdate                      | Al <sub>2</sub> (MoO <sub>4</sub> ) <sub>3</sub>                                 | 15123-80-5  | 533.78      | wh pow                     | ≈950                   |                  |                            |                                     |   |
| 40  | Aluminum nitrate                        | Al(NO <sub>3</sub> ) <sub>3</sub>  | 13473-90-0  | 212.997     | wh hyg solid               | dec                    |                  |                            | 68.9 <sup>25</sup>                  | vs EtOH; sl ace                           |
| 41  | Aluminum nitrate nonahydrate            | Al(NO <sub>3</sub> ) <sub>3</sub> · 9H <sub>2</sub> O                            | 7784-27-2   | 375.134     | wh hyg monocl cry          | 73                     | 135 dec          | 1.72                       | 68.9 <sup>25</sup>                  | vs EtOH; i pyr                            |
| 42  | Aluminum nitride                        | AlN  | 24304-00-5  | 40.989      | blue-wh hex cry            | 3000                   |                  | 3.255                      |                                     | react H <sub>2</sub> O                    |
| 43  | Aluminum oleate                         | Al(C <sub>18</sub> H <sub>35</sub> O <sub>2</sub> ) <sub>3</sub>                 | 688-37-9    | 871.342     | yel solid                  |                        |                  |                            |                                     | i H <sub>2</sub> O; s EtOH, bz            |
| 44  | Aluminum oxalate monohydrate            | Al <sub>2</sub> (C <sub>2</sub> O <sub>4</sub> ) <sub>3</sub> · H <sub>2</sub> O | 814-87-9    | 336.035     | wh pow                     |                        |                  |                            |                                     | i H <sub>2</sub> O, EtOH; s acid          |
| 45  | Aluminum oxide (α)                      | Al <sub>2</sub> O <sub>3</sub>   | 1344-28-1   | 101.961     | wh powder; hex             | 2054                   | 2977             | 3.99                       |                                     | i H <sub>2</sub> O, os; sl alk            |
| 46  | Aluminum oxide (γ)                      | Al <sub>2</sub> O <sub>3</sub>   | 1344-28-1   | 101.961     | soft wh pow                | trans to corundum 1200 |                  | 3.97                       |                                     | i H <sub>2</sub> O; s acid; sl alk        |
| 47  | Aluminum oxyhydroxide (boehmite)        | AlO(OH)  | 1318-23-6   | 59.989      | wh orth cry                | trans to diasphore 227 |                  | 3.07                       |                                     | i H <sub>2</sub> O; s hot acid, alk       |
| 48  | Aluminum oxyhydroxide (diaspore)        | AlO(OH)  | 14457-84-2  | 59.989      | orth cry                   | dec 450                |                  | 3.38                       |                                     | i H <sub>2</sub> O; s acid, alk           |
| 49  | Aluminum palmitate                      | Al(C <sub>15</sub> H <sub>31</sub> COO) <sub>3</sub>                             | 555-35-1    | 793.230     | wh-yel powder              |                        |                  |                            |                                     | i H <sub>2</sub> O, EtOH; s peth          |
| 50  | Aluminum 2,4-pentanedioate              | Al(CH <sub>3</sub> COCHCOCH <sub>3</sub> ) <sub>3</sub>                          | 13963-57-0  | 324.306     | pale yel prisms            | 194.6                  | 315              | 1.27                       |                                     | i H <sub>2</sub> O; s bz, EtOH; sl hex    |
| 51  | Aluminum perchlorate                    | Al(ClO <sub>4</sub> ) <sub>3</sub>   | 14452-39-2  | 325.334     | wh hyg cry                 |                        |                  |                            | 55 <sup>0</sup>                     | s H <sub>2</sub> O, eth; i ctc            |
| 52  | Aluminum perchlorate nonahydrate        | Al(ClO <sub>4</sub> ) <sub>3</sub> · 9H <sub>2</sub> O                           | 14452-39-2  | 487.471     | wh hyg cry                 | 82 dec                 |                  | 2.0                        | 182.4 <sup>0</sup>                  |   |
| 53  | Aluminum phosphate                      | AlPO <sub>4</sub>  | 7784-30-7   | 121.953     | wh rhomb plates            | >1460                  |                  | 2.56                       |                                     | i H <sub>2</sub> O; sl acid               |
| 54  | Aluminum phosphate dihydrate            | AlPO <sub>4</sub> · 2H <sub>2</sub> O  | 13477-75-3  | 157.984     | wh rhom cry                | dec 1500               |                  | 2.54                       |                                     | i H <sub>2</sub> O                        |
| 55  | Aluminum phosphate trihydroxide         | Al <sub>2</sub> (OH) <sub>3</sub> PO <sub>4</sub>                                | 12004-29-4  | 199.957     | wh or yel monocl cry       |                        |                  | 2.7                        |                                     |   |
| 56  | Aluminum metaphosphate                  | Al(PO <sub>3</sub> ) <sub>3</sub>  | 32823-06-6  | 263.898     | col powder; tetr           | ≈1525                  |                  | 2.78                       |                                     | i H <sub>2</sub> O                        |
| 57  | Aluminum hypophosphite                  | Al(H <sub>2</sub> PO <sub>2</sub> ) <sub>3</sub>                                 | 7784-22-7   | 221.948     | cry powder                 | 220 dec                |                  |                            |                                     | i H <sub>2</sub> O; s alk, acid           |
| 58  | Aluminum phosphide                      | AlP  | 20859-73-8  | 57.956      | grn or yel cub cry         | 2550                   |                  | 2.40                       |                                     | react H <sub>2</sub> O                    |
| 59  | Aluminum selenide                       | Al <sub>2</sub> Se <sub>3</sub>  | 1302-82-5   | 290.84      | yel-brown powder           | 960                    |                  | 3.437                      |                                     | react H <sub>2</sub> O                    |
| 60  | Aluminum silicate (andalusite)          | Al <sub>2</sub> SiO <sub>5</sub>   | 12183-80-1  | 162.046     | gray-grn cry               |                        |                  | 3.145                      |                                     |   |
| 61  | Aluminum silicate (kyanite)             | Al <sub>2</sub> SiO <sub>5</sub>   | 1302-76-7   | 162.046     | blue or gray tricrl cry    | dec 1000               |                  | 3.68                       |                                     |   |
| 62  | Aluminum silicate (mullite)             | 3Al <sub>2</sub> O <sub>3</sub> · 2SiO <sub>2</sub>                              | 1302-93-8   | 426.052     | col orth cry               | 1750                   |                  | 3.17                       |                                     | i H <sub>2</sub> O, acid, HF              |
| 63  | Aluminum silicate (sillimanite)         | Al <sub>2</sub> SiO <sub>5</sub>   | 12141-45-6  | 162.046     | wh orth cry                | 1816                   |                  | 3.25                       |                                     |   |
| 64  | Aluminum silicate dihydrate             | Al <sub>2</sub> O <sub>3</sub> · 2SiO <sub>2</sub> · 2H <sub>2</sub> O           | 1332-58-7   | 258.161     | wh-yel powder; tricrl      |                        |                  | 2.59                       |                                     | i H <sub>2</sub> O, acid, alk             |
| 65  | Aluminum stearate                       | Al(C <sub>18</sub> H <sub>35</sub> O <sub>2</sub> ) <sub>3</sub>                 | 637-12-7    | 877.390     | wh powder                  | 115                    |                  | 1.070                      |                                     | i H <sub>2</sub> O, EtOH, eth; s alk      |
| 66  | Aluminum monostearate                   | Al(OH)(C <sub>18</sub> H <sub>35</sub> O <sub>2</sub> )                          | 7047-84-9   | 344.467     | yel-wh pow                 | 155                    |                  | 1.02                       |                                     | i H <sub>2</sub> O                        |
| 67  | Aluminum distearate                     | Al(OH)(C <sub>18</sub> H <sub>35</sub> O <sub>2</sub> ) <sub>2</sub>             | 300-92-5    | 610.928     | wh pow                     | 145                    |                  |                            |                                     | i H <sub>2</sub> O                        |
| 68  | Aluminum sulfate                        | Al <sub>2</sub> (SO <sub>4</sub> ) <sub>3</sub>                                  | 10043-01-3  | 342.151     | wh cry                     | 1040 dec               |                  |                            | 38.5 <sup>25</sup>                  | i EtOH                                    |
| 69  | Aluminum sulfate octadecahydrate        | Al <sub>2</sub> (SO <sub>4</sub> ) <sub>3</sub> · 18H <sub>2</sub> O             | 7784-31-8   | 666.426     | col monocl cry             | 86 dec                 |                  | 1.69                       | 38.5 <sup>25</sup>                  |   |
| 70  | Aluminum sulfide                        | Al <sub>2</sub> S <sub>3</sub>   | 1302-81-4   | 150.158     | yel-gray powder            | 1100                   |                  | 2.02                       |                                     |   |
| 71  | Aluminum telluride                      | Al <sub>2</sub> Te <sub>3</sub>  | 12043-29-7  | 436.76      | gray-blk hex cry           | ≈895                   |                  | 4.5                        |                                     |   |

| No. | Name                                      | Formula   | CAS Reg No. | Mol. weight | Physical form            | mp/°C          | bp/°C  | Density g cm <sup>-3</sup> | Solubility g/100 g H <sub>2</sub> O | Qualitative solubility                   |
|-----|---|---|-------------|-------------|--------------------------|----------------|--------|----------------------------|-------------------------------------|--|
| 72  | Aluminum thiocyanate                      | Al(SCN) <sub>3</sub>  | 538-17-0    | 201.229     | yel powder               |                |        |                            |                                     | s H <sub>2</sub> O; i EtOH, eth          |
| 73  | Aluminum titanate                         | Al <sub>2</sub> TiO <sub>5</sub>  | 12004-39-6  | 181.827     | refrac solid             | 1860           |        |                            |                                     |  |
| 74  | Aluminum zirconium                        | Al <sub>3</sub> Zr  | 12004-50-1  | 145.187     | metallic solid           | 1645           |        |                            |                                     |  |
| 75  | Americium                                 | Am  | 7440-35-9   | 243         | silv metal; hex or cub   | 1176           | 2011   | 12                         |                                     | s acid                                   |
| 76  | Americium(III) oxide                      | Am <sub>2</sub> O <sub>3</sub>  | 12254-64-7  | 534         | tan hex cry              |                |        | 11.77                      |                                     | s acid                                   |
| 77  | Americium(III) bromide                    | AmBr <sub>3</sub>   | 14933-38-1  | 483         | wh orth cry              |                |        | 6.85                       |                                     | s H <sub>2</sub> O                       |
| 78  | Americium(III) chloride                   | AmCl <sub>3</sub>   | 13464-46-5  | 349         | pink hex cry             | 500            |        | 5.87                       |                                     |  |
| 79  | Americium(III) fluoride                   | AmF <sub>3</sub>  | 13708-80-0  | 300         | pink hex cry             | 1393           |        | 9.53                       |                                     |  |
| 80  | Americium(III) iodide                     | AmI <sub>3</sub>  | 13813-47-3  | 624         | yel ortho cry            | ≈950           |        | 6.9                        |                                     |  |
| 81  | Americium(IV) fluoride                    | AmF <sub>4</sub>  | 15947-41-8  | 319         | tan monocl cry           |                |        | 7.23                       |                                     |  |
| 82  | Americium(IV) oxide                       | AmO <sub>2</sub>  | 12005-67-3  | 275         | blk cub cry              | >1000 dec      |        | 11.68                      |                                     | s acid                                   |
| 83  | Ammonia                                   | NH <sub>3</sub>   | 7664-41-7   | 17.031      | col gas                  | -77.73         | -33.33 | 0.696 g/L                  |                                     | vs H <sub>2</sub> O; s EtOH, eth         |
| 84  | Ammonium acetate                          | NH <sub>4</sub> C <sub>2</sub> H <sub>3</sub> O <sub>2</sub>                          | 631-61-8    | 77.083      | wh hyg cry               | 114            |        | 1.073                      | 148 <sup>4</sup>                    | s EtOH; sl ace                           |
| 85  | Ammonium azide                            | NH <sub>4</sub> N <sub>3</sub>  | 12164-94-2  | 60.059      | orth cry; flam           | 160            | exp    | 1.346                      | 20.2 <sup>30</sup>                  |  |
| 86  | Ammonium benzoate                         | NH <sub>4</sub> C <sub>6</sub> H <sub>5</sub> O <sub>2</sub>                          | 1863-63-4   | 139.152     | wh cry or powder         | 198            |        | 1.26                       |                                     | s H <sub>2</sub> O; sl EtOH              |
| 87  | Ammonium bromate                          | NH <sub>4</sub> BrO <sub>3</sub>  | 13843-59-9  | 145.941     | col hex cry              | exp            |        |                            |                                     | vs H <sub>2</sub> O                      |
| 88  | Ammonium bromide                          | NH <sub>4</sub> Br  | 12124-97-9  | 97.943      | wh hyg tetr cry          | 542 dec        | 396 sp | 2.429                      | 78.3 <sup>25</sup>                  | s EtOH, ace; sl eth                      |
| 89  | Ammonium caprylate                        | NH <sub>4</sub> C <sub>8</sub> H <sub>15</sub> O <sub>2</sub>                         | 5972-76-9   | 161.243     | hyg monocl cry           | ≈75            |        |                            |                                     | reac H <sub>2</sub> O; s EtOH; i chl, bz |
| 90  | Ammonium carbamate                        | NH <sub>4</sub> COONH <sub>2</sub>  | 1111-78-0   | 78.071      | cry powder               |                |        |                            |                                     | vs H <sub>2</sub> O; s EtOH              |
| 91  | Ammonium carbonate                        | (NH <sub>4</sub> ) <sub>2</sub> CO <sub>3</sub>                                       | 506-87-6    | 96.086      | col cry powder           | 58 dec         |        |                            | 100 <sup>15</sup>                   |  |
| 92  | Ammonium chlorate                         | NH <sub>4</sub> ClO <sub>3</sub>  | 10192-29-7  | 101.490     | wh cry                   | 102 exp        |        | 1.80                       | 28.7 <sup>9</sup>                   |  |
| 93  | Ammonium chloride                         | NH <sub>4</sub> Cl  | 12125-02-9  | 53.492      | col cub cry              | 520.1 tp (dec) | 338 sp | 1.519                      | 39.5 <sup>25</sup>                  |  |
| 94  | Ammonium chromate                         | (NH <sub>4</sub> ) <sub>2</sub> CrO <sub>4</sub>                                      | 7788-98-9   | 152.071     | yel cry                  | 185 dec        |        | 1.90                       | 37 <sup>25</sup>                    | sl ace, MeOH; i EtOH                     |
| 95  | Ammonium chromic sulfate dodecahydrate    | NH <sub>4</sub> Cr(SO <sub>4</sub> ) <sub>2</sub> · 12H <sub>2</sub> O                | 10022-47-6  | 478.343     | blue-viol cry            | 94 dec         |        | 1.72                       |                                     | s H <sub>2</sub> O; sl EtOH              |
| 96  | Ammonium cobalt(II) phosphate             | CoNH <sub>4</sub> PO <sub>4</sub>   | 14590-13-7  | 171.943     | red-viol powder (hyd)    |                |        |                            |                                     | i H <sub>2</sub> O; s acid               |
| 97  | Ammonium cobalt(II) phosphate monohydrate | CoNH <sub>4</sub> PO <sub>4</sub> · H <sub>2</sub> O                                  | 16827-96-6  | 189.959     | red-purp orth plates     | dec 450        |        |                            |                                     | s acid                                   |
| 98  | Ammonium cobalt(II) sulfate hexahydrate   | (NH <sub>4</sub> ) <sub>2</sub> Co(SO <sub>4</sub> ) <sub>2</sub> · 6H <sub>2</sub> O | 13586-38-4  | 395.227     | red monocl prisms        |                |        | 1.90                       |                                     | s H <sub>2</sub> O; i EtOH               |
| 99  | Ammonium copper(II) chloride              | CuCl <sub>2</sub> · 2NH <sub>4</sub> Cl   | 10060-13-6* | 241.435     | yel hyg orth cry         |                |        |                            |                                     | s H <sub>2</sub> O                       |
| 100 | Ammonium copper(II) chloride dihydrate    | CuCl <sub>2</sub> · 2NH <sub>4</sub> Cl · 2H <sub>2</sub> O                           | 10060-13-6  | 277.465     | blue-grn tetr cry        | 110 dec        |        | 1.993                      |                                     | s H <sub>2</sub> O, EtOH                 |
| 101 | Ammonium cyanide                          | NH <sub>4</sub> CN  | 12211-52-8  | 44.056      | col tetr cry             | dec            |        | 1.10                       |                                     | vs H <sub>2</sub> O                      |
| 102 | Ammonium dichromate                       | (NH <sub>4</sub> ) <sub>2</sub> Cr <sub>2</sub> O <sub>7</sub>                        | 7789-09-5   | 252.065     | oran-red monocl cry; hyg | 180 dec        |        | 2.155                      | 35.6 <sup>20</sup>                  |  |
| 103 | Ammonium dihydrogen arsenate              | NH <sub>4</sub> H <sub>2</sub> AsO <sub>4</sub>                                       | 13462-93-6  | 158.975     | tetr cry                 | 300 dec        |        | 2.311                      | 52.7 <sup>25</sup>                  |  |
| 104 | Ammonium dihydrogen phosphate             | NH <sub>4</sub> H <sub>2</sub> PO <sub>4</sub>  | 7722-76-1   | 115.026     | wh tetr cry              | 190            |        | 1.80                       | 40.4 <sup>25</sup>                  | sl EtOH; i ace                           |
| 105 | Ammonium <i>O,O</i> -diethylthiophosphate | (C <sub>2</sub> H <sub>5</sub> O) <sub>2</sub> P(S)SNH <sub>4</sub>                   | 1068-22-0   | 203.264     | cry                      | 165            |        |                            |                                     |  |
| 106 | Ammonium dithiocarbamate                  | NH <sub>4</sub> NH <sub>2</sub> CSS   | 513-74-6    | 110.202     | yel ortho cry            | 99 dec         |        | 1.45                       |                                     | s H <sub>2</sub> O                       |
| 107 | Ammonium ferricyanide trihydrate          | (NH <sub>4</sub> ) <sub>3</sub> Fe(CN) <sub>6</sub> · 3H <sub>2</sub> O               | 14221-48-8* | 320.110     | red cry                  |                |        |                            |                                     | s H <sub>2</sub> O; i EtOH               |
| 108 | Ammonium ferrocyanide trihydrate          | (NH <sub>4</sub> ) <sub>4</sub> Fe(CN) <sub>6</sub> · 3H <sub>2</sub> O               | 14481-29-9* | 338.149     | yel cry                  | dec            |        |                            |                                     | s H <sub>2</sub> O; i EtOH               |
| 109 | Ammonium fluoride                         | NH <sub>4</sub> F   | 12125-01-8  | 37.037      | wh hex cry; hyg          | 238            |        | 1.015                      | 83.5 <sup>25</sup>                  | sl EtOH                                  |
| 110 | Ammonium fluorosulfonate                  | NH <sub>4</sub> SO <sub>3</sub> F   | 13446-08-7  | 117.100     | col needles              | 245            |        |                            |                                     | s H <sub>2</sub> O, EtOH, MeOH           |
| 111 | Ammonium formate                          | NH <sub>4</sub> CHO <sub>2</sub>  | 540-69-2    | 63.057      | hyg cry                  | 116            |        | 1.27                       | 143 <sup>20</sup>                   | s EtOH                                   |
| 112 | Ammonium heptafluorotantalate             | (NH <sub>4</sub> ) <sub>7</sub> TaF <sub>7</sub>                                      | 12022-02-5  | 350.014     | hyg cry                  |                |        |                            |                                     |  |
| 113 | Ammonium hexabromoosmate(IV)              | (NH <sub>4</sub> ) <sub>2</sub> OsBr <sub>6</sub>                                     | 24598-62-7  | 705.73      | small blk cubes          |                |        |                            |                                     | sl H <sub>2</sub> O; s glycerol; i EtOH  |
| 114 | Ammonium hexabromoplatinate(IV)           | (NH <sub>4</sub> ) <sub>2</sub> PtBr <sub>6</sub>                                     | 17363-02-9  | 710.585     | powder                   | 145 dec        |        |                            | 0.59 <sup>20</sup>                  |  |
| 115 | Ammonium hexachloroiridate(III)           | (NH <sub>4</sub> ) <sub>3</sub> IrCl <sub>6</sub>                                     | 15752-05-3  | 459.050     | grn pow                  |                |        |                            |                                     |  |
| 116 | Ammonium hexachloroiridate(IV)            | (NH <sub>4</sub> ) <sub>3</sub> IrCl <sub>8</sub>                                     | 16940-92-4  | 441.012     | blk cry powder           | dec            |        | 2.856                      | 1.09 <sup>25</sup>                  |  |
| 117 | Ammonium hexachloroosmate(IV)             | (NH <sub>4</sub> ) <sub>2</sub> OsCl <sub>6</sub>                                     | 12125-08-5  | 439.03      | red cry or powder        |                | subl   | 2.93                       |                                     | s H <sub>2</sub> O, EtOH                 |
| 118 | Ammonium hexachloropalladate(IV)          | (NH <sub>4</sub> ) <sub>2</sub> PdCl <sub>6</sub>                                     | 19168-23-1  | 355.22      | red-brn hyg cry          | dec            |        | 2.418                      |                                     |  |
| 119 | Ammonium hexachloroplatinate(IV)          | (NH <sub>4</sub> ) <sub>2</sub> PtCl <sub>6</sub>                                     | 16919-58-7  | 443.879     | red-oran cub cry         | 380 dec        |        | 3.065                      | 0.5 <sup>20</sup>                   | i EtOH                                   |
| 120 | Ammonium hexachlororuthenate(IV)          | (NH <sub>4</sub> ) <sub>2</sub> RuCl <sub>6</sub>                                     | 18746-63-9  | 349.87      | red cry                  |                |        |                            |                                     |  |
| 121 | Ammonium hexafluoroaluminate              | (NH <sub>4</sub> ) <sub>3</sub> AlF <sub>6</sub>                                      | 7784-19-2   | 195.087     | cub cry                  |                |        | 1.78                       |                                     | s H <sub>2</sub> O                       |
| 122 | Ammonium hexafluorogallate                | (NH <sub>4</sub> ) <sub>3</sub> GaF <sub>6</sub>                                      | 14639-94-2  | 237.828     | col cub cry              | >200 dec       |        | 2.10                       |                                     |  |
| 123 | Ammonium hexafluorogermanate              | (NH <sub>4</sub> ) <sub>3</sub> GeF <sub>6</sub>                                      | 16962-47-3  | 222.71      | wh cry                   | 380            | subl   | 2.564                      |                                     | s H <sub>2</sub> O; i EtOH               |
| 124 | Ammonium hexafluorophosphate              | NH <sub>4</sub> PF <sub>6</sub>   | 16941-11-0  | 163.003     | wh cub cry               | 58 dec         |        | 2.180                      |                                     | vs H <sub>2</sub> O; s ace, EtOH, MeOH   |
| 125 | Ammonium hexafluorosilicate               | (NH <sub>4</sub> ) <sub>2</sub> SiF <sub>6</sub>                                      | 16919-19-0  | 178.153     | wh cub or trig cry       | dec            |        | 2.011                      | 22.7 <sup>25</sup>                  | i EtOH, ace                              |
| 126 | Ammonium hexafluorotitanate               | (NH <sub>4</sub> ) <sub>2</sub> TiF <sub>6</sub>                                      | 16962-40-6  | 197.934     | wh solid                 |                |        |                            |                                     | s H <sub>2</sub> O                       |

| No. | Name   | Formula   | CAS Reg No. | Mol. weight | Physical form           | mp/°C    | bp/°C       | Density g cm <sup>-3</sup> | Solubility g/100 g H <sub>2</sub> O | Qualitative solubility                           |
|-----|--|---|-------------|-------------|-------------------------|----------|-------------|----------------------------|-------------------------------------|--|
| 127 | Ammonium hexafluorozirconate(IV)             | (NH <sub>4</sub> ) <sub>2</sub> ZrF <sub>6</sub>  | 16919-31-6  | 241.291     | wh hex cry              |          |             | 1.154                      |                                     | s H <sub>2</sub> O                               |
| 128 | Ammonium hydrogen arsenate                   | (NH <sub>4</sub> ) <sub>2</sub> HAsO <sub>4</sub>   | 7784-44-3   | 176.004     | wh powder               |          |             | 1.99                       |                                     | s H <sub>2</sub> O                               |
| 129 | Ammonium hydrogen carbonate                  | NH <sub>4</sub> HCO <sub>3</sub>  | 1066-33-7   | 79.056      | col or wh prisms        | 107 dec  |             | 1.586                      | 24.8 <sup>25</sup>                  | i EtOH, bz                                       |
| 130 | Ammonium hydrogen citrate                    | (NH <sub>4</sub> ) <sub>3</sub> HC <sub>6</sub> H <sub>5</sub> O <sub>7</sub>                       | 3012-65-5   | 226.184     | col cry                 |          |             | 1.48                       |                                     | vs H <sub>2</sub> O; sl EtOH                     |
| 131 | Ammonium hydrogen fluoride                   | NH <sub>4</sub> HF <sub>2</sub>   | 1341-49-7   | 57.044      | wh orth cry             | 125      | 240 dec     | 1.50                       | 60.2 <sup>20</sup>                  |  |
| 132 | Ammonium hydrogen malate                     | NH <sub>4</sub> C <sub>4</sub> H <sub>5</sub> O <sub>5</sub>  | 5972-71-4   | 151.118     | orth cry                | 160      |             | 1.15                       |                                     | s H <sub>2</sub> O; sl EtOH                      |
| 133 | Ammonium hydrogen oxalate monohydrate        | NH <sub>4</sub> HC <sub>2</sub> O <sub>4</sub> · H <sub>2</sub> O                                   | 5972-72-5*  | 125.081     | col rhomb cry           | dec      |             | 1.56                       |                                     | sl H <sub>2</sub> O, EtOH                        |
| 134 | Ammonium hydrogen phosphate                  | (NH <sub>4</sub> ) <sub>2</sub> HPO <sub>4</sub>  | 7783-28-0   | 132.055     | wh cry                  | 155 dec  |             | 1.619                      | 69.5 <sup>25</sup>                  | i EtOH, ace                                      |
| 135 | Ammonium hydrogen phosphite monohydrate      | (NH <sub>4</sub> ) <sub>2</sub> HPO <sub>3</sub> · H <sub>2</sub> O                                 | 51503-61-8  | 134.071     | hyg cry                 |          |             |                            |                                     | s H <sub>2</sub> O                               |
| 136 | Ammonium hydrogen selenate                   | NH <sub>4</sub> HSeO <sub>4</sub>   | 10294-60-7  | 162.01      | rhomb cry               | dec      |             | 2.162                      |                                     |  |
| 137 | Ammonium hydrogen sulfate                    | NH <sub>4</sub> HSO <sub>4</sub>  | 7803-63-6   | 115.110     | wh hyg cry              | 147      |             | 1.78                       | 100 <sup>20</sup>                   | i EtOH, ace, py                                  |
| 138 | Ammonium hydrogen sulfide                    | NH <sub>4</sub> HS  | 12124-99-1  | 51.112      | wh tetr or orth cry     | dec      |             | 1.17                       | 128 <sup>0</sup>                    | sl ace; i bz, eth                                |
| 139 | Ammonium hydrogen sulfite                    | NH <sub>4</sub> HSO <sub>3</sub>  | 10192-30-0  | 99.110      | col cry                 | dec      |             | 2.03                       | 71.8 <sup>0</sup>                   |  |
| 140 | Ammonium hydrogen tartrate                   | NH <sub>4</sub> HC <sub>4</sub> H <sub>4</sub> O <sub>6</sub>                                       | 3095-65-6   | 167.117     | wh cry                  |          |             | 1.68                       |                                     | sl H <sub>2</sub> O; s alk; i EtOH               |
| 141 | Ammonium hydroxide                           | NH <sub>4</sub> OH  | 1336-21-6   | 35.046      | exists only in soln     |          |             |                            |                                     |  |
| 142 | Ammonium hypophosphite                       | NH <sub>4</sub> H <sub>2</sub> PO <sub>2</sub>  | 7803-65-8   | 83.028      | wh hyg cry              | dec      |             |                            |                                     | vs H <sub>2</sub> O; sl EtOH; i ace              |
| 143 | Ammonium iodate                              | NH <sub>4</sub> IO <sub>3</sub>   | 13446-09-8  | 192.941     | wh powder               | 150      |             | 3.3                        | 3.84 <sup>25</sup>                  |  |
| 144 | Ammonium iodide                              | NH <sub>4</sub> I   | 12027-06-4  | 144.943     | wh tetr cry; hyg        | 551 dec  | 405 sp      | 2.514                      | 178 <sup>25</sup>                   | sl EtOH, MeOH                                    |
| 145 | Ammonium iron(II) sulfate hexahydrate        | (NH <sub>4</sub> ) <sub>2</sub> Fe(SO <sub>4</sub> ) <sub>2</sub> · 6H <sub>2</sub> O               | 7783-85-9   | 392.139     | blue-grn monocl cry     | ≈100 dec |             | 1.86                       |                                     | s H <sub>2</sub> O; i EtOH                       |
| 146 | Ammonium iron(III) chromate                  | NH <sub>4</sub> Fe(CrO <sub>4</sub> ) <sub>2</sub>  | 7789-08-4   | 305.871     | red powder              |          |             |                            |                                     | i H <sub>2</sub> O                               |
| 147 | Ammonium iron(III) oxalate trihydrate        | (NH <sub>4</sub> ) <sub>3</sub> Fe(C <sub>2</sub> O <sub>4</sub> ) <sub>3</sub> · 3H <sub>2</sub> O | 13268-42-3  | 428.063     | grn monocl cry; hyg     | ≈160 dec |             | 1.780                      |                                     | vs H <sub>2</sub> O; i EtOH                      |
| 148 | Ammonium iron(III) sulfate dodecahydrate     | NH <sub>4</sub> Fe(SO <sub>4</sub> ) <sub>2</sub> · 12H <sub>2</sub> O                              | 7783-83-7   | 482.192     | col to viol cry         | ≈37      |             | 1.71                       |                                     | vs H <sub>2</sub> O; i EtOH                      |
| 149 | Ammonium lactate                             | NH <sub>4</sub> C <sub>3</sub> H <sub>5</sub> O <sub>3</sub>  | 52003-58-4  | 107.108     | col cry                 | 92       |             |                            |                                     | s H <sub>2</sub> O, EtOH; sl MeOH; i ace, eth    |
| 150 | Ammonium magnesium chloride hexahydrate      | NH <sub>4</sub> MgCl <sub>3</sub> · 6H <sub>2</sub> O   | 39733-35-2  | 256.794     | hyg cry                 | dec 100  |             | 1.46                       | 17 <sup>20</sup>                    | s H <sub>2</sub> O                               |
| 151 | Ammonium mercuric chloride dihydrate         | (NH <sub>4</sub> ) <sub>2</sub> HgCl <sub>4</sub> · 2H <sub>2</sub> O                               | 33445-15-7* | 414.51      | powder                  |          |             |                            |                                     | s H <sub>2</sub> O; sl EtOH                      |
| 152 | Ammonium metatungstate hexahydrate           | (NH <sub>4</sub> ) <sub>6</sub> W <sub>12</sub> O <sub>24</sub> · 6H <sub>2</sub> O                 | 12028-48-7  | 1887.19     | wh cry                  |          |             |                            |                                     | s H <sub>2</sub> O; i EtOH                       |
| 153 | Ammonium metavanadate                        | NH <sub>4</sub> VO <sub>3</sub>   | 7803-55-6   | 116.979     | wh-yel cry              | 200 dec  |             | 2.326                      | 4.8 <sup>20</sup>                   |  |
| 154 | Ammonium molybdate(VI) tetrahydrate          | (NH <sub>4</sub> ) <sub>6</sub> Mo <sub>7</sub> O <sub>24</sub> · 4H <sub>2</sub> O                 | 12054-85-2  | 1235.86     | col or grn-yel cry      | 90 dec   |             | 2.498                      | 43                                  | i EtOH   |
| 155 | Ammonium dimolybdate                         | (NH <sub>4</sub> ) <sub>2</sub> Mo <sub>2</sub> O <sub>7</sub>                                      | 27546-07-2  | 339.95      | cry                     |          |             |                            |                                     | s H <sub>2</sub> O                               |
| 156 | Ammonium molybdophosphate                    | (NH <sub>4</sub> ) <sub>3</sub> PO <sub>4</sub> · 12MoO <sub>3</sub>                                | 12026-66-3  | 1876.35     | grn or yel cry          | dec      |             |                            | 0.02 <sup>20</sup>                  | sl H <sub>2</sub> O; s alk                       |
| 157 | Ammonium nitrate                             | NH <sub>4</sub> NO <sub>3</sub>   | 6484-52-2   | 80.043      | wh hyg cry; orth        | 169.7    | dec 200-260 | 1.72                       | 213 <sup>25</sup>                   | sl MeOH  |
| 158 | Ammonium nitrite                             | NH <sub>4</sub> NO <sub>2</sub>   | 13446-48-5  | 64.044      | wh-yel cry              | 60 exp   |             | 1.69                       | 221 <sup>25</sup>                   | i eth  |
| 159 | Ammonium nitroferrocyanide                   | (NH <sub>4</sub> ) <sub>5</sub> Fe(CN) <sub>5</sub> NO  | 14402-70-1  | 252.016     | red-brn cry             |          |             |                            |                                     | s H <sub>2</sub> O, EtOH                         |
| 160 | Ammonium oleate                              | NH <sub>4</sub> C <sub>18</sub> H <sub>33</sub> O <sub>2</sub>                                      | 544-60-5    | 299.493     | yel-brn paste           | 21       |             |                            |                                     | s H <sub>2</sub> O; sl ace                       |
| 161 | Ammonium oxalate                             | (NH <sub>4</sub> ) <sub>2</sub> C <sub>2</sub> O <sub>4</sub>                                       | 1113-38-8   | 124.096     | col sol                 |          |             | 1.5                        | 5.20 <sup>25</sup>                  |  |
| 162 | Ammonium oxalate monohydrate                 | (NH <sub>4</sub> ) <sub>2</sub> C <sub>2</sub> O <sub>4</sub> · H <sub>2</sub> O                    | 6009-70-7   | 142.110     | wh orth cry             | dec      |             | 1.50                       | 5.20 <sup>25</sup>                  | sl EtOH  |
| 163 | Ammonium palmitate                           | NH <sub>4</sub> C <sub>15</sub> H <sub>31</sub> CO <sub>2</sub>                                     | 593-26-0    | 273.455     | yel-wh powder           | 22       |             |                            |                                     | s H <sub>2</sub> O; sl bz, xyl; i ace, EtOH, etc |
| 164 | Ammonium pentaborate tetrahydrate            | NH <sub>4</sub> B <sub>5</sub> O <sub>8</sub> · 4H <sub>2</sub> O                                   | 12007-89-5  | 272.150     | wh cry                  |          |             |                            | 7.03 <sup>18</sup>                  |  |
| 165 | Ammonium pentachlororhodate(III) monohydrate | (NH <sub>4</sub> ) <sub>2</sub> RhCl <sub>5</sub> · H <sub>2</sub> O                                | 63771-33-5  | 334.262     | red cry                 | dec 210  |             |                            |                                     |  |
| 166 | Ammonium pentachlorozincate                  | (NH <sub>4</sub> ) <sub>2</sub> ZnCl <sub>5</sub>   | 14639-98-6  | 296.789     | hyg orth cry            |          |             | 1.81                       |                                     | vs H <sub>2</sub> O                              |
| 167 | Ammonium perchlorate                         | NH <sub>4</sub> ClO <sub>4</sub>  | 7790-98-9   | 117.490     | wh orth cry             | dec, exp |             | 1.95                       | 24.5 <sup>25</sup>                  | s MeOH; sl EtOH, ace; i eth                      |
| 168 | Ammonium permanganate                        | NH <sub>4</sub> MnO <sub>4</sub>  | 13446-10-1  | 136.975     | purp rhomb cry          | 70 dec   |             | 2.22                       | 7.9 <sup>15</sup>                   |  |
| 169 | Ammonium peroxydisulfate                     | (NH <sub>4</sub> ) <sub>2</sub> S <sub>2</sub> O <sub>8</sub>                                       | 7727-54-0   | 228.202     | monocl cry or wh powder | dec      |             | 1.982                      | 83.5 <sup>25</sup>                  |  |
| 170 | Ammonium perrhenate                          | NH <sub>4</sub> ReO <sub>4</sub>  | 13598-65-7  | 268.244     | col powder              |          |             | 3.97                       | 6.23 <sup>20</sup>                  |  |
| 171 | Ammonium phosphate trihydrate                | (NH <sub>4</sub> ) <sub>3</sub> PO <sub>4</sub> · 3H <sub>2</sub> O                                 | 10361-65-6* | 203.133     | wh prisms               |          |             |                            | 25.0 <sup>25</sup>                  | i ace  |
| 172 | Ammonium phosphomolybdate monohydrate        | (NH <sub>4</sub> ) <sub>3</sub> PO <sub>4</sub> · 12MoO <sub>3</sub> · H <sub>2</sub> O             | 54723-94-3  | 1894.36     | yel cry or powder       | dec      |             |                            | 0.02                                |  |
| 173 | Ammonium phosphotungstate dihydrate          | (NH <sub>4</sub> ) <sub>3</sub> PO <sub>4</sub> · 12WO <sub>3</sub> · 2H <sub>2</sub> O             | 1311-90-6   | 2967.18     | cry powder              |          |             |                            |                                     | sl H <sub>2</sub> O                              |
| 174 | Ammonium picrate                             | NH <sub>4</sub> C <sub>7</sub> H <sub>5</sub> N <sub>3</sub> O <sub>7</sub>                         | 131-74-8    | 246.135     | yel orth cry            | exp      |             | 1.72                       |                                     | sl H <sub>2</sub> O                              |
| 175 | Ammonium polysulfide                         | (NH <sub>4</sub> ) <sub>2</sub> S <sub>x</sub>  | 9080-17-5   |             | yel unstab soln         |          |             |                            |                                     | reac acids                                       |
| 176 | Ammonium salicylate                          | NH <sub>4</sub> C <sub>7</sub> H <sub>7</sub> O <sub>3</sub>  | 528-94-9    | 155.151     | wh cry powder           |          |             |                            |                                     | vs H <sub>2</sub> O; s EtOH                      |

| No. | Name   | Formula   | CAS Reg No. | Mol. weight | Physical form              | mp/°C        | bp/°C   | Density g cm <sup>-3</sup> | Solubility g/100 g H <sub>2</sub> O | Qualitative solubility                       |
|-----|--|---|-------------|-------------|----------------------------|--------------|---------|----------------------------|-------------------------------------|--|
| 177 | Ammonium selenate  | (NH <sub>4</sub> ) <sub>2</sub> SeO <sub>4</sub>  | 7783-21-3   | 179.04      | wh monocl cry              | dec          |         | 2.194                      | 117 <sup>25</sup>                   | i EtOH, ace                                  |
| 178 | Ammonium selenite  | (NH <sub>4</sub> ) <sub>2</sub> SeO <sub>3</sub>  | 7783-19-9   | 163.04      | wh or red hyg cry          | dec          |         |                            | 121 <sup>25</sup>                   |  |
| 179 | Ammonium stearate  | NH <sub>4</sub> C <sub>18</sub> H <sub>35</sub> O <sub>2</sub>                                      | 1002-89-7   | 301.509     | yel-wh powder              | 22           |         | 0.89                       |                                     | sl H <sub>2</sub> O, bz; s EtOH, MeOH; i ace |
| 180 | Ammonium sulfamate                                       | NH <sub>4</sub> NH <sub>2</sub> SO <sub>3</sub>   | 7773-06-0   | 114.124     | wh hyg cry                 | 131          | 160 dec |                            |                                     | vs H <sub>2</sub> O; sl EtOH                 |
| 181 | Ammonium sulfate   | (NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub>   | 7783-20-2   | 132.140     | wh or brn orth cry         | 280 dec      |         | 1.77                       | 76.4 <sup>25</sup>                  | i EtOH, ace                                  |
| 182 | Ammonium sulfide   | (NH <sub>4</sub> ) <sub>2</sub> S   | 12135-76-1  | 68.142      | yel-oran cry               | ≈0 dec       |         |                            |                                     | s H <sub>2</sub> O, EtOH, alk                |
| 183 | Ammonium sulfite   | (NH <sub>4</sub> ) <sub>2</sub> SO <sub>3</sub>   | 17026-44-7  | 116.140     | wh hyg cry                 |              |         |                            | 64.2 <sup>25</sup>                  |  |
| 184 | Ammonium sulfite monohydrate                             | (NH <sub>4</sub> ) <sub>2</sub> SO <sub>3</sub> · H <sub>2</sub> O                                  | 7783-11-1   | 134.155     | col cry                    | dec          |         | 1.41                       | 64.2 <sup>25</sup>                  | i EtOH, ace                                  |
| 185 | Ammonium tartrate  | (NH <sub>4</sub> ) <sub>2</sub> C <sub>4</sub> H <sub>4</sub> O <sub>6</sub>                        | 3164-29-2   | 184.147     | wh cry                     | dec          |         | 1.601                      |                                     | s H <sub>2</sub> O                           |
| 186 | Ammonium tellurate                                       | (NH <sub>4</sub> ) <sub>2</sub> TeO <sub>3</sub>  | 13453-06-0  | 227.68      | wh powder                  | dec          |         | 3.024                      |                                     |  |
| 187 | Ammonium tetraborate tetrahydrate                        | (NH <sub>4</sub> ) <sub>2</sub> B <sub>4</sub> O <sub>7</sub> · 4H <sub>2</sub> O                   | 12228-87-4  | 263.377     | wh tetra cry               | dec 87       |         |                            |                                     | vs H <sub>2</sub> O; s HNO <sub>3</sub>      |
| 188 | Ammonium tetrachloroaluminate                            | NH <sub>4</sub> AlCl <sub>4</sub>   | 7784-14-7   | 186.833     | wh hyg solid               | 304          |         |                            |                                     | s H <sub>2</sub> O, eth                      |
| 189 | Ammonium tetrachloropalladate(II)                        | (NH <sub>4</sub> ) <sub>2</sub> PdCl <sub>4</sub>   | 13820-40-1  | 284.31      | grn cry or red-brn pow     |              |         |                            |                                     | s H <sub>2</sub> O                           |
| 190 | Ammonium tetrachloroplatinate(II)                        | (NH <sub>4</sub> ) <sub>2</sub> PtCl <sub>4</sub>   | 13820-41-2  | 372.973     | red cry                    | dec          |         | 2.936                      |                                     | s H <sub>2</sub> O; i EtOH                   |
| 191 | Ammonium tetrachlorozincate                              | (NH <sub>4</sub> ) <sub>2</sub> ZnCl <sub>4</sub>   | 14639-97-5  | 243.298     | wh orth plates; hyg        | 150 dec      |         | 1.879                      |                                     | vs H <sub>2</sub> O                          |
| 192 | Ammonium tetrafluoroantimonate                           | NH <sub>4</sub> SbF <sub>4</sub>  | 14972-90-8  | 215.793     | col cry                    |              |         |                            |                                     | s H <sub>2</sub> O                           |
| 193 | Ammonium tetrafluoroborate                               | NH <sub>4</sub> BF <sub>4</sub>   | 13826-83-0  | 104.844     | wh powder; orth            | 487 dec      |         | 1.871                      | 25 <sup>20</sup>                    |  |
| 194 | Ammonium tetrathiocyanodiamminechromate(III) monohydrate | NH <sub>4</sub> [Cr(NH <sub>3</sub> ) <sub>2</sub> (SCN) <sub>4</sub> ] · H <sub>2</sub> O          | 13573-16-5  | 354.440     | red cry                    | 270 dec      |         |                            |                                     | s H <sub>2</sub> O, EtOH, ace; i bz          |
| 195 | Ammonium tetrathiomolybdate                              | (NH <sub>4</sub> ) <sub>2</sub> MoS <sub>4</sub>  | 15060-55-6  | 260.28      | red cry                    | 100 dec      |         |                            |                                     | vs H <sub>2</sub> O                          |
| 196 | Ammonium tetrathiotungstate                              | (NH <sub>4</sub> ) <sub>2</sub> WS <sub>4</sub>   | 13862-78-7  | 348.18      | oran cry                   | dec          |         | 2.71                       |                                     | s H <sub>2</sub> O                           |
| 197 | Ammonium tetrathiovanadate                               | (NH <sub>4</sub> ) <sub>2</sub> VS <sub>4</sub>   | 14693-56-2  | 233.317     | dark viol cry              |              |         |                            |                                     |  |
| 198 | Ammonium thiocyanate                                     | NH <sub>4</sub> SCN   | 1762-95-4   | 76.121      | col hyg cry                | ≈149         | dec     | 1.30                       | 181 <sup>25</sup>                   | vs EtOH; s ace; i chl                        |
| 199 | Ammonium thiosulfate                                     | (NH <sub>4</sub> ) <sub>2</sub> S <sub>2</sub> O <sub>3</sub>                                       | 7783-18-8   | 148.205     | wh cry                     | 150 dec      |         | 1.678                      |                                     | vs H <sub>2</sub> O; i EtOH, eth             |
| 200 | Ammonium titanium oxalate monohydrate                    | (NH <sub>4</sub> ) <sub>2</sub> TiO(C <sub>2</sub> O <sub>4</sub> ) <sub>2</sub> · H <sub>2</sub> O | 10580-03-7  | 293.996     | hyg cry                    |              |         |                            |                                     | vs H <sub>2</sub> O                          |
| 201 | Ammonium tungstate(VI)                                   | (NH <sub>4</sub> ) <sub>10</sub> W <sub>12</sub> O <sub>41</sub>                                    | 11120-25-5  | 3042.44     | cry powder                 |              |         | 2.3                        |                                     | s H <sub>2</sub> O; i EtOH                   |
| 202 | Ammonium tungstate(VI) pentahydrate                      | (NH <sub>4</sub> ) <sub>10</sub> W <sub>12</sub> O <sub>41</sub> · 5H <sub>2</sub> O                | 1311-93-9   | 3132.52     | cry pow or plates          |              |         | 2.3                        |                                     | vs H <sub>2</sub> O; i EtOH                  |
| 203 | Ammonium uranate(VI)                                     | (NH <sub>4</sub> ) <sub>2</sub> U <sub>2</sub> O <sub>7</sub>                                       | 7783-22-4   | 624.131     | red-yel amorp powder       |              |         |                            |                                     | i H <sub>2</sub> O, alk; s acid              |
| 204 | Ammonium uranium fluoride                                | UO <sub>2</sub> (NH <sub>4</sub> ) <sub>3</sub> F <sub>5</sub>                                      | 18433-40-4  | 419.135     | grn-yel monocl cry         |              |         |                            |                                     | s H <sub>2</sub> O; i EtOH                   |
| 205 | Ammonium valerate  | NH <sub>4</sub> C <sub>4</sub> H <sub>9</sub> CO <sub>2</sub>                                       | 42739-38-8  | 119.163     | hyg cry                    | 108          |         |                            |                                     | vs H <sub>2</sub> O, EtOH; s eth             |
| 206 | Antimony (gray)  | Sb  | 7440-36-0   | 121.760     | silv metal; hex            | 630.628      | 1587    | 6.68                       |                                     | i dil acid                                   |
| 207 | Antimony (black)   | Sb  | 7440-36-0   | 121.760     | blk amorp solid            | trans gray 0 |         |                            |                                     |  |
| 208 | Stibine  | SbH <sub>3</sub>  | 7803-52-3   | 124.784     | col gas; flam              | -88          | -17     | 5.100 g/L                  |                                     | sl H <sub>2</sub> O; s EtOH                  |
| 209 | Trimethylstibine   | Sb(CH <sub>3</sub> ) <sub>3</sub>   | 594-10-5    | 166.863     | col flam liq               | -62          | 81      | 1.52                       |                                     |  |
| 210 | Pentamethylstibine                                       | Sb(CH <sub>3</sub> ) <sub>5</sub>   | 15120-50-0  | 196.933     | col hyg liq                | -19          | 127     |                            |                                     | reac H <sub>2</sub> O                        |
| 211 | Tetramethyldistibine                                     | [Sb(CH <sub>3</sub> ) <sub>2</sub> ] <sub>2</sub>   | 41422-43-9  | 303.658     | yel flam liq or red solid  | 17           |         |                            |                                     |  |
| 212 | Antimony arsenide  | SbAs  | 12322-34-8  | 196.682     | hex cry                    | ≈680         |         | 6.0                        |                                     |  |
| 213 | Antimony potassium tartrate trihydrate                   | K <sub>2</sub> (SbC <sub>4</sub> H <sub>4</sub> O <sub>6</sub> ) <sub>2</sub> · 3H <sub>2</sub> O   | 28300-74-5  | 667.873     | col cry                    |              |         | 2.6                        |                                     | sl H <sub>2</sub> O                          |
| 214 | Antimony(III) acetate                                    | Sb(C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> ) <sub>3</sub>                                      | 3643-76-3   | 298.891     | wh pow                     |              |         |                            |                                     |  |
| 215 | Antimony(III) bromide                                    | SbBr <sub>3</sub>   | 7789-61-9   | 361.472     | yel orth cry; hyg          | 97           | 288     | 4.35                       |                                     | reac H <sub>2</sub> O; s ace, bz, chl        |
| 216 | Antimony(III) chloride                                   | SbCl <sub>3</sub>   | 10025-91-9  | 228.119     | col orth cry; hyg          | 73.4         | 220.3   | 3.14                       | 987 <sup>25</sup>                   | s acid, EtOH, bz, ace                        |
| 217 | Antimony(III) fluoride                                   | SbF <sub>3</sub>  | 7783-56-4   | 178.755     | wh orth cry; hyg           | 287          | 376     | 4.38                       | 492 <sup>25</sup>                   |  |
| 218 | Antimony(III) iodide                                     | SbI <sub>3</sub>  | 7790-44-5   | 502.473     | red rhomb cry              | 171          | 400     | 4.92                       |                                     | reac H <sub>2</sub> O; s EtOH, ace; i ctc    |
| 219 | Antimony(III) iodide sulfide                             | SbI <sub>3</sub> S  | 13816-38-1  | 280.729     | dark red prisms or needles | 400          |         |                            |                                     |  |
| 220 | Antimony(III) oxide (senarmontite)                       | Sb <sub>2</sub> O <sub>3</sub>  | 1309-64-4   | 291.518     | col cub cry                | 570 trans    | 1425    | 5.58                       |                                     | sl H <sub>2</sub> O; i os                    |
| 221 | Antimony(III) oxide (valentinite)                        | Sb <sub>2</sub> O <sub>3</sub>  | 1309-64-4   | 291.518     | wh orth cry                | 655          | 1425    | 5.7                        |                                     | sl H <sub>2</sub> O; i os                    |
| 222 | Antimony(III) oxychloride                                | SbOCl   | 7791-08-4   | 173.212     | wh momo cry                | 170 dec      |         |                            |                                     | reac H <sub>2</sub> O; i EtOH, eth           |
| 223 | Antimony(III) phosphate                                  | SbPO <sub>4</sub>   | 12036-46-3  | 216.731     | cry pow                    |              |         |                            |                                     | reac H <sub>2</sub> O                        |
| 224 | Antimony(III) potassium oxalate trihydrate               | K <sub>3</sub> Sb(C <sub>2</sub> O <sub>4</sub> ) <sub>3</sub> · 3H <sub>2</sub> O                  | 5965-33-3*  | 557.158     | cry pow                    |              |         |                            |                                     | s H <sub>2</sub> O                           |
| 225 | Antimony(III) selenide                                   | Sb <sub>2</sub> Se <sub>3</sub>   | 1315-05-5   | 480.40      | grn orth cry               | 611          |         | 5.81                       |                                     | sl H <sub>2</sub> O                          |
| 226 | Antimony(III) sulfate                                    | Sb <sub>2</sub> (SO <sub>4</sub> ) <sub>3</sub>   | 7446-32-4   | 531.708     | wh cry powder; hyg         | dec          |         | 3.62                       |                                     | sl H <sub>2</sub> O                          |
| 227 | Antimony(III) sulfide                                    | Sb <sub>2</sub> S <sub>3</sub>  | 1345-04-6   | 339.715     | gray-blk orth cry          | 550          |         | 4.562                      |                                     | i H <sub>2</sub> O; s conc HCl               |
| 228 | Antimony(III) telluride                                  | Sb <sub>2</sub> Te <sub>3</sub>   | 1327-50-0   | 626.32      | gray cry                   | 620          |         | 6.5                        |                                     |  |

| No. | Name                            | Formula   | CAS Reg No. | Mol. weight | Physical form            | mp/°C                       | bp/°C    | Density g cm <sup>-3</sup> | Solubility g/100 g H <sub>2</sub> O | Qualitative solubility                       |
|-----|---------------------------------|---|-------------|-------------|--------------------------|-----------------------------|----------|----------------------------|-------------------------------------|--|
| 229 | Antimony(III,V) oxide           | Sb <sub>2</sub> O <sub>5</sub>  | 1332-81-6   | 307.518     | yel orth cry             |                             |          | 6.64                       |                                     |  |
| 230 | Antimony(V) chloride            | SbCl <sub>5</sub>   | 7647-18-9   | 299.025     | col or yel liq           | 4                           | 140 dec  | 2.34                       |                                     | reac H <sub>2</sub> O; s chl, ctc            |
| 231 | Antimony(V) fluoride            | SbF <sub>5</sub>  | 7783-70-2   | 216.752     | hyg visc liq             | 8.3                         | 141      | 3.10                       |                                     | reac H <sub>2</sub> O                        |
| 232 | Antimony(V) dichlorotrifluoride | SbCl <sub>2</sub> F <sub>3</sub>  | 7791-16-4   | 249.661     | visc liq                 |                             |          |                            |                                     | reac H <sub>2</sub> O                        |
| 233 | Antimony(V) oxide               | Sb <sub>2</sub> O <sub>3</sub>  | 1314-60-9   | 323.517     | yel powder; cub          | dec                         |          | 3.78                       | 0.3 <sup>20</sup>                   |  |
| 234 | Antimony(V) sulfide             | Sb <sub>2</sub> S <sub>3</sub>  | 1315-04-4   | 403.845     | oran-yel powder          | 75 dec                      |          | 4.120                      |                                     | i H <sub>2</sub> O; s acid, alk              |
| 235 | Argon                           | Ar  | 7440-37-1   | 39.948      | col gas                  | -189.36 tp (69 kPa)         | -185.847 | 1.633 g/L                  |                                     | sl H <sub>2</sub> O                          |
| 236 | Arsenic (gray)                  | As  | 7440-38-2   | 74.922      | gray metal; rhomb        | 817 tp (3.70 MPa)           | 616 sp   | 5.75                       |                                     | i H <sub>2</sub> O                           |
| 237 | Arsenic (black)                 | As  | 7440-38-2   | 74.922      | blk amorp solid          | trans gray As 270           |          | 4.9                        |                                     |  |
| 238 | Arsenic (yellow)                | As  | 7440-38-2   | 74.922      | soft yel cub cry         | trans gray As 358           |          | 1.97                       |                                     | s CS <sub>2</sub>                            |
| 239 | Arsine                          | AsH <sub>3</sub>  | 7784-42-1   | 77.946      | col gas                  | -116                        | -62.5    | 3.186 g/L                  |                                     | sl H <sub>2</sub> O                          |
| 240 | Diarsine                        | As <sub>2</sub> H <sub>4</sub>  | 15942-63-9  | 153.875     | unstab liq               |                             | ≈100     |                            |                                     |  |
| 241 | Arsenic acid                    | H <sub>3</sub> AsO <sub>4</sub>   | 7778-39-4   | 141.944     | exists only in soln      |                             |          |                            |                                     |  |
| 242 | Arsenic acid hemihydrate        | H <sub>3</sub> AsO <sub>4</sub> · 0.5H <sub>2</sub> O                             | 7778-39-4*  | 150.951     | wh hyg cry               | 36.1                        |          | 2.5                        |                                     | vs H <sub>2</sub> O, EtOH                    |
| 243 | Arsenious acid                  | H <sub>3</sub> AsO <sub>3</sub>   | 13464-58-9  | 125.944     | exists only in soln      |                             |          |                            |                                     |  |
| 244 | Arsenic diiodide                | As <sub>2</sub> I <sub>4</sub>  | 13770-56-4  | 657.461     | red cry                  | 137                         |          |                            |                                     | reac H <sub>2</sub> O; s os                  |
| 245 | Arsenic hemiselenide            | As <sub>2</sub> Se  | 1303-35-1   | 228.80      | blk cry                  |                             |          |                            |                                     | i H <sub>2</sub> O, os; dec acid, alk        |
| 246 | Arsenic sulfide                 | As <sub>2</sub> S <sub>4</sub>  | 12279-90-2  | 427.946     | red monocl cry           | 320                         | 565      | 3.5                        |                                     | i H <sub>2</sub> O; sl bz; s alk             |
| 247 | Arsenic(III) bromide            | AsBr <sub>3</sub>   | 7784-33-0   | 314.634     | col or yel orth cry; hyg | 31.1                        | 221      | 3.40                       |                                     | reac H <sub>2</sub> O; s hc, ctc; vs eth, bz |
| 248 | Arsenic(III) chloride           | AsCl <sub>3</sub>   | 7784-34-1   | 181.281     | col liq                  | -16                         | 130      | 2.150                      |                                     | reac H <sub>2</sub> O; vs chl, ctc, eth      |
| 249 | Arsenic(III) ethoxide           | As(C <sub>2</sub> H <sub>5</sub> O) <sub>3</sub>                                  | 3141-12-6   | 210.103     | liq                      |                             | 166      | 1.21                       |                                     |  |
| 250 | Arsenic(III) fluoride           | AsF <sub>3</sub>  | 7784-35-2   | 131.917     | col liq                  | -5.9                        | 57.13    | 2.7                        |                                     | reac H <sub>2</sub> O; s EtOH, eth, bz       |
| 251 | Arsenic(III) iodide             | AsI <sub>3</sub>  | 7784-45-4   | 455.635     | red hex cry              | 141                         | 424      | 4.73                       |                                     | sl H <sub>2</sub> O, EtOH, eth; s bz, tol    |
| 252 | Arsenic(III) oxide (arsenolite) | As <sub>2</sub> O <sub>3</sub>  | 1327-53-3   | 197.841     | wh cub cry               | 274                         | 460      | 3.86                       | 2.05 <sup>25</sup>                  |  |
| 253 | Arsenic(III) oxide (claudetite) | As <sub>2</sub> O <sub>3</sub>  | 1327-53-3   | 197.841     | wh monocl cry            | 314                         | 460      | 3.74                       | 2.05 <sup>25</sup>                  | s dil acid, alk; i EtOH                      |
| 254 | Arsenic(III) selenide           | As <sub>2</sub> Se <sub>3</sub>   | 1303-36-2   | 386.72      | brn-blk solid            | 260                         |          | 4.75                       |                                     | i H <sub>2</sub> O; s alk                    |
| 255 | Arsenic(III) sulfide            | As <sub>2</sub> S <sub>3</sub>  | 1303-33-9   | 246.038     | yel-oran monocl cry      | 312                         | 707      | 3.46                       |                                     | i H <sub>2</sub> O; s alk                    |
| 256 | Arsenic(III) telluride          | As <sub>2</sub> Te <sub>3</sub>   | 12044-54-1  | 532.64      | blk monocl cry           | 621                         |          | 6.50                       |                                     |  |
| 257 | Arsenic(V) chloride             | AsCl <sub>5</sub>   | 22441-45-8  | 252.187     | stab at low temp         | ≈-50 dec                    |          |                            |                                     |  |
| 258 | Arsenic(V) fluoride             | AsF <sub>5</sub>  | 7784-36-3   | 169.914     | col gas                  | -79.8                       | -52.8    | 6.945 g/L                  |                                     | reac H <sub>2</sub> O; s EtOH, bz, eth       |
| 259 | Arsenic(V) oxide                | As <sub>2</sub> O <sub>5</sub>  | 1303-28-2   | 229.840     | wh amorp powder          | 315                         |          | 4.32                       | 65.8 <sup>20</sup>                  | vs EtOH                                      |
| 260 | Arsenic(V) selenide             | As <sub>2</sub> Se <sub>5</sub>   | 1303-37-3   | 544.64      | blk solid                | dec                         |          |                            |                                     | i H <sub>2</sub> O, EtOH, eth; s alk         |
| 261 | Arsenic(V) sulfide              | As <sub>2</sub> S <sub>5</sub>  | 1303-34-0   | 310.168     | brn-yel amorp solid      | dec                         |          |                            |                                     | i H <sub>2</sub> O; s alk                    |
| 262 | Astatine                        | At  | 7440-68-8   | 210         | cry                      | 302                         |          |                            |                                     | s HNO <sub>3</sub> , os                      |
| 263 | Barium                          | Ba  | 7440-39-3   | 137.327     | silv-yel metal; cub      | 727                         | 1897     | 3.62                       |                                     | reac H <sub>2</sub> O; sl EtOH               |
| 264 | Barium acetate                  | Ba(C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> ) <sub>2</sub>                    | 543-80-6    | 255.416     | wh powder                |                             |          | 2.47                       | 79.2 <sup>25</sup>                  |  |
| 265 | Barium acetate monohydrate      | Ba(C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> ) <sub>2</sub> · H <sub>2</sub> O | 5908-64-5   | 273.431     | wh cry                   | 110 dec                     |          | 2.19                       | 79.2 <sup>25</sup>                  | sl EtOH                                      |
| 266 | Barium aluminate                | BaAl <sub>2</sub> O <sub>4</sub>  | 12004-04-5  | 255.288     | hex cry                  | 1827                        |          |                            |                                     |  |
| 267 | Barium aluminide                | BaAl <sub>4</sub>   | 12672-79-6  | 245.253     | metallic solid           | 1097                        |          |                            |                                     |  |
| 268 | Barium azide                    | Ba(N <sub>3</sub> ) <sub>2</sub>  | 18810-58-7  | 221.367     | monocl cry; exp          | ≈-120 dec                   |          | 2.936                      | 17.3 <sup>20</sup>                  | sl EtOH; i eth                               |
| 269 | Barium bismuthate               | BaBiO <sub>3</sub>  | 12785-50-1  | 394.305     | bronze cry               | 1040 dec                    |          |                            |                                     |  |
| 270 | Barium bromate                  | Ba(BrO <sub>3</sub> ) <sub>2</sub>  | 13967-90-3  | 393.131     | col monocl cry           |                             |          |                            | 0.79 <sup>25</sup>                  | s ace  |
| 271 | Barium bromate monohydrate      | Ba(BrO <sub>3</sub> ) <sub>2</sub> · H <sub>2</sub> O                             | 10326-26-8  | 411.147     | wh monocl cry            | 260 dec                     |          | 3.99                       | 0.831 <sup>25</sup>                 | i EtOH                                       |
| 272 | Barium bromide                  | BaBr <sub>2</sub>   | 10553-31-8  | 297.135     | wh orth cry              | 857                         | 1835     | 4.781                      | 100 <sup>25</sup>                   |  |
| 273 | Barium bromide dihydrate        | BaBr <sub>2</sub> · 2H <sub>2</sub> O   | 7791-28-8   | 333.166     | wh cry                   | 75 dec                      |          | 3.7                        | 100 <sup>25</sup>                   | s MeOH; i EtOH, ace, diox                    |
| 274 | Barium calcium tungstate        | Ba <sub>3</sub> CaWO <sub>6</sub>   | 15552-14-4  | 594.57      | cub cry                  | 1420                        |          |                            |                                     |  |
| 275 | Barium carbide                  | BaC <sub>2</sub>  | 50813-65-5  | 161.348     | gray tetra cry           | dec                         |          | 3.74                       |                                     | reac H <sub>2</sub> O                        |
| 276 | Barium carbonate                | BaCO <sub>3</sub>   | 513-77-9    | 197.336     | wh orth cry              | 1380 dec; 1555 (high pres.) |          | 4.308                      | 0.0014 <sup>20</sup>                | s acid                                       |
| 277 | Barium chlorate                 | Ba(ClO <sub>3</sub> ) <sub>2</sub>  | 13477-00-4  | 304.229     | wh cry                   | 414                         |          |                            | 37.9 <sup>25</sup>                  | sl EtOH, ace                                 |
| 278 | Barium chlorate monohydrate     | Ba(ClO <sub>3</sub> ) <sub>2</sub> · H <sub>2</sub> O                             | 10294-38-9  | 322.245     | wh monocl cry            | 120 dec                     |          | 3.179                      | 37.9 <sup>25</sup>                  | s acid; sl EtOH, ace                         |
| 279 | Barium chloride                 | BaCl <sub>2</sub>   | 10361-37-2  | 208.233     | wh orth cry; hyg         | 961                         | 1560     | 3.9                        | 37.0 <sup>25</sup>                  |  |
| 280 | Barium chloride dihydrate       | BaCl <sub>2</sub> · 2H <sub>2</sub> O   | 10326-27-9  | 244.264     | wh monocl cry            | ≈-120 dec                   |          | 3.097                      | 37.0 <sup>25</sup>                  | i EtOH                                       |
| 281 | Barium chloride fluoride        | BaClF   | 13718-55-3  | 191.778     | wh cry                   |                             |          |                            |                                     |  |
| 282 | Barium chromate(V)              | Ba <sub>3</sub> (CrO <sub>4</sub> ) <sub>2</sub>                                  | 12345-14-1  | 643.968     | grn-blk hex cry          |                             |          | 5.25                       |                                     | s H <sub>2</sub> O                           |

| No. | Name                                 | Formula   | CAS Reg No. | Mol. weight | Physical form                | mp/°C     | bp/°C | Density g cm <sup>-3</sup> | Solubility g/100 g H <sub>2</sub> O | Qualitative solubility             |
|-----|--------------------------------------|---|-------------|-------------|------------------------------|-----------|-------|----------------------------|-------------------------------------|------------------------------------|
| 283 | Barium chromate(VI)                  | BaCrO <sub>4</sub>  | 10294-40-3  | 253.321     | yel orth cry                 | 1380      |       | 4.50                       | 0.00026 <sup>20</sup>               | reac acid                          |
| 284 | Barium citrate monohydrate           | Ba <sub>3</sub> (C <sub>6</sub> H <sub>5</sub> O <sub>7</sub> ) <sub>2</sub> · H <sub>2</sub> O | 512-25-4*   | 808.195     | gray-wh cry                  |           |       |                            |                                     | s H <sub>2</sub> O, acid           |
| 285 | Barium copper yttrium oxide          | BaCuY <sub>2</sub> O <sub>5</sub>   | 82642-06-6  | 458.682     | grn cry; not superconductor  |           |       |                            |                                     |                                    |
| 286 | Barium copper yttrium oxide          | Ba <sub>2</sub> Cu <sub>3</sub> YO <sub>7</sub>   | 109064-29-1 | 666.194     | blk solid; HT superconductor |           |       |                            |                                     |                                    |
| 287 | Barium copper yttrium oxide          | Ba <sub>2</sub> Cu <sub>4</sub> YO <sub>8</sub>   | 114104-80-2 | 745.739     | HT superconductor            |           |       |                            |                                     |                                    |
| 288 | Barium copper yttrium oxide          | Ba <sub>4</sub> Cu <sub>7</sub> Y <sub>2</sub> O <sub>15</sub>                                  | 124365-83-9 | 1411.933    | HT superconductor            |           |       |                            |                                     |                                    |
| 289 | Barium cyanide                       | Ba(CN) <sub>2</sub>   | 542-62-1    | 189.361     | wh cry powder                |           |       |                            |                                     | vs H <sub>2</sub> O; s EtOH        |
| 290 | Barium dichromate dihydrate          | BaCr <sub>2</sub> O <sub>7</sub> · 2H <sub>2</sub> O  | 10031-16-0  | 389.346     | brn-red needles              | dec       |       |                            |                                     | reac H <sub>2</sub> O              |
| 291 | Barium disilicate                    | BaSi <sub>2</sub> O <sub>5</sub>  | 12650-28-1  | 273.495     | wh orth cry                  | 1420      |       | 3.70                       |                                     |                                    |
| 292 | Barium dithionate dihydrate          | BaS <sub>2</sub> O <sub>6</sub> · 2H <sub>2</sub> O   | 13845-17-5  | 333.484     | wh cry                       | 140 dec   |       | 4.54                       | 22.1 <sup>20</sup>                  | sl EtOH                            |
| 293 | Barium ferrite                       | BaFe <sub>12</sub> O <sub>19</sub>  | 11138-11-7  | 1111.456    | magnetic solid               |           |       |                            |                                     |                                    |
| 294 | Barium ferrocyanide hexahydrate      | Ba <sub>3</sub> Fe(CN) <sub>6</sub> · 6H <sub>2</sub> O   | 13821-06-2* | 594.694     | yel monocl cry               | 80 dec    |       |                            |                                     | i H <sub>2</sub> O, EtOH           |
| 295 | Barium fluoride                      | BaF <sub>2</sub>  | 7787-32-8   | 175.324     | wh cub cry                   | 1368      | 2260  | 4.893                      | 0.161 <sup>25</sup>                 |                                    |
| 296 | Barium formate                       | Ba(CHO <sub>2</sub> ) <sub>2</sub>  | 541-43-5    | 227.362     | cry                          |           |       | 3.21                       |                                     | s H <sub>2</sub> O; i EtOH         |
| 297 | Barium hexaboride                    | BaB <sub>6</sub>  | 12046-08-1  | 202.193     | blk cub cry                  | 2070      |       | 4.36                       |                                     | i H <sub>2</sub> O; s acid; i EtOH |
| 298 | Barium hexafluorogermanate           | BaGeF <sub>6</sub>  |             | 323.96      | wh cry                       | ≈665      |       | 4.56                       |                                     |                                    |
| 299 | Barium hexafluorosilicate            | BaSiF <sub>6</sub>  | 17125-80-3  | 279.403     | wh orth needles              | 300 dec   |       | 4.29                       |                                     | i H <sub>2</sub> O, EtOH; sl acid  |
| 300 | Barium hydride                       | BaH <sub>2</sub>  | 13477-09-3  | 139.343     | gray orth cry                | 1200      |       | 4.16                       |                                     | reac H <sub>2</sub> O              |
| 301 | Barium hydrogen phosphate            | BaHPO <sub>4</sub>  | 10048-98-3  | 233.306     | wh cry powder                | 400 dec   |       | 4.16                       | 0.015 <sup>20</sup>                 | s dil acid                         |
| 302 | Barium hydrosulfide                  | Ba(HS) <sub>2</sub>   | 25417-81-6  | 203.473     | yel hyg cry                  |           |       |                            |                                     | s H <sub>2</sub> O                 |
| 303 | Barium hydrosulfide tetrahydrate     | Ba(HS) <sub>2</sub> · 4H <sub>2</sub> O   | 12230-74-9  | 275.534     | yel rhomb cry                | 50 dec    |       |                            |                                     | s H <sub>2</sub> O                 |
| 304 | Barium hydroxide                     | Ba(OH) <sub>2</sub>   | 17194-00-2  | 171.342     | wh powder                    | 408       |       |                            | 4.91 <sup>25</sup>                  |                                    |
| 305 | Barium hydroxide monohydrate         | Ba(OH) <sub>2</sub> · H <sub>2</sub> O  | 22326-55-2  | 189.357     | wh powder                    |           |       | 3.743                      | 4.91 <sup>25</sup>                  | s acid                             |
| 306 | Barium hydroxide octahydrate         | Ba(OH) <sub>2</sub> · 8H <sub>2</sub> O   | 12230-71-6  | 315.464     | wh monocl cry                | 78 dec    |       | 2.18                       | 4.91 <sup>25</sup>                  |                                    |
| 307 | Barium hypophosphite monohydrate     | Ba(H <sub>2</sub> PO <sub>2</sub> ) <sub>2</sub> · H <sub>2</sub> O                             | 14871-79-5* | 285.320     | monocl plates                |           |       | 2.90                       |                                     | s H <sub>2</sub> O; i EtOH         |
| 308 | Barium iodate                        | Ba(IO <sub>3</sub> ) <sub>2</sub>   | 10567-69-8  | 487.132     | wh cry powder                | 476 dec   |       | 5.23                       | 0.0396 <sup>25</sup>                |                                    |
| 309 | Barium iodate monohydrate            | Ba(IO <sub>3</sub> ) <sub>2</sub> · H <sub>2</sub> O  | 7787-34-0   | 505.148     | cry                          | 130 dec   |       | 5.00                       | 0.0396 <sup>25</sup>                | s acid; i EtOH                     |
| 310 | Barium iodide                        | BaI <sub>2</sub>  | 13718-50-8  | 391.136     | wh orth cry                  | 711       |       | 5.15                       | 221 <sup>25</sup>                   |                                    |
| 311 | Barium iodide dihydrate              | BaI <sub>2</sub> · 2H <sub>2</sub> O  | 7787-33-9   | 427.167     | col cry                      | 740 dec   |       | 5.0                        | 221 <sup>25</sup>                   | s EtOH, ace                        |
| 312 | Barium manganate(VI)                 | BaMnO <sub>4</sub>  | 7787-35-1   | 256.263     | grn-gray hyg cry             |           |       | 4.85                       | 0.00041 <sup>20</sup>               |                                    |
| 313 | Barium metaborate monohydrate        | Ba(BO <sub>2</sub> ) <sub>2</sub> · H <sub>2</sub> O  | 26124-86-7  | 240.962     | wh powder                    | >900      |       | 3.3                        |                                     | sl H <sub>2</sub> O                |
| 314 | Barium metaborate dihydrate          | Ba(BO <sub>2</sub> ) <sub>2</sub> · 2H <sub>2</sub> O   | 23436-05-7  | 258.977     | wh prec                      | dec       |       |                            | 1.3 <sup>25</sup>                   | sl H <sub>2</sub> O                |
| 315 | Barium metaphosphate                 | Ba(PO <sub>3</sub> ) <sub>2</sub>   | 13466-20-1  | 295.271     | wh powder                    | 1560      |       |                            |                                     | i H <sub>2</sub> O; sl acid        |
| 316 | Barium metasilicate                  | BaSiO <sub>3</sub>  | 13255-26-0  | 213.411     | col rhomb powder             | 1605      |       | 4.40                       |                                     | i H <sub>2</sub> O; s acid         |
| 317 | Barium molybdate                     | BaMoO <sub>4</sub>  | 7787-37-3   | 297.27      | wh powder                    | 1450      |       | 4.975                      | 0.0021 <sup>20</sup>                |                                    |
| 318 | Barium niobate                       | Ba(NbO <sub>3</sub> ) <sub>2</sub>  | 12009-14-2  | 419.136     | yel orth cry                 | 1455      |       | 5.44                       |                                     | i H <sub>2</sub> O                 |
| 319 | Barium nitrate                       | Ba(NO <sub>3</sub> ) <sub>2</sub>   | 10022-31-8  | 261.336     | wh cub cry                   | 590       |       | 3.24                       | 10.3 <sup>25</sup>                  | sl EtOH, ace                       |
| 320 | Barium nitride                       | Ba <sub>3</sub> N <sub>2</sub>  | 12047-79-9  | 439.994     | yel-brn cry                  | >500 dec  |       | 4.78                       |                                     | reac H <sub>2</sub> O              |
| 321 | Barium nitrite                       | Ba(NO <sub>2</sub> ) <sub>2</sub>   | 13465-94-6  | 229.338     | col hex cry                  | 267       |       | 3.234                      | 79.5 <sup>25</sup>                  |                                    |
| 322 | Barium nitrite monohydrate           | Ba(NO <sub>2</sub> ) <sub>2</sub> · H <sub>2</sub> O  | 7787-38-4   | 247.353     | yel-wh hex cry               | 217 dec   |       | 3.18                       | 79.5 <sup>25</sup>                  | i EtOH                             |
| 323 | Barium orthovanadate                 | Ba <sub>2</sub> (VO <sub>4</sub> ) <sub>2</sub>   | 39416-30-3  | 641.859     | hex cry                      | 707       |       | 5.14                       |                                     |                                    |
| 324 | Barium oxalate                       | BaC <sub>2</sub> O <sub>4</sub>   | 516-02-9    | 225.346     | wh powder                    | 400 dec   |       | 2.658                      | 0.0075                              |                                    |
| 325 | Barium oxalate monohydrate           | BaC <sub>2</sub> O <sub>4</sub> · H <sub>2</sub> O  | 13463-22-4  | 243.361     | wh cry powder                |           |       | 2.66                       | 0.0075 <sup>20</sup>                | s acid                             |
| 326 | Barium oxide                         | BaO   | 1304-28-5   | 153.326     | wh-yel powder; cub and hex   | 1973      |       | 5.72(cub)                  | 1.5 <sup>20</sup>                   | s dil acid, EtOH; i ace            |
| 327 | Barium 2,4-pentanedioate octahydrate | Ba(CH <sub>3</sub> COCHCOCH <sub>3</sub> ) <sub>2</sub> · 8H <sub>2</sub> O                     | 12084-29-6* | 479.665     | col hyg cry                  | 320 (anh) |       |                            |                                     |                                    |
| 328 | Barium perchlorate                   | Ba(ClO <sub>4</sub> ) <sub>2</sub>  | 13465-95-7  | 336.228     | col hex cry                  | 505       |       | 3.20                       | 312 <sup>25</sup>                   | vs EtOH                            |
| 329 | Barium perchlorate trihydrate        | Ba(ClO <sub>4</sub> ) <sub>2</sub> · 3H <sub>2</sub> O  | 10294-39-0  | 390.274     | col cry                      |           |       | 2.74                       | 312 <sup>25</sup>                   | s MeOH; sl EtOH, ace; i eth        |
| 330 | Barium permanganate                  | Ba(MnO <sub>4</sub> ) <sub>2</sub>  | 7787-36-2   | 375.198     | brn-viol cry                 | 200 dec   |       | 3.77                       | 62.5 <sup>20</sup>                  | reac EtOH                          |
| 331 | Barium peroxide                      | BaO <sub>2</sub>  | 1304-29-6   | 169.326     | gray-wh tet cry              | 450 dec   |       | 4.96                       | 0.091 <sup>20</sup>                 | reac dil acid                      |
| 332 | Barium plumbate                      | BaPbO <sub>3</sub>  | 12047-25-5  | 392.5       | orth cry                     |           |       |                            |                                     |                                    |
| 333 | Barium potassium chromate            | BaK <sub>2</sub> (CrO <sub>4</sub> ) <sub>2</sub>   | 27133-66-0  | 447.511     | yel hex cry                  |           |       | 3.63                       |                                     | vs H <sub>2</sub> O                |
| 334 | Barium pyrophosphate                 | Ba <sub>2</sub> P <sub>2</sub> O <sub>7</sub>   | 13466-21-2  | 448.597     | wh powder                    | 1430      |       | 3.9                        | 0.0088 <sup>20</sup>                | s acid                             |
| 335 | Barium selenate                      | BaSeO <sub>4</sub>  | 7787-41-9   | 280.29      | wh rhomb cry                 | dec       |       | 4.75                       | 0.015 <sup>20</sup>                 |                                    |
| 336 | Barium selenide                      | BaSe  | 1304-39-8   | 216.29      | cub cry powder               | 1780      |       | 5.02                       |                                     | reac H <sub>2</sub> O              |
| 337 | Barium selenite                      | BaSeO <sub>3</sub>  | 13718-59-7  | 264.29      | solid                        |           |       |                            |                                     | i H <sub>2</sub> O                 |
| 338 | Barium silicide                      | BaSi <sub>2</sub>   | 1304-40-1   | 193.498     | gray lumps                   | 1180      |       |                            |                                     | reac H <sub>2</sub> O              |
| 339 | Barium sodium niobate                | Ba <sub>2</sub> Na(NbO <sub>5</sub> ) <sub>3</sub>  | 12323-03-4  | 1002.167    | wh orth cry                  | 1437      |       | 5.40                       |                                     | i H <sub>2</sub> O                 |
| 340 | Barium stannate                      | BaSnO <sub>3</sub>  | 12009-18-6  | 304.035     | cub cry                      |           |       | 7.24                       |                                     | sl H <sub>2</sub> O                |
| 341 | Barium stannate trihydrate           | BaSnO <sub>3</sub> · 3H <sub>2</sub> O  | 12009-18-6* | 358.081     | wh cry powder                |           |       |                            |                                     | sl H <sub>2</sub> O; s acid        |



| No. | Name  | Formula   | CAS Reg No. | Mol. weight | Physical form              | mp/°C        | bp/°C  | Density g cm <sup>-3</sup> | Solubility g/100 g H <sub>2</sub> O | Qualitative solubility            |
|-----|---|---|-------------|-------------|----------------------------|--------------|--------|----------------------------|-------------------------------------|-----------------------------------|
| 342 | Barium stearate                                     | Ba(C <sub>18</sub> H <sub>35</sub> O <sub>2</sub> ) <sub>2</sub>              | 6865-35-6   | 704.266     | wh powder                  | 160          |        | 1.145                      |                                     | i H <sub>2</sub> O, EtOH          |
| 343 | Barium strontium niobate                            | BaSr(NbO <sub>3</sub> ) <sub>4</sub>  | 37185-09-4  | 788.57      | pale yel solid             |              |        |                            |                                     |                                   |
| 344 | Barium strontium tungstate                          | Ba <sub>2</sub> SrWO <sub>6</sub>   | 14871-56-8  | 642.11      | hyg pow                    | 1400         |        |                            |                                     |                                   |
| 345 | Barium sulfate                                      | BaSO <sub>4</sub>   | 7727-43-7   | 233.390     | wh orth cry                | 1580         |        | 4.49                       | 0.00031 <sup>20</sup>               | i EtOH                            |
| 346 | Barium sulfide                                      | BaS   | 21109-95-5  | 169.392     | col cub cry or gray powder | 2227         |        | 4.3                        | 8.94 <sup>25</sup>                  |                                   |
| 347 | Barium sulfite                                      | BaSO <sub>3</sub>   | 7787-39-5   | 217.390     | wh monocry                 | dec          |        | 4.44                       | 0.0011 <sup>25</sup>                | i EtOH                            |
| 348 | Barium tartrate                                     | BaC <sub>4</sub> H <sub>4</sub> O <sub>6</sub>                                | 5908-81-6   | 285.398     | wh cry                     |              |        | 2.98                       |                                     | s H <sub>2</sub> O; i EtOH        |
| 349 | Barium tetracyanoplatinate(II) tetrahydrate         | BaPt(CN) <sub>4</sub> · 4H <sub>2</sub> O                                     | 13755-32-3  | 508.543     | yel powder or cry          |              |        | 2.076                      |                                     | sl H <sub>2</sub> O; i EtOH       |
| 350 | Barium tetraiodomercurate(II)                       | BaHgI <sub>4</sub>  | 10048-99-4  | 845.54      | yel-red hyg cry            |              |        |                            |                                     | vs H <sub>2</sub> O, EtOH         |
| 351 | Barium thiocyanate                                  | Ba(SCN) <sub>2</sub>  | 2092-17-3   | 253.491     | hyg cry                    |              |        |                            | 167 <sup>25</sup>                   | s ace, MeOH, EtOH                 |
| 352 | Barium thiocyanate dihydrate                        | Ba(SCN) <sub>2</sub> · 2H <sub>2</sub> O                                      | 2092-17-3*  | 289.522     | hyg wh cry                 |              |        |                            | 167 <sup>25</sup>                   | s EtOH                            |
| 353 | Barium thiocyanate trihydrate                       | Ba(SCN) <sub>2</sub> · 3H <sub>2</sub> O                                      | 68016-36-4  | 307.537     | wh needles; hyg            |              |        | 2.286                      | 167 <sup>25</sup>                   | s EtOH                            |
| 354 | Barium thiosulfate                                  | BaS <sub>2</sub> O <sub>3</sub>   | 35112-53-9  | 249.455     | wh cry powder              | 220 dec      |        |                            | 0.2 <sup>20</sup>                   | i EtOH                            |
| 355 | Barium thiosulfate monohydrate                      | BaS <sub>2</sub> O <sub>3</sub> · H <sub>2</sub> O                            | 7787-40-8   | 267.471     | wh cry powder              | dec          |        | 3.5                        | 0.2                                 | i EtOH                            |
| 356 | Barium titanate (BaTiO <sub>3</sub> )               | BaTiO <sub>3</sub>  | 12047-27-7  | 233.192     | wh tetr cry                | 1625         |        | 6.02                       |                                     | i H <sub>2</sub> O                |
| 357 | Barium titanate (BaTi <sub>3</sub> O <sub>9</sub> ) | BaTi <sub>3</sub> O <sub>9</sub>  | 12009-27-7  | 313.058     | wh solid                   |              |        |                            |                                     |                                   |
| 358 | Barium titanate (BaTi <sub>4</sub> O <sub>9</sub> ) | BaTi <sub>4</sub> O <sub>9</sub>  | 12009-31-3  | 472.790     | wh solid                   |              |        |                            |                                     |                                   |
| 359 | Barium titanium silicate                            | BaTi(SiO <sub>3</sub> ) <sub>3</sub>  | 15491-35-7  | 413.446     | rhomb blue-pur cry         |              |        |                            |                                     |                                   |
| 360 | Barium tungstate                                    | BaWO <sub>4</sub>   | 7787-42-0   | 385.17      | wh tetr cry                | 1475         | 1730   | 5.04                       | 0.0016 <sup>20</sup>                |                                   |
| 361 | Barium uranium oxide                                | BaU <sub>2</sub> O <sub>7</sub>   | 10380-31-1  | 725.381     | oran-yel powder            |              |        |                            |                                     | i H <sub>2</sub> O; s acid        |
| 362 | Barium yttrium tungsten oxide                       | Ba <sub>3</sub> Y <sub>2</sub> WO <sub>9</sub>                                | 37265-86-4  | 1006.53     | cub cry                    | 1470         |        |                            |                                     |                                   |
| 363 | Barium zirconate                                    | BaZrO <sub>3</sub>  | 12009-21-1  | 276.549     | gray-wh cub cry            | 2500         |        | 5.52                       |                                     | i H <sub>2</sub> O; alk; sl acid  |
| 364 | Barium zirconium silicate                           | BaO · ZrO <sub>2</sub> · SiO <sub>2</sub>                                     |             | 336.634     | wh pow                     |              |        |                            |                                     |                                   |
| 365 | Berkelium (α form)                                  | Bk  | 7440-40-6   | 247         | hex cry                    | trans to 930 |        | 14.78                      |                                     |                                   |
| 366 | Berkelium (β form)                                  | Bk  | 7440-40-6   | 247         | cub cry                    | 986          |        | 13.25                      |                                     |                                   |
| 367 | Beryllium   | Be  | 7440-41-7   | 9.012       | hex cry                    | 1287         | 2471   | 1.85                       |                                     | s acid, alk                       |
| 368 | Beryllium acetate                                   | Be(C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> ) <sub>2</sub>                | 543-81-7    | 127.101     | wh cry                     | 60 dec       |        |                            |                                     | i H <sub>2</sub> O, EtOH          |
| 369 | Beryllium basic acetate                             | Be <sub>2</sub> O(C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> ) <sub>6</sub> | 1332-52-1   | 406.312     | wh cry                     | 285          | 330    | 1.25                       |                                     | i H <sub>2</sub> O; s eth, os     |
| 370 | Beryllium aluminate                                 | BeAl <sub>2</sub> O <sub>4</sub>  | 12004-06-7  | 126.973     | orth cry                   |              |        | 3.65                       |                                     |                                   |
| 371 | Beryllium aluminum metasilicate                     | Be <sub>3</sub> Al <sub>2</sub> (SiO <sub>3</sub> ) <sub>6</sub>              | 1302-52-9   | 537.502     | col or grn-yel cry; hex    |              |        | 2.64                       |                                     |                                   |
| 372 | Beryllium boride (BeB <sub>2</sub> )                | BeB <sub>2</sub>  | 12228-40-9  | 30.634      | refrac solid               | >1970        |        |                            |                                     |                                   |
| 373 | Beryllium boride (BeB <sub>6</sub> )                | BeB <sub>6</sub>  | 12429-94-6  | 73.878      | red solid                  | 2070         |        |                            |                                     |                                   |
| 374 | Beryllium boride (Be <sub>2</sub> B)                | Be <sub>2</sub> B   | 12536-51-5  | 28.835      | pink cry                   | 1520         |        |                            |                                     |                                   |
| 375 | Beryllium boride (Be <sub>4</sub> B)                | Be <sub>4</sub> B   | 12536-52-6  | 46.860      | refrac solid               | 1160         |        |                            |                                     |                                   |
| 376 | Beryllium borohydride                               | Be(BH <sub>4</sub> ) <sub>2</sub>   | 17440-85-6  | 36.682      | solid                      | 125 dec      | subl   |                            |                                     | reac H <sub>2</sub> O             |
| 377 | Beryllium bromide                                   | BeBr <sub>2</sub>   | 7787-46-4   | 168.820     | orth cry; hyg              | 508          | 473 sp | 3.465                      |                                     | vs H <sub>2</sub> O; s EtOH, pyr  |
| 378 | Beryllium carbide                                   | Be <sub>3</sub> C   | 506-66-1    | 30.035      | red cub cry                | 2127         |        | 1.90                       |                                     | reac H <sub>2</sub> O             |
| 379 | Beryllium carbonate tetrahydrate                    | BeCO <sub>3</sub> · 4H <sub>2</sub> O   | 60883-64-9  | 93.085      | wh solid                   | 100 dec      |        |                            | 0.36 <sup>9</sup>                   |                                   |
| 380 | Beryllium basic carbonate                           | Be <sub>2</sub> (OH) <sub>2</sub> (CO <sub>3</sub> ) <sub>2</sub>             | 66104-24-3  | 181.069     | wh powder                  |              |        |                            |                                     | i H <sub>2</sub> O; s acid, alk   |
| 381 | Beryllium chloride                                  | BeCl <sub>2</sub>   | 7787-47-5   | 79.918      | wh-yel orth cry; hyg       | 415          | 482    | 1.90                       | 71.5 <sup>25</sup>                  | s EtOH, eth, py; i bz, tol        |
| 382 | Beryllium fluoride                                  | BeF <sub>2</sub>  | 7787-49-7   | 47.009      | tetr cry or gl; hyg        | 552          | 1283   | 2.1                        |                                     | vs H <sub>2</sub> O; sl EtOH      |
| 383 | Beryllium formate                                   | Be(CHO <sub>2</sub> ) <sub>2</sub>  | 1111-71-3   | 99.047      | powder                     | >250 dec     |        |                            |                                     | reac H <sub>2</sub> O; i os       |
| 384 | Beryllium hydride                                   | BeH <sub>2</sub>  | 7787-52-2   | 11.028      | wh amorp solid             | 250 dec      |        | 0.65                       |                                     | reac H <sub>2</sub> O; i eth, tol |
| 385 | Beryllium hydrogen phosphate                        | BeHPO <sub>4</sub>  | 13598-15-7  | 104.991     | cry                        |              |        |                            |                                     | i H <sub>2</sub> O                |
| 386 | Beryllium hydroxide (α)                             | Be(OH) <sub>2</sub>   | 13327-32-7  | 43.027      | wh powder or cry           | ≈200 dec     |        | 1.92                       |                                     | sl H <sub>2</sub> O; alk; s acid  |
| 387 | Beryllium hydroxide (β)                             | Be(OH) <sub>2</sub>   | 13327-32-7  | 43.027      | col tetr cry               | dec 138      |        |                            |                                     | i H <sub>2</sub> O; s, acid, alk  |
| 388 | Beryllium iodide                                    | BeI <sub>2</sub>  | 7787-53-3   | 262.821     | hyg needles                | 480          | 590    | 4.32                       |                                     | reac H <sub>2</sub> O; s EtOH     |
| 389 | Beryllium nitrate trihydrate                        | Be(NO <sub>3</sub> ) <sub>2</sub> · 3H <sub>2</sub> O                         | 13597-99-4  | 187.068     | yel-wh hyg cry             | ≈30          | dec    |                            | 107 <sup>20</sup>                   | s EtOH                            |
| 390 | Beryllium nitride                                   | Be <sub>3</sub> N <sub>2</sub>  | 1304-54-7   | 55.050      | gray refrac cry; cub       | 2200         |        | 2.71                       |                                     | reac acid, alk                    |
| 391 | Beryllium oxalate trihydrate                        | BeC <sub>2</sub> O <sub>4</sub> · 3H <sub>2</sub> O                           | 15771-43-4  | 151.077     | rhomb cry                  | dec 320      |        |                            |                                     | vs H <sub>2</sub> O               |
| 392 | Beryllium oxide                                     | BeO   | 1304-56-9   | 25.011      | wh hex cry                 | 2578         |        | 3.01                       |                                     | i H <sub>2</sub> O; sl acid, alk  |
| 393 | Beryllium 2,4-pentanedioate                         | Be(CH <sub>3</sub> COCHCOCH <sub>3</sub> ) <sub>2</sub>                       | 10210-64-7  | 207.228     | monocry powder             | 108          | 270    | 1.168                      |                                     | i H <sub>2</sub> O; vs EtOH, eth  |
| 394 | Beryllium perchlorate tetrahydrate                  | Be(ClO <sub>4</sub> ) <sub>2</sub> · 4H <sub>2</sub> O                        | 7787-48-6   | 279.975     | hyg cry                    | 250 dec      |        |                            | 198 <sup>25</sup>                   |                                   |
| 395 | Beryllium selenate tetrahydrate                     | BeSeO <sub>4</sub> · 4H <sub>2</sub> O  | 10039-31-3  | 224.03      | orth cry                   | 100 dec      |        | 2.03                       |                                     | vs H <sub>2</sub> O               |
| 396 | Beryllium sulfate                                   | BeSO <sub>4</sub>   | 13510-49-1  | 105.075     | col tetr cry; hyg          | 1127         |        | 2.5                        | 41.3 <sup>25</sup>                  |                                   |
| 397 | Beryllium sulfate dihydrate                         | BeSO <sub>4</sub> · 2H <sub>2</sub> O   | 14215-00-0  | 141.105     | col cry                    | dec 92       |        |                            |                                     |                                   |
| 398 | Beryllium sulfate tetrahydrate                      | BeSO <sub>4</sub> · 4H <sub>2</sub> O   | 7787-56-6   | 177.136     | col tetr cry               | ≈100 dec     |        | 1.71                       | 41.3 <sup>25</sup>                  | i EtOH                            |
| 399 | Beryllium sulfide                                   | BeS   | 13598-22-6  | 41.077      | col cub cry                | dec          |        | 2.36                       |                                     | reac hot H <sub>2</sub> O         |
| 400 | Bismuth   | Bi  | 7440-69-9   | 208.980     | gray-wh soft metal         | 271.406      | 1564   | 9.79                       |                                     | s acid                            |
| 401 | Bismuth acetate                                     | Bi(C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> ) <sub>3</sub>                | 22306-37-2  | 386.111     | col tablets                | 250          |        |                            |                                     | i H <sub>2</sub> O                |
| 402 | Bismuth subacetate                                  | BiOC <sub>2</sub> H <sub>3</sub> O <sub>2</sub>                               | 5142-76-7   | 284.023     | thin cry plates            |              |        |                            |                                     | i H <sub>2</sub> O; s dil acid    |
| 403 | Bismuth antimonide                                  | BiSb  | 12323-19-2  | 330.740     | cry                        | 475          |        |                            |                                     |                                   |

| No. | Name                                 | Formula  | CAS Reg No. | Mol. weight | Physical form           | mp/°C     | bp/°C   | Density g cm <sup>-3</sup> | Solubility g/100 g H <sub>2</sub> O | Qualitative solubility                                 |
|-----|--------------------------------------|--|-------------|-------------|-------------------------|-----------|---------|----------------------------|-------------------------------------|--|
| 404 | Bismuth arsenate                     | BiAsO <sub>4</sub>   | 13702-38-0  | 347.900     | wh monocry              |           |         | 7.14                       |                                     | i H <sub>2</sub> O; sl conc HNO <sub>3</sub>           |
| 405 | Bismuth basic carbonate              | (BiO) <sub>2</sub> CO <sub>3</sub>                                   | 5892-10-4   | 509.969     | wh powder               |           |         | 6.86                       |                                     | i H <sub>2</sub> O; s acid                             |
| 406 | Bismuth basic dichromate             | Bi <sub>2</sub> O <sub>3</sub> · 2CrO <sub>3</sub>                   |             | 665.948     | red-oran amorp pow      |           |         |                            |                                     | i H <sub>2</sub> O; s acid, alk                        |
| 407 | Bismuth citrate                      | BiC <sub>6</sub> H <sub>5</sub> O <sub>7</sub>                       | 813-93-4    | 398.080     | wh powder               |           |         | 3.458                      |                                     | i H <sub>2</sub> O; sl EtOH                            |
| 408 | Bismuth hydride                      | BiH <sub>3</sub>   | 18288-22-7  | 212.004     | col gas; unstab         | -67       | ≈17     | 8.665 g/L                  |                                     |  |
| 409 | Bismuth hydroxide                    | Bi(OH) <sub>3</sub>  | 10361-43-0  | 260.002     | wh-yel amorp powder     |           |         | 4.962                      |                                     | i H <sub>2</sub> O; s acid                             |
| 410 | Bismuth germanium oxide              | 2Bi <sub>2</sub> O <sub>3</sub> · 3GeO <sub>2</sub>                  | 12233-56-6  | 1245.84     | wh pow                  | 1044      |         |                            |                                     |  |
| 411 | Bismuth hexafluoro-2,4-pentanedioate | Bi(CF <sub>3</sub> COCHCOCF <sub>3</sub> ) <sub>3</sub>              | 142617-56-9 | 830.132     | powder                  | 96        |         |                            |                                     |  |
| 412 | Bismuth molybdate                    | Bi <sub>2</sub> MoO <sub>6</sub>                                     | 13565-96-3  | 609.90      | yel solid               |           |         | 9.32                       |                                     |  |
| 413 | Bismuth molybdate                    | Bi <sub>2</sub> (MoO <sub>4</sub> ) <sub>3</sub>                     | 51898-99-8  | 897.77      | monocry                 |           |         | 5.95                       |                                     |  |
| 414 | Bismuth nitrate pentahydrate         | Bi(NO <sub>3</sub> ) <sub>3</sub> · 5H <sub>2</sub> O                | 10035-06-0  | 485.071     | col tricry; hyg         | ≈75 dec   |         | 2.83                       |                                     | reac H <sub>2</sub> O; s ace; i EtOH                   |
| 415 | Bismuth subnitrate                   | Bi <sub>5</sub> O(OH) <sub>9</sub> (NO <sub>3</sub> ) <sub>4</sub>   | 1304-85-4   | 1461.987    | hyg cry powder          | 260 dec   |         | 4.928                      |                                     | i H <sub>2</sub> O, EtOH; s dil acid                   |
| 416 | Bismuth oleate                       | Bi(C <sub>18</sub> H <sub>33</sub> O <sub>2</sub> ) <sub>2</sub>     | 52951-38-9  | 1053.340    | soft yel-brn solid      |           |         |                            |                                     | i H <sub>2</sub> O; s eth; sl bz                       |
| 417 | Bismuth oxalate                      | Bi <sub>2</sub> (C <sub>2</sub> O <sub>4</sub> ) <sub>3</sub>        | 6591-55-5   | 682.018     | wh powder               |           |         |                            |                                     | i H <sub>2</sub> O, EtOH; s dil acid                   |
| 418 | Bismuth oxide                        | Bi <sub>2</sub> O <sub>3</sub>                                       | 1304-76-3   | 465.959     | yel monocry or powder   | 825       | 1890    | 8.9                        |                                     | i H <sub>2</sub> O; s acid                             |
| 419 | Bismuth tetroxide                    | Bi <sub>2</sub> O <sub>7</sub>                                       | 12048-50-9  | 481.959     | red-oran powder         | 305       |         | 5.6                        |                                     | reac H <sub>2</sub> O                                  |
| 420 | Bismuth oxybromide                   | BiOBr  | 7787-57-7   | 304.883     | col tetr cry            | 560 dec   |         | 8.08                       |                                     | i H <sub>2</sub> O, EtOH; s acid                       |
| 421 | Bismuth oxychloride                  | BiOCl  | 7787-59-9   | 260.432     | wh tetr cry             | 575 dec   |         | 7.72                       |                                     | i H <sub>2</sub> O                                     |
| 422 | Bismuth oxyiodide                    | BiOI   | 7787-63-5   | 351.883     | red tetr cry            | 300 dec   |         | 7.92                       |                                     | i H <sub>2</sub> O, EtOH, chl; s HCl                   |
| 423 | Bismuth oxynitrate                   | BiONO <sub>3</sub>   | 10361-46-3  | 286.985     | wh powder               | 260 dec   |         | 4.93                       |                                     | i H <sub>2</sub> O, EtOH; s acid                       |
| 424 | Bismuth phosphate                    | BiPO <sub>4</sub>  | 10049-01-1  | 303.951     | monocry                 |           |         | 6.32                       |                                     | sl H <sub>2</sub> O, dil acid; i EtOH                  |
| 425 | Bismuth potassium iodide             | BiK <sub>4</sub> I <sub>7</sub>                                      | 41944-01-8  | 1253.704    | red cry                 |           |         |                            |                                     | reac H <sub>2</sub> O; s alk iodide soln               |
| 426 | Bismuth selenide                     | Bi <sub>2</sub> Se <sub>3</sub>                                      | 12068-69-8  | 654.84      | blk hex cry             | 710 dec   |         | 7.5                        |                                     | i H <sub>2</sub> O                                     |
| 427 | Bismuth stannate pentahydrate        | Bi <sub>2</sub> (SnO <sub>3</sub> ) <sub>3</sub> · 5H <sub>2</sub> O | 12777-45-6  | 1008.162    | wh cry                  |           |         |                            |                                     | i H <sub>2</sub> O                                     |
| 428 | Bismuth sulfate                      | Bi <sub>2</sub> (SO <sub>4</sub> ) <sub>3</sub>                      | 7787-68-0   | 706.149     | wh needles or powder    | 405 dec   |         | 5.08                       |                                     | reac H <sub>2</sub> O, EtOH                            |
| 429 | Bismuth sulfide                      | Bi <sub>2</sub> S <sub>3</sub>                                       | 1345-07-9   | 514.156     | blk-brn orth cry        | 850       |         | 6.78                       |                                     | i H <sub>2</sub> O; s acid                             |
| 430 | Bismuth telluride                    | Bi <sub>2</sub> Te <sub>3</sub>                                      | 1304-82-1   | 800.76      | gray hex plates         | 580       |         | 7.74                       |                                     | i H <sub>2</sub> O; s EtOH                             |
| 431 | Bismuth tribromide                   | BiBr <sub>3</sub>  | 7787-58-8   | 448.692     | yel cub cry             | 219       | 462     | 5.72                       |                                     | reac H <sub>2</sub> O; s dil acid, ace; i EtOH         |
| 432 | Bismuth trichloride                  | BiCl <sub>3</sub>  | 7787-60-2   | 315.339     | col or yel cub cry; hyg | 234       | 441     | 4.75                       |                                     | reac H <sub>2</sub> O; s acid, EtOH, ace               |
| 433 | Bismuth trifluoride                  | BiF <sub>3</sub>   | 7787-61-3   | 265.975     | wh-gray cub cry         | 727       | 900     | 8.3                        |                                     | i H <sub>2</sub> O                                     |
| 434 | Bismuth pentafluoride                | BiF <sub>5</sub>   | 7787-62-4   | 303.972     | wh tetr needles; hyg    | 151.4     | 230     | 5.55                       |                                     | reac H <sub>2</sub> O                                  |
| 435 | Bismuth triiodide                    | BiI <sub>3</sub>   | 7787-64-6   | 589.693     | blk-brn hex cry         | 408.6     | 542     | 5.778                      | 0.00078 <sup>20</sup>               | s EtOH   |
| 436 | Bismuth trimethyl                    | Bi(CH <sub>3</sub> ) <sub>3</sub>                                    | 593-91-9    | 254.083     | col flam liq            | -86       | 110     | 2.3                        |                                     |  |
| 437 | Bismuth titanate                     | Bi <sub>2</sub> (TiO <sub>4</sub> ) <sub>3</sub>                     | 12048-51-0  | 1171.516    | wh orth cry             |           |         | 7.85                       |                                     |  |
| 438 | Bismuth tungstate                    | Bi <sub>2</sub> (WO <sub>4</sub> ) <sub>3</sub>                      | 13595-87-4  | 1161.47     | wh powder               |           |         |                            |                                     |  |
| 439 | Bismuth vanadate                     | BiVO <sub>4</sub>  | 14059-33-7  | 323.920     | orth cry                | trans 500 |         | 6.25                       |                                     | i H <sub>2</sub> O; s acid                             |
| 440 | Bismuth zirconate                    | 2Bi <sub>2</sub> O <sub>3</sub> · 3ZrO <sub>2</sub>                  | 37306-42-6  | 1301.587    | wh pow                  |           |         |                            |                                     |  |
| 441 | Boron                                | B  | 7440-42-8   | 10.811      | blk rhomb cry           | 2075      | 4000    | 2.34                       |                                     | i H <sub>2</sub> O                                     |
| 442 | Diborane                             | B <sub>2</sub> H <sub>6</sub>  | 19287-45-7  | 27.670      | col gas; flam           | -164.85   | -92.49  | 1.131 g/L                  |                                     | reac H <sub>2</sub> O                                  |
| 443 | Tetraborane(10)                      | B <sub>4</sub> H <sub>10</sub>                                       | 18283-93-7  | 53.323      | unstab col gas          | -120      | 18      | 2.180 g/L                  |                                     | reac H <sub>2</sub> O                                  |
| 444 | Pentaborane(9)                       | B <sub>5</sub> H <sub>9</sub>  | 19624-22-7  | 63.126      | flam col liq            | -46.74    | 60.10   | 0.60                       |                                     | reac hot H <sub>2</sub> O                              |
| 445 | Pentaborane(11)                      | B <sub>5</sub> H <sub>11</sub>                                       | 18433-84-6  | 65.142      | col liq; unstab         | -122      | 65      |                            |                                     | reac H <sub>2</sub> O                                  |
| 446 | Hexaborane(10)                       | B <sub>6</sub> H <sub>10</sub>                                       | 23777-80-2  | 74.945      | col liq                 | -62.3     | 108 dec | 0.67                       |                                     | reac hot H <sub>2</sub> O                              |
| 447 | Hexaborane(12)                       | B <sub>6</sub> H <sub>12</sub>                                       | 12008-19-4  | 76.961      | col liq                 | -82.3     | ≈85     |                            |                                     | reac H <sub>2</sub> O                                  |
| 448 | Nonaborane(15)                       | B <sub>9</sub> H <sub>15</sub>                                       | 19465-30-6  | 112.418     | col liq                 | 2.7       |         |                            |                                     |  |
| 449 | Decaborane(14)                       | B <sub>10</sub> H <sub>14</sub>                                      | 17702-41-9  | 122.221     | wh orth cry             | 98.78     | 213     | 0.94                       |                                     | sl H <sub>2</sub> O; s EtOH, bz, CS <sub>2</sub> , ctc |
| 450 | Decaborane(16)                       | B <sub>10</sub> H <sub>16</sub>                                      | 71595-75-0  | 124.237     | col cry                 | ≈81       | dec 170 | subl                       |                                     |  |
| 451 | Dodecaborane(16)                     | B <sub>12</sub> H <sub>16</sub>                                      | 89711-39-7  | 145.859     | col cry                 | 65        |         |                            |                                     | s bz, hx   |
| 452 | Tridecaborane(19)                    | B <sub>13</sub> H <sub>19</sub>                                      | 43093-20-5  | 159.694     | yel cry                 | 44        |         |                            |                                     | s hx, CH <sub>2</sub> Cl <sub>2</sub>                  |
| 453 | Tetradecaborane(18)                  | B <sub>14</sub> H <sub>18</sub>                                      | 55606-55-8  | 169.497     | visc yel oil            |           | dec 100 |                            |                                     | s cyhex, CS <sub>2</sub>                               |
| 454 | Hexadecaborane(20)                   | B <sub>16</sub> H <sub>20</sub>                                      | 28265-11-4  | 193.135     | col cry                 | ≈110      |         |                            |                                     | s ctc, cyhex, thf                                      |
| 455 | Octadecaborane(22)                   | B <sub>18</sub> H <sub>22</sub>                                      | 11071-61-7  | 216.773     | yel cry                 | 180       |         |                            |                                     | s os   |
| 456 | Tetrabromodiborane                   | B <sub>2</sub> Br <sub>4</sub>                                       | 14355-29-4  | 341.238     | col liq                 | ≈1        | dec 20  |                            |                                     |  |
| 457 | Tetrachlorodiborane                  | B <sub>2</sub> Cl <sub>4</sub>                                       | 13701-67-2  | 163.434     | col liq; flam           | -92.6     | 66.5    |                            |                                     | reac H <sub>2</sub> O                                  |

| No. | Name                                  | Formula  | CAS Reg No. | Mol. weight | Physical form             | mp/°C     | bp/°C   | Density g cm <sup>-3</sup> | Solubility g/100 g H <sub>2</sub> O | Qualitative solubility                         |
|-----|---------------------------------------|--|-------------|-------------|---------------------------|-----------|---------|----------------------------|-------------------------------------|--|
| 458 | Tetrafluorodiborane                   | B <sub>2</sub> F <sub>4</sub>  | 13965-73-6  | 97.616      | col gas; flam             | -56       | -34.0   | 3.990 g/L                  |                                     | react H <sub>2</sub> O                         |
| 459 | Borane carbonyl                       | BH <sub>3</sub> CO   | 13205-44-2  | 41.845      | col gas                   | -137      | -64     | 1.710 g/L                  |                                     | react H <sub>2</sub> O                         |
| 460 | Borazine                              | B <sub>3</sub> N <sub>3</sub> H <sub>6</sub>                                       | 6569-51-3   | 80.501      | col liq                   | -58       | 53      | 0.824                      |                                     | react H <sub>2</sub> O                         |
| 461 | Boric acid                            | H <sub>3</sub> BO <sub>3</sub>   | 10043-35-3  | 61.833      | col tricr cry             | 170.9     |         | 1.5                        | 5.80 <sup>25</sup>                  | sl EtOH  |
| 462 | Metaboric acid (α form)               | HBO <sub>2</sub>   | 13460-50-9  | 43.818      | col orth cry; hyg         | 176       |         | 1.784                      |                                     | s H <sub>2</sub> O                             |
| 463 | Metaboric acid (β form)               | HBO <sub>2</sub>   | 13460-50-9  | 43.818      | col monocry; hyg          | 201       |         | 2.045                      |                                     | s H <sub>2</sub> O                             |
| 464 | Metaboric acid (γ form)               | HBO <sub>2</sub>   | 13460-50-9  | 43.818      | col cub cry               | 236       |         | 2.487                      |                                     | s H <sub>2</sub> O                             |
| 465 | Tetrafluoroboric acid                 | HF <sub>4</sub> B  | 16872-11-0  | 87.813      | col liq                   |           | 130 dec | ≈1.8                       |                                     | vs H <sub>2</sub> O, EtOH                      |
| 466 | Boron arsenide                        | BA <sub>s</sub>  | 12005-69-5  | 85.733      | brn cub cry               | 1100 dec  |         | 5.22                       |                                     |  |
| 467 | Boron carbide                         | B <sub>4</sub> C   | 12069-32-8  | 55.255      | hard blk cry              | 2350      | >3500   | 2.50                       |                                     | i H <sub>2</sub> O, acid                       |
| 468 | Boron nitride                         | BN   | 10043-11-5  | 24.818      | wh powder; hex or cub cry | 2967      |         | 2.18                       |                                     | i H <sub>2</sub> O, acid                       |
| 469 | Boron oxide                           | B <sub>2</sub> O <sub>3</sub>  | 1303-86-2   | 69.620      | col gl or hex cry; hyg    | 450       |         | 2.55                       | 2.2 <sup>20</sup>                   | s EtOH   |
| 470 | Boron phosphide                       | BP   | 20205-91-8  | 41.785      | red cub cry or powder     | 1125 dec  |         |                            |                                     | react H <sub>2</sub> O, acid                   |
| 471 | Boron silicide                        | B <sub>6</sub> Si  | 12008-29-6  | 92.952      | blk cry                   | 1980      |         |                            |                                     |  |
| 472 | Boron sulfide                         | B <sub>2</sub> S <sub>3</sub>  | 12007-33-9  | 117.817     | yel amorp solid           | 563       |         | ≈1.7                       |                                     |  |
| 473 | Boron tribromide                      | BB <sub>3</sub>  | 10294-33-4  | 250.523     | col liq; hyg              | -46       | 91.3    | 2.6                        |                                     | react H <sub>2</sub> O, EtOH                   |
| 474 | Boron trichloride                     | BCl <sub>3</sub>   | 10294-34-5  | 117.170     | col liq or gas            | -107.3    | 12.5    | 4.789 g/L                  |                                     | react H <sub>2</sub> O, EtOH                   |
| 475 | Boron trifluoride                     | BF <sub>3</sub>  | 7637-07-2   | 67.806      | col gas                   | -126.8    | -99.9   | 2.772 g/L                  |                                     | s H <sub>2</sub> O                             |
| 476 | Boron trifluoride etherate            | BF <sub>3</sub> (C <sub>2</sub> H <sub>5</sub> ) <sub>2</sub> O                    | 109-63-7    | 141.927     | liq                       | -60.4     | 125.5   | 1.125 <sup>25</sup>        |                                     | react H <sub>2</sub> O; vs eth, EtOH           |
| 477 | Boron triiodide                       | BI <sub>3</sub>  | 13517-10-7  | 391.524     | wh needles                | 49.7      | 209.5   | 3.35                       |                                     | i H <sub>2</sub> O                             |
| 478 | Bromine                               | Br <sub>2</sub>  | 7726-95-6   | 159.808     | red liq                   | -7.2      | 58.8    | 3.1028                     |                                     | sl H <sub>2</sub> O                            |
| 479 | Bromic acid                           | HBrO <sub>3</sub>  | 7789-31-3   | 128.910     | stab only in aq soln      |           |         |                            |                                     | s H <sub>2</sub> O                             |
| 480 | Hypobromous acid                      | HOBr   | 13517-11-8  | 96.911      | exists aq soln            |           |         |                            |                                     | s H <sub>2</sub> O                             |
| 481 | Bromine dioxide                       | BrO <sub>2</sub>   | 21255-83-4  | 111.903     | unstab yel cry            | ≈0 dec    |         |                            |                                     |  |
| 482 | Bromine monoxide                      | Br <sub>2</sub> O  | 21308-80-5  | 175.807     | unstab brn solid          | -17.5 dec |         |                            |                                     |  |
| 483 | Dibromine trioxide                    | Br <sub>2</sub> O <sub>3</sub>   | 53809-75-9  | 207.806     | oran needles (LT)         | dec -40   |         |                            |                                     |  |
| 484 | Dibromine pentoxide                   | Br <sub>2</sub> O <sub>5</sub>   | 58572-43-3  | 239.805     | col cry (low temp)        | -20 dec   |         |                            |                                     |  |
| 485 | Bromine azide                         | BrN <sub>3</sub>   | 13973-87-0  | 121.924     | red cry; exp              | ≈45       | exp     |                            |                                     |  |
| 486 | Bromine chloride                      | BrCl   | 13863-41-7  | 115.357     | dark red liq (<5°C)       | -66       | 5 dec   |                            |                                     | react H <sub>2</sub> O; s eth, CS <sub>2</sub> |
| 487 | Bromine fluoride                      | BrF  | 13863-59-7  | 98.902      | unstab red-brn gas        | ≈-33      | ≈20 dec | 4.043 g/L                  |                                     |  |
| 488 | Bromine trifluoride                   | BrF <sub>3</sub>   | 7787-71-5   | 136.899     | col hyg liq               | 8.77      | 125.8   | 2.803                      |                                     | react H <sub>2</sub> O                         |
| 489 | Bromine pentafluoride                 | BrF <sub>5</sub>   | 7789-30-2   | 174.896     | col liq                   | -60.5     | 41.3    | 2.460                      |                                     | react H <sub>2</sub> O (exp)                   |
| 490 | Bromosyl trifluoride                  | BrOF <sub>3</sub>  | 61519-37-7  | 152.898     | col liq                   | -5        | dec >20 |                            |                                     | react H <sub>2</sub> O                         |
| 491 | Bromyl fluoride                       | BrO <sub>2</sub> F   | 22585-64-4  | 130.901     | col liq                   | -9        | dec 55  |                            |                                     | react H <sub>2</sub> O                         |
| 492 | Perbromyl fluoride                    | BrO <sub>3</sub> F   | 37265-91-1  | 146.900     | col gas                   | -110      | dec 20  |                            |                                     | react H <sub>2</sub> O                         |
| 493 | Cadmium                               | Cd   | 7440-43-9   | 112.411     | silv-wh metal             | 321.069   | 767     | 8.69                       |                                     | i H <sub>2</sub> O; react acid                 |
| 494 | Cadmium acetate                       | Cd(C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> ) <sub>2</sub>                     | 543-90-8    | 230.500     | col cry                   | 255       |         | 2.34                       |                                     | s H <sub>2</sub> O, EtOH                       |
| 495 | Cadmium acetate dihydrate             | Cd(C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> ) <sub>2</sub> · 2H <sub>2</sub> O | 5743-04-4   | 266.529     | wh cry                    | 130 dec   |         | 2.01                       |                                     | vs H <sub>2</sub> O; s EtOH                    |
| 496 | Cadmium antimonide                    | CdSb   | 12014-29-8  | 234.171     | orth cry                  | 456       |         | 6.92                       |                                     |  |
| 497 | Cadmium arsenide                      | Cd <sub>3</sub> As <sub>2</sub>  | 12006-15-4  | 487.076     | gray tetr cry             | 721       |         | 6.25                       |                                     |  |
| 498 | Cadmium azide                         | Cd(N <sub>3</sub> ) <sub>2</sub>   | 14215-29-3  | 196.451     | yel-wh orth cry; exp      |           |         | 3.24                       |                                     |  |
| 499 | Cadmium borotungstate octadecahydrate | Cd <sub>3</sub> (BW <sub>12</sub> O <sub>40</sub> ) · 18H <sub>2</sub> O           | 1306-26-9   | 3743.20     | yel cry                   |           |         |                            |                                     | vs H <sub>2</sub> O                            |
| 500 | Cadmium bromide                       | CdBr <sub>2</sub>  | 7789-42-6   | 272.219     | wh-yel hex cry; hyg       | 568       | 863     | 5.19                       | 115 <sup>25</sup>                   | sl ace, eth                                    |
| 501 | Cadmium bromide tetrahydrate          | CdBr <sub>2</sub> · 4H <sub>2</sub> O  | 13464-92-1  | 344.281     | wh-yel cry                |           |         |                            | 115 <sup>25</sup>                   | s ace, EtOH                                    |
| 502 | Cadmium carbonate                     | CdCO <sub>3</sub>  | 513-78-0    | 172.420     | wh hex cry                | 500 dec   |         | 5.026                      |                                     | i H <sub>2</sub> O; s acid                     |
| 503 | Cadmium chlorate dihydrate            | Cd(ClO <sub>3</sub> ) <sub>2</sub> · 2H <sub>2</sub> O                             | 22750-54-5* | 315.344     | col hyg cry               | 80 dec    |         | 2.28                       | 2.64 <sup>9</sup>                   |  |
| 504 | Cadmium chloride                      | CdCl <sub>2</sub>  | 10108-64-2  | 183.317     | rhomb cry; hyg            | 568       | 964     | 4.08                       | 120 <sup>25</sup>                   | s ace; sl EtOH; i eth                          |
| 505 | Cadmium chloride monohydrate          | CdCl <sub>2</sub> · H <sub>2</sub> O   | 34330-64-8  | 201.332     | wh cry                    |           |         |                            | 120 <sup>25</sup>                   |  |
| 506 | Cadmium chloride hemipentahydrate     | CdCl <sub>2</sub> · 2.5H <sub>2</sub> O  | 7790-78-5   | 228.354     | wh rhomb leaflets         |           |         | 3.327                      | 120 <sup>25</sup>                   | s ace  |
| 507 | Cadmium chromate                      | CdCrO <sub>4</sub>   | 14312-00-6  | 228.405     | yel orth cry              |           |         | 4.5                        |                                     | i H <sub>2</sub> O                             |
| 508 | Cadmium cyanide                       | Cd(CN) <sub>2</sub>  | 542-83-6    | 164.445     | wh cub cry                |           |         | 2.23                       | 1.7 <sup>15</sup>                   |  |
| 509 | Cadmium dichromate monohydrate        | CdCr <sub>2</sub> O <sub>7</sub> · H <sub>2</sub> O                                | 69239-51-6  | 346.414     | oran solid                |           |         |                            |                                     | s H <sub>2</sub> O                             |
| 510 | Cadmium 2-ethylhexanoate              | Cd(C <sub>8</sub> H <sub>15</sub> O <sub>2</sub> ) <sub>2</sub>                    | 2420-98-6   | 398.818     | powder                    |           |         |                            |                                     |  |
| 511 | Cadmium fluoride                      | CdF <sub>2</sub>   | 7790-79-6   | 150.408     | cub cry                   | 1075      | 1750    | 6.33                       | 4.36 <sup>25</sup>                  | s acid; i EtOH                                 |
| 512 | Cadmium hydroxide                     | Cd(OH) <sub>2</sub>  | 21041-95-2  | 146.426     | wh trig or hex cry        | 130 dec   |         | 4.79                       | 0.00015 <sup>20</sup>               | s dil acid                                     |
| 513 | Cadmium iodate                        | Cd(IO <sub>3</sub> ) <sub>2</sub>  | 7790-81-0   | 462.216     | wh powder                 |           |         | 6.48                       | 0.091 <sup>25</sup>                 | s HNO <sub>3</sub>                             |

| No. | Name                            | Formula  | CAS Reg No. | Mol. weight | Physical form             | mp/°C      | bp/°C    | Density g cm <sup>-3</sup> | Solubility g/100 g H <sub>2</sub> O | Qualitative solubility                         |
|-----|---------------------------------|--|-------------|-------------|---------------------------|------------|----------|----------------------------|-------------------------------------|--|
| 514 | Cadmium iodide                  | CdI <sub>2</sub>   | 7790-80-9   | 366.220     | col hex flakes            | 388        | 744      | 5.64                       | 86.2 <sup>25</sup>                  | vs H <sub>2</sub> O; s EtOH, eth, ace          |
| 515 | Cadmium metasilicate            | CdSiO <sub>3</sub>   | 13477-19-5  | 188.495     | grn monocl cry            | 1252       |          | 5.10                       |                                     |  |
| 516 | Cadmium molybdate               | CdMoO <sub>4</sub>   | 13972-68-4  | 272.35      | col tetr cry              | ≈900 dec   |          | 5.4                        |                                     | i H <sub>2</sub> O; s acid                     |
| 517 | Cadmium niobate                 | Cd <sub>2</sub> Nb <sub>2</sub> O <sub>7</sub>   | 12187-14-3  | 522.631     | cub cry                   | ≈1410      |          | 6.28                       |                                     | i H <sub>2</sub> O                             |
| 518 | Cadmium nitrate                 | Cd(NO <sub>3</sub> ) <sub>2</sub>  | 10325-94-7  | 236.420     | wh cub cry; hyg           | 360        |          | 3.6                        | 156 <sup>25</sup>                   | s EtOH   |
| 519 | Cadmium nitrate tetrahydrate    | Cd(NO <sub>3</sub> ) <sub>2</sub> · 4H <sub>2</sub> O  | 10022-68-1  | 308.482     | col orth cry; hyg         | 59.5       |          | 2.45                       | 156 <sup>25</sup>                   | s EtOH, ace                                    |
| 520 | Cadmium oxalate                 | CdC <sub>2</sub> O <sub>4</sub>  | 814-88-0    | 200.430     | wh solid                  |            |          | 3.32                       | 0.0060 <sup>25</sup>                |  |
| 521 | Cadmium oxalate trihydrate      | CdC <sub>2</sub> O <sub>4</sub> · 3H <sub>2</sub> O  | 20712-42-9  | 254.476     | wh amorp powder           | 340 dec    |          |                            | 0.0060 <sup>25</sup>                | i EtOH; s dil acid                             |
| 522 | Cadmium oxide                   | CdO  | 1306-19-0   | 128.410     | brn cub cry               |            | 1559 sp  | 8.15                       |                                     | i H <sub>2</sub> O; s dil acid                 |
| 523 | Cadmium 2,4-pentanedioate       | Cd(CH <sub>3</sub> COCHCOCH <sub>3</sub> ) <sub>2</sub>  | 14689-45-3  | 310.627     | wh solid or red cry       | 235        |          |                            |                                     |  |
| 524 | Cadmium perchlorate hexahydrate | Cd(ClO <sub>4</sub> ) <sub>2</sub> · 6H <sub>2</sub> O   | 10326-28-0  | 419.404     | wh hex cry                |            |          | 2.37                       | 191.5 <sup>25</sup>                 |  |
| 525 | Cadmium phosphate               | Cd <sub>3</sub> (PO <sub>4</sub> ) <sub>2</sub>  | 13477-17-3  | 527.176     | powder                    | ≈1500      |          |                            |                                     | i H <sub>2</sub> O                             |
| 526 | Cadmium phosphide               | Cd <sub>3</sub> P <sub>2</sub>   | 12014-28-7  | 399.181     | grn tetr needles          | 700        |          | 5.96                       |                                     | s dil HCl                                      |
| 527 | Cadmium selenate dihydrate      | CdSeO <sub>4</sub> · 2H <sub>2</sub> O   | 10060-09-0  | 291.40      | orth cry                  | 100 dec    |          | 3.62                       | 70.5 <sup>25</sup>                  |  |
| 528 | Cadmium selenide                | CdSe   | 1306-24-7   | 191.37      | wh cub cry                | 1240       |          | 5.81                       |                                     | i H <sub>2</sub> O                             |
| 529 | Cadmium selenite                | CdSeO <sub>3</sub>   | 13814-59-0  | 239.37      | col prisms                |            |          |                            |                                     |  |
| 530 | Cadmium stearate                | Cd(C <sub>18</sub> H <sub>35</sub> O <sub>2</sub> ) <sub>2</sub>                                 | 22223-93-0  | 679.350     | wh cry pow                | 134        |          | 1.21                       |                                     |  |
| 531 | Cadmium succinate               | CdC <sub>4</sub> H <sub>4</sub> O <sub>4</sub>   | 141-00-4    | 228.484     | wh pow or needles         |            |          |                            | 0.37 <sup>40</sup>                  | sl H <sub>2</sub> O; i EtOH                    |
| 532 | Cadmium sulfate                 | CdSO <sub>4</sub>  | 10124-36-4  | 208.474     | col orth cry              | 1000       |          | 4.69                       | 76.7 <sup>25</sup>                  | i EtOH   |
| 533 | Cadmium sulfate monohydrate     | CdSO <sub>4</sub> · H <sub>2</sub> O   | 7790-84-3   | 226.489     | monocl cry                | 105        |          | 3.79                       | 76.7 <sup>25</sup>                  |  |
| 534 | Cadmium sulfate octahydrate     | CdSO <sub>4</sub> · 8H <sub>2</sub> O  | 15244-35-6  | 352.596     | col monocl cry            | 40 dec     |          | 3.08                       | 76.7 <sup>25</sup>                  |  |
| 535 | Cadmium sulfide                 | CdS  | 1306-23-6   | 144.476     | yel-oran hex cry          | ≈1480      |          | 4.826                      |                                     | i H <sub>2</sub> O; s acid                     |
| 536 | Cadmium sulfite                 | CdSO <sub>3</sub>  | 13477-23-1  | 192.474     | col prisms                | dec ≈400   |          |                            | 0.05 <sup>20</sup>                  | sl H <sub>2</sub> O                            |
| 537 | Cadmium telluride               | CdTe   | 1306-25-8   | 240.01      | brn-blk cub cry           | 1042       |          | 6.2                        |                                     | i H <sub>2</sub> O, dil acid                   |
| 538 | Cadmium tellurite               | CdTeO <sub>3</sub>   | 15851-44-2  | 288.01      | col monocl cry            | 695        | dec 1050 |                            |                                     |  |
| 539 | Cadmium tetrafluoroborate       | Cd(BF <sub>4</sub> ) <sub>2</sub>  | 14486-19-2  | 286.020     | col hyg liq               |            |          | 1.6                        |                                     | vs H <sub>2</sub> O, EtOH                      |
| 540 | Cadmium titanate                | CdTiO <sub>3</sub>   | 12014-14-1  | 208.276     | orth cry                  |            |          | 6.5                        |                                     |  |
| 541 | Cadmium tungstate               | CdWO <sub>4</sub>  | 7790-85-4   | 360.25      | wh monocl cry             |            |          | 8.0                        |                                     | i H <sub>2</sub> O, acid; s NH <sub>4</sub> OH |
| 542 | Calcium                         | Ca   | 7440-70-2   | 40.078      | silv-wh metal             | 842        | 1484     | 1.54                       |                                     | reac H <sub>2</sub> O; i bz                    |
| 543 | Calcium acetate                 | Ca(C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> ) <sub>2</sub>                                   | 62-54-4     | 158.167     | wh hyg cry                | 160 dec    |          | 1.50                       |                                     | s H <sub>2</sub> O; sl EtOH                    |
| 544 | Calcium acetate monohydrate     | Ca(C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> ) <sub>2</sub> · H <sub>2</sub> O                | 5743-26-0   | 176.182     | wh needles or powder      | ≈150 dec   |          |                            |                                     | s H <sub>2</sub> O; sl EtOH                    |
| 545 | Calcium acetate dihydrate       | Ca(C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> ) <sub>2</sub> · 2H <sub>2</sub> O               | 14977-17-4  | 194.196     | long col needles          |            |          |                            |                                     | s H <sub>2</sub> O                             |
| 546 | Calcium aluminate               | CaAl <sub>2</sub> O <sub>4</sub>   | 12042-68-1  | 158.039     | wh monocl cry             | 1605       |          | 2.98                       |                                     | reac H <sub>2</sub> O                          |
| 547 | Calcium aluminate (β form)      | Ca <sub>2</sub> Al <sub>2</sub> O <sub>5</sub>   | 12042-78-3  | 270.193     | wh cub cry; refr          | 1535       |          | 3.04                       |                                     | i H <sub>2</sub> O                             |
| 548 | Calcium arsenate                | Ca <sub>3</sub> (AsO <sub>4</sub> ) <sub>2</sub>   | 7778-44-1   | 398.072     | wh powder                 | dec        |          | 3.6                        | 0.0036 <sup>20</sup>                | s dil acid                                     |
| 549 | Calcium arsenite (1:1)          | CaAsO <sub>3</sub>   | 52740-16-6  | 162.998     | wh powder                 |            |          |                            |                                     | sl H <sub>2</sub> O; s acid                    |
| 550 | Calcium borate hexahydrate      | CaB <sub>3</sub> O <sub>7</sub> · 6H <sub>2</sub> O  | 13701-64-9* | 303.409     | wh cry pow                | 1162 (anh) |          |                            |                                     |  |
| 551 | Calcium boride                  | CaB <sub>6</sub>   | 12007-99-7  | 104.944     | refrac solid              | 2235       |          | 2.49                       |                                     |  |
| 552 | Calcium bromate                 | Ca(BrO <sub>3</sub> ) <sub>2</sub>   | 10102-75-7  | 295.882     | wh pow                    | 180        |          |                            |                                     |  |
| 553 | Calcium bromate monohydrate     | Ca(BrO <sub>3</sub> ) <sub>2</sub> · H <sub>2</sub> O  | 10102-75-7* | 313.898     | wh monocl cry             | dec 180    |          | 3.33                       |                                     | vs H <sub>2</sub> O                            |
| 554 | Calcium bromide                 | CaBr <sub>2</sub>  | 7789-41-5   | 199.886     | rhom cry; hyg             | 742        | 1815     | 3.38                       | 156 <sup>25</sup>                   | s EtOH, ace                                    |
| 555 | Calcium bromide dihydrate       | CaBr <sub>2</sub> · 2H <sub>2</sub> O  | 22208-73-7  | 235.917     | wh cry pow                |            |          |                            |                                     | vs H <sub>2</sub> O                            |
| 556 | Calcium bromide hexahydrate     | CaBr <sub>2</sub> · 6H <sub>2</sub> O  | 13477-28-6  | 307.977     | wh hyg powder             | 38 dec     |          | 2.29                       | 156 <sup>25</sup>                   |  |
| 557 | Calcium carbide                 | CaC <sub>2</sub>   | 75-20-7     | 64.099      | gray-blk orth cry         | 2300       |          | 2.22                       |                                     | reac H <sub>2</sub> O                          |
| 558 | Calcium carbonate (aragonite)   | CaCO <sub>3</sub>  | 471-34-1    | 100.087     | wh orth cry or powder     | 825 dec    |          | 2.930                      | 0.00066 <sup>20</sup>               | s dil acid                                     |
| 559 | Calcium carbonate (calcite)     | CaCO <sub>3</sub>  | 471-34-1    | 100.087     | wh hex cry or powder      | 1330       |          | 2.710                      | 0.00066 <sup>20</sup>               | s dil acid                                     |
| 560 | Calcium carbonate (vaterite)    | CaCO <sub>3</sub>  | 471-34-1    | 100.087     | col hex cry               |            |          | 2.653                      | 0.0011 <sup>25</sup>                | s dil acid                                     |
| 561 | Calcium chlorate                | Ca(ClO <sub>3</sub> ) <sub>2</sub>   | 10137-74-3  | 206.980     | wh cry                    | 340        |          |                            | 197 <sup>25</sup>                   |  |
| 562 | Calcium chlorate dihydrate      | Ca(ClO <sub>3</sub> ) <sub>2</sub> · 2H <sub>2</sub> O   | 10035-05-9  | 243.011     | wh monocl cry; hyg        | 100 dec    |          | 2.711                      | 197 <sup>25</sup>                   | s EtOH   |
| 563 | Calcium chloride                | CaCl <sub>2</sub>  | 10043-52-4  | 110.984     | wh cub cry or powder; hyg | 775        | 1935     | 2.15                       | 81.3 <sup>25</sup>                  | vs EtOH  |
| 564 | Calcium chloride monohydrate    | CaCl <sub>2</sub> · H <sub>2</sub> O   | 13477-29-7  | 128.999     | wh hyg cry                | 260 dec    |          | 2.24                       | 81.3 <sup>25</sup>                  | s EtOH   |
| 565 | Calcium chloride dihydrate      | CaCl <sub>2</sub> · 2H <sub>2</sub> O  | 10035-04-8  | 147.015     | hyg flakes or powder      | 175 dec    |          | 1.85                       | 81.3 <sup>25</sup>                  | vs EtOH  |
| 566 | Calcium chloride tetrahydrate   | CaCl <sub>2</sub> · 4H <sub>2</sub> O  | 25094-02-4  | 183.046     | col tricl cry             |            |          | 1.83                       |                                     |  |
| 567 | Calcium chloride hexahydrate    | CaCl <sub>2</sub> · 6H <sub>2</sub> O  | 7774-34-7   | 219.075     | wh hex cry; hyg           | 30 dec     |          | 1.71                       | 81.3 <sup>25</sup>                  |  |
| 568 | Calcium chlorite                | Ca(ClO <sub>2</sub> ) <sub>2</sub>   | 14674-72-7  | 174.982     | wh cub cry                |            |          | 2.71                       |                                     | reac H <sub>2</sub> O                          |
| 569 | Calcium chromate                | CaCrO <sub>4</sub>   | 13765-19-0  | 156.072     | yel cry                   | 1000 dec   |          |                            |                                     | sl H <sub>2</sub> O; i EtOH, ace               |
| 570 | Calcium chromate dihydrate      | CaCrO <sub>4</sub> · 2H <sub>2</sub> O   | 10060-08-9  | 192.102     | yel orth cry              | dec 200    |          | 2.50                       | 13.2 <sup>20</sup>                  | s dil acids                                    |
| 571 | Calcium citrate tetrahydrate    | Ca <sub>3</sub> (C <sub>6</sub> H <sub>5</sub> O <sub>7</sub> ) <sub>2</sub> · 4H <sub>2</sub> O | 5785-44-4   | 570.494     | wh needles or pow         | dec 100    |          |                            | 0.096 <sup>23</sup>                 | i eth  |
| 572 | Calcium cyanamide               | CaCN <sub>2</sub>  | 156-62-7    | 80.102      | col hex cry               | ≈1340      | subl     | 2.29                       |                                     | reac H <sub>2</sub> O                          |
| 573 | Calcium cyanide                 | Ca(CN) <sub>2</sub>  | 592-01-8    | 92.112      | wh rhomb cry; hyg         |            |          |                            |                                     | s H <sub>2</sub> O, EtOH                       |

| No. | Name                                     | Formula   | CAS Reg No. | Mol. weight | Physical form            | mp/°C         | bp/°C | Density g cm <sup>-3</sup> | Solubility g/100 g H <sub>2</sub> O | Qualitative solubility                       |
|-----|--|---|-------------|-------------|--------------------------|---------------|-------|----------------------------|-------------------------------------|--|
| 574 | Calcium dichromate trihydrate            | CaCr <sub>2</sub> O <sub>7</sub> · 3H <sub>2</sub> O                | 14307-33-6* | 310.112     | red-oran cry             | 100 dec       |       | 2.37                       |                                     | vs H <sub>2</sub> O; reac EtOH; i eth, ctc   |
| 575 | Calcium dihydrogen phosphate monohydrate | Ca(H <sub>2</sub> PO <sub>4</sub> ) <sub>2</sub> · H <sub>2</sub> O | 10031-30-8  | 252.068     | col tricl plates         | 100 dec       |       | 2.220                      |                                     | sl H <sub>2</sub> O; s dil acid              |
| 576 | Calcium 2-ethylhexanoate                 | Ca(C <sub>8</sub> H <sub>16</sub> O <sub>2</sub> ) <sub>2</sub>     | 136-51-6    | 326.485     | powder                   |               |       |                            |                                     |  |
| 577 | Calcium ferrocyanide dodecahydrate       | Ca <sub>2</sub> Fe(CN) <sub>6</sub> · 12H <sub>2</sub> O            |             | 508.289     | yel tricl cry            | dec           |       | 1.68                       | 87 <sup>25</sup>                    | vs H <sub>2</sub> O; i EtOH                  |
| 578 | Calcium fluoride                         | CaF <sub>2</sub>  | 7789-75-5   | 78.075      | wh cub cry or powder     | 1418          | 2500  | 3.18                       | 0.0016 <sup>25</sup>                | sl acid                                      |
| 579 | Calcium fluorophosphate                  | Ca <sub>3</sub> (PO <sub>4</sub> ) <sub>3</sub> F                   | 12015-73-5  | 504.302     | col hex cry              | 1650          |       | 3.201                      |                                     | i H <sub>2</sub> O                           |
| 580 | Calcium fluorophosphate dihydrate        | CaPO <sub>3</sub> F · 2H <sub>2</sub> O                             | 37809-19-1  | 174.079     | col monocl cry           |               |       |                            | 0.42 <sup>27</sup>                  | i os   |
| 581 | Calcium formate                          | Ca(CHO <sub>2</sub> ) <sub>2</sub>                                  | 544-17-2    | 130.113     | orth cry                 | 300 dec       |       | 2.02                       | 16.6 <sup>20</sup>                  | i EtOH                                       |
| 582 | Calcium hexaborate pentahydrate          | 2CaO · 3B <sub>2</sub> O <sub>3</sub> · 5H <sub>2</sub> O           | 12291-65-5  | 411.091     | col monocl cry           | dec 375 (exp) |       | 2.42                       | 1 <sup>25</sup>                     | sl acid                                      |
| 583 | Calcium hexafluoro-2,4-pentanedioate     | Ca(CF <sub>3</sub> COCHCOCF <sub>3</sub> ) <sub>2</sub>             | 121012-90-6 | 454.180     | powder                   | 135           |       |                            |                                     |  |
| 584 | Calcium hexafluorosilicate dihydrate     | CaSiF <sub>6</sub> · 2H <sub>2</sub> O                              | 16925-39-6  | 218.185     | col tetr cry             |               |       | 2.25                       | 0.52 <sup>20</sup>                  | i ace; reac hot H <sub>2</sub> O             |
| 585 | Calcium hydride                          | CaH <sub>2</sub>  | 7789-78-8   | 42.094      | gray orth cry or powder  | 1000          |       | 1.7                        |                                     | reac H <sub>2</sub> O, EtOH                  |
| 586 | Calcium hydrogen phosphate               | CaHPO <sub>4</sub>  | 7757-93-9   | 136.057     | wh tricl cry             | dec           |       | 2.92                       | 0.02 <sup>25</sup>                  | i EtOH                                       |
| 587 | Calcium hydrogen phosphate dihydrate     | CaHPO <sub>4</sub> · 2H <sub>2</sub> O                              | 7789-77-7   | 172.088     | monocl cry               | ~100 dec      |       | 2.31                       | 0.02 <sup>25</sup>                  | i EtOH; s dil acid                           |
| 588 | Calcium hydrogen sulfite                 | CaH <sub>2</sub> (SO <sub>3</sub> ) <sub>2</sub>                    | 13780-03-5  | 202.220     |                          |               |       | 1.06                       |                                     | s H <sub>2</sub> O                           |
| 589 | Calcium hydrosulfide hexahydrate         | Ca(HS) <sub>2</sub> · 6H <sub>2</sub> O                             |             | 214.315     | col cry                  | dec           |       |                            |                                     | s H <sub>2</sub> O, EtOH                     |
| 590 | Calcium hydroxide                        | Ca(OH) <sub>2</sub>   | 1305-62-0   | 74.093      | soft hex cry             |               |       | ~2.2                       | 0.160 <sup>20</sup>                 | s acid                                       |
| 591 | Calcium hydroxide phosphate              | Ca <sub>3</sub> (OH)(PO <sub>4</sub> ) <sub>3</sub>                 | 12167-74-7  | 502.311     | col hex cry              | dec >900      |       | 3.155                      |                                     | i H <sub>2</sub> O                           |
| 592 | Calcium hypochlorite                     | Ca(OCl) <sub>2</sub>  | 7778-54-3   | 142.983     | powder                   | 100           |       | 2.350                      |                                     |  |
| 593 | Calcium hypophosphite                    | Ca(H <sub>2</sub> PO <sub>2</sub> ) <sub>2</sub>                    | 7789-79-9   | 170.055     | wh monocl cry            | 300 dec       |       |                            |                                     | s H <sub>2</sub> O; i EtOH                   |
| 594 | Calcium iodate                           | Ca(IO <sub>3</sub> ) <sub>2</sub>                                   | 7789-80-2   | 389.883     | wh monocl cry            |               |       | 4.52                       | 0.306 <sup>25</sup>                 | s HNO <sub>3</sub> ; i EtOH                  |
| 595 | Calcium iodide                           | CaI <sub>2</sub>  | 10102-68-8  | 293.887     | hyg hex cry              | 783           | 1100  | 3.96                       | 215 <sup>25</sup>                   | s MeOH, EtOH, ace; i eth                     |
| 596 | Calcium iodide hexahydrate               | CaI <sub>2</sub> · 6H <sub>2</sub> O                                | 71626-98-7  | 401.978     | wh hex needles or powder | 42 dec        |       | 2.55                       | 215 <sup>25</sup>                   | vs EtOH                                      |
| 597 | Calcium metaborate                       | Ca(BO <sub>2</sub> ) <sub>2</sub>                                   | 13701-64-9  | 125.698     | powder                   |               |       |                            | 0.13 <sup>20</sup>                  |  |
| 598 | Calcium metasilicate                     | CaSiO <sub>3</sub>  | 1344-95-2   | 116.162     | wh monocl cry            | 1540          |       | 2.92                       |                                     | i H <sub>2</sub> O                           |
| 599 | Calcium molybdate                        | CaMoO <sub>4</sub>  | 7789-82-4   | 200.02      | wh tetr cry              | 1520          |       | 4.35                       | 0.0011 <sup>20</sup>                | i EtOH; s conc acid                          |
| 600 | Calcium nitrate                          | Ca(NO <sub>3</sub> ) <sub>2</sub>                                   | 10124-37-5  | 164.087     | wh cub cry; hyg          | 561           |       | 2.5                        | 144 <sup>25</sup>                   | s EtOH, MeOH, ace                            |
| 601 | Calcium nitrate tetrahydrate             | Ca(NO <sub>3</sub> ) <sub>2</sub> · 4H <sub>2</sub> O               | 13477-34-4  | 236.149     | wh cry                   | ~40 dec       |       | 1.82                       | 144 <sup>25</sup>                   | s EtOH, ace                                  |
| 602 | Calcium nitride                          | Ca <sub>3</sub> N <sub>2</sub>                                      | 12013-82-0  | 148.247     | red-brn cub cry          | 1195          |       | 2.67                       |                                     | s H <sub>2</sub> O, acid; i EtOH             |
| 603 | Calcium nitrite                          | Ca(NO <sub>2</sub> ) <sub>2</sub>                                   | 13780-06-8  | 132.089     | wh-yel hex cry; hyg      | 392           |       | 2.23                       | 94.6 <sup>25</sup>                  | sl EtOH                                      |
| 604 | Calcium nitrite monohydrate              | Ca(NO <sub>2</sub> ) <sub>2</sub> · H <sub>2</sub> O                | 10031-34-2  | 150.104     | col or yel cry           | dec 100       |       |                            |                                     | vs H <sub>2</sub> O; sl EtOH                 |
| 605 | Calcium oleate                           | Ca(C <sub>18</sub> H <sub>33</sub> O <sub>2</sub> ) <sub>2</sub>    | 142-17-6    | 602.985     | pale yel solid           | dec 140       |       |                            | 0.04 <sup>25</sup>                  | sl H <sub>2</sub> O; s bz; i EtOH, ace, eth  |
| 606 | Calcium oxalate                          | CaC <sub>2</sub> O <sub>4</sub>                                     | 563-72-4    | 128.097     | wh cry powder            |               |       | 2.2                        | 0.00061 <sup>20</sup>               |  |
| 607 | Calcium oxalate monohydrate              | CaC <sub>2</sub> O <sub>4</sub> · H <sub>2</sub> O                  | 5794-28-5   | 146.112     | cub cry                  | 200 dec       |       | 2.2                        | 0.00061 <sup>20</sup>               | s dil acid                                   |
| 608 | Calcium oxide                            | CaO   | 1305-78-8   | 56.077      | gray-wh cub cry          | 2613          |       | 3.34                       |                                     | reac H <sub>2</sub> O; s acid                |
| 609 | Calcium oxide silicate                   | Ca <sub>3</sub> OSiO <sub>4</sub>                                   | 12168-85-3  | 228.317     | refrac solid             | 2150          |       |                            |                                     |  |
| 610 | Calcium palmitate                        | Ca(C <sub>16</sub> H <sub>31</sub> O <sub>2</sub> ) <sub>2</sub>    | 542-42-7    | 550.910     | wh-yel pow               | dec 155       |       |                            |                                     | i H <sub>2</sub> O, EtOH, eth, ace; sl bz    |
| 611 | Calcium perborate heptahydrate           | Ca(BO <sub>2</sub> ) <sub>2</sub> · 7H <sub>2</sub> O               |             | 283.803     | gray-wh pow              |               |       |                            |                                     | s H <sub>2</sub> O, acid                     |
| 612 | Calcium 2,4-pentanedioate                | Ca(CH <sub>3</sub> COCHCOCH <sub>3</sub> ) <sub>2</sub>             | 19372-44-2  | 238.294     | cry                      | dec 175       |       |                            |                                     |  |
| 613 | Calcium perchlorate                      | Ca(ClO <sub>4</sub> ) <sub>2</sub>                                  | 13477-36-6  | 238.979     | wh cry                   | 270 dec       |       | 2.65                       | 188 <sup>25</sup>                   | s EtOH, MeOH                                 |
| 614 | Calcium perchlorate tetrahydrate         | Ca(ClO <sub>4</sub> ) <sub>2</sub> · 4H <sub>2</sub> O              | 15627-86-8  | 311.041     | wh cry                   |               |       |                            |                                     | vs H <sub>2</sub> O                          |
| 615 | Calcium permanganate                     | Ca(MnO <sub>4</sub> ) <sub>2</sub>                                  | 10118-76-0  | 277.949     | purp hyg cry             |               |       | 2.4                        | 331 <sup>20</sup>                   | reac EtOH                                    |
| 616 | Calcium peroxide                         | CaO <sub>2</sub>  | 1305-79-9   | 72.077      | wh-yel tetr cry; hyg     | ~200 dec      |       | 2.9                        |                                     | sl H <sub>2</sub> O; s acid                  |
| 617 | Calcium phosphate                        | Ca <sub>3</sub> (PO <sub>4</sub> ) <sub>2</sub>                     | 7758-87-4   | 310.177     | wh amorp powder          | 1670          |       | 3.14                       | 0.00012 <sup>20</sup>               | i EtOH; s dil acid                           |
| 618 | Calcium phosphide                        | Ca <sub>3</sub> P <sub>2</sub>                                      | 1305-99-3   | 182.182     | red-brn hyg cry          | ~1600         |       | 2.51                       |                                     | reac H <sub>2</sub> O; i EtOH, eth           |
| 619 | Calcium phosphonate monohydrate          | CaHPO <sub>3</sub> · H <sub>2</sub> O                               | 25232-60-4  | 138.073     | col monocl cry           | dec 150       |       |                            |                                     | sl H <sub>2</sub> O; i EtOH                  |
| 620 | Calcium plumbate                         | Ca <sub>3</sub> PbO <sub>4</sub>                                    | 12013-69-3  | 351.4       | oran-brn orth cry        | dec           |       | 5.71                       |                                     | i H <sub>2</sub> O; s acid                   |
| 621 | Calcium propanoate                       | Ca(C <sub>3</sub> H <sub>5</sub> O <sub>2</sub> ) <sub>2</sub>      | 4075-81-4   | 186.219     | monocl cry, powder       |               |       |                            |                                     | s H <sub>2</sub> O; sl MeOH, EtOH; i ace, bz |
| 622 | Calcium pyrophosphate                    | Ca <sub>2</sub> P <sub>2</sub> O <sub>7</sub>                       | 7790-76-3   | 254.099     | wh powder                | 1353          |       | 3.09                       |                                     | i H <sub>2</sub> O; s dil acid               |
| 623 | Calcium selenate dihydrate               | CaSeO <sub>4</sub> · 2H <sub>2</sub> O                              | 7790-74-1   | 219.07      | wh monocl cry            |               |       | 2.75                       | 8.3 <sup>18</sup>                   |  |
| 624 | Calcium selenide                         | CaSe  | 1305-84-6   | 119.04      | wh-brn cub cry           | 1400 dec      |       | 3.8                        |                                     | reac H <sub>2</sub> O                        |
| 625 | Calcium silicide (CaSi)                  | CaSi  | 12013-55-7  | 68.164      | orth cry                 | 1324          |       | 2.39                       |                                     |  |

| No. | Name                                      | Formula   | CAS Reg No. | Mol. weight | Physical form          | mp/°C              | bp/°C      | Density g cm <sup>-3</sup> | Solubility g/100 g H <sub>2</sub> O | Qualitative solubility                                     |
|-----|---|---|-------------|-------------|------------------------|--------------------|------------|----------------------------|-------------------------------------|--|
| 626 | Calcium silicide (CaSi <sub>2</sub> )     | CaSi <sub>2</sub>   | 12013-56-8  | 96.249      | gray hex cry           | 1040               |            | 2.50                       |                                     | i cold H <sub>2</sub> O; reac hot H <sub>2</sub> O; s acid |
| 627 | Calcium stannate trihydrate               | CaSnO <sub>3</sub> · 3H <sub>2</sub> O  | 12013-46-6* | 260.832     | wh cry pow             | dec ~350           |            |                            |                                     | i H <sub>2</sub> O   |
| 628 | Calcium stearate                          | Ca(C <sub>18</sub> H <sub>35</sub> O <sub>2</sub> ) <sub>2</sub>                      | 1592-23-0   | 607.017     | granular powder        | 180                |            |                            |                                     | i H <sub>2</sub> O, EtOH                                   |
| 629 | Calcium succinate trihydrate              | CaC <sub>4</sub> H <sub>4</sub> O <sub>4</sub> · 3H <sub>2</sub> O                    | 140-99-8    | 210.196     | needles                |                    |            |                            |                                     | sl H <sub>2</sub> O; s dil acid; i EtOH                    |
| 630 | Calcium sulfate                           | CaSO <sub>4</sub>   | 7778-18-9   | 136.141     | orth cry               | 1460               |            | 2.96                       | 0.205 <sup>25</sup>                 |  |
| 631 | Calcium sulfate hemihydrate               | CaSO <sub>4</sub> · 0.5H <sub>2</sub> O   | 10034-76-1  | 145.149     | wh powder              |                    |            |                            | 0.205 <sup>25</sup>                 |  |
| 632 | Calcium sulfate dihydrate                 | CaSO <sub>4</sub> · 2H <sub>2</sub> O   | 10101-41-4  | 172.171     | monocl cry or powder   | 150 dec            |            | 2.32                       | 0.205 <sup>20</sup>                 | i os   |
| 633 | Calcium sulfide                           | CaS   | 20548-54-3  | 72.143      | wh-yel cub cry; hyg    | 2524               |            | 2.59                       |                                     | sl H <sub>2</sub> O; i EtOH                                |
| 634 | Calcium sulfite dihydrate                 | CaSO <sub>3</sub> · 2H <sub>2</sub> O   | 10257-55-3  | 156.172     | wh powder              |                    |            |                            | 0.0070 <sup>25</sup>                | sl EtOH; s acid  |
| 635 | Calcium tartrate tetrahydrate             | CaC <sub>4</sub> H <sub>4</sub> O <sub>6</sub> · 4H <sub>2</sub> O                    | 3164-34-9*  | 260.210     | wh pow                 |                    |            |                            | 0.04 <sup>10</sup>                  | s dil acid; sl EtOH  |
| 636 | Calcium telluride                         | CaTe  | 12013-57-9  | 167.68      | wh cub cry             | 1600 dec           |            | 4.87                       |                                     |  |
| 637 | Calcium tetrahydroaluminate               | Ca(AlH <sub>4</sub> ) <sub>2</sub>  | 16941-10-9  | 102.105     | gray powder; flam      |                    |            |                            |                                     | reac H <sub>2</sub> O; s thf; i eth, bz                    |
| 638 | Calcium thiocyanate tetrahydrate          | Ca(SCN) <sub>2</sub> · 4H <sub>2</sub> O  | 2092-16-2   | 228.304     | hyg cry                | 160 dec            |            |                            |                                     | vs H <sub>2</sub> O; s EtOH, ace                           |
| 639 | Calcium thiosulfate hexahydrate           | CaS <sub>2</sub> O <sub>3</sub> · 6H <sub>2</sub> O                                   | 10124-41-1  | 260.298     | tricl cry              | 45 dec             |            | 1.87                       |                                     | s H <sub>2</sub> O; i EtOH                                 |
| 640 | Calcium titanate                          | CaTiO <sub>3</sub>  | 12049-50-2  | 135.943     | cub cry                | 1980               |            | 3.98                       |                                     |  |
| 641 | Calcium tungstate                         | CaWO <sub>4</sub>   | 7790-75-2   | 287.92      | wh tetra cry           | 1620               |            | 6.06                       | 0.2 <sup>18</sup>                   | s hot acid   |
| 642 | Calcium zirconate                         | CaZrO <sub>3</sub>  | 12013-47-7  | 179.300     | powder                 | 2550               |            |                            |                                     |  |
| 643 | Californium                               | Cf  | 7440-71-3   | 251         | hex or cub metal       | 900                |            | 15.1                       |                                     |  |
| 644 | Carbon (diamond)                          | C   | 7782-40-3   | 12.011      | col cub cry            | 4440 (12.4 GPa)    |            | 3.513                      |                                     | i H <sub>2</sub> O   |
| 645 | Carbon (graphite)                         | C   | 7782-42-5   | 12.011      | soft blk hex cry       | 4489 tp (10.3 MPa) | 3825 sp    | 2.2                        |                                     | i H <sub>2</sub> O   |
| 646 | Carbon black                              | C   | 1333-86-4   | 12.011      | fine blk pow           |                    |            |                            |                                     | i H <sub>2</sub> O   |
| 647 | Carbon (fullerene-C <sub>60</sub> )       | C <sub>60</sub>   | 99685-96-8  | 720.642     | yel needles or plates  | >280               |            |                            |                                     | s os   |
| 648 | Carbon (fullerene-C <sub>70</sub> )       | C <sub>70</sub>   | 115383-22-7 | 840.749     | red-brn solid          | >280               |            |                            |                                     | s bz, tol  |
| 649 | Fullerene fluoride                        | C <sub>60</sub> F <sub>60</sub>   | 134929-59-2 | 1860.546    | col plates             | 287                |            |                            |                                     | vs ace; s thf; i chl                                       |
| 650 | Carbon monoxide                           | CO  | 630-08-0    | 28.010      | col gas                | -205.02            | -191.5     | 1.145 g/L                  |                                     | sl H <sub>2</sub> O; s chl, EtOH                           |
| 651 | Carbon dioxide                            | CO <sub>2</sub>   | 124-38-9    | 44.010      | col gas                | -56.558 tp         | -78.464 sp | 1.799 g/L                  |                                     | s H <sub>2</sub> O   |
| 652 | Carbon suboxide                           | C <sub>3</sub> O <sub>2</sub>   | 504-64-3    | 68.031      | col gas                | -112.5             | 6.8        | 2.781 g/L                  |                                     | reac H <sub>2</sub> O                                      |
| 653 | Carbon disulfide                          | CS <sub>2</sub>   | 75-15-0     | 76.141      | col or yel liq         | -112.1             | 46         | 1.2632 <sup>20</sup>       |                                     | i H <sub>2</sub> O; vs EtOH, bz, os                        |
| 654 | Carbon subsulfide                         | C <sub>3</sub> S <sub>2</sub>   | 627-34-9    | 100.162     | red liq                | -1                 | 90 dec     | 1.27                       |                                     | reac H <sub>2</sub> O                                      |
| 655 | Carbon diselenide                         | CSe <sub>2</sub>  | 506-80-9    | 169.93      | yel liq                | -43.7              | 125.5      | 2.6823 <sup>20</sup>       |                                     | i H <sub>2</sub> O; vs ctc, tol                            |
| 656 | Carbon oxysulfide                         | COS   | 463-58-1    | 60.075      | col gas                | -138.8             | -50        | 2.456 g/L                  |                                     | s H <sub>2</sub> O, EtOH                                   |
| 657 | Carbon oxyselenide                        | COSe  | 1603-84-5   | 106.97      | col gas; unstab        | -124.4             | -21.7      | 4.372 g/L                  |                                     | reac H <sub>2</sub> O                                      |
| 658 | Carbon sulfide selenide                   | CSSe  | 5951-19-9   | 123.04      | yel liq                | -85                | 84.5       | 1.99                       |                                     | i H <sub>2</sub> O   |
| 659 | Carbon sulfide telluride                  | CS <sub>2</sub> Te  | 10340-06-4  | 171.68      | red-yel liq; unstab    | -54                | 20 dec     |                            |                                     | reac H <sub>2</sub> O                                      |
| 660 | Carbonyl bromide                          | COBr <sub>2</sub>   | 593-95-3    | 187.818     | col liq                |                    | 64.5       | 2.5                        |                                     | reac H <sub>2</sub> O                                      |
| 661 | Carbonyl chloride                         | COCl <sub>2</sub>   | 75-44-5     | 98.916      | col gas                | -127.78            | 8          | 4.043 g/L                  |                                     | sl H <sub>2</sub> O; s bz, tol                             |
| 662 | Carbonyl fluoride                         | COF <sub>2</sub>  | 353-50-4    | 66.007      | col gas                | -111.26            | -84.57     | 2.698 g/L                  |                                     | reac H <sub>2</sub> O                                      |
| 663 | Cyanogen                                  | C <sub>2</sub> N <sub>2</sub>   | 460-19-5    | 52.034      | col gas                | -27.83             | -21.1      | 2.127 g/L                  |                                     | sl H <sub>2</sub> O; eth; s EtOH                           |
| 664 | Cyanogen azide                            | N <sub>3</sub> CN   | 764-05-6    | 68.038      | col oily liq           | exp                |            |                            |                                     |  |
| 665 | Cyanogen bromide                          | BrCN  | 506-68-3    | 105.922     | wh hyg needles         | 52                 | 61.5       | 2.015                      |                                     | s H <sub>2</sub> O, EtOH, eth                              |
| 666 | Cyanogen chloride                         | CICN  | 506-77-4    | 61.471      | col vol liq or gas     | -6.55              | 13         | 2.513 g/L                  |                                     | s H <sub>2</sub> O, EtOH, eth                              |
| 667 | Cyanogen fluoride                         | FCN   | 1495-50-7   | 45.016      | col gas                | -82                | -46        | 1.840 g/L                  |                                     |  |
| 668 | Cyanogen iodide                           | ICN   | 506-78-5    | 152.922     | col needles            | 146.7              |            | 2.84                       |                                     | s H <sub>2</sub> O, EtOH, eth                              |
| 669 | Cerium                                    | Ce  | 7440-45-1   | 140.116     | silv metal; cub or hex | 799                | 3443       | 6.770                      |                                     | s dil acid   |
| 670 | Cerium boride                             | CeB <sub>6</sub>  | 12008-02-5  | 204.982     | blue refrac solid; hex | 2550               |            | 4.87                       |                                     | i H <sub>2</sub> O, HCl                                    |
| 671 | Cerium carbide                            | CeC <sub>2</sub>  | 12012-32-7  | 164.137     | red hex cry            | 2250               |            | 5.47                       |                                     | reac H <sub>2</sub> O                                      |
| 672 | Cerium carbide                            | Ce <sub>3</sub> C <sub>3</sub>  | 12115-63-8  | 316.264     | yel-brn cub cry        | 1505               |            | 6.9                        |                                     |  |
| 673 | Cerium nitride                            | CeN   | 25764-08-3  | 154.123     | refrac cub cry         | 2557               |            | 7.89                       |                                     |  |
| 674 | Cerium silicide                           | CeSi <sub>2</sub>   | 12014-85-6  | 196.287     | tetr cry               | 1420               |            | 5.31                       |                                     | i H <sub>2</sub> O   |
| 675 | Cerium(II) hydride                        | CeH <sub>2</sub>  | 13569-50-1  | 142.132     | cub cry                |                    |            | 5.45                       |                                     | reac H <sub>2</sub> O                                      |
| 676 | Cerium(II) iodide                         | CeI <sub>2</sub>  | 19139-47-0  | 393.925     | bronze cry             | 808                |            |                            |                                     |  |
| 677 | Cerium(II) sulfide                        | CeS   | 12014-82-3  | 172.181     | yel cub cry            | 2445               |            | 5.9                        |                                     |  |
| 678 | Cerium(III) acetate sesquihydrate         | Ce(C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> ) <sub>3</sub> · 1.5H <sub>2</sub> O  | 17829-82-2  |             | col cry                | dec 115            |            |                            | 26 <sup>15</sup>                    | s H <sub>2</sub> O   |
| 679 | Cerium(III) ammonium nitrate tetrahydrate | (NH <sub>4</sub> ) <sub>2</sub> Ce(NO <sub>3</sub> ) <sub>6</sub> · 4H <sub>2</sub> O | 13083-04-0  | 558.279     | col monocl cry         | 74                 |            |                            |                                     | vs H <sub>2</sub> O  |
| 680 | Cerium(III) ammonium sulfate tetrahydrate | NH <sub>4</sub> Ce(SO <sub>4</sub> ) <sub>2</sub> · 4H <sub>2</sub> O                 | 21995-38-0* | 422.341     | monocl cry             |                    |            |                            |                                     | s H <sub>2</sub> O   |
| 681 | Cerium(III) bromide                       | CeBr <sub>3</sub>   | 14457-87-5  | 379.828     | wh hex cry; hyg        | 732                | 1457       |                            |                                     | s H <sub>2</sub> O   |

| No. | Name                                     | Formula   | CAS Reg No. | Mol. weight | Physical form                  | mp/°C      | bp/°C | Density g cm <sup>-3</sup> | Solubility g/100 g H <sub>2</sub> O | Qualitative solubility                           |
|-----|--|---|-------------|-------------|--------------------------------|------------|-------|----------------------------|-------------------------------------|--|
| 682 | Cerium(III) bromide heptahydrate         | CeBr <sub>3</sub> · 7H <sub>2</sub> O   | 7789-56-2   | 505.935     | col hyg needles                | 732        |       |                            |                                     | s H <sub>2</sub> O, EtOH                         |
| 683 | Cerium(III) carbonate                    | Ce <sub>2</sub> (CO <sub>3</sub> ) <sub>3</sub>                                       | 537-01-9    | 460.259     | wh pow                         | dec 500    |       |                            |                                     | i H <sub>2</sub> O; s acid                       |
| 684 | Cerium(III) carbonate pentahydrate       | Ce <sub>2</sub> (CO <sub>3</sub> ) <sub>3</sub> · 5H <sub>2</sub> O                   | 72520-94-6  | 550.335     | wh powder                      |            |       |                            |                                     | i H <sub>2</sub> O; s dil acid                   |
| 685 | Cerium(III) chloride                     | CeCl <sub>3</sub>   | 7790-86-5   | 246.475     | wh hex cry                     | 807        |       | 3.97                       |                                     | s H <sub>2</sub> O, EtOH                         |
| 686 | Cerium(III) chloride heptahydrate        | CeCl <sub>3</sub> · 7H <sub>2</sub> O   | 18618-55-8  | 372.582     | yel orth cry; hyg              | 90 dec     |       |                            |                                     | vs H <sub>2</sub> O, EtOH                        |
| 687 | Cerium(III) fluoride                     | CeF <sub>3</sub>  | 7758-88-5   | 197.111     | wh hex cry; hyg                | 1430       | 2180  | 6.157                      |                                     | i H <sub>2</sub> O                               |
| 688 | Cerium(III) hydride                      | CeH <sub>3</sub>  | 13864-02-3  | 143.140     | blk pow or blue-<br>blk cry    | dec (flam) |       |                            |                                     | react H <sub>2</sub> O                           |
| 689 | Cerium(III) hydroxide                    | Ce(OH) <sub>3</sub>   | 15785-09-8  | 191.138     | wh solid                       |            |       |                            |                                     | i H <sub>2</sub> O; s acid                       |
| 690 | Cerium(III) iodide                       | CeI <sub>3</sub>  | 7790-87-6   | 520.829     | yel orth cry; hyg              | 760        |       |                            |                                     | s H <sub>2</sub> O                               |
| 691 | Cerium(III) iodide nonahydrate           | CeI <sub>3</sub> · 9H <sub>2</sub> O  | 7790-87-6*  | 682.967     | wh-red cry                     |            |       |                            |                                     | vs H <sub>2</sub> O; s EtOH                      |
| 692 | Cerium(III) nitrate hexahydrate          | Ce(NO <sub>3</sub> ) <sub>3</sub> · 6H <sub>2</sub> O                                 | 10108-73-3* | 434.222     | col-red cry                    | 150 dec    |       |                            | 176 <sup>25</sup>                   | s ace  |
| 693 | Cerium(III) oxalate nonahydrate          | Ce(C <sub>2</sub> O <sub>4</sub> ) <sub>3</sub> · 9H <sub>2</sub> O                   | 13266-83-6  | 706.426     | wh pow                         | dec        |       |                            |                                     | i H <sub>2</sub> O, EtOH; s acid                 |
| 694 | Cerium(III) oxide                        | Ce <sub>2</sub> O <sub>3</sub>  | 1345-13-7   | 328.230     | yel-grn cub cry                | 2210       | 3730  | 6.2                        |                                     | i H <sub>2</sub> O; s acid                       |
| 695 | Cerium(III) 2,4-pentanedioate trihydrate | Ce(CH <sub>3</sub> COCHCOCH <sub>3</sub> ) <sub>3</sub> · 3H <sub>2</sub> O           | 15653-01-7  | 491.486     | yel hyg cry                    | ≈150       |       |                            |                                     | vs EtOH  |
| 696 | Cerium(III) perchlorate hexahydrate      | Ce(ClO <sub>4</sub> ) <sub>3</sub> · 6H <sub>2</sub> O                                | 36907-38-7  | 546.559     | hyg col cry                    | dec 200    |       |                            |                                     | s H <sub>2</sub> O, EtOH                         |
| 697 | Cerium(III) selenate                     | Ce <sub>2</sub> (SeO <sub>4</sub> ) <sub>3</sub>                                      |             | 709.11      | rhomb cry                      |            |       | 4.46                       |                                     | s H <sub>2</sub> O                               |
| 698 | Cerium(III) sulfate                      | Ce <sub>2</sub> (SO <sub>4</sub> ) <sub>3</sub>                                       | 13454-94-9  | 568.420     | col hyg cry                    | 920 dec    |       |                            |                                     | s H <sub>2</sub> O                               |
| 699 | Cerium(III) sulfate octahydrate          | Ce <sub>2</sub> (SO <sub>4</sub> ) <sub>3</sub> · 8H <sub>2</sub> O                   | 13454-94-9  | 712.542     | wh orth cry                    | ≈250 dec   |       | 2.87                       |                                     | s H <sub>2</sub> O                               |
| 700 | Cerium(III) sulfide                      | Ce <sub>2</sub> S <sub>3</sub>  | 12014-93-6  | 376.427     | red cub cry                    | 2450       |       | 5.02                       |                                     | i H <sub>2</sub> O                               |
| 701 | Cerium(III) tungstate                    | Ce <sub>2</sub> (WO <sub>4</sub> ) <sub>3</sub>                                       | 13454-74-5  | 1023.75     | yel tetr cry                   | 1089       |       | 6.77                       |                                     | i H <sub>2</sub> O                               |
| 702 | Cerium(IV) ammonium nitrate              | (NH <sub>4</sub> ) <sub>2</sub> Ce(NO <sub>3</sub> ) <sub>6</sub>                     | 16774-21-3  | 548.223     | red-oran cry                   |            |       |                            |                                     | vs H <sub>2</sub> O                              |
| 703 | Cerium(IV) ammonium nitrate dihydrate    | (NH <sub>4</sub> ) <sub>4</sub> Ce(SO <sub>4</sub> ) <sub>4</sub> · 2H <sub>2</sub> O | 10378-47-9  | 632.551     | cry pow                        | dec 450    |       |                            |                                     |  |
| 704 | Cerium(IV) fluoride                      | CeF <sub>4</sub>  | 10060-10-3  | 216.110     | wh hyg powder                  | ≈600 dec   |       | 4.77                       |                                     | i H <sub>2</sub> O                               |
| 705 | Cerium(IV) hydroxide                     | Ce(OH) <sub>4</sub>   | 12014-56-1  | 208.146     | yel-wh pow                     |            |       |                            |                                     | i H <sub>2</sub> O; s conc acid                  |
| 706 | Cerium(IV) oxide                         | CeO <sub>2</sub>  | 1306-38-3   | 172.115     | wh-yel powder; cub             | 2480       |       | 7.216                      |                                     | i H <sub>2</sub> O, dil acid                     |
| 707 | Cerium(IV) sulfate tetrahydrate          | Ce(SO <sub>4</sub> ) <sub>2</sub> · 4H <sub>2</sub> O                                 | 10294-42-5  | 404.303     | yel-oran orth cry              | 180 dec    |       | 3.91                       | 9.66 <sup>20</sup>                  |  |
| 708 | Cesium                                   | Cs  | 7440-46-2   | 132.905     | silv-wh metal                  | 28.5       | 671   | 1.873                      |                                     | react H <sub>2</sub> O                           |
| 709 | Cesium acetate                           | CsC <sub>2</sub> H <sub>3</sub> O <sub>2</sub>  | 3396-11-0   | 191.949     | hyg lumps                      | 194        |       |                            | 10 <sup>11</sup>                    |  |
| 710 | Cesium aluminum sulfate dodecahydrate    | CsAl(SO <sub>4</sub> ) <sub>2</sub> · 12H <sub>2</sub> O                              | 7784-17-0   | 568.196     | col cub cry                    | 117 dec    |       | 1.97                       |                                     | s H <sub>2</sub> O; i EtOH                       |
| 711 | Cesium amide                             | CsNH <sub>2</sub>   | 22205-57-8  | 148.928     | wh tetr cry                    |            |       | 3.70                       |                                     |  |
| 712 | Cesium azide                             | CsN <sub>3</sub>  | 22750-57-8  | 174.925     | hyg tetr cry; exp              | 326        |       | ≈3.5                       | 22 <sup>40</sup>                    |  |
| 713 | Cesium bromate                           | CsBrO <sub>3</sub>  | 13454-75-6  | 260.807     | col hex cry                    |            |       | 4.11                       | 3.83 <sup>25</sup>                  |  |
| 714 | Cesium bromide                           | CsBr  | 7787-69-1   | 212.809     | wh cub cry; hyg                | 636        | ≈1300 | 4.43                       | 123 <sup>25</sup>                   | s EtOH; i ace                                    |
| 715 | Cesium carbonate                         | Cs <sub>2</sub> CO <sub>3</sub>   | 534-17-8    | 325.820     | wh monocl cry; hyg             | 793        |       | 4.24                       | 261 <sup>15</sup>                   | s EtOH, eth                                      |
| 716 | Cesium chlorate                          | CsClO <sub>3</sub>  | 13763-67-2  | 216.356     | col hex cry                    | 342        |       | 3.57                       | 7.78 <sup>25</sup>                  | sl H <sub>2</sub> O                              |
| 717 | Cesium chloride                          | CsCl  | 7647-17-8   | 168.358     | wh cub cry; hyg                | 646        | 1297  | 3.988                      | 191 <sup>25</sup>                   | s EtOH   |
| 718 | Cesium chromate(IV)                      | Cs <sub>2</sub> CrO <sub>4</sub>  | 56320-90-2  | 647.616     | yel hex cry                    | 982        |       | 4.24                       |                                     | vs H <sub>2</sub> O                              |
| 719 | Cesium cyanide                           | CsCN  | 21159-32-0  | 158.923     | wh cub cry; hyg                | 350        |       | 3.34                       |                                     | vs H <sub>2</sub> O                              |
| 720 | Cesium dibromiodate                      | CsIBr <sub>2</sub>  | 18278-82-5  | 419.617     | dark oran cry                  | dec        |       |                            |                                     | s H <sub>2</sub> O                               |
| 721 | Cesium fluoride                          | CsF   | 13400-13-0  | 151.903     | wh cub cry; hyg                | 703        |       | 4.64                       | 573 <sup>25</sup>                   | s MeOH; i diox, py                               |
| 722 | Cesium fluoroborate                      | CsBF <sub>4</sub>   | 18909-69-8  | 219.710     | wh orth cry                    | 555 dec    |       | 3.2                        | 1.6 <sup>17</sup>                   | sl H <sub>2</sub> O                              |
| 723 | Cesium formate                           | CsCHO <sub>2</sub>  | 3495-36-1   | 177.923     | wh cry                         |            |       | 1.017                      |                                     | vs H <sub>2</sub> O                              |
| 724 | Cesium hexafluorogermanate               | Cs <sub>2</sub> GeF <sub>6</sub>  |             | 452.44      | wh cry                         | ≈675       |       | 4.10                       |                                     | sl cold H <sub>2</sub> O; s hot H <sub>2</sub> O |
| 725 | Cesium hydride                           | CsH   | 58724-12-2  | 133.913     | wh cub cry; flam               | 528        |       | 3.42                       |                                     | react H <sub>2</sub> O                           |
| 726 | Cesium hydrogen carbonate                | CsHCO <sub>3</sub>  | 15519-28-5  | 193.922     | rhomb cry                      | 175 dec    |       |                            | 209 <sup>15</sup>                   | s EtOH   |
| 727 | Cesium hydrogen fluoride                 | CsHF <sub>2</sub>   | 12280-52-3  | 171.910     | tetr cry                       | 170        |       | 3.86                       |                                     |  |
| 728 | Cesium hydrogen sulfate                  | CsHSO <sub>4</sub>  | 7789-16-4   | 229.976     | col rhomb prisms               | dec        |       | 3.352                      |                                     | s H <sub>2</sub> O                               |
| 729 | Cesium hydroxide                         | CsOH  | 21351-79-1  | 149.912     | wh-yel hyg cry                 | 342.3      |       | 3.68                       | 300 <sup>30</sup>                   | s EtOH   |
| 730 | Cesium iodate                            | CsIO <sub>3</sub>   | 13454-81-4  | 307.807     | wh monocl cry                  |            |       | 4.85                       | 2.6 <sup>25</sup>                   |  |
| 731 | Cesium iodide                            | CsI   | 7789-17-5   | 259.809     | col cub cry; hyg               | 632        | ≈1280 | 4.51                       | 84.8 <sup>25</sup>                  | s EtOH, MeOH, ace                                |
| 732 | Cesium metaborate                        | CsBO <sub>2</sub>   | 92141-86-1  | 175.715     | cub cry                        | 732        |       | ≈3.7                       |                                     |  |
| 733 | Cesium molybdate                         | Cs <sub>2</sub> MoO <sub>4</sub>  | 13597-64-3  | 425.75      | wh cry                         | 956.3      |       |                            | 67 <sup>18</sup>                    | s H <sub>2</sub> O                               |
| 734 | Cesium nitrate                           | CsNO <sub>3</sub>   | 7789-18-6   | 194.910     | wh hex or cub cry              | 409        |       | 3.66                       | 27.9 <sup>25</sup>                  | s ace; sl EtOH                                   |
| 735 | Cesium nitrite                           | CsNO <sub>2</sub>   | 13454-83-6  | 178.911     | yel cry                        | 406        |       |                            |                                     | s H <sub>2</sub> O                               |
| 736 | Cesium oxide                             | Cs <sub>2</sub> O   | 20281-00-9  | 281.810     | yel-oran hex cry               | 495        |       | 4.65                       |                                     | vs H <sub>2</sub> O                              |
| 737 | Cesium superoxide                        | CsO <sub>2</sub>  | 12018-61-0  | 164.904     | yel tetr cry                   | 432        |       | 3.77                       |                                     | react H <sub>2</sub> O                           |
| 738 | Cesium trioxide                          | Cs <sub>2</sub> O <sub>3</sub>  | 12134-22-4  | 313.809     | brn cry                        | ≈400       |       | 4.25                       |                                     | react H <sub>2</sub> O                           |
| 739 | Cesium perchlorate                       | CsClO <sub>4</sub>  | 13454-84-7  | 232.356     | wh orth cry; hyg               | ≈600 dec   |       | 3.327                      | 2.00 <sup>25</sup>                  |  |
| 740 | Cesium periodate                         | CsIO <sub>4</sub>   | 13478-04-1  | 323.807     | wh rhomb prisms                |            |       | 4.26                       | 2.2 <sup>15</sup>                   |  |
| 741 | Cesium sulfate                           | Cs <sub>2</sub> SO <sub>4</sub>   | 10294-54-9  | 361.874     | wh orth cry or hex prisms; hyg | 1005       |       | 4.24                       | 182 <sup>25</sup>                   | i EtOH, ace, py                                  |

| No. | Name  | Formula  | CAS Reg No. | Mol. weight | Physical form                   | mp/°C    | bp/°C    | Density g cm <sup>-3</sup> | Solubility g/100 g H <sub>2</sub> O | Qualitative solubility                  |
|-----|---|--|-------------|-------------|---------------------------------|----------|----------|----------------------------|-------------------------------------|---|
| 742 | Cesium sulfide                                    | Cs <sub>2</sub> S  | 12214-16-3  | 297.876     | yel orth hyg cry                | 520      |          |                            |                                     | vs H <sub>2</sub> O                     |
| 743 | Cesium trifluoroacetate                           | Cs(C <sub>2</sub> F <sub>3</sub> O <sub>2</sub> )                                  | 21907-50-6  | 245.920     | hyg solid                       | 115      |          |                            |                                     | vs H <sub>2</sub> O                     |
| 744 | Chlorine  | Cl <sub>2</sub>  | 7782-50-5   | 70.906      | grn-yel gas                     | -101.5   | -34.04   | 2.898 g/L                  |                                     | sl H <sub>2</sub> O                     |
| 745 | Hypochlorous acid                                 | HOCl   | 7790-92-3   | 52.460      | grn-yel; stable only in aq soln |          |          |                            |                                     | s H <sub>2</sub> O                      |
| 746 | Chloric acid                                      | HClO <sub>3</sub>  | 7790-93-4   | 84.459      | exists only in aq soln          |          |          |                            |                                     | vs H <sub>2</sub> O                     |
| 747 | Perchloric acid                                   | HClO <sub>4</sub>  | 7601-90-3   | 100.459     | col hyg liq                     | -112     | ≈90 dec  | 1.77                       |                                     | s H <sub>2</sub> O                      |
| 748 | Chlorine monoxide                                 | Cl <sub>2</sub> O  | 7791-21-1   | 86.905      | yel-brn gas                     | -120.6   | 2.2      | 3.552 g/L                  |                                     | vs H <sub>2</sub> O                     |
| 749 | Chlorine dioxide                                  | ClO <sub>2</sub>   | 10049-04-4  | 67.452      | oran-grn gas                    | -59      | 11       | 2.757 g/L                  |                                     | sl H <sub>2</sub> O                     |
| 750 | Dichlorine trioxide                               | Cl <sub>2</sub> O <sub>3</sub>   | 17496-59-2  | 118.904     | dark brn solid                  | exp <25  |          |                            |                                     |   |
| 751 | Dichlorine hexoxide                               | Cl <sub>2</sub> O <sub>6</sub>   | 12442-63-6  | 166.902     | red liq                         | 3.5      | ≈200     |                            |                                     | react H <sub>2</sub> O                  |
| 752 | Dichlorine heptoxide                              | Cl <sub>2</sub> O <sub>7</sub>   | 10294-48-1  | 182.902     | col oily liq; exp               | -91.5    | 82       | 1.9                        |                                     | react H <sub>2</sub> O                  |
| 753 | Chlorine fluoride                                 | ClF  | 7790-89-8   | 54.451      | col gas                         | -155.6   | -101.1   | 2.226 g/L                  |                                     | react H <sub>2</sub> O                  |
| 754 | Chlorine trifluoride                              | ClF <sub>3</sub>   | 7790-91-2   | 92.448      | gas                             | -76.34   | 11.75    | 3.779 g/L                  |                                     | react H <sub>2</sub> O                  |
| 755 | Chlorine pentafluoride                            | ClF <sub>5</sub>   | 13637-63-3  | 130.445     | col gas                         | -103     | -13.1    | 5.332 g/L                  |                                     |   |
| 756 | Chlorosyl trifluoride                             | ClOF <sub>3</sub>  | 30708-80-6  | 108.447     | col liq                         | -42      | 27       |                            |                                     | react H <sub>2</sub> O                  |
| 757 | Chloryl fluoride                                  | ClO <sub>2</sub> F   | 13637-83-7  | 86.450      | col gas                         | -115     | -6       | 3.534 g/L                  |                                     | react H <sub>2</sub> O                  |
| 758 | Chloryl trifluoride                               | ClO <sub>2</sub> F <sub>3</sub>  | 38680-84-1  | 124.447     | col gas                         | -81.2    | -21.6    | 5.087 g/L                  |                                     | react H <sub>2</sub> O                  |
| 759 | Perchloryl fluoride                               | ClO <sub>3</sub> F   | 7616-94-6   | 102.449     | col gas                         | -147     | -46.75   | 4.187 g/L                  |                                     |   |
| 760 | Chlorine perchlorate                              | ClOClO <sub>3</sub>  | 27218-16-2  | 134.904     | unstab yel liq                  | -117     | ≈45 dec  | 1.81°                      |                                     |   |
| 761 | Chromium  | Cr   | 7440-47-3   | 51.996      | blue-wh metal; cub              | 1907     | 2671     | 7.15                       |                                     | react dil acid                          |
| 762 | Chromic acid                                      | H <sub>2</sub> CrO <sub>4</sub>  | 7738-94-5   | 118.010     | aq soln only                    |          |          |                            |                                     | s H <sub>2</sub> O                      |
| 763 | Chromium antimonide                               | CrSb   | 12053-12-2  | 173.756     | hex cry                         | 1110     |          | 7.11                       |                                     |   |
| 764 | Chromium arsenide                                 | Cr <sub>3</sub> As   | 12254-85-2  | 178.914     | tetr cry                        |          |          | 7.04                       |                                     |   |
| 765 | Chromium boride (CrB)                             | CrB  | 12006-79-0  | 62.807      | refrac orth cry                 | 2100     |          | 6.1                        |                                     |   |
| 766 | Chromium boride (Cr <sub>3</sub> B)               | Cr <sub>3</sub> B  | 12007-16-8  | 73.618      | refrac solid; hex               | 2200     |          | 5.22                       |                                     |   |
| 767 | Chromium boride (Cr <sub>2</sub> B)               | Cr <sub>2</sub> B  | 12006-80-3  | 114.803     | refrac solid                    | 1875     |          |                            |                                     |   |
| 768 | Chromium boride (Cr <sub>5</sub> B <sub>3</sub> ) | Cr <sub>5</sub> B <sub>3</sub>   | 12007-38-4  | 292.414     | tetr cry                        | 1900     |          | 6.10                       |                                     |   |
| 769 | Chromium carbide                                  | Cr <sub>3</sub> C <sub>2</sub>   | 12012-35-0  | 180.009     | gray orth cry                   | 1895     |          | 6.68                       |                                     |   |
| 770 | Chromium carbonyl                                 | Cr(CO) <sub>6</sub>  | 13007-92-6  | 220.056     | col orth cry                    | 130 dec  | subl     | 1.77                       |                                     | i H <sub>2</sub> O, EtOH; s eth, chl    |
| 771 | Chromium nitride (CrN)                            | CrN  | 24094-93-7  | 66.003      | gray cub cry                    | 1080 dec |          | 5.9                        |                                     |   |
| 772 | Chromium nitride (Cr <sub>3</sub> N)              | Cr <sub>3</sub> N  | 12053-27-9  | 117.999     | hex cry                         | 1650     |          | 6.8                        |                                     |   |
| 773 | Chromium phosphide                                | CrP  | 26342-61-0  | 82.970      | orth cry                        |          |          | 5.25                       |                                     |   |
| 774 | Chromium selenide                                 | CrSe   | 12053-13-3  | 130.96      | hex cry                         | ≈1500    |          | 6.1                        |                                     |   |
| 775 | Chromium silicide (CrSi <sub>2</sub> )            | CrSi <sub>2</sub>  | 12018-09-6  | 108.167     | gray hex cry                    | 1490     |          | 4.91                       |                                     |   |
| 776 | Chromium silicide (Cr <sub>3</sub> Si)            | Cr <sub>3</sub> Si   | 12018-36-9  | 184.074     | cub cry                         | 1770     |          | 6.4                        |                                     |   |
| 777 | Chromium(II) acetate monohydrate                  | Cr(C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> ) <sub>2</sub> · H <sub>2</sub> O  | 628-52-4*   | 188.100     | red mono cry                    |          |          | 1.79                       |                                     | sl H <sub>2</sub> O                     |
| 778 | Chromium(II) bromide                              | CrBr <sub>2</sub>  | 10049-25-9  | 211.804     | wh mono cry; aq soln blue       | 842      |          | 4.236                      |                                     | s H <sub>2</sub> O, EtOH                |
| 779 | Chromium(II) chloride                             | CrCl <sub>2</sub>  | 10049-05-5  | 122.902     | wh hyg needles; aq soln blue    | 824      | 1120     | 2.88                       |                                     | s H <sub>2</sub> O                      |
| 780 | Chromium(II) chloride tetrahydrate                | Cr(H <sub>2</sub> O) <sub>4</sub> Cl <sub>2</sub> · 4H <sub>2</sub> O              | 13931-94-7  | 267.024     | blue hyg cry                    | 51 dec   |          |                            |                                     | s H <sub>2</sub> O                      |
| 781 | Chromium(II) fluoride                             | CrF <sub>2</sub>   | 10049-10-2  | 89.993      | blue-grn mono cry               | 894      |          | 3.79                       |                                     | sl H <sub>2</sub> O; i EtOH             |
| 782 | Chromium(II) formate monohydrate                  | Cr(CHOO) <sub>2</sub> · H <sub>2</sub> O   | 4493-37-2   | 160.046     | red needles                     |          |          |                            |                                     | s H <sub>2</sub> O                      |
| 783 | Chromium(II) iodide                               | CrI <sub>2</sub>   | 13478-28-9  | 305.805     | red-brn cry; hyg                | 867      |          | 5.1                        |                                     | s H <sub>2</sub> O                      |
| 784 | Chromium(II) oxalate monohydrate                  | CrC <sub>2</sub> O <sub>4</sub> · H <sub>2</sub> O                                 | 814-90-4*   | 158.030     | yel-grn powder                  |          |          | 2.468                      |                                     | sl H <sub>2</sub> O                     |
| 785 | Chromium(II) sulfate pentahydrate                 | CrSO <sub>4</sub> · 5H <sub>2</sub> O  | 13825-86-0  | 238.135     | blue cry                        |          |          |                            | 21°                                 | s dil acid; sl EtOH; i ace              |
| 786 | Chromium(II,III) oxide                            | Cr <sub>3</sub> O <sub>4</sub>   | 12018-34-7  | 219.986     | cub cry                         |          |          | 6.1                        |                                     |   |
| 787 | Chromium(III) acetate                             | Cr(C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> ) <sub>3</sub>                     | 1066-30-4   | 229.127     | blue-grn pvd                    |          |          |                            |                                     | sl H <sub>2</sub> O                     |
| 788 | Chromium(III) acetate monohydrate                 | Cr(C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> ) <sub>3</sub> · H <sub>2</sub> O  | 25013-82-5  | 247.143     | gray-grn pow                    |          |          |                            |                                     | sl H <sub>2</sub> O; i EtOH             |
| 789 | Chromium(III) acetate hexahydrate                 | Cr(C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> ) <sub>3</sub> · 6H <sub>2</sub> O | 1066-30-4*  | 337.220     | blue needles                    |          |          |                            |                                     | s H <sub>2</sub> O                      |
| 790 | Chromium(III) acetate hydroxide                   | Cr(C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> ) <sub>2</sub> (OH)                | 39430-51-8  | 187.092     | viol cry pow                    |          |          |                            |                                     | vs H <sub>2</sub> O                     |
| 791 | Chromium(III) bromide                             | CrBr <sub>3</sub>  | 10031-25-1  | 291.708     | dark grn hex cry                | 812      |          | 4.68                       |                                     | s hot H <sub>2</sub> O, bz              |
| 792 | Chromium(III) bromide hexahydrate (α)             | CrBr <sub>3</sub> (H <sub>2</sub> O) <sub>6</sub>                                  | 18721-05-6  | 399.799     | grn hyg cry                     |          |          |                            |                                     | s H <sub>2</sub> O, EtOH                |
| 793 | Chromium(III) bromide hexahydrate (β)             | Cr(H <sub>2</sub> O) <sub>6</sub> Br <sub>3</sub>                                  | 10031-25-1* | 399.799     | viol hyg cry                    |          |          |                            |                                     | s H <sub>2</sub> O; i EtOH, eth         |
| 794 | Chromium(III) chloride                            | CrCl <sub>3</sub>  | 10025-73-7  | 158.355     | red-viol cry                    | 1152     | 1300 dec | 2.76                       |                                     | sl H <sub>2</sub> O                     |
| 795 | Chromium(III) chloride hexahydrate                | [CrCl <sub>2</sub> (H <sub>2</sub> O) <sub>4</sub> ]Cl · 2H <sub>2</sub> O         | 10060-12-5  | 266.446     | grn mono cry; hyg               |          |          |                            |                                     | s H <sub>2</sub> O, EtOH; sl ace; i eth |
| 796 | Chromium(III) fluoride                            | CrF <sub>3</sub>   | 7788-97-8   | 108.991     | grn needles                     | 1425     |          | 3.8                        |                                     | i H <sub>2</sub> O, EtOH                |
| 797 | Chromium(III) fluoride trihydrate                 | CrF <sub>3</sub> · 3H <sub>2</sub> O   | 16671-27-5  | 163.037     | grn hex cry                     |          |          | 2.2                        |                                     | sl H <sub>2</sub> O                     |
| 798 | Chromium(III) hydroxide sulfate                   | Cr(OH)SO <sub>4</sub>  | 12336-95-7  | 165.066     | grn cry                         |          |          |                            |                                     |   |
| 799 | Chromium(III) fluoride nonahydrate                | Cr(H <sub>2</sub> O) <sub>9</sub> F <sub>3</sub> · 3H <sub>2</sub> O               | 102430-09-1 | 271.129     | rhon viol cry                   |          |          |                            |                                     | sl H <sub>2</sub> O                     |



| No. | Name  | Formula  | CAS Reg No. | Mol. weight | Physical form                 | mp/°C    | bp/°C    | Density g cm <sup>-3</sup> | Solubility g/100 g H <sub>2</sub> O | Qualitative solubility                           |
|-----|---|--|-------------|-------------|-------------------------------|----------|----------|----------------------------|-------------------------------------|--|
| 800 | Chromium(III) hydroxide trihydrate            | Cr(OH) <sub>3</sub> · 3H <sub>2</sub> O  | 1308-14-1   | 157.063     | blue-grn powder               |          |          |                            |                                     | i H <sub>2</sub> O; s acid                       |
| 801 | Chromium(III) iodide                          | CrI <sub>3</sub>   | 13569-75-0  | 432.709     | dark grn hex cry              | 500 dec  |          | 5.32                       |                                     | sl H <sub>2</sub> O                              |
| 802 | Chromium(III) nitrate                         | Cr(NO <sub>3</sub> ) <sub>3</sub>  | 13548-38-4  | 238.011     | grn hyg powder                | >60 dec  |          |                            |                                     | vs H <sub>2</sub> O                              |
| 803 | Chromium(III) nitrate nonahydrate             | Cr(NO <sub>3</sub> ) <sub>3</sub> · 9H <sub>2</sub> O                              | 7789-02-8   | 400.148     | grn-blk monocl cry            | 66.3     | >100 dec | 1.80                       |                                     | vs H <sub>2</sub> O                              |
| 804 | Chromium(III) oxide                           | Cr <sub>2</sub> O <sub>3</sub>   | 1308-38-9   | 151.990     | grn hex cry                   | 2320     | ≈3000    | 5.22                       |                                     | i H <sub>2</sub> O, EtOH; sl acid, alk           |
| 805 | Chromium(III) 2,4-pentanedioate               | Cr(CH <sub>3</sub> COCHCOCH <sub>3</sub> ) <sub>3</sub>                            | 21679-31-2  | 349.320     | red monocl cry                | 208      | 345      | 1.34                       |                                     | i H <sub>2</sub> O; s bz                         |
| 806 | Chromium(III) perchlorate                     | Cr(ClO <sub>4</sub> ) <sub>3</sub>   | 27535-70-2  | 350.348     | grn-blue cry                  |          |          |                            | 58 <sup>25</sup>                    | vs H <sub>2</sub> O                              |
| 807 | Chromium(III) phosphate                       | CrPO <sub>4</sub>  | 7789-04-0   | 146.967     | blue orth cry                 | >1800    |          | 4.6                        |                                     | i H <sub>2</sub> O, acid, aqua regia             |
| 808 | Chromium(III) phosphate hemiheptahydrate      | CrPO <sub>4</sub> · 3.5H <sub>2</sub> O  | 84359-31-9  | 210.021     | blue-grn powder               |          |          | 2.15                       |                                     | i H <sub>2</sub> O; s acid                       |
| 809 | Chromium(III) phosphate hexahydrate           | CrPO <sub>4</sub> · 6H <sub>2</sub> O  | 84359-31-9  | 255.059     | viol cry                      | >500 dec |          | 2.121                      |                                     | i H <sub>2</sub> O; s acid, alk                  |
| 810 | Chromium(III) potassium oxalate trihydrate    | K <sub>3</sub> Cr(C <sub>2</sub> O <sub>4</sub> ) <sub>3</sub> · 3H <sub>2</sub> O | 15275-09-9  | 487.394     | blue-grn monocl cry           |          |          |                            |                                     | s H <sub>2</sub> O                               |
| 811 | Chromium(III) potassium sulfate dodecahydrate | K <sub>2</sub> Cr(SO <sub>4</sub> ) <sub>2</sub> · 12H <sub>2</sub> O              | 7788-99-0   | 499.403     | viol-blk cub cry              | 89 dec   |          | 1.83                       |                                     | s H <sub>2</sub> O; i EtOH                       |
| 812 | Chromium(III) sulfate                         | Cr <sub>2</sub> (SO <sub>4</sub> ) <sub>3</sub>                                    | 10101-53-8  | 392.180     | red pow                       | dec >700 |          | 3.1                        | 64 <sup>25</sup>                    | s H <sub>2</sub> O; vs acid                      |
| 813 | Chromium(III) sulfate octadecahydrate         | Cr <sub>2</sub> (SO <sub>4</sub> ) <sub>3</sub> · 18H <sub>2</sub> O               | 10101-53-8* | 716.455     | viol cry                      | dec 115  |          | 1.7                        |                                     | reac H <sub>2</sub> O                            |
| 814 | Chromium(III) sulfide                         | Cr <sub>2</sub> S <sub>3</sub>   | 12018-22-3  | 200.187     | brn-blk hex cry               |          |          | 3.8                        |                                     |  |
| 815 | Chromium(III) telluride                       | Cr <sub>2</sub> Te <sub>3</sub>  | 12053-39-3  | 486.79      | hex cry                       | ≈1300    |          | 7.0                        |                                     |  |
| 816 | Chromium(IV) chloride                         | CrCl <sub>4</sub>  | 15597-88-3  | 193.808     | gas, stable at HT             |          | >600 dec | 7.922 g/L                  |                                     |  |
| 817 | Chromium(IV) fluoride                         | CrF <sub>4</sub>   | 10049-11-3  | 127.990     | grn cry                       | 277      |          | 2.89                       |                                     | reac H <sub>2</sub> O                            |
| 818 | Chromium(IV) oxide                            | CrO <sub>2</sub>   | 12018-01-8  | 83.995      | brn-blk tetr powder           | ≈400 dec |          | 4.89                       |                                     | i H <sub>2</sub> O; s acid                       |
| 819 | Chromium(V) fluoride                          | CrF <sub>5</sub>   | 14884-42-5  | 146.988     | red orth cry                  | 34       | 117      |                            |                                     | reac H <sub>2</sub> O                            |
| 820 | Chromium(V) oxide                             | Cr <sub>2</sub> O <sub>5</sub>   | 12218-36-9  | 183.989     | blk needles                   | dec 200  |          |                            |                                     |  |
| 821 | Chromium(VI) fluoride                         | CrF <sub>6</sub>   | 13843-28-2  | 165.986     | yel solid; stable at low temp | -100 dec |          |                            |                                     |  |
| 822 | Chromium(VI) oxide                            | CrO <sub>3</sub>   | 1333-82-0   | 99.994      | red orth cry                  | 197      | ≈250 dec | 2.7                        | 169 <sup>25</sup>                   |  |
| 823 | Chromium(VI) tetrafluoride oxide              | CrOF <sub>4</sub>  | 23276-90-6  | 143.989     | dark red solid                | 55       |          |                            |                                     | reac H <sub>2</sub> O, ace, dmso                 |
| 824 | Chromium(VI) dichloride dioxide               | CrO <sub>2</sub> Cl <sub>2</sub>   | 14977-61-8  | 154.901     | red liq                       | -96.5    | 117      | 1.91                       |                                     | reac H <sub>2</sub> O; s ctc, chl, bz            |
| 825 | Chromium(VI) difluoride dioxide               | CrO <sub>2</sub> F <sub>2</sub>  | 7788-96-7   | 121.992     | red-viol cry                  | 30       | subl     |                            |                                     | reac H <sub>2</sub> O                            |
| 826 | Cobalt  | Co   | 7440-48-4   | 58.933      | gray metal; hex or cub        | 1495     | 2927     | 8.86                       |                                     | s dil acid                                       |
| 827 | Cobaltocene                                   | Co(C <sub>5</sub> H <sub>5</sub> ) <sub>2</sub>                                    | 1277-43-6   | 189.119     | blk-purp cry                  | 173      |          |                            |                                     |  |
| 828 | Cobalt antimonide                             | CoSb   | 12052-42-5  | 180.693     | hex cry                       | 1202     |          | 8.8                        |                                     |  |
| 829 | Cobalt arsenic sulfide                        | CoAsS  | 12254-82-9  | 165.920     | silv-wh solid                 |          |          | ≈6.1                       |                                     |  |
| 830 | Cobalt arsenide (CoAs)                        | CoAs   | 27016-73-5  | 133.855     | orth cry                      | 1180     |          | 8.22                       |                                     |  |
| 831 | Cobalt arsenide (CoAs <sub>2</sub> )          | CoAs <sub>2</sub>  | 12044-42-7  | 208.776     | monocl cry                    |          |          | 7.2                        |                                     |  |
| 832 | Cobalt arsenide (CoAs <sub>3</sub> )          | CoAs <sub>3</sub>  | 12256-04-1  | 283.698     | cub cry                       | 942      |          | 6.84                       |                                     |  |
| 833 | Cobalt boride (CoB)                           | CoB  | 12006-77-8  | 69.744      | refrac solid                  | 1460     |          | 7.25                       |                                     | reac H <sub>2</sub> O, HNO <sub>3</sub>          |
| 834 | Cobalt boride (Co <sub>2</sub> B)             | Co <sub>2</sub> B  | 12045-01-1  | 128.677     | refrac solid                  | 1280     |          | 8.1                        |                                     |  |
| 835 | Cobalt carbonyl                               | Co <sub>2</sub> (CO) <sub>8</sub>  | 10210-68-1  | 341.947     | oran cry                      | 51 dec   |          | 1.78                       |                                     | i H <sub>2</sub> O; s EtOH, eth, CS <sub>2</sub> |
| 836 | Cobalt disulfide                              | CoS <sub>2</sub>   | 12013-10-4  | 123.063     | cub cry                       |          |          | 4.3                        |                                     |  |
| 837 | Cobalt dodecacarbonyl                         | Co <sub>4</sub> (CO) <sub>12</sub>   | 17786-31-1  | 571.854     | blk cry                       | 60 dec   |          | 2.09                       |                                     |  |
| 838 | Cobalt phosphide                              | Co <sub>3</sub> P  | 12134-02-0  | 148.840     | gray needles                  | 1386     |          | 6.4                        |                                     | i H <sub>2</sub> O; s HNO <sub>3</sub>           |
| 839 | Cobalt silicide                               | CoSi <sub>2</sub>  | 12017-12-8  | 115.104     | gray cub cry                  | 1326     |          | 4.9                        |                                     | s hot HCl  |
| 840 | Cobalt(II) acetate                            | Co(C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> ) <sub>2</sub>                     | 71-48-7     | 177.022     | pink cry                      |          |          |                            |                                     | vs H <sub>2</sub> O; s EtOH                      |
| 841 | Cobalt(II) acetate tetrahydrate               | Co(C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> ) <sub>2</sub> · 4H <sub>2</sub> O | 6147-53-1   | 249.082     | red monocl cry                |          |          | 1.705                      |                                     | s H <sub>2</sub> O, EtOH, dil acid               |
| 842 | Cobalt(II) aluminate                          | CoAl <sub>2</sub> O <sub>4</sub>   | 13820-62-7  | 176.894     | blue cub cry                  |          |          | 4.37                       |                                     | i H <sub>2</sub> O                               |
| 843 | Cobalt(II) arsenate octahydrate               | Co <sub>3</sub> (AsO <sub>4</sub> ) <sub>2</sub> · 8H <sub>2</sub> O               | 24719-19-5  | 598.760     | red monocl needles            | 400 dec  | 1000 dec | 3.0                        |                                     | i H <sub>2</sub> O; s dil acid                   |
| 844 | Cobalt(II) bromate hexahydrate                | Co(BrO <sub>3</sub> ) <sub>2</sub> · 6H <sub>2</sub> O                             | 13476-01-2  | 422.829     | viol cry                      |          |          | ≈2.5                       |                                     | vs H <sub>2</sub> O                              |
| 845 | Cobalt(II) bromide                            | CoBr <sub>2</sub>  | 7789-43-7   | 218.741     | grn hex cry; hyg              | 678      |          | 4.91                       | 113.2 <sup>20</sup>                 | s MeOH, EtOH, ace                                |
| 846 | Cobalt(II) bromide hexahydrate                | CoBr <sub>2</sub> · 6H <sub>2</sub> O  | 13762-12-4  | 326.832     | red hyg cry                   | 47 dec   | 100 dec  | 2.46                       | 113.2                               |  |
| 847 | Cobalt(II) carbonate                          | CoCO <sub>3</sub>  | 513-79-1    | 118.942     | pink rhomb cry                | dec 280  |          | 4.2                        | 0.00014 <sup>20</sup>               | i EtOH   |
| 848 | Cobalt(II) basic carbonate                    | 2CoCO <sub>3</sub> · 3Co(OH) <sub>2</sub> · H <sub>2</sub> O                       | 7542-09-8   | 534.743     | red-viol cry                  | dec      |          |                            |                                     | i H <sub>2</sub> O; s acid                       |
| 849 | Cobalt(II) chlorate hexahydrate               | Co(ClO <sub>3</sub> ) <sub>2</sub> · 6H <sub>2</sub> O                             |             | 333.927     | dark red hyg cry              | dec 61   |          |                            |                                     | s H <sub>2</sub> O                               |
| 850 | Cobalt(II) chloride                           | CoCl <sub>2</sub>  | 7646-79-9   | 129.839     | blue hyg leaflets             | 737      | 1049     | 3.36                       | 56.2 <sup>25</sup>                  | s EtOH, eth, ace, py                             |
| 851 | Cobalt(II) chloride dihydrate                 | CoCl <sub>2</sub> · 2H <sub>2</sub> O  | 16544-92-6  | 165.870     | viol-blue cry                 |          |          | 2.477                      | 56.2 <sup>25</sup>                  |  |

| No. | Name                                      | Formula  | CAS Reg No. | Mol. weight | Physical form       | mp/°C    | bp/°C | Density g cm <sup>-3</sup> | Solubility g/100 g H <sub>2</sub> O | Qualitative solubility                        |
|-----|---|--|-------------|-------------|---------------------|----------|-------|----------------------------|-------------------------------------|---|
| 852 | Cobalt(II) chloride hexahydrate           | CoCl <sub>2</sub> · 6H <sub>2</sub> O  | 7791-13-1   | 237.930     | pink-red monocl cry | 87 dec   |       | 1.924                      | 56.2 <sup>25</sup>                  | s EtOH, ace, eth                              |
| 853 | Cobalt(II) chromate                       | CoCrO <sub>4</sub>   | 24613-38-5  | 174.927     | yel-brn orth cry    |          |       | ≈4.0                       |                                     | i H <sub>2</sub> O; s acid                    |
| 854 | Cobalt(II) chromite                       | CoCr <sub>2</sub> O <sub>4</sub>   | 13455-25-9  | 226.923     | blue-grn cub cry    |          |       | 5.14                       |                                     | i H <sub>2</sub> O, conc acid                 |
| 855 | Cobalt(II) citrate dihydrate              | Co <sub>3</sub> (C <sub>6</sub> H <sub>5</sub> O <sub>7</sub> ) <sub>2</sub> · 2H <sub>2</sub> O | 18727-04-3  | 265.170     | rose red cry        | dec 150  |       |                            | 0.8 <sup>15</sup>                   |   |
| 856 | Cobalt(II) cyanide                        | Co(CN) <sub>2</sub>  | 542-84-7    | 110.967     | blue hyg cry        |          |       | 1.872                      |                                     | i H <sub>2</sub> O                            |
| 857 | Cobalt(II) cyanide dihydrate              | Co(CN) <sub>2</sub> · 2H <sub>2</sub> O  | 20427-11-6  | 146.998     | pink-brn needles    |          |       |                            |                                     | i H <sub>2</sub> O, acid                      |
| 858 | Cobalt(II) diiron tetroxide               | CoFe <sub>2</sub> O <sub>4</sub>   | 12052-28-7  | 234.621     | blk solid           |          |       |                            |                                     | s hot HCl                                     |
| 859 | Cobalt(II) ferricyanide                   | Co <sub>3</sub> [Fe(CN) <sub>6</sub> ] <sub>2</sub>  | 14049-81-1  | 600.698     | red needles         |          |       |                            |                                     | i H <sub>2</sub> O, HCl; s NH <sub>4</sub> OH |
| 860 | Cobalt(II) fluoride                       | CoF <sub>2</sub>   | 10026-17-2  | 96.930      | red tetr cry        | 1127     | ≈1400 | 4.46                       | 1.4 <sup>25</sup>                   | s acid  |
| 861 | Cobalt(II) fluoride tetrahydrate          | CoF <sub>2</sub> · 4H <sub>2</sub> O   | 13817-37-3  | 168.992     | red orth cry        | dec      |       | 2.22                       | 1.4 <sup>25</sup>                   |   |
| 862 | Cobalt(II) formate dihydrate              | Co(CHO <sub>2</sub> ) <sub>2</sub> · 2H <sub>2</sub> O   | 6424-20-0   | 184.998     | red cry powder      | 140 dec  |       | 2.13                       | 5.03 <sup>20</sup>                  | i EtOH  |
| 863 | Cobalt(II) hexafluoro-2,4-pentanedioate   | Co(CF <sub>3</sub> COCHCOCF <sub>3</sub> ) <sub>2</sub>  | 19648-83-0  | 473.035     | powder              | 197      |       |                            |                                     |   |
| 864 | Cobalt(II) hexafluorosilicate hexahydrate | CoSiF <sub>6</sub> · 6H <sub>2</sub> O   | 12021-68-0  | 309.100     | pale red cry        |          |       | 2.087                      | 76.8 <sup>22</sup>                  |   |
| 865 | Cobalt(II) hydroxide                      | Co(OH) <sub>2</sub>  | 21041-93-0  | 92.948      | blue-grn cry        | ≈160 dec |       | 3.60                       |                                     | sl H <sub>2</sub> O; s acid                   |
| 866 | Cobalt(II) hydroxide monohydrate          | Co(OH) <sub>2</sub> · H <sub>2</sub> O   | 35340-84-2  | 110.963     | blue solid          | 136 dec  |       |                            |                                     |   |
| 867 | Cobalt(II) iodate                         | Co(IO <sub>3</sub> ) <sub>2</sub>  | 13455-28-2  | 408.738     | blk-viol needles    | 200 dec  |       | 5.09                       | 0.46 <sup>20</sup>                  |   |
| 868 | Cobalt(II) iodide                         | CoI <sub>2</sub>   | 15238-00-3  | 312.742     | blk hex cry; hyg    | 520      |       | 5.60                       | 203 <sup>25</sup>                   |   |
| 869 | Cobalt(II) iodide dihydrate               | CoI <sub>2</sub> · 2H <sub>2</sub> O   | 13455-29-3  | 348.773     | hyg grn cry         | dec 100  |       |                            |                                     |   |
| 870 | Cobalt(II) iodide hexahydrate             | CoI <sub>2</sub> · 6H <sub>2</sub> O   | 15238-00-3* | 420.833     | red hex prisms      | 130 dec  |       | 2.90                       | 203 <sup>25</sup>                   | s EtOH, eth, ace                              |
| 871 | Cobalt(II) molybdate                      | CoMoO <sub>4</sub>   | 13762-14-6  | 218.87      | blk monocl cry      | 1040     |       | 4.7                        |                                     |   |
| 872 | Cobalt(II) molybdate monohydrate          | CoMoO <sub>4</sub> · H <sub>2</sub> O  | 18601-87-1  | 236.89      | blk pow             |          |       |                            |                                     |   |
| 873 | Cobalt(II) nitrate                        | Co(NO <sub>3</sub> ) <sub>2</sub>  | 10141-05-6  | 182.942     | pale red powder     | 100 dec  |       | 2.49                       | 103 <sup>25</sup>                   |   |
| 874 | Cobalt(II) nitrate hexahydrate            | Co(NO <sub>3</sub> ) <sub>2</sub> · 6H <sub>2</sub> O  | 10026-22-9  | 291.034     | red monocl cry; hyg | ≈55      |       | 1.88                       | 103 <sup>25</sup>                   | s EtOH  |
| 875 | Cobalt(II) nitrite                        | Co(NO <sub>2</sub> ) <sub>2</sub>  | 18488-96-5  | 150.944     |                     |          |       |                            | 0.49 <sup>25</sup>                  |   |
| 876 | Cobalt(II) oleate                         | Co(C <sub>18</sub> H <sub>33</sub> O <sub>2</sub> ) <sub>2</sub>                                 | 14666-94-5  | 621.840     | brn amorp pow       |          |       |                            |                                     | i H <sub>2</sub> O; s EtOH, eth               |
| 877 | Cobalt(II) orthosilicate                  | Co <sub>3</sub> SiO <sub>4</sub>   | 12017-08-2  | 209.590     | red-viol orth cry   | 1345     |       | 4.63                       |                                     | i H <sub>2</sub> O; s dil HCl                 |
| 878 | Cobalt(II) oxalate                        | CoC <sub>2</sub> O <sub>4</sub>  | 814-89-1    | 146.952     | pink powder         | 250 dec  |       | 3.02                       | 0.0037 <sup>20</sup>                | s acid, NH <sub>4</sub> OH                    |
| 879 | Cobalt(II) oxalate dihydrate              | CoC <sub>2</sub> O <sub>4</sub> · 2H <sub>2</sub> O  | 5965-38-8   | 182.982     | pink needles        | dec      |       |                            | 0.0037                              | sl acid; s NH <sub>4</sub> OH                 |
| 880 | Cobalt(II) oxide                          | CoO  | 1307-96-6   | 74.932      | gray cub cry        | 1830     |       | 6.44                       |                                     | i H <sub>2</sub> O; s acid                    |
| 881 | Cobalt(II) 2,4-pentanedioate              | Co(CH <sub>3</sub> COCHCOCH <sub>3</sub> ) <sub>2</sub>  | 14024-48-7  | 257.149     | bl-viol cry         | 167      |       |                            |                                     |   |
| 882 | Cobalt(II) perchlorate                    | Co(ClO <sub>4</sub> ) <sub>2</sub>   | 13455-31-7  | 257.834     | red needles         |          |       | 3.33                       | 113 <sup>25</sup>                   | i EtOH, ace                                   |
| 883 | Cobalt(II) perchlorate hexahydrate        | Co(ClO <sub>4</sub> ) <sub>2</sub> · 6H <sub>2</sub> O   | 13478-33-6  | 365.926     | dark red cry        | dec 170  |       | 3.33                       |                                     | vs H <sub>2</sub> O                           |
| 884 | Cobalt(II) phosphate octahydrate          | Co <sub>3</sub> (PO <sub>4</sub> ) <sub>2</sub> · 8H <sub>2</sub> O                              | 10294-50-5  | 510.865     | pink amorp powder   |          |       | 2.77                       |                                     | i H <sub>2</sub> O; s acid                    |
| 885 | Cobalt(II) potassium sulfate hexahydrate  | CoK <sub>2</sub> (SO <sub>4</sub> ) <sub>2</sub> · 6H <sub>2</sub> O                             | 10026-20-7  | 437.347     | red monocl cry      | 75 dec   |       | 2.22                       |                                     | vs H <sub>2</sub> O                           |
| 886 | Cobalt(II) selenate pentahydrate          | CoSeO <sub>4</sub> · 5H <sub>2</sub> O   | 14590-19-3  | 291.97      | red tricr cry       | dec      |       | 2.51                       | 55 <sup>15</sup>                    |   |
| 887 | Cobalt(II) selenide                       | CoSe   | 1307-99-9   | 137.89      | yel hex cry         | 1055     |       | 7.65                       |                                     | i H <sub>2</sub> O, alk; s aqua regia         |
| 888 | Cobalt(II) selenite dihydrate             | CoSeO <sub>3</sub> · 2H <sub>2</sub> O   | 19034-13-0  | 221.92      | blue-red powder     |          |       |                            |                                     | i H <sub>2</sub> O                            |
| 889 | Cobalt(II) stannate                       | Co <sub>2</sub> SnO <sub>4</sub>   | 12139-93-4  | 300.574     | grn-blue cub cry    |          |       | 6.30                       |                                     | i H <sub>2</sub> O; s alk                     |
| 890 | Cobalt(II) stearate                       | Co(C <sub>18</sub> H <sub>35</sub> O <sub>2</sub> ) <sub>2</sub>                                 | 1002-88-6   | 625.872     | purp solid          | 74       |       | 1.13                       |                                     |   |
| 891 | Cobalt(II) sulfate                        | CoSO <sub>4</sub>  | 10124-43-3  | 154.996     | red orth cry        | >700     |       | 3.71                       | 38.3 <sup>25</sup>                  |   |
| 892 | Cobalt(II) sulfate monohydrate            | CoSO <sub>4</sub> · H <sub>2</sub> O   | 13455-34-0  | 173.011     | red monocl cry      |          |       | 3.08                       | 38.3 <sup>25</sup>                  |   |
| 893 | Cobalt(II) sulfate heptahydrate           | CoSO <sub>4</sub> · 7H <sub>2</sub> O  | 10026-24-1  | 281.102     | pink monocl cry     | 41 dec   |       | 2.03                       | 38.3 <sup>25</sup>                  | sl EtOH, MeOH                                 |
| 894 | Cobalt(II) sulfide                        | CoS  | 1317-42-6   | 90.998      | blk amorp powder    | 1117     |       | 5.45                       |                                     | i H <sub>2</sub> O; s acid                    |
| 895 | Cobalt(II) telluride                      | CoTe   | 12017-13-9  | 186.53      | hex cry             |          |       | ≈8.8                       |                                     |   |
| 896 | Cobalt(II) thiocyanate                    | Co(SCN) <sub>2</sub>   | 3017-60-5   | 175.097     | yel-brn powder      |          |       |                            | 103 <sup>25</sup>                   | s EtOH, MeOH, ace, eth                        |
| 897 | Cobalt(II) thiocyanate trihydrate         | Co(SCN) <sub>2</sub> · 3H <sub>2</sub> O   | 97126-35-7  | 229.143     | viol rhomb cry      |          |       |                            | 103 <sup>25</sup>                   | s EtOH, eth, ace                              |
| 898 | Cobalt(II) titanate                       | CoTiO <sub>3</sub>   | 12017-01-5  | 154.798     | grn rhomb cry       |          |       | 5.0                        |                                     |   |
| 899 | Cobalt(II) tungstate                      | CoWO <sub>4</sub>  | 12640-47-0  | 306.77      | blue monocl cry     |          |       | ≈7.8                       |                                     | i H <sub>2</sub> O; s hot conc acid           |
| 900 | Cobalt(II,III) oxide                      | Co <sub>2</sub> O <sub>4</sub>   | 1308-06-1   | 240.798     | blk cub cry         | 900 dec  |       | 6.11                       |                                     | i H <sub>2</sub> O; s acid, alk               |
| 901 | Cobalt(III) acetate                       | Co(C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> ) <sub>3</sub>                                   | 917-69-1    | 236.064     | grn hyg cry         | 100 dec  |       |                            |                                     | s H <sub>2</sub> O, EtOH                      |
| 902 | Cobalt(III) ammonium tetranitrodiammine   | NH <sub>4</sub> [Co(NH <sub>3</sub> ) <sub>2</sub> (NO <sub>2</sub> ) <sub>4</sub> ]             | 13600-89-0  | 295.054     | red-brn orth cry    |          |       | 1.97                       |                                     | s H <sub>2</sub> O                            |
| 903 | Cobalt(III) fluoride                      | CoF <sub>3</sub>   | 10026-18-3  | 115.928     | brn hex cry         | 927      |       | 3.88                       |                                     | reac H <sub>2</sub> O; s EtOH, eth, bz        |
| 904 | Cobalt(III) fluoride dihydrate            | CoF <sub>3</sub> · 2H <sub>2</sub> O   | 54496-71-8  | 267.887     | red rhomb cry       |          |       | 2.19                       |                                     | s H <sub>2</sub> O; i EtOH                    |
| 905 | Cobalt(III) hexammine chloride            | Co(NH <sub>3</sub> ) <sub>6</sub> Cl <sub>3</sub>  | 10534-89-1  | 267.475     | red monocl cry      |          |       | 1.71                       |                                     | s H <sub>2</sub> O; i EtOH                    |
| 906 | Cobalt(III) hydroxide                     | Co(OH) <sub>3</sub>  | 1307-86-4   | 109.955     | brn powder          | dec      |       | ≈4                         |                                     | i H <sub>2</sub> O; s acid                    |
| 907 | Cobalt(III) nitrate                       | Co(NO <sub>3</sub> ) <sub>3</sub>  | 15520-84-0  | 244.948     | grn cub cry; hyg    |          |       | ≈3.0                       |                                     | s H <sub>2</sub> O; reac os                   |
| 908 | Cobalt(III) oxide                         | Co <sub>2</sub> O <sub>3</sub>   | 1308-04-9   | 165.864     | gray-blk powder     | 895 dec  |       | 5.18                       |                                     | i H <sub>2</sub> O; s conc acid               |

| No. | Name  | Formula  | CAS Reg No. | Mol. weight | Physical form             | mp/°C           | bp/°C    | Density g cm <sup>-3</sup> | Solubility g/100 g H <sub>2</sub> O | Qualitative solubility                                    |
|-----|---|--|-------------|-------------|---------------------------|-----------------|----------|----------------------------|-------------------------------------|---|
| 909 | Cobalt(III) oxide monohydrate               | Co <sub>2</sub> O <sub>3</sub> · H <sub>2</sub> O  | 12016-80-7  | 183.880     | brn-blk hex cry           | 150 dec         |          |                            |                                     | i H <sub>2</sub> O; s acid                                |
| 910 | Cobalt(III) 2,4-pentanedioate               | Co(CH <sub>3</sub> COCHCOCH <sub>3</sub> ) <sub>3</sub>  | 21679-46-9  | 356.257     | dark grn cry              | 213             |          |                            |                                     | s bz, ace   |
| 911 | Cobalt(III) potassium nitrite sesquihydrate | CoK <sub>3</sub> (NO <sub>2</sub> ) <sub>6</sub> · 1.5H <sub>2</sub> O                               | 13782-01-9* | 479.284     | yel cub cry               |                 |          | 2.6                        |                                     | sl H <sub>2</sub> O; reac acid; i EtOH                    |
| 912 | Cobalt(III) sulfide                         | Co <sub>2</sub> S <sub>3</sub>   | 1332-71-4   | 214.061     | blk cub cry               |                 |          | 4.8                        |                                     | reac acid   |
| 913 | Cobalt(III) titanate                        | Co <sub>2</sub> TiO <sub>4</sub>   | 12017-38-8  | 229.731     | grn-blk cub cry           |                 |          | 5.1                        |                                     | s conc HCl  |
| 914 | Copper                                      | Cu   | 7440-50-8   | 63.546      | red metal; cub            | 1084.62         | 2562     | 8.96                       |                                     | sl dil acid   |
| 915 | Copper arsenide                             | Cu <sub>3</sub> As   | 12005-75-3  | 265.560     | dark gray solid           | 827             |          |                            |                                     |   |
| 916 | Copper nitride                              | Cu <sub>3</sub> N  | 1308-80-1   | 204.645     | cub cry                   | 300 dec         |          | 5.84                       |                                     |   |
| 917 | Copper phosphide                            | Cu <sub>3</sub> P <sub>2</sub>   | 12019-11-3  | 125.494     | monocl cry                | ≈900            |          | 4.20                       |                                     |   |
| 918 | Copper silicide                             | Cu <sub>3</sub> Si   | 12159-07-8  | 345.816     | solid                     | 825             |          |                            |                                     |   |
| 919 | Copper(I) acetate                           | Cu <sub>2</sub> C <sub>2</sub> H <sub>3</sub> O <sub>2</sub>   | 598-54-9    | 122.590     | col cry                   | dec             | subl     |                            |                                     | reac H <sub>2</sub> O                                     |
| 920 | Copper(I) acetylride                        | Cu <sub>2</sub> C <sub>2</sub>   | 1117-94-8   | 151.113     | red amorp powder; exp     |                 |          |                            |                                     |   |
| 921 | Copper(I) azide                             | CuN <sub>3</sub>   | 14336-80-2  | 105.566     | tetr cry; exp             |                 |          |                            |                                     |   |
| 922 | Copper(I) bromide                           | CuBr   | 7787-70-4   | 143.450     | wh cub cry; hyg           | 483             | 1345     | 4.98                       | 0.0012 <sup>20</sup>                | i ace   |
| 923 | Copper(I) chloride                          | CuCl   | 7758-89-6   | 98.999      | wh cub cry                | 423             | 1490     | 4.14                       | 0.0047 <sup>20</sup>                | i EtOH, ace   |
| 924 | Copper(I) cyanide                           | CuCN   | 544-92-3    | 89.564      | wh powder or grn orth cry | 474             | dec      | 2.9                        |                                     | i H <sub>2</sub> O, EtOH; s KCN soln                      |
| 925 | Copper(I) fluoride                          | CuF  | 13478-41-6  | 82.544      | cub cry                   |                 |          | 7.1                        |                                     |   |
| 926 | Copper(I) hydride                           | CuH  | 13517-00-5  | 64.554      | red-brn solid             | 60 dec          |          |                            |                                     |   |
| 927 | Copper(I) iodide                            | CuI  | 7681-65-4   | 190.450     | wh cub cry                | 591             | ≈1290    | 5.67                       | 0.000020 <sup>20</sup>              | i dil acid  |
| 928 | Copper(I) mercury iodide                    | Cu <sub>2</sub> HgI <sub>4</sub>   | 13876-85-2  | 835.30      | red cry powder            | trans ≈60 (brn) |          |                            |                                     | i H <sub>2</sub> O, EtOH                                  |
| 929 | Copper(I) oxide                             | Cu <sub>2</sub> O  | 1317-39-1   | 143.091     | red-brn cub cry           | 1244            | 1800 dec | 6.0                        |                                     | i H <sub>2</sub> O  |
| 930 | Copper(I) selenide                          | Cu <sub>2</sub> Se   | 20405-64-5  | 206.05      | blue-blk tetr cry         | 1113            |          | 6.84                       |                                     | i H <sub>2</sub> O; s acid                                |
| 931 | Copper(I) sulfide                           | Cu <sub>2</sub> S  | 22205-45-4  | 159.157     | blue-blk orth cry         | 1129            |          | 5.6                        |                                     | i H <sub>2</sub> O; sl acid                               |
| 932 | Copper(I) sulfite hemihydrate               | Cu <sub>2</sub> SO <sub>3</sub> · 0.5H <sub>2</sub> O  | 13982-53-1* | 216.164     | wh-yel hex cry            |                 |          |                            |                                     | sl H <sub>2</sub> O; s acid, alk; i EtOH, eth             |
| 933 | Copper(I) sulfite monohydrate               | Cu <sub>2</sub> SO <sub>3</sub> · H <sub>2</sub> O   | 35788-00-2  | 225.171     | cry                       |                 |          | 3.83                       |                                     | sl H <sub>2</sub> O; s HCl                                |
| 934 | Copper(I) telluride                         | Cu <sub>2</sub> Te   | 12019-52-2  | 254.69      | blue hex cry              | 1127            |          | 4.6                        |                                     |   |
| 935 | Copper(I) thiocyanate                       | CuSCN  | 1111-67-7   | 121.629     | wh-yel amorp powder       | 1084            |          | 2.85                       |                                     | i H <sub>2</sub> O, dil acid, EtOH, ace; s eth            |
| 936 | Copper(II) sulfite dihydrate                | Cu <sub>2</sub> SO <sub>3</sub> · CuSO <sub>3</sub> · 2H <sub>2</sub> O                              | 13814-81-8  | 386.795     | red prisms or powder      |                 |          |                            |                                     | i H <sub>2</sub> O, EtOH; s HCl                           |
| 937 | Copper(II) acetate                          | Cu(C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> ) <sub>2</sub>                                       | 142-71-2    | 181.635     | blue-grn hyg powder       |                 |          |                            |                                     |   |
| 938 | Copper(II) acetate monohydrate              | Cu(C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> ) <sub>2</sub> · H <sub>2</sub> O                    | 6046-93-1   | 199.650     | grn monocl cry            | 115             | 240 dec  | 1.88                       |                                     | s H <sub>2</sub> O, EtOH; sl eth                          |
| 939 | Copper(II) acetate metaarsenite             | Cu(C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> ) <sub>2</sub> · 3Cu(AsO <sub>2</sub> ) <sub>2</sub> | 12002-03-8  | 1013.795    | grn cry powder            |                 |          |                            |                                     | i H <sub>2</sub> O; reac acid                             |
| 940 | Copper(II) basic acetate                    | Cu(C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> ) <sub>2</sub> · CuO · 6H <sub>2</sub> O             | 52503-64-7  | 369.271     | blue-grn cry or powder    |                 |          |                            |                                     | sl H <sub>2</sub> O, EtOH; s dil acid, NH <sub>4</sub> OH |
| 941 | Copper(II) acetylride                       | Cu <sub>2</sub> C <sub>2</sub>   | 12540-13-5  | 87.567      | brn-blk solid; exp        | exp 100         |          |                            |                                     |   |
| 942 | Copper(II) arsenate                         | Cu <sub>3</sub> (AsO <sub>4</sub> ) <sub>2</sub>   | 7778-41-8   | 468.476     | blue-grn cry              |                 |          |                            |                                     | i H <sub>2</sub> O, EtOH; s dil acid                      |
| 943 | Copper(II) arsenite                         | CuHAsO <sub>3</sub>  | 10290-12-7  | 187.474     | yel-grn powder            |                 |          |                            |                                     | i H <sub>2</sub> O, EtOH; s acid                          |
| 944 | Copper(II) azide                            | Cu(N <sub>3</sub> ) <sub>2</sub>   | 14215-30-6  | 147.586     | brn orth cry; exp         |                 |          | ≈2.6                       |                                     |   |
| 945 | Copper(II) borate                           | Cu(BO <sub>2</sub> ) <sub>2</sub>  | 39290-85-2  | 149.166     | blue-grn powder           |                 |          | 3.859                      |                                     | i H <sub>2</sub> O; s acid                                |
| 946 | Copper(II) bromide                          | CuBr <sub>2</sub>  | 7789-45-9   | 223.354     | blk monocl cry; hyg       | 498             | 900      | 4.710                      | 126 <sup>25</sup>                   | vs H <sub>2</sub> O; s EtOH, ace; i bz, eth               |
| 947 | Copper(II) butanoate monohydrate            | Cu(C <sub>4</sub> H <sub>7</sub> O <sub>2</sub> ) <sub>2</sub> · H <sub>2</sub> O                    | 540-16-9    | 255.756     | grn monocl plates         |                 |          |                            |                                     | s H <sub>2</sub> O, diox, bz; sl EtOH                     |
| 948 | Copper(II) carbonate                        | CuCO <sub>3</sub>  | 1184-64-1   | 123.555     | cry                       |                 |          |                            |                                     | i H <sub>2</sub> O  |
| 949 | Copper(II) carbonate hydroxide              | CuCO <sub>3</sub> · Cu(OH) <sub>2</sub>  | 12069-69-1  | 221.116     | grn monocl cry            | 200 dec         |          | 4.0                        |                                     | i H <sub>2</sub> O, EtOH; s dil acid                      |
| 950 | Copper(II) chlorate hexahydrate             | Cu(ClO <sub>3</sub> ) <sub>2</sub> · 6H <sub>2</sub> O   | 14721-21-2  | 338.540     | blue-grn hyg cry          | 65              | 100 dec  |                            | 164 <sup>18</sup>                   | vs EtOH   |
| 951 | Copper(II) chloride                         | CuCl <sub>2</sub>  | 7447-39-4   | 134.452     | yel-brn monocl cry; hyg   | 598             | 993      | 3.4                        | 75.7 <sup>25</sup>                  | s EtOH, ace   |
| 952 | Copper(II) chloride dihydrate               | CuCl <sub>2</sub> · 2H <sub>2</sub> O  | 10125-13-0  | 170.483     | grn-blue orth cry; hyg    | 100 dec         |          | 2.51                       | 75.7 <sup>20</sup>                  | vs EtOH, MeOH; s ace; i eth                               |
| 953 | Copper(II) chloride hydroxide               | Cu <sub>2</sub> (OH) <sub>3</sub> Cl   | 1332-65-6   | 213.567     | pale grn cry              |                 |          |                            |                                     | i H <sub>2</sub> O; s acid                                |
| 954 | Copper(II) chromate                         | CuCrO <sub>4</sub>   | 13548-42-0  | 179.540     | red-brn cry               |                 |          |                            |                                     | i H <sub>2</sub> O; s EtOH                                |
| 955 | Copper(II) basic chromate                   | CuCrO <sub>4</sub> · 2Cu(OH) <sub>2</sub>  | 12433-14-6  | 374.661     | brn pow                   | dec 260         |          |                            |                                     | i H <sub>2</sub> O; s HNO <sub>3</sub>                    |
| 956 | Copper(II) chromite                         | CuCr <sub>2</sub> O <sub>4</sub>   | 12018-10-9  | 231.536     | gray-blk tetr cry         |                 |          | 5.4                        |                                     | i H <sub>2</sub> O, dil acid                              |
| 957 | Copper(II) citrate hemipentahydrate         | Cu <sub>3</sub> C <sub>6</sub> H <sub>5</sub> O <sub>7</sub> · 2.5H <sub>2</sub> O                   | 10402-15-0  | 360.221     | blue-grn cry              | 100 dec         |          |                            |                                     | sl H <sub>2</sub> O; s dil acid                           |
| 958 | Copper(II) cyanide                          | Cu(CN) <sub>2</sub>  | 14763-77-0  | 115.580     | grn powder                |                 |          |                            |                                     | i H <sub>2</sub> O; s acid, alk                           |
| 959 | Copper(II) cyclohexanobutanoate             | Cu(C <sub>10</sub> H <sub>17</sub> O <sub>2</sub> ) <sub>2</sub>                                     | 2218-80-6   | 402.028     | powder                    | 126 dec         |          |                            |                                     |   |
| 960 | Copper(II) dichromate dihydrate             | CuCr <sub>2</sub> O <sub>7</sub> · 2H <sub>2</sub> O   | 13675-47-3  | 315.565     | red-brn tricl cry         |                 |          | 2.286                      |                                     | vs H <sub>2</sub> O                                       |
| 961 | Copper(II) ethanolate                       | Cu(C <sub>2</sub> H <sub>3</sub> O) <sub>2</sub>   | 2850-65-9   | 153.667     | blue hyg solid            | 120 dec         |          |                            |                                     | i os  |
| 962 | Copper(II) ethylacetoacetate                | Cu(C <sub>2</sub> H <sub>5</sub> CO <sub>2</sub> CHCOCH <sub>3</sub> ) <sub>2</sub>                  | 14284-06-1  | 321.813     | grn cry                   | 192             |          |                            |                                     | s EtOH, chl   |

| No.  | Name   | Formula   | CAS Reg No. | Mol. weight | Physical form                    | mp/°C      | bp/°C   | Density g cm <sup>-3</sup> | Solubility g/100 g H <sub>2</sub> O | Qualitative solubility  |
|------|--|---|-------------|-------------|----------------------------------|------------|---------|----------------------------|-------------------------------------|---|
| 963  | Copper(II) 2-ethylhexanoate                  | Cu(C <sub>8</sub> H <sub>15</sub> O <sub>2</sub> ) <sub>2</sub>     | 149-11-1    | 349.953     | powder                           | 252 dec    |         |                            |                                     |   |
| 964  | Copper(II) ferrate                           | CuFe <sub>2</sub> O <sub>4</sub>                                    | 12018-79-0  | 239.234     | blk cry                          |            |         |                            |                                     |   |
| 965  | Copper(II) ferrocyanide                      | Cu <sub>2</sub> Fe(CN) <sub>6</sub>                                 | 13601-13-3  | 339.041     | red-br cub cry or powder         |            |         | 2.2                        |                                     | i H <sub>2</sub> O, acid, os                                    |
| 966  | Copper(II) ferrous sulfide                   | CuFeS <sub>2</sub>  | 1308-56-1   | 183.521     | yel tetr cry                     | 950        |         | 4.2                        |                                     | i H <sub>2</sub> O, HCl; s HNO <sub>3</sub>                     |
| 967  | Copper(II) fluoride                          | CuF <sub>2</sub>  | 7789-19-7   | 101.543     | wh monocl cry                    | 836        | 1676    | 4.23                       | 0.075 <sup>25</sup>                 |   |
| 968  | Copper(II) fluoride dihydrate                | CuF <sub>2</sub> · 2H <sub>2</sub> O                                | 13454-88-1  | 137.574     | blue monocl cry                  | 130 dec    |         | 2.934                      | 0.075 <sup>25</sup>                 |   |
| 969  | Copper(II) formate                           | Cu(CHO <sub>2</sub> ) <sub>2</sub>                                  | 544-19-4    | 153.581     | blue cry                         |            |         |                            | 12.5 <sup>20</sup>                  | i os  |
| 970  | Copper(II) formate tetrahydrate              | Cu(CHO <sub>2</sub> ) <sub>2</sub> · 4H <sub>2</sub> O              | 5893-61-8   | 225.641     | blue monocl cry                  |            |         |                            | 12.5                                | sl EtOH; i os   |
| 971  | Copper(II) gluconate                         | CuC <sub>12</sub> H <sub>22</sub> O <sub>14</sub>                   | 527-09-3    | 453.841     | bl-grn cry                       | 156        |         |                            |                                     | sl EtOH; i os   |
| 972  | Copper(II) hexafluoro-2,4-pentanedioate      | Cu(CF <sub>3</sub> COCHCOCF <sub>3</sub> ) <sub>2</sub>             | 14781-45-4  | 477.648     | cry                              | 98         | 220 dec |                            |                                     | s MeOH, ace, tol  |
| 973  | Copper(II) hexafluorosilicate tetrahydrate   | CuSiF <sub>6</sub> · 4H <sub>2</sub> O                              | 12062-24-7  | 277.684     | blue monocl cry                  | dec        |         | 2.56                       | 99.7 <sup>17</sup>                  | sl EtOH   |
| 974  | Copper(II) hydroxide                         | Cu(OH) <sub>2</sub>   | 20427-59-2  | 97.561      | blue-grn powder                  |            |         | 3.37                       |                                     | i H <sub>2</sub> O; s acid, conc alk                            |
| 975  | Copper(II) iodate                            | Cu(IO <sub>3</sub> ) <sub>2</sub>                                   | 13454-89-2  | 413.351     | grn monocl cry                   | dec        |         | 5.241                      | 0.15 <sup>20</sup>                  | s dil acid  |
| 976  | Copper(II) iodate monohydrate                | Cu(IO <sub>3</sub> ) <sub>2</sub> · H <sub>2</sub> O                | 13454-90-5  | 431.367     | blue tricl cry                   | 248 dec    |         | 4.872                      | 0.15 <sup>20</sup>                  | s dil H <sub>2</sub> SO <sub>4</sub>                            |
| 977  | Copper(II) molybdate                         | CuMoO <sub>4</sub>  | 13767-34-5  | 223.48      | grn cry                          | ≈500       |         | 3.4                        | 0.038                               |   |
| 978  | Copper(II) nitrate                           | Cu(NO <sub>3</sub> ) <sub>2</sub>                                   | 3251-23-8   | 187.555     | blue-grn orth cry; hyg           | 255        | subl    |                            | 145 <sup>25</sup>                   | s diox; reac eth  |
| 979  | Copper(II) nitrate trihydrate                | Cu(NO <sub>3</sub> ) <sub>2</sub> · 3H <sub>2</sub> O               | 10031-43-3  | 241.602     | blue rhomb cry                   | 114        | 170 dec | 2.32                       | 145 <sup>25</sup>                   | vs EtOH   |
| 980  | Copper(II) nitrate hexahydrate               | Cu(NO <sub>3</sub> ) <sub>2</sub> · 6H <sub>2</sub> O               | 13478-38-1  | 295.647     | blue rhomb cry; hyg              |            |         | 2.07                       | 145 <sup>25</sup>                   | s EtOH  |
| 981  | Copper(II) oleate                            | Cu(C <sub>18</sub> H <sub>33</sub> O <sub>2</sub> ) <sub>2</sub>    | 1120-44-1   | 626.453     | blue-grn solid                   |            |         |                            |                                     | i H <sub>2</sub> O; sl EtOH; s eth                              |
| 982  | Copper(II) oxalate                           | CuC <sub>2</sub> O <sub>4</sub>                                     | 814-91-5    | 151.565     | blue-wh powder                   | 310 dec    |         |                            | 0.0026 <sup>20</sup>                | i EtOH, eth; s NH <sub>4</sub> OH                               |
| 983  | Copper(II) oxalate hemihydrate               | CuC <sub>2</sub> O <sub>4</sub> · 0.5H <sub>2</sub> O               | 814-91-5*   | 144.573     | blue-wh cry                      | 200 dec    |         |                            | 0.0026 <sup>20</sup>                | s NH <sub>4</sub> OH  |
| 984  | Copper(II) oxide                             | CuO   | 1317-38-0   | 79.545      | blk powder or monocl cry         | 1227       |         | 6.31                       |                                     | i H <sub>2</sub> O, EtOH; s dil acid                            |
| 985  | Copper(II) 2,4-pentanedioate                 | Cu(CH <sub>3</sub> COCHCOCH <sub>3</sub> ) <sub>2</sub>             | 13395-16-9  | 261.762     | blue powder                      | 284 dec    | subl    |                            |                                     | sl H <sub>2</sub> O; s chl                                      |
| 986  | Copper(II) oxychloride hemiheptahydrate      | CuCl <sub>2</sub> · 3CuO · 3.5H <sub>2</sub> O                      | 1332-40-7   |             | blue-grn pow                     | dec 140    |         |                            |                                     | i H <sub>2</sub> O; s acid, NH <sub>4</sub> OH                  |
| 987  | Copper(II) perchlorate                       | Cu(ClO <sub>4</sub> ) <sub>2</sub>                                  | 13770-18-8  | 262.447     | grn hyg cry                      | 130 dec    |         |                            | 146 <sup>30</sup>                   | s eth, diox; i bz, ctc  |
| 988  | Copper(II) perchlorate hexahydrate           | Cu(ClO <sub>4</sub> ) <sub>2</sub> · 6H <sub>2</sub> O              | 10294-46-9  | 370.539     | blue monocl cry; hyg             | 82         | 120 dec | 2.22                       | 146 <sup>30</sup>                   | vs EtOH, HOAc, ace; sl eth                                      |
| 989  | Copper(II) phosphate                         | Cu <sub>3</sub> (PO <sub>4</sub> ) <sub>2</sub>                     | 7798-23-4   | 380.581     | blue-grn tricl cry               |            |         |                            |                                     | i H <sub>2</sub> O; s acid, NH <sub>4</sub> OH                  |
| 990  | Copper(II) phosphate trihydrate              | Cu <sub>3</sub> (PO <sub>4</sub> ) <sub>2</sub> · 3H <sub>2</sub> O | 10031-48-8  | 434.627     | blue-grn orth cry                |            |         |                            |                                     | i H <sub>2</sub> O; s acid, NH <sub>4</sub> OH                  |
| 991  | Copper(II) phthalocyanine                    | CuC <sub>32</sub> H <sub>16</sub> N <sub>8</sub>                    | 147-14-8    | 576.069     | bl-purp cry                      |            |         |                            |                                     | i H <sub>2</sub> O, EtOH; s conc H <sub>2</sub> SO <sub>4</sub> |
| 992  | Copper(II) selenate pentahydrate             | CuSeO <sub>4</sub> · 5H <sub>2</sub> O                              | 10031-45-5  | 296.58      | blue tricl cry                   | 80 dec     |         | 2.56                       | 27.4 <sup>25</sup>                  | s acid, NH <sub>4</sub> OH; sl ace; i EtOH                      |
| 993  | Copper(II) selenide                          | CuSe  | 1317-41-5   | 142.51      | blue-blk needles or plates       | 550 dec    |         | 5.99                       |                                     | reac acid   |
| 994  | Copper(II) selenite dihydrate                | CuSeO <sub>3</sub> · 2H <sub>2</sub> O                              | 15168-20-4  | 226.54      | blue orth cry                    |            |         | 3.31                       |                                     | i H <sub>2</sub> O; s acid, NH <sub>4</sub> OH                  |
| 995  | Copper(II) silicate dihydrate                | CuSiO <sub>3</sub> · 2H <sub>2</sub> O                              | 26318-99-0  | 175.661     | grn-blue orth cry                |            |         |                            |                                     |   |
| 996  | Copper(II) stannate                          | CuSnO <sub>3</sub>  | 12019-07-7  | 230.254     | blue pow                         |            |         |                            |                                     |   |
| 997  | Copper(II) stearate                          | Cu(C <sub>18</sub> H <sub>35</sub> O <sub>2</sub> ) <sub>2</sub>    | 660-60-6    | 630.485     | blue-grn amorp powder            | ≈250       |         |                            |                                     | i H <sub>2</sub> O, EtOH, eth; s py                             |
| 998  | Copper(II) sulfate                           | CuSO <sub>4</sub>   | 7758-98-7   | 159.609     | wh-grn amorp powder or rhomb cry | 560 dec    |         | 3.60                       | 22.0 <sup>25</sup>                  | i EtOH  |
| 999  | Copper(II) sulfate pentahydrate              | CuSO <sub>4</sub> · 5H <sub>2</sub> O                               | 7758-99-8   | 249.685     | blue tricl cry                   | 110 dec    |         | 2.286                      | 22.0 <sup>25</sup>                  | s MeOH; sl EtOH   |
| 1000 | Copper(II) sulfate, basic                    | Cu <sub>3</sub> (OH) <sub>4</sub> SO <sub>4</sub>                   | 1332-14-5   | 354.730     | grn rhomb cry                    |            |         | 3.88                       |                                     | i H <sub>2</sub> O  |
| 1001 | Copper(II) sulfide                           | CuS   | 1317-40-4   | 95.611      | blk hex cry                      | trans 507  |         | 4.76                       |                                     | i H <sub>2</sub> O, EtOH, dil acid, alk                         |
| 1002 | Copper(II) tartrate trihydrate               | CuC <sub>4</sub> H <sub>4</sub> O <sub>6</sub> · 3H <sub>2</sub> O  | 815-82-7    | 265.663     | blue-grn powder                  |            |         |                            |                                     | sl H <sub>2</sub> O; s acid, alk                                |
| 1003 | Copper(II) telluride                         | CuTe  | 12019-23-7  | 191.15      | yel orth cry                     | trans ≈400 |         | 7.09                       |                                     |   |
| 1004 | Copper(II) tellurite                         | CuTeO <sub>3</sub>  | 13812-58-3  | 239.14      | blk glassy solid                 |            |         |                            |                                     | i H <sub>2</sub> O  |
| 1005 | Copper(II) tetrafluoroborate                 | Cu(BF <sub>4</sub> ) <sub>2</sub>                                   | 14735-84-3  | 237.155     | solid                            |            |         |                            |                                     | s H <sub>2</sub> O  |
| 1006 | Copper(II) titanate                          | CuTiO <sub>3</sub>  | 12019-08-8  | 159.411     | gray pow                         |            |         |                            |                                     |   |
| 1007 | Copper(II) 1,1,1-trifluoro-2,4-pentanedioate | Cu(CF <sub>3</sub> COCHCOCH <sub>3</sub> ) <sub>2</sub>             | 14324-82-4  | 369.705     | blue-purp cry                    | 197        | dec 260 |                            |                                     | s EtOH, tol   |
| 1008 | Copper(II) tungstate                         | CuWO <sub>4</sub>   | 13587-35-4  | 311.38      | yel-brn powder                   |            |         | 7.5                        |                                     |   |
| 1009 | Copper(II) tungstate dihydrate               | CuWO <sub>4</sub> · 2H <sub>2</sub> O                               | 13587-35-4* | 347.41      | grn powder                       |            |         |                            |                                     | i H <sub>2</sub> O; sl HOAc; reac conc acid                     |
| 1010 | Copper(II) vanadate                          | Cu(VO <sub>3</sub> ) <sub>2</sub>                                   | 12789-09-2  | 261.425     | powder                           |            |         |                            |                                     |   |

| No.  | Name                                   | Formula  | CAS Reg No. | Mol. weight | Physical form          | mp/°C   | bp/°C | Density g cm <sup>-3</sup> | Solubility g/100 g H <sub>2</sub> O | Qualitative solubility      |
|------|--|--|-------------|-------------|------------------------|---------|-------|----------------------------|-------------------------------------|-----------------------------|
| 1011 | Curium                                 | Cm   | 7440-51-9   | 247         | silv metal; hex or cub | 1345    | ≈3100 | 13.51                      |                                     |                             |
| 1012 | Dysprosium                             | Dy   | 7429-91-6   | 162.500     | silv metal; hex        | 1412    | 2567  | 8.55                       |                                     | s dil acid                  |
| 1013 | Dysprosium boride                      | DyB <sub>4</sub>   | 12310-43-9  | 205.744     | tetr cry               | 2500    |       | 6.98                       |                                     |                             |
| 1014 | Dysprosium nitride                     | DyN  | 12019-88-4  | 176.507     | cub cry                |         |       | 9.93                       |                                     |                             |
| 1015 | Dysprosium silicide                    | DySi <sub>2</sub>  | 12133-07-2  | 218.671     | orth cry               | 1550    |       | 5.2                        |                                     |                             |
| 1016 | Dysprosium(II) bromide                 | DyBr <sub>2</sub>  | 83229-05-4  | 322.308     | blk solid              |         |       |                            |                                     |                             |
| 1017 | Dysprosium(II) chloride                | DyCl <sub>2</sub>  | 13767-31-2  | 233.406     | blk cry                | 721 dec |       |                            |                                     | reac H <sub>2</sub> O       |
| 1018 | Dysprosium(II) iodide                  | DyI <sub>2</sub>   | 36377-94-3  | 416.309     | purp cry               | 659     |       |                            |                                     | reac H <sub>2</sub> O       |
| 1019 | Dysprosium(III) acetate tetrahydrate   | Dy(C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> ) <sub>3</sub> · 4H <sub>2</sub> O | 15280-55-4  | 411.693     | yel needles            | dec 120 |       |                            |                                     | s H <sub>2</sub> O; sl EtOH |
| 1020 | Dysprosium(III) bromide                | DyBr <sub>3</sub>  | 14456-48-5  | 402.212     | wh hyg cry             | 879     |       |                            |                                     | s H <sub>2</sub> O          |
| 1021 | Dysprosium(III) carbonate tetrahydrate | Dy <sub>2</sub> (CO <sub>3</sub> ) <sub>3</sub> · 4H <sub>2</sub> O                | 38245-35-1  | 577.088     | wh cry pow             |         |       |                            |                                     | i H <sub>2</sub> O          |
| 1022 | Dysprosium(III) chloride               | DyCl <sub>3</sub>  | 10025-74-8  | 268.859     | wh or yel cry          | 718     | 1530  | 3.67                       |                                     | s H <sub>2</sub> O, MeOH    |
| 1023 | Dysprosium(III) chloride hexahydrate   | DyCl <sub>3</sub> · 6H <sub>2</sub> O  | 15059-52-6  | 376.950     | bright yel cry         | dec 162 |       |                            |                                     |                             |
| 1024 | Dysprosium(III) fluoride               | DyF <sub>3</sub>   | 13569-80-7  | 219.495     | grn cry                | 1157    |       |                            |                                     |                             |
| 1025 | Dysprosium(III) hydride                | DyH <sub>3</sub>   | 13537-09-2  | 165.524     | hex cry                |         |       | 7.1                        |                                     |                             |
| 1026 | Dysprosium(III) hydroxide              | Dy(OH) <sub>3</sub>  | 1308-85-6   | 213.522     | yel or wh needles      | 205 dec |       |                            |                                     | i H <sub>2</sub> O          |
| 1027 | Dysprosium(III) iodide                 | DyI <sub>3</sub>   | 15474-63-2  | 543.213     | grn cry                | 978     |       |                            |                                     |                             |
| 1028 | Dysprosium(III) nitrate pentahydrate   | Dy(NO <sub>3</sub> ) <sub>3</sub> · 5H <sub>2</sub> O                              | 10143-38-1* | 438.591     | yel cry                | 88.6    |       |                            | 208.4 <sup>25</sup>                 |                             |
| 1029 | Dysprosium(III) oxide                  | Dy <sub>2</sub> O <sub>3</sub>   | 1308-87-8   | 372.998     | wh cub cry             | 2228    | 3900  | 7.81                       |                                     | s acid                      |
| 1030 | Dysprosium(III) sulfate octahydrate    | Dy <sub>2</sub> (SO <sub>4</sub> ) <sub>3</sub> · 8H <sub>2</sub> O                | 10031-50-2  | 757.310     | pale yel cry           | 110     |       |                            |                                     | sl H <sub>2</sub> O         |
| 1031 | Dysprosium(III) sulfide                | Dy <sub>2</sub> S <sub>3</sub>   | 12133-10-7  | 421.195     | red-brn monocl cry     |         |       | 6.08                       |                                     |                             |
| 1032 | Dysprosium(III) telluride              | Dy <sub>2</sub> Te <sub>3</sub>  | 12159-43-2  | 707.80      | solid                  | ≈1550   |       |                            |                                     |                             |
| 1033 | Einsteinium                            | Es   | 7429-92-7   | 252         | metal; cub             | 860     |       |                            |                                     |                             |
| 1034 | Erbium                                 | Er   | 7440-52-0   | 167.259     | silv metal; hex        | 1529    | 2868  | 9.07                       |                                     | i H <sub>2</sub> O; s acid  |
| 1035 | Erbium boride                          | ErB <sub>4</sub>   | 12310-44-0  | 210.503     | tetr cry               | 2450    |       | 7.0                        |                                     |                             |
| 1036 | Erbium acetate tetrahydrate            | Er(C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> ) <sub>3</sub> · 4H <sub>2</sub> O | 15280-57-6  | 416.452     | pink or wh cry         |         |       | 2.11                       |                                     | s H <sub>2</sub> O          |
| 1037 | Erbium bromide                         | ErBr <sub>3</sub>  | 13536-73-7  | 406.971     | viol hyg cry           | 950     | ≈1460 |                            |                                     | s H <sub>2</sub> O, thf     |
| 1038 | Erbium bromide hexahydrate             | ErBr <sub>3</sub> · 6H <sub>2</sub> O  | 14890-44-9  | 515.062     | pink cry               |         |       |                            |                                     | s H <sub>2</sub> O          |
| 1039 | Erbium chloride                        | ErCl <sub>3</sub>  | 10138-41-7  | 273.618     | viol monocl cry; hyg   | 776     |       | 4.1                        |                                     | s H <sub>2</sub> O          |
| 1040 | Erbium chloride hexahydrate            | ErCl <sub>3</sub> · 6H <sub>2</sub> O  | 10025-75-9  | 381.709     | pink hyg cry           | dec     |       |                            |                                     | s H <sub>2</sub> O; sl EtOH |
| 1041 | Erbium fluoride                        | ErF <sub>3</sub>   | 13760-83-3  | 224.254     | pink orth cry          | 1146    |       | 7.8                        |                                     | i H <sub>2</sub> O          |
| 1042 | Erbium hydride                         | ErH <sub>3</sub>   | 13550-53-3  | 170.283     | hex cry                |         |       | ≈7.6                       |                                     |                             |
| 1043 | Erbium hydroxide                       | Er(OH) <sub>3</sub>  | 14646-16-3  | 218.281     | pink solid             |         |       |                            |                                     | i H <sub>2</sub> O          |
| 1044 | Erbium iodide                          | ErI <sub>3</sub>   | 13813-42-8  | 547.972     | viol hex cry; hyg      | 1014    |       | ≈5.5                       |                                     | s H <sub>2</sub> O          |
| 1045 | Erbium nitrate pentahydrate            | Er(NO <sub>3</sub> ) <sub>3</sub> · 5H <sub>2</sub> O                              | 10168-80-6* | 443.350     | red cry                | 130 dec |       |                            | 240.8 <sup>25</sup>                 | s EtOH, ace                 |
| 1046 | Erbium nitride                         | ErN  | 12020-21-2  | 181.266     | cub cry                |         |       | 10.6                       |                                     |                             |
| 1047 | Erbium oxide                           | Er <sub>2</sub> O <sub>3</sub>   | 12061-16-4  | 382.516     | pink powder            | 2344    | 3920  | 8.64                       |                                     | i H <sub>2</sub> O; s acid  |
| 1048 | Erbium silicide                        | ErSi <sub>2</sub>  | 12020-28-9  | 223.430     | orth cry               |         |       | 7.26                       |                                     |                             |
| 1049 | Erbium sulfate                         | Er <sub>2</sub> (SO <sub>4</sub> ) <sub>3</sub>                                    | 13478-49-4  | 622.706     | hyg powder             | dec     |       | 3.68                       | 13 <sup>20</sup>                    |                             |
| 1050 | Erbium sulfate octahydrate             | Er <sub>2</sub> (SO <sub>4</sub> ) <sub>3</sub> · 8H <sub>2</sub> O                | 10031-52-4  | 766.828     | pink monocl cry        | dec     |       | 3.20                       | 13 <sup>20</sup>                    |                             |
| 1051 | Erbium sulfide                         | Er <sub>2</sub> S <sub>3</sub>   | 12159-66-9  | 430.713     | red-brn monocl cry     | 1730    |       | 6.07                       |                                     |                             |
| 1052 | Erbium telluride                       | Er <sub>2</sub> Te <sub>3</sub>  | 12020-39-2  | 717.32      | orth cry               | 1213    |       | 7.11                       |                                     |                             |
| 1053 | Europium                               | Eu   | 7440-53-1   | 151.964     | soft silv metal; cub   | 822     | 1529  | 5.24                       |                                     | reac H <sub>2</sub> O       |
| 1054 | Europium boride                        | EuB <sub>6</sub>   | 12008-05-8  | 216.830     | cub cry                | ≈2600   |       | 4.91                       |                                     |                             |
| 1055 | Europium nitride                       | EuN  | 12020-58-5  | 165.971     | cub cry                |         |       | 8.7                        |                                     |                             |
| 1056 | Europium silicide                      | EuSi <sub>2</sub>  | 12434-24-1  | 208.135     | tetr cry               | 1500    |       | 5.46                       |                                     |                             |
| 1057 | Europium(II) bromide                   | EuBr <sub>2</sub>  | 13780-48-8  | 311.772     | wh cry                 | 683     |       |                            |                                     | s H <sub>2</sub> O          |
| 1058 | Europium(II) chloride                  | EuCl <sub>2</sub>  | 13769-20-5  | 222.870     | wh orth cry            | 731     |       | 4.9                        |                                     | s H <sub>2</sub> O          |
| 1059 | Europium(II) fluoride                  | EuF <sub>2</sub>   | 14077-39-5  | 189.961     | grn-yel cub cry        | ≈1380   |       | 6.5                        |                                     |                             |
| 1060 | Europium(II) iodide                    | EuI <sub>2</sub>   | 22015-35-6  | 405.773     | grn cry                | 580     |       |                            |                                     | s H <sub>2</sub> O          |
| 1061 | Europium(II) selenide                  | EuSe   | 12020-66-5  | 230.92      | brn cub cry            |         |       | 6.45                       |                                     |                             |
| 1062 | Europium(II) sulfate                   | EuSO <sub>4</sub>  | 10031-54-6  | 248.027     | col orth cry           |         |       | 4.99                       |                                     | i H <sub>2</sub> O          |
| 1063 | Europium(II) sulfide                   | EuS  | 12020-65-4  | 184.029     | cub cry                |         |       | 5.7                        |                                     |                             |
| 1064 | Europium(II) telluride                 | EuTe   | 12020-69-8  | 279.56      | blk cub cry            | 1526    |       | 6.48                       |                                     |                             |
| 1065 | Europium(III) bromide                  | EuBr <sub>3</sub>  | 13759-88-1  | 391.676     | gray cry               | dec     |       |                            |                                     | s H <sub>2</sub> O          |
| 1066 | Europium(III) chloride                 | EuCl <sub>3</sub>  | 10025-76-0  | 258.323     | grn-yel needles        | 623     |       | 4.89                       |                                     |                             |
| 1067 | Europium(III) chloride hexahydrate     | EuCl <sub>3</sub> · 6H <sub>2</sub> O  | 13759-92-7  | 366.414     | wh-yel hyg cry         | 850     |       | 4.89                       |                                     | s H <sub>2</sub> O          |
| 1068 | Europium(III) fluoride                 | EuF <sub>3</sub>   | 13765-25-8  | 208.959     | wh hyg cry             | 1276    |       |                            |                                     | i H <sub>2</sub> O          |
| 1069 | Europium(III) iodide                   | EuI <sub>3</sub>   | 13759-90-5  | 532.677     | col cry; unstab        | ≈875    |       |                            |                                     |                             |
| 1070 | Europium(III) nitrate hexahydrate      | Eu(NO <sub>3</sub> ) <sub>3</sub> · 6H <sub>2</sub> O                              | 10031-53-5  | 446.070     | wh-pink hyg cry        | 85 dec  |       |                            | 193 <sup>25</sup>                   |                             |
| 1071 | Europium(III) oxalate                  | Eu <sub>2</sub> (C <sub>2</sub> O <sub>4</sub> ) <sub>3</sub>                      | 3269-12-3   | 567.985     | wh solid               |         |       |                            |                                     | i H <sub>2</sub> O; s acid  |

| No.  | Name                                  | Formula  | CAS Reg No. | Mol. weight | Physical form              | mp/°C      | bp/°C        | Density g cm <sup>-3</sup> | Solubility g/100 g H <sub>2</sub> O | Qualitative solubility                  |
|------|---------------------------------------|--|-------------|-------------|----------------------------|------------|--------------|----------------------------|-------------------------------------|---|
| 1072 | Europium(III) oxide                   | Eu <sub>2</sub> O <sub>3</sub>   | 1308-96-9   | 351.926     | pink powder                | 2291       | 3790         | 7.42                       |                                     | i H <sub>2</sub> O; s acid              |
| 1073 | Europium(III) perchlorate hexahydrate | Eu(ClO <sub>4</sub> ) <sub>3</sub> · 6H <sub>2</sub> O                             | 36907-40-1  | 558.407     | wh or pink cry             |            |              |                            |                                     | s H <sub>2</sub> O, EtOH                |
| 1074 | Europium(III) sulfate                 | Eu <sub>2</sub> (SO <sub>4</sub> ) <sub>3</sub>                                    | 13537-15-0  | 592.116     | pale pink cry              |            |              | 4.99                       | 2.1 <sup>20</sup>                   |   |
| 1075 | Europium(III) sulfate octahydrate     | Eu <sub>2</sub> (SO <sub>4</sub> ) <sub>3</sub> · 8H <sub>2</sub> O                | 10031-52-4  | 736.238     | pink cry                   | 375 dec    |              |                            | 2.1 <sup>20</sup>                   |   |
| 1076 | Fermium                               | Fm   | 7440-72-4   | 257         | metal                      | 1527       |              |                            |                                     |   |
| 1077 | Fluorine                              | F <sub>2</sub>   | 7782-41-4   | 37.997      | pale yel gas               | -219.67 tp | -188.12      | 1.553 g/L                  |                                     | reac H <sub>2</sub> O                   |
| 1078 | Fluorine monoxide                     | F <sub>2</sub> O   | 7783-41-7   | 53.996      | col gas                    | -223.8     | -144.3       | 2.207 g/L                  |                                     | sl H <sub>2</sub> O                     |
| 1079 | Difluorine dioxide                    | F <sub>2</sub> O <sub>2</sub>  | 7783-44-0   | 69.996      | red-oran solid, unstab gas | -163.5     | -57 (extrap) | 2.861 g/L                  |                                     |   |
| 1080 | Fluorine tetroxide                    | F <sub>2</sub> O <sub>4</sub>  | 107782-11-6 | 101.995     | red-brn solid              | -191       | dec -185     |                            |                                     |   |
| 1081 | Fluorine nitrate                      | FN <sub>2</sub> O <sub>3</sub>   | 7789-26-6   | 81.003      | col gas                    | -175       | -46          | 3.311 g/L                  |                                     | reac H <sub>2</sub> O, EtOH, eth; s ace |
| 1082 | Fluorine perchlorate                  | FOClO <sub>3</sub>   | 10049-03-3  | 118.449     | col gas; exp               | -167.3     | -16          | 4.841 g/L                  |                                     | reac H <sub>2</sub> O                   |
| 1083 | Francium                              | Fr   | 7440-73-5   | 223.000     | short-lived alkali metal   | 27         |              |                            |                                     |   |
| 1084 | Gadolinium                            | Gd   | 7440-54-2   | 157.25      | silv metal; hex            | 1313       | 3273         | 7.90                       |                                     | s dil acid                              |
| 1085 | Gadolinium boride                     | GdB <sub>6</sub>   | 12008-06-9  | 222.12      | blk-brn cub cry            | 2510       |              | 5.31                       |                                     |   |
| 1086 | Gadolinium nitride                    | GdN  | 25764-15-2  | 171.26      | cub cry                    |            |              | 9.10                       |                                     |   |
| 1087 | Gadolinium silicide                   | GdSi <sub>2</sub>  | 12134-75-7  | 213.42      | orth cry                   | 1540       |              | 5.9                        |                                     |   |
| 1088 | Gadolinium(II) iodide                 | GdI <sub>2</sub>   | 13814-72-7  | 411.06      | bronze cry                 | 831        |              |                            |                                     |   |
| 1089 | Gadolinium(II) selenide               | GdSe   | 12024-81-6  | 236.21      | cub cry                    | 2170       |              | 8.1                        |                                     |   |
| 1090 | Gadolinium(III) acetate tetrahydrate  | Gd(C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> ) <sub>2</sub> · 4H <sub>2</sub> O | 15280-53-2  | 406.44      | wh tricr cry               | dec        |              | 1.61                       |                                     | s H <sub>2</sub> O                      |
| 1091 | Gadolinium(III) bromide               | GdBr <sub>3</sub>  | 13818-75-2  | 396.96      | wh monocl cry; hyg         | 770        |              | 4.56                       |                                     |   |
| 1092 | Gadolinium(III) chloride              | GdCl <sub>3</sub>  | 10138-52-0  | 263.61      | wh monocl cry; hyg         | 602        |              | 4.52                       |                                     | s H <sub>2</sub> O                      |
| 1093 | Gadolinium(III) chloride hexahydrate  | GdCl <sub>3</sub> · 6H <sub>2</sub> O  | 19423-81-5  | 371.70      | col hyg cry                |            |              | 2.424                      |                                     | s H <sub>2</sub> O                      |
| 1094 | Gadolinium(III) fluoride              | GdF <sub>3</sub>   | 13765-26-9  | 214.25      | wh cry                     | 1232       |              |                            |                                     |   |
| 1095 | Gadolinium(III) iodide                | GdI <sub>3</sub>   | 13572-98-0  | 537.96      | yel cry                    | 930        |              |                            |                                     |   |
| 1096 | Gadolinium(III) nitrate pentahydrate  | Gd(NO <sub>3</sub> ) <sub>3</sub> · 5H <sub>2</sub> O                              | 52788-53-1  | 433.34      | wh cry                     | 92 dec     |              | 2.41                       | 190 <sup>25</sup>                   |   |
| 1097 | Gadolinium(III) nitrate hexahydrate   | Gd(NO <sub>3</sub> ) <sub>3</sub> · 6H <sub>2</sub> O                              | 19598-90-4  | 451.36      | hyg tricr cry              | 91 dec     |              | 2.33                       | 190 <sup>25</sup>                   | s EtOH                                  |
| 1098 | Gadolinium(III) oxalate decahydrate   | Gd <sub>2</sub> (C <sub>2</sub> O <sub>4</sub> ) <sub>3</sub> · 10H <sub>2</sub> O | 22992-15-0  | 758.71      | wh monocl pow              | dec 110    |              |                            |                                     | i H <sub>2</sub> O; sl acid             |
| 1099 | Gadolinium(III) oxide                 | Gd <sub>2</sub> O <sub>3</sub>   | 12064-62-9  | 362.50      | wh hyg powder              | 2339       | 3900         | 7.41                       |                                     | i H <sub>2</sub> O; s acid              |
| 1100 | Gadolinium(III) sulfate               | Gd <sub>2</sub> (SO <sub>4</sub> ) <sub>3</sub>                                    | 13628-54-1  | 602.69      | col cry                    | 500 dec    |              | 4.1                        | 2.60 <sup>20</sup>                  | sl H <sub>2</sub> O                     |
| 1101 | Gadolinium(III) sulfate octahydrate   | Gd <sub>2</sub> (SO <sub>4</sub> ) <sub>3</sub> · 8H <sub>2</sub> O                | 13450-87-8  | 746.81      | col monocl cry             | 400 dec    |              | 4.14                       | 2.3 <sup>20</sup>                   | sl H <sub>2</sub> O                     |
| 1102 | Gadolinium(III) sulfide               | Gd <sub>2</sub> S <sub>3</sub>   | 12134-77-9  | 410.70      | yel cub cry                |            |              | 6.1                        |                                     |   |
| 1103 | Gadolinium(III) telluride             | Gd <sub>2</sub> Te <sub>3</sub>  | 12160-99-5  | 697.30      | orth cry                   | 1255       |              | 7.7                        |                                     |   |
| 1104 | Gallium                               | Ga   | 7440-55-3   | 69.723      | silv liq or gray orth cry  | 29.7666 tp | 2204         | 5.91                       |                                     | reac alk                                |
| 1105 | Gallium antimonide                    | GaSb   | 12064-03-8  | 191.483     | brn cub cry                | 712        |              | 5.6137                     |                                     |   |
| 1106 | Gallium arsenide                      | GaAs   | 1303-00-0   | 144.645     | gray cub cry               | 1238       |              | 5.3176                     |                                     |   |
| 1107 | Gallium nitride                       | GaN  | 25617-97-4  | 83.730      | gray hex cry               | >2500      |              | 6.1                        |                                     |   |
| 1108 | Gallium phosphide                     | GaP  | 12063-98-8  | 100.697     | yel cub cry                | 1457       |              | 4.138                      |                                     |   |
| 1109 | Gallium suboxide                      | Ga <sub>2</sub> O  | 12024-20-3  | 155.445     | brn powder                 | >660       | >800 dec     | 4.77                       |                                     |   |
| 1110 | Gallium(II) chloride                  | GaCl <sub>2</sub>  | 24597-12-4  | 140.629     | wh orth cry                | 172.4      | 535          | 2.74                       |                                     |   |
| 1111 | Gallium(II) selenide                  | GaSe   | 12024-11-2  | 148.68      | hex cry                    | 960        |              | 5.03                       |                                     |   |
| 1112 | Gallium(II) sulfide                   | GaS  | 12024-10-1  | 101.788     | hex cry                    | 965        |              | 3.86                       |                                     |   |
| 1113 | Gallium(II) telluride                 | GaTe   | 12024-14-5  | 197.32      | monocl cry                 | 824        |              | 5.44                       |                                     |   |
| 1114 | Gallium(III) bromide                  | GaBr <sub>3</sub>  | 13450-88-9  | 309.435     | wh orth cry                | 123        | 279          | 3.69                       |                                     |   |
| 1115 | Gallium(III) chloride                 | GaCl <sub>3</sub>  | 13450-90-3  | 176.082     | col needles or gl solid    | 77.9       | 201          | 2.47                       |                                     |   |
| 1116 | Gallium(III) fluoride                 | GaF <sub>3</sub>   | 7783-51-9   | 126.718     | wh powder or col needles   | >1000      |              | 4.47                       |                                     | i H <sub>2</sub> O                      |
| 1117 | Gallium(III) fluoride trihydrate      | GaF <sub>3</sub> · 3H <sub>2</sub> O   | 22886-66-4  | 180.764     | wh cry                     | >140 dec   |              |                            |                                     | sl H <sub>2</sub> O                     |
| 1118 | Gallium(III) hydride                  | GaH <sub>3</sub>   | 13572-93-5  | 72.747      | visc liq                   | -15        | ≈0 dec       |                            |                                     |   |
| 1119 | Gallium(III) hydroxide                | Ga(OH) <sub>3</sub>  | 12023-99-3  | 120.745     | unstab prec                |            |              |                            |                                     |   |
| 1120 | Gallium(III) iodide                   | GaI <sub>3</sub>   | 13450-91-4  | 450.436     | monocl cry                 | 212        | 340          | 4.5                        |                                     |   |
| 1121 | Gallium(III) nitrate                  | Ga(NO <sub>3</sub> ) <sub>3</sub>  | 13494-90-1  | 255.738     | wh cry powder              |            |              |                            |                                     | s H <sub>2</sub> O, EtOH, eth           |
| 1122 | Gallium(III) oxide                    | Ga <sub>2</sub> O <sub>3</sub>   | 12024-21-4  | 187.444     | wh cry                     | 1807       |              | ≈6.0                       |                                     | s hot acid                              |
| 1123 | Gallium(III) oxide hydroxide          | GaOOH  | 20665-52-5  | 102.730     | orth cry                   |            |              | 5.23                       |                                     |   |
| 1124 | Gallium(III) 2,4-pentanedioate        | Ga(CH <sub>3</sub> COCHCOCH <sub>3</sub> ) <sub>3</sub>                            | 14405-43-7  | 367.047     | wh powder                  | 193        | subl         | 1.42                       |                                     |   |
| 1125 | Gallium(III) perchlorate hexahydrate  | Ga(ClO <sub>4</sub> ) <sub>3</sub> · 6H <sub>2</sub> O                             | 17835-81-3  | 476.166     | cry                        | dec 175    |              |                            |                                     |   |
| 1126 | Gallium(III) selenide                 | Ga <sub>2</sub> Se <sub>3</sub>  | 12024-24-7  | 376.33      | cub cry                    | 937        |              | 4.92                       |                                     |   |
| 1127 | Gallium(III) sulfate                  | Ga <sub>2</sub> (SO <sub>4</sub> ) <sub>3</sub>                                    | 13494-91-2  | 427.634     | hex cry                    |            |              |                            |                                     |   |
| 1128 | Gallium(III) sulfate octadecahydrate  | Ga <sub>2</sub> (SO <sub>4</sub> ) <sub>3</sub> · 18H <sub>2</sub> O               | 13780-42-2  | 751.909     | octahed cry                |            |              |                            |                                     | s H <sub>2</sub> O, EtOH                |
| 1129 | Gallium(III) sulfide                  | Ga <sub>2</sub> S <sub>3</sub>   | 12024-22-5  | 235.641     | monocl cry                 | 1090       |              | 3.7                        |                                     |   |

| No.  | Name                                | Formula   | CAS Reg No. | Mol. weight | Physical form               | mp/°C    | bp/°C    | Density g cm <sup>-3</sup> | Solubility g/100 g H <sub>2</sub> O | Qualitative solubility                      |
|------|-------------------------------------|---|-------------|-------------|-----------------------------|----------|----------|----------------------------|-------------------------------------|---|
| 1130 | Gallium(III) telluride              | Ga <sub>2</sub> Te <sub>3</sub>                   | 12024-27-0  | 522.25      | cub cry                     | 790      |          | 5.57                       |                                     |   |
| 1131 | Germanium                           | Ge  | 7440-56-4   | 72.64       | gray-wh cub cry             | 938.25   | 2833     | 5.3234                     |                                     | i H <sub>2</sub> O, dil acid, alk           |
| 1132 | Germane                             | GeH <sub>4</sub>                                  | 7782-65-2   | 76.67       | col gas; flam               | -165     | -88.1    | 3.133 g/L                  |                                     | i H <sub>2</sub> O                          |
| 1133 | Digermane                           | Ge <sub>2</sub> H <sub>6</sub>                    | 13818-89-8  | 151.33      | col liq; flam               | -109     | 29       | 1.98 <sup>-109</sup>       |                                     |   |
| 1134 | Trigermene                          | Ge <sub>3</sub> H <sub>8</sub>                    | 14691-44-2  | 225.98      | col liq                     | -105.6   | 110.5    | 2.20 <sup>-105</sup>       |                                     | i H <sub>2</sub> O                          |
| 1135 | Tetragermane                        | Ge <sub>4</sub> H <sub>10</sub>                   | 14691-47-5  | 300.64      | col liq                     |          | 176.9    |                            |                                     | i H <sub>2</sub> O                          |
| 1136 | Pentagermane                        | Ge <sub>5</sub> H <sub>12</sub>                   | 15587-39-0  | 375.30      | col liq                     |          | 234      |                            |                                     | i H <sub>2</sub> O                          |
| 1137 | Bromogermene                        | GeH <sub>3</sub> Br                               | 13569-43-2  | 155.57      | col liq                     | -32      | 52       | 2.34                       |                                     | reac H <sub>2</sub> O                       |
| 1138 | Chlorogermene                       | GeH <sub>3</sub> Cl                               | 13637-65-5  | 111.12      | col liq                     | -52      | 28       | 1.75                       |                                     | reac H <sub>2</sub> O                       |
| 1139 | Chlorotrifluorogermene              | GeF <sub>3</sub> Cl                               | 14188-40-0  | 165.09      | gas                         | -66.2    | -20.3    | 6.747 g/L                  |                                     |   |
| 1140 | Dibromogermene                      | GeH <sub>2</sub> Br <sub>2</sub>                  | 13769-36-3  | 234.46      | col liq                     | -15      | 89       | 2.80                       |                                     | reac H <sub>2</sub> O                       |
| 1141 | Dichlorogermene                     | GeH <sub>2</sub> Cl <sub>2</sub>                  | 15230-48-5  | 145.56      | col liq                     | -68      | 69.5     | 1.90                       |                                     | reac H <sub>2</sub> O                       |
| 1142 | Dichlorodifluorogermene             | GeF <sub>2</sub> Cl <sub>2</sub>                  | 24422-21-7  | 181.54      | col gas                     | -51.8    | -2.8     | 7.419 g/L                  |                                     |   |
| 1143 | Dichlorodimethylgermane             | Ge(CH <sub>3</sub> ) <sub>2</sub> Cl <sub>2</sub> | 1529-48-2   | 173.62      | liq                         | -22      | 124      | 1.49                       |                                     |   |
| 1144 | Fluorogermene                       | GeH <sub>3</sub> F                                | 13537-30-9  | 94.66       | col gas                     |          |          | 3.868 g/L                  |                                     | reac H <sub>2</sub> O                       |
| 1145 | Iodogermene                         | GeH <sub>3</sub> I                                | 13573-02-9  | 202.57      | liq                         | -15      | ≈90      |                            |                                     | reac H <sub>2</sub> O                       |
| 1146 | Methylgermane                       | GeH <sub>3</sub> CH <sub>3</sub>                  | 1449-65-6   | 90.70       | col gas                     | -158     | -23      | 3.706 g/L                  |                                     |   |
| 1147 | Tribromogermene                     | GeHBr <sub>3</sub>                                | 14779-70-5  | 313.36      | col liq                     | -25      | dec      |                            |                                     | reac H <sub>2</sub> O                       |
| 1148 | Trichlorogermene                    | GeHCl <sub>3</sub>                                | 1184-65-2   | 180.01      | liq                         | -71      | 75.3     | 1.93                       |                                     | reac H <sub>2</sub> O                       |
| 1149 | Trichlorofluorogermene              | GeCl <sub>3</sub> F                               | 24422-20-6  | 198.00      | liq                         | -49.8    | 37.5     |                            |                                     |   |
| 1150 | Germanium(II) bromide               | GeBr <sub>2</sub>                                 | 24415-00-7  | 232.45      | yel monocry                 | 122      | 150 dec  |                            |                                     | reac H <sub>2</sub> O                       |
| 1151 | Germanium(II) chloride              | GeCl <sub>2</sub>                                 | 10060-11-4  | 143.55      | wh-yel hyg powder           | dec      |          |                            |                                     | reac H <sub>2</sub> O; s eth, bz            |
| 1152 | Germanium(II) fluoride              | GeF <sub>2</sub>                                  | 13940-63-1  | 110.64      | wh orth cry; hyg            | 110      | 130 dec  | 3.64                       |                                     | reac H <sub>2</sub> O                       |
| 1153 | Germanium(II) iodide                | GeI <sub>2</sub>                                  | 13573-08-5  | 326.45      | oran-yel hex cry            | 428      | 550 dec  | 5.4                        |                                     | reac H <sub>2</sub> O                       |
| 1154 | Germanium(II) oxide                 | GeO   | 20619-16-3  | 88.64       | blk solid                   | 700 dec  |          |                            |                                     |   |
| 1155 | Germanium(II) selenide              | GeSe  | 12065-10-0  | 151.60      | gray orth cry or brn powder | 675      |          | 5.6                        |                                     |   |
| 1156 | Germanium(II) sulfide               | GeS   | 12025-32-0  | 104.71      | gray orth cry               | 658      |          | 4.1                        |                                     |   |
| 1157 | Germanium(II) telluride             | GeTe  | 12025-39-7  | 200.24      | cub cry                     | 724      |          | 6.16                       |                                     | i H <sub>2</sub> O; s conc HNO <sub>3</sub> |
| 1158 | Germanium(IV) bromide               | GeBr <sub>4</sub>                                 | 13450-92-5  | 392.26      | wh cry                      | 26.1     | 186.35   | 3.132                      |                                     | reac H <sub>2</sub> O                       |
| 1159 | Germanium(IV) chloride              | GeCl <sub>4</sub>                                 | 10038-98-9  | 214.45      | col liq                     | -51.50   | 86.55    | 1.88                       |                                     | reac H <sub>2</sub> O; s bz, eth, EtOH, etc |
| 1160 | Germanium(IV) fluoride              | GeF <sub>4</sub>                                  | 7783-58-6   | 148.63      | col gas                     | -15 tp   | -36.5 sp | 6.074 g/L                  |                                     | reac H <sub>2</sub> O                       |
| 1161 | Germanium(IV) iodide                | GeI <sub>4</sub>                                  | 13450-95-8  | 580.26      | red-oran cub cry            | 146      | 348      | 4.322                      |                                     | reac H <sub>2</sub> O                       |
| 1162 | Germanium(IV) nitride               | Ge <sub>3</sub> N <sub>4</sub>                    | 12065-36-0  | 273.95      | orth cry                    | 900 dec  |          |                            |                                     | i H <sub>2</sub> O, acid, aqua regia        |
| 1163 | Germanium(IV) oxide                 | GeO <sub>2</sub>                                  | 1310-53-8   | 104.64      | wh hex cry                  | 1116     |          | 4.25                       |                                     | i H <sub>2</sub> O                          |
| 1164 | Germanium(IV) selenide              | GeSe <sub>2</sub>                                 | 12065-11-1  | 230.56      | yel-oran orth cry           | 707 dec  |          | 4.56                       |                                     |   |
| 1165 | Germanium(IV) sulfide               | GeS <sub>2</sub>                                  | 12025-34-2  | 136.77      | blk orth cry                | 530      |          | 3.01                       |                                     |   |
| 1166 | Gold                                | Au  | 7440-57-5   | 196.967     | soft yel metal              | 1064.18  | 2856     | 19.3                       |                                     | s aqua regia                                |
| 1167 | Bromoauroic(III) acid pentahydrate  | HAuBr <sub>4</sub> · 5H <sub>2</sub> O            | 17083-68-0  | 607.667     | red-brn hyg cry             | 27       |          |                            |                                     | s H <sub>2</sub> O, EtOH                    |
| 1168 | Chloroauroic(III) acid tetrahydrate | HAuCl <sub>4</sub> · 4H <sub>2</sub> O            | 16903-35-8  | 411.848     | yel monocry; hyg            |          |          | ≈3.9                       |                                     | vs H <sub>2</sub> O, EtOH; s eth            |
| 1169 | Gold(I) bromide                     | AuBr  | 10294-27-6  | 276.871     | yel-gray tetr cry           | 165 dec  |          | 8.20                       |                                     | i H <sub>2</sub> O                          |
| 1170 | Gold(I) chloride                    | AuCl  | 10294-29-8  | 232.420     | yel orth cry                | 289 dec  |          | 7.6                        | 0.000031 <sup>20</sup>              |   |
| 1171 | Gold(I) cyanide                     | AuCN  | 506-65-0    | 222.985     | yel hex cry                 | dec      |          | 7.2                        |                                     | i H <sub>2</sub> O, EtOH, eth, dil acid     |
| 1172 | Gold(I) iodide                      | AuI   | 10294-31-2  | 323.871     | yel-grn powder; tetr        | 120 dec  |          | 8.25                       |                                     | i H <sub>2</sub> O; s CN soln               |
| 1173 | Gold(I) sulfide                     | Au <sub>2</sub> S                                 | 1303-60-2   | 425.998     | brn-blk cub cry; unstab     | 240 dec  |          | ≈11                        |                                     | i H <sub>2</sub> O, acid; s aqua regia      |
| 1174 | Gold(III) bromide                   | AuBr <sub>3</sub>                                 | 10294-28-7  | 436.679     | red-br monocry              | ≈160 dec |          |                            |                                     | s H <sub>2</sub> O, EtOH                    |
| 1175 | Gold(III) chloride                  | AuCl <sub>3</sub>                                 | 13453-07-1  | 303.326     | red monocry                 | >160 dec |          | 4.7                        | 68 <sup>20</sup>                    |   |
| 1176 | Gold(III) cyanide trihydrate        | Au(CN) <sub>3</sub> · 3H <sub>2</sub> O           | 535-37-5*   | 329.065     | wh hyg cry                  | 50 dec   |          |                            |                                     | vs H <sub>2</sub> O; sl EtOH                |
| 1177 | Gold(III) fluoride                  | AuF <sub>3</sub>                                  | 14720-21-9  | 253.962     | oran-yel hex cry            | >300     | subl     | 6.75                       |                                     |   |
| 1178 | Gold(III) hydroxide                 | Au(OH) <sub>3</sub>                               | 1303-52-2   | 247.989     | brn powder                  | ≈100 dec |          |                            |                                     | i H <sub>2</sub> O; s acid                  |
| 1179 | Gold(III) iodide                    | AuI <sub>3</sub>                                  | 31032-13-0  | 577.680     | unstab grn powder           | 20 dec   |          |                            |                                     |   |
| 1180 | Gold(III) oxide                     | Au <sub>2</sub> O <sub>3</sub>                    | 1303-58-8   | 441.931     | brn powder                  | ≈150 dec |          |                            |                                     | i H <sub>2</sub> O; s acid                  |
| 1181 | Gold(III) selenate                  | Au <sub>2</sub> (SeO <sub>4</sub> ) <sub>3</sub>  | 10294-32-3  | 822.81      | yel cry                     |          |          |                            |                                     | i H <sub>2</sub> O; s acid                  |
| 1182 | Gold(III) selenide                  | Au <sub>2</sub> Se <sub>3</sub>                   | 1303-62-4   | 630.81      | blk amorp solid             | dec      |          | 4.65                       |                                     | s aqua regia                                |
| 1183 | Gold(III) sulfide                   | Au <sub>2</sub> S <sub>3</sub>                    | 1303-61-3   | 490.128     | unstab blk powder           | 200 dec  |          |                            |                                     |   |
| 1184 | Hafnium                             | Hf  | 7440-58-6   | 178.49      | gray metal; hex             | 2233     | 4603     | 13.3                       |                                     | s HF  |
| 1185 | Hafnium boride                      | HfB <sub>2</sub>                                  | 12007-23-7  | 200.11      | gray hex cry                | 3100     |          | 10.5                       |                                     |   |
| 1186 | Hafnium carbide                     | HfC   | 12069-85-1  | 190.50      | refrac cub cry              | ≈3000    |          | 12.2                       |                                     |   |
| 1187 | Hafnium hydride                     | HfH <sub>2</sub>                                  | 12770-26-2  | 180.51      | refrac tetr cry             |          |          | 11.4                       |                                     |   |
| 1188 | Hafnium nitride                     | HfN   | 25817-87-2  | 192.50      | yel-brn cub cry             | 3310     |          | 13.8                       |                                     |   |
| 1189 | Hafnium phosphide                   | HfP   | 12325-59-6  | 209.46      | hex cry                     |          |          | 9.78                       |                                     |   |

| No.  | Name  | Formula  | CAS Reg No. | Mol. weight | Physical form             | mp/°C       | bp/°C    | Density g cm <sup>-3</sup> | Solubility g/100 g H <sub>2</sub> O | Qualitative solubility                   |
|------|---|--|-------------|-------------|---------------------------|-------------|----------|----------------------------|-------------------------------------|--|
| 1190 | Hafnium silicide                                      | HfSi <sub>2</sub>  | 12401-56-8  | 234.66      | gray orth cry             | ≈1700       |          | 7.6                        |                                     |  |
| 1191 | Hafnocene dichloride                                  | Hf(C <sub>5</sub> H <sub>5</sub> ) <sub>2</sub> Cl <sub>2</sub>                    | 12116-66-4  | 379.58      | col hyg cry               | 235         |          |                            |                                     | s bz, chl; sl thf, eth; i hex            |
| 1192 | Hafnium(II) bromide                                   | HfBr <sub>2</sub>  | 13782-95-1  | 338.30      | blue-blk cry              | dec 400     |          |                            |                                     |  |
| 1193 | Hafnium(II) chloride                                  | HfCl <sub>2</sub>  | 13782-92-8  | 249.40      | blk solid                 | dec 400     |          |                            |                                     |  |
| 1194 | Hafnium(III) bromide                                  | HfBr <sub>3</sub>  | 13782-96-2  | 418.20      | blue-blk cry              | dec 350     |          |                            |                                     |  |
| 1195 | Hafnium(III) chloride                                 | HfCl <sub>3</sub>  | 13782-93-9  | 284.85      | blk solid                 | dec         |          |                            |                                     |  |
| 1196 | Hafnium(III) iodide                                   | HfI <sub>3</sub>   | 13779-73-2  | 559.20      | blk cry                   | dec         |          |                            |                                     |  |
| 1197 | Hafnium(IV) bromide                                   | HfBr <sub>4</sub>  | 13777-22-5  | 498.11      | wh cub cry                | 424 tp      | 323 sp   | 4.90                       |                                     | reac H <sub>2</sub> O                    |
| 1198 | Hafnium(IV) chloride                                  | HfCl <sub>4</sub>  | 13499-05-3  | 320.30      | wh monocl cry             | 432 tp      | 317 sp   |                            |                                     | reac H <sub>2</sub> O                    |
| 1199 | Hafnium(IV) fluoride                                  | HfF <sub>4</sub>   | 13709-52-9  | 254.48      | wh monocl cry             | 1025        | 970 sp   | 7.1                        |                                     | reac H <sub>2</sub> O                    |
| 1200 | Hafnium(IV) iodide                                    | HfI <sub>4</sub>   | 13777-23-6  | 686.11      | yel-oran cub cry          | 449 tp      | 394 sp   | 5.6                        |                                     | reac H <sub>2</sub> O                    |
| 1201 | Hafnium(IV) oxide                                     | HfO <sub>2</sub>   | 12055-23-1  | 210.49      | wh cub cry                | 2800        | ≈5400    | 9.68                       |                                     | i H <sub>2</sub> O                       |
| 1202 | Hafnium(IV) oxychloride octahydrate                   | HfOCl <sub>2</sub> · 8H <sub>2</sub> O   | 14456-34-9  | 409.52      | wh tetra cry              | dec         |          |                            |                                     | s H <sub>2</sub> O                       |
| 1203 | Hafnium(IV) selenide                                  | HfSe <sub>2</sub>  | 12162-21-9  | 336.41      | brn hex cry               |             |          | 7.46                       |                                     |  |
| 1204 | Hafnium(IV) silicate                                  | HfSiO <sub>4</sub>   | 13870-13-8  | 270.57      | tetra cry                 | 2758        |          | 7.0                        |                                     |  |
| 1205 | Hafnium(IV) sulfate                                   | Hf(SO <sub>4</sub> ) <sub>2</sub>  | 15823-43-5  | 370.62      | wh cry                    | >500 dec    |          |                            |                                     |  |
| 1206 | Hafnium(IV) sulfide                                   | HfS <sub>2</sub>   | 18855-94-2  | 242.62      | purp-brn hex cry          |             |          | 6.03                       |                                     |  |
| 1207 | Hafnium(IV) titanate                                  | HfTiO <sub>4</sub>   | 12055-24-2  | 290.36      | wh pow                    | 1980 dec    |          |                            |                                     |  |
| 1208 | Helium  | He   | 7440-59-7   | 4.003       | col gas                   |             | -268.93  | 0.164 g/L                  |                                     | sl H <sub>2</sub> O; i EtOH              |
| 1209 | Holmium   | Ho   | 7440-60-0   | 164.930     | silv metal; hex           | 1472        | 2700     | 8.80                       |                                     | s dil acid                               |
| 1210 | Holmium acetate                                       | Ho(C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> ) <sub>3</sub>                     | 25519-09-9  | 342.062     | yel cry                   | dec 327     |          |                            |                                     | s H <sub>2</sub> O                       |
| 1211 | Holmium bromide                                       | HoBr <sub>3</sub>  | 13825-76-8  | 404.642     | yel hyg cry               | 919         | 1470     |                            |                                     |  |
| 1212 | Holmium chloride                                      | HoCl <sub>3</sub>  | 10138-62-2  | 271.289     | yel monocl cry; hyg       | 720         | 1500     | 3.7                        |                                     | s H <sub>2</sub> O                       |
| 1213 | Holmium chloride hexahydrate                          | HoCl <sub>3</sub> · 6H <sub>2</sub> O  | 14914-84-2  | 379.381     | hyg yel cry               | 160 dec     |          |                            |                                     | s H <sub>2</sub> O                       |
| 1214 | Holmium fluoride                                      | HoF <sub>3</sub>   | 13760-78-6  | 221.925     | pink-yel orth cry; hyg    | 1143        | >2200    | 7.664                      |                                     | s H <sub>2</sub> O                       |
| 1215 | Holmium iodide  | HoI <sub>3</sub>   | 13813-41-7  | 545.643     | yel hex cry               | 994         |          | 5.4                        |                                     |  |
| 1216 | Holmium nitrate pentahydrate                          | Ho(NO <sub>3</sub> ) <sub>3</sub> · 5H <sub>2</sub> O                              | 14483-18-2  | 441.022     | hyg oran cry              |             |          |                            |                                     | s H <sub>2</sub> O, EtOH, ace            |
| 1217 | Holmium nitride                                       | HoN  | 12029-81-1  | 178.937     | cub cry                   |             |          | 10.6                       |                                     |  |
| 1218 | Holmium oxalate decahydrate                           | Ho <sub>2</sub> (C <sub>2</sub> O <sub>4</sub> ) <sub>2</sub> · 10H <sub>2</sub> O | 28965-57-3  | 774.070     | yel solid                 | dec 40      |          |                            |                                     |  |
| 1219 | Holmium oxide   | Ho <sub>2</sub> O <sub>3</sub>   | 12055-62-8  | 377.859     | yel cub cry               | 2330        | 3900     | 8.41                       |                                     | s acid                                   |
| 1220 | Holmium silicide                                      | HoSi <sub>2</sub>  | 12136-24-2  | 221.101     | hex cry                   |             |          | 7.1                        |                                     |  |
| 1221 | Holmium sulfide                                       | Ho <sub>2</sub> S <sub>3</sub>   | 12162-59-3  | 426.056     | yel-oran monocl cry       |             |          | 5.92                       |                                     |  |
| 1222 | Hydrazine   | N <sub>2</sub> H <sub>4</sub>  | 302-01-2    | 32.045      | col oily liq              | 1.54        | 113.55   | 1.0036                     |                                     | vs H <sub>2</sub> O, EtOH, MeOH          |
| 1223 | Hydrazine acetate                                     | N <sub>2</sub> H <sub>4</sub> · CH <sub>3</sub> COOH                               | 13255-48-6  | 92.097      | cry                       | 100         |          |                            |                                     |  |
| 1224 | Hydrazine azide                                       | N <sub>2</sub> H <sub>4</sub> · HN <sub>3</sub>                                    | 14662-04-5  | 75.074      | hyg wh prism              | 75 exp      |          |                            |                                     | vs H <sub>2</sub> O                      |
| 1225 | Hydrazine monohydrate                                 | N <sub>2</sub> H <sub>4</sub> · H <sub>2</sub> O                                   | 7803-57-8   | 50.060      | fuming liq                | -51.7       | 119      | 1.030                      |                                     | vs H <sub>2</sub> O, EtOH; i chl, eth    |
| 1226 | Hydrazine hydrobromide                                | N <sub>2</sub> H <sub>4</sub> · HBr  | 13775-80-9  | 112.957     | wh monocl cry flakes      | 84          | ≈190 dec | 2.3                        |                                     | s H <sub>2</sub> O, EtOH                 |
| 1227 | Hydrazine hydrochloride                               | N <sub>2</sub> H <sub>4</sub> · HCl  | 2644-70-4   | 68.506      | wh orth cry               | 89          | 240 dec  | 1.5                        |                                     | s H <sub>2</sub> O; i os                 |
| 1228 | Hydrazine dihydrochloride                             | N <sub>2</sub> H <sub>4</sub> · 2HCl   | 5341-61-7   | 104.967     | wh orth cry               | 198 dec     |          | 1.42                       |                                     | s H <sub>2</sub> O; sl EtOH              |
| 1229 | Hydrazine hydroiodide                                 | N <sub>2</sub> H <sub>4</sub> · HI   | 10039-55-1  | 159.957     | hyg cry                   | 125         |          |                            |                                     | s H <sub>2</sub> O                       |
| 1230 | Hydrazine nitrate                                     | N <sub>2</sub> H <sub>4</sub> · HNO <sub>3</sub>                                   | 13464-97-6  | 95.058      | monocl cry; exp           | 70          |          |                            |                                     | vs H <sub>2</sub> O                      |
| 1231 | Hydrazine dinitrate                                   | N <sub>2</sub> H <sub>4</sub> · 2HNO <sub>3</sub>                                  | 13464-98-7  | 158.071     | needles                   | 104 dec     |          |                            | 20 <sup>35</sup>                    | s H <sub>2</sub> O                       |
| 1232 | Hydrazine perchlorate hemihydrate                     | N <sub>2</sub> H <sub>4</sub> · HClO <sub>4</sub> · 0.5H <sub>2</sub> O            | 13762-65-7  |             | solid                     | 137         | exp      | 1.94                       |                                     | reac H <sub>2</sub> O, s EtOH; i eth, bz |
| 1233 | Hydrazine sulfate                                     | N <sub>2</sub> H <sub>4</sub> · H <sub>2</sub> SO <sub>4</sub>                     | 10034-93-2  | 130.124     | col orth cry              | 254         |          | 1.378                      |                                     | sl H <sub>2</sub> O; i EtOH              |
| 1234 | Dihydrazine sulfate                                   | (N <sub>2</sub> H <sub>4</sub> ) <sub>2</sub> · H <sub>2</sub> SO <sub>4</sub>     | 13464-80-7  | 162.169     | hyg wh cry flakes         | 104         | dec >180 |                            | 200 <sup>25</sup>                   | vs H <sub>2</sub> O; i os                |
| 1235 | Hydrazoic acid  | HN <sub>3</sub>  | 7782-79-8   | 43.028      | col liq; exp              | -80         | 35.7     |                            |                                     | s H <sub>2</sub> O                       |
| 1236 | Hydroxylamine   | H <sub>2</sub> NOH   | 7803-49-8   | 33.030      | wh orth flakes or needles | 33.1        | 58       | 1.21                       |                                     | vs H <sub>2</sub> O, MeOH                |
| 1237 | Hydroxylamine hydrobromide                            | H <sub>2</sub> NOH · HBr   | 41591-55-3  | 113.942     | monocl cry                |             |          | 2.35                       |                                     | s H <sub>2</sub> O                       |
| 1238 | Hydroxylamine hydrochloride                           | H <sub>2</sub> NOH · HCl   | 5470-11-1   | 69.491      | col monocl cry            | 159 dec     | exp      | 1.68                       | 94 <sup>25</sup>                    | vs H <sub>2</sub> O                      |
| 1239 | Hydroxylamine perchlorate                             | H <sub>2</sub> NOH · HClO <sub>4</sub>   |             | 133.489     | orth cry                  | 88          | dec 120  |                            |                                     |  |
| 1240 | Hydroxylamine sulfate                                 | 2(H <sub>2</sub> NOH) · H <sub>2</sub> SO <sub>4</sub>                             | 10039-54-0  | 164.138     | cry                       | 170         |          |                            |                                     | vs H <sub>2</sub> O                      |
| 1241 | Hydrogen  | H <sub>2</sub>   | 1333-74-0   | 2.016       | col gas; flam             | -259.198 tp | -252.762 | 0.082 g/L                  |                                     | sl H <sub>2</sub> O                      |
| 1242 | Hydrogen- <i>d</i> <sub>2</sub>                       | D <sub>2</sub>   | 7782-39-0   | 4.028       | col gas                   | -254.42     | -249.48  | 0.164 g/L                  |                                     |  |
| 1243 | Hydrogen- <i>t</i> <sub>2</sub>                       | T <sub>2</sub>   | 10028-17-8  | 6.032       | col gas                   | -252.53     | -248.11  | 0.246 g/L                  |                                     |  |
| 1244 | Hydrogen- <i>d</i> <sub>1</sub>                       | HD   | 13983-20-5  | 3.022       | col gas                   | -256.55     | -251.02  | 0.123 g/L                  |                                     |  |
| 1245 | Hydrogen- <i>t</i> <sub>1</sub>                       | HT   | 14885-60-0  | 4.024       | col gas                   | -254.7      | -249.6   |                            |                                     |  |
| 1246 | Hydrogen- <i>d</i> <sub>1</sub> <i>t</i> <sub>1</sub> | DT   | 14885-61-1  | 5.030       | col gas                   | -253.5      | -238.9   |                            |                                     |  |
| 1247 | Hydrogen bromide                                      | HBr  | 10035-10-6  | 80.912      | col gas                   | -86.80      | -66.38   | 3.307 g/L                  |                                     | vs H <sub>2</sub> O; s EtOH              |
| 1248 | Hydrogen bromide- <i>d</i>                            | DBr  | 13536-59-9  | 81.918      | col gas                   | -87.54      | -66.9    |                            |                                     | s H <sub>2</sub> O                       |



| No.  | Name                                | Formula  | CAS Reg No. | Mol. weight | Physical form                 | mp/°C           | bp/°C     | Density g cm <sup>-3</sup> | Solubility g/100 g H <sub>2</sub> O | Qualitative solubility            |
|------|-------------------------------------|--|-------------|-------------|-------------------------------|-----------------|-----------|----------------------------|-------------------------------------|-----------------------------------|
| 1249 | Hydrogen chloride                   | HCl  | 7647-01-0   | 36.461      | col gas                       | -114.17         | -85       | 1.490 g/L                  |                                     | vs H <sub>2</sub> O               |
| 1250 | Hydrogen chloride dihydrate         | HCl · 2H <sub>2</sub> O                                | 13465-05-9  | 72.492      | col liq                       | -17.7           |           | 1.46                       |                                     |                                   |
| 1251 | Hydrogen chloride- <i>d</i>         | DCl  | 7698-05-7   | 37.467      | col gas                       | -114.72         | -84.4     |                            |                                     | s H <sub>2</sub> O                |
| 1252 | Hydrogen cyanide                    | HCN  | 74-90-8     | 27.026      | col liq or gas                | -13.29          | 26        | 0.6876 <sup>20</sup>       |                                     | vs H <sub>2</sub> O, EtOH; sl eth |
| 1253 | Hydrogen fluoride                   | HF   | 7664-39-3   | 20.006      | col gas                       | -83.36          | 20        | 0.818 g/L                  |                                     | vs H <sub>2</sub> O, EtOH; sl eth |
| 1254 | Hydrogen iodide                     | HI   | 10034-85-2  | 127.912     | col or yel gas                | -50.76          | -35.55    | 5.228 g/L                  |                                     | vs H <sub>2</sub> O; s os         |
| 1255 | Hydrogen iodide- <i>d</i>           | DI   | 14104-45-1  | 128.918     | col gas                       | -51.93          | -36.2     |                            |                                     | s H <sub>2</sub> O                |
| 1256 | Hydrogen peroxide                   | H <sub>2</sub> O <sub>2</sub>                          | 7722-84-1   | 34.015      | col liq                       | -0.43           | 150.2     | 1.44                       |                                     | vs H <sub>2</sub> O               |
| 1257 | Hydrogen selenide                   | H <sub>2</sub> Se                                      | 7783-07-5   | 80.98       | col gas; flam                 | -65.73          | -41.25    | 3.310 g/L                  |                                     | s H <sub>2</sub> O                |
| 1258 | Hydrogen sulfide                    | H <sub>2</sub> S                                       | 7783-06-4   | 34.081      | col gas; flam                 | -85.5           | -59.55    | 1.393 g/L                  |                                     | s H <sub>2</sub> O                |
| 1259 | Hydrogen disulfide                  | H <sub>2</sub> S <sub>2</sub>                          | 13465-07-1  | 66.146      | col liq                       |                 | 70.7      | 1.334                      |                                     |                                   |
| 1260 | Hydrogen telluride                  | H <sub>2</sub> Te                                      | 7783-09-7   | 129.62      | col gas                       | -49             | -2        | 5.298 g/L                  |                                     | s H <sub>2</sub> O, EtOH, alk     |
| 1261 | Indium                              | In   | 7440-74-6   | 114.818     | soft wh metal                 | 156.60          | 2072      | 7.31                       |                                     | s acid                            |
| 1262 | Indium antimonide                   | InSb   | 1312-41-0   | 236.578     | blk cub cry                   | 524             |           | 5.7747                     |                                     |                                   |
| 1263 | Indium arsenide                     | InAs   | 1303-11-3   | 189.740     | gray cub cry                  | 942             |           | 5.67                       |                                     | i acid                            |
| 1264 | Indium nitride                      | InN  | 25617-98-5  | 128.825     | brn hex cry                   | 1100            |           | 6.88                       |                                     |                                   |
| 1265 | Indium phosphide                    | InP  | 22398-80-7  | 145.792     | blk cub cry                   | 1062            |           | 4.81                       |                                     | sl acid                           |
| 1266 | Indium(I) bromide                   | InBr   | 14280-53-6  | 194.722     | oran-red orth cry             | 285             | 656       | 4.96                       |                                     | reac H <sub>2</sub> O             |
| 1267 | Indium(I) chloride                  | InCl   | 13465-10-6  | 150.271     | yel cub cry                   | 225             | 608       | 4.19                       |                                     | reac H <sub>2</sub> O             |
| 1268 | Indium(I) iodide                    | InI  | 13966-94-4  | 241.722     | orth cry                      | 364.4           | 712       | 5.32                       |                                     |                                   |
| 1269 | Indium(II) bromide                  | InBr <sub>2</sub>                                      | 21264-43-7  | 274.626     | orth cry                      |                 |           | 4.22                       |                                     | reac H <sub>2</sub> O             |
| 1270 | Indium(II) chloride                 | InCl <sub>2</sub>                                      | 13465-11-7  | 185.724     | col orth cry                  | 235             |           | 3.64                       |                                     | reac H <sub>2</sub> O             |
| 1271 | Indium(II) sulfide                  | InS  | 12030-14-7  | 146.883     | red-brn orth cry              | 692             |           | 5.2                        |                                     |                                   |
| 1272 | Indium(III) bromide                 | InBr <sub>3</sub>                                      | 13465-09-3  | 354.530     | hyg yel-wh monocl cry         | 420             |           | 4.74                       | 414 <sup>20</sup>                   |                                   |
| 1273 | Indium(III) chloride                | InCl <sub>3</sub>                                      | 10025-82-8  | 221.177     | yel monocl cry; hyg           | 583             |           | 4.0                        | 195.1 <sup>22</sup>                 | s EtOH                            |
| 1274 | Indium(III) chloride tetrahydrate   | InCl <sub>3</sub> · 4H <sub>2</sub> O                  | 22519-64-8  | 293.239     | wh cry                        |                 |           |                            |                                     | s H <sub>2</sub> O                |
| 1275 | Indium(III) fluoride                | InF <sub>3</sub>                                       | 7783-52-0   | 171.813     | wh hex cry; hyg               | 1172            | >1200     | 4.39                       |                                     | sl H <sub>2</sub> O; s dil acid   |
| 1276 | Indium(III) fluoride trihydrate     | InF <sub>3</sub> · 3H <sub>2</sub> O                   | 14166-78-0  | 225.859     | wh cry                        | 100 dec         |           |                            |                                     | s H <sub>2</sub> O                |
| 1277 | Indium(III) hydroxide               | In(OH) <sub>3</sub>                                    | 20861-21-6  | 165.840     | cub cry                       |                 |           | 4.4                        |                                     |                                   |
| 1278 | Indium(III) iodide                  | InI <sub>3</sub>                                       | 13510-35-5  | 495.531     | yel-red monocl cry; hyg       | 207             |           | 4.69                       | 1308 <sup>22</sup>                  |                                   |
| 1279 | Indium(III) nitrate trihydrate      | In(NO <sub>3</sub> ) <sub>3</sub> · 3H <sub>2</sub> O  | 13770-61-1  | 354.879     | col cry                       | dec 100         |           |                            |                                     |                                   |
| 1280 | Indium(III) oxide                   | In <sub>2</sub> O <sub>3</sub>                         | 1312-43-2   | 277.634     | yel cub cry                   | 1912            |           | 7.18                       |                                     | i H <sub>2</sub> O; s hot acid    |
| 1281 | Indium(III) perchlorate octahydrate | In(ClO <sub>4</sub> ) <sub>3</sub> · 8H <sub>2</sub> O | 13465-15-1  | 557.292     | wh cry                        | ≈80             | 200 dec   |                            |                                     |                                   |
| 1282 | Indium(III) phosphate               | InPO <sub>4</sub>                                      | 14693-82-4  | 209.789     | wh orth cry                   |                 |           | 4.9                        |                                     | i H <sub>2</sub> O                |
| 1283 | Indium(III) selenide                | In <sub>2</sub> Se <sub>3</sub>                        | 1312-42-1   | 466.52      | blk hex cry                   | 660             |           | 5.8                        |                                     |                                   |
| 1284 | Indium(III) sulfate                 | In <sub>2</sub> (SO <sub>4</sub> ) <sub>3</sub>        | 13464-82-9  | 517.824     | hyg wh powder                 |                 |           | 3.44                       | 117 <sup>20</sup>                   |                                   |
| 1285 | Indium(III) sulfide                 | In <sub>2</sub> S <sub>3</sub>                         | 12030-24-9  | 325.831     | oran cub cry                  | 1050            |           | 4.45                       |                                     |                                   |
| 1286 | Indium(III) telluride               | In <sub>2</sub> Te <sub>3</sub>                        | 1312-45-4   | 612.44      | blk cub cry                   | 667             |           | 5.75                       |                                     |                                   |
| 1287 | Iodine                              | I <sub>2</sub>   | 7553-56-2   | 253.809     | blue-blk plates               | 113.7           | 184.4     | 4.933                      | 0.03 <sup>20</sup>                  | s bz, EtOH, eth, ctc, chl         |
| 1288 | Iodic acid                          | HIO <sub>3</sub>                                       | 7782-68-5   | 175.910     | col orth cry                  | 110 dec         |           | 4.63                       | 308 <sup>25</sup>                   | i EtOH, eth                       |
| 1289 | Periodic acid dihydrate             | HIO <sub>4</sub> · 2H <sub>2</sub> O                   | 10450-60-9  | 227.940     | monocl hyg cry                | 122 dec         |           |                            |                                     | s H <sub>2</sub> O, EtOH; sl eth  |
| 1290 | Iodine tetroxide                    | I <sub>2</sub> O <sub>4</sub>                          | 12399-08-5  | 317.807     | yel cry                       | 130             | dec >85   | 4.2                        |                                     | sl H <sub>2</sub> O               |
| 1291 | Iodine pentoxide                    | I <sub>2</sub> O <sub>5</sub>                          | 12029-98-0  | 333.806     | hyg wh cry                    | ≈300 dec        |           | 4.98                       | 253.4 <sup>20</sup>                 | i EtOH, eth, CS <sub>2</sub>      |
| 1292 | Iodine hexoxide                     | I <sub>2</sub> O <sub>6</sub>                          | 65355-99-9  | 349.805     | yel solid                     | dec 150         |           |                            |                                     | reac H <sub>2</sub> O             |
| 1293 | Iodine nonaoxide                    | I <sub>2</sub> O <sub>9</sub>                          | 73560-00-6  | 651.613     | hyg yel powder                | 75 dec          |           |                            |                                     |                                   |
| 1294 | Iodine bromide                      | IBr  | 7789-33-5   | 206.808     | blk orth cry                  | 40              | 116 dec   | 4.3                        |                                     | s H <sub>2</sub> O, EtOH, eth     |
| 1295 | Iodine chloride                     | ICl  | 7790-99-0   | 162.357     | red cry or oily liq           | 27.38           | 94.4 dec  | 3.24                       |                                     | reac H <sub>2</sub> O; s EtOH     |
| 1296 | Iodine trichloride                  | ICl <sub>3</sub>                                       | 865-44-1    | 233.263     | yel tricl cry; hyg            | 101 tp (16 atm) | 64 sp dec | 3.2                        |                                     | reac H <sub>2</sub> O; s EtOH, bz |
| 1297 | Iodine fluoride                     | IF   | 13873-84-2  | 145.902     | wh pow (-78°C)                | -14 dec         |           |                            |                                     |                                   |
| 1298 | Iodine trifluoride                  | IF <sub>3</sub>  | 22520-96-3  | 183.899     | yel solid, stable at low temp | -28 dec         |           |                            |                                     |                                   |
| 1299 | Iodine pentafluoride                | IF <sub>5</sub>  | 7783-66-6   | 221.896     | yel liq                       | 9.43            | 100.5     | 3.19                       |                                     | reac H <sub>2</sub> O             |
| 1300 | Iodine heptafluoride                | IF <sub>7</sub>  | 16921-96-3  | 259.893     | col gas                       | 6.5 tp          | 4.8 sp    | 10.62 g/L                  |                                     | s H <sub>2</sub> O                |
| 1301 | Iodosyl trifluoride                 | IOF <sub>3</sub>                                       | 19058-78-7  | 199.898     | hyg col needles               | dec >110        |           |                            |                                     | reac H <sub>2</sub> O             |
| 1302 | Iodosyl pentafluoride               | IOF <sub>5</sub>                                       | 16056-61-4  | 237.895     | col liq                       | 4.5             |           |                            |                                     |                                   |
| 1303 | Iodyl trifluoride                   | IO <sub>2</sub> F <sub>3</sub>                         | 25402-50-0  | 215.898     | yel solid                     | 41              | subl      |                            |                                     |                                   |
| 1304 | Periodyl fluoride                   | IO <sub>3</sub> F                                      | 30708-86-2  | 193.900     | col cry                       | dec >100        |           |                            |                                     |                                   |
| 1305 | Iridium                             | Ir   | 7439-88-5   | 192.217     | silv-wh metal; cub            | 2446            | 4428      | 22.562 <sup>20</sup>       |                                     | s aqua regia                      |
| 1306 | Iridium carbonyl                    | Ir <sub>4</sub> (CO) <sub>12</sub>                     | 11065-24-0  | 1104.989    | yel cry                       | 210 dec         |           |                            |                                     |                                   |
| 1307 | Iridium(III) bromide                | IrBr <sub>3</sub>                                      | 10049-24-8  | 431.929     | red-brn monocl cry            |                 |           | 6.82                       |                                     | i H <sub>2</sub> O, acid, alk     |

| No.  | Name                               | Formula  | CAS Reg No. | Mol. weight | Physical form             | mp/°C    | bp/°C   | Density g cm <sup>-3</sup> | Solubility g/100 g H <sub>2</sub> O | Qualitative solubility                                    |
|------|------------------------------------|--|-------------|-------------|---------------------------|----------|---------|----------------------------|-------------------------------------|---|
| 1308 | Iridium(III) bromide tetrahydrate  | IrBr <sub>3</sub> · 4H <sub>2</sub> O  | 10049-24-8* | 503.991     | grn-brn cry               |          |         |                            |                                     | s H <sub>2</sub> O; i EtOH                                |
| 1309 | Iridium(III) chloride              | IrCl <sub>3</sub>  | 10025-83-9  | 298.576     | brn monocl cry            | 763 dec  |         | 5.30                       |                                     | i H <sub>2</sub> O, acid, alk                             |
| 1310 | Iridium(III) fluoride              | IrF <sub>3</sub>   | 23370-59-4  | 249.212     | blk hex cry               | 250 dec  |         | ≈8.0                       |                                     | i H <sub>2</sub> O, dil acid                              |
| 1311 | Iridium(III) iodide                | IrI <sub>3</sub>   | 7790-41-2   | 572.930     | dark brn monocl cry       |          |         | ≈7.4                       |                                     | i H <sub>2</sub> O, acid, bz, chl; s alk                  |
| 1312 | Iridium(III) oxide                 | Ir <sub>2</sub> O <sub>3</sub>   | 1312-46-5   | 432.432     | blue-blk cry              | 1000 dec |         |                            |                                     | i H <sub>2</sub> O; sl hot HCl                            |
| 1313 | Iridium(III) 2,4-pentanedioate     | Ir(CH <sub>3</sub> COCHCOCH <sub>3</sub> ) <sub>3</sub>                            | 15635-87-7  | 489.541     | oran-yl cry               | 270      | subl    |                            |                                     | sl H <sub>2</sub> O; s tol, chl, ace, MeOH                |
| 1314 | Iridium(III) sulfide               | Ir <sub>2</sub> S <sub>3</sub>   | 12136-42-4  | 480.629     | orth cry                  |          |         | 10.2                       |                                     |   |
| 1315 | Iridium(IV) chloride               | IrCl <sub>4</sub>  | 10025-97-5  | 334.029     | brn hyg solid             | ≈700 dec |         |                            |                                     | s H <sub>2</sub> O, EtOH                                  |
| 1316 | Iridium(IV) oxide                  | IrO <sub>2</sub>   | 12030-49-8  | 224.216     | brn tetr cry              | 1100 dec |         | 11.7                       |                                     |   |
| 1317 | Iridium(IV) sulfide                | IrS <sub>2</sub>   | 12030-51-2  | 256.347     | orth cry                  |          |         | 9.3                        |                                     |   |
| 1318 | Iridium(VI) fluoride               | IrF <sub>6</sub>   | 7783-75-7   | 306.207     | yel cub cry; hyg          | 44       | 53.6    | 4.8                        |                                     | reac H <sub>2</sub> O                                     |
| 1319 | Iron                               | Fe   | 7439-89-6   | 55.845      | silv-wh or gray met       | 1538     | 2861    | 7.87                       |                                     | s dil acid  |
| 1320 | Ferrocene                          | Fe(C <sub>5</sub> H <sub>5</sub> ) <sub>2</sub>                                    | 102-54-5    | 186.031     | oran needles              | 172.5    | 249     |                            |                                     | i H <sub>2</sub> O; s EtOH, eth, bz, dil HNO <sub>3</sub> |
| 1321 | Tetracarbonyldihydroiron           | Fe(CO) <sub>4</sub> H <sub>2</sub>   | 12002-28-7  | 169.902     | col liq, stab low temp    | -70      | dec -20 |                            |                                     | s alk   |
| 1322 | Iron pentacarbonyl                 | Fe(CO) <sub>5</sub>  | 13463-40-6  | 195.896     | yel oily liq; flam        | -20.5    | 103     | 1.46                       |                                     | i H <sub>2</sub> O; s eth, bz, ace                        |
| 1323 | Iron nonacarbonyl                  | Fe <sub>9</sub> (CO) <sub>9</sub>  | 15321-51-4  | 363.781     | oran-yl cry               | 100 dec  |         | 2.85                       |                                     |   |
| 1324 | Iron dodecacarbonyl                | Fe <sub>12</sub> (CO) <sub>12</sub>  | 12088-65-2  | 503.656     | dark grn cry              | 140      |         | 2.00                       |                                     |   |
| 1325 | Iron arsenide                      | FeAs   | 12044-16-5  | 130.767     | gray orth cry             | 1030     |         | 7.85                       |                                     |   |
| 1326 | Iron boride (FeB)                  | FeB  | 12006-84-7  | 66.656      | refrac solid; orth        | 1658     |         | ≈7                         |                                     |   |
| 1327 | Iron boride (Fe <sub>3</sub> B)    | Fe <sub>3</sub> B  | 12006-86-9  | 122.501     | refrac solid; tetr        | 1389     |         | 7.3                        |                                     |   |
| 1328 | Iron carbide                       | Fe <sub>3</sub> C  | 12011-67-5  | 179.546     | gray cub cry              | 1227     |         | 7.694                      |                                     |   |
| 1329 | Iron phosphide (FeP)               | FeP  | 26508-33-8  | 86.819      | rhomb cry                 |          |         | 6.07                       |                                     |   |
| 1330 | Iron phosphide (Fe <sub>3</sub> P) | Fe <sub>3</sub> P  | 1310-43-6   | 142.664     | gray hex needles          | 1370     |         | 6.8                        |                                     | i H <sub>2</sub> O, dil acid, alk                         |
| 1331 | Iron phosphide (Fe <sub>5</sub> P) | Fe <sub>5</sub> P  | 12023-53-9  | 198.509     | gray solid                | 1100     |         | 6.74                       |                                     | i H <sub>2</sub> O  |
| 1332 | Iron disulfide                     | FeS <sub>2</sub>   | 1317-66-4   | 119.975     | blk cub cry               | >600 dec |         | 5.02                       |                                     | i H <sub>2</sub> O  |
| 1333 | Iron silicide                      | FeSi   | 12022-95-6  | 83.931      | gray cub cry              | 1410     |         | 6.1                        |                                     |   |
| 1334 | Iron disilicide                    | FeSi <sub>2</sub>  | 12022-99-0  | 112.016     | gray tetr cry             | 1220     |         | 4.74                       |                                     |   |
| 1335 | Iron(II) acetate                   | Fe(C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> ) <sub>2</sub>                     | 3094-87-9   | 173.934     | wh cry                    | 190 dec  |         |                            |                                     | s H <sub>2</sub> O  |
| 1336 | Iron(II) acetate tetrahydrate      | Fe(C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> ) <sub>2</sub> · 4H <sub>2</sub> O | 3094-87-9*  | 245.994     | grn cry                   | dec      |         |                            |                                     | s H <sub>2</sub> O, EtOH                                  |
| 1337 | Iron(II) aluminate                 | Fe(AlO <sub>2</sub> ) <sub>2</sub>   | 12068-49-4  | 173.806     | blk cub cry               |          |         | 4.3                        |                                     |   |
| 1338 | Iron(II) arsenate                  | Fe <sub>3</sub> (AsO <sub>4</sub> ) <sub>2</sub>                                   | 10102-50-8  | 445.373     | grn powder                |          |         |                            |                                     | i H <sub>2</sub> O  |
| 1339 | Iron(II) arsenate hexahydrate      | Fe <sub>3</sub> (AsO <sub>4</sub> ) <sub>2</sub> · 6H <sub>2</sub> O               | 10102-50-8* | 553.465     | grn amorp powder          | dec      |         |                            |                                     | i H <sub>2</sub> O; s acid                                |
| 1340 | Iron(II) bromide                   | FeBr <sub>2</sub>  | 7789-46-0   | 215.653     | yel-brn hex cry; hyg      | 691      | dec     | 4.636                      | 120 <sup>25</sup>                   | vs EtOH   |
| 1341 | Iron(II) bromide hexahydrate       | FeBr <sub>2</sub> · 6H <sub>2</sub> O  | 13463-12-2  | 323.744     | grn hyg cry               | 27 dec   |         | 4.64                       | 120 <sup>25</sup>                   | s EtOH  |
| 1342 | Iron(II) carbonate                 | FeCO <sub>3</sub>  | 563-71-3    | 115.854     | gray-brn hex cry          |          |         | 3.944                      | 0.000062 <sup>20</sup>              |   |
| 1343 | Iron(II) chloride                  | FeCl <sub>2</sub>  | 7758-94-3   | 126.751     | wh hex cry; hyg           | 677      | 1023    | 3.16                       | 65.0 <sup>25</sup>                  | vs EtOH, ace; sl bz                                       |
| 1344 | Iron(II) chloride dihydrate        | FeCl <sub>2</sub> · 2H <sub>2</sub> O  | 16399-77-2  | 162.782     | wh-grn monocl cry         | 120 dec  |         | 2.39                       | 65.0 <sup>25</sup>                  |   |
| 1345 | Iron(II) chloride tetrahydrate     | FeCl <sub>2</sub> · 4H <sub>2</sub> O  | 13478-10-9  | 198.813     | grn monocl cry            | 105 dec  |         | 1.93                       | 65.0 <sup>25</sup>                  | s EtOH  |
| 1346 | Iron(II) chromite                  | FeCr <sub>2</sub> O <sub>4</sub>   | 1308-31-2   | 223.835     | blk cub cry               |          |         | 5.0                        |                                     |   |
| 1347 | Iron(II) fluoride                  | FeF <sub>2</sub>   | 7789-28-8   | 93.842      | wh tetr cry               | 1100     |         | 4.09                       |                                     | sl H <sub>2</sub> O; s dil HF; i EtOH, eth                |
| 1348 | Iron(II) fluoride tetrahydrate     | FeF <sub>2</sub> · 4H <sub>2</sub> O   | 13940-89-1  | 165.904     | col hex cry               |          |         | 2.20                       |                                     |   |
| 1349 | Iron(II) hydroxide                 | Fe(OH) <sub>2</sub>  | 18624-44-7  | 89.860      | wh-grn hex cry            |          |         | 3.4                        | 0.000052 <sup>20</sup>              |   |
| 1350 | Iron(II) iodide                    | FeI <sub>2</sub>   | 7783-86-0   | 309.654     | red-viol hex cry; hyg     | 594      |         | 5.3                        |                                     | s H <sub>2</sub> O, EtOH, eth                             |
| 1351 | Iron(II) iodide tetrahydrate       | FeI <sub>2</sub> · 4H <sub>2</sub> O   | 7783-86-0*  | 381.716     | blk hyg leaflets          | 90 dec   |         | 2.87                       |                                     | s H <sub>2</sub> O, EtOH                                  |
| 1352 | Iron(II) molybdate                 | FeMoO <sub>4</sub>   | 13718-70-2  | 215.78      | brn-yl monocl cry         | 1115     |         | 5.6                        |                                     | i H <sub>2</sub> O  |
| 1353 | Iron(II) nitrate                   | Fe(NO <sub>3</sub> ) <sub>2</sub>  | 14013-86-6  | 179.854     | grn solid                 |          |         |                            | 87.5 <sup>25</sup>                  |   |
| 1354 | Iron(II) nitrate hexahydrate       | Fe(NO <sub>3</sub> ) <sub>2</sub> · 6H <sub>2</sub> O                              | 14013-86-6* | 287.946     | grn solid                 | 60 dec   |         |                            | 87.5 <sup>25</sup>                  |   |
| 1355 | Iron(II) orthosilicate             | Fe <sub>2</sub> SiO <sub>4</sub>   | 10179-73-4  | 203.774     | brn orth cry              |          |         | 4.30                       |                                     |   |
| 1356 | Iron(II) oxalate dihydrate         | FeC <sub>2</sub> O <sub>4</sub> · 2H <sub>2</sub> O                                | 6047-25-2   | 179.894     | yel cry                   | 150 dec  |         | 2.28                       | 0.078 <sup>25</sup>                 | s acid  |
| 1357 | Iron(II) oxide                     | FeO  | 1345-25-1   | 71.844      | blk cub cry               | 1377     |         | 6.02                       |                                     | i H <sub>2</sub> O, alk; s acid                           |
| 1358 | Iron(II) 2,4-pentanedioate         | Fe(CH <sub>3</sub> COCHCOCH <sub>3</sub> ) <sub>2</sub>                            | 14024-17-0  | 254.061     | oran-brn cry              | 170      | subl    |                            |                                     | sl bz, tol  |
| 1359 | Iron(II) perchlorate               | Fe(ClO <sub>4</sub> ) <sub>2</sub>   | 13933-23-8  | 254.746     | grn-wh hyg needles        | >100 dec |         |                            | 210 <sup>25</sup>                   |   |
| 1360 | Iron(II) phosphate octahydrate     | Fe <sub>3</sub> (PO <sub>4</sub> ) <sub>2</sub> · 8H <sub>2</sub> O                | 14940-41-1  | 501.600     | gray-blue monocl cry; hyg |          |         | 2.58                       |                                     | i H <sub>2</sub> O; s acid                                |
| 1361 | Iron(II) selenide                  | FeSe   | 1310-32-3   | 134.81      | blk hex cry               |          |         | 6.7                        |                                     | i H <sub>2</sub> O  |
| 1362 | Iron(II) sulfate                   | FeSO <sub>4</sub>  | 7720-78-7   | 151.908     | wh orth cry; hyg          |          |         | 3.65                       | 29.5 <sup>25</sup>                  |   |
| 1363 | Iron(II) sulfate monohydrate       | FeSO <sub>4</sub> · H <sub>2</sub> O   | 17375-41-6  | 169.923     | wh-yl monocl cry          | 300 dec  |         | 3.0                        | 29.5 <sup>25</sup>                  |   |

| No.  | Name                                  | Formula  | CAS Reg No. | Mol. weight | Physical form               | mp/°C                 | bp/°C   | Density g cm <sup>-3</sup> | Solubility g/100 g H <sub>2</sub> O | Qualitative solubility                    |
|------|---------------------------------------|--|-------------|-------------|-----------------------------|-----------------------|---------|----------------------------|-------------------------------------|---|
| 1364 | Iron(II) sulfate heptahydrate         | FeSO <sub>4</sub> · 7H <sub>2</sub> O  | 7782-63-0   | 278.014     | blue-grn monocl cry         | ≈60 dec               |         | 1.895                      | 29.5 <sup>25</sup>                  | i EtOH                                    |
| 1365 | Iron(II) sulfide                      | FeS  | 1317-37-9   | 87.910      | col hex or tetr cry; hyg    | 1188                  | dec     | 4.7                        |                                     | i H <sub>2</sub> O; reac acid             |
| 1366 | Iron(II) tantalate                    | Fe(TaO <sub>3</sub> ) <sub>2</sub>   | 12140-41-9  | 513.737     | brn tetr cry                |                       |         | 7.33                       |                                     |   |
| 1367 | Iron(II) tartrate                     | FeC <sub>4</sub> H <sub>4</sub> O <sub>6</sub>   |             | 203.916     | wh cry                      |                       |         |                            | 0.88                                | vs acid; s NH <sub>3</sub> OH             |
| 1368 | Iron(II) telluride                    | FeTe   | 12125-63-2  | 183.45      | tetr cry                    | 914                   |         | 6.8                        |                                     |   |
| 1369 | Iron(II) thiocyanate trihydrate       | Fe(SCN) <sub>2</sub> · 3H <sub>2</sub> O   | 6010-09-9   | 226.055     | grn monocl cry              |                       |         |                            |                                     | s H <sub>2</sub> O, EtOH, eth             |
| 1370 | Iron(II) titanate                     | FeTiO <sub>3</sub>   | 12168-52-4  | 151.710     | blk rhomb cry               | ≈1470                 |         | 4.72                       |                                     |   |
| 1371 | Iron(II) tungstate                    | FeWO <sub>4</sub>  | 13870-24-1  | 303.68      | monocl cry                  |                       |         | 7.51                       |                                     |   |
| 1372 | Iron(II,III) oxide                    | Fe <sub>3</sub> O <sub>4</sub>   | 1317-61-9   | 231.533     | blk cub cry or amorp powder | 1597                  |         | 5.17                       |                                     | i H <sub>2</sub> O; s acid                |
| 1373 | Iron(III) acetate, basic              | FeOH(C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> ) <sub>2</sub>                               | 10450-55-2  | 190.941     | brn-red amorp powder        |                       |         |                            |                                     | i H <sub>2</sub> O; s EtOH, acid          |
| 1374 | Iron(III) ammonium citrate            | Fe(NH <sub>4</sub> ) <sub>2</sub> (C <sub>6</sub> H <sub>5</sub> O <sub>7</sub> ) <sub>2</sub> | 1185-57-5   | 488.160     | red or brn pow; hyg         |                       |         |                            |                                     | s H <sub>2</sub> O; i EtOH                |
| 1375 | Iron(III) arsenate dihydrate          | FeAsO <sub>4</sub> · 2H <sub>2</sub> O   | 10102-49-5  | 230.795     | grn-brn powder              | dec                   |         | 3.18                       |                                     | i H <sub>2</sub> O; s dil acid            |
| 1376 | Iron(III) bromide                     | FeBr <sub>3</sub>  | 10031-26-2  | 295.557     | dark red hex cry; hyg       | dec                   |         | 4.5                        | 455 <sup>25</sup>                   | s EtOH, eth                               |
| 1377 | Iron(III) chloride                    | FeCl <sub>3</sub>  | 7705-08-0   | 162.204     | grn hex cry; hyg            | 307.6                 | ≈316    | 2.90                       | 91.2 <sup>25</sup>                  | s EtOH, eth, ace                          |
| 1378 | Iron(III) chloride hexahydrate        | FeCl <sub>3</sub> · 6H <sub>2</sub> O  | 10025-77-1  | 270.295     | yel-oran monocl cry; hyg    | 37 dec                |         | 1.82                       | 91.2 <sup>25</sup>                  | s EtOH, eth, ace                          |
| 1379 | Iron(III) chromate                    | Fe <sub>2</sub> (CrO <sub>4</sub> ) <sub>3</sub>   | 10294-52-7  | 459.671     | yel powder                  |                       |         |                            |                                     | i H <sub>2</sub> O, EtOH; s acid          |
| 1380 | Iron(III) citrate pentahydrate        | FeC <sub>6</sub> H <sub>5</sub> O <sub>7</sub> · 5H <sub>2</sub> O                             | 3522-50-7   | 335.021     | red-brn cry                 |                       |         |                            |                                     | s H <sub>2</sub> O; i EtOH                |
| 1381 | Iron(III) dichromate                  | Fe <sub>2</sub> (Cr <sub>2</sub> O <sub>7</sub> ) <sub>3</sub>                                 | 10294-53-8  | 759.654     | red-brn solid               |                       |         |                            |                                     | s H <sub>2</sub> O, acid                  |
| 1382 | Iron(III) ferrocyanide                | Fe <sub>3</sub> [Fe(CN) <sub>6</sub> ] <sub>3</sub>  | 14038-43-8  | 859.229     | dark blue powder            |                       |         | 1.80                       |                                     | i H <sub>2</sub> O, dil acid, os          |
| 1383 | Iron(III) fluoride                    | FeF <sub>3</sub>   | 7783-50-8   | 112.840     | grn hex cry                 | >1000                 |         | 3.87                       | 5.92 <sup>25</sup>                  | i EtOH, eth, bz                           |
| 1384 | Iron(III) fluoride trihydrate         | FeF <sub>3</sub> · 3H <sub>2</sub> O   | 15469-38-2  | 166.886     | yel-brn tetr cry            |                       |         | 2.3                        | 5.92 <sup>25</sup>                  |   |
| 1385 | Iron(III) formate                     | Fe(CHO <sub>2</sub> ) <sub>3</sub>   | 555-76-0    | 190.897     | red-yel cry powder          |                       |         |                            |                                     | s H <sub>2</sub> O; sl EtOH               |
| 1386 | Iron(III) hydroxide                   | Fe(OH) <sub>3</sub>  | 1309-33-7   | 106.867     | yel monocl cry              |                       |         | 3.12                       |                                     |   |
| 1387 | Iron(III) hydroxide oxide             | FeO(OH)  | 20344-49-4  | 88.852      | red-brn orth cry            |                       |         | 4.26                       |                                     | i H <sub>2</sub> O; s acid                |
| 1388 | Iron(III) metavanadate                | Fe(VO <sub>3</sub> ) <sub>3</sub>  | 65842-03-7  | 352.665     | gray-brn powder             |                       |         |                            |                                     | i H <sub>2</sub> O, EtOH; s acid          |
| 1389 | Iron(III) nitrate                     | Fe(NO <sub>3</sub> ) <sub>3</sub>  | 10421-48-4  | 241.860     | cry                         |                       |         |                            | 82.5 <sup>20</sup>                  |   |
| 1390 | Iron(III) nitrate hexahydrate         | Fe(NO <sub>3</sub> ) <sub>3</sub> · 6H <sub>2</sub> O  | 13476-08-9  | 349.951     | viol cub cry                | 35 dec                |         |                            | 82.5 <sup>20</sup>                  |   |
| 1391 | Iron(III) nitrate nonahydrate         | Fe(NO <sub>3</sub> ) <sub>3</sub> · 9H <sub>2</sub> O  | 7782-61-8   | 403.997     | viol-gray hyg cry           | 47 dec                |         | 1.68                       | 82.5 <sup>20</sup>                  | vs EtOH, ace                              |
| 1392 | Iron(III) oxalate                     | Fe <sub>2</sub> (C <sub>2</sub> O <sub>4</sub> ) <sub>3</sub>                                  | 19469-07-9  | 375.747     | yel amorp powder            | 100 dec               |         |                            |                                     | s H <sub>2</sub> O, acid; i alk           |
| 1393 | Iron(III) oxide                       | Fe <sub>2</sub> O <sub>3</sub>   | 1309-37-1   | 159.688     | red-brn hex cry             | 1539                  |         | 5.25                       |                                     | i H <sub>2</sub> O; s acid                |
| 1394 | Iron(III) 2,4-pentanedioate           | Fe(CH <sub>3</sub> COCHCOCH <sub>3</sub> ) <sub>3</sub>  | 14024-18-1  | 353.169     | red-oran cry                | 179                   |         | 5.24                       |                                     | sl H <sub>2</sub> O; s os                 |
| 1395 | Iron(III) perchlorate hexahydrate     | Fe(ClO <sub>4</sub> ) <sub>3</sub> · 6H <sub>2</sub> O   | 32963-81-8  | 462.288     | viol cry                    |                       |         |                            |                                     |   |
| 1396 | Iron(III) phosphate dihydrate         | FePO <sub>4</sub> · 2H <sub>2</sub> O  | 10045-86-0  | 186.847     | gray-wh orth cry            |                       |         | 2.87                       |                                     | i H <sub>2</sub> O; s HCl                 |
| 1397 | Iron(III) pyrophosphate nonahydrate   | Fe <sub>4</sub> (P <sub>2</sub> O <sub>7</sub> ) <sub>3</sub> · 9H <sub>2</sub> O              | 10058-44-3  | 907.348     | yel powder                  |                       |         |                            |                                     | i H <sub>2</sub> O; s acid                |
| 1398 | Iron(III) hypophosphite               | Fe(H <sub>2</sub> PO <sub>2</sub> ) <sub>3</sub>   | 7783-84-8   | 250.811     | wh-gray powder              |                       |         |                            |                                     | i H <sub>2</sub> O                        |
| 1399 | Iron(III) sodium pyrophosphate        | FeNa <sub>2</sub> P <sub>2</sub> O <sub>7</sub>  | 10045-87-1  | 252.778     | wh powder                   |                       |         | 1.5                        |                                     | i H <sub>2</sub> O; s HCl                 |
| 1400 | Iron(III) sulfate                     | Fe <sub>2</sub> (SO <sub>4</sub> ) <sub>3</sub>  | 10028-22-5  | 399.878     | gray-wh rhomb cry; hyg      |                       |         | 3.10                       | 440 <sup>20</sup>                   | sl EtOH; i ace                            |
| 1401 | Iron(III) sulfate nonahydrate         | Fe <sub>2</sub> (SO <sub>4</sub> ) <sub>3</sub> · 9H <sub>2</sub> O                            | 13520-56-4  | 562.015     | yel hex cry                 | 400 dec               |         | 2.1                        | 440 <sup>20</sup>                   |   |
| 1402 | Iron(III) thiocyanate                 | Fe(SCN) <sub>3</sub>   | 4119-52-2   | 230.092     | red-viol hyg cry            | dec                   |         |                            |                                     | s H <sub>2</sub> O, EtOH, ace; i tol, chl |
| 1403 | Krypton                               | Kr   | 7439-90-9   | 83.798      | col gas                     | -157.38 tp (73.2 kPa) | -153.34 | 3.425 g/L                  |                                     | sl H <sub>2</sub> O                       |
| 1404 | Krypton difluoride                    | KrF <sub>2</sub>   | 13773-81-4  | 121.795     | col tetr cry                | ≈25 dec               |         | 3.24                       |                                     | reac H <sub>2</sub> O                     |
| 1405 | Krypton fluoride hexafluoroantimonate | KrFSb <sub>2</sub> F <sub>11</sub>   | 39578-36-4  | 555.299     | wh solid                    | dec 45                |         |                            |                                     |   |
| 1406 | Lanthanum                             | La   | 7439-91-0   | 138.905     | silv metal; hex             | 920                   | 3464    | 6.15                       |                                     | s dil acid                                |
| 1407 | Lanthanum aluminum oxide              | LaAlO <sub>3</sub>   | 12003-65-5  | 213.885     | wh rhom cry                 | trans cub 500         |         |                            |                                     |   |
| 1408 | Lanthanum boride                      | LaB <sub>6</sub>   | 12008-21-8  | 203.771     | blk cub cry; refrac         | 2715                  |         | 4.76                       |                                     |   |
| 1409 | Lanthanum bromate nonahydrate         | LaBrO <sub>3</sub> · 9H <sub>2</sub> O   |             | 684.749     | hex cry                     | dec 100               |         | 5.06                       |                                     | vs H <sub>2</sub> O                       |
| 1410 | Lanthanum bromide                     | LaBr <sub>3</sub>  | 13536-79-3  | 378.617     | wh hex cry; hyg             | 788                   |         | 5.1                        |                                     | s H <sub>2</sub> O                        |
| 1411 | Lanthanum carbide                     | LaC <sub>2</sub>   | 12071-15-7  | 162.926     | tetr cry                    | 2360                  |         | 5.29                       |                                     |   |
| 1412 | Lanthanum carbonate octahydrate       | La <sub>2</sub> (CO <sub>3</sub> ) <sub>3</sub> · 8H <sub>2</sub> O                            | 6487-39-4   | 601.960     | wh cry powder               |                       |         | 2.6                        |                                     | i H <sub>2</sub> O; s dil acid            |
| 1413 | Lanthanum chloride                    | LaCl <sub>3</sub>  | 10099-58-8  | 245.264     | wh hex cry; hyg             | 858                   |         | 3.84                       | 95.7 <sup>25</sup>                  |   |
| 1414 | Lanthanum chloride heptahydrate       | LaCl <sub>3</sub> · 7H <sub>2</sub> O  | 20211-76-1  | 371.371     | wh tricl cry; hyg           | 91 dec                |         |                            | 95.7 <sup>25</sup>                  | s EtOH                                    |
| 1415 | Lanthanum fluoride                    | LaF <sub>3</sub>   | 13709-38-1  | 195.900     | wh hex cry; hyg             | 1493                  |         | 5.9                        |                                     | i H <sub>2</sub> O, acid                  |
| 1416 | Lanthanum hydride                     | LaH <sub>3</sub>   | 13864-01-2  | 141.929     | blk cub cry                 |                       |         | 5.36                       |                                     |   |
| 1417 | Lanthanum hydroxide                   | La(OH) <sub>3</sub>  | 14507-19-8  | 189.927     | wh amorp solid              | dec                   |         |                            | 0.000020 <sup>20</sup>              |   |
| 1418 | Lanthanum iodate                      | La(IO <sub>3</sub> ) <sub>3</sub>  | 13870-19-4  | 663.614     | col cry                     |                       |         |                            | 1.7                                 |   |
| 1419 | Lanthanum iodide                      | LaI <sub>3</sub>   | 13813-22-4  | 519.619     | wh orth cry; hyg            | 778                   |         | 5.6                        |                                     | s H <sub>2</sub> O                        |
| 1420 | Lanthanum nitrate hexahydrate         | La(NO <sub>3</sub> ) <sub>3</sub> · 6H <sub>2</sub> O  | 10277-43-7  | 433.011     | wh hyg tricl cry            | ≈40 dec               |         |                            | 200 <sup>25</sup>                   | vs EtOH; s ace                            |

| No.  | Name                                  | Formula  | CAS Reg No. | Mol. weight | Physical form             | mp/°C                 | bp/°C   | Density g cm <sup>-3</sup> | Solubility g/100 g H <sub>2</sub> O | Qualitative solubility                           |
|------|---------------------------------------|--|-------------|-------------|---------------------------|-----------------------|---------|----------------------------|-------------------------------------|--|
| 1421 | Lanthanum nitride                     | LaN  | 25764-10-7  | 152.912     | cub cry                   |                       |         | 6.73                       |                                     |  |
| 1422 | Lanthanum oxide                       | La <sub>2</sub> O <sub>3</sub>   | 1312-81-8   | 325.809     | wh amorp powder           | 2304                  | 3620    | 6.51                       |                                     | i H <sub>2</sub> O; s dil acid                   |
| 1423 | Lanthanum perchlorate hexahydrate     | La(ClO <sub>4</sub> ) <sub>3</sub> · 6H <sub>2</sub> O   | 36907-37-6  | 475.021     | hyg col cry               | dec 100               |         |                            |                                     | vs H <sub>2</sub> O; s EtOH                      |
| 1424 | Lanthanum silicide                    | LaSi <sub>2</sub>  | 12056-90-5  | 195.076     | gray tetr cry             | 1520                  |         | 5.0                        |                                     |  |
| 1425 | Lanthanum sulfate                     | La <sub>2</sub> (SO <sub>4</sub> ) <sub>3</sub>  | 10099-60-2  | 565.999     | hyg wh pow                | 1150                  |         |                            |                                     | sl H <sub>2</sub> O                              |
| 1426 | Lanthanum sulfate octahydrate         | La <sub>2</sub> (SO <sub>4</sub> ) <sub>3</sub> · 8H <sub>2</sub> O                              | 57804-25-8  | 702.058     | col cry                   | dec                   |         | 2.82                       |                                     | sl H <sub>2</sub> O                              |
| 1427 | Lanthanum sulfate nonahydrate         | La <sub>2</sub> (SO <sub>4</sub> ) <sub>3</sub> · 9H <sub>2</sub> O                              | 10294-62-9  | 728.136     | hex cry                   |                       |         | 2.82                       | 2.7 <sup>20</sup>                   | i EtOH   |
| 1428 | Lanthanum monosulfide                 | LaS  | 12031-30-0  | 170.970     | yel cub cry               | 2300                  |         | 5.61                       |                                     |  |
| 1429 | Lanthanum sulfide                     | La <sub>2</sub> S <sub>3</sub>   | 12031-49-1  | 374.006     | red cub cry               | 2110                  |         | 4.9                        |                                     |  |
| 1430 | Lanthanum                             | Lr   | 22537-19-5  | 262         | metal                     | 1627                  |         |                            |                                     |  |
| 1431 | Lead                                  | Pb   | 7439-92-1   | 207.2       | soft silv-gray metal; cub | 327.462               | 1749    | 11.3                       |                                     | s conc acid                                      |
| 1432 | Plumbane                              | PbH <sub>4</sub>   | 15875-18-0  | 211.2       | unstab col gas            |                       | -13     |                            |                                     |  |
| 1433 | Lead(II) acetate                      | Pb(C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> ) <sub>2</sub>                                   | 301-04-2    | 325.3       | wh cry                    | 280                   | dec     | 3.25                       | 44.3 <sup>20</sup>                  |  |
| 1434 | Lead(II) acetate trihydrate           | Pb(C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> ) <sub>2</sub> · 3H <sub>2</sub> O               | 6080-56-4   | 427.3       | col cry                   | 75 dec                |         | 2.55                       |                                     | vs H <sub>2</sub> O; sl EtOH                     |
| 1435 | Lead(II) acetate, basic               | Pb(C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> ) <sub>2</sub> · 2Pb(OH) <sub>2</sub>            | 1335-32-6   | 807.7       | wh powder                 | dec                   |         |                            | 6.3 <sup>9</sup>                    |  |
| 1436 | Lead(II) antimonate                   | Pb <sub>3</sub> (SbO <sub>4</sub> ) <sub>2</sub>   | 13510-89-9  | 993.1       | oran-yel powder           |                       |         | 6.58                       |                                     | i H <sub>2</sub> O, dil acid                     |
| 1437 | Lead(II) arsenate                     | Pb <sub>3</sub> (AsO <sub>4</sub> ) <sub>2</sub>   | 3687-31-8   | 899.4       | wh cry                    | 1042 dec              |         | 5.8                        |                                     | i H <sub>2</sub> O; s HNO <sub>3</sub>           |
| 1438 | Lead(II) arsenite                     | Pb(AsO <sub>2</sub> ) <sub>2</sub>   | 10031-13-7  | 421.0       | wh powder                 |                       |         | 5.85                       |                                     | i H <sub>2</sub> O; s dil HNO <sub>3</sub>       |
| 1439 | Lead(II) azide                        | Pb(N <sub>3</sub> ) <sub>2</sub>   | 13424-46-9  | 291.2       | col orth needles; exp     | exp ≈350              |         | 4.7                        | 0.023 <sup>18</sup>                 | vs HOAc  |
| 1440 | Lead(II) borate monohydrate           | Pb(BO <sub>2</sub> ) <sub>2</sub> · H <sub>2</sub> O   | 10214-39-8  | 310.8       | wh powder                 | 500 dec               |         | 5.6                        |                                     | i H <sub>2</sub> O; s dil HNO <sub>3</sub>       |
| 1441 | Lead(II) bromate monohydrate          | Pb(BrO <sub>3</sub> ) <sub>2</sub> · H <sub>2</sub> O  | 10031-21-7  | 481.0       | col cry                   | ≈180 dec              |         | 5.53                       | 1.33 <sup>20</sup>                  |  |
| 1442 | Lead(II) bromide                      | PbBr <sub>2</sub>  | 10031-22-8  | 367.0       | wh orth cry               | 371                   | 892     | 6.69                       | 0.975 <sup>25</sup>                 | i EtOH   |
| 1443 | Lead(II) butanoate                    | Pb(C <sub>4</sub> H <sub>7</sub> O <sub>2</sub> ) <sub>2</sub>                                   | 819-73-8    | 381.4       | col solid                 | ≈90                   |         |                            |                                     | i H <sub>2</sub> O; s dil HNO <sub>3</sub>       |
| 1444 | Lead(II) carbonate                    | PbCO <sub>3</sub>  | 598-63-0    | 267.2       | col orth cry              | ≈315 dec              |         | 6.582                      |                                     | i H <sub>2</sub> O                               |
| 1445 | Lead(II) carbonate, basic             | Pb(OH) <sub>2</sub> · 2PbCO <sub>3</sub>   | 1319-46-6   | 775.6       | wh hex cry                | 400 dec               |         | ≈6.5                       |                                     | i H <sub>2</sub> O, EtOH; s acid                 |
| 1446 | Lead(II) chlorate                     | Pb(ClO <sub>3</sub> ) <sub>2</sub>   | 10294-47-0  | 374.1       | col hyg cry               | 230 dec               |         | 3.9                        | 144 <sup>18</sup>                   | vs EtOH  |
| 1447 | Lead(II) chloride                     | PbCl <sub>2</sub>  | 7758-95-4   | 278.1       | wh orth needles or powder | 501                   | 951     | 5.98                       | 1.08 <sup>25</sup>                  | s alk  |
| 1448 | Lead(II) chloride fluoride            | PbClF  | 13847-57-9  | 261.7       | tetr cry                  |                       |         | 7.05                       | 0.035 <sup>20</sup>                 |  |
| 1449 | Lead(II) chlorite                     | Pb(ClO <sub>2</sub> ) <sub>2</sub>   | 13453-57-1  | 342.1       | yel monocl cry            | dec 126               |         |                            | 0.2 <sup>25</sup>                   | sl H <sub>2</sub> O; s alk                       |
| 1450 | Lead(II) chromate                     | PbCrO <sub>4</sub>   | 7758-97-6   | 323.2       | yel-oran monocl cry       | 844                   |         | 6.12                       | 0.000017 <sup>20</sup>              | s alk, dil acid                                  |
| 1451 | Lead(II) chromate(VI) oxide           | PbCrO <sub>4</sub> · PbO   | 18454-12-1  | 546.4       | red powder                |                       |         |                            |                                     | i H <sub>2</sub> O                               |
| 1452 | Lead(II) citrate trihydrate           | Pb <sub>3</sub> (C <sub>6</sub> H <sub>5</sub> O <sub>7</sub> ) <sub>2</sub> · 3H <sub>2</sub> O | 512-26-5    | 1053.8      | wh cry powder             |                       |         |                            |                                     | s H <sub>2</sub> O; sl EtOH                      |
| 1453 | Lead(II) cyanide                      | Pb(CN) <sub>2</sub>  | 592-05-2    | 259.2       | wh-yel powder             |                       |         |                            |                                     | sl H <sub>2</sub> O; reac acid                   |
| 1454 | Lead(II) 2-ethylhexanoate             | Pb(C <sub>8</sub> H <sub>15</sub> CO <sub>2</sub> ) <sub>2</sub>                                 | 301-08-6    | 493.6       | visc liq                  |                       |         | 1.56                       |                                     |  |
| 1455 | Lead(II) fluoride                     | PbF <sub>2</sub>   | 7783-46-2   | 245.2       | wh orth cry               | 830                   | 1293    | 8.44                       | 0.0670 <sup>25</sup>                |  |
| 1456 | Lead(II) fluoroborate                 | Pb(BF <sub>4</sub> ) <sub>2</sub>  | 13814-96-5  | 380.8       | stab only in aq soln      |                       |         |                            |                                     | s H <sub>2</sub> O                               |
| 1457 | Lead(II) formate                      | Pb(CHO <sub>2</sub> ) <sub>2</sub>   | 811-54-1    | 297.2       | wh prisms or needles      | 190 dec               |         | 4.63                       | 1.6 <sup>16</sup>                   | i EtOH   |
| 1458 | Lead(II) hexafluoro-2,4-pentanedioate | Pb(CF <sub>3</sub> COCHCOCF <sub>3</sub> ) <sub>2</sub>  | 19648-88-5  | 621.3       | cry                       | 155                   | 210     |                            |                                     |  |
| 1459 | Lead(II) hydrogen arsenate            | PbHAsO <sub>4</sub>  | 7784-40-9   | 347.1       | wh monocl cry             | 280 dec               |         | 5.943                      |                                     | i H <sub>2</sub> O; s HNO <sub>3</sub> , alk     |
| 1460 | Lead(II) hydrogen phosphate           | PbHPO <sub>4</sub>   | 15845-52-0  | 303.2       | wh monocl cry             | dec                   |         | 5.66                       |                                     |  |
| 1461 | Lead(II) hydroxide                    | Pb(OH) <sub>2</sub>  | 19783-14-3  | 241.2       | wh powder                 | 145 dec               |         | 5.69                       | 0.00012 <sup>20</sup>               | s acid   |
| 1462 | Lead(II) iodate                       | Pb(IO <sub>3</sub> ) <sub>2</sub>  | 25659-31-8  | 557.0       | wh orth cry               |                       |         | 6.50                       | 0.0025 <sup>25</sup>                |  |
| 1463 | Lead(II) iodide                       | PbI <sub>2</sub>   | 10101-63-0  | 461.0       | yel hex cry or powder     | 410                   | 872 dec | 6.16                       | 0.076 <sup>25</sup>                 | i EtOH   |
| 1464 | Lead(II) lactate                      | Pb(C <sub>3</sub> H <sub>5</sub> O <sub>3</sub> ) <sub>2</sub>                                   | 18917-82-3  | 385.3       | wh cry powder             |                       |         |                            |                                     | s H <sub>2</sub> O, hot EtOH                     |
| 1465 | Lead(II) molybdate                    | PbMoO <sub>4</sub>   | 10190-55-3  | 367.1       | yel tetr cry              | ≈1060                 |         | 6.7                        |                                     | i H <sub>2</sub> O; s HNO <sub>3</sub> , NaOH    |
| 1466 | Lead(II) niobate                      | Pb(NbO <sub>3</sub> ) <sub>2</sub>   | 12034-88-7  | 489.0       | rhomb or tetr cry         | 1343                  |         | 6.6                        |                                     | i H <sub>2</sub> O                               |
| 1467 | Lead(II) nitrate                      | Pb(NO <sub>3</sub> ) <sub>2</sub>  | 10099-74-8  | 331.2       | col cub cry               | 470                   |         | 4.53                       | 59.7 <sup>25</sup>                  | sl EtOH  |
| 1468 | Lead(II) oleate                       | Pb(C <sub>18</sub> H <sub>33</sub> O <sub>2</sub> ) <sub>2</sub>                                 | 1120-46-3   | 770.1       | wax-like solid            |                       |         |                            |                                     | i H <sub>2</sub> O; s EtOH, bz, eth              |
| 1469 | Lead(II) oxalate                      | PbC <sub>2</sub> O <sub>4</sub>  | 814-93-7    | 295.2       | wh powder                 | 300 dec               |         | 5.28                       | 0.00025 <sup>20</sup>               | s dil HNO <sub>3</sub>                           |
| 1470 | Lead(II) oxide (litharge)             | PbO  | 1317-36-8   | 223.2       | red tetr cry              | trans to massicot 489 |         | 9.35                       |                                     | i H <sub>2</sub> O, EtOH; s dil HNO <sub>3</sub> |
| 1471 | Lead(II) oxide (massicot)             | PbO  | 1317-36-8   | 223.2       | yel orth cry              | 887                   |         | 9.64                       |                                     | i H <sub>2</sub> O, EtOH; s dil HNO <sub>3</sub> |
| 1472 | Lead(II) oxide hydrate                | 3PbO · H <sub>2</sub> O  | 1311-11-1   | 687.6       | wh powder                 |                       |         | 7.41                       |                                     | i H <sub>2</sub> O; s dil acid                   |
| 1473 | Lead(II) 2,4-pentanedioate            | Pb(CH <sub>3</sub> COCHCOCH <sub>3</sub> ) <sub>2</sub>  | 15282-88-9  | 405.4       | cry                       | 143                   |         |                            |                                     |  |
| 1474 | Lead(II) perchlorate                  | Pb(ClO <sub>4</sub> ) <sub>2</sub>   | 13453-62-8  | 406.1       | wh cry                    |                       |         |                            | 441 <sup>25</sup>                   |  |
| 1475 | Lead(II) perchlorate trihydrate       | Pb(ClO <sub>4</sub> ) <sub>2</sub> · 3H <sub>2</sub> O   | 13637-76-8  | 460.1       | wh cry                    | 100 dec               |         | 2.6                        | 441 <sup>25</sup>                   | s EtOH   |

| No.  | Name                                  | Formula  | CAS Reg No. | Mol. weight | Physical form                   | mp/°C        | bp/°C    | Density g cm <sup>-3</sup> | Solubility g/100 g H <sub>2</sub> O | Qualitative solubility                    |
|------|---------------------------------------|--|-------------|-------------|---------------------------------|--------------|----------|----------------------------|-------------------------------------|---|
| 1476 | Lead(II) phosphate                    | Pb <sub>3</sub> (PO <sub>4</sub> ) <sub>2</sub>                                  | 7446-27-7   | 811.5       | wh hex cry                      | 1014         |          | 7.01                       |                                     | i H <sub>2</sub> O, EtOH                  |
| 1477 | Lead(II) hypophosphite                | Pb(H <sub>2</sub> PO <sub>2</sub> ) <sub>2</sub>                                 | 10294-58-3  | 337.2       | hyg cry powder                  | dec          |          |                            |                                     | sl H <sub>2</sub> O; i EtOH               |
| 1478 | Lead(II) metasilicate                 | PbSiO <sub>3</sub>   | 10099-76-0  | 283.3       | wh monocry powder               | 764          |          | 6.49                       |                                     | i H <sub>2</sub> O, os                    |
| 1479 | Lead(II) orthosilicate                | Pb <sub>2</sub> SiO <sub>4</sub>   | 13566-17-1  | 506.5       | monocry                         | 743          |          | 7.60                       |                                     |   |
| 1480 | Lead(II) hexafluorosilicate dihydrate | PbSiF <sub>6</sub> · 2H <sub>2</sub> O   | 1310-03-8   | 385.3       | col cry                         | dec          |          |                            |                                     | vs H <sub>2</sub> O                       |
| 1481 | Lead(II) selenate                     | PbSeO <sub>4</sub>   | 7446-15-3   | 350.2       | orth cry                        |              |          | 6.37                       | 0.013 <sup>25</sup>                 | s conc acid                               |
| 1482 | Lead(II) selenide                     | PbSe   | 12069-00-0  | 286.2       | gray cub cry                    | 1078         |          | 8.1                        |                                     | i H <sub>2</sub> O; s HNO <sub>3</sub>    |
| 1483 | Lead(II) selenite                     | PbSeO <sub>3</sub>   | 7488-51-9   | 334.2       | wh monocry                      | ≈500         |          | 7.0                        |                                     | i H <sub>2</sub> O                        |
| 1484 | Lead(II) sodium thiosulfate           | Na <sub>2</sub> Pb(S <sub>2</sub> O <sub>3</sub> ) <sub>2</sub>                  | 10101-94-7  | 635.5       | wh cry                          |              |          |                            |                                     | sl H <sub>2</sub> O                       |
| 1485 | Lead(II) stearate                     | Pb(C <sub>18</sub> H <sub>35</sub> O <sub>2</sub> ) <sub>2</sub>                 | 1072-35-1   | 774.1       | wh powder                       | ≈100         |          | 1.4                        |                                     | i H <sub>2</sub> O; s hot EtOH            |
| 1486 | Lead(II) sulfate                      | PbSO <sub>4</sub>  | 7446-14-2   | 303.3       | orth cry                        | 1087         |          | 6.29                       | 0.0044 <sup>25</sup>                | i acid; sl alk                            |
| 1487 | Lead(II) sulfide                      | PbS  | 1314-87-0   | 239.3       | blk powder or silv cub cry      | 1113         |          | 7.60                       |                                     | i H <sub>2</sub> O; s acid                |
| 1488 | Lead(II) sulfite                      | PbSO <sub>3</sub>  | 7446-10-8   | 287.3       | wh powder                       | dec          |          |                            |                                     | i H <sub>2</sub> O; s HNO <sub>3</sub>    |
| 1489 | Lead(II) tantalate                    | Pb(TaO <sub>3</sub> ) <sub>2</sub>   | 12065-68-8  | 665.1       | orth cry                        |              |          | 7.9                        |                                     | i H <sub>2</sub> O                        |
| 1490 | Lead(II) telluride                    | PbTe   | 1314-91-6   | 334.8       | gray cub cry                    | 924          |          | 8.164                      |                                     | i H <sub>2</sub> O, acid                  |
| 1491 | Lead(II) thiocyanate                  | Pb(SCN) <sub>2</sub>   | 592-87-0    | 323.4       | wh-yel powder                   |              |          | 3.82                       | 0.05 <sup>20</sup>                  |   |
| 1492 | Lead(II) thiosulfate                  | PbS <sub>2</sub> O <sub>3</sub>  | 13478-50-7  | 319.3       | wh cry                          | dec          |          | 5.18                       |                                     | i H <sub>2</sub> O; s acid                |
| 1493 | Lead(II) titanate                     | PbTiO <sub>3</sub>   | 12060-00-3  | 303.1       | yel tetr cry                    |              |          | 7.9                        |                                     | i H <sub>2</sub> O; reac HCl              |
| 1494 | Lead(II) tungstate (stolzite)         | PbWO <sub>4</sub>  | 7759-01-5   | 455.0       | yel tetr cry                    | 1130         |          | 8.24                       | 0.03 <sup>20</sup>                  | s alk                                     |
| 1495 | Lead(II) tungstate (raspite)          | PbWO <sub>4</sub>  | 7759-01-5   | 455.0       | monocry                         | trans 400    |          | 8.46                       | 0.03 <sup>20</sup>                  | s alk                                     |
| 1496 | Lead(II) metavanadate                 | Pb(VO <sub>3</sub> ) <sub>2</sub>  | 10099-79-3  | 405.1       | yel powder                      |              |          |                            |                                     | i H <sub>2</sub> O; reac HNO <sub>3</sub> |
| 1497 | Lead(II) zirconate                    | PbZrO <sub>3</sub>   | 12060-01-4  | 346.4       | col orth cry                    |              |          | ≈8                         |                                     | i H <sub>2</sub> O, alk; s acid           |
| 1498 | Lead(II,IV) oxide                     | Pb <sub>3</sub> O <sub>4</sub>   | 1314-27-8   | 462.4       | blk monocry or red amorp powder | 530 dec      |          | 10.05                      |                                     | i H <sub>2</sub> O; s alk; reac conc HCl  |
| 1499 | Lead(II,IV) oxide                     | Pb <sub>3</sub> O <sub>4</sub>   | 1314-41-6   | 685.6       | red tetr cry                    | 830          |          | 8.92                       |                                     | i H <sub>2</sub> O, EtOH; s hot HCl       |
| 1500 | Lead(IV) acetate                      | Pb(C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> ) <sub>4</sub>                   | 546-67-8    | 443.4       | col monocry                     | ≈175         |          | 2.23                       |                                     | reac H <sub>2</sub> O, EtOH; s bz, chl    |
| 1501 | Lead(IV) bromide                      | PbBr <sub>4</sub>  | 13701-91-2  | 526.8       | unstabl liq                     |              |          |                            |                                     |   |
| 1502 | Lead(IV) chloride                     | PbCl <sub>4</sub>  | 13463-30-4  | 349.0       | yel oily liq                    | -15          | ≈50 dec  |                            |                                     |   |
| 1503 | Lead(IV) fluoride                     | PbF <sub>4</sub>   | 7783-59-7   | 283.2       | wh tetr cry; hyg                | ≈600         |          | 6.7                        |                                     |   |
| 1504 | Lead(IV) oxide                        | PbO <sub>2</sub>   | 1309-60-0   | 239.2       | red tetr cry or brn powder      | 290 dec      |          | 9.64                       |                                     |   |
| 1505 | Lithium                               | Li   | 7439-93-2   | 6.941       | soft silv-wh metal              | 180.50       | 1342     | 0.534                      |                                     | reac H <sub>2</sub> O                     |
| 1506 | Lithium acetate                       | LiC <sub>2</sub> H <sub>3</sub> O <sub>2</sub>                                   | 546-89-4    | 65.985      | cry                             | 286          |          |                            | 45.0 <sup>25</sup>                  | vs EtOH                                   |
| 1507 | Lithium acetate dihydrate             | LiC <sub>2</sub> H <sub>3</sub> O <sub>2</sub> · 2H <sub>2</sub> O               | 6108-17-4   | 102.016     | wh rhomb cry                    | 58 dec       |          | 1.3                        | 45.0 <sup>25</sup>                  | s EtOH                                    |
| 1508 | Lithium aluminum hydride              | LiAlH <sub>4</sub>   | 16853-85-3  | 37.955      | gray-wh monocry                 | >125 dec     |          | 0.917                      |                                     | reac H <sub>2</sub> O, EtOH; s eth, thf   |
| 1509 | Lithium aluminum silicate             | LiAlSi <sub>2</sub> O <sub>6</sub>   | 12068-40-5  | 186.090     | wh monocry                      | 1430         |          | 3.188                      |                                     |   |
| 1510 | Lithium amide                         | LiNH <sub>2</sub>  | 7782-89-0   | 22.964      | tetr cry                        | 380          |          | 1.18                       |                                     | reac H <sub>2</sub> O                     |
| 1511 | Lithium arsenate                      | Li <sub>3</sub> AsO <sub>4</sub>   | 13478-14-3  | 159.743     | col orth cry                    |              |          | 3.07                       |                                     | sl H <sub>2</sub> O; s HOAc               |
| 1512 | Lithium azide                         | LiN <sub>3</sub>   | 19597-69-4  | 48.961      | hyg monocry; exp                |              |          | 1.83                       |                                     | vs H <sub>2</sub> O                       |
| 1513 | Lithium borohydride                   | LiBH <sub>4</sub>  | 16949-15-8  | 21.784      | wh-gray orth cry or powder      | 268          | 380 dec  | 0.66                       |                                     | s alk, eth, thf                           |
| 1514 | Lithium bromate                       | LiBrO <sub>3</sub>   | 13550-28-2  | 134.843     | hyg col orth cry                | 260          |          |                            | 65.4 <sup>25</sup>                  | vs H <sub>2</sub> O                       |
| 1515 | Lithium bromide                       | LiBr   | 7550-35-8   | 86.845      | wh cub cry; hyg                 | 550          | ≈1300    | 3.464                      | 181 <sup>25</sup>                   | s EtOH, eth                               |
| 1516 | Lithium bromide monohydrate           | LiBr · H <sub>2</sub> O  | 23303-71-1  | 104.860     | wh orth cry                     | trans cub 33 |          | 3.46                       | 145 <sup>4</sup>                    | vs H <sub>2</sub> O                       |
| 1517 | Lithium carbide                       | Li <sub>2</sub> C <sub>2</sub>   | 1070-75-3   | 37.903      | wh hyg cry                      |              |          | 1.65                       |                                     | reac H <sub>2</sub> O; i os               |
| 1518 | Lithium carbonate                     | Li <sub>2</sub> CO <sub>3</sub>  | 554-13-2    | 73.891      | wh monocry                      | 732          | 1300 dec | 2.11                       | 1.30 <sup>25</sup>                  | s acid; i EtOH                            |
| 1519 | Lithium chlorate                      | LiClO <sub>3</sub>   | 13453-71-9  | 90.392      | col hyg rhom needles            | 127.6        | 300 dec  | 1.119                      | 459 <sup>25</sup>                   | vs EtOH; sl ace                           |
| 1520 | Lithium chloride                      | LiCl   | 7447-41-8   | 42.394      | wh cub cry or powder; hyg       | 610          | 1383     | 2.07                       | 84.5 <sup>25</sup>                  | s EtOH, ace, py                           |
| 1521 | Lithium chloride monohydrate          | LiCl · H <sub>2</sub> O  | 16712-20-2  | 60.409      | hyg wh tetr cry                 | dec 98       |          | 1.78                       | 45.9 <sup>25</sup>                  | vs H <sub>2</sub> O                       |
| 1522 | Lithium chromate dihydrate            | Li <sub>2</sub> CrO <sub>4</sub> · 2H <sub>2</sub> O                             | 7789-01-7   | 165.906     | yel orth cry; hyg               | 75 dec       |          | 2.15                       |                                     | vs H <sub>2</sub> O; s EtOH               |
| 1523 | Lithium citrate tetrahydrate          | Li <sub>3</sub> C <sub>6</sub> H <sub>5</sub> O <sub>7</sub> · 4H <sub>2</sub> O | 6680-58-6   | 281.983     | wh cry                          | 210 (anh)    |          |                            | 75 <sup>25</sup>                    | vs H <sub>2</sub> O; sl EtOH              |
| 1524 | Lithium cobaltite                     | LiCoO <sub>2</sub>   | 12190-79-3  | 97.873      | dark gray pow                   |              |          |                            |                                     | i H <sub>2</sub> O                        |
| 1525 | Lithium cyanide                       | LiCN   | 2408-36-8   | 32.959      | wh orth cry                     | 160          |          |                            |                                     |   |
| 1526 | Lithium hydride-d                     | LiD  | 13587-16-1  | 8.955       | hyg wh cry                      | 680          |          | 0.82                       |                                     | reac H <sub>2</sub> O                     |
| 1527 | Lithium dichromate dihydrate          | Li <sub>2</sub> Cr <sub>2</sub> O <sub>7</sub> · 2H <sub>2</sub> O               | 10022-48-7  | 265.901     | yel-red hyg cry                 | 130 dec      |          | 2.34                       |                                     | vs H <sub>2</sub> O                       |
| 1528 | Lithium dihydrogen phosphate          | LiH <sub>2</sub> PO <sub>4</sub>   | 13453-80-0  | 103.928     | col hyg cry                     | >100         |          | 2.461                      | 126 <sup>9</sup>                    |   |
| 1529 | Lithium diisopropylamide              | LiN(C <sub>3</sub> H <sub>7</sub> ) <sub>2</sub>                                 | 4111-54-0   | 107.123     | hyg col cry                     | dec          |          |                            |                                     | s eth; i hc                               |
| 1530 | Lithium ferrosilicon                  | LiFeSi   | 64082-35-5  | 90.872      | dark brittle cry                |              |          |                            |                                     | reac H <sub>2</sub> O                     |

| No.  | Name                                     | Formula  | CAS Reg No. | Mol. weight | Physical form               | mp/°C   | bp/°C     | Density g cm <sup>-3</sup> | Solubility g/100 g H <sub>2</sub> O | Qualitative solubility                 |
|------|--|--|-------------|-------------|-----------------------------|---------|-----------|----------------------------|-------------------------------------|--|
| 1531 | Lithium fluoride                         | LiF  | 7789-24-4   | 25.939      | wh cub cry or powder        | 848.2   | 1673      | 2.640                      | 0.134 <sup>25</sup>                 | s acid                                 |
| 1532 | Lithium formate monohydrate              | Li(CHO <sub>2</sub> )·H <sub>2</sub> O                           | 6108-23-2   | 69.974      | col-wh cry                  |         |           | 1.46                       |                                     | s H <sub>2</sub> O                     |
| 1533 | Lithium hexafluoroantimonate             | LiSbF <sub>6</sub>   | 18424-17-4  | 242.691     | hyg pow                     | dec     |           |                            |                                     |  |
| 1534 | Lithium hexafluoroarsenate               | LiAsF <sub>6</sub>   | 29935-35-1  | 310.672     | rhomb wh cry; hyg           |         |           |                            |                                     |  |
| 1535 | Lithium hexafluorophosphate              | LiPF <sub>6</sub>  | 21324-40-3  | 151.905     | wh pow                      |         |           |                            |                                     |  |
| 1536 | Lithium hexafluorosilicate               | Li <sub>2</sub> SiF <sub>6</sub>                                 | 17347-95-4  | 155.958     | col hex cry                 | dec 350 |           |                            |                                     | sl ace                                 |
| 1537 | Lithium hexafluorostannate               | Li <sub>2</sub> SnF <sub>6</sub>                                 | 17029-16-2  | 246.582     | wh pow                      |         |           |                            |                                     |  |
| 1538 | Lithium hydride                          | LiH  | 7580-67-8   | 7.949       | gray cub cry or powder; hyg | 692     |           | 0.78                       |                                     | reac H <sub>2</sub> O, EtOH            |
| 1539 | Lithium hydrogen carbonate               | LiHCO <sub>3</sub>   | 5006-97-3   | 67.958      | wh pow                      |         |           |                            |                                     | sl H <sub>2</sub> O                    |
| 1540 | Lithium hydroxide                        | LiOH   | 1310-65-2   | 23.948      | col tetra cry               | 473     | 1626      | 1.45                       | 12.5 <sup>25</sup>                  | sl EtOH                                |
| 1541 | Lithium hydroxide monohydrate            | LiOH·H <sub>2</sub> O  | 1310-66-3   | 41.964      | wh monocry or powder        |         |           | 1.51                       | 12.5 <sup>25</sup>                  | sl EtOH                                |
| 1542 | Lithium hypochlorite                     | LiOCl  | 13840-33-0  | 58.393      | wh pow                      |         |           |                            |                                     | vs H <sub>2</sub> O                    |
| 1543 | Lithium iodate                           | LiIO <sub>3</sub>  | 13765-03-2  | 181.843     | wh hyg hex cry              | 450     |           | 4.502                      | 77.9 <sup>25</sup>                  | i EtOH                                 |
| 1544 | Lithium iodide                           | LiI  | 10377-51-2  | 133.845     | wh cub cry; hyg             | 469     | 1171      | 4.06                       | 165 <sup>25</sup>                   |  |
| 1545 | Lithium iodide trihydrate                | LiI·3H <sub>2</sub> O  | 7790-22-9   | 187.891     | wh hyg cry                  | 73      |           | 2.38                       | 165 <sup>25</sup>                   | vs EtOH, ace                           |
| 1546 | Lithium manganate                        | Li <sub>2</sub> MnO <sub>3</sub>                                 | 12163-00-7  | 116.818     | red-brn monocry             |         |           | 3.90                       |                                     | i H <sub>2</sub> O                     |
| 1547 | Lithium metaborate                       | LiBO <sub>2</sub>  | 13453-69-5  | 49.751      | wh monocry; hyg             | 844     |           | 2.18                       | 2.6 <sup>20</sup>                   | sl H <sub>2</sub> O; s EtOH            |
| 1548 | Lithium metaborate dihydrate             | LiBO <sub>2</sub> ·2H <sub>2</sub> O                             | 15293-74-0  | 85.782      | wh cry pow                  |         |           | 1.8                        |                                     | s H <sub>2</sub> O                     |
| 1549 | Lithium metaphosphate                    | LiPO <sub>3</sub>  | 13762-75-9  | 85.913      | wh cry or gl solid          |         |           | 1.8                        |                                     | i H <sub>2</sub> O                     |
| 1550 | Lithium metasilicate                     | Li <sub>2</sub> SiO <sub>3</sub>                                 | 10102-24-6  | 89.966      | wh orth needles             | 1201    |           | 2.52                       |                                     | i cold H <sub>2</sub> O; reac dil acid |
| 1551 | Lithium molybdate                        | Li <sub>2</sub> MoO <sub>4</sub>                                 | 13568-40-6  | 173.82      | hyg wh cry                  | 702     |           | 2.66                       | 44.8 <sup>25</sup>                  | s H <sub>2</sub> O                     |
| 1552 | Lithium niobate                          | LiNbO <sub>3</sub>   | 12031-63-9  | 147.845     | wh hex cry                  | 1240    |           | 4.30                       |                                     |  |
| 1553 | Lithium nitrate                          | LiNO <sub>3</sub>  | 7790-69-4   | 68.946      | col hex cry; hyg            | 253     |           | 2.38                       | 102 <sup>25</sup>                   | s EtOH                                 |
| 1554 | Lithium nitride                          | Li <sub>3</sub> N  | 26134-62-3  | 34.830      | red hex cry                 | 813     |           | 1.27                       |                                     | reac H <sub>2</sub> O                  |
| 1555 | Lithium nitrite                          | LiNO <sub>2</sub>  | 13568-33-7  | 52.947      | wh hyg cry                  | 222     |           |                            |                                     | vs H <sub>2</sub> O                    |
| 1556 | Lithium nitrite monohydrate              | LiNO <sub>2</sub> ·H <sub>2</sub> O                              | 13568-33-7* | 70.962      | col needles                 | >100    |           | 1.615                      | 139.5 <sup>25</sup>                 | vs H <sub>2</sub> O, EtOH              |
| 1557 | Lithium orthosilicate                    | Li <sub>2</sub> SiO <sub>4</sub>                                 | 13453-84-4  | 99.025      | wh rhomb cry                | 1256    |           | 2.39                       |                                     |  |
| 1558 | Lithium oxalate                          | Li <sub>2</sub> C <sub>2</sub> O <sub>4</sub>                    | 30903-87-8  | 101.901     | col cry                     | dec     |           | 2.121 <sup>17</sup>        |                                     | s H <sub>2</sub> O; i EtOH, eth        |
| 1559 | Lithium phosphate                        | Li <sub>3</sub> PO <sub>4</sub>                                  | 10377-52-3  | 115.794     | wh orth cry                 | 1205    |           | 2.46                       | 0.027 <sup>25</sup>                 |  |
| 1560 | Lithium oxide                            | Li <sub>2</sub> O  | 12057-24-8  | 29.881      | wh cub cry                  | 1437    |           | 2.013                      |                                     |  |
| 1561 | Lithium perchlorate                      | LiClO <sub>4</sub>   | 7791-03-9   | 106.392     | wh orth cry or powder       | 236     | 430 dec   | 2.428                      | 58.7 <sup>25</sup>                  | s EtOH, ace, eth                       |
| 1562 | Lithium perchlorate trihydrate           | LiClO <sub>4</sub> ·3H <sub>2</sub> O                            | 13453-78-6  | 160.438     | wh hex cry                  | 95 dec  |           | 1.84                       |                                     | vs H <sub>2</sub> O, EtOH, ace; i eth  |
| 1563 | Lithium peroxide                         | Li <sub>2</sub> O <sub>2</sub>                                   | 12031-80-0  | 45.881      | wh hex cry                  |         |           | 2.31                       |                                     | s H <sub>2</sub> O; i EtOH             |
| 1564 | Lithium selenate monohydrate             | Li <sub>2</sub> SeO <sub>4</sub> ·H <sub>2</sub> O               | 7790-71-8   | 174.86      | monocry                     |         |           | 2.56                       |                                     | vs H <sub>2</sub> O                    |
| 1565 | Lithium selenite monohydrate             | Li <sub>2</sub> SeO <sub>3</sub> ·H <sub>2</sub> O               | 15593-51-8  | 158.86      | hyg cry                     |         |           |                            |                                     |  |
| 1566 | Lithium stearate                         | LiC <sub>18</sub> H <sub>35</sub> O <sub>2</sub>                 | 4485-12-5   | 290.411     | cry                         | ≈220    |           |                            |                                     |  |
| 1567 | Lithium sulfate                          | Li <sub>2</sub> SO <sub>4</sub>                                  | 10377-48-7  | 109.945     | wh monocry; hyg             | 860     |           | 2.21                       | 34.2 <sup>25</sup>                  |  |
| 1568 | Lithium sulfate monohydrate              | Li <sub>2</sub> SO <sub>4</sub> ·H <sub>2</sub> O                | 10102-25-7  | 127.960     | col cry                     | 130 dec |           | 2.06                       | 34.2 <sup>25</sup>                  | sl EtOH                                |
| 1569 | Lithium sulfide                          | Li <sub>2</sub> S  | 12136-58-2  | 45.947      | wh cub cry; hyg             | 1372    |           | 1.64                       |                                     |  |
| 1570 | Lithium tantalate                        | LiTaO <sub>3</sub>   | 12031-66-2  | 235.887     | wh pow                      | 1650    |           |                            |                                     |  |
| 1571 | Lithium tetraborate                      | Li <sub>2</sub> B <sub>4</sub> O <sub>7</sub>                    | 12007-60-2  | 169.122     | wh tetra cry                | 917     |           | 2.9 <sup>20</sup>          |                                     | sl H <sub>2</sub> O                    |
| 1572 | Lithium tetraborate pentahydrate         | Li <sub>2</sub> B <sub>4</sub> O <sub>7</sub> ·5H <sub>2</sub> O | 1303-94-2   | 259.198     | wh cry pow                  | dec 200 |           |                            |                                     | vs H <sub>2</sub> O; i EtOH            |
| 1573 | Lithium tetracyanoplatinate pentahydrate | Li <sub>2</sub> Pt(CN) <sub>4</sub> ·5H <sub>2</sub> O           | 14402-73-4  | 403.112     | grn-yel cry                 |         |           |                            |                                     | sl H <sub>2</sub> O                    |
| 1574 | Lithium tetrafluoroborate                | LiBF <sub>4</sub>  | 14283-07-9  | 93.746      | hyg wh pow                  | dec     |           |                            |                                     | vs H <sub>2</sub> O                    |
| 1575 | Lithium thiocyanate                      | LiSCN  | 556-65-0    | 65.024      | wh hyg cry                  |         |           |                            | 120 <sup>25</sup>                   |  |
| 1576 | Lithium titanate                         | Li <sub>2</sub> TiO <sub>3</sub>                                 | 12031-82-2  | 109.747     | wh pow                      | 1325    |           |                            |                                     | i H <sub>2</sub> O                     |
| 1577 | Lithium tungstate                        | Li <sub>2</sub> WO <sub>4</sub>                                  | 13568-45-1  | 261.72      | wh trig pow                 | 740     |           | 3.71                       |                                     | s H <sub>2</sub> O                     |
| 1578 | Lithium vanadate                         | LiVO <sub>3</sub>  | 15060-59-0  | 105.881     | yel pow                     |         | subl 1400 |                            |                                     |  |
| 1579 | Lithium zirconate                        | Li <sub>2</sub> ZrO <sub>3</sub>                                 | 12031-83-3  | 153.104     | wh solid                    |         |           |                            |                                     |  |
| 1580 | Lutetium                                 | Lu   | 7439-94-3   | 174.967     | silv metal; hex             | 1663    | 3402      | 9.84                       |                                     | s dil acid                             |
| 1581 | Lutetium boride                          | LuB <sub>4</sub>   | 12688-52-7  | 218.211     | tetra cry                   | 2600    |           | ≈7.0                       |                                     |  |
| 1582 | Lutetium bromide                         | LuBr <sub>3</sub>  | 14456-53-2  | 414.679     | wh hyg cry                  | 1025    |           |                            |                                     | vs H <sub>2</sub> O                    |
| 1583 | Lutetium chloride                        | LuCl <sub>3</sub>  | 10099-66-8  | 281.326     | wh monocry; hyg             | 925     |           | 3.98                       |                                     | s H <sub>2</sub> O                     |
| 1584 | Lutetium chloride hexahydrate            | LuCl <sub>3</sub> ·6H <sub>2</sub> O                             | 15230-79-2  | 389.417     | col cry                     | dec 150 |           |                            |                                     | s H <sub>2</sub> O, EtOH               |
| 1585 | Lutetium fluoride                        | LuF <sub>3</sub>   | 13760-81-1  | 231.962     | orth cry                    | 1182    | 2200      | 8.3                        |                                     | i H <sub>2</sub> O                     |
| 1586 | Lutetium iodide                          | LuI <sub>3</sub>   | 13813-45-1  | 555.680     | brn hex cry; hyg            | 1050    |           | ≈5.6                       |                                     | vs H <sub>2</sub> O                    |
| 1587 | Lutetium iron oxide                      | Lu <sub>3</sub> Fe <sub>6</sub> O <sub>12</sub>                  | 12023-71-1  | 996.119     | cry                         |         |           |                            |                                     |  |
| 1588 | Lutetium nitrate                         | Lu(NO <sub>3</sub> ) <sub>3</sub>                                | 10099-67-9  | 360.982     | hyg col solid               |         |           |                            |                                     | s H <sub>2</sub> O, EtOH               |

| No.  | Name                                       | Formula   | CAS Reg No. | Mol. weight | Physical form        | mp/°C         | bp/°C | Density g cm <sup>-3</sup> | Solubility g/100 g H <sub>2</sub> O | Qualitative solubility                      |
|------|--|---|-------------|-------------|----------------------|---------------|-------|----------------------------|-------------------------------------|---|
| 1589 | Lutetium nitride                           | LuN   | 12125-25-6  | 188.974     | cube cry             |               |       | 11.6                       |                                     |   |
| 1590 | Lutetium oxide                             | Lu <sub>2</sub> O <sub>3</sub>  | 12032-20-1  | 397.932     | wh cub cry or powder | 2427          | 3980  | 9.41                       |                                     |   |
| 1591 | Lutetium perchlorate hexahydrate           | Lu(ClO <sub>4</sub> ) <sub>3</sub> · 6H <sub>2</sub> O  | 14646-29-8  | 581.410     | col cry              | dec 350 (anh) |       |                            |                                     | s H <sub>2</sub> O, MeOH                    |
| 1592 | Lutetium sulfate                           | Lu <sub>2</sub> (SO <sub>4</sub> ) <sub>3</sub>   | 14986-89-1  | 638.122     | wh pow               | dec >850      |       |                            |                                     | vs H <sub>2</sub> O                         |
| 1593 | Lutetium sulfate octahydrate               | Lu <sub>2</sub> (SO <sub>4</sub> ) <sub>3</sub> · 8H <sub>2</sub> O                               | 13473-77-3  | 782.244     | col cry              |               |       |                            | 42.3 <sup>20</sup>                  | s H <sub>2</sub> O                          |
| 1594 | Lutetium sulfide                           | Lu <sub>2</sub> S <sub>3</sub>  | 12163-20-1  | 446.129     | gray rhomb cry       | 1750 dec      |       | 6.26                       |                                     |   |
| 1595 | Lutetium telluride                         | Lu <sub>3</sub> Te <sub>3</sub>   | 12163-22-3  | 732.73      | orth cry             |               |       | 7.8                        |                                     |   |
| 1596 | Magnesium                                  | Mg  | 7439-95-4   | 24.305      | silv-wh metal        | 650           | 1090  | 1.74                       |                                     | s dil acid                                  |
| 1597 | Magnesium acetate                          | Mg(C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> ) <sub>2</sub>                                    | 142-72-3    | 142.394     | wh orth/monocl cry   | 323 dec       |       | 1.50                       | 65.6 <sup>25</sup>                  |   |
| 1598 | Magnesium acetate monohydrate              | Mg(C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> ) <sub>2</sub> · H <sub>2</sub> O                 | 60582-92-5  | 160.409     | orth cry             |               |       | 1.55                       |                                     |   |
| 1599 | Magnesium acetate tetrahydrate             | Mg(C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> ) <sub>2</sub> · 4H <sub>2</sub> O                | 16674-78-5  | 214.454     | col monocl cry; hyg  | 80 dec        |       | 1.45                       | 65.6 <sup>25</sup>                  | vs EtOH                                     |
| 1600 | Magnesium aluminate                        | Mg(AlO <sub>2</sub> ) <sub>2</sub>  | 12068-51-8  | 142.266     | col cub cry          | 2105          |       | 3.55                       |                                     | i H <sub>2</sub> O                          |
| 1601 | Magnesium aluminum silicate                | Mg <sub>2</sub> Al <sub>2</sub> (AlSi <sub>5</sub> O <sub>18</sub> )                              | 1302-88-1   | 584.953     | blue cry             |               |       | 2.6                        |                                     |   |
| 1602 | Magnesium amide                            | Mg(NH <sub>2</sub> ) <sub>2</sub>   | 7803-54-5   | 56.350      | wh powder; flam      | dec           |       | 1.39                       |                                     | react H <sub>2</sub> O                      |
| 1603 | Magnesium ammonium phosphate hexahydrate   | MgNH <sub>4</sub> PO <sub>4</sub> · 6H <sub>2</sub> O   | 13478-16-5  | 245.407     | wh pow               | dec           |       | 1.71                       |                                     | i H <sub>2</sub> O, EtOH; s acid            |
| 1604 | Magnesium antimonide                       | Mg <sub>2</sub> Sb <sub>2</sub>   | 12057-75-9  | 316.435     | hex cry              | 1245          |       | 3.99                       |                                     |   |
| 1605 | Magnesium arsenide                         | Mg <sub>2</sub> As <sub>2</sub>   | 12044-49-4  | 222.758     | solid                | ≈1200         |       | 3.15                       |                                     | i H <sub>2</sub> O                          |
| 1606 | Magnesium diboride                         | MgB <sub>2</sub>  | 12007-25-9  | 45.927      | hex cry              | 800 dec       |       | 2.57                       |                                     |   |
| 1607 | Magnesium hexaboride                       | MgB <sub>6</sub>  | 12008-22-9  | 89.171      | refrac solid         | 1100 dec      |       |                            |                                     | i H <sub>2</sub> O                          |
| 1608 | Magnesium dodecaboride                     | MgB <sub>12</sub>   | 12230-32-9  | 154.037     | refrac solid         | 1300 dec      |       |                            |                                     |   |
| 1609 | Magnesium bromate hexahydrate              | Mg(BrO <sub>3</sub> ) <sub>2</sub> · 6H <sub>2</sub> O  | 7789-36-8   | 388.201     | col cub cry          | 200 dec       |       | 2.29                       | 98 <sup>25</sup>                    |   |
| 1610 | Magnesium bromide                          | MgBr <sub>2</sub>   | 7789-48-2   | 184.113     | wh hex cry; hyg      | 711           |       | 3.72                       | 102 <sup>25</sup>                   |   |
| 1611 | Magnesium bromide hexahydrate              | MgBr <sub>2</sub> · 6H <sub>2</sub> O   | 13446-53-2  | 292.204     | col monocl cry       | 165 dec       |       | 2.0                        | 102 <sup>25</sup>                   | s EtOH                                      |
| 1612 | Magnesium carbonate                        | MgCO <sub>3</sub>   | 546-93-0    | 84.314      | wh hex cry           | 990           |       | 3.010                      | 0.18 <sup>20</sup>                  | i EtOH; s acid                              |
| 1613 | Magnesium carbonate dihydrate              | MgCO <sub>3</sub> · 2H <sub>2</sub> O   | 5145-48-2   | 120.345     | col tricl cry        |               |       | 2.8                        |                                     | i H <sub>2</sub> O, ace, NH <sub>4</sub> OH |
| 1614 | Magnesium carbonate trihydrate             | MgCO <sub>3</sub> · 3H <sub>2</sub> O   | 14457-83-1  | 138.360     | col monocl cry       | 165           |       | 1.8                        | 0.18 <sup>16</sup>                  |   |
| 1615 | Magnesium carbonate pentahydrate           | MgCO <sub>3</sub> · 5H <sub>2</sub> O   | 61042-72-6  | 174.390     | wh monocl cry        | dec >400      |       | 3.04                       | 0.38 <sup>16</sup>                  |   |
| 1616 | Magnesium carbonate hydroxide tetrahydrate | 4MgCO <sub>3</sub> · Mg(OH) <sub>2</sub> · 4H <sub>2</sub> O                                      | 39409-82-0  | 467.636     | wh monocl cry        |               |       | 2.3                        |                                     |   |
| 1617 | Magnesium carbonate hydroxide pentahydrate | 4MgCO <sub>3</sub> · Mg(OH) <sub>2</sub> · 5H <sub>2</sub> O                                      | 56378-72-4  | 485.652     | wh pow               | dec 700       |       |                            |                                     | i H <sub>2</sub> O; s dil acid; i EtOH      |
| 1618 | Magnesium carbonate dihydroxide trihydrate | MgCO <sub>3</sub> · Mg(OH) <sub>2</sub> · 3H <sub>2</sub> O                                       | 12143-96-3  | 196.680     | wh monocl cry        | dec           |       | 2.04                       |                                     |   |
| 1619 | Magnesium chlorate hexahydrate             | Mg(ClO <sub>3</sub> ) <sub>2</sub> · 6H <sub>2</sub> O  | 13446-19-0  | 299.299     | wh hyg cry           | ≈35 dec       |       | 1.80                       | 142 <sup>25</sup>                   | sl EtOH                                     |
| 1620 | Magnesium chloride                         | MgCl <sub>2</sub>   | 7786-30-3   | 95.211      | wh hex leaflets; hyg | 714           | 1412  | 2.325                      | 56.0 <sup>25</sup>                  |   |
| 1621 | Magnesium chloride hexahydrate             | MgCl <sub>2</sub> · 6H <sub>2</sub> O   | 7791-18-6   | 203.302     | wh hyg cry           | ≈100 dec      |       | 1.56                       | 56.0 <sup>25</sup>                  | s EtOH                                      |
| 1622 | Magnesium chromate heptahydrate            | MgCrO <sub>4</sub> · 7H <sub>2</sub> O  | 13423-61-5* | 266.405     | yel rhom cry         |               |       | 1.695                      | 54.8 <sup>25</sup>                  |   |
| 1623 | Magnesium chromite                         | MgCr <sub>2</sub> O <sub>4</sub>  | 12053-26-8  | 192.295     | deep grn cry         | 2390          |       | 4.4                        |                                     |   |
| 1624 | Magnesium citrate                          | Mg <sub>3</sub> (C <sub>6</sub> H <sub>5</sub> O <sub>7</sub> ) <sub>2</sub>                      | 3344-18-1   | 451.114     | wh cry               |               |       |                            |                                     | sl H <sub>2</sub> O                         |
| 1625 | Magnesium citrate tetradecahydrate         | Mg <sub>3</sub> (C <sub>6</sub> H <sub>5</sub> O <sub>7</sub> ) <sub>2</sub> · 14H <sub>2</sub> O | 3344-18-1*  | 703.328     | wh cry pow           |               |       |                            |                                     | sl H <sub>2</sub> O; s acid                 |
| 1626 | Magnesium fluoride                         | MgF <sub>2</sub>  | 7783-40-6   | 62.302      | wh tetr cry          | 1263          | 2227  | 3.148                      | 0.013 <sup>25</sup>                 |   |
| 1627 | Magnesium formate dihydrate                | Mg(CHO <sub>2</sub> ) <sub>2</sub> · 2H <sub>2</sub> O  | 6150-82-9   | 150.370     | wh cry               | dec           |       |                            |                                     | s H <sub>2</sub> O; i EtOH                  |
| 1628 | Magnesium germanate                        | Mg <sub>2</sub> GeO <sub>4</sub>  | 12025-13-7  | 185.25      | wh prec              |               |       | 3.09                       |                                     | i H <sub>2</sub> O                          |
| 1629 | Magnesium germanide                        | Mg <sub>2</sub> Ge  | 1310-52-7   | 121.25      | cub cry              | 1117          |       |                            |                                     |   |
| 1630 | Magnesium hydride                          | MgH <sub>2</sub>  | 7693-27-8   | 26.321      | wh tetr cry          | 327           |       | 1.45                       |                                     | react H <sub>2</sub> O                      |
| 1631 | Magnesium hydrogen phosphate trihydrate    | MgHPO <sub>4</sub> · 3H <sub>2</sub> O  | 7757-86-0   | 174.331     | wh powder            | 550 dec       |       | 2.13                       |                                     | sl H <sub>2</sub> O; s dil acid             |
| 1632 | Magnesium hydroxide                        | Mg(OH) <sub>2</sub>   | 1309-42-8   | 58.320      | wh hex cry           | 350           |       | 2.37                       | 0.00069 <sup>20</sup>               | s dil acid                                  |
| 1633 | Magnesium iodate tetrahydrate              | Mg(IO <sub>3</sub> ) <sub>2</sub> · 4H <sub>2</sub> O   | 7790-32-1*  | 446.172     | col monocl cry       | 210 dec       |       | 3.3                        | 11.1 <sup>25</sup>                  |   |
| 1634 | Magnesium iodide                           | MgI <sub>2</sub>  | 10377-58-9  | 278.114     | wh hex cry; hyg      | 634           |       | 4.43                       | 146 <sup>25</sup>                   |   |
| 1635 | Magnesium iodide hexahydrate               | MgI <sub>2</sub> · 6H <sub>2</sub> O  | 66778-21-0  | 386.205     | wh monocl cry        |               |       | 2.35                       |                                     |   |
| 1636 | Magnesium iodide octahydrate               | MgI <sub>2</sub> · 8H <sub>2</sub> O  | 7790-31-0   | 422.236     | wh orth cry; hyg     | 41 dec        |       | 2.10                       | 146 <sup>25</sup>                   | s EtOH                                      |
| 1637 | Magnesium metaborate octahydrate           | Mg(BO <sub>2</sub> ) <sub>2</sub> · 8H <sub>2</sub> O   | 13703-82-7* | 254.047     | wh pow               | 988 (anh)     |       |                            |                                     | sl H <sub>2</sub> O                         |
| 1638 | Magnesium metasilicate                     | MgSiO <sub>3</sub>  | 13776-74-4  | 100.389     | wh monocl cry        | ≈1550 dec     |       | 3.19                       |                                     | i H <sub>2</sub> O; sl HF                   |
| 1639 | Magnesium metatitanate                     | MgTiO <sub>3</sub>  | 12032-30-3  | 120.170     | col hex cry          | 1565          |       | 3.85                       |                                     |   |
| 1640 | Magnesium molybdate                        | MgMoO <sub>4</sub>  | 12013-21-7  | 184.24      | wh pow               | ≈1060         |       | 2.2                        | 15.9 <sup>25</sup>                  | s H <sub>2</sub> O                          |
| 1641 | Magnesium nitrate                          | Mg(NO <sub>3</sub> ) <sub>2</sub>   | 10377-60-3  | 148.314     | wh cub cry           |               |       | ≈2.3                       | 71.2 <sup>25</sup>                  |   |
| 1642 | Magnesium nitrate dihydrate                | Mg(NO <sub>3</sub> ) <sub>2</sub> · 2H <sub>2</sub> O   | 15750-45-5  | 184.345     | wh cry               | ≈100 dec      |       | 1.45                       | 71.2 <sup>25</sup>                  | s EtOH                                      |
| 1643 | Magnesium nitrate hexahydrate              | Mg(NO <sub>3</sub> ) <sub>2</sub> · 6H <sub>2</sub> O   | 13446-18-9  | 256.406     | col monocl cry; hyg  | ≈95 dec       |       | 1.46                       | 71.2 <sup>25</sup>                  | s EtOH                                      |
| 1644 | Magnesium nitride                          | Mg <sub>3</sub> N <sub>2</sub>  | 12057-71-5  | 100.928     | yel cub cry          | ≈1500 dec     |       | 2.71                       |                                     |   |
| 1645 | Magnesium nitrite trihydrate               | Mg(NO <sub>2</sub> ) <sub>2</sub> · 3H <sub>2</sub> O   | 15070-34-5  | 170.362     | wh hyg prisms        | 100 dec       |       |                            | 129.9 <sup>25</sup>                 | s EtOH                                      |

| No.  | Name   | Formula  | CAS Reg No. | Mol. weight | Physical form       | mp/°C    | bp/°C | Density g cm <sup>-3</sup> | Solubility g/100 g H <sub>2</sub> O | Qualitative solubility           |
|------|--|--|-------------|-------------|---------------------|----------|-------|----------------------------|-------------------------------------|----------------------------------|
| 1646 | Magnesium orthosilicate                      | Mg <sub>2</sub> SiO <sub>4</sub>   | 26686-77-1  | 140.694     | wh orth cry         | 1897     |       | 3.21                       |                                     | i H <sub>2</sub> O               |
| 1647 | Magnesium orthotitanate                      | Mg <sub>2</sub> TiO <sub>4</sub>   | 12032-52-9  | 160.475     | wh cub cry          | 1840     |       | 3.53                       |                                     |                                  |
| 1648 | Magnesium oxalate                            | MgC <sub>2</sub> O <sub>4</sub>  | 547-66-0    | 112.324     | wh powder           |          |       |                            | 0.038 <sup>25</sup>                 |                                  |
| 1649 | Magnesium oxalate dihydrate                  | MgC <sub>2</sub> O <sub>4</sub> · 2H <sub>2</sub> O                                | 6150-88-5   | 148.354     | wh powder           |          |       |                            | 0.038 <sup>25</sup>                 | i EtOH; s dil acid               |
| 1650 | Magnesium oxide                              | MgO  | 1309-48-4   | 40.304      | wh cub cry          | 2825     | 3600  | 3.6                        |                                     | sl H <sub>2</sub> O; i EtOH      |
| 1651 | Magnesium perborate heptahydrate             | Mg(BO <sub>3</sub> ) <sub>2</sub> · 7H <sub>2</sub> O                              | 14635-87-1  | 268.030     | wh pow              |          |       |                            |                                     | sl H <sub>2</sub> O              |
| 1652 | Magnesium perchlorate                        | Mg(ClO <sub>4</sub> ) <sub>2</sub>   | 10034-81-8  | 223.206     | wh hyg powder       | 250 dec  |       | 2.2                        | 100 <sup>25</sup>                   |                                  |
| 1653 | Magnesium perchlorate hexahydrate            | Mg(ClO <sub>4</sub> ) <sub>2</sub> · 6H <sub>2</sub> O                             | 13446-19-0  | 331.298     | wh hyg cry          | 190 dec  |       | 1.98                       | 100 <sup>25</sup>                   | s EtOH                           |
| 1654 | Magnesium permanganate hexahydrate           | Mg(MnO <sub>4</sub> ) <sub>2</sub> · 6H <sub>2</sub> O                             | 10377-62-5  | 370.268     | blue-blk cry        | dec      |       | 2.18                       |                                     | s H <sub>2</sub> O               |
| 1655 | Magnesium peroxide                           | MgO <sub>2</sub>   | 1335-26-8   | 56.304      | wh cub cry          | 100 dec  |       | ≈3.0                       |                                     | i H <sub>2</sub> O; s dil acid   |
| 1656 | Magnesium phosphate pentahydrate             | Mg <sub>3</sub> (PO <sub>4</sub> ) <sub>2</sub> · 5H <sub>2</sub> O                | 7757-87-1*  | 352.934     | wh cry              | 400 dec  |       |                            | 0.00009 <sup>20</sup>               | s dil acid                       |
| 1657 | Magnesium phosphate octahydrate              | Mg <sub>3</sub> (PO <sub>4</sub> ) <sub>2</sub> · 8H <sub>2</sub> O                | 13446-23-6  | 406.980     | wh monocl cry       |          |       | 2.17                       | 0.00009 <sup>20</sup>               | s acid                           |
| 1658 | Magnesium pyrophosphate                      | Mg <sub>2</sub> P <sub>2</sub> O <sub>7</sub>                                      | 13446-24-7  | 222.553     | col monocl plates   | 1395     |       | 2.56                       |                                     |                                  |
| 1659 | Magnesium pyrophosphate trihydrate           | Mg <sub>2</sub> P <sub>2</sub> O <sub>7</sub> · 3H <sub>2</sub> O                  | 10102-34-8  | 276.600     | wh powder           | 100 dec  |       | 2.56                       |                                     | i H <sub>2</sub> O; s acid       |
| 1660 | Magnesium phosphide                          | Mg <sub>3</sub> P <sub>2</sub>   | 12057-74-8  | 134.863     | yel cub cry         |          |       | 2.06                       |                                     | react H <sub>2</sub> O           |
| 1661 | Magnesium selenate hexahydrate               | MgSeO <sub>4</sub> · 6H <sub>2</sub> O   | 13446-28-1  | 275.35      | wh monocl cry       |          |       | 1.928                      | 55.5 <sup>25</sup>                  |                                  |
| 1662 | Magnesium selenide                           | MgSe   | 1313-04-8   | 103.27      | brn cub cry         |          |       | 4.2                        |                                     | react H <sub>2</sub> O           |
| 1663 | Magnesium selenite hexahydrate               | MgSeO <sub>3</sub> · 6H <sub>2</sub> O   | 15593-61-0  | 259.36      | col hex cry         |          |       | 2.09                       |                                     | i H <sub>2</sub> O; s dil acid   |
| 1664 | Magnesium hexafluorosilicate hexahydrate     | MgSiF <sub>6</sub> · 6H <sub>2</sub> O   | 60950-56-3  | 274.472     | wh cry              | 120 dec  |       | 1.79                       | 39.3 <sup>18</sup>                  | i EtOH                           |
| 1665 | Magnesium silicide                           | Mg <sub>2</sub> Si   | 22831-39-6  | 76.696      | gray cub cry        | 1102     |       | 1.99                       |                                     | react H <sub>2</sub> O           |
| 1666 | Magnesium stannide                           | Mg <sub>2</sub> Sn   | 1313-08-2   | 167.320     | blue cub cry        | 771      |       | 3.60                       |                                     | s H <sub>2</sub> O, dil HCl      |
| 1667 | Magnesium sulfate                            | MgSO <sub>4</sub>  | 7487-88-9   | 120.368     | col orth cry        | 1137     |       | 2.66                       | 35.7 <sup>25</sup>                  |                                  |
| 1668 | Magnesium sulfate monohydrate                | MgSO <sub>4</sub> · H <sub>2</sub> O   | 14168-73-1  | 138.383     | col monocl cry      | 150 dec  |       | 2.57                       | 35.7 <sup>25</sup>                  |                                  |
| 1669 | Magnesium sulfate heptahydrate               | MgSO <sub>4</sub> · 7H <sub>2</sub> O  | 10034-99-8  | 246.474     | col orth cry        | 150 dec  |       | 1.67                       | 35.7 <sup>25</sup>                  | sl EtOH                          |
| 1670 | Magnesium sulfide                            | MgS  | 12032-36-9  | 56.370      | red-brn cub cry     | 2226     |       | 2.68                       |                                     | react H <sub>2</sub> O           |
| 1671 | Magnesium sulfite trihydrate                 | MgSO <sub>3</sub> · 3H <sub>2</sub> O  | 19086-20-5  | 158.414     | col orth cry        |          |       | 2.12                       | 0.79 <sup>25</sup>                  |                                  |
| 1672 | Magnesium sulfite hexahydrate                | MgSO <sub>3</sub> · 6H <sub>2</sub> O  | 13446-29-2  | 212.460     | wh hex cry          | 200 dec  |       | 1.72                       | 0.79 <sup>25</sup>                  | i EtOH                           |
| 1673 | Magnesium tetrahydrogen phosphate dihydrate  | Mg(H <sub>2</sub> PO <sub>4</sub> ) <sub>2</sub> · 2H <sub>2</sub> O               | 15609-80-0  | 254.311     | wh hyg cry          | dec 90   |       |                            |                                     | s H <sub>2</sub> O; i EtOH       |
| 1674 | Magnesium thiocyanate tetrahydrate           | Mg(SCN) <sub>2</sub> · 4H <sub>2</sub> O   | 306-61-6    | 212.531     | wh hyg cry          |          |       |                            |                                     | vs H <sub>2</sub> O, EtOH        |
| 1675 | Magnesium thiosulfate hexahydrate            | MgS <sub>2</sub> O <sub>3</sub> · 6H <sub>2</sub> O                                | 13446-30-5  | 244.525     | col cry             | 170 dec  |       | 1.82                       | 93 <sup>25</sup>                    | i EtOH                           |
| 1676 | Magnesium trisilicate                        | Mg <sub>3</sub> Si <sub>3</sub> O <sub>8</sub>                                     | 14987-04-3  | 260.862     | wh powder           |          |       |                            |                                     | i H <sub>2</sub> O, EtOH         |
| 1677 | Magnesium tungstate                          | MgWO <sub>4</sub>  | 13573-11-0  | 272.14      | wh monocl cry       |          |       | 6.89                       | 0.016 <sup>20</sup>                 | i EtOH                           |
| 1678 | Magnesium vanadate                           | Mg <sub>2</sub> V <sub>2</sub> O <sub>7</sub>                                      | 13568-63-3  | 262.489     | tricl cry           |          |       | 3.1                        |                                     |                                  |
| 1679 | Magnesium zirconate                          | MgZrO <sub>3</sub>   | 12032-31-4  | 163.527     | col cry             | 2060     |       | 4.23                       |                                     |                                  |
| 1680 | Magnesium zirconium silicate                 | MgO · ZrO <sub>2</sub> · SiO <sub>2</sub>  | 52110-05-1  | 223.612     | wh solid            |          |       |                            |                                     | i H <sub>2</sub> O, alk; sl acid |
| 1681 | Manganese                                    | Mn   | 7439-96-5   | 54.938      | hard gray metal     | 1246     | 2061  | 7.3                        |                                     | s dil acids                      |
| 1682 | Manganocene                                  | Mn(C <sub>8</sub> H <sub>8</sub> ) <sub>2</sub>                                    | 1271-27-8   | 185.124     | yel-brn cry         | 173      |       |                            |                                     | s py, thf; sl bz                 |
| 1683 | Manganese antimonide (MnSb)                  | MnSb   | 12032-82-5  | 176.698     | hex cry             | 840      |       | 6.9                        |                                     |                                  |
| 1684 | Manganese antimonide (Mn <sub>2</sub> Sb)    | Mn <sub>2</sub> Sb   | 12032-97-2  | 231.636     | tetr cry            | 948      |       | 7.0                        |                                     |                                  |
| 1685 | Manganese boride (MnB)                       | MnB  | 12045-15-7  | 65.749      | orth cry            | 1890     |       | 6.45                       |                                     |                                  |
| 1686 | Manganese boride (MnB <sub>3</sub> )         | MnB <sub>3</sub>   | 12228-50-1  | 76.560      | hex cry             | 1827     |       | 5.3                        |                                     |                                  |
| 1687 | Manganese boride (Mn <sub>2</sub> B)         | Mn <sub>2</sub> B  | 12045-16-8  | 120.687     | red-brn tetr cry    | 1580     |       | 7.20                       |                                     |                                  |
| 1688 | Manganese carbide                            | Mn <sub>3</sub> C  | 12266-65-8  | 176.825     | refrac solid        | 1520     |       | 6.89                       |                                     |                                  |
| 1689 | Manganese carbonyl                           | Mn <sub>5</sub> (CO) <sub>10</sub>   | 10170-69-1  | 389.977     | yel monocl cry      | 154      |       | 1.75                       |                                     | i H <sub>2</sub> O; s os         |
| 1690 | Manganese pentacarbonyl bromide              | Mn(CO) <sub>5</sub> Br   | 14516-54-2  | 274.893     | oran-yel cry        |          |       |                            |                                     | s os                             |
| 1691 | Manganese phosphide (MnP)                    | MnP  | 12032-78-9  | 85.912      | orth cry            | 1147     |       | 5.49                       |                                     |                                  |
| 1692 | Manganese phosphide (Mn <sub>2</sub> P)      | Mn <sub>2</sub> P  | 12333-54-9  | 140.850     | hex cry             | 1327     |       | 6.0                        |                                     |                                  |
| 1693 | Manganese silicide                           | MnSi <sub>2</sub>  | 12032-86-9  | 111.109     | gray solid          | 1152 dec |       |                            |                                     |                                  |
| 1694 | Manganese(II) acetate tetrahydrate           | Mn(C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> ) <sub>2</sub> · 4H <sub>2</sub> O | 6156-78-1   | 245.087     | red monocl cry      | 80       |       | 1.59                       |                                     | s H <sub>2</sub> O, EtOH         |
| 1695 | Manganese(II) bromide                        | MnBr <sub>2</sub>  | 13446-03-2  | 214.746     | pink hex cry        | 698      |       | 4.385                      | 151 <sup>25</sup>                   |                                  |
| 1696 | Manganese(II) bromide tetrahydrate           | MnBr <sub>2</sub> · 4H <sub>2</sub> O  | 10031-20-6  | 286.808     | red hyg cry         | 64 dec   |       |                            | 151 <sup>25</sup>                   |                                  |
| 1697 | Manganese(II) carbonate                      | MnCO <sub>3</sub>  | 598-62-9    | 114.947     | pink hex cry        | >200 dec |       | 3.70                       | 0.00008 <sup>20</sup>               | s dil acid                       |
| 1698 | Manganese(II) chloride                       | MnCl <sub>2</sub>  | 7773-01-5   | 125.844     | pink trig cry; hyg  | 650      | 1190  | 2.977                      | 77.3 <sup>25</sup>                  | s py, EtOH; i eth                |
| 1699 | Manganese(II) chloride tetrahydrate          | MnCl <sub>2</sub> · 4H <sub>2</sub> O  | 13446-34-9  | 197.906     | red monocl cry; hyg | 87.5     |       | 1.913                      | 77.3 <sup>25</sup>                  | s EtOH; i eth                    |
| 1700 | Manganese(II) dihydrogen phosphate dihydrate | Mn(H <sub>2</sub> PO <sub>4</sub> ) <sub>2</sub> · 2H <sub>2</sub> O               | 18718-07-5  | 284.944     | col hyg cry         |          |       |                            |                                     | s H <sub>2</sub> O; i EtOH       |
| 1701 | Manganese(II) fluoride                       | MnF <sub>2</sub>   | 7782-64-1   | 92.935      | red tetr cry        | 900      |       | 3.98                       | 1.02 <sup>25</sup>                  | i EtOH                           |
| 1702 | Manganese(II) hydroxide                      | Mn(OH) <sub>2</sub>  | 18933-05-6  | 88.953      | pink hex cry        | dec      |       | 3.26                       | 0.00034 <sup>20</sup>               |                                  |
| 1703 | Manganese(II) hypophosphate monohydrate      | Mn(H <sub>2</sub> PO <sub>2</sub> ) <sub>2</sub> · H <sub>2</sub> O                | 10043-84-2  | 202.931     | pink cry            | >250     |       |                            | 15 <sup>20</sup>                    | s H <sub>2</sub> O               |



| No.  | Name                                  | Formula  | CAS Reg No. | Mol. weight | Physical form          | mp/°C    | bp/°C   | Density g cm <sup>-3</sup> | Solubility g/100 g H <sub>2</sub> O | Qualitative solubility                           |
|------|---------------------------------------|--|-------------|-------------|------------------------|----------|---------|----------------------------|-------------------------------------|--|
| 1704 | Manganese(II) iodide                  | MnI <sub>2</sub>   | 7790-33-2   | 308.747     | wh hex cry; hyg        | 638      |         | 5.04                       |                                     | s H <sub>2</sub> O, EtOH                         |
| 1705 | Manganese(II) iodide tetrahydrate     | MnI <sub>2</sub> · 4H <sub>2</sub> O   | 7790-33-2*  | 380.809     | red cry                |          |         |                            |                                     | vs H <sub>2</sub> O; s EtOH                      |
| 1706 | Manganese(II) metasilicate            | MnSiO <sub>3</sub>   | 7759-00-4   | 131.022     | red orth cry           | 1291     |         | 3.48                       |                                     | i H <sub>2</sub> O                               |
| 1707 | Manganese(II) molybdate               | MnMoO <sub>4</sub>   | 14013-15-1  | 214.88      | yel mono cry           |          |         | 4.05                       |                                     |  |
| 1708 | Manganese(II) nitrate                 | Mn(NO <sub>3</sub> ) <sub>2</sub>  | 10377-93-2  | 178.947     | col orth cry; hyg      |          |         | 2.2                        | 161 <sup>25</sup>                   | s diox, thf                                      |
| 1709 | Manganese(II) nitrate tetrahydrate    | Mn(NO <sub>3</sub> ) <sub>2</sub> · 4H <sub>2</sub> O                              | 20694-39-7  | 251.009     | pink hyg cry           | 37.1 dec |         | 2.13                       | 161 <sup>25</sup>                   | s EtOH   |
| 1710 | Manganese(II) nitrate hexahydrate     | Mn(NO <sub>3</sub> ) <sub>2</sub> · 6H <sub>2</sub> O                              | 10377-66-9  | 287.039     | rose mono cry          | 28 dec   |         | 1.8                        | 161 <sup>25</sup>                   | vs EtOH  |
| 1711 | Manganese(II) orthosilicate           | Mn <sub>2</sub> SiO <sub>4</sub>   | 13568-32-6  | 201.960     | orth cry               |          |         | 4.11                       |                                     | i H <sub>2</sub> O                               |
| 1712 | Manganese(II) oxalate dihydrate       | MnC <sub>2</sub> O <sub>4</sub> · 2H <sub>2</sub> O                                | 6556-16-7   | 178.987     | wh cry powder          | 150 dec  |         | 2.45                       | 0.032 <sup>20</sup>                 | s acid   |
| 1713 | Manganese(II) oxide                   | MnO  | 1344-43-0   | 70.937      | grn cub cry or powder  | 1842     |         | 5.37                       |                                     | i H <sub>2</sub> O; s acid                       |
| 1714 | Manganese(II) perchlorate hexahydrate | Mn(ClO <sub>4</sub> ) <sub>2</sub> · 6H <sub>2</sub> O                             | 15364-94-0  | 361.931     | pink hex cry           |          |         | 2.10                       |                                     |  |
| 1715 | Manganese(II) pyrophosphate           | Mn <sub>2</sub> P <sub>2</sub> O <sub>7</sub>                                      | 53731-35-4  | 283.819     | wh mono cry            | 1196     |         | 3.71                       |                                     | i H <sub>2</sub> O                               |
| 1716 | Manganese(II) selenide                | MnSe   | 1313-22-0   | 133.90      | gray cub cry           | 1460     |         | 5.45                       |                                     | i H <sub>2</sub> O                               |
| 1717 | Manganese(II) sulfate                 | MnSO <sub>4</sub>  | 7785-87-7   | 151.001     | wh orth cry            | 700      | 850 dec | 3.25                       | 63.7 <sup>25</sup>                  |  |
| 1718 | Manganese(II) sulfate monohydrate     | MnSO <sub>4</sub> · H <sub>2</sub> O   | 10034-96-5  | 169.016     | red mono cry           |          |         | 2.95                       | 63.7 <sup>25</sup>                  | i EtOH   |
| 1719 | Manganese(II) sulfate tetrahydrate    | MnSO <sub>4</sub> · 4H <sub>2</sub> O  | 10101-68-5  | 223.062     | red mono cry           | 38 dec   |         | 2.26                       | 63.7 <sup>25</sup>                  | i EtOH   |
| 1720 | Manganese(II) sulfide (α form)        | MnS  | 18820-29-6  | 87.003      | grn cub cry            | 1610     |         | 4.0                        |                                     | i H <sub>2</sub> O; s dil acid                   |
| 1721 | Manganese(II) sulfide (β form)        | MnS  | 18820-29-6  | 87.003      | red cub cry            |          |         | 3.3                        |                                     | i H <sub>2</sub> O; s dil acid                   |
| 1722 | Manganese(II) sulfide (γ form)        | MnS  | 18820-29-6  | 87.003      | red hex cry            |          |         | ≈3.3                       |                                     | i H <sub>2</sub> O; s dil acid                   |
| 1723 | Manganese(II) telluride               | MnTe   | 12032-88-1  | 182.54      | hex cry                | ≈1150    |         | 6.0                        |                                     |  |
| 1724 | Manganese(II) tetraborate octahydrate | MnB <sub>4</sub> O <sub>7</sub> · 8H <sub>2</sub> O                                | 12228-91-0  | 354.300     | red solid              |          |         |                            |                                     | i H <sub>2</sub> O, EtOH; s dil acid             |
| 1725 | Manganese(II) titanate                | MnTiO <sub>3</sub>   | 12032-74-5  | 150.803     | red hex cry            | 1360     |         | 4.55                       |                                     |  |
| 1726 | Manganese(II) tungstate               | MnWO <sub>4</sub>  | 13918-22-4  | 302.78      | wh mono cry            |          |         | 7.2                        | 0.0054 <sup>20</sup>                |  |
| 1727 | Manganese(II,III) oxide               | Mn <sub>3</sub> O <sub>4</sub>   | 1317-35-7   | 228.812     | brn tetr cry           | 1567     |         | 4.84                       |                                     | i H <sub>2</sub> O; s HCl                        |
| 1728 | Manganese(III) acetate dihydrate      | Mn(C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> ) <sub>3</sub> · 2H <sub>2</sub> O | 19513-05-4  | 268.100     | brn cry                |          |         |                            |                                     | s eth, HOAc                                      |
| 1729 | Manganese(III) fluoride               | MnF <sub>3</sub>   | 7783-53-1   | 111.933     | red mono cry; hyg      | >600 dec |         | 3.54                       |                                     | reac H <sub>2</sub> O                            |
| 1730 | Manganese(III) hydroxide              | MnO(OH)  | 1332-63-4   | 87.945      | blk mono cry           | 250 dec  |         | ≈4.3                       |                                     | i H <sub>2</sub> O                               |
| 1731 | Manganese(III) oxide                  | Mn <sub>2</sub> O <sub>3</sub>   | 1317-34-6   | 157.874     | blk cub cry            | 1080 dec |         | ≈5.0                       |                                     | i H <sub>2</sub> O                               |
| 1732 | Manganese(IV) oxide                   | MnO <sub>2</sub>   | 1313-13-9   | 86.937      | blk tetr cry           | 535 dec  |         | 5.08                       |                                     | i H <sub>2</sub> O, HNO <sub>3</sub>             |
| 1733 | Manganese(VII) oxide                  | Mn <sub>2</sub> O <sub>7</sub>   | 12057-92-0  | 221.872     | grn oil; exp           | 5.9      | 95 exp  | 2.40                       |                                     | vs H <sub>2</sub> O                              |
| 1734 | Mendelevium                           | Md   | 7440-11-1   | 258         | metal                  | 827      |         |                            |                                     |  |
| 1735 | Mercury                               | Hg   | 7439-97-6   | 200.59      | heavy silv liq         | -38.8290 | 356.62  | 13.5336                    |                                     | i H <sub>2</sub> O                               |
| 1736 | Dimethyl mercury                      | Hg(CH <sub>3</sub> ) <sub>2</sub>  | 593-74-8    | 230.66      | liq                    |          | 93      | 3.17                       |                                     | i H <sub>2</sub> O; vs EtOH, eth                 |
| 1737 | Mercury(I) acetate                    | Hg <sub>2</sub> (C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> ) <sub>2</sub>       | 631-60-7    | 519.27      | col scales             | dec      |         |                            |                                     | sl H <sub>2</sub> O; i EtOH, eth                 |
| 1738 | Mercury(I) bromate                    | Hg <sub>2</sub> (BrO <sub>3</sub> ) <sub>2</sub>                                   | 13465-33-3  | 656.98      | col cry                | dec      |         |                            |                                     | i H <sub>2</sub> O; sl acid                      |
| 1739 | Mercury(I) bromide                    | Hg <sub>2</sub> Br <sub>2</sub>  | 15385-58-7  | 560.99      | wh tetr cry or powder  | 345 dec  |         | 7.307                      |                                     | i H <sub>2</sub> O, EtOH, eth                    |
| 1740 | Mercury(I) carbonate                  | Hg <sub>2</sub> CO <sub>3</sub>  | 6824-78-8   | 461.19      | yel-brn cry            | 130 dec  |         |                            | 0.0000045                           | i EtOH   |
| 1741 | Mercury(I) chlorate                   | Hg <sub>2</sub> (ClO <sub>3</sub> ) <sub>2</sub>                                   | 10294-44-7  | 568.08      | wh rhom cry            | ≈250 dec |         | 6.409                      |                                     | sl H <sub>2</sub> O; s EtOH                      |
| 1742 | Mercury(I) chloride                   | Hg <sub>2</sub> Cl <sub>2</sub>  | 10112-91-1  | 472.09      | wh tetr cry            | 525 tp   | 383 sp  | 7.16                       | 0.0004 <sup>25</sup>                | i EtOH, eth                                      |
| 1743 | Mercury(I) chromate                   | Hg <sub>2</sub> CrO <sub>4</sub>   | 13465-34-4  | 517.17      | brn-red solid          |          |         |                            |                                     | i H <sub>2</sub> O EtOH; s conc HNO <sub>3</sub> |
| 1744 | Mercury(I) fluoride                   | Hg <sub>2</sub> F <sub>2</sub>   | 13967-25-4  | 439.18      | yel cub cry            | 570 dec  | subl    | 8.73                       |                                     | reac H <sub>2</sub> O                            |
| 1745 | Mercury(I) iodate                     | Hg <sub>2</sub> (IO <sub>3</sub> ) <sub>2</sub>                                    | 13465-35-5  | 750.99      | yel-wh pow             | dec 175  |         |                            | 0.0032 <sup>20</sup>                |  |
| 1746 | Mercury(I) iodide                     | Hg <sub>2</sub> I <sub>2</sub>   | 15385-57-6  | 654.99      | yel amorp powder       | 290      |         | 7.70                       |                                     | i H <sub>2</sub> O, EtOH, eth                    |
| 1747 | Mercury(I) nitrate                    | Hg <sub>2</sub> (NO <sub>3</sub> ) <sub>2</sub>                                    | 10415-75-5  | 525.19      | cry                    |          |         |                            |                                     | sl H <sub>2</sub> O                              |
| 1748 | Mercury(I) nitrate dihydrate          | Hg <sub>2</sub> (NO <sub>3</sub> ) <sub>2</sub> · 2H <sub>2</sub> O                | 14836-60-3  | 561.22      | col cry                | 70 dec   |         | 4.8                        |                                     | sl H <sub>2</sub> O                              |
| 1749 | Mercury(I) nitrite                    | Hg <sub>2</sub> (NO <sub>2</sub> ) <sub>2</sub>                                    | 13492-25-6  | 493.19      | yel cry                | 100 dec  |         | 7.3                        |                                     | reac H <sub>2</sub> O                            |
| 1750 | Mercury(I) oxalate                    | Hg <sub>2</sub> C <sub>2</sub> O <sub>4</sub>                                      | 2949-11-3   | 489.20      | cry                    |          |         |                            |                                     | i H <sub>2</sub> O; sl HNO <sub>3</sub>          |
| 1751 | Mercury(I) oxide                      | Hg <sub>2</sub> O  | 15829-53-5  | 417.18      | prob mixture of HgO+Hg | 100 dec  |         | 9.8                        |                                     | i H <sub>2</sub> O; s HNO <sub>3</sub>           |
| 1752 | Mercury(I) perchlorate tetrahydrate   | Hg <sub>2</sub> (ClO <sub>4</sub> ) <sub>2</sub> · 4H <sub>2</sub> O               | 65202-12-2  | 672.14      | cry                    | 64       |         |                            | 442 <sup>25</sup>                   |  |
| 1753 | Mercury(I) sulfate                    | Hg <sub>2</sub> SO <sub>4</sub>  | 7783-36-0   | 497.24      | wh-yel cry powder      |          |         | 7.56                       |                                     | s dil HNO <sub>3</sub>                           |
| 1754 | Mercury(I) sulfide                    | Hg <sub>2</sub> S  | 51595-71-2  | 433.25      | unstab blk pow         | dec      |         |                            |                                     | i H <sub>2</sub> O                               |
| 1755 | Mercury(I) thiocyanate                | Hg <sub>2</sub> (SCN) <sub>2</sub>   | 13465-37-7  | 517.34      | col powder             | dec      |         |                            | 0.03 <sup>25</sup>                  | s HCl, KCNS                                      |
| 1756 | Mercury(I) tungstate                  | Hg <sub>2</sub> WO <sub>4</sub>  | 38705-19-0  | 649.02      | yel amorp solid        | dec      |         |                            |                                     | i H <sub>2</sub> O, EtOH                         |
| 1757 | Mercury(II) acetate                   | Hg(C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> ) <sub>2</sub>                     | 1600-27-7   | 318.68      | wh-yel cry or powder   | 179 dec  |         | 3.28                       | 25 <sup>10</sup>                    | s EtOH   |
| 1758 | Mercury(II) amide chloride            | Hg(NH <sub>2</sub> )Cl   | 10124-48-8  | 252.07      | wh solid               |          | subl    | 5.38                       |                                     | i H <sub>2</sub> O, EtOH; s warm acid            |
| 1759 | Mercury(II) benzoate monohydrate      | Hg(C <sub>6</sub> H <sub>5</sub> O <sub>2</sub> ) <sub>2</sub> · H <sub>2</sub> O  | 32839-04-6  | 460.83      | wh cry                 | 165      |         |                            | 1.2 <sup>15</sup>                   | sl EtOH  |
| 1760 | Mercury(II) bromate                   | Hg(BrO <sub>3</sub> ) <sub>2</sub>   | 26522-91-8  | 456.39      | cry                    | 130 dec  |         |                            | 0.15                                | s acid   |
| 1761 | Mercury(II) bromide                   | HgBr <sub>2</sub>  | 7789-47-1   | 360.40      | wh rhomb cry or powder | 241      | 318     | 6.05                       | 0.61 <sup>25</sup>                  | sl chl; s EtOH, MeOH                             |
| 1762 | Mercury(II) chlorate                  | Hg(ClO <sub>3</sub> ) <sub>2</sub>   | 13465-30-0  | 367.49      | wh needles             | dec      |         | 4.998                      | 25                                  |  |

| No.  | Name  | Formula   | CAS Reg No. | Mol. weight | Physical form           | mp/°C                   | bp/°C   | Density g cm <sup>-3</sup> | Solubility g/100 g H <sub>2</sub> O | Qualitative solubility                          |
|------|---|---|-------------|-------------|-------------------------|-------------------------|---------|----------------------------|-------------------------------------|---|
| 1763 | Mercury(II) chloride                                | HgCl <sub>2</sub>   | 7487-94-7   | 271.50      | wh orth cry             | 277                     | 304     | 5.6                        | 7.31 <sup>25</sup>                  | sl bz; s EtOH, MeOH, ace, eth                   |
| 1764 | Mercury(II) chromate                                | HgCrO <sub>4</sub>  | 13444-75-2  | 316.58      | red monocl cry          |                         |         | 6.06                       |                                     | sl H <sub>2</sub> O                             |
| 1765 | Mercury(II) cyanide                                 | Hg(CN) <sub>2</sub>   | 592-04-1    | 252.62      | col tetr cry            | 320 dec                 |         | 4.00                       | 11.4 <sup>25</sup>                  | s EtOH; sl eth                                  |
| 1766 | Mercury(II) dichromate                              | HgCr <sub>2</sub> O <sub>7</sub>                                | 7789-10-8   | 416.58      | red cry powder          |                         |         |                            |                                     | i H <sub>2</sub> O; s acid                      |
| 1767 | Mercury(II) fluoride                                | HgF <sub>2</sub>  | 7783-39-3   | 238.59      | wh cub cry; hyg         | 645 dec                 |         | 8.95                       |                                     | reac H <sub>2</sub> O                           |
| 1768 | Mercury(II) fulminate                               | Hg(CNO) <sub>2</sub>  | 628-86-4    | 284.62      | gray cry                | exp                     |         | 4.42                       |                                     | sl H <sub>2</sub> O; s EtOH, NH <sub>4</sub> OH |
| 1769 | Mercury(II) hydrogen arsenate                       | HgHAsO <sub>4</sub>   | 7784-37-4   | 340.52      | yel powder              |                         |         |                            |                                     | i H <sub>2</sub> O; s acid                      |
| 1770 | Mercury(II) iodate                                  | Hg(IO <sub>3</sub> ) <sub>2</sub>                               | 7783-32-6   | 550.40      | wh powder               | 175 dec                 |         |                            |                                     | i H <sub>2</sub> O                              |
| 1771 | Mercury(II) iodide (yellow)                         | HgI <sub>2</sub>  | 7774-29-0   | 454.40      | yel tetr cry or powder  | 256                     | 351     | 6.28                       | 0.0055 <sup>25</sup>                | sl EtOH, ace, eth                               |
| 1772 | Mercury(II) iodide (red)                            | HgI <sub>2</sub>  | 7774-29-0   | 454.40      | red pow                 | trans to yel<br>127     |         |                            | 0.006 <sup>25</sup>                 | sl EtOH, ace, eth, chl                          |
| 1773 | Mercury(II) nitrate                                 | Hg(NO <sub>3</sub> ) <sub>2</sub>                               | 10045-94-0  | 324.60      | col hyg cry             | 79                      |         | 4.3                        |                                     | s H <sub>2</sub> O; i EtOH                      |
| 1774 | Mercury(II) nitrate monohydrate                     | Hg(NO <sub>3</sub> ) <sub>2</sub> · H <sub>2</sub> O            | 7783-34-8   | 342.62      | wh-yel hyg cry          |                         |         | 4.3                        |                                     | s H <sub>2</sub> O, dil acid                    |
| 1775 | Mercury(II) nitrate dihydrate                       | Hg(NO <sub>3</sub> ) <sub>2</sub> · 2H <sub>2</sub> O           | 22852-67-1  | 360.63      | monocl cry              |                         |         | 4.78                       |                                     | s H <sub>2</sub> O                              |
| 1776 | Mercury(II) oxalate                                 | HgC <sub>2</sub> O <sub>4</sub>                                 | 3444-13-1   | 288.61      | powder                  | 165 dec                 |         |                            |                                     | i H <sub>2</sub> O                              |
| 1777 | Mercury(II) oxide                                   | HgO   | 21908-53-2  | 216.59      | red or yel orth cry     | 500 dec                 |         | 11.14                      |                                     | i H <sub>2</sub> O, EtOH; s dil acid            |
| 1778 | Mercury(II) oxide sulfate                           | (Hg <sub>2</sub> O) <sub>2</sub> SO <sub>4</sub>                | 1312-03-4   | 729.83      | yel powder              |                         |         |                            |                                     | i H <sub>2</sub> O; s acid                      |
| 1779 | Mercury(II) oxycyanide                              | Hg(CN) <sub>2</sub> · HgO                                       | 1335-31-5   | 469.21      | wh orth cry             | exp                     |         | 4.44                       | 11.4 <sup>25</sup>                  |   |
| 1780 | Mercury(II) perchlorate trihydrate                  | Hg(ClO <sub>4</sub> ) <sub>2</sub> · 3H <sub>2</sub> O          | 7616-83-3   | 453.54      | cry                     |                         |         |                            |                                     |   |
| 1781 | Mercury(II) phosphate                               | Hg <sub>3</sub> (PO <sub>4</sub> ) <sub>2</sub>                 | 7782-66-3   | 791.71      | wh-yel powder           |                         |         |                            |                                     | i H <sub>2</sub> O, EtOH; s acid                |
| 1782 | Mercury(II) selenide                                | HgSe  | 20601-83-6  | 279.55      | gray cub cry            |                         | subl    | 8.21                       |                                     | i H <sub>2</sub> O                              |
| 1783 | Mercury(II) sulfate                                 | HgSO <sub>4</sub>   | 7783-35-9   | 296.65      | wh monocl cry           |                         |         | 6.47                       |                                     | reac H <sub>2</sub> O                           |
| 1784 | Mercury(II) sulfide (black)                         | HgS   | 1344-48-5   | 232.66      | blk cub cry or powder   | 850                     |         | 7.70                       |                                     | i H <sub>2</sub> O; s acid, EtOH                |
| 1785 | Mercury(II) sulfide (red)                           | HgS   | 1344-48-5   | 232.66      | red hex cry             | trans to blk<br>HgS 344 |         | 8.17                       |                                     | i H <sub>2</sub> O, acid; s aqua regia          |
| 1786 | Mercury(II) telluride                               | HgTe  | 12068-90-5  | 328.19      | gray cub cry            | 673                     |         | 8.63                       |                                     |   |
| 1787 | Mercury(II) thiocyanate                             | Hg(SCN) <sub>2</sub>  | 592-85-8    | 316.75      | monocl cry              | ~165 dec                |         | 3.71                       | 0.070 <sup>25</sup>                 | s dil HCl                                       |
| 1788 | Mercury(II) tungstate                               | HgWO <sub>4</sub>   | 37913-38-5  | 448.43      | yel cry                 | dec                     |         |                            |                                     | i H <sub>2</sub> O, EtOH                        |
| 1789 | Molybdenum  | Mo  | 7439-98-7   | 95.94       | gray-blk metal; cub     | 2623                    | 4639    | 10.2                       |                                     | i H <sub>2</sub> O, dil acid, alk               |
| 1790 | Molybdophosphoric acid                              | H <sub>3</sub> P(Mo <sub>3</sub> O <sub>10</sub> ) <sub>4</sub> | 51429-74-4  | 1825.25     | bright yel cry          |                         |         |                            |                                     |   |
| 1791 | Molybdenum boride (Mo <sub>2</sub> B)               | Mo <sub>2</sub> B   | 12006-99-4  | 202.69      | refrac tetr cry         | 2000                    |         | 9.2                        |                                     |   |
| 1792 | Molybdenum boride (Mo <sub>2</sub> B <sub>5</sub> ) | Mo <sub>2</sub> B <sub>5</sub>                                  | 12007-97-5  | 245.94      | refrac hex cry          | 1600                    |         | ~7.2                       |                                     |   |
| 1793 | Molybdenum carbide (MoC)                            | MoC   | 12011-97-1  | 107.95      | refrac solid; cub       | 2577                    |         |                            |                                     |   |
| 1794 | Molybdenum carbide (Mo <sub>2</sub> C)              | Mo <sub>2</sub> C   | 12069-89-5  | 203.89      | gray orth cry           | 2687                    |         | 9.18                       |                                     |   |
| 1795 | Molybdenum carbonyl                                 | Mo(CO) <sub>6</sub>   | 13939-06-5  | 264.00      | wh orth cry             | 148                     | 155 dec | 1.96                       |                                     | i H <sub>2</sub> O; s bz; sl eth                |
| 1796 | Molybdenum nitride (MoN)                            | MoN   | 12033-19-1  | 109.95      | hex cry                 | 1750                    |         | 9.20                       |                                     |   |
| 1797 | Molybdenum nitride (Mo <sub>2</sub> N)              | Mo <sub>2</sub> N   | 12033-31-7  | 205.89      | gray cub cry            | 790 dec                 |         | 9.46                       |                                     |   |
| 1798 | Molybdenum phosphide                                | MoP   | 12163-69-8  | 126.91      | blk hex cry             |                         |         | 7.34                       |                                     |   |
| 1799 | Molybdenum silicide (MoSi <sub>2</sub> )            | MoSi <sub>2</sub>   | 12136-78-6  | 152.11      | gray tetr cry           | ~1900                   |         | 6.2                        |                                     | i H <sub>2</sub> O; s HF                        |
| 1800 | Molybdenum(II) bromide                              | MoBr <sub>2</sub>   | 13446-56-5  | 255.75      | yel-red cry             | dec 700                 |         | 4.88                       |                                     | i H <sub>2</sub> O, EtOH                        |
| 1801 | Molybdenum(II) chloride                             | MoCl <sub>2</sub>   | 13478-17-6  | 166.85      | yel cry                 | dec 500                 |         | 3.71                       |                                     | i H <sub>2</sub> O                              |
| 1802 | Molybdenum(II) iodide                               | MoI <sub>2</sub>  | 14055-74-4  | 349.75      | blk hyg cry             | 700                     |         | 5.28                       |                                     | i H <sub>2</sub> O                              |
| 1803 | Molybdenum(III) bromide                             | MoBr <sub>3</sub>   | 13446-57-6  | 335.65      | grn hex cry             | dec 500                 |         | 4.89                       |                                     | i H <sub>2</sub> O, EtOH                        |
| 1804 | Molybdenum(III) chloride                            | MoCl <sub>3</sub>   | 13478-18-7  | 202.30      | dark red monocl cry     | dec 400                 |         | 3.74                       |                                     | i H <sub>2</sub> O, os                          |
| 1805 | Molybdenum(III) fluoride                            | MoF <sub>3</sub>  | 20193-58-2  | 152.94      | yel-brn hex cry         | >600                    |         | 4.64                       |                                     | i H <sub>2</sub> O                              |
| 1806 | Molybdenum(III) iodide                              | MoI <sub>3</sub>  | 14055-75-5  | 476.65      | blk solid               | 927                     |         |                            |                                     | i H <sub>2</sub> O                              |
| 1807 | Molybdenum(III) oxide                               | Mo <sub>2</sub> O <sub>3</sub>                                  | 1313-29-7   | 239.88      | gray-blk powder         |                         |         |                            |                                     | i H <sub>2</sub> O; sl acid                     |
| 1808 | Molybdenum(IV) bromide                              | MoBr <sub>4</sub>   | 13520-59-7  | 415.56      | blk cry                 | dec 110                 |         |                            |                                     | reac H <sub>2</sub> O                           |
| 1809 | Molybdenum(IV) chloride                             | MoCl <sub>4</sub>   | 13320-71-3  | 237.75      | blk cry                 | 317                     |         |                            |                                     | reac H <sub>2</sub> O, sl chl; i eth, bz        |
| 1810 | Molybdenum(IV) fluoride                             | MoF <sub>4</sub>  | 23412-45-5  | 171.93      | grn cry                 | dec                     |         |                            |                                     | reac H <sub>2</sub> O                           |
| 1811 | Molybdenum(IV) iodide                               | MoI <sub>4</sub>  | 14055-76-6  | 603.56      | blk cry                 | dec 100                 |         |                            |                                     | i H <sub>2</sub> O                              |
| 1812 | Molybdenum(IV) oxide                                | MoO <sub>3</sub>  | 18868-43-4  | 127.94      | brn-viol tetr cry       | ~1800 dec               |         | 6.47                       |                                     | i H <sub>2</sub> O, acid, alk                   |
| 1813 | Molybdenum(IV) selenide                             | MoSe <sub>2</sub>   | 12058-18-3  | 253.86      | gray hex cry            | >1200                   |         | 6.90                       |                                     |   |
| 1814 | Molybdenum(IV) sulfide                              | MoS <sub>2</sub>  | 1317-33-5   | 160.07      | blk powder or hex cry   | 1750                    |         | 5.06                       |                                     | i H <sub>2</sub> O; s conc acid                 |
| 1815 | Molybdenum(IV) telluride                            | MoTe <sub>2</sub>   | 12058-20-7  | 351.14      | gray hex cry            |                         |         | 7.7                        |                                     |   |
| 1816 | Molybdenum(V) chloride                              | MoCl <sub>5</sub>   | 10241-05-1  | 273.21      | grn-blk monocl cry; hyg | 194                     | 268     | 2.93                       |                                     | reac H <sub>2</sub> O; s EtOH, eth              |
| 1817 | Molybdenum(V) fluoride                              | MoF <sub>5</sub>  | 13819-84-6  | 190.93      | yel monocl cry          | 67                      | 213.6   | 3.5                        |                                     | reac H <sub>2</sub> O                           |
| 1818 | Molybdenum(V) oxytrichloride                        | MoOCl <sub>3</sub>  | 13814-74-9  | 218.30      | blk monocl cry          | 310                     | subl    |                            |                                     | reac H <sub>2</sub> O                           |
| 1819 | Molybdenum(VI) acid monohydrate                     | H <sub>2</sub> MoO <sub>4</sub> · H <sub>2</sub> O              | 7782-91-4   | 179.97      | wh powder               |                         |         | 3.1                        |                                     | sl H <sub>2</sub> O; s alk                      |

| No.  | Name                                     | Formula   | CAS Reg No. | Mol. weight | Physical form              | mp/°C                | bp/°C          | Density g cm <sup>-3</sup> | Solubility g/100 g H <sub>2</sub> O | Qualitative solubility                                |
|------|--|---|-------------|-------------|----------------------------|----------------------|----------------|----------------------------|-------------------------------------|---|
| 1820 | Molybdenum(VI) dioxydichloride           | MoO <sub>2</sub> Cl <sub>2</sub>  | 13637-68-8  | 198.85      | yel-oran solid             | 176                  | 250            | 3.31                       |                                     | reac H <sub>2</sub> O                                 |
| 1821 | Molybdenum(VI) dioxydifluoride           | MoO <sub>2</sub> F <sub>2</sub>   | 13824-57-2  | 165.94      | pale lilac cry             | subl 270             |                | 3.5                        |                                     | i MeCN, chl; sl HF                                    |
| 1822 | Molybdenum(VI) fluoride                  | MoF <sub>6</sub>  | 7783-77-9   | 209.93      | wh cub cry or col liq; hyg | 17.5                 | 34.0           | 2.54                       |                                     | reac H <sub>2</sub> O; vs hex, ctc                    |
| 1823 | Molybdenum(VI) metaphosphate             | Mo(PO <sub>3</sub> ) <sub>6</sub>   | 133863-98-6 | 569.77      | yel powder                 |                      |                | 3.28                       |                                     | i H <sub>2</sub> O, acid                              |
| 1824 | Molybdenum(VI) oxide                     | MoO <sub>3</sub>  | 1313-27-5   | 143.94      | wh-yel rhomb cry           | 802                  | 1155           | 4.70                       | 0.14 <sup>20</sup>                  | sl H <sub>2</sub> O; s alk, acid                      |
| 1825 | Molybdenum(VI) oxytetrachloride          | MoOCl <sub>4</sub>  | 13814-75-0  | 253.75      | grn hyg powder             | 105                  | 159            |                            |                                     |   |
| 1826 | Molybdenum(VI) oxytetrafluoride          | MoOF <sub>4</sub>   | 14459-59-7  | 187.93      | volatile solid             | 97.2                 | 186.0          |                            |                                     |   |
| 1827 | Molybdenum(VI) sulfide                   | MoS <sub>3</sub>  | 12033-29-3  | 192.14      | blk solid                  | 350 dec              |                |                            |                                     | i H <sub>2</sub> O, os                                |
| 1828 | Neodymium                                | Nd  | 7440-00-8   | 144.242     | silv metal; hex            | 1016                 | 3074           | 7.01                       |                                     |   |
| 1829 | Neodymium boride                         | NdB <sub>6</sub>  | 12008-23-0  | 209.108     | blk cub cry                | 2610                 |                | 4.93                       |                                     |   |
| 1830 | Neodymium nitride                        | NdN   | 25764-11-8  | 158.249     | blk cub cry                |                      |                | 7.69                       |                                     |   |
| 1831 | Neodymium(II) acetate                    | Nd(C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> ) <sub>2</sub>                        | 6192-13-8   | 321.373     | red-purp cry               |                      |                |                            |                                     | s H <sub>2</sub> O                                    |
| 1832 | Neodymium(II) chloride                   | NdCl <sub>2</sub>   | 25469-93-6  | 215.148     | grn hyg solid              | 841                  |                |                            |                                     |   |
| 1833 | Neodymium(III) bromate nonahydrate       | Nd(BrO <sub>3</sub> ) <sub>3</sub> · 9H <sub>2</sub> O                                | 15162-92-2  | 690.086     | red hex cry                | 66 dec               |                |                            |                                     |   |
| 1834 | Neodymium(III) bromide                   | NdBr <sub>3</sub>   | 13536-80-6  | 383.954     | viol orth cry; hyg         | 682                  | 1540           | 5.3                        |                                     | s H <sub>2</sub> O                                    |
| 1835 | Neodymium(III) chloride                  | NdCl <sub>3</sub>   | 10024-93-8  | 250.601     | viol hex cry               | 759                  | 1600           | 4.13                       | 100 <sup>25</sup>                   | vs EtOH; i eth, chl                                   |
| 1836 | Neodymium(III) chloride hexahydrate      | NdCl <sub>3</sub> · 6H <sub>2</sub> O   | 13477-89-9  | 358.692     | purp cry                   | 124 dec              |                | 2.3                        | 100 <sup>25</sup>                   | s EtOH  |
| 1837 | Neodymium(III) fluoride                  | NdF <sub>3</sub>  | 13709-42-7  | 201.237     | viol hex cry; hyg          | 1377                 | 2300           | 6.51                       |                                     | i H <sub>2</sub> O                                    |
| 1838 | Neodymium(III) hydroxide                 | Nd(OH) <sub>3</sub>   | 16469-17-3  | 195.264     | blue solid                 | dec 210              |                |                            |                                     | i H <sub>2</sub> O                                    |
| 1839 | Neodymium(III) iodide                    | NdI <sub>3</sub>  | 13813-24-6  | 524.955     | grn orth cry; hyg          | 787                  |                | 5.85                       |                                     | s H <sub>2</sub> O                                    |
| 1840 | Neodymium(III) nitrate                   | Nd(NO <sub>3</sub> ) <sub>3</sub>   | 10045-95-1  | 330.257     | viol hyg. cry              |                      |                |                            | 152 <sup>25</sup>                   | s EtOH  |
| 1841 | Neodymium(III) nitrate hexahydrate       | Nd(NO <sub>3</sub> ) <sub>3</sub> · 6H <sub>2</sub> O                                 | 14517-29-4  | 438.348     | purp hyg cry               |                      |                |                            | 152 <sup>25</sup>                   | s EtOH, ace   |
| 1842 | Neodymium(III) oxide                     | Nd <sub>2</sub> O <sub>3</sub>  | 1313-97-9   | 336.482     | blue hex cry; hyg          | 2233                 | 3760           | 7.24                       |                                     | i H <sub>2</sub> O; s dil acid                        |
| 1843 | Neodymium(III) sulfate                   | Nd <sub>2</sub> (SO <sub>4</sub> ) <sub>3</sub>                                       | 13477-91-3  | 576.672     | pink needles               | ≈700 dec             |                |                            | 7.1 <sup>20</sup>                   |   |
| 1844 | Neodymium(III) sulfate octahydrate       | Nd <sub>2</sub> (SO <sub>4</sub> ) <sub>3</sub> · 8H <sub>2</sub> O                   | 13477-91-3  | 720.794     | red cry                    | 350 dec              |                | 2.85                       |                                     | sl H <sub>2</sub> O                                   |
| 1845 | Neodymium(III) sulfide                   | Nd <sub>2</sub> S <sub>3</sub>  | 12035-32-4  | 384.679     | orth cry                   | 2207                 |                | 5.46                       |                                     |   |
| 1846 | Neodymium(III) telluride                 | Nd <sub>2</sub> Te <sub>3</sub>   | 12035-35-7  | 671.28      | gray orth cry              | 1377                 |                | 7.0                        |                                     |   |
| 1847 | Neodymium(III) tris(cyclopentadienyl)    | Nd(C <sub>5</sub> H <sub>5</sub> ) <sub>3</sub>                                       | 1273-98-9   | 339.522     | red-blue cry               | 380                  |                |                            |                                     | s thf   |
| 1848 | Neon                                     | Ne  | 7440-01-9   | 20.180      | col gas                    | -248.609 tp (43 kPa) | -246.053       | 0.825 g/L                  |                                     | sl H <sub>2</sub> O                                   |
| 1849 | Neptunium                                | Np  | 7439-99-8   | 237         | silv metal                 | 644                  |                | 20.2                       |                                     | s HCl   |
| 1850 | Neptunium(IV) oxide                      | NpO <sub>2</sub>  | 12035-79-9  | 269         | grn cub cry                | 2547                 |                | 11.1                       |                                     |   |
| 1851 | Nickel                                   | Ni  | 7440-02-0   | 58.693      | wh metal; cub              | 1455                 | 2913           | 8.90                       |                                     | i H <sub>2</sub> O; sl dil acid                       |
| 1852 | Nickelocene                              | Ni(C <sub>2</sub> H <sub>2</sub> ) <sub>2</sub>                                       | 1271-28-9   | 188.879     | grn cry                    | 173                  |                |                            |                                     |   |
| 1853 | Nickel aluminide (NiAl)                  | NiAl  | 12003-78-0  | 85.675      | metallic solid             | 1638                 |                |                            |                                     |   |
| 1854 | Nickel antimonide                        | NiSb  | 12035-52-8  | 180.453     | hex cry                    | 1147                 |                | 8.74                       |                                     |   |
| 1855 | Nickel arsenide                          | NiAs  | 27016-75-7  | 133.615     | hex cry                    | 967                  |                | 7.77                       |                                     |   |
| 1856 | Nickel boride (NiB)                      | NiB   | 12007-00-0  | 69.504      | grn refrac solid           | 1035                 |                | 7.13                       |                                     |   |
| 1857 | Nickel boride (Ni <sub>2</sub> B)        | Ni <sub>2</sub> B   | 12007-01-1  | 128.198     | refrac solid               | 1125                 |                | 7.90                       |                                     |   |
| 1858 | Nickel boride (Ni <sub>3</sub> B)        | Ni <sub>3</sub> B   | 12007-02-2  | 186.891     | refrac solid               | 1166                 |                | 8.17                       |                                     |   |
| 1859 | Nickel carbonyl                          | Ni(CO) <sub>4</sub>   | 13463-39-3  | 170.734     | col liq                    | -19.3                | 42.1 (exp ≈60) | 1.31                       |                                     | i H <sub>2</sub> O; s EtOH, bz, ace, ctc              |
| 1860 | Nickel phosphide                         | Ni <sub>3</sub> P   | 12035-64-2  | 148.361     | hex cry                    | 1100                 |                | 7.33                       |                                     |   |
| 1861 | Nickel silicide (NiSi <sub>2</sub> )     | NiSi <sub>2</sub>   | 12201-89-7  | 114.864     | cub cry                    | 993                  |                | 4.83                       |                                     |   |
| 1862 | Nickel silicide (Ni <sub>2</sub> Si)     | Ni <sub>2</sub> Si  | 12059-14-2  | 145.473     | orth cry                   | 1255                 |                | 7.40                       |                                     |   |
| 1863 | Nickel subsulfide                        | Ni <sub>3</sub> S <sub>2</sub>  | 12035-72-2  | 240.210     | yel hex cry                | 789                  |                | 5.87                       |                                     |   |
| 1864 | Nickel(II) acetate tetrahydrate          | Ni(C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> ) <sub>2</sub> · 4H <sub>2</sub> O    | 6018-89-9   | 248.842     | grn monoc cry              | 250 dec              |                | 1.74                       | 16 <sup>20</sup>                    | s H <sub>2</sub> O, EtOH                              |
| 1865 | Nickel(II) ammonium chloride hexahydrate | NH <sub>4</sub> NiCl <sub>3</sub> · 6H <sub>2</sub> O                                 | 16122-03-5* | 291.182     | grn hyg cry                |                      |                | 1.65                       |                                     | s H <sub>2</sub> O                                    |
| 1866 | Nickel(II) ammonium sulfate              | Ni(NH <sub>4</sub> ) <sub>2</sub> (SO <sub>4</sub> ) <sub>2</sub>                     | 15699-18-0  | 286.895     | blue-grn cry               | dec 250              |                |                            |                                     | sl H <sub>2</sub> O                                   |
| 1867 | Nickel(II) ammonium sulfate hexahydrate  | Ni(NH <sub>4</sub> ) <sub>2</sub> (SO <sub>4</sub> ) <sub>2</sub> · 6H <sub>2</sub> O | 7785-20-8   | 394.987     | blue-grn cry               | dec 130              |                | 1.92                       | 6.5 <sup>20</sup>                   | s H <sub>2</sub> O; i EtOH                            |
| 1868 | Nickel(II) arsenate octahydrate          | Ni <sub>3</sub> (AsO <sub>4</sub> ) <sub>2</sub> · 8H <sub>2</sub> O                  | 7784-48-7   | 598.040     | yel-grn powder             | dec                  |                | 4.98                       |                                     | i H <sub>2</sub> O; s acid                            |
| 1869 | Nickel(II) bromide                       | NiBr <sub>2</sub>   | 13462-88-9  | 218.501     | yel hex cry; hyg           | 963                  | subl           | 5.10                       | 131 <sup>20</sup>                   |   |
| 1870 | Nickel(II) bromide trihydrate            | NiBr <sub>2</sub> · 3H <sub>2</sub> O   | 13462-88-9* | 272.547     | yel-grn hyg cry            | 200 dec              |                |                            |                                     | vs H <sub>2</sub> O; s EtOH, eth                      |
| 1871 | Nickel(II) carbonate                     | NiCO <sub>3</sub>   | 3333-67-3   | 118.702     | grn rhomb cry              |                      |                | 4.389                      | 0.0043 <sup>20</sup>                | s dil acid  |
| 1872 | Nickel(II) chlorate hexahydrate          | Ni(ClO <sub>3</sub> ) <sub>2</sub> · 6H <sub>2</sub> O                                | 13477-94-6  | 333.687     | grn cub cry                | dec 80               |                | 2.07                       |                                     | vs H <sub>2</sub> O                                   |
| 1873 | Nickel(II) chloride                      | NiCl <sub>2</sub>   | 7718-54-9   | 129.599     | yel hex cry; hyg           | 1031                 | 985 sp         | 3.51                       | 67.5 <sup>25</sup>                  | s EtOH  |
| 1874 | Nickel(II) chloride hexahydrate          | NiCl <sub>2</sub> · 6H <sub>2</sub> O   | 7791-20-0   | 237.690     | grn monoc cry              |                      |                |                            | 67.5 <sup>25</sup>                  | s EtOH  |
| 1875 | Nickel(II) chromate                      | NiCrO <sub>4</sub>  | 14721-18-7  | 174.687     | red solid                  |                      |                |                            |                                     | sl H <sub>2</sub> O                                   |
| 1876 | Nickel(II) cyanide tetrahydrate          | Ni(CN) <sub>2</sub> · 4H <sub>2</sub> O   | 13477-95-7  | 182.789     | grn plates                 | 200 dec              |                |                            |                                     | i H <sub>2</sub> O; sl dil acid; s NH <sub>4</sub> OH |
| 1877 | Nickel(II) fluoride                      | NiF <sub>2</sub>  | 10028-18-9  | 96.690      | yel tet cry                | 1380                 |                | 4.7                        | 2.56 <sup>25</sup>                  | i EtOH, eth   |
| 1878 | Nickel(II) fluoride tetrahydrate         | NiF <sub>2</sub> · 4H <sub>2</sub> O  | 13940-83-5  | 168.752     | grn pow                    |                      |                |                            |                                     | sl H <sub>2</sub> O                                   |

| No.  | Name                                | Formula   | CAS Reg No. | Mol. weight | Physical form         | mp/°C    | bp/°C    | Density g cm <sup>-3</sup> | Solubility g/100 g H <sub>2</sub> O | Qualitative solubility                          |
|------|-------------------------------------|---|-------------|-------------|-----------------------|----------|----------|----------------------------|-------------------------------------|---|
| 1879 | Nickel(II) hydroxide                | Ni(OH) <sub>2</sub>   | 12054-48-7  | 92.708      | grn hex cry           | 230 dec  |          | 4.1                        | 0.00015 <sup>20</sup>               |   |
| 1880 | Nickel(II) hydroxide monohydrate    | Ni(OH) <sub>2</sub> · H <sub>2</sub> O                              | 36897-37-7  | 110.723     | grn powder            |          |          |                            | 0.00015 <sup>20</sup>               | s dil acid                                      |
| 1881 | Nickel(II) iodate                   | Ni(IO <sub>3</sub> ) <sub>2</sub>                                   | 13477-98-0  | 408.498     | yel needles           |          |          | 5.07                       | 1.1 <sup>30</sup>                   | sl H <sub>2</sub> O                             |
| 1882 | Nickel(II) iodate tetrahydrate      | Ni(IO <sub>3</sub> ) <sub>2</sub> · 4H <sub>2</sub> O               | 13477-99-1  | 480.560     | yel hex cry           | dec 100  |          | 5.07                       |                                     | sl H <sub>2</sub> O                             |
| 1883 | Nickel(II) iodide                   | NiI <sub>2</sub>  | 13462-90-3  | 312.502     | blk hex cry; hyg      | 800      | subl     | 5.22                       | 154 <sup>25</sup>                   |   |
| 1884 | Nickel(II) iodide hexahydrate       | NiI <sub>2</sub> · 6H <sub>2</sub> O                                | 7790-34-3   | 420.593     | grn monocl cry; hyg   |          |          |                            | 154 <sup>25</sup>                   | vs EtOH   |
| 1885 | Nickel(II) nitrate                  | Ni(NO <sub>3</sub> ) <sub>2</sub>                                   | 13138-45-9  | 182.702     | grn cry               |          |          |                            | 99.2 <sup>25</sup>                  | s EtOH  |
| 1886 | Nickel(II) nitrate hexahydrate      | Ni(NO <sub>3</sub> ) <sub>2</sub> · 6H <sub>2</sub> O               | 13478-00-7  | 290.794     | grn monocl cry; hyg   | 56 dec   |          | 2.05                       | 99.2 <sup>25</sup>                  | s EtOH  |
| 1887 | Nickel(II) oxalate dihydrate        | NiC <sub>2</sub> O <sub>4</sub> · 2H <sub>2</sub> O                 | 6018-94-6   | 182.742     | grn-wh solid          | dec 150  |          |                            | 0.0012 <sup>25</sup>                | i H <sub>2</sub> O; s acid, NH <sub>4</sub> OH  |
| 1888 | Nickel(II) oxide                    | NiO   | 1313-99-1   | 74.692      | grn cub cry           | 1957     |          | 6.72                       |                                     | i H <sub>2</sub> O; s acid                      |
| 1889 | Nickel(II) perchlorate hexahydrate  | Ni(ClO <sub>4</sub> ) <sub>2</sub> · 6H <sub>2</sub> O              | 13637-71-3* | 365.686     | grn hex needles       | 140      |          |                            | 158.8 <sup>25</sup>                 | s EtOH, ace                                     |
| 1890 | Nickel(II) phosphate octahydrate    | Ni <sub>3</sub> (PO <sub>4</sub> ) <sub>2</sub> · 8H <sub>2</sub> O | 10381-36-9* | 510.145     | grn plates            |          |          |                            |                                     | s acid  |
| 1891 | Nickel(II) selenate hexahydrate     | NiSeO <sub>4</sub> · 6H <sub>2</sub> O                              | 15060-62-5* | 309.74      | grn tetr cry          |          |          | 2.314                      | 35.5 <sup>20</sup>                  |   |
| 1892 | Nickel(II) selenide                 | NiSe  | 1314-05-2   | 137.65      | yel-grn hex cry       | 980      |          | 7.2                        |                                     |   |
| 1893 | Nickel(II) stannate dihydrate       | NiSnO <sub>3</sub> · 2H <sub>2</sub> O                              | 12035-38-0  | 261.432     | grn pow               | dec 120  |          |                            |                                     |   |
| 1894 | Nickel(II) sulfate                  | NiSO <sub>4</sub>   | 7786-81-4   | 154.756     | grn-yel orth cry      | 840 dec  |          | 4.01                       | 40.4 <sup>25</sup>                  |   |
| 1895 | Nickel(II) sulfate hexahydrate      | NiSO <sub>4</sub> · 6H <sub>2</sub> O                               | 10101-97-0  | 262.847     | blue-grn tetr cry     | ≈100 dec |          | 2.07                       | 40.4 <sup>25</sup>                  | sl EtOH   |
| 1896 | Nickel(II) sulfate heptahydrate     | NiSO <sub>4</sub> · 7H <sub>2</sub> O                               | 10101-98-1  | 280.862     | grn orth cry          |          |          | 1.98                       | 40.4 <sup>25</sup>                  | s EtOH  |
| 1897 | Nickel(II) sulfide                  | NiS   | 16812-54-7  | 90.758      | yel hex cry           | 976      |          | 5.5                        |                                     | i H <sub>2</sub> O                              |
| 1898 | Nickel(II) thiocyanate              | Ni(SCN) <sub>2</sub>  | 13689-92-4  | 174.857     | grn pwd               |          |          |                            | 55.0 <sup>25</sup>                  |   |
| 1899 | Nickel(II) titanate                 | NiTiO <sub>3</sub>  | 12035-39-1  | 154.558     | brn hex cry           |          |          | 5.0                        |                                     |   |
| 1900 | Nickel(II,III) sulfide              | Ni <sub>3</sub> S <sub>4</sub>                                      | 12137-12-1  | 304.340     | cub cry               | 995      |          | 4.77                       |                                     |   |
| 1901 | Nickel(III) oxide                   | Ni <sub>2</sub> O <sub>3</sub>                                      | 1314-06-3   | 165.385     | gray-blk cub cry      | ≈600 dec |          |                            |                                     | i H <sub>2</sub> O; s hot acid                  |
| 1902 | Niobium                             | Nb  | 7440-03-1   | 92.906      | gray metal; cub       | 2477     | 4744     | 8.57                       |                                     | i acid  |
| 1903 | Niobocene dichloride                | Nb(C <sub>2</sub> H <sub>5</sub> ) <sub>2</sub> Cl <sub>2</sub>     | 12793-14-5  | 293.998     | hyg blk cry           |          |          |                            |                                     | sl tol  |
| 1904 | Niobium boride (NbB)                | NbB   | 12045-19-1  | 103.717     | gray orth cry         | 2270     |          | 7.5                        |                                     |   |
| 1905 | Niobium boride (NbB <sub>2</sub> )  | NbB <sub>2</sub>  | 12007-29-3  | 114.528     | gray hex cry          | 3050     |          | 6.97                       |                                     |   |
| 1906 | Niobium carbide (NbC)               | NbC   | 12069-94-2  | 104.917     | gray cub cry          | 3608     | 4300     | 7.82                       |                                     | i H <sub>2</sub> O, acid                        |
| 1907 | Niobium carbide (Nb <sub>3</sub> C) | Nb <sub>3</sub> C   | 12011-99-3  | 197.824     | refrac hex cry        | 3080     |          | 7.8                        |                                     | i H <sub>2</sub> O                              |
| 1908 | Niobium nitride                     | NbN   | 24621-21-4  | 106.913     | gray cry; cub         | 2300     |          | 8.47                       |                                     | i HCl, acid                                     |
| 1909 | Niobium phosphide                   | NbP   | 12034-66-1  | 123.880     | tetr cry              |          |          | 6.5                        |                                     |   |
| 1910 | Niobium silicide                    | NbSi <sub>2</sub>   | 12034-80-9  | 149.077     | gray hex cry          | 1950     |          | 5.7                        |                                     |   |
| 1911 | Niobium(II) oxide                   | NbO   | 12034-57-0  | 108.905     | gray cub cry          | 1937     |          | 7.30                       |                                     |   |
| 1912 | Niobium(III) bromide                | NbBr <sub>3</sub>   | 15752-41-7  | 332.618     | dark brn solid        |          | subl 400 |                            |                                     |   |
| 1913 | Niobium(III) chloride               | NbCl <sub>3</sub>   | 13569-59-0  | 199.265     | blk solid             |          |          |                            |                                     |   |
| 1914 | Niobium(III) fluoride               | NbF <sub>3</sub>  | 15195-53-6  | 149.901     | blue cub cry          |          |          | 4.2                        |                                     |   |
| 1915 | Niobium(III) iodide                 | NbI <sub>3</sub>  | 13870-20-7  | 473.619     | blk solid             | dec 510  |          |                            |                                     |   |
| 1916 | Niobium(IV) bromide                 | NbBr <sub>4</sub>   | 13842-75-6  | 412.522     | dark brn cry          |          | subl 300 | 4.72                       |                                     | reac H <sub>2</sub> O                           |
| 1917 | Niobium(IV) chloride                | NbCl <sub>4</sub>   | 13569-70-5  | 234.718     | viol-blk monocl cry   | dec 800  | 275 subl | 3.2                        |                                     | reac H <sub>2</sub> O                           |
| 1918 | Niobium(IV) fluoride                | NbF <sub>4</sub>  | 13842-88-1  | 168.900     | blk tetr cry; hyg     | >350 dec |          | 4.01                       |                                     |   |
| 1919 | Niobium(IV) iodide                  | NbI <sub>4</sub>  | 13870-21-8  | 600.524     | gray orth cry         | 503      |          | 5.6                        |                                     | reac H <sub>2</sub> O                           |
| 1920 | Niobium(IV) oxide                   | NbO <sub>2</sub>  | 12034-59-2  | 124.905     | wh tetr cry or powder | 1901     |          | 5.9                        |                                     |   |
| 1921 | Niobium(IV) selenide                | NbSe <sub>2</sub>   | 12034-77-4  | 250.83      | gray hex cry          | >1300    |          | 6.3                        |                                     |   |
| 1922 | Niobium(IV) sulfide                 | NbS <sub>2</sub>  | 12136-97-9  | 157.036     | blk rhomb cry         |          |          | 4.4                        |                                     |   |
| 1923 | Niobium(IV) telluride               | NbTe <sub>2</sub>   | 12034-83-2  | 348.11      | hex cry               |          |          | 7.6                        |                                     |   |
| 1924 | Niobium(V) bromide                  | NbBr <sub>5</sub>   | 13478-45-0  | 492.426     | oran orth cry         | 265.2    | 361.6    | 4.36                       |                                     | s H <sub>2</sub> O, EtOH                        |
| 1925 | Niobium(V) chloride                 | NbCl <sub>5</sub>   | 10026-12-7  | 270.171     | yel monocl cry; hyg   | 205.8    | 247.4    | 2.78                       |                                     | reac H <sub>2</sub> O; s HCl, ctc               |
| 1926 | Niobium(V) dioxyfluoride            | NbO <sub>2</sub> F  | 15195-33-2  | 143.903     | wh cub cry            |          |          | 4.0                        |                                     |   |
| 1927 | Niobium(V) ethoxide                 | Nb(OC <sub>2</sub> H <sub>5</sub> ) <sub>5</sub>                    | 3236-82-6   | 318.209     | col hyg liq           | 5        | 203      | 1.258                      |                                     | reac H <sub>2</sub> O; s peth                   |
| 1928 | Niobium(V) fluoride                 | NbF <sub>5</sub>  | 7783-68-8   | 187.898     | col monocl cry; hyg   | 80       | 234      | 2.70                       |                                     | reac H <sub>2</sub> O; sl CS <sub>2</sub> , chl |
| 1929 | Niobium(V) iodide                   | NbI <sub>5</sub>  | 13779-92-5  | 727.428     | yel-blk monocl cry    | 327      |          | 5.32                       |                                     | reac H <sub>2</sub> O                           |
| 1930 | Niobium(V) oxide                    | Nb <sub>2</sub> O <sub>5</sub>                                      | 1313-96-8   | 265.810     | wh orth cry           | 1500     |          | 4.47                       |                                     | i H <sub>2</sub> O; s HF                        |
| 1931 | Niobium(V) oxybromide               | NbOBr <sub>3</sub>  | 14459-75-7  | 348.617     | yel-brn cry           | ≈320 dec | subl     |                            |                                     |   |
| 1932 | Niobium(V) oxychloride              | NbOCl <sub>3</sub>  | 13597-20-1  | 215.264     | wh tetr cry           |          | subl     | 3.72                       |                                     |   |
| 1933 | Nitrogen                            | N <sub>2</sub>  | 7727-37-9   | 28.013      | col gas               | -210.0   | -195.798 | 1.145 g/L                  |                                     | sl H <sub>2</sub> O; i EtOH                     |
| 1934 | Nitramide                           | NO <sub>2</sub> NH <sub>2</sub>                                     | 7782-94-7   | 62.028      | unstab wh cry         | 72 dec   |          |                            |                                     | s H <sub>2</sub> O, EtOH, ace, eth; i chl       |
| 1935 | Nitric acid                         | HNO <sub>3</sub>  | 7697-37-2   | 63.013      | col liq; hyg          | -41.6    | 83       | 1.5129 <sup>20</sup>       |                                     | vs H <sub>2</sub> O                             |
| 1936 | Nitrous acid                        | HNO <sub>2</sub>  | 7782-77-6   | 47.014      | stab only in soln     |          |          |                            |                                     |   |
| 1937 | Nitrous oxide                       | N <sub>2</sub> O  | 10024-97-2  | 44.012      | col gas               | -90.8    | -88.48   | 1.799 g/L                  |                                     | sl H <sub>2</sub> O; s EtOH, eth                |
| 1938 | Nitric oxide                        | NO  | 10102-43-9  | 30.006      | col gas               | -163.6   | -151.74  | 1.226 g/L                  |                                     | sl H <sub>2</sub> O                             |

| No.  | Name  | Formula  | CAS Reg No. | Mol. weight | Physical form                                     | mp/°C    | bp/°C                             | Density g cm <sup>-3</sup> | Solubility g/100 g H <sub>2</sub> O | Qualitative solubility                                |
|------|---|--|-------------|-------------|---|----------|-----------------------------------|----------------------------|-------------------------------------|---|
| 1939 | Nitrogen dioxide                            | NO <sub>2</sub>  | 10102-44-0  | 46.006      | brn gas; equil with N <sub>2</sub> O <sub>4</sub> |          | see N <sub>2</sub> O <sub>4</sub> | 1.880 g/L                  |                                     | reac H <sub>2</sub> O                                 |
| 1940 | Nitrogen trioxide                           | N <sub>2</sub> O <sub>3</sub>                                  | 10544-73-7  | 76.011      | blue solid or liq (low temp)                      | -101.1   | ≈3 dec                            | 1.4 <sup>2</sup>           |                                     | reac H <sub>2</sub> O                                 |
| 1941 | Nitrogen tetroxide                          | N <sub>2</sub> O <sub>4</sub>                                  | 10544-72-6  | 92.011      | col liq; equil with NO <sub>2</sub>               | -9.3     | 21.15                             | 1.45 <sup>20</sup>         |                                     | reac H <sub>2</sub> O                                 |
| 1942 | Nitrogen pentoxide                          | N <sub>2</sub> O <sub>5</sub>                                  | 10102-03-1  | 108.010     | col hex cry                                       |          | 33 sp                             | 2.0                        |                                     | s chl; sl ctc   |
| 1943 | Nitrogen tribromide                         | NBr <sub>3</sub>   | 15162-90-0  | 253.719     | unstab solid                                      | exp -100 |                                   |                            |                                     |   |
| 1944 | Nitrogen trichloride                        | NCl <sub>3</sub>   | 10025-85-1  | 120.366     | yel oily liq; exp                                 | -40      | 71                                | 1.653                      |                                     | i H <sub>2</sub> O; s CS <sub>2</sub> , bz, ctc       |
| 1945 | Nitrogen trifluoride                        | NF <sub>3</sub>  | 7783-54-2   | 71.002      | col gas   | -206.79  | -128.75                           | 2.902 g/L                  |                                     | i H <sub>2</sub> O                                    |
| 1946 | Nitrogen triiodide                          | NI <sub>3</sub>  | 13444-85-4  | 394.720     | unstab blk cry; exp                               |          |                                   |                            |                                     |   |
| 1947 | Nitrogen chloride difluoride                | NClF <sub>2</sub>  | 13637-87-1  | 87.457      | col gas   | -195     | -67                               | 3.575 g/L                  |                                     |   |
| 1948 | Chloramine                                  | NH <sub>2</sub> Cl   | 10599-90-3  | 51.476      | yel liq   | -66      |                                   |                            |                                     | s H <sub>2</sub> O, EtOH, eth; sl bz, ctc             |
| 1949 | Fluoramine                                  | NHF  | 15861-05-9  | 35.021      | unstab gas  | ≈-110    |                                   | 1.431 g/L                  |                                     |   |
| 1950 | Difluoramine                                | NHF <sub>2</sub>   | 10405-27-3  | 53.012      | col gas   | -116     | -23                               | 2.167 g/L                  |                                     |   |
| 1951 | <i>cis</i> -Difluorodiazine                 | N <sub>2</sub> F <sub>2</sub>                                  | 13812-43-6  | 66.010      | col gas   | <-195    | -105.75                           | 2.698 g/L                  |                                     |   |
| 1952 | <i>trans</i> -Difluorodiazine               | N <sub>2</sub> F <sub>2</sub>                                  | 13776-62-0  | 66.010      | col gas   | -172     | -111.45                           | 2.698 g/L                  |                                     |   |
| 1953 | Tetrafluorohydrazine                        | N <sub>2</sub> F <sub>4</sub>                                  | 10036-47-2  | 104.007     | col gas   | -164.5   | -74                               | 4.251 g/L                  |                                     |   |
| 1954 | Nitrosyl bromide                            | NOBr   | 13444-87-6  | 109.910     | red gas   | -56      | ≈0                                | 4.492 g/L                  |                                     | reac H <sub>2</sub> O                                 |
| 1955 | Nitrosyl chloride                           | NOCl   | 2696-92-6   | 65.459      | yel gas   | -59.6    | -5.5                              | 2.676 g/L                  |                                     | reac H <sub>2</sub> O                                 |
| 1956 | Nitrosyl fluoride                           | NOF  | 7789-25-5   | 49.004      | col gas   | -132.5   | -59.9                             | 2.003 g/L                  |                                     |   |
| 1957 | Trifluoramine oxide                         | NOF <sub>3</sub>   | 13847-65-9  | 87.001      | col gas   | -161     | -87.5                             | 3.556 g/L                  |                                     |   |
| 1958 | Nitryl chloride                             | NO <sub>2</sub> Cl   | 13444-90-1  | 81.459      | col gas   | -145     | -15                               | 3.330 g/L                  |                                     |   |
| 1959 | Nitryl fluoride                             | NO <sub>2</sub> F  | 10022-50-1  | 65.004      | col gas   | -166     | -72.4                             | 2.657 g/L                  |                                     | reac H <sub>2</sub> O                                 |
| 1960 | Nitrogen selenide                           | N <sub>2</sub> Se <sub>4</sub>                                 | 12033-88-4  | 371.87      | red monocl cry; hyg                               | exp      |                                   | 4.2                        |                                     | i H <sub>2</sub> O, eth, EtOH; sl bz, CS <sub>2</sub> |
| 1961 | Nobelium                                    | No   | 10028-14-5  | 259.000     | metal   | 827      |                                   |                            |                                     |   |
| 1962 | Osmium                                      | Os   | 7440-04-2   | 190.23      | blue-wh metal; hex                                | 3033     | 5012                              | 22.587 <sup>20</sup>       |                                     | s aqua regia  |
| 1963 | Osmocene                                    | Os(C <sub>2</sub> H <sub>2</sub> ) <sub>2</sub>                | 1273-81-0   | 320.42      | col cry   | 229      |                                   |                            |                                     |   |
| 1964 | Osmium carbonyl                             | Os <sub>5</sub> (CO) <sub>12</sub>                             | 15696-40-9  | 906.81      | yel cry   | 224      |                                   | 3.48                       |                                     |   |
| 1965 | Osmium pentacarbonyl                        | Os(CO) <sub>5</sub>  | 16406-49-8  | 330.28      | col liq   | -15      | dec 100                           |                            |                                     | s os  |
| 1966 | Osmium nonacarbonyl                         | Os <sub>9</sub> (CO) <sub>9</sub>                              | 28411-13-4  | 632.55      | oran-yel cry                                      | 65 dec   |                                   |                            |                                     | s hc  |
| 1967 | Osmium(II) chloride                         | OsCl <sub>2</sub>  | 13444-92-3  | 261.14      | hyg brn solid                                     | dec >450 |                                   |                            |                                     | s EtOH, eth   |
| 1968 | Osmium(III) bromide                         | OsBr <sub>3</sub>  | 59201-51-3  | 429.94      | dark gray cry                                     | 340 dec  |                                   |                            |                                     | i H <sub>2</sub> O, os, acid                          |
| 1969 | Osmium(III) chloride                        | OsCl <sub>3</sub>  | 13444-93-4  | 296.59      | gray cub cry                                      | 450 dec  |                                   |                            |                                     | i H <sub>2</sub> O, os; s conc acid                   |
| 1970 | Osmium(IV) chloride                         | OsCl <sub>4</sub>  | 10026-01-4  | 332.04      | red-blk orth cry                                  | 323 dec  |                                   | 4.38                       |                                     | reac H <sub>2</sub> O; i os                           |
| 1971 | Osmium(IV) fluoride                         | OsF <sub>4</sub>   | 54120-05-7  | 266.22      | yel cry   | 230      |                                   |                            |                                     | reac H <sub>2</sub> O                                 |
| 1972 | Osmium(IV) oxide                            | OsO <sub>2</sub>   | 12036-02-1  | 222.23      | yel-brn tetr cry                                  | dec 500  |                                   | 11.4                       |                                     | i H <sub>2</sub> O, acid                              |
| 1973 | Osmium(V) fluoride                          | OsF <sub>5</sub>   | 31576-40-6  | 285.22      | hyg blue-grn cry                                  | 70       | 233                               |                            |                                     | reac H <sub>2</sub> O                                 |
| 1974 | Osmium(VI) fluoride                         | OsF <sub>6</sub>   | 13768-38-2  | 304.22      | yel cub cry                                       | 33.4     | 47.5                              | 4.1                        |                                     | reac H <sub>2</sub> O                                 |
| 1975 | Osmium(VI) tetrachloride oxide              | OsOCl <sub>4</sub>   | 36509-15-6  | 348.04      | dark brn hyg cry                                  | 32       | 200                               |                            |                                     | reac H <sub>2</sub> O; s hc                           |
| 1976 | Osmium(VIII) oxide                          | OsO <sub>4</sub>   | 20816-12-0  | 254.23      | yel monocl cry                                    | 40.6     | 131.2                             | 5.1                        | 6.44 <sup>20</sup>                  | i H <sub>2</sub> O; s ctc, bz, EtOH, eth              |
| 1977 | Oxygen                                      | O <sub>2</sub>   | 7782-44-7   | 31.999      | col gas   | -218.79  | -182.953                          | 1.308 g/L                  |                                     | sl H <sub>2</sub> O, EtOH, os                         |
| 1978 | Ozone                                       | O <sub>3</sub>   | 10028-15-6  | 47.998      | blue gas  | -193     | -111.35                           | 1.962 g/L                  |                                     | sl H <sub>2</sub> O                                   |
| 1979 | Palladium                                   | Pd   | 7440-05-3   | 106.42      | silv-wh metal; cub                                | 1554.8   | 2963                              | 12.0                       |                                     | s aqua regia  |
| 1980 | Palladium(II) acetate                       | Pd(C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> ) <sub>2</sub> | 3375-31-3   | 224.51      | oran-brn cry                                      | 205 dec  |                                   |                            |                                     | i H <sub>2</sub> O; s MeCN, eth, ace                  |
| 1981 | Palladium(II) bromide                       | PdBr <sub>2</sub>  | 13444-94-5  | 266.23      | red-blk monocl cry; hyg                           | 250 dec  |                                   | ≈5.2                       |                                     | i H <sub>2</sub> O                                    |
| 1982 | Palladium(II) chloride                      | PdCl <sub>2</sub>  | 7647-10-1   | 177.33      | red rhomb cry; hyg                                | 679      |                                   | 4.0                        |                                     | s H <sub>2</sub> O, EtOH, ace                         |
| 1983 | Palladium(II) chloride dihydrate            | PdCl <sub>2</sub> · 2H <sub>2</sub> O                          | 7647-10-1*  | 213.36      | brn cry   |          |                                   |                            |                                     | s H <sub>2</sub> O, EtOH, ace                         |
| 1984 | Palladium(II) cyanide                       | Pd(CN) <sub>2</sub>  | 2035-66-7   | 158.45      | yel solid   | dec      |                                   |                            |                                     |   |
| 1985 | Palladium(II) fluoride                      | PdF <sub>2</sub>   | 13444-96-7  | 144.42      | viol tetr cry; hyg                                | 952      |                                   | 5.76                       |                                     | reac H <sub>2</sub> O                                 |
| 1986 | Palladium(II) iodide                        | PdI <sub>2</sub>   | 7790-38-7   | 360.23      | blk cry   | 360 dec  |                                   | 6.0                        |                                     | i H <sub>2</sub> O, EtOH, eth                         |
| 1987 | Palladium(II) nitrate                       | Pd(NO <sub>3</sub> ) <sub>2</sub>                              | 10102-05-3  | 230.43      | brn hyg cry                                       | dec      |                                   |                            |                                     | sl H <sub>2</sub> O; s dil HNO <sub>3</sub>           |
| 1988 | Palladium(II) oxide                         | PdO  | 1314-08-5   | 122.42      | grn-blk tetr cry                                  | 750 dec  |                                   | 8.3                        |                                     | i H <sub>2</sub> O, acid; sl aqua regia               |
| 1989 | Palladium(II) 2,4-pentanedioate             | Pd(CH <sub>3</sub> COCHCOCH <sub>3</sub> ) <sub>2</sub>        | 14024-61-4  | 304.64      | oran-yel cry                                      | 205 dec  |                                   |                            |                                     | s bz, chl   |
| 1990 | Palladium(II) sulfate dihydrate             | PdSO <sub>4</sub> · 2H <sub>2</sub> O                          | 13566-03-5  | 238.51      | grn-brn cry                                       | dec      |                                   |                            |                                     |   |
| 1991 | Palladium(II) sulfide                       | PdS  | 12125-22-3  | 138.49      | gray tetr cry                                     |          |                                   | 6.7                        |                                     |   |
| 1992 | <i>cis</i> -Dichlorodiamminepalladium(II)   | Pd(NH <sub>3</sub> ) <sub>2</sub> Cl <sub>2</sub>              | 15684-18-1  | 211.39      | yel pow   |          |                                   |                            | 0.025 <sup>25</sup>                 |   |
| 1993 | <i>trans</i> -Dichlorodiamminepalladium(II) | Pd(NH <sub>3</sub> ) <sub>2</sub> Cl <sub>2</sub>              | 13782-33-7  | 211.39      | yel solid   |          |                                   | 2.50                       |                                     |   |

| No.  | Name  | Formula   | CAS Reg No. | Mol. weight | Physical form               | mp/°C    | bp/°C            | Density g cm <sup>-3</sup> | Solubility g/100 g H <sub>2</sub> O | Qualitative solubility                                  |
|------|---|---|-------------|-------------|-----------------------------|----------|------------------|----------------------------|-------------------------------------|---|
| 1994 | Phosphorus (white)                                  | P   | 7723-14-0   | 30.974      | col waxlike cub cry         | 44.15    | 280.5            | 1.823                      |                                     | i H <sub>2</sub> O; sl bz, EtOH, chl; s CS <sub>2</sub> |
| 1995 | Phosphorus (red)                                    | P   | 7723-14-0   | 30.974      | red-viol amorp powder       | 579.2    | 431 sp           | 2.16                       |                                     | i H <sub>2</sub> O, os                                  |
| 1996 | Phosphorus (black)                                  | P   | 7723-14-0   | 30.974      | blk orth cry or amorp solid | 610      |                  | 2.69                       |                                     | i os  |
| 1997 | Phosphine   | PH <sub>3</sub>                                 | 7803-51-2   | 33.998      | col gas; flam               | -133.8   | -87.75           | 1.390 g/L                  |                                     | i H <sub>2</sub> O; sl EtOH, eth                        |
| 1998 | Diphosphine   | P <sub>2</sub> H <sub>4</sub>                   | 13445-50-6  | 65.980      | col liq                     | -99      | 63.5 dec         |                            |                                     | reac H <sub>2</sub> O                                   |
| 1999 | Diphosphorus tetrachloride                          | P <sub>2</sub> Cl <sub>4</sub>                  | 13497-91-1  | 203.760     | col oily liq                | -28      | ≈180 dec         |                            |                                     |   |
| 2000 | Diphosphorus tetrafluoride                          | P <sub>2</sub> F <sub>4</sub>                   | 13824-74-3  | 137.942     | col gas                     | -86.5    | -6.2             | 5.638 g/L                  |                                     |   |
| 2001 | Diphosphorus tetraiodide                            | P <sub>2</sub> I <sub>4</sub>                   | 13455-00-0  | 569.566     | red tricl needles           | 125.5    | dec              | 3.89                       |                                     |   |
| 2002 | Phosphonium chloride                                | PH <sub>4</sub> Cl                              | 24567-53-1  | 70.459      | gas                         |          | -27 sp           | 2.880 g/L                  |                                     | reac H <sub>2</sub> O                                   |
| 2003 | Phosphonium iodide                                  | PH <sub>4</sub> I                               | 12125-09-6  | 161.910     | col tetr cry                | 18.5     | 62.5             | 2.86                       |                                     | reac H <sub>2</sub> O, EtOH                             |
| 2004 | Phosphoric acid                                     | H <sub>3</sub> PO <sub>4</sub>                  | 7664-38-2   | 97.995      | col visc liq                | 42.4     | 407              |                            | 548 <sup>20</sup>                   | s EtOH  |
| 2005 | Phosphotungstic acid                                | H <sub>3</sub> PW <sub>12</sub> O <sub>40</sub> | 12067-99-1  | 2880.05     | wh-yel cry                  | 89       |                  |                            |                                     | vs H <sub>2</sub> O; s EtOH, eth                        |
| 2006 | Phosphonic acid                                     | H <sub>3</sub> PO <sub>3</sub>                  | 13598-36-2  | 81.996      | wh hyg cry                  | 74.4     | 200              | 1.65                       | 309 <sup>9</sup>                    | vs EtOH   |
| 2007 | Phosphinic acid                                     | HPH <sub>2</sub> O <sub>2</sub>                 | 6303-21-5   | 65.997      | hyg cry or col oily liq     | 26.5     | 130              | 1.49                       |                                     | vs H <sub>2</sub> O, EtOH, eth                          |
| 2008 | Metaphosphoric acid                                 | HPO <sub>3</sub>                                | 37267-86-0  | 79.980      | gl solid; hyg               |          |                  |                            |                                     | sl H <sub>2</sub> O; s EtOH                             |
| 2009 | Hypophosphoric acid                                 | H <sub>4</sub> P <sub>2</sub> O <sub>6</sub>    | 7803-60-3   | 161.976     | col orth cry                | 73 dec   |                  |                            |                                     | vs H <sub>2</sub> O                                     |
| 2010 | Diphosphoric acid                                   | H <sub>4</sub> P <sub>2</sub> O <sub>7</sub>    | 2466-09-3   | 177.975     | wh cry                      | 71.5     |                  |                            | 709 <sup>23</sup>                   |   |
| 2011 | Difluorophosphoric acid                             | HPFO <sub>2</sub>                               | 13779-41-4  | 101.978     | col liq                     | ≈-94     | 110 dec          | 1.583                      |                                     | reac H <sub>2</sub> O                                   |
| 2012 | Hexafluorophosphoric acid                           | HPF <sub>6</sub>                                | 16940-81-1  | 145.972     | col oily liq                | 25 dec   |                  |                            |                                     | reac H <sub>2</sub> O                                   |
| 2013 | Fluorophosphonic acid                               | H <sub>2</sub> PFO <sub>3</sub>                 | 13537-32-1  | 99.986      | col visc liq                | <-70     |                  | 1.82                       |                                     | vs H <sub>2</sub> O                                     |
| 2014 | Phosphorus nitride (P <sub>3</sub> N <sub>3</sub> ) | P <sub>3</sub> N <sub>3</sub>                   | 12136-91-3  | 162.955     | yel-brn solid               | 800 dec  |                  |                            |                                     | i H <sub>2</sub> O; s os                                |
| 2015 | Phosphorus sesquisulfide                            | P <sub>4</sub> S <sub>3</sub>                   | 1314-85-8   | 220.090     | yel-grn orth cry            | 173      | 407              | 2.03                       |                                     | i H <sub>2</sub> O; s bz; vs CS <sub>2</sub>            |
| 2016 | Phosphorus heptasulfide                             | P <sub>4</sub> S <sub>7</sub>                   | 12037-82-0  | 348.350     | pale yel monocl cry         | 308      | 523              | 2.19                       |                                     | sl CS <sub>2</sub>                                      |
| 2017 | Phosphonitric chloride trimer                       | (PNCl <sub>2</sub> ) <sub>3</sub>               | 940-71-6    | 347.659     | wh hyg cry                  | 128.8    |                  | 1.98                       |                                     | reac H <sub>2</sub> O                                   |
| 2018 | Phosphorus(III) bromide                             | PBr <sub>3</sub>                                | 7789-60-8   | 270.686     | col liq                     | -41.5    | 173.2            | 2.8                        |                                     | reac H <sub>2</sub> O, EtOH; s ace, CS <sub>2</sub>     |
| 2019 | Phosphorus(III) dibromide fluoride                  | PBr <sub>2</sub> F                              | 15597-39-4  | 209.780     | col liq                     | -115     | 78.5             |                            |                                     |   |
| 2020 | Phosphorus(III) bromide difluoride                  | PBrF <sub>2</sub>                               | 15597-40-7  | 148.875     | col gas                     | -133.8   | -16.1            | 6.085 g/L                  |                                     |   |
| 2021 | Phosphorus(III) chloride                            | PCl <sub>3</sub>                                | 7719-12-2   | 137.333     | col liq                     | -93      | 76               | 1.574                      |                                     | reac H <sub>2</sub> O, EtOH; s bz, chl, eth             |
| 2022 | Phosphorus(III) dichloride fluoride                 | PCl <sub>2</sub> F                              | 15597-63-4  | 120.878     | col gas                     | -144     | 13.85            | 4.941 g/L                  |                                     |   |
| 2023 | Phosphorus(III) chloride difluoride                 | PClF <sub>2</sub>                               | 14335-40-1  | 104.424     | col gas                     | -164.8   | -47.3            | 4.268 g/L                  |                                     |   |
| 2024 | Phosphorus(III) fluoride                            | PF <sub>3</sub>                                 | 7783-55-3   | 87.969      | col gas                     | -151.5   | -101.8           | 3.596 g/L                  |                                     | reac H <sub>2</sub> O                                   |
| 2025 | Phosphorus(III) iodide                              | PI <sub>3</sub>                                 | 13455-01-1  | 411.687     | red-oran hex cry; hyg       | 61.2     | 227 dec          | 4.18                       |                                     | reac H <sub>2</sub> O; s EtOH                           |
| 2026 | Phosphorus(III) oxide                               | P <sub>2</sub> O <sub>3</sub>                   | 1314-24-5   | 109.946     | col monocl cry or liq       | 23.8     | 173              | 2.13                       |                                     | reac H <sub>2</sub> O                                   |
| 2027 | Tetraphosphorus(III) hexoxide                       | P <sub>4</sub> O <sub>6</sub>                   | 12440-00-5  | 219.891     | soft wh cry                 | 23.8     | 175.4            |                            |                                     |   |
| 2028 | Phosphorus(III) selenide                            | P <sub>2</sub> Se <sub>3</sub>                  | 1314-86-9   | 298.83      | oran-red cry                | 245      | ≈380             | 1.31                       |                                     | reac H <sub>2</sub> O; s bz, etc, CS <sub>2</sub> , ace |
| 2029 | Phosphorus(III) sulfide                             | P <sub>2</sub> S <sub>3</sub>                   | 12165-69-4  | 158.143     | yel solid                   | 290      | 490              |                            |                                     | reac H <sub>2</sub> O; s EtOH, eth, CS <sub>2</sub>     |
| 2030 | Phosphorus(V) bromide                               | PBr <sub>5</sub>                                | 7789-69-7   | 430.494     | yel orth cry, hyg           | ≈100 dec |                  | 3.61                       |                                     | reac H <sub>2</sub> O, EtOH; s CS <sub>2</sub> , etc    |
| 2031 | Phosphorus(V) tetrabromide fluoride                 | PBr <sub>4</sub> F                              |             | 369.588     | pale yel cry                | 87 dec   |                  |                            |                                     |   |
| 2032 | Phosphorus(V) dibromide trifluoride                 | PBr <sub>2</sub> F <sub>3</sub>                 | 13445-58-4  | 247.777     | yel-red liq                 | -20      | 15 dec           |                            |                                     |   |
| 2033 | Phosphorus(V) chloride                              | PCl <sub>5</sub>                                | 10026-13-8  | 208.239     | wh-yel tetr cry; hyg        | 167 tp   | 160 sp           | 2.1                        |                                     | reac H <sub>2</sub> O; s CS <sub>2</sub> , etc          |
| 2034 | Phosphorus(V) tetrachloride fluoride                | PCl <sub>4</sub> F                              | 13498-11-8  | 191.784     | col liq                     | -59      | 30 dec           |                            |                                     |   |
| 2035 | Phosphorus(V) trichloride difluoride                | PCl <sub>3</sub> F <sub>2</sub>                 | 13537-23-0  | 175.330     | col liq                     | -63      |                  |                            |                                     |   |
| 2036 | Phosphorus(V) dichloride trifluoride                | PCl <sub>2</sub> F <sub>3</sub>                 | 13454-99-4  | 158.875     | col gas                     | -125     | 7.1              | 6.494 g/L                  |                                     |   |
| 2037 | Phosphorus(V) chloride tetrafluoride                | PClF <sub>4</sub>                               | 13498-11-8  | 142.421     | col gas                     | -132     | -43.4            | 5.821 g/L                  |                                     |   |
| 2038 | Phosphorus(V) fluoride                              | PF <sub>5</sub>                                 | 7647-19-0   | 125.966     | col gas                     | -93.8    | -84.6            | 5.149 g/L                  |                                     | reac H <sub>2</sub> O                                   |
| 2039 | Phosphorus(V) oxide                                 | P <sub>2</sub> O <sub>5</sub>                   | 1314-56-3   | 141.945     | wh orth cry; hyg            | 562      | 605              | 2.30                       |                                     | reac H <sub>2</sub> O, EtOH                             |
| 2040 | Phosphorus(V) selenide                              | P <sub>2</sub> Se <sub>5</sub>                  | 1314-82-5   | 456.75      | blk-purp amorp solid        |          |                  |                            |                                     | reac hot H <sub>2</sub> O, etc; i CS <sub>2</sub>       |
| 2041 | Phosphorus(V) sulfide                               | P <sub>2</sub> S <sub>5</sub>                   | 1314-80-3   | 222.273     | grn-yel hyg cry             | 285      | 515              | 2.03                       |                                     | reac H <sub>2</sub> O; s CS <sub>2</sub>                |
| 2042 | Phosphonic difluoride                               | POF <sub>2</sub> H                              | 14939-34-5  | 85.978      | volatile liq                | >-120    | ≈60 (gas unstab) |                            |                                     |   |

| No.  | Name                                 | Formula  | CAS Reg No. | Mol. weight | Physical form           | mp/°C    | bp/°C    | Density g cm <sup>-3</sup> | Solubility g/100 g H <sub>2</sub> O | Qualitative solubility                                 |
|------|--------------------------------------|--|-------------|-------------|-------------------------|----------|----------|----------------------------|-------------------------------------|--|
| 2043 | Phosphoryl bromide                   | POBr <sub>3</sub>                                    | 7789-59-5   | 286.685     | faint oran plates       | 55       | 191.7    | 2.822                      |                                     | reac H <sub>2</sub> O; s bz, eth, chl                  |
| 2044 | Phosphoryl dibromide chloride        | POBr <sub>2</sub> Cl                                 | 13550-31-7  | 242.234     | yel solid               | 31       | 165      |                            |                                     |  |
| 2045 | Phosphoryl dibromide fluoride        | POBr <sub>2</sub> F                                  | 14014-19-8  | 225.779     | col liq                 | -117.2   | 110.1    |                            |                                     |  |
| 2046 | Phosphoryl bromide dichloride        | POBrCl <sub>2</sub>                                  | 13455-03-3  | 197.783     | col liq                 | 11       | 136.5    | 2.104 <sup>14</sup>        |                                     |  |
| 2047 | Phosphoryl bromide difluoride        | POBrF <sub>2</sub>                                   | 14014-18-7  | 164.874     | col liq                 | -84.8    | 31.6     |                            |                                     |  |
| 2048 | Phosphoryl bromide chloride fluoride | POBrClF  | 14518-81-1  | 181.328     | col liq                 |          | 79       |                            |                                     |  |
| 2049 | Phosphoryl chloride                  | POCl <sub>3</sub>                                    | 10025-87-3  | 153.332     | col liq                 | 1.18     | 105.5    | 1.645                      |                                     | reac H <sub>2</sub> O, EtOH                            |
| 2050 | Phosphoryl dichloride fluoride       | POCl <sub>2</sub> F                                  | 13769-76-1  | 136.877     | col liq                 | -80.1    | 52.9     |                            |                                     |  |
| 2051 | Phosphoryl chloride difluoride       | POClF <sub>2</sub>                                   | 13769-75-0  | 120.423     | col gas                 | -96.4    | 3.1      | 4.922 g/L                  |                                     |  |
| 2052 | Phosphoryl fluoride                  | POF <sub>3</sub>                                     | 13478-20-1  | 103.968     | col gas                 | -39.1 tp | -39.7 sp | 4.250 g/L                  |                                     | reac H <sub>2</sub> O                                  |
| 2053 | Phosphoryl iodide                    | POI <sub>3</sub>                                     | 13455-04-4  | 427.686     | viol cry                | 53       |          |                            |                                     |  |
| 2054 | Phosphorothioic tribromide           | PSBr <sub>3</sub>                                    | 3931-89-3   | 302.751     | yel cry                 | 37.8     | 212 dec  | 2.85                       |                                     |  |
| 2055 | Phosphorothioic dibromide fluoride   | PSBr <sub>2</sub> F                                  | 13706-10-0  | 241.845     | yel liq                 | -75.2    | 125.3    |                            |                                     |  |
| 2056 | Phosphorothioic bromide difluoride   | PSBrF <sub>2</sub>                                   | 13706-09-7  | 180.940     | yel liq                 | -136.9   | 35.5     |                            |                                     |  |
| 2057 | Phosphorothioic trichloride          | PSCl <sub>3</sub>                                    | 3982-91-0   | 169.398     | fuming liq              | -36.2    | 125      | 1.635                      |                                     | reac H <sub>2</sub> O; s bz, ctc, chl, CS <sub>2</sub> |
| 2058 | Phosphorothioic dichloride fluoride  | PSCl <sub>2</sub> F                                  | 155698-29-6 | 152.943     | col liq                 | -96.0    | 64.7     |                            |                                     |  |
| 2059 | Phosphorothioic chloride difluoride  | PSClF <sub>2</sub>                                   | 2524-02-9   | 136.489     | col gas                 | -155.2   | 6.3      | 5.579 g/L                  |                                     |  |
| 2060 | Phosphorothioic trifluoride          | PSF <sub>3</sub>                                     | 2404-52-6   | 120.034     | col gas                 | -148.8   | -52.25   | 4.906 g/L                  |                                     |  |
| 2061 | Phosphorothioic triiodide            | PSI <sub>3</sub>                                     | 63972-04-3  | 443.752     | yel cry                 | 48       | dec      |                            |                                     |  |
| 2062 | Platinum                             | Pt   | 7440-06-4   | 195.084     | silv-gray metal; cub    | 1768.2   | 3825     | 21.5                       |                                     | i acid; s aqua regia                                   |
| 2063 | Hexachloroplatinic acid              | H <sub>2</sub> PtCl <sub>6</sub>                     | 16941-12-1  | 409.818     | hyg yel-brn cry         | 60       |          |                            |                                     | s H <sub>2</sub> O, EtOH                               |
| 2064 | Hydrogen hexahydroxyplatinate(IV)    | H <sub>2</sub> Pt(OH) <sub>6</sub>                   | 51850-20-5  | 299.144     | yel needles             | dec 100  |          |                            |                                     | s H <sub>2</sub> O, acid, dil alk                      |
| 2065 | Platinum(II) bromide                 | PtBr <sub>2</sub>                                    | 13455-12-4  | 354.892     | red-brn powder          | 250 dec  |          | 6.65                       |                                     | i H <sub>2</sub> O                                     |
| 2066 | Platinum(II) chloride                | PtCl <sub>2</sub>                                    | 10025-65-7  | 265.990     | grn hex cry             | 581 dec  |          | 6.0                        |                                     | i H <sub>2</sub> O, EtOH, eth; s HCl                   |
| 2067 | Platinum(II) cyanide                 | Pt(CN) <sub>2</sub>                                  | 592-06-3    | 247.118     | pale yel cry            |          |          |                            |                                     | i H <sub>2</sub> O, acid, alk                          |
| 2068 | Platinum(II) iodide                  | PtI <sub>2</sub>                                     | 7790-39-8   | 448.893     | blk powder              | 325 dec  |          | 6.4                        |                                     | i H <sub>2</sub> O                                     |
| 2069 | Platinum(II) oxide                   | PtO  | 12035-82-4  | 211.083     | blk tetr cry            | 325 dec  |          | 14.1                       |                                     | i H <sub>2</sub> O, EtOH; s aqua regia                 |
| 2070 | Platinum(II) sulfide                 | PtS  | 12038-20-9  | 227.149     | tetr cry                |          |          | 10.25                      |                                     |  |
| 2071 | Platinum(III) bromide                | PtBr <sub>3</sub>                                    | 25985-07-3  | 434.796     | grn-blk cry             | 200 dec  |          |                            |                                     |  |
| 2072 | Platinum(III) chloride               | PtCl <sub>3</sub>                                    | 25909-39-1  | 301.443     | grn-blk cry             | 435 dec  |          | 5.26                       |                                     |  |
| 2073 | Platinum(IV) bromide                 | PtBr <sub>4</sub>                                    | 68938-92-1  | 514.700     | brn-blk cry             | 180 dec  |          |                            | 0.41 <sup>20</sup>                  | sl EtOH, eth   |
| 2074 | Platinum(IV) chloride                | PtCl <sub>4</sub>                                    | 37773-49-2  | 336.896     | red-brn cub cry         | 327 dec  |          | 4.30                       | 142 <sup>25</sup>                   |  |
| 2075 | Platinum(IV) chloride pentahydrate   | PtCl <sub>4</sub> · 5H <sub>2</sub> O                | 13454-96-1  | 426.972     | red cry                 |          |          | 2.43                       |                                     | s H <sub>2</sub> O, EtOH                               |
| 2076 | Platinum(IV) fluoride                | PtF <sub>4</sub>                                     | 13455-15-7  | 271.078     | red cry                 | 600      |          |                            |                                     |  |
| 2077 | Platinum(IV) iodide                  | PtI <sub>4</sub>                                     | 7790-46-7   | 702.702     | brn-blk powder          | 130 dec  |          |                            |                                     | s H <sub>2</sub> O                                     |
| 2078 | Platinum(IV) oxide                   | PtO <sub>2</sub>                                     | 1314-15-4   | 227.083     | blk hex cry             | 450      |          | 11.8                       |                                     | i H <sub>2</sub> O; s conc acid, dil alk               |
| 2079 | Platinum(IV) sulfide                 | PtS <sub>2</sub>                                     | 12038-21-0  | 259.214     | hex cry                 |          |          | 7.85                       |                                     |  |
| 2080 | Platinum(VI) fluoride                | PtF <sub>6</sub>                                     | 13693-05-5  | 309.074     | red cub cry             | 61.3     | 69.1     | ≈4.0                       |                                     |  |
| 2081 | cis-Diamminedichloroplatinum         | Pt(NH <sub>2</sub> ) <sub>2</sub> Cl <sub>2</sub>    | 15663-27-1  | 300.051     | yel solid               | 270 dec  |          |                            | 0.253 <sup>25</sup>                 |  |
| 2082 | trans-Diamminedichloroplatinum       | Pt(NH <sub>2</sub> ) <sub>2</sub> Cl <sub>2</sub>    | 14913-33-8  | 300.051     | pale yel solid          | 270 dec  |          |                            | 0.036 <sup>25</sup>                 | s DMF, DMSO  |
| 2083 | Hexachloroplatinic acid hexahydrate  | H <sub>2</sub> PtCl <sub>6</sub> · 6H <sub>2</sub> O | 16941-12-1  | 517.909     | brn-yel hyg cry         | 60       |          | 2.43                       | 140 <sup>19</sup>                   | vs EtOH  |
| 2084 | Platinum silicide                    | PtSi   | 12137-83-6  | 223.170     | orth cry                | 1229     |          | 12.4                       |                                     |  |
| 2085 | Plutonium                            | Pu   | 7440-07-5   | 244         | silv-wh metal; monocl   | 640      | 3228     | 19.7                       |                                     |  |
| 2086 | Plutonium nitride                    | PuN  | 12033-54-4  | 258         | gray cub cry            | 2550     |          | 14.4                       |                                     |  |
| 2087 | Plutonium(II) oxide                  | PuO  | 12035-83-5  | 260         | cub cry                 |          |          | 14.0                       |                                     |  |
| 2088 | Plutonium(III) bromide               | PuBr <sub>3</sub>                                    | 15752-46-2  | 484         | grn orth cry            | 681      |          | 6.75                       |                                     | s H <sub>2</sub> O                                     |
| 2089 | Plutonium(III) chloride              | PuCl <sub>3</sub>                                    | 13569-62-5  | 350         | grn hex cry             | 760      |          | 5.71                       |                                     | s H <sub>2</sub> O                                     |
| 2090 | Plutonium(III) fluoride              | PuF <sub>3</sub>                                     | 13842-83-6  | 301         | purp hex cry            | 1396     |          | 9.33                       |                                     | i H <sub>2</sub> O; sl acid                            |
| 2091 | Plutonium(III) iodide                | PuI <sub>3</sub>                                     | 13813-46-2  | 625         | grn orth cry; hyg       | 777      |          | 6.92                       |                                     | s H <sub>2</sub> O                                     |
| 2092 | Plutonium(III) oxide                 | Pu <sub>2</sub> O <sub>3</sub>                       | 12036-34-9  | 536         | blk cub cry             | 2085     |          | 10.5                       |                                     |  |
| 2093 | Plutonium(IV) fluoride               | PuF <sub>4</sub>                                     | 13709-56-3  | 320         | red-brn monocl cry      | 1037     |          | 7.1                        |                                     |  |
| 2094 | Plutonium(IV) oxide                  | PuO <sub>2</sub>                                     | 12059-95-9  | 276         | yel-brn cub cry         | 2390     |          | 11.5                       |                                     |  |
| 2095 | Plutonium(VI) fluoride               | PuF <sub>6</sub>                                     | 13693-06-6  | 358         | red-brn orth cry        | 51.6     |          | 5.08                       |                                     |  |
| 2096 | Polonium                             | Po   | 7440-08-6   | 209         | silv metal; cub         | 254      | 962      | 9.20                       |                                     |  |
| 2097 | Polonium(IV) chloride                | PoCl <sub>4</sub>                                    | 10026-02-5  | 351         | yel hyg cry             | ≈300     | 390      |                            |                                     | s H <sub>2</sub> O, EtOH, ace                          |
| 2098 | Polonium(IV) oxide                   | PoO <sub>2</sub>                                     | 7446-06-2   | 241         | yel cub cry             | 500 dec  |          | 8.9                        |                                     |  |
| 2099 | Potassium                            | K  | 7440-09-7   | 39.098      | soft silv-wh metal; cub | 63.5     | 759      | 0.89                       |                                     | reac H <sub>2</sub> O                                  |
| 2100 | Potassium acetate                    | KC <sub>2</sub> H <sub>3</sub> O <sub>2</sub>        | 127-08-2    | 98.142      | wh hyg cry              | 309      |          | 1.57                       | 269 <sup>25</sup>                   | s EtOH; i eth  |

| No.  | Name                                      | Formula  | CAS Reg No. | Mol. weight | Physical form          | mp/°C    | bp/°C    | Density g cm <sup>-3</sup> | Solubility g/100 g H <sub>2</sub> O | Qualitative solubility                  |
|------|---|--|-------------|-------------|------------------------|----------|----------|----------------------------|-------------------------------------|---|
| 2101 | Potassium aluminate trihydrate            | K <sub>3</sub> Al <sub>2</sub> O <sub>4</sub> · 3H <sub>2</sub> O              | 12003-63-3* | 250.204     | wh orth cry            |          |          | 2.13                       |                                     | vs H <sub>2</sub> O; i EtOH             |
| 2102 | Potassium aluminum silicate               | KAlSi <sub>3</sub> O <sub>8</sub>  | 1327-44-2   | 278.332     | col monocl cry         |          |          | 2.56                       |                                     | i H <sub>2</sub> O                      |
| 2103 | Potassium aluminum sulfate                | KAl(SO <sub>4</sub> ) <sub>2</sub>   | 10043-67-1  | 258.205     | wh hyg powder          |          |          |                            | 5.9 <sup>20</sup>                   |   |
| 2104 | Potassium aluminum sulfate dodecahydrate  | KAl(SO <sub>4</sub> ) <sub>2</sub> · 12H <sub>2</sub> O                        | 7784-24-9   | 474.389     | col cry                | ≈100 dec |          | 1.72                       | 5.9 <sup>20</sup>                   |   |
| 2105 | Potassium amide                           | KNH <sub>2</sub>   | 17242-52-3  | 55.121      | wh/yel-grn hyg cry     | 335      |          |                            |                                     | reac H <sub>2</sub> O, EtOH             |
| 2106 | Potassium arsenate                        | K <sub>3</sub> AsO <sub>4</sub>  | 13464-36-3  | 256.215     | col cry                |          |          | 2.8                        | 125 <sup>25</sup>                   |   |
| 2107 | Potassium arsenite                        | KAsO <sub>2</sub>  | 13464-35-2  | 146.019     | wh hyg powder          |          |          |                            |                                     | s H <sub>2</sub> O; sl EtOH             |
| 2108 | Potassium azide                           | KN <sub>3</sub>  | 20762-60-1  | 81.118      | tetr cry; exp          |          |          | 2.04                       | 49.7 <sup>17</sup>                  |   |
| 2109 | Potassium borohydride                     | KBH <sub>4</sub>   | 13762-51-1  | 53.941      | wh cub cry             | ≈500 dec |          | 1.11                       |                                     | s H <sub>2</sub> O                      |
| 2110 | Potassium bromate                         | KBrO <sub>3</sub>  | 7758-01-2   | 167.000     | wh hex cry             | 434 dec  |          | 3.27                       | 8.17 <sup>25</sup>                  | i EtOH                                  |
| 2111 | Potassium bromide                         | KBr  | 7758-02-3   | 119.002     | col cub cry; hyg       | 734      | 1435     | 2.74                       | 67.8 <sup>25</sup>                  | sl EtOH                                 |
| 2112 | Potassium carbonate                       | K <sub>2</sub> CO <sub>3</sub>   | 584-08-7    | 138.206     | wh monocl cry; hyg     | 899      | dec      | 2.29                       | 111 <sup>25</sup>                   | i EtOH                                  |
| 2113 | Potassium carbonate sesquihydrate         | K <sub>2</sub> CO <sub>3</sub> · 1.5H <sub>2</sub> O                           | 6381-79-9   | 165.229     | granular cry           |          |          |                            | 111 <sup>20</sup>                   |   |
| 2114 | Potassium chlorate                        | KClO <sub>3</sub>  | 3811-04-9   | 122.549     | wh monocl cry          | 357      | dec      | 2.34                       | 8.61 <sup>25</sup>                  |   |
| 2115 | Potassium chloride                        | KCl  | 7447-40-7   | 74.551      | wh cub cry             | 771      |          | 1.988                      | 35.5 <sup>25</sup>                  | i eth, ace                              |
| 2116 | Potassium chlorochromate                  | KCrO <sub>2</sub> Cl   | 16037-50-6  | 174.545     | oran cry               |          |          | 2.5                        |                                     | reac H <sub>2</sub> O; s ace, acid      |
| 2117 | Potassium chromate                        | K <sub>2</sub> CrO <sub>4</sub>  | 7789-00-6   | 194.191     | yel orth cry           | 974      |          | 2.73                       | 65.0 <sup>25</sup>                  |   |
| 2118 | Potassium citrate monohydrate             | K <sub>3</sub> C <sub>6</sub> H <sub>5</sub> O <sub>7</sub> · H <sub>2</sub> O | 6100-05-6   | 324.410     | col hyg cry            | 180 dec  |          | 1.98                       | 172 <sup>20</sup>                   | vs H <sub>2</sub> O; sl EtOH            |
| 2119 | Potassium cobalt(II) selenate hexahydrate | K <sub>2</sub> Co(SeO <sub>4</sub> ) <sub>2</sub> · 6H <sub>2</sub> O          | 28041-86-3  | 531.14      | red monocl cry         |          |          | 2.51                       |                                     |   |
| 2120 | Potassium cyanate                         | KCNO   | 590-28-3    | 81.115      | wh tetr cry            | ≈700 dec |          | 2.05                       | 75 <sup>25</sup>                    | sl EtOH                                 |
| 2121 | Potassium cyanide                         | KCN  | 151-50-8    | 65.116      | wh cub cry; hyg        | 622      |          | 1.55                       | 69.9 <sup>20</sup>                  | sl EtOH                                 |
| 2122 | Potassium cyanoaurite                     | KAu(CN) <sub>2</sub>   | 13967-50-5  | 288.099     | col cry                |          |          | 3.45                       | 14 <sup>20</sup>                    | s H <sub>2</sub> O; sl EtOH; i eth, ace |
| 2123 | Potassium dichromate                      | K <sub>2</sub> Cr <sub>2</sub> O <sub>7</sub>                                  | 7778-50-9   | 294.185     | oran-red tricl cry     | 398      | ≈500 dec | 2.68                       | 15.1 <sup>25</sup>                  |   |
| 2124 | Potassium dihydrogen arsenate             | KH <sub>2</sub> AsO <sub>4</sub>   | 7784-41-0   | 180.034     | col cry                | 288      |          | 2.87                       | 19 <sup>6</sup>                     | i EtOH                                  |
| 2125 | Potassium dihydrogen phosphate            | KH <sub>2</sub> PO <sub>4</sub>  | 7778-77-0   | 136.085     | wh tetr cry            | 253      |          | 2.34                       | 25.0 <sup>25</sup>                  | sl EtOH                                 |
| 2126 | Potassium dihydrogen phosphonate          | KH <sub>2</sub> PO <sub>3</sub>  | 13977-65-6  | 120.086     | col monocl hyg cry     |          |          |                            |                                     |   |
| 2127 | Potassium dithionate                      | K <sub>2</sub> S <sub>2</sub> O <sub>6</sub>                                   | 13455-20-4  | 238.323     | col hex cry            | dec      |          | 2.27                       |                                     | sl H <sub>2</sub> O; i EtOH             |
| 2128 | Potassium ferricyanide                    | K <sub>3</sub> Fe(CN) <sub>6</sub>   | 13746-66-2  | 329.244     | red cry                | dec      |          | 1.89                       | 48.8 <sup>25</sup>                  |   |
| 2129 | Potassium ferrocyanide trihydrate         | K <sub>4</sub> Fe(CN) <sub>6</sub> · 3H <sub>2</sub> O                         | 14459-95-1  | 422.388     | yel monocl cry         | 60 dec   |          | 1.85                       | 36.0 <sup>25</sup>                  | i EtOH, eth                             |
| 2130 | Potassium fluoride                        | KF   | 7789-23-3   | 58.096      | wh cub cry             | 858      | 1502     | 2.48                       | 102 <sup>25</sup>                   |   |
| 2131 | Potassium fluoride dihydrate              | KF · 2H <sub>2</sub> O   | 13455-21-5  | 94.127      | monocl cry             | 41 dec   |          | 2.5                        | 102 <sup>25</sup>                   |   |
| 2132 | Potassium fluoroborate                    | KB <sub>3</sub> F <sub>7</sub>   | 14075-53-7  | 125.903     | col orth cry           | 530      |          | 2.505                      | 0.55 <sup>25</sup>                  | sl EtOH                                 |
| 2133 | Potassium fluorotantalate                 | K <sub>2</sub> TaF <sub>7</sub>  | 16924-00-8  | 392.134     | col cry                | 730      |          | 5.24                       | 0.5 <sup>0</sup>                    |   |
| 2134 | Potassium formate                         | KCHO <sub>2</sub>  | 590-29-4    | 84.116      | col hyg cry            | 167      |          | 1.91                       | 331 <sup>18</sup>                   |   |
| 2135 | Potassium hexachloroosmate(IV)            | K <sub>2</sub> OsCl <sub>6</sub>   | 16871-60-6  | 481.15      | red cub cry            |          |          |                            |                                     | vs H <sub>2</sub> O; sl EtOH            |
| 2136 | Potassium hexachloroplatinate             | K <sub>2</sub> PtCl <sub>6</sub>   | 16921-30-5  | 485.999     | yel-oran cub cry       | 250 dec  |          | 3.50                       | 0.77 <sup>20</sup>                  | i EtOH                                  |
| 2137 | Potassium hexacyanocobaltate              | K <sub>3</sub> Co(CN) <sub>6</sub>   | 13963-58-1  | 332.332     | yel monocl cry         | dec      |          | 1.91                       |                                     | vs H <sub>2</sub> O; i EtOH             |
| 2138 | Potassium hexafluoromanganate(IV)         | K <sub>2</sub> MnF <sub>6</sub>  | 16962-31-5  | 247.125     | yel hex cry            |          |          |                            |                                     | reac H <sub>2</sub> O                   |
| 2139 | Potassium hexafluorosilicate              | K <sub>2</sub> SiF <sub>6</sub>  | 16871-90-2  | 220.273     | wh cry                 | dec      |          | 2.27                       | 0.084 <sup>20</sup>                 | i EtOH                                  |
| 2140 | Potassium hexafluorozirconate(IV)         | K <sub>2</sub> ZrF <sub>6</sub>  | 16923-95-8  | 283.411     | col monocl cry         |          |          | 3.48                       | 0.78 <sup>2</sup>                   |   |
| 2141 | Potassium hydride                         | KH   | 7693-26-7   | 40.106      | cub cry                | 619      |          | 1.43                       |                                     | reac H <sub>2</sub> O                   |
| 2142 | Potassium hydrogen arsenate               | K <sub>2</sub> HAsO <sub>4</sub>   | 21093-83-4  | 218.125     | col monocl prisms      | 300 dec  |          |                            | 18.7 <sup>9</sup>                   | i EtOH                                  |
| 2143 | Potassium hydrogen carbonate              | KHCO <sub>3</sub>  | 298-14-6    | 100.115     | col monocl cry         | ≈100 dec |          | 2.17                       | 36.2 <sup>25</sup>                  | i EtOH                                  |
| 2144 | Potassium hydrogen fluoride               | KHF <sub>2</sub>   | 7789-29-9   | 78.103      | col tetr cry           | 238.8    |          | 2.37                       | 39.2 <sup>20</sup>                  | i EtOH                                  |
| 2145 | Potassium hydrogen iodate                 | KH(IO <sub>3</sub> ) <sub>2</sub>  | 13455-24-8  | 389.911     | col cry                | dec      |          |                            | 1.3 <sup>15</sup>                   | sl H <sub>2</sub> O; i EtOH             |
| 2146 | Potassium hydrogen oxalate hemihydrate    | KHC <sub>2</sub> O <sub>4</sub> · 0.5H <sub>2</sub> O                          | 127-95-7    |             | wh cry                 | dec      |          | 2.09                       | 2.5 <sup>20</sup>                   | sl EtOH                                 |
| 2147 | Potassium hydrogen phosphate              | K <sub>2</sub> HPO <sub>4</sub>  | 7758-11-4   | 174.176     | wh hyg cry             | dec      |          |                            | 168 <sup>25</sup>                   | s EtOH                                  |
| 2148 | Potassium hydrogen phosphite              | K <sub>2</sub> HPO <sub>3</sub>  | 13492-26-7  | 158.177     | wh hyg powder          | dec      |          |                            | 170 <sup>20</sup>                   | i EtOH                                  |
| 2149 | Potassium hydrogen selenite               | KHSeO <sub>3</sub>   | 7782-70-9   | 167.06      | hyg orth cry           | >100 dec |          |                            |                                     | s H <sub>2</sub> O; sl EtOH             |
| 2150 | Potassium hydrogen sulfate                | KHSO <sub>4</sub>  | 7646-93-7   | 136.169     | wh monocl cry; hyg     | ≈200     |          | 2.32                       | 50.6 <sup>25</sup>                  |   |
| 2151 | Potassium hydrogen sulfide                | KHS  | 1310-61-8   | 72.171      | wh hex cry; hyg        | ≈450     |          | 1.69                       |                                     | s H <sub>2</sub> O, EtOH                |
| 2152 | Potassium hydrogen sulfide hemihydrate    | KHS · 0.5H <sub>2</sub> O  | 1310-61-8*  | 81.179      | wh-yel hyg cry         | ≈175     |          | 1.7                        |                                     | vs H <sub>2</sub> O, EtOH               |
| 2153 | Potassium hydrogen sulfite                | KHSO <sub>3</sub>  | 7773-03-7   | 120.169     | wh cry powder          | 190 dec  |          |                            | 49 <sup>20</sup>                    | i EtOH                                  |
| 2154 | Potassium hydrogen tartrate               | KHC <sub>4</sub> H <sub>4</sub> O <sub>6</sub>                                 | 868-14-4    | 188.177     | wh cry                 |          |          | 1.98                       | 0.57 <sup>20</sup>                  | s acid, alk; i EtOH                     |
| 2155 | Potassium hydroxide                       | KOH  | 1310-58-3   | 56.105      | wh rhomb cry; hyg      | 406      | 1327     | 2.044                      | 121 <sup>25</sup>                   | s EtOH; s MeOH                          |
| 2156 | Potassium hypochlorite                    | KOCl   | 7778-66-7   | 90.550      | exists only in aq soln |          |          |                            |                                     |   |
| 2157 | Potassium phosphinate                     | KH <sub>2</sub> PO <sub>2</sub>  | 7782-87-8   | 104.087     | wh hyg cry             | dec      |          |                            |                                     | vs H <sub>2</sub> O; s EtOH             |



| No.  | Name   | Formula  | CAS Reg No. | Mol. weight | Physical form          | mp/°C    | bp/°C      | Density g cm <sup>-3</sup> | Solubility g/100 g H <sub>2</sub> O | Qualitative solubility                                 |
|------|--|--|-------------|-------------|------------------------|----------|------------|----------------------------|-------------------------------------|--|
| 2158 | Potassium iodate                             | KIO <sub>3</sub>   | 7758-05-6   | 214.001     | wh monocl cry          | 560 dec  |            | 3.89                       | 9.22 <sup>25</sup>                  |  |
| 2159 | Potassium iodide                             | KI   | 7681-11-0   | 166.003     | col cub cry            | 681      | 1323       | 3.12                       | 148 <sup>25</sup>                   | sl EtOH  |
| 2160 | Potassium iron(III) oxalate trihydrate       | K <sub>3</sub> Fe(C <sub>2</sub> O <sub>4</sub> ) <sub>3</sub> · 3H <sub>2</sub> O |             | 491.243     | grn monocl cry         | 100      | 230 dec    | 2.133                      | 4.7 <sup>o</sup>                    | i EtOH   |
| 2161 | Potassium manganate                          | K <sub>2</sub> MnO <sub>4</sub>  | 10294-64-1  | 197.133     | grn cry                | 190 dec  |            |                            |                                     | s H <sub>2</sub> O; reac HCl                           |
| 2162 | Potassium metaarsenate                       | KAsO <sub>3</sub>  | 19197-73-0  | 162.018     | wh solid               | 660      |            |                            |                                     |  |
| 2163 | Potassium metabisulfite                      | K <sub>2</sub> S <sub>2</sub> O <sub>5</sub>                                       | 16731-55-8  | 222.324     | wh powder              | ≈150 dec |            | 2.3                        | 49.5 <sup>25</sup>                  | reac acid; i EtOH                                      |
| 2164 | Potassium metaborate                         | KBO <sub>2</sub>   | 13709-94-9  | 81.908      | wh hex cry             | 947      |            | ≈2.3                       |                                     |  |
| 2165 | Potassium molybdate                          | K <sub>2</sub> MoO <sub>4</sub>  | 13446-49-6  | 238.14      | wh hyg cry             | 919      |            | 2.3                        | 183 <sup>25</sup>                   | i EtOH   |
| 2166 | Potassium niobate                            | KNbO <sub>3</sub>  | 12030-85-2  | 180.002     | wh rhomb cry           | ≈1100    |            | 4.64                       |                                     | i H <sub>2</sub> O                                     |
| 2167 | Potassium nitrate                            | KNO <sub>3</sub>   | 7757-79-1   | 101.103     | col orth cry or powder | 334      | 400 dec    | 2.105                      | 38.3 <sup>25</sup>                  | i EtOH   |
| 2168 | Potassium nitrite                            | KNO <sub>2</sub>   | 7758-09-0   | 85.104      | wh hyg cry             | 438      | 537 exp    | 1.915                      | 312 <sup>25</sup>                   | sl EtOH  |
| 2169 | Potassium oxalate                            | K <sub>2</sub> C <sub>2</sub> O <sub>4</sub>                                       | 583-52-8    | 166.216     | wh pwd                 |          |            |                            |                                     | sl H <sub>2</sub> O                                    |
| 2170 | Potassium oxalate monohydrate                | K <sub>2</sub> C <sub>2</sub> O <sub>4</sub> · H <sub>2</sub> O                    | 6487-48-5   | 184.231     | col cry                | 160 dec  |            | 2.13                       | 36.4 <sup>20</sup>                  |  |
| 2171 | Potassium oxide                              | K <sub>2</sub> O   | 12136-45-7  | 94.196      | gray cub cry           | 740      |            |                            |                                     | s H <sub>2</sub> O, EtOH, eth                          |
| 2172 | Potassium perbromate                         | KBrO <sub>4</sub>  | 22207-96-1  | 183.000     | wh cry                 | 275 dec  |            |                            | 4.21 <sup>25</sup>                  |  |
| 2173 | Potassium percarbonate monohydrate           | K <sub>2</sub> C <sub>2</sub> O <sub>6</sub> · H <sub>2</sub> O                    | 589-97-9    | 216.230     | oran or blue pow       |          |            |                            | 6.5 <sup>20</sup>                   |  |
| 2174 | Potassium perchlorate                        | KClO <sub>4</sub>  | 7778-74-7   | 138.549     | col orth cry; hyg      | 525      |            | 2.52                       | 2.08 <sup>25</sup>                  |  |
| 2175 | Potassium periodate                          | KIO <sub>4</sub>   | 7790-21-8   | 230.001     | col tetr cry           | 582      | exp        | 3.618                      | 0.51 <sup>25</sup>                  |  |
| 2176 | Potassium permanganate                       | KMnO <sub>4</sub>  | 7722-64-7   | 158.034     | purp orth cry          | dec      |            | 2.7                        | 7.60 <sup>25</sup>                  | reac EtOH  |
| 2177 | Potassium peroxide                           | K <sub>2</sub> O <sub>2</sub>  | 17014-71-0  | 110.196     | yel amorp solid        | 490      |            |                            |                                     | reac H <sub>2</sub> O                                  |
| 2178 | Potassium persulfate                         | K <sub>2</sub> S <sub>2</sub> O <sub>8</sub>                                       | 7727-21-1   | 270.322     | col cry                | ≈100 dec |            | 2.48                       | 4.7 <sup>20</sup>                   |  |
| 2179 | Potassium phosphate                          | K <sub>3</sub> PO <sub>4</sub>   | 7778-53-2   | 212.266     | wh orth cry; hyg       | 1340     |            | 2.564                      | 106 <sup>25</sup>                   | i EtOH   |
| 2180 | Potassium pyrophosphate                      | K <sub>4</sub> P <sub>2</sub> O <sub>7</sub>                                       | 7320-34-5   |             | wh cry                 | dec 1300 |            |                            |                                     | s H <sub>2</sub>                                       |
| 2181 | Potassium pyrophosphate trihydrate           | K <sub>4</sub> P <sub>2</sub> O <sub>7</sub> · 3H <sub>2</sub> O                   | 7790-67-2   | 384.383     | col hyg cry            | dec 300  |            | 2.33                       |                                     | vs H <sub>2</sub> O; i EtOH                            |
| 2182 | Potassium pyrosulfate                        | K <sub>2</sub> S <sub>2</sub> O <sub>7</sub>                                       | 7790-62-7   | 254.323     | col needles            | ≈325     |            | 2.28                       |                                     | s H <sub>2</sub> O                                     |
| 2183 | Potassium selenate                           | K <sub>2</sub> SeO <sub>4</sub>  | 7790-59-2   | 221.16      | wh powder              |          |            | 3.07                       | 114 <sup>25</sup>                   |  |
| 2184 | Potassium selenide                           | K <sub>2</sub> Se  | 1312-74-9   | 157.16      | red cub cry; hyg       | 800      |            | 2.29                       |                                     | s H <sub>2</sub> O                                     |
| 2185 | Potassium selenite                           | K <sub>2</sub> SeO <sub>3</sub>  | 10431-47-7  | 205.16      | wh hyg cry             | 875 dec  |            |                            | 217 <sup>25</sup>                   | sl EtOH  |
| 2186 | Potassium silver cyanide                     | KAg(CN) <sub>2</sub>   | 506-61-6    | 199.000     | wh cry                 |          |            |                            |                                     | s H <sub>2</sub> O                                     |
| 2187 | Potassium sodium tartrate tetrahydrate       | KNaC <sub>4</sub> H <sub>4</sub> O <sub>6</sub> · 4H <sub>2</sub> O                | 6381-59-5   | 282.220     | wh cry                 | ≈70 dec  | anh at 130 | 1.79                       |                                     | vs H <sub>2</sub> O; i EtOH                            |
| 2188 | Potassium stannate trihydrate                | K <sub>2</sub> SnO <sub>3</sub> · 3H <sub>2</sub> O                                | 12142-33-5* | 298.951     | col cry                |          |            | 3.20                       |                                     | vs H <sub>2</sub> O; i EtOH                            |
| 2189 | Potassium stearate                           | KC <sub>18</sub> H <sub>35</sub> O <sub>2</sub>                                    | 593-29-3    | 322.568     | wh pow                 |          |            |                            |                                     | sl cold H <sub>2</sub> O; s hot H <sub>2</sub> O, EtOH |
| 2190 | Potassium sulfate                            | K <sub>2</sub> SO <sub>4</sub>   | 7778-80-5   | 174.260     | wh orth cry            | 1069     |            | 2.66                       | 12.0 <sup>25</sup>                  | i EtOH   |
| 2191 | Potassium sulfide                            | K <sub>2</sub> S   | 1312-73-8   | 110.262     | red-yel cub cry; hyg   | 948      |            | 1.74                       |                                     | s H <sub>2</sub> O, EtOH; i eth                        |
| 2192 | Potassium sulfide pentahydrate               | K <sub>2</sub> S · 5H <sub>2</sub> O   | 37248-34-3  | 200.338     | col rhomb cry          | 60       |            |                            |                                     | vs H <sub>2</sub> O, EtOH; i eth                       |
| 2193 | Potassium sulfite                            | K <sub>2</sub> SO <sub>3</sub>   | 10117-38-1  | 158.260     | col hex cry            |          |            |                            | 106 <sup>25</sup>                   | sl EtOH  |
| 2194 | Potassium sulfite dihydrate                  | K <sub>2</sub> SO <sub>3</sub> · 2H <sub>2</sub> O                                 | 7790-56-9   | 194.291     | wh monocl cry          | dec      |            |                            | 107 <sup>20</sup>                   | sl EtOH; dec dil acid                                  |
| 2195 | Potassium superoxide                         | KO <sub>2</sub>  | 12030-88-5  | 71.097      | yel tetr cry; hyg      | 380      |            | 2.16                       |                                     | reac H <sub>2</sub> O                                  |
| 2196 | Potassium tellurate(VI) trihydrate           | K <sub>2</sub> TeO <sub>6</sub> · 3H <sub>2</sub> O                                | 15571-91-2* | 323.84      | wh cry powder          |          |            |                            |                                     | s H <sub>2</sub> O                                     |
| 2197 | Potassium tellurite                          | K <sub>2</sub> TeO <sub>3</sub>  | 7790-58-1   | 253.80      | wh hyg cry             | ≈460 dec |            |                            |                                     | vs H <sub>2</sub> O                                    |
| 2198 | Potassium tetraborate pentahydrate           | K <sub>2</sub> B <sub>4</sub> O <sub>7</sub> · 5H <sub>2</sub> O                   | 1332-77-0   | 323.513     | wh cry powder          |          |            |                            | 16.5 <sup>30</sup>                  | sl EtOH  |
| 2199 | Potassium tetrachloroaurate dihydrate        | KAuCl <sub>4</sub> · 2H <sub>2</sub> O   | 13682-61-6  | 413.908     | yel monocl cry         |          |            |                            |                                     | s H <sub>2</sub> O, EtOH, eth                          |
| 2200 | Potassium tetrachloroplatinate               | K <sub>2</sub> PtCl <sub>6</sub>   | 10025-99-7  | 415.093     | pink-red tetr cry      | 500 dec  |            | 3.38                       |                                     | s H <sub>2</sub> O; i EtOH                             |
| 2201 | Potassium tetracyanocadmte                   | K <sub>2</sub> Cd(CN) <sub>4</sub>   | 14402-75-6  | 294.678     | cub cry                | ≈450     |            | 1.85                       | 25 <sup>20</sup>                    | sl EtOH  |
| 2202 | Potassium tetracyanonickelate monohydrate    | K <sub>2</sub> [Ni(CN) <sub>4</sub> ] · H <sub>2</sub> O                           | 14220-17-8* | 258.975     | red-oran cry           | dec 100  |            |                            |                                     |  |
| 2203 | Potassium tetracyanoplatinate(II) trihydrate | K <sub>2</sub> Pt(CN) <sub>4</sub> · 3H <sub>2</sub> O                             | 562-76-5*   | 431.397     | col rhomb prisms       |          |            |                            |                                     | s H <sub>2</sub> O                                     |
| 2204 | Potassium tetracyanozincate                  | K <sub>2</sub> Zn(CN) <sub>4</sub>   | 14244-62-3  | 247.676     | cry pow                |          |            |                            |                                     | vs H <sub>2</sub> O                                    |
| 2205 | Potassium tetraiodomercurate(II)             | K <sub>2</sub> HgI <sub>4</sub>  | 7783-33-7   | 786.40      | yel hyg cry            |          |            | 4.29                       |                                     | vs H <sub>2</sub> O; s EtOH, eth, ace                  |
| 2206 | Potassium thiocyanate                        | KSCN   | 333-20-0    | 97.181      | col tetr cry; hyg      | 173      | 500 dec    | 1.88                       | 238 <sup>25</sup>                   | s EtOH   |
| 2207 | Potassium thiosulfate                        | K <sub>2</sub> S <sub>2</sub> O <sub>3</sub>                                       | 10294-66-3  | 190.325     | col hyg cry            |          |            |                            | 165 <sup>25</sup>                   | i EtOH   |
| 2208 | Potassium titanate                           | K <sub>2</sub> TiO <sub>3</sub>  | 12030-97-6  | 174.062     | wh orth cry            | 1515     |            | 3.1                        |                                     | reac H <sub>2</sub> O                                  |
| 2209 | Potassium triiodide monohydrate              | KI <sub>3</sub> · H <sub>2</sub> O   | 7790-42-3   | 437.827     | brn monocl cry; hyg    | 225 dec  |            | 3.5                        |                                     | s H <sub>2</sub> O; reac EtOH, eth                     |
| 2210 | Potassium triiodozincate                     | KZnI <sub>3</sub>  | 7790-43-4   | 485.221     | hyg cry                |          |            |                            |                                     | vs H <sub>2</sub> O                                    |
| 2211 | Potassium thiocarbonate                      | K <sub>2</sub> CS <sub>3</sub>   | 26750-66-3  | 186.403     | yel-red hyg cry        |          |            |                            |                                     | vs H <sub>2</sub> O                                    |
| 2212 | Potassium tungstate                          | K <sub>2</sub> WO <sub>4</sub>   | 7790-60-5   | 326.04      | hyg cry                | 921      |            | 3.12                       |                                     | vs H <sub>2</sub> O; i EtOH                            |
| 2213 | Potassium uranate                            | K <sub>2</sub> U <sub>2</sub> O <sub>7</sub>                                       | 7790-63-8   | 666.251     | oran cub cry           |          |            | 6.12                       |                                     | i H <sub>2</sub> O; s acid                             |

| No.  | Name                                      | Formula  | CAS Reg No. | Mol. weight | Physical form            | mp/°C         | bp/°C     | Density g cm <sup>-3</sup> | Solubility g/100 g H <sub>2</sub> O | Qualitative solubility     |
|------|---|--|-------------|-------------|--------------------------|---------------|-----------|----------------------------|-------------------------------------|----------------------------|
| 2214 | Potassium uranyl nitrate                  | K(UO <sub>2</sub> )(NO <sub>3</sub> ) <sub>3</sub>                                   | 18078-40-5  | 495.140     | grn-yel cry pow          |               |           |                            |                                     | vs H <sub>2</sub> O        |
| 2215 | Potassium uranyl sulfate dihydrate        | K <sub>2</sub> (UO <sub>2</sub> )(SO <sub>4</sub> ) <sub>2</sub> · 2H <sub>2</sub> O | 27709-53-1  | 576.381     | grn-yel cry pow          | dec 120       |           | 3.36                       |                                     | vs H <sub>2</sub> O        |
| 2216 | Potassium zinc sulfate hexahydrate        | K <sub>2</sub> Zn(SO <sub>4</sub> ) <sub>2</sub> · 6H <sub>2</sub> O                 | 13932-17-7  | 443.823     | cry                      |               |           |                            |                                     | s H <sub>2</sub> O         |
| 2217 | Potassium zirconium sulfate trihydrate    | K <sub>2</sub> Zr(SO <sub>4</sub> ) <sub>4</sub> · 3H <sub>2</sub> O                 | 53608-79-0  | 685.914     | wh cry pow               |               |           |                            |                                     | sl H <sub>2</sub> O        |
| 2218 | Praseodymium                              | Pr   | 7440-10-0   | 140.908     | silv metal; hex          | 931           | 3520      | 6.77                       |                                     |                            |
| 2219 | Praseodymium boride                       | PrB <sub>6</sub>   | 12008-27-4  | 205.774     | blk cub cry              | 2610          |           | 4.84                       |                                     |                            |
| 2220 | Praseodymium nitride                      | PrN  | 25764-09-4  | 154.915     | cub cry                  |               |           | 7.46                       |                                     |                            |
| 2221 | Praseodymium silicide                     | PrSi <sub>2</sub>  | 12066-83-0  | 197.079     | tetr cry                 | 1712          |           | 5.46                       |                                     |                            |
| 2222 | Praseodymium(II) iodide                   | PrI <sub>2</sub>   | 65530-47-4  | 394.717     | bronze solid             | 758           |           |                            |                                     |                            |
| 2223 | Praseodymium(III) bromate                 | Pr(BrO <sub>3</sub> ) <sub>3</sub>   | 15162-93-3  | 524.615     | grn cry                  |               |           |                            |                                     | vs H <sub>2</sub> O        |
| 2224 | Praseodymium(III) bromide                 | PrBr <sub>3</sub>  | 13536-53-3  | 380.620     | grn hex cry; hyg         | 693           |           | 5.28                       |                                     | s H <sub>2</sub> O         |
| 2225 | Praseodymium(III) carbonate octahydrate   | Pr <sub>2</sub> (CO <sub>3</sub> ) <sub>3</sub> · 8H <sub>2</sub> O                  | 14948-62-0  | 605.964     | grn silky plates         | dec 420 (anh) |           |                            |                                     | i H <sub>2</sub> O; s acid |
| 2226 | Praseodymium(III) chloride                | PrCl <sub>3</sub>  | 10361-79-2  | 247.267     | grn hex needles; hyg     | 786           |           | 4.0                        | 96.1 <sup>25</sup>                  | s EtOH                     |
| 2227 | Praseodymium(III) chloride heptahydrate   | PrCl <sub>3</sub> · 7H <sub>2</sub> O  | 10025-90-8  | 373.374     | grn cry                  | 110 dec       |           |                            | 96.1 <sup>25</sup>                  | s EtOH                     |
| 2228 | Praseodymium(III) fluoride                | PrF <sub>3</sub>   | 13709-46-1  | 197.903     | grn hex cry              | 1399          |           | 6.3                        |                                     |                            |
| 2229 | Praseodymium(III) hydroxide               | Pr(OH) <sub>3</sub>  | 16469-16-2  | 191.930     | grn solid                | dec 220       |           | 3.7                        |                                     | i H <sub>2</sub> O         |
| 2230 | Praseodymium(III) iodide                  | PrI <sub>3</sub>   | 13813-23-5  | 521.621     | orth hyg cry             | 738           |           | ≈5.8                       |                                     | s H <sub>2</sub> O         |
| 2231 | Praseodymium(III) nitrate                 | Pr(NO <sub>3</sub> ) <sub>3</sub>  | 10361-80-5  | 326.923     | pale grn hyg cry         |               |           |                            | 165 <sup>26</sup>                   | s EtOH                     |
| 2232 | Praseodymium(III) nitrate hexahydrate     | Pr(NO <sub>3</sub> ) <sub>3</sub> · 6H <sub>2</sub> O                                | 15878-77-0  | 435.014     | grn needles              |               |           |                            | 165 <sup>26</sup>                   | s EtOH, ace                |
| 2233 | Praseodymium(III) oxide                   | Pr <sub>2</sub> O <sub>3</sub>   | 12036-32-7  | 329.813     | wh hex cry               | 2183          | 3760      | 6.9                        |                                     |                            |
| 2234 | Praseodymium(III) perchlorate hexahydrate | Pr(ClO <sub>4</sub> ) <sub>3</sub> · 6H <sub>2</sub> O                               | 13498-07-2* | 547.351     | hyg grn cry              | dec 200       |           |                            |                                     | s H <sub>2</sub> O, EtOH   |
| 2235 | Praseodymium(III) sulfate octahydrate     | Pr <sub>2</sub> (SO <sub>4</sub> ) <sub>3</sub> · 8H <sub>2</sub> O                  | 13510-41-3  | 714.125     | grn monocry              |               |           | 2.83                       | 17 <sup>20</sup>                    | s H <sub>2</sub> O         |
| 2236 | Praseodymium(III) sulfide                 | Pr <sub>2</sub> S <sub>3</sub>   | 12038-13-0  | 378.010     | cub cry                  | 1765          |           | 5.1                        |                                     |                            |
| 2237 | Praseodymium(III) telluride               | Pr <sub>2</sub> Te <sub>3</sub>  | 12038-12-9  | 664.62      | cub cry                  | 1500          |           | ≈7.0                       |                                     |                            |
| 2238 | Praseodymium(IV) fluoride                 | PrF <sub>4</sub>   | 15192-24-2  | 216.902     | yel-wh solid             | dec 90        |           |                            |                                     |                            |
| 2239 | Promethium                                | Pm   | 7440-12-2   | 145         | silv metal; hex          | 1042          | 3000      | 7.26                       |                                     |                            |
| 2240 | Promethium(III) bromide                   | PmBr <sub>3</sub>  | 14325-78-1  | 385         | red cry                  | 625           |           |                            |                                     | s H <sub>2</sub> O         |
| 2241 | Promethium(III) chloride                  | PmCl <sub>3</sub>  | 13779-10-7  | 251         | pale blue hyg cry        | 655           |           |                            |                                     | s H <sub>2</sub> O         |
| 2242 | Promethium(III) fluoride                  | PmF <sub>3</sub>   | 13709-45-0  | 202         | pink solid               | 1338          |           |                            |                                     | s H <sub>2</sub> O         |
| 2243 | Promethium(III) iodide                    | PmI <sub>3</sub>   | 13818-73-0  | 526         | red solid                | 695           |           |                            |                                     |                            |
| 2244 | Protactinium                              | Pa   | 7440-13-3   | 231.036     | shiny metal; tetr or cub | 1572          |           | 15.4                       |                                     |                            |
| 2245 | Protactinium(V) chloride                  | PaCl <sub>5</sub>  | 13760-41-3  | 408.301     | yel monocry              | 306           |           | 3.74                       |                                     |                            |
| 2246 | Radium                                    | Ra   | 7440-14-4   | 226         | wh metal; cub            | 696           |           | 5                          |                                     |                            |
| 2247 | Radium bromide                            | RaBr <sub>2</sub>  | 10031-23-9  | 386         | wh orth cry              | 728           |           | 5.79                       | 70.6 <sup>20</sup>                  | s EtOH                     |
| 2248 | Radium carbonate                          | RaCO <sub>3</sub>  | 7116-98-5   | 286         | wh orth cry              |               |           |                            |                                     | i H <sub>2</sub> O         |
| 2249 | Radium chloride                           | RaCl <sub>2</sub>  | 10025-66-8  | 297         | wh orth cry              | 1000          |           | 4.9                        | 24.5 <sup>20</sup>                  | s EtOH                     |
| 2250 | Radium fluoride                           | RaF <sub>2</sub>   | 20610-49-5  | 264         | wh cub cry               |               |           | 6.7                        |                                     |                            |
| 2251 | Radium nitrate                            | Ra(NO <sub>3</sub> ) <sub>2</sub>  | 10213-12-4  | 350         | cry                      |               |           |                            | 13.9                                |                            |
| 2252 | Radium sulfate                            | RaSO <sub>4</sub>  | 7446-16-4   | 322         | wh cry                   |               |           |                            |                                     | i H <sub>2</sub> O, acid   |
| 2253 | Radon                                     | Rn   | 10043-92-2  | 222         | col gas                  | -71           | -61.7     | 9.074 g/L                  |                                     | sl H <sub>2</sub> O        |
| 2254 | Rhenium                                   | Re   | 7440-15-5   | 186.207     | silv-gray metal          | 3185          | 5596      | 20.8                       |                                     | i HCl                      |
| 2255 | Perrhenic acid                            | HReO <sub>4</sub>  | 13768-11-1  | 251.213     | exists only in soln      |               |           |                            |                                     | vs H <sub>2</sub> O, os    |
| 2256 | Rhenium carbonyl                          | Re <sub>2</sub> (CO) <sub>10</sub>   | 14285-68-8  | 652.515     | yel-wh cry               | 170 dec       |           | 2.87                       |                                     | s os                       |
| 2257 | Rhenium pentacarbonyl bromide             | Re(CO) <sub>5</sub> Br   | 14220-21-4  | 406.162     | wh cry                   | 90            |           |                            |                                     |                            |
| 2258 | Rhenium pentacarbonyl chloride            | Re(CO) <sub>5</sub> Cl   | 14099-01-5  | 361.711     | wh cry                   |               | subl 140  |                            |                                     |                            |
| 2259 | Rhenium(III) bromide                      | ReBr <sub>3</sub>  | 13569-49-8  | 425.919     | red-brn monocry          |               | 500 subl  | 6.10                       |                                     | s ace, MeOH, EtOH          |
| 2260 | Rhenium(III) chloride                     | ReCl <sub>3</sub>  | 13569-63-6  | 292.566     | red-blk hyg cry          | 500 dec       |           | 4.81                       |                                     | s H <sub>2</sub> O         |
| 2261 | Rhenium(III) iodide                       | ReI <sub>3</sub>   | 15622-42-1  | 566.920     | blk solid                | dec           |           |                            |                                     |                            |
| 2262 | Rhenium(IV) chloride                      | ReCl <sub>4</sub>  | 13569-71-6  | 328.019     | purp-blk cry; hyg        | 300 dec       |           | 4.9                        |                                     |                            |
| 2263 | Rhenium(IV) fluoride                      | ReF <sub>4</sub>   | 15192-42-4  | 262.201     | blue tetr cry            |               | >300 subl | 7.49                       |                                     |                            |
| 2264 | Rhenium(IV) oxide                         | ReO <sub>2</sub>   | 12036-09-8  | 218.206     | gray orth cry            | 900 dec       |           | 11.4                       |                                     |                            |
| 2265 | Rhenium(IV) selenide                      | ReSe <sub>2</sub>  | 12038-64-1  | 344.13      | tricl cry                |               |           |                            |                                     |                            |
| 2266 | Rhenium(IV) silicide                      | ReSi <sub>2</sub>  | 12038-66-3  | 242.378     | refrac solid             | 2000          |           |                            |                                     |                            |
| 2267 | Rhenium(IV) sulfide                       | ReS <sub>2</sub>   | 12038-63-0  | 250.337     | tricl cry                |               |           | 7.6                        |                                     |                            |
| 2268 | Rhenium(IV) telluride                     | ReTe <sub>2</sub>  | 12067-00-4  | 441.41      | orth cry                 |               |           | 8.50                       |                                     |                            |
| 2269 | Rhenium(V) bromide                        | ReBr <sub>5</sub>  | 30937-53-2  | 585.727     | brn solid                | 110 dec       |           |                            |                                     |                            |
| 2270 | Rhenium(V) chloride                       | ReCl <sub>5</sub>  | 39368-69-9  | 363.472     | brn-blk solid            | 220           |           | 4.9                        |                                     | reac H <sub>2</sub> O      |
| 2271 | Rhenium(V) fluoride                       | ReF <sub>5</sub>   | 30937-52-1  | 281.199     | yel-grn solid            | 48            | 221.3     |                            |                                     |                            |
| 2272 | Rhenium(V) oxide                          | Re <sub>2</sub> O <sub>5</sub>   | 12165-05-8  | 452.411     | blue-blk tetr cry        |               |           | ≈7                         |                                     |                            |

| No.  | Name                                    | Formula  | CAS Reg No. | Mol. weight | Physical form               | mp/°C    | bp/°C   | Density g cm <sup>-3</sup> | Solubility g/100 g H <sub>2</sub> O | Qualitative solubility                  |
|------|---|--|-------------|-------------|-----------------------------|----------|---------|----------------------------|-------------------------------------|---|
| 2273 | Rhenium(VI) chloride                    | ReCl <sub>6</sub>  | 31234-26-1  | 398.925     | red-grn solid               | 29       |         |                            |                                     |   |
| 2274 | Rhenium(VI) dioxydifluoride             | ReO <sub>2</sub> F <sub>2</sub>                          | 81155-18-2  | 256.203     | col cry                     | 156      |         |                            |                                     |   |
| 2275 | Rhenium(VI) fluoride                    | ReF <sub>6</sub>   | 10049-17-9  | 300.197     | yel liq or cub cry          | 18.5     | 33.8    | 4.06(cry)                  |                                     | s HNO <sub>3</sub>                      |
| 2276 | Rhenium(VI) oxide                       | ReO <sub>3</sub>   | 1314-28-9   | 234.205     | red cub cry                 | 400 dec  |         | 6.9                        |                                     | i H <sub>2</sub> O, acid, alk           |
| 2277 | Rhenium(VI) oxytetrachloride            | ReOCl <sub>4</sub>                                       | 13814-76-1  | 344.018     | brn cry                     | 29.3     | 223     |                            |                                     | reac H <sub>2</sub> O                   |
| 2278 | Rhenium(VI) oxytetrafluoride            | ReOF <sub>4</sub>  | 17026-29-8  | 278.200     | blue solid                  | 108      | 171.7   |                            |                                     |   |
| 2279 | Rhenium(VII) fluoride                   | ReF <sub>7</sub>   | 17029-21-9  | 319.196     | yel cub cry                 | 48.3     | 73.7    | 4.32                       |                                     |   |
| 2280 | Rhenium(VII) oxide                      | Re <sub>2</sub> O <sub>7</sub>                           | 1314-68-7   | 484.410     | yel hyg cry                 | 327      | 360     | 6.10                       |                                     | s H <sub>2</sub> O, EtOH, eth, diox, py |
| 2281 | Rhenium(VII) trioxychloride             | ReO <sub>3</sub> Cl                                      | 7791-09-5   | 269.658     | col liq                     | 4.5      | 128     | 3.87                       |                                     | reac H <sub>2</sub> O                   |
| 2282 | Rhenium(VII) trioxyfluoride             | ReO <sub>3</sub> F                                       | 42246-24-2  | 253.203     | yel solid                   | 147      | 164     |                            |                                     |   |
| 2283 | Rhenium(VII) dioxytrifluoride           | ReO <sub>2</sub> F <sub>3</sub>                          | 57246-89-6  | 275.201     | yel solid                   | 90       | 185.4   |                            |                                     | reac H <sub>2</sub> O                   |
| 2284 | Rhenium(VII) oxypentafluoride           | ReOF <sub>5</sub>  | 23777-53-9  | 297.198     | cream solid                 | 43.8     | 73.0    |                            |                                     |   |
| 2285 | Rhenium(VII) sulfide                    | Re <sub>2</sub> S <sub>7</sub>                           | 12038-67-4  | 596.869     | brn-blk tetr cry            |          |         | 4.87                       |                                     | i H <sub>2</sub> O                      |
| 2286 | Rhodium                                 | Rh   | 7440-16-6   | 102.906     | silv-wh metal; cub          | 1964     | 3695    | 12.4                       |                                     | i acid, sl aqua regia                   |
| 2287 | Rhodium carbonyl                        | Rh <sub>4</sub> (CO) <sub>16</sub>                       | 28407-51-4  | 1065.594    | red-brn cry                 | 220 dec  |         |                            |                                     |   |
| 2288 | Rhodium carbonyl chloride               | [Rh(CO) <sub>2</sub> Cl] <sub>2</sub>                    | 14523-22-9  | 388.758     | red-oran cry                | 124      |         |                            |                                     | s os                                    |
| 2289 | Rhodium dodecacarbonyl                  | Rh <sub>12</sub> (CO) <sub>36</sub>                      | 19584-30-6  | 747.743     | red hyg cry                 | 150 dec  |         | 2.52                       |                                     | reac H <sub>2</sub> O                   |
| 2290 | Rhodium(III) bromide                    | RhBr <sub>3</sub>  | 15608-29-4  | 342.618     | dark brn plates             | 800 dec  |         | 5.56                       |                                     | s H <sub>2</sub> O; i acid, os          |
| 2291 | Rhodium(III) chloride                   | RhCl <sub>3</sub>  | 10049-07-7  | 209.265     | red monocl cry              |          | 717     | 5.38                       |                                     | i H <sub>2</sub> O; s alk               |
| 2292 | Rhodium(III) fluoride                   | RhF <sub>3</sub>   | 60804-25-3  | 159.901     | red hex cry                 |          |         | 5.4                        |                                     |   |
| 2293 | Rhodium(III) iodide                     | RhI <sub>3</sub>   | 15492-38-3  | 483.619     | blk monocl cry; hyg         |          |         | 6.4                        |                                     |   |
| 2294 | Rhodium(III) nitrate                    | Rh(NO <sub>3</sub> ) <sub>3</sub>                        | 10139-58-9  | 288.921     | hyg brn solid               | 600 dec  |         |                            |                                     | i H <sub>2</sub> O                      |
| 2295 | Rhodium(III) nitrate dihydrate          | Rh(NO <sub>3</sub> ) <sub>3</sub> · 2H <sub>2</sub> O    | 13465-43-5  | 324.951     | blk solid                   | dec      |         |                            |                                     | i H <sub>2</sub> O; s aqua regia        |
| 2296 | Rhodium(III) oxide                      | Rh <sub>2</sub> O <sub>3</sub>                           | 12036-35-0  | 253.809     | gray hex cry                | 1100 dec |         | 8.2                        |                                     |   |
| 2297 | Rhodium(III) oxide pentahydrate         | Rh <sub>2</sub> O <sub>3</sub> · 5H <sub>2</sub> O       | 39373-27-8  | 309.010     | yel pow                     | dec      |         |                            |                                     | sl H <sub>2</sub> O; s acid             |
| 2298 | Rhodium(III) sulfate                    | Rh <sub>2</sub> (SO <sub>4</sub> ) <sub>3</sub>          | 10489-46-0  | 493.999     | red-yel solid               | >500 dec |         |                            |                                     |   |
| 2299 | Rhodium(IV) oxide                       | RhO <sub>2</sub>   | 12137-27-8  | 134.905     | blk tetr cry                |          |         | 7.2                        |                                     |   |
| 2300 | Rhodium(IV) oxide dihydrate             | RhO <sub>2</sub> · 2H <sub>2</sub> O                     | 12137-27-8  | 170.936     | grn solid                   | dec      |         | 8.20                       |                                     | i H <sub>2</sub> O, sol HCl, alk        |
| 2301 | Rhodium(VI) fluoride                    | RhF <sub>6</sub>   | 13693-07-7  | 216.896     | blk cub cry                 | ≈70      |         | 3.1                        |                                     |   |
| 2302 | Rubidium                                | Rb   | 7440-17-7   | 85.468      | soft silv metal; cub        | 39.30    | 688     | 1.53                       |                                     | reac H <sub>2</sub> O                   |
| 2303 | Rubidium acetate                        | RbC <sub>2</sub> H <sub>3</sub> O <sub>2</sub>           | 563-67-7    | 144.512     | wh hyg cry                  | 246      |         |                            |                                     | vs H <sub>2</sub> O                     |
| 2304 | Rubidium aluminum sulfate               | RbAl(SO <sub>4</sub> ) <sub>2</sub>                      | 13530-57-9  | 304.575     | hex cry                     |          |         | ≈3.1                       | 1.60 <sup>20</sup>                  | i EtOH                                  |
| 2305 | Rubidium aluminum sulfate dodecahydrate | RbAl(SO <sub>4</sub> ) <sub>2</sub> · 12H <sub>2</sub> O | 7784-29-4   | 520.759     | col cub cry                 | ≈100 dec |         | ≈1.9                       |                                     | s H <sub>2</sub> O; i EtOH              |
| 2306 | Rubidium azide                          | RbN <sub>3</sub>   | 22756-36-1  | 127.488     | tetr cry; exp               | 317      |         | 2.79                       | 107 <sup>16</sup>                   |   |
| 2307 | Rubidium bromate                        | RbBrO <sub>3</sub>                                       | 13446-70-3  | 213.370     | cub cry                     | 430      |         | 3.68                       | 2.95 <sup>25</sup>                  |   |
| 2308 | Rubidium bromide                        | RbBr   | 7789-39-1   | 165.372     | wh cub cry; hyg             | 692      | 1340    | 3.35                       | 116 <sup>25</sup>                   |   |
| 2309 | Rubidium carbonate                      | Rb <sub>2</sub> CO <sub>3</sub>                          | 584-09-8    | 230.945     | col monocl cry; hyg         | 837      |         |                            | 223 <sup>30</sup>                   |   |
| 2310 | Rubidium chlorate                       | RbClO <sub>3</sub>                                       | 13446-71-4  | 168.919     | col cry                     | 324      | dec 480 | 3.19                       | 6.63 <sup>25</sup>                  | sl H <sub>2</sub> O                     |
| 2311 | Rubidium chloride                       | RbCl   | 7791-11-9   | 120.921     | wh cub cry; hyg             | 724      | 1390    | 2.76                       | 93.9 <sup>25</sup>                  | sl EtOH                                 |
| 2312 | Rubidium chromate                       | Rb <sub>2</sub> CrO <sub>4</sub>                         | 13446-72-5  | 286.930     | yel rhom cry                |          |         | 3.518                      | 76.2 <sup>25</sup>                  |   |
| 2313 | Rubidium dichromate                     | Rb <sub>2</sub> Cr <sub>2</sub> O <sub>7</sub>           | 13446-73-6  | 386.924     | red tricr or yel monocl cry |          |         | 3.1                        |                                     | s H <sub>2</sub> O                      |
| 2314 | Rubidium cyanide                        | RbCN   | 19073-56-4  | 111.486     | wh cub cry                  |          |         | 2.3                        |                                     | s H <sub>2</sub> O; i EtOH, eth         |
| 2315 | Rubidium fluoride                       | RbF  | 13446-74-7  | 104.466     | wh cub cry; hyg             | 795      | 1410    | 3.2                        | 300 <sup>30</sup>                   | i EtOH                                  |
| 2316 | Rubidium fluoroborate                   | RbBF <sub>4</sub>  | 18909-68-7  | 172.273     | orth cry                    | 612 dec  |         | 2.82                       |                                     | sl H <sub>2</sub> O                     |
| 2317 | Rubidium formate                        | RbCHO <sub>2</sub>                                       | 3495-35-0   | 130.486     | wh hyg cry                  | dec      |         |                            |                                     |   |
| 2318 | Rubidium hexafluorogermanate            | Rb <sub>2</sub> GeF <sub>6</sub>                         | 16962-48-4  | 357.57      | wh cry                      | 696      |         |                            |                                     | s H <sub>2</sub> O                      |
| 2319 | Rubidium hydride                        | RbH  | 13446-75-8  | 86.476      | wh cub cry; flam            | ≈170 dec |         | 2.60                       |                                     | reac H <sub>2</sub> O                   |
| 2320 | Rubidium hydrogen carbonate             | RbHCO <sub>3</sub>                                       | 19088-74-5  | 146.485     | wh rhomb cry                | 175 dec  |         |                            | 116 <sup>20</sup>                   |   |
| 2321 | Rubidium hydrogen fluoride              | RbHF <sub>2</sub>  | 12280-64-7  | 124.473     | tetr cry                    | 188      |         | 3.3                        |                                     |   |
| 2322 | Rubidium hydrogen sulfate               | RbHSO <sub>4</sub>                                       | 15587-72-1  | 182.539     | col monocl cry              | 208      |         | 2.9                        |                                     | s H <sub>2</sub> O                      |
| 2323 | Rubidium hydroxide                      | RbOH   | 1310-82-3   | 102.475     | gray-wh orth cry; hyg       | 385      |         | 3.2                        | 173 <sup>30</sup>                   | s EtOH                                  |
| 2324 | Rubidium iodate                         | RbIO <sub>3</sub>  | 13446-76-9  | 260.370     | monocl or cub cry           | dec      |         | 4.33                       | 2.44 <sup>25</sup>                  | vs HCl                                  |
| 2325 | Rubidium iodide                         | RbI  | 7790-29-6   | 212.372     | wh cub cry                  | 656      | 1300    | 3.55                       | 165 <sup>25</sup>                   | s EtOH                                  |
| 2326 | Rubidium molybdate                      | Rb <sub>2</sub> MoO <sub>4</sub>                         | 13718-22-4  | 330.87      | wh cry                      | 958      |         |                            |                                     | s H <sub>2</sub> O                      |
| 2327 | Rubidium nitrate                        | RbNO <sub>3</sub>  | 13126-12-0  | 147.473     | wh hex cry; hyg             | 310      |         | 3.11                       | 65.0 <sup>25</sup>                  | vs H <sub>2</sub> O                     |
| 2328 | Rubidium nitrite                        | RbNO <sub>2</sub>  | 13825-25-7  | 131.474     | wh cry                      | 422      |         |                            |                                     | vs H <sub>2</sub> O                     |
| 2329 | Rubidium oxide                          | Rb <sub>2</sub> O  | 18088-11-4  | 186.935     | yel-brn cub cry; hyg        | 400 dec  |         | 4.0                        |                                     | reac H <sub>2</sub> O                   |
| 2330 | Rubidium perchlorate                    | RbClO <sub>4</sub>                                       | 13510-42-4  | 184.919     | wh hyg cry                  | 597      | dec 900 | 2.9                        | 1.5 <sup>25</sup>                   |   |
| 2331 | Rubidium permanganate                   | RbMnO <sub>4</sub>                                       | 13465-49-1  | 204.404     | dark purp cry               | 300 dec  |         | 3.24                       |                                     | sl H <sub>2</sub> O                     |
| 2332 | Rubidium peroxide                       | Rb <sub>2</sub> O <sub>2</sub>                           | 23611-30-5  | 202.935     | wh orth cry                 | 570      |         | 3.8                        |                                     | reac H <sub>2</sub> O                   |
| 2333 | Rubidium selenide                       | Rb <sub>2</sub> Se                                       | 31052-43-4  | 249.90      | wh cub cry                  | 733      |         | 3.22                       |                                     | reac H <sub>2</sub> O                   |

| No.  | Name                                    | Formula  | CAS Reg No. | Mol. weight | Physical form             | mp/°C              | bp/°C   | Density g cm <sup>-3</sup> | Solubility g/100 g H <sub>2</sub> O | Qualitative solubility                  |
|------|---|--|-------------|-------------|---------------------------|--------------------|---------|----------------------------|-------------------------------------|---|
| 2334 | Rubidium sulfate                        | Rb <sub>2</sub> SO <sub>4</sub>  | 7488-54-2   | 266.999     | wh orth cry               | 1066               |         | 3.61                       | 50.8 <sup>25</sup>                  |   |
| 2335 | Rubidium sulfide                        | Rb <sub>2</sub> S  | 31083-74-6  | 203.001     | wh cub cry                | 425                |         | 2.91                       |                                     | s H <sub>2</sub> O                      |
| 2336 | Rubidium superoxide                     | RbO <sub>2</sub>   | 12137-25-6  | 117.467     | tetr cry                  | 412                |         | ≈3.0                       |                                     |   |
| 2337 | Ruthenium                               | Ru   | 7440-18-8   | 101.07      | silv-wh metal; hex        | 2334               | 4150    | 12.1                       |                                     | i acid, aqua regia                      |
| 2338 | Ruthenium dodecacarbonyl                | Ru <sub>3</sub> (CO) <sub>12</sub>   | 15243-33-1  | 639.33      | oran cry                  | 150 dec            |         |                            |                                     |   |
| 2339 | Ruthenium pentacarbonyl                 | Ru(CO) <sub>5</sub>  | 16406-48-7  | 241.12      | col liq                   | -22                | dec 50  |                            |                                     | i H <sub>2</sub> O; s EtOH, bz, chl, hc |
| 2340 | Ruthenium nonacarbonyl                  | Ru <sub>9</sub> (CO) <sub>9</sub>  | 63128-11-0  | 454.23      | stab below -40            |                    |         |                            |                                     | s hex                                   |
| 2341 | Ruthenium nitrosyl chloride monohydrate | Ru(NO)Cl <sub>3</sub> · H <sub>2</sub> O   | 18902-42-6  | 255.45      | hyg red cry               |                    |         |                            |                                     |   |
| 2342 | Hexaamineruthenium(III) chloride        | Ru(NH <sub>3</sub> ) <sub>6</sub> Cl <sub>3</sub>                                  | 14282-91-8  | 309.61      | col mono cry              |                    |         |                            |                                     | s H <sub>2</sub> O                      |
| 2343 | Ruthenium(III) bromide                  | RuBr <sub>3</sub>  | 14014-88-1  | 340.78      | brn hex cry               | dec 500            |         | 5.3                        |                                     | i H <sub>2</sub> O, acid, EtOH          |
| 2344 | Ruthenium(III) chloride                 | RuCl <sub>3</sub>  | 10049-08-8  | 207.43      | blk-brn hex cry           | ≈500 dec           |         | 3.1                        |                                     | i H <sub>2</sub> O; sl EtOH             |
| 2345 | Ruthenium(III) fluoride                 | RuF <sub>3</sub>   | 51621-05-7  | 158.07      | brn rhomb cry             | ≈600 dec           |         | 5.36                       |                                     | i H <sub>2</sub> O, dil acid            |
| 2346 | Ruthenium(III) iodide                   | RuI <sub>3</sub>   | 13896-65-6  | 481.78      | blk hex cry               | dec 300            |         | 6.0                        |                                     | sl H <sub>2</sub> O                     |
| 2347 | Ruthenium(III) 2,4-pentanedioate        | Ru(CH <sub>3</sub> COCHCOCH <sub>3</sub> ) <sub>3</sub>                            | 14284-93-6  | 398.39      | red-brn cry               | 230                |         |                            |                                     |   |
| 2348 | Ruthenium(IV) fluoride                  | RuF <sub>4</sub>   | 71500-16-8  | 177.06      | yel-red cry               |                    |         |                            |                                     | react H <sub>2</sub> O                  |
| 2349 | Ruthenium(IV) oxide                     | RuO <sub>2</sub>   | 12036-10-1  | 133.07      | gray-blk tetr cry         | dec 1300           |         | 7.05                       |                                     | i H <sub>2</sub> O, acid                |
| 2350 | Ruthenium(V) fluoride                   | RuF <sub>5</sub>   | 14521-18-7  | 196.06      | grn mono cry              | 86.5               | 227     | 3.90                       |                                     |   |
| 2351 | Ruthenium(VI) fluoride                  | RuF <sub>6</sub>   | 13693-08-8  | 215.06      | dark brn orth cry         | 54                 | 200 dec | 3.54                       |                                     | react H <sub>2</sub> O                  |
| 2352 | Ruthenium(VIII) oxide                   | RuO <sub>4</sub>   | 20427-56-9  | 165.07      | yel mono crys             | 25.4               | 40      | 3.29                       | 2.03 <sup>20</sup>                  | sl H <sub>2</sub> O; vs ctc; react EtOH |
| 2353 | Samarium                                | Sm   | 7440-19-9   | 150.36      | silv metal; rhomb         | 1072               | 1794    | 7.52                       |                                     |   |
| 2354 | Samarium boride                         | SmB <sub>6</sub>   | 12008-30-9  | 215.23      | refrac solid              | 2580               |         | 5.07                       |                                     |   |
| 2355 | Samarium silicide                       | SmSi <sub>2</sub>  | 12300-22-0  | 206.53      | orth cry                  |                    |         | 5.14                       |                                     |   |
| 2356 | Samarium(II) bromide                    | SmBr <sub>2</sub>  | 50801-97-3  | 310.17      | brn cry                   | 669                |         |                            |                                     | react H <sub>2</sub> O                  |
| 2357 | Samarium(II) chloride                   | SmCl <sub>2</sub>  | 13874-75-4  | 221.27      | brn cry                   | 855                |         | 3.69                       |                                     | react H <sub>2</sub> O                  |
| 2358 | Samarium(II) fluoride                   | SmF <sub>2</sub>   | 15192-17-3  | 188.36      | purp cry                  |                    |         |                            |                                     | react H <sub>2</sub> O                  |
| 2359 | Samarium(II) iodide                     | SmI <sub>2</sub>   | 32248-43-4  | 404.17      | grn cry                   | 520                |         |                            |                                     | react H <sub>2</sub> O                  |
| 2360 | Samarium(III) acetate trihydrate        | Sm(C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> ) <sub>3</sub> · 3H <sub>2</sub> O | 17829-86-6  | 381.54      | hyg yel-wh solid          |                    |         | 1.94                       |                                     | s H <sub>2</sub> O                      |
| 2361 | Samarium(III) bromate nonahydrate       | Sm(BrO <sub>3</sub> ) <sub>3</sub> · 9H <sub>2</sub> O                             | 63427-22-5  | 696.20      | pink hex cry              | 75 dec             |         |                            |                                     | vs H <sub>2</sub> O; sl EtOH            |
| 2362 | Samarium(III) bromide                   | SmBr <sub>3</sub>  | 13759-87-0  | 390.07      | yel cry                   | 640                |         |                            |                                     | react H <sub>2</sub> O                  |
| 2363 | Samarium(III) carbonate                 | Sm <sub>2</sub> (CO <sub>3</sub> ) <sub>3</sub>                                    | 5895-47-6   | 480.75      | wh-yel pow                | dec >500           |         |                            |                                     |   |
| 2364 | Samarium(III) chloride                  | SmCl <sub>3</sub>  | 10361-82-7  | 256.72      | yel cry                   | 682                |         | 4.46                       | 93.8 <sup>25</sup>                  |   |
| 2365 | Samarium(III) chloride hexahydrate      | SmCl <sub>3</sub> · 6H <sub>2</sub> O  | 13465-55-9  | 364.81      | yel cry                   | dec                |         | 2.38                       | 93.8 <sup>25</sup>                  |   |
| 2366 | Samarium(III) fluoride                  | SmF <sub>3</sub>   | 13765-24-7  | 207.36      | wh cry                    | 1306               |         |                            |                                     | react H <sub>2</sub> O                  |
| 2367 | Samarium(III) iodide                    | SmI <sub>3</sub>   | 13813-25-7  | 531.07      | oran cry                  | 850                |         |                            |                                     | react H <sub>2</sub> O                  |
| 2368 | Samarium(III) nitrate                   | Sm(NO <sub>3</sub> ) <sub>3</sub>  | 10361-83-8  | 336.38      | yel-wh hyg solid          |                    |         | 144 <sup>25</sup>          |                                     | s EtOH                                  |
| 2369 | Samarium(III) nitrate hexahydrate       | Sm(NO <sub>3</sub> ) <sub>3</sub> · 6H <sub>2</sub> O                              | 13759-83-6  | 444.47      | pale yel cry              | 78                 |         |                            |                                     | s H <sub>2</sub> O, MeOH, ace           |
| 2370 | Samarium(III) oxide                     | Sm <sub>2</sub> O <sub>3</sub>   | 12060-58-1  | 348.72      | yel-wh cub cry            | 2269               | 3780    | 7.6                        |                                     |   |
| 2371 | Samarium(III) sulfate octahydrate       | Sm <sub>2</sub> (SO <sub>4</sub> ) <sub>3</sub> · 8H <sub>2</sub> O                | 13465-58-2  | 733.03      | yel cry                   |                    |         | 2.93                       | 2.67 <sup>20</sup>                  |   |
| 2372 | Samarium(III) sulfide                   | Sm <sub>2</sub> S <sub>3</sub>   | 12067-22-0  | 396.92      | gray-brn cub cry          | 1720               |         | 5.87                       |                                     |   |
| 2373 | Samarium(III) telluride                 | Sm <sub>2</sub> Te <sub>3</sub>  | 12040-00-5  | 683.52      | orth cry                  |                    |         | 7.31                       |                                     |   |
| 2374 | Scandium                                | Sc   | 7440-20-2   | 44.956      | silv metal; hex           | 1541               | 2836    | 2.99                       |                                     |   |
| 2375 | Scandium boride                         | ScB <sub>2</sub>   | 12007-34-0  | 66.578      | refrac solid              | 2250               |         | 3.17                       |                                     |   |
| 2376 | Scandium bromide                        | ScBr <sub>3</sub>  | 13465-59-3  | 284.668     | wh hyg cry                | 969                |         | 9.33                       |                                     | s H <sub>2</sub> O                      |
| 2377 | Scandium chloride                       | ScCl <sub>3</sub>  | 10361-84-9  | 151.315     | wh hyg cry                | 967                |         | 2.4                        |                                     | s H <sub>2</sub> O; i EtOH              |
| 2378 | Scandium fluoride                       | ScF <sub>3</sub>   | 13709-47-2  | 101.951     | wh powder                 | 1552               |         |                            |                                     | sl H <sub>2</sub> O                     |
| 2379 | Scandium hydroxide                      | Sc(OH) <sub>3</sub>  | 17674-34-9  | 95.978      | col amorp solid           |                    |         |                            |                                     | i H <sub>2</sub> O; s dil acid          |
| 2380 | Scandium iodide                         | ScI <sub>3</sub>   | 14474-33-0  | 425.669     | hyg yel cry               | 953                | subl    |                            |                                     | s H <sub>2</sub> O, EtOH, CCD           |
| 2381 | Scandium nitrate                        | Sc(NO <sub>3</sub> ) <sub>3</sub>  | 13465-60-6  | 230.971     | wh cry                    |                    |         | 169 <sup>25</sup>          |                                     | s EtOH                                  |
| 2382 | Scandium oxide                          | Sc <sub>2</sub> O <sub>3</sub>   | 12060-08-1  | 137.910     | wh cub cry                | 2489               |         | 3.864                      |                                     | s conc acid                             |
| 2383 | Scandium sulfate pentahydrate           | Sc <sub>2</sub> (SO <sub>4</sub> ) <sub>3</sub> · 5H <sub>2</sub> O                | 15292-44-1  | 468.176     | col cry                   | dec 110            |         |                            |                                     | vs H <sub>2</sub> O                     |
| 2384 | Scandium sulfide                        | Sc <sub>2</sub> S <sub>3</sub>   | 12166-29-9  | 186.107     | yel orth cry              | 1775               |         | 2.91                       |                                     |   |
| 2385 | Scandium telluride                      | Sc <sub>2</sub> Te <sub>3</sub>  | 12166-44-8  | 472.71      | blk hex cry               |                    |         | 5.29                       |                                     |   |
| 2386 | Selenium (gray)                         | Se   | 7782-49-2   | 78.96       | gray metallic cry; hex    | 220.8              | 685     | 4.809                      |                                     | i H <sub>2</sub> O, CS <sub>2</sub>     |
| 2387 | Selenium (α form)                       | Se   | 7782-49-2   | 78.96       | red mono cry              | trans gray Se >120 | 685     | 4.39                       |                                     | i H <sub>2</sub> O, EtOH; sl eth        |
| 2388 | Selenium (vitreous)                     | Se   | 7782-49-2   | 78.96       | blk amorp solid           | trans gray Se 180  | 685     | 4.28                       |                                     | i H <sub>2</sub> O; sl CS <sub>2</sub>  |
| 2389 | Selenic acid                            | H <sub>2</sub> SeO <sub>4</sub>  | 7783-08-6   | 144.97      | wh hyg solid              | 58                 | 260 dec | 2.95                       |                                     | vs H <sub>2</sub> O; react EtOH         |
| 2390 | Pentafluoroorthoselenic acid            | HOSeF <sub>5</sub>   | 38989-47-8  | 190.96      | col solid                 | 38                 | 47      |                            |                                     |   |
| 2391 | Selenous acid                           | H <sub>2</sub> SeO <sub>3</sub>  | 7783-00-8   | 128.97      | wh hyg cry                | 70 dec             |         | 3.0                        |                                     | vs H <sub>2</sub> O; s EtOH             |
| 2392 | Selenium dioxide                        | SeO <sub>2</sub>   | 7446-08-4   | 110.96      | wh tetr needles or powder | 340 tp             | 315 sp  | 3.95                       | 264 <sup>22</sup>                   | s EtOH, MeOH; sl ace                    |
| 2393 | Selenium trioxide                       | SeO <sub>3</sub>   | 13768-86-0  | 126.96      | wh tetr cry; hyg          | 118                | subl    | 3.44                       |                                     | s H <sub>2</sub> O, os                  |

| No.  | Name   | Formula                           | CAS Reg No. | Mol. weight | Physical form               | mp/°C               | bp/°C    | Density g cm <sup>-3</sup> | Solubility g/100 g H <sub>2</sub> O | Qualitative solubility                                  |
|------|--|-----------------------------------|-------------|-------------|-----------------------------|---------------------|----------|----------------------------|-------------------------------------|---|
| 2394 | Selenium bromide                                   | Se <sub>2</sub> Br <sub>2</sub>   | 7789-52-8   | 317.73      | red liq                     | 5                   | 225 dec  | 3.60                       |                                     | reac H <sub>2</sub> O; s CS <sub>2</sub> , chl          |
| 2395 | Selenium chloride                                  | Se <sub>2</sub> Cl <sub>2</sub>   | 10025-68-0  | 228.83      | yel-brn oily liq            | -85                 | 127 dec  | 2.774                      |                                     | reac H <sub>2</sub> O; s CS <sub>2</sub> , bz, ctc, chl |
| 2396 | Selenium tetrabromide                              | SeBr <sub>4</sub>                 | 7789-65-3   | 398.58      | oran-red cry                | 123                 |          |                            |                                     | reac H <sub>2</sub> O; s CS <sub>2</sub> , chl          |
| 2397 | Selenium tetrachloride                             | SeCl <sub>4</sub>                 | 10026-03-6  | 220.77      | wh-yel cry                  | 305 tp              | 191.4 sp | 2.6                        |                                     | reac H <sub>2</sub> O                                   |
| 2398 | Selenium tetrafluoride                             | SeF <sub>4</sub>                  | 13465-66-2  | 154.95      | col liq                     | -9.5                | 101.6    | 2.75                       |                                     | reac H <sub>2</sub> O; vs EtOH, eth                     |
| 2399 | Selenium hexafluoride                              | SeF <sub>6</sub>                  | 7783-79-1   | 192.95      | col gas                     | -34.6 tp            | -46.6 sp | 7.887 g/L                  |                                     | i H <sub>2</sub> O                                      |
| 2400 | Selenium chloride pentafluoride                    | SeF <sub>5</sub> Cl               | 34979-62-9  | 209.41      | col gas                     | -19                 | 4.5      |                            |                                     |   |
| 2401 | Selenium oxybromide                                | SeOBr <sub>2</sub>                | 7789-51-7   | 254.77      | red-yel solid               | 41.6                | 220 dec  | 3.38                       |                                     | reac H <sub>2</sub> O; s CS <sub>2</sub> , bz, ctc      |
| 2402 | Selenium oxychloride                               | SeOCl <sub>2</sub>                | 7791-23-3   | 165.87      | col or yel liq              | 8.5                 | 177      | 2.44                       |                                     | reac H <sub>2</sub> O; s ctc, chl, bz, tol              |
| 2403 | Selenium oxyfluoride                               | SeOF <sub>2</sub>                 | 7783-43-9   | 132.96      | col liq                     | 15                  | 125      | 2.8                        |                                     | reac H <sub>2</sub> O                                   |
| 2404 | Selenium oxytetrafluoride                          | SeOF <sub>4</sub>                 | 53319-44-1  | 170.95      | unstab col liq              | 12                  | 65       |                            |                                     |   |
| 2405 | Selenium dioxide difluoride                        | SeO <sub>2</sub> F <sub>2</sub>   | 14984-81-7  | 148.96      | col gas                     | -99.5               | -8.4     | 6.089 g/L                  |                                     | reac H <sub>2</sub> O                                   |
| 2406 | Selenium monosulfide                               | SeS                               | 7446-34-6   | 111.03      |                             |                     |          |                            |                                     |   |
| 2407 | Selenium disulfide                                 | SeS <sub>2</sub>                  | 7488-56-4   | 143.09      | red-yel cry                 | 100                 |          |                            |                                     | i H <sub>2</sub> O; s acid                              |
| 2408 | Selenium sulfide (Se <sub>2</sub> S <sub>3</sub> ) | Se <sub>2</sub> S <sub>3</sub>    | 75926-26-0  | 350.31      | oran needles                | 121.5               |          | 2.44                       |                                     | s CS <sub>2</sub> ; sl bz                               |
| 2409 | Selenium sulfide (Se <sub>2</sub> S <sub>4</sub> ) | Se <sub>2</sub> S <sub>4</sub>    | 75926-28-2  | 444.10      | red cry                     | 113 dec             |          | 3.29                       |                                     | s bz; sl CS <sub>2</sub>                                |
| 2410 | Selenium sulfide (Se <sub>8</sub> S <sub>3</sub> ) | Se <sub>8</sub> S <sub>3</sub>    | 75926-30-6  | 537.89      | oran cry                    | 121.5               |          |                            |                                     | s CS <sub>2</sub>                                       |
| 2411 | Silicon  | Si                                | 7440-21-3   | 28.086      | gray cry or brn amorp solid | 1414                | 3265     | 2.3296                     |                                     | i H <sub>2</sub> O, acid; s alk                         |
| 2412 | Silane   | SiH <sub>4</sub>                  | 7803-62-5   | 32.118      | col gas; flam               | -185                | -111.9   | 1.313 g/L                  |                                     | reac H <sub>2</sub> O; i EtOH, bz                       |
| 2413 | Disilane   | Si <sub>2</sub> H <sub>6</sub>    | 1590-87-0   | 62.219      | col gas; flam               | -129.4              | -14.8    | 2.543 g/L                  |                                     | reac H <sub>2</sub> O, ctc, chl; s EtOH, bz             |
| 2414 | Trisilane  | Si <sub>3</sub> H <sub>8</sub>    | 7783-26-8   | 92.321      | flam col liq                | -117.4              | 52.9     | 0.739                      |                                     | reac H <sub>2</sub> O                                   |
| 2415 | Tetrasilane  | Si <sub>4</sub> H <sub>10</sub>   | 7783-29-1   | 122.421     | col liq; flam               | -89.9               | 108.1    | 0.792                      |                                     | reac H <sub>2</sub> O                                   |
| 2416 | 2-Silyl-trisilane                                  | Si <sub>4</sub> H <sub>10</sub>   | 13597-87-0  | 122.421     | col liq                     | -99.4               | 101.7    | 0.792                      |                                     | reac H <sub>2</sub> O                                   |
| 2417 | Cyclopentasilane                                   | Si <sub>5</sub> H <sub>12</sub>   | 289-22-5    | 150.507     | col liq                     | -10.5               | 194.3    | 0.963                      |                                     | reac H <sub>2</sub> O                                   |
| 2418 | Pentasilane  | Si <sub>5</sub> H <sub>12</sub>   | 14868-53-2  | 152.523     | col liq                     | -72.8               | 153.2    | 0.827                      |                                     | reac H <sub>2</sub> O                                   |
| 2419 | 2-Silyl-tetrasilane                                | Si <sub>5</sub> H <sub>12</sub>   | 14868-54-3  | 152.523     | col liq                     | -109.9              | 146.2    | 0.820                      |                                     | reac H <sub>2</sub> O                                   |
| 2420 | 2,2-Disilyl-trisilane                              | Si <sub>5</sub> H <sub>12</sub>   | 15947-57-6  | 152.523     | col liq                     | -57.8               | 134.3    | 0.815                      |                                     | reac H <sub>2</sub> O                                   |
| 2421 | Cyclohexasilane                                    | Si <sub>6</sub> H <sub>14</sub>   | 291-59-8    | 180.608     | col liq                     | 16.5                | 226      |                            |                                     | reac H <sub>2</sub> O                                   |
| 2422 | Hexasilane   | Si <sub>6</sub> H <sub>14</sub>   | 14693-61-9  | 182.624     | col liq                     | -44.7               | 193.6    | 0.847                      |                                     | reac H <sub>2</sub> O                                   |
| 2423 | 2-Silyl-pentasilane                                | Si <sub>6</sub> H <sub>14</sub>   | 14868-55-4  | 182.624     | col liq                     | -78.4               | 185.2    | 0.840                      |                                     |   |
| 2424 | 3-Silyl-pentasilane                                | Si <sub>6</sub> H <sub>14</sub>   | 14868-55-4  | 182.624     | col liq                     | -69                 | 179.5    | 0.843                      |                                     | reac H <sub>2</sub> O                                   |
| 2425 | Heptasilane  | Si <sub>7</sub> H <sub>16</sub>   | 14693-65-3  | 212.726     | col liq                     | -30.1               | 226.8    | 0.859                      |                                     | reac H <sub>2</sub> O                                   |
| 2426 | Bromosilane  | SiH <sub>3</sub> Br               | 13465-73-1  | 111.014     | col gas                     | -94                 | 1.9      | 4.538 g/L                  |                                     |   |
| 2427 | Dibromosilane                                      | SiH <sub>2</sub> Br <sub>2</sub>  | 13768-94-0  | 189.910     | liq                         | -70.1               | 66       |                            |                                     |   |
| 2428 | Tribromosilane                                     | SiHBr <sub>3</sub>                | 7789-57-3   | 268.806     | flam liq                    | -73                 | 109      | 2.7                        |                                     | reac H <sub>2</sub> O                                   |
| 2429 | Tetrabromosilane                                   | SiBr <sub>4</sub>                 | 7789-66-4   | 347.702     | col fuming liq              | 5.39                | 154      | 2.8                        |                                     | reac H <sub>2</sub> O                                   |
| 2430 | Bromotrichlorosilane                               | SiBrCl <sub>3</sub>               | 13465-74-2  | 214.349     | col liq                     | -62                 | 80.3     | 1.826                      |                                     | reac H <sub>2</sub> O                                   |
| 2431 | Dibromodichlorosilane                              | SiBr <sub>2</sub> Cl <sub>2</sub> | 13465-75-3  | 258.800     | col liq                     | -45.5               | 104      | 2.172                      |                                     | reac H <sub>2</sub> O                                   |
| 2432 | Tribromochlorosilane                               | SiBr <sub>3</sub> Cl              | 13465-76-4  | 303.251     | col liq                     | -20.8               | 127      | 2.497                      |                                     | reac H <sub>2</sub> O                                   |
| 2433 | Hexabromosilane                                    | Si <sub>6</sub> Br <sub>6</sub>   | 13517-13-0  | 535.595     | col cry                     | 95                  | 265      |                            |                                     |   |
| 2434 | Octabromotrisilane                                 | Si <sub>3</sub> Br <sub>8</sub>   | 54804-32-9  | 723.489     | col liq                     | 46                  |          |                            |                                     |   |
| 2435 | Chlorosilane                                       | SiH <sub>3</sub> Cl               | 13465-78-6  | 66.563      | col gas                     | -118                | -30.4    | 2.721 g/L                  |                                     |   |
| 2436 | Dichlorosilane                                     | SiH <sub>2</sub> Cl <sub>2</sub>  | 4109-96-0   | 101.008     | col gas; flam               | -122                | 8.3      | 4.129 g/L                  |                                     | reac H <sub>2</sub> O                                   |
| 2437 | Trichlorosilane                                    | SiHCl <sub>3</sub>                | 10025-78-2  | 135.453     | fuming liq                  | -128.2              | 33       | 1.331                      |                                     | reac H <sub>2</sub> O                                   |
| 2438 | Tetrachlorosilane                                  | SiCl <sub>4</sub>                 | 10026-04-7  | 169.898     | col fuming liq              | -68.74              | 57.65    | 1.5                        |                                     | reac H <sub>2</sub> O                                   |
| 2439 | Chlorotrifluorosilane                              | SiClF <sub>3</sub>                | 14049-36-6  | 120.534     | col gas                     | -138                | -70.0    | 4.927 g/L                  |                                     | reac H <sub>2</sub> O                                   |
| 2440 | Dichlorodifluorosilane                             | SiCl <sub>2</sub> F <sub>2</sub>  | 18356-71-3  | 136.989     | col gas                     | -44                 | -32      | 5.599 g/L                  |                                     | reac H <sub>2</sub> O                                   |
| 2441 | Trichlorofluorosilane                              | SiCl <sub>3</sub> F               | 14965-52-7  | 153.443     | col gas                     |                     | 12.25    | 6.272 g/L                  |                                     |   |
| 2442 | Trichloroiodosilane                                | SiCl <sub>3</sub> I               | 13465-85-5  | 261.349     | col liq                     | -60                 | 113.5    |                            |                                     | reac H <sub>2</sub> O                                   |
| 2443 | Hexachlorodisilane                                 | Si <sub>2</sub> Cl <sub>6</sub>   | 13465-77-5  | 268.889     | col liq                     | 2.5                 | 146      |                            |                                     | reac H <sub>2</sub> O                                   |
| 2444 | Octachlorotrisilane                                | Si <sub>3</sub> Cl <sub>8</sub>   | 13596-23-1  | 367.881     | col liq                     | -67                 | 216      |                            |                                     |   |
| 2445 | Fluorosilane                                       | SiH <sub>3</sub> F                | 13537-33-2  | 50.108      | col gas                     | -98.6               |          | 2.048 g/L                  |                                     |   |
| 2446 | Difluorosilane                                     | SiH <sub>2</sub> F <sub>2</sub>   | 13824-36-7  | 68.099      | col gas                     | -122                | -77.8    | 2.783 g/L                  |                                     |   |
| 2447 | Trifluorosilane                                    | SiHF <sub>3</sub>                 | 13465-71-9  | 86.089      | col gas                     | -131                | -95      | 3.519 g/L                  |                                     |   |
| 2448 | Tetrafluorosilane                                  | SiF <sub>4</sub>                  | 7783-61-1   | 104.080     | col gas                     | -90.2               | -86      | 4.254 g/L                  |                                     | reac H <sub>2</sub> O                                   |
| 2449 | Hexafluorodisilane                                 | Si <sub>2</sub> F <sub>6</sub>    | 13830-68-7  | 170.161     | col gas                     | -18.7 tp @ 780 mmHg | -19.1 sp |                            |                                     | reac H <sub>2</sub> O                                   |
| 2450 | Octafluorotrisilane                                | Si <sub>3</sub> F <sub>8</sub>    | 14521-14-3  | 236.244     | col liq                     | -1.2                | 42       |                            |                                     |   |
| 2451 | Decafluorotetrasilane                              | Si <sub>4</sub> F <sub>10</sub>   | 14521-15-4  | 302.326     | col cry                     | 68                  | 85.1     |                            |                                     |   |
| 2452 | Iodosilane   | SiH <sub>3</sub> I                | 13598-42-0  | 158.014     | col liq                     | -57                 | 45.6     |                            |                                     |   |

| No.  | Name  | Formula   | CAS Reg No. | Mol. weight | Physical form             | mp/°C                    | bp/°C   | Density g cm <sup>-3</sup> | Solubility g/100 g H <sub>2</sub> O | Qualitative solubility                                      |
|------|---|---|-------------|-------------|---------------------------|--------------------------|---------|----------------------------|-------------------------------------|---|
| 2453 | Diiodosilane                                      | SiH <sub>2</sub> I <sub>2</sub>   | 13760-02-6  | 283.911     | col liq                   | -1                       | 150     |                            |                                     |   |
| 2454 | Triiodosilane                                     | SiH <sub>3</sub> I <sub>3</sub>   | 13465-72-0  | 409.807     | liq                       | 8                        | 220 dec |                            |                                     |   |
| 2455 | Tetraiodosilane                                   | SiI <sub>4</sub>  | 13465-84-4  | 535.704     | wh powder                 | 120.5                    | 287.35  | 4.1                        |                                     |   |
| 2456 | Hexaiododisilane                                  | Si <sub>2</sub> I <sub>6</sub>  | 13510-43-5  | 817.598     | pale yel cry              | 250                      |         |                            |                                     |   |
| 2457 | Disiloxane  | (SiH <sub>3</sub> ) <sub>2</sub> O  | 13597-73-4  | 78.218      | gas                       | -144                     | -15.2   | 3.197 g/L                  |                                     |   |
| 2458 | Hexachlorodisiloxane                              | (SiCl <sub>3</sub> ) <sub>2</sub> O   | 14986-21-1  | 284.888     | liq                       | -28                      | 137     |                            |                                     |   |
| 2459 | Methylsilane                                      | SiH <sub>3</sub> CH <sub>3</sub>  | 992-94-9    | 46.145      | col gas                   | -156.5                   | -57.5   |                            |                                     |   |
| 2460 | Metasilicic acid                                  | H <sub>2</sub> SiO <sub>3</sub>   | 7699-41-4   | 78.100      | wh amorp powder           |                          |         |                            |                                     | i H <sub>2</sub> O; s HF                                    |
| 2461 | Orthosilicic acid                                 | H <sub>4</sub> SiO <sub>4</sub>   | 10193-36-9  | 96.116      | exists only in soln       |                          |         |                            |                                     |   |
| 2462 | Fluorosilicic acid                                | H <sub>2</sub> SiF <sub>6</sub>   | 16961-83-4  | 144.092     | stab only in aq soln      |                          |         |                            |                                     | s H <sub>2</sub> O  |
| 2463 | Silicon carbide (hexagonal)                       | SiC   | 409-21-2    | 40.097      | hard grn-black hex cry    | 2830                     |         | 3.16                       |                                     | i H <sub>2</sub> O, EtOH                                    |
| 2464 | Silicon nitride (Si <sub>3</sub> N <sub>4</sub> ) | Si <sub>3</sub> N <sub>4</sub>  | 12033-89-5  | 140.284     | gray refrac solid; hex    | 1900                     |         | 3.17                       |                                     |   |
| 2465 | Silicon monoxide                                  | SiO   | 10097-28-6  | 44.085      | blk cub cry, stable >1200 |                          |         | 2.18                       |                                     |   |
| 2466 | Silicon dioxide (α-quartz)                        | SiO <sub>2</sub>  | 14808-60-7  | 60.085      | col hex cry               | trans to beta quartz 573 | 2950    | 2.648                      |                                     | i H <sub>2</sub> O, acid; s HF                              |
| 2467 | Silicon dioxide (β-quartz)                        | SiO <sub>2</sub>  | 14808-60-7  | 60.085      | col hex cry               | trans to tridymite 867   | 2950    | 2.533 <sup>600</sup>       |                                     | i H <sub>2</sub> O, acid; s HF                              |
| 2468 | Silicon dioxide (tridymite)                       | SiO <sub>2</sub>  | 15468-32-3  | 60.085      | col hex cry               | trans cristobalite 1470  | 2950    | 2.265                      |                                     | i H <sub>2</sub> O, acid; s HF                              |
| 2469 | Silicon dioxide (cristobalite)                    | SiO <sub>2</sub>  | 14464-46-1  | 60.085      | col hex cry               | 1722                     | 2950    | 2.334                      |                                     | i H <sub>2</sub> O, acid; s HF                              |
| 2470 | Silicon dioxide (vitreous)                        | SiO <sub>2</sub>  | 60676-86-0  | 60.085      | col amorp solid           | 1713                     | 2950    | 2.196                      |                                     | i H <sub>2</sub> O, acid; s HF                              |
| 2471 | Silicon monosulfide                               | SiS   | 12504-41-5  | 60.151      | yel-red hyg powder        | 1090                     | 940     | 1.85                       |                                     | reac H <sub>2</sub> O                                       |
| 2472 | Silicon disulfide                                 | SiS <sub>2</sub>  | 13759-10-9  | 92.216      | wh rhomb cry              | 1090                     | subl    | 2.04                       |                                     | reac H <sub>2</sub> O, EtOH; i bz                           |
| 2473 | Silicon tetraacetate                              | Si(C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> ) <sub>4</sub>                  | 562-90-3    | 264.262     | wh hyg cry                | 110                      |         |                            |                                     | reac H <sub>2</sub> O; s ace, bz                            |
| 2474 | Silicon tetraboride                               | SiB <sub>4</sub>  | 12007-81-7  | 71.330      | gray refrac solid         | 1870 dec                 |         | 2.4                        |                                     |   |
| 2475 | Silicotungstic acid                               | H <sub>2</sub> SiO <sub>4</sub> · (W <sub>3</sub> O <sub>9</sub> ) <sub>4</sub> | 12520-88-6  | 2878.17     | hyg yel cry               |                          |         |                            |                                     | vs H <sub>2</sub> O, EtOH                                   |
| 2476 | Silver  | Ag  | 7440-22-4   | 107.868     | silv metal; cub           | 961.78                   | 2162    | 10.5                       |                                     |   |
| 2477 | Silver azide                                      | AgN <sub>3</sub>  | 13863-88-2  | 149.888     | orth cry; exp             | exp ≈250                 |         | 4.9                        | 0.00081 <sup>20</sup>               |   |
| 2478 | Silver subfluoride                                | Ag <sub>2</sub> F   | 1302-01-8   | 234.734     | yel hex cry               | 100 dec                  |         | 8.6                        |                                     | reac H <sub>2</sub> O                                       |
| 2479 | Silver(I) acetate                                 | AgC <sub>2</sub> H <sub>3</sub> O <sub>2</sub>                                  | 563-63-3    | 166.912     | wh needles or powder      | dec                      |         | 3.26                       | 1.04 <sup>20</sup>                  |   |
| 2480 | Silver(I) acetylide                               | Ag <sub>2</sub> C <sub>2</sub>  | 7659-31-6   | 239.757     | wh powder; exp            |                          |         |                            |                                     |   |
| 2481 | Silver(I) acetylide (AgC <sub>2</sub> H)          | AgC <sub>2</sub> H  | 13092-75-6  | 132.897     | wh powder; exp            |                          |         |                            |                                     |   |
| 2482 | Silver(I) arsenate                                | Ag <sub>3</sub> AsO <sub>4</sub>  | 13510-44-6  | 462.524     | red cub cry               | dec                      |         | 6.657                      | 0.00085                             | s NH <sub>4</sub> OH  |
| 2483 | Silver(I) benzoate                                | Ag(C <sub>6</sub> H <sub>5</sub> CO <sub>2</sub> )                              | 532-31-0    | 228.982     | powder                    |                          |         |                            | 30 <sup>20</sup>                    |   |
| 2484 | Silver(I) bromate                                 | AgBrO <sub>3</sub>  | 7783-89-3   | 235.770     | wh tetra cry              | 360 dec                  |         | 5.21                       | 0.193 <sup>25</sup>                 |   |
| 2485 | Silver(I) bromide                                 | AgBr  | 7785-23-1   | 187.772     | yel cub cry               | 430                      | 1502    | 6.47                       | 0.000014 <sup>25</sup>              | i H <sub>2</sub> O, acid, EtOH                              |
| 2486 | Silver(I) carbonate                               | Ag <sub>2</sub> CO <sub>3</sub>   | 534-16-7    | 275.745     | yel monocl cry            | 218                      |         | 6.077                      | 0.0036 <sup>20</sup>                | s acid  |
| 2487 | Silver(I) chlorate                                | AgClO <sub>3</sub>  | 7783-92-8   | 191.319     | wh tetra cry              | 230                      | 270 dec | 4.430                      | 17.6 <sup>25</sup>                  | sl EtOH   |
| 2488 | Silver(I) chloride                                | AgCl  | 7783-90-6   | 143.321     | wh cub cry                | 455                      | 1547    | 5.56                       | 0.00019 <sup>25</sup>               |   |
| 2489 | Silver(I) chlorite                                | AgClO <sub>2</sub>  | 7783-91-7   | 175.320     | yel cry                   | 105 exp                  |         |                            | 0.55 <sup>25</sup>                  |   |
| 2490 | Silver(I) chromate                                | Ag <sub>2</sub> CrO <sub>4</sub>  | 7784-01-2   | 331.730     | brn-red monocl cry        |                          |         | 5.625                      | 0.000014 <sup>9</sup>               |   |
| 2491 | Silver(I) citrate                                 | Ag <sub>3</sub> C <sub>6</sub> H <sub>5</sub> O <sub>7</sub>                    | 126-45-4    | 512.705     | wh cry powder             |                          |         |                            |                                     | i H <sub>2</sub> O; s HNO <sub>3</sub>                      |
| 2492 | Silver(I) cyanide                                 | AgCN  | 506-64-9    | 133.886     | wh-gray hex cry           | 320 dec                  |         | 3.95                       | 0.0000011                           | i EtOH, dil acid  |
| 2493 | Silver(I) dichromate                              | Ag <sub>2</sub> Cr <sub>2</sub> O <sub>7</sub>                                  | 7784-02-3   | 431.724     | red cry                   |                          |         | 4.770                      |                                     | sl H <sub>2</sub> O   |
| 2494 | Silver(I) diethyldithiocarbamate                  | Ag(C <sub>2</sub> H <sub>5</sub> ) <sub>2</sub> NCS <sub>2</sub>                | 1470-61-7   | 256.138     | powder                    | 173                      |         |                            |                                     | s py  |
| 2495 | Silver(I) fluoride                                | AgF   | 7775-41-9   | 126.866     | yel-brn cub cry; hyg      | 435                      | 1159    | 5.852                      | 172 <sup>20</sup>                   |   |
| 2496 | Silver(I) hexafluoroantimonate                    | AgSbF <sub>6</sub>  | 26042-64-8  | 343.618     | powder                    |                          |         |                            |                                     |   |
| 2497 | Silver(I) hexafluoroarsenate                      | AgAsF <sub>6</sub>  | 12005-82-2  | 296.780     | powder                    |                          |         |                            |                                     |   |
| 2498 | Silver(I) hexafluorophosphate                     | AgPF <sub>6</sub>   | 26042-63-7  | 252.832     | powder                    | 102 dec                  |         |                            |                                     |   |
| 2499 | Silver(I) hydrogen fluoride                       | AgHF <sub>2</sub>   | 12249-52-4  | 146.873     | hyg cry                   | dec                      |         |                            |                                     |   |
| 2500 | Silver(I) iodate                                  | AgIO <sub>3</sub>   | 7783-97-3   | 282.770     | wh orth cry               | >200                     |         | 5.53                       | 0.053 <sup>25</sup>                 |   |
| 2501 | Silver(I) iodide                                  | AgI   | 7783-96-2   | 234.772     | yel powder; hex           | 558                      | 1506    | 5.68                       | 0.000003                            | i acid  |
| 2502 | Silver(I) lactate monohydrate                     | AgC <sub>3</sub> H <sub>5</sub> O <sub>3</sub> · H <sub>2</sub> O               | 128-00-7    | 214.954     | gray cry powder           |                          |         |                            |                                     | sl H <sub>2</sub> O, EtOH                                   |
| 2503 | Silver(I) metaphosphate                           | AgPO <sub>3</sub>   | 13465-96-8  | 186.840     | grn glass                 | 490                      |         | 6.37                       |                                     | i H <sub>2</sub> O; s HNO <sub>3</sub> , NH <sub>4</sub> OH |
| 2504 | Silver(I) molybdate                               | Ag <sub>2</sub> MoO <sub>4</sub>  | 13765-74-7  | 375.67      | yel cub cry               | 483                      |         | 6.18                       |                                     | sl H <sub>2</sub> O   |
| 2505 | Silver(I) nitrate                                 | AgNO <sub>3</sub>   | 7761-88-8   | 169.873     | col rhomb cry             | 210                      | 440 dec | 4.35                       | 234 <sup>25</sup>                   | sl EtOH, ace  |
| 2506 | Silver(I) nitrite                                 | AgNO <sub>2</sub>   | 7783-99-5   | 153.874     | yel needles               | 140 dec                  |         | 4.453                      | 0.415 <sup>25</sup>                 | i EtOH; reac acid   |
| 2507 | Silver(I) oxalate                                 | Ag <sub>2</sub> C <sub>2</sub> O <sub>4</sub>                                   | 533-51-7    | 303.755     | wh cry powder             | exp 140                  |         | 5.03                       | 0.0043 <sup>20</sup>                |   |

| No.  | Name   | Formula  | CAS Reg No. | Mol. weight | Physical form              | mp/°C                | bp/°C    | Density g cm <sup>-3</sup> | Solubility g/100 g H <sub>2</sub> O | Qualitative solubility                         |
|------|--|--|-------------|-------------|----------------------------|----------------------|----------|----------------------------|-------------------------------------|--|
| 2508 | Silver(I) oxide                                    | Ag <sub>2</sub> O  | 20667-12-3  | 231.735     | brn-blk cub cry            | ≈200 dec             |          | 7.2                        | 0.0025                              | i EtOH; s acid, alk                            |
| 2509 | Silver(I) perchlorate                              | AgClO <sub>4</sub>   | 7783-93-9   | 207.319     | col cub cry; hyg           | 486 dec              |          | 2.806                      | 558 <sup>25</sup>                   | s bz, py, os                                   |
| 2510 | Silver(I) perchlorate monohydrate                  | AgClO <sub>4</sub> · H <sub>2</sub> O  | 14242-05-8  | 225.334     | hyg wh cry                 | 43 dec               |          |                            | 558 <sup>25</sup>                   |  |
| 2511 | Silver(I) permanganate                             | AgMnO <sub>4</sub>   | 7783-98-4   | 226.804     | viol monocl cry            | dec                  |          | 4.49                       | 0.91 <sup>18</sup>                  | reac EtOH                                      |
| 2512 | Silver(I) phosphate                                | Ag <sub>3</sub> PO <sub>4</sub>  | 7784-09-0   | 418.576     | yel powder                 | 849                  |          | 6.37                       | 0.0064                              | sl dil acid                                    |
| 2513 | Silver(I) picrate monohydrate                      | AgC <sub>6</sub> H <sub>2</sub> N <sub>3</sub> O <sub>7</sub> · H <sub>2</sub> O | 146-84-9    | 353.979     | yel cry                    |                      |          |                            |                                     | sl H <sub>2</sub> O, EtOH; i chl, eth          |
| 2514 | Silver(I) selenate                                 | Ag <sub>2</sub> SeO <sub>4</sub>   | 7784-07-8   | 358.69      | orth cry                   |                      |          | 5.72                       | 0.118 <sup>20</sup>                 |  |
| 2515 | Silver(I) selenide                                 | Ag <sub>2</sub> Se   | 1302-09-6   | 294.70      | gray hex needles           | 880                  |          | 8.216                      |                                     | i H <sub>2</sub> O                             |
| 2516 | Silver(I) selenite                                 | Ag <sub>2</sub> SeO <sub>3</sub>   | 7784-05-6   | 342.69      | needles                    | 530                  | >550 dec | 5.930                      |                                     | sl H <sub>2</sub> O; s acid                    |
| 2517 | Silver(I) sulfate                                  | Ag <sub>2</sub> SO <sub>4</sub>  | 10294-26-5  | 311.799     | col cry or powder          | 660                  |          | 5.45                       | 0.84 <sup>25</sup>                  |  |
| 2518 | Silver(I) sulfide                                  | Ag <sub>2</sub> S  | 21548-73-2  | 247.801     | gray-blk orth powder       | 825 (high press.)    |          | 7.23                       |                                     | i H <sub>2</sub> O; s acid                     |
| 2519 | Silver(I) sulfite                                  | Ag <sub>2</sub> SO <sub>3</sub>  | 13465-98-0  | 295.799     | wh cry                     | 100 dec              |          |                            | 0.00046 <sup>20</sup>               | s acid, NH <sub>4</sub> OH                     |
| 2520 | Silver(I) telluride                                | Ag <sub>2</sub> Te   | 12002-99-2  | 343.34      | blk orth cry               | 955                  |          | 8.4                        |                                     |  |
| 2521 | Silver(I) tetraiodomercurate(II)                   | Ag <sub>2</sub> HgI <sub>4</sub>   | 7784-03-4   | 923.94      | yel tetr cry               | trans to red cub ≈40 |          | 6.1                        |                                     | i H <sub>2</sub> O, dil acid                   |
| 2522 | Silver(I) thiocyanate                              | AgSCN  | 1701-93-5   | 165.951     | wh powder                  | dec                  |          |                            |                                     | i H <sub>2</sub> O                             |
| 2523 | Silver(I) thiosulfate                              | Ag <sub>2</sub> S <sub>2</sub> O <sub>3</sub>                                    | 23149-52-2  | 327.864     | wh cry                     | dec                  |          |                            |                                     | sl H <sub>2</sub> O; s NH <sub>4</sub> OH      |
| 2524 | Silver(II) oxide                                   | AgO  | 1301-96-8   | 123.867     | gray powder; monocl or cub | >100 dec             |          | 7.5                        | 0.0027 <sup>25</sup>                | s alk; reac acid                               |
| 2525 | Silver(I) tungstate                                | Ag <sub>2</sub> WO <sub>4</sub>  | 13465-93-5  | 463.57      | yel cry                    | 620                  |          |                            | 0.015                               | s HNO <sub>3</sub> , NH <sub>4</sub> OH        |
| 2526 | Silver(II) fluoride                                | AgF <sub>2</sub>   | 7783-95-1   | 145.865     | wh or gray hyg cry         | 690                  |          | 4.58                       |                                     | reac H <sub>2</sub> O                          |
| 2527 | Silver(II) oxide (Ag <sub>2</sub> O <sub>2</sub> ) | Ag <sub>2</sub> O <sub>2</sub>   | 25455-73-6  | 247.735     | gray-blk cub cry           | >100                 |          | 7.44                       |                                     | i H <sub>2</sub> O; s acid, NH <sub>4</sub> OH |
| 2528 | Sodium   | Na   | 7440-23-5   | 22.990      | soft silv met; cub         | 97.794               | 882.940  | 0.97                       |                                     | reac H <sub>2</sub> O                          |
| 2529 | Sodium acetate                                     | NaC <sub>2</sub> H <sub>3</sub> O <sub>2</sub>                                   | 127-09-3    | 82.034      | col cry                    | 328.2                |          | 1.528                      | 50.4 <sup>25</sup>                  |  |
| 2530 | Sodium acetate trihydrate                          | NaC <sub>2</sub> H <sub>3</sub> O <sub>2</sub> · 3H <sub>2</sub> O               | 6131-90-4   | 136.079     | col cry                    | 58 dec               |          | 1.45                       | 50.4 <sup>25</sup>                  | sl EtOH  |
| 2531 | Sodium aluminate                                   | NaAlO <sub>2</sub>   | 1302-42-7   | 81.971      | wh orth cry; hyg           | 1650                 |          | 4.63                       |                                     | vs H <sub>2</sub> O; i EtOH                    |
| 2532 | Sodium aluminum hydride                            | NaAlH <sub>4</sub>   | 13770-96-2  | 54.004      | wh hyg solid               | 174 dec              |          | 1.24                       |                                     | i eth; s thf                                   |
| 2533 | Sodium aluminum sulfate dodecahydrate              | NaAl(SO <sub>4</sub> ) <sub>2</sub> · 12H <sub>2</sub> O                         | 10102-71-3  | 458.281     | col cry                    | ≈60                  |          | 1.61                       | 39.7 <sup>20</sup>                  | i EtOH   |
| 2534 | Sodium amide                                       | NaNH <sub>2</sub>  | 7782-92-5   | 39.013      | wh-grn orth cry            | 210                  | 500 dec  | 1.39                       |                                     | reac H <sub>2</sub> O                          |
| 2535 | Sodium ammonium phosphate tetrahydrate             | NaNH <sub>4</sub> HPO <sub>4</sub> · 4H <sub>2</sub> O                           | 13011-54-6  | 209.069     | monocl cry                 | ≈80 dec              |          | 1.54                       |                                     | s H <sub>2</sub> O; i EtOH                     |
| 2536 | Sodium arsenate dodecahydrate                      | Na <sub>3</sub> AsO <sub>4</sub> · 12H <sub>2</sub> O                            | 7778-43-0   | 424.072     | col monocl prism           | 86 dec               |          |                            |                                     | s H <sub>2</sub> O; sl EtOH; i eth             |
| 2537 | Sodium arsenite                                    | NaAsO <sub>2</sub>   | 7784-46-5   | 129.911     | wh-gray hyg powder         |                      |          | 1.87                       |                                     | vs H <sub>2</sub> O; i EtOH                    |
| 2538 | Sodium azide                                       | NaN <sub>3</sub>   | 26628-22-8  | 65.010      | col hex cry                | 300 dec              |          | 1.846                      | 40.8 <sup>20</sup>                  | sl EtOH; i eth                                 |
| 2539 | Sodium borohydride                                 | NaBH <sub>4</sub>  | 16940-66-2  | 37.833      | wh cub cry; hyg            | ≈400 dec             |          | 1.07                       | 55 <sup>20</sup>                    | reac EtOH                                      |
| 2540 | Sodium bromate                                     | NaBrO <sub>3</sub>   | 7789-38-0   | 150.892     | col cub cry                | 381                  |          | 3.34                       | 39.4 <sup>25</sup>                  | i EtOH   |
| 2541 | Sodium bromide                                     | NaBr   | 7647-15-6   | 102.894     | wh cub cry                 | 747                  | 1390     | 3.200                      | 94.6 <sup>25</sup>                  | s EtOH   |
| 2542 | Sodium bromide dihydrate                           | NaBr · 2H <sub>2</sub> O   | 13466-08-5  | 138.925     | wh cry                     | 36 dec               |          | 2.18                       | 94.6 <sup>25</sup>                  | sl EtOH  |
| 2543 | Sodium carbonate                                   | Na <sub>2</sub> CO <sub>3</sub>  | 497-19-8    | 105.989     | wh hyg powder              | 856                  |          | 2.54                       | 30.7 <sup>25</sup>                  | i EtOH   |
| 2544 | Sodium carbonate monohydrate                       | Na <sub>2</sub> CO <sub>3</sub> · H <sub>2</sub> O                               | 5968-11-6   | 124.005     | col orth cry               | 100 dec              |          | 2.25                       | 30.7 <sup>25</sup>                  | i EtOH   |
| 2545 | Sodium carbonate decahydrate                       | Na <sub>2</sub> CO <sub>3</sub> · 10H <sub>2</sub> O                             | 6132-02-1   | 286.142     | col cry                    | 34 dec               |          | 1.46                       | 30.7 <sup>25</sup>                  | i EtOH   |
| 2546 | Sodium chlorate                                    | NaClO <sub>3</sub>   | 7775-09-9   | 106.441     | col cub cry                | 248                  | dec 630  | 2.5                        | 100 <sup>25</sup>                   | sl EtOH  |
| 2547 | Sodium chloride                                    | NaCl   | 7647-14-5   | 58.443      | col cub cry                | 800.7                | 1465     | 2.17                       | 36.0 <sup>25</sup>                  | sl EtOH  |
| 2548 | Sodium chlorite                                    | NaClO <sub>2</sub>   | 7758-19-2   | 90.442      | wh hyg cry                 | ≈180 dec             |          |                            | 64 <sup>17</sup>                    |  |
| 2549 | Sodium chromate                                    | Na <sub>2</sub> CrO <sub>4</sub>   | 7775-11-3   | 161.974     | yel orth cry               | 794                  |          | 2.72                       | 87.6 <sup>25</sup>                  | sl EtOH  |
| 2550 | Sodium chromate tetrahydrate                       | Na <sub>2</sub> CrO <sub>4</sub> · 4H <sub>2</sub> O                             | 10034-82-9  | 234.035     | yel hyg cry                | dec                  |          |                            | 87.6 <sup>25</sup>                  | sl EtOH  |
| 2551 | Sodium citrate dihydrate                           | Na <sub>3</sub> C <sub>6</sub> H <sub>5</sub> O <sub>7</sub> · 2H <sub>2</sub> O | 6132-04-3   | 294.099     | wh cry                     | 150 dec              |          |                            |                                     | vs H <sub>2</sub> O; i EtOH, eth               |
| 2552 | Sodium citrate pentahydrate                        | Na <sub>3</sub> C <sub>6</sub> H <sub>5</sub> O <sub>7</sub> · 5H <sub>2</sub> O | 6858-44-2   | 348.145     | hyg col cry                | dec 150              |          | 1.86                       | 92 <sup>25</sup>                    | vs H <sub>2</sub> O; sl EtOH; i eth            |
| 2553 | Sodium cyanate                                     | NaCNO  | 917-61-3    | 65.007      | col needles                | 550                  |          | 1.89                       |                                     | s H <sub>2</sub> O; sl EtOH; i eth             |
| 2554 | Sodium cyanide                                     | NaCN   | 143-33-9    | 49.008      | wh cub cry; hyg            | 562                  |          | 1.6                        | 58.2 <sup>20</sup>                  | sl EtOH  |
| 2555 | Sodium cyanoborohydride                            | NaBH <sub>3</sub> (CN)   | 25895-60-7  | 62.843      | wh hyg powder              | 240 dec              |          | 1.12                       |                                     | vs H <sub>2</sub> O; s thf; sl EtOH; i bz, eth |
| 2556 | Sodium dichromate                                  | Na <sub>2</sub> Cr <sub>2</sub> O <sub>7</sub>                                   | 10588-01-9  | 261.968     | red hyg cry                | 357                  | 400 dec  |                            | 187 <sup>25</sup>                   |  |
| 2557 | Sodium dichromate dihydrate                        | Na <sub>2</sub> Cr <sub>2</sub> O <sub>7</sub> · 2H <sub>2</sub> O               | 7789-12-0   | 297.999     | oran-red monocl cry        | 85 dec               |          | 2.35                       |                                     | vs H <sub>2</sub> O; S HOAc                    |
| 2558 | Sodium dihydrogen phosphate                        | NaH <sub>2</sub> PO <sub>4</sub>   | 7558-80-7   | 119.977     | col monocl cry             | 200 dec              |          |                            | 94.9 <sup>25</sup>                  |  |
| 2559 | Sodium dihydrogen phosphate monohydrate            | NaH <sub>2</sub> PO <sub>4</sub> · H <sub>2</sub> O                              | 10049-21-5  | 137.993     | wh hyg cry                 | 100 dec              |          |                            | 94.9 <sup>25</sup>                  | i EtOH   |
| 2560 | Sodium dihydrogen phosphate dihydrate              | NaH <sub>2</sub> PO <sub>4</sub> · 2H <sub>2</sub> O                             | 13472-35-0  | 156.008     | col orth cry               | 60 dec               |          | 1.91                       | 94.9 <sup>25</sup>                  | i EtOH   |
| 2561 | Sodium dihydrogen hypophosphate hexahydrate        | Na <sub>2</sub> H <sub>2</sub> P <sub>2</sub> O <sub>6</sub> · 6H <sub>2</sub> O | 7782-95-8   | 314.031     | monocl plates              | 110 dec              |          | 1.849                      | 2.0 <sup>25</sup>                   | i EtOH   |

| No.  | Name                                       | Formula   | CAS Reg No. | Mol. weight | Physical form                 | mp/°C        | bp/°C    | Density g cm <sup>-3</sup> | Solubility g/100 g H <sub>2</sub> O | Qualitative solubility                                     |
|------|--|---|-------------|-------------|-------------------------------|--------------|----------|----------------------------|-------------------------------------|--|
| 2562 | Sodium dihydrogen pyrophosphate            | Na <sub>2</sub> H <sub>2</sub> P <sub>2</sub> O <sub>7</sub>                        | 7758-16-9   | 221.939     | wh powder                     | 220 dec      |          | ≈1.9                       |                                     | s H <sub>2</sub> O   |
| 2563 | Sodium dithionate                          | Na <sub>2</sub> S <sub>2</sub> O <sub>4</sub>                                       | 7775-14-6   | 174.108     | gray-wh powder                | 52 dec       |          |                            | 24.1 <sup>20</sup>                  | sl EtOH  |
| 2564 | Sodium dithionate dihydrate                | Na <sub>2</sub> S <sub>2</sub> O <sub>4</sub> · 2H <sub>2</sub> O                   | 7631-94-9*  | 242.137     | col orth cry                  | 110 dec      |          | 2.19                       | 15.1 <sup>20</sup>                  | i EtOH   |
| 2565 | Sodium ethanolate                          | NaC <sub>2</sub> H <sub>5</sub> O   | 141-52-6    | 68.050      | wh-yel hyg powder             | 260 dec      |          |                            |                                     | reac H <sub>2</sub> O; s EtOH                              |
| 2566 | Sodium ferricyanide monohydrate            | Na <sub>3</sub> Fe(CN) <sub>6</sub> · H <sub>2</sub> O                              | 14217-21-1* | 298.933     | red hyg cry                   |              |          |                            |                                     | s H <sub>2</sub> O; i EtOH                                 |
| 2567 | Sodium ferrocyanide decahydrate            | Na <sub>4</sub> Fe(CN) <sub>6</sub> · 10H <sub>2</sub> O                            | 13601-19-9  | 484.061     | yel monocl cry                | ≈50 dec      |          | 1.46                       | 20 <sup>20</sup>                    | i os   |
| 2568 | Sodium fluoride                            | NaF   | 7681-49-4   | 41.988      | col cub or tetrah cry         | 996          | 1704     | 2.78                       | 4.13 <sup>25</sup>                  | i EtOH   |
| 2569 | Sodium fluorophosphate                     | Na <sub>2</sub> PO <sub>3</sub> F   | 10163-15-2  | 143.950     | powder                        |              |          |                            |                                     |  |
| 2570 | Sodium formate                             | NaCHO <sub>2</sub>  | 141-53-7    | 68.008      | wh hyg cry                    | 257.3        | dec      | 1.92                       | 94.9 <sup>25</sup>                  | sl EtOH  |
| 2571 | Sodium germanate                           | Na <sub>2</sub> GeO <sub>3</sub>  | 12025-19-3  | 166.62      | wh monocl hyg cry             | 1083         |          | 3.31                       |                                     |  |
| 2572 | Sodium gold cyanide                        | NaAu(CN) <sub>2</sub>   | 15280-09-8  | 271.991     | wh-yel cry pow                |              |          |                            |                                     | s H <sub>2</sub> O, NH <sub>4</sub> OH                     |
| 2573 | Sodium gold thiosulfate dihydrate          | Na <sub>2</sub> Au(S <sub>2</sub> O <sub>3</sub> ) <sub>2</sub> · 5H <sub>2</sub> O | 10233-88-2  | 526.223     | wh needles or prisms          | dec 150      |          | 3.09                       |                                     | vs H <sub>2</sub> O; i EtOH                                |
| 2574 | Sodium hexabromoplatinate(IV) hexahydrate  | Na <sub>2</sub> PtBr <sub>6</sub> · 6H <sub>2</sub> O                               | 39277-13-9  | 828.579     | cry                           |              |          |                            |                                     |  |
| 2575 | Sodium hexachloroiridate(IV) hexahydrate   | Na <sub>2</sub> IrCl <sub>6</sub> · 6H <sub>2</sub> O                               | 19567-78-3  | 559.006     | cry                           | 600 dec      |          |                            |                                     |  |
| 2576 | Sodium hexachloroplatinate(IV)             | Na <sub>2</sub> PtCl <sub>6</sub>   | 16923-58-3  | 453.782     | yel hyg cry                   |              |          |                            | 53 <sup>16</sup>                    | s EtOH   |
| 2577 | Sodium hexachloroplatinate(IV) hexahydrate | Na <sub>2</sub> PtCl <sub>6</sub> · 6H <sub>2</sub> O                               | 16923-58-3  | 561.873     | yel cry                       | 110 dec      |          | 2.50                       | 53 <sup>16</sup>                    | s EtOH; i eth  |
| 2578 | Sodium hexafluoroaluminate                 | Na <sub>3</sub> AlF <sub>6</sub>  | 13775-53-6  | 209.941     | col monocl cry; trans cub 560 | 1013         |          | 2.97                       |                                     | i H <sub>2</sub> O   |
| 2579 | Sodium hexafluoroantimonate                | NaSbF <sub>6</sub>  | 16925-25-0  | 258.740     | wh cub cry                    |              |          | 3.375                      | 129 <sup>20</sup>                   | s EtOH, ace  |
| 2580 | Sodium hexafluorophosphate monohydrate     | NaPF <sub>6</sub> · H <sub>2</sub> O  | 20644-15-9  | 185.969     | col orth cry                  |              |          | 2.369                      | 103 <sup>3</sup>                    | s EtOH, MeOH, ace  |
| 2581 | Sodium hexafluorosilicate                  | Na <sub>2</sub> SiF <sub>6</sub>  | 16893-85-9  | 188.056     | wh hex cry                    | 847          |          | 2.7                        | 0.67 <sup>20</sup>                  | i EtOH   |
| 2582 | Sodium hexanitrocobaltate(III)             | Na <sub>3</sub> Co(NO <sub>2</sub> ) <sub>6</sub>                                   | 14649-73-1  | 403.935     | yel-brn cry powder            |              |          |                            |                                     | vs H <sub>2</sub> O; sl EtOH                               |
| 2583 | Sodium hydride                             | NaH   | 7646-69-7   | 23.998      | silv cub cry; flam            | 425 dec      |          | 1.39                       |                                     | reac H <sub>2</sub> O, EtOH                                |
| 2584 | Sodium hydrogen arsenate                   | Na <sub>2</sub> HAsO <sub>4</sub>   | 7778-43-0   | 185.908     | wh powder                     | ≈195 dec     |          |                            | 51 <sup>20</sup>                    | sl EtOH  |
| 2585 | Sodium hydrogen arsenate heptahydrate      | Na <sub>2</sub> HAsO <sub>4</sub> · 7H <sub>2</sub> O                               | 10048-95-0  | 312.014     | wh monocl cry                 | ≈50 dec      |          | 1.87                       | 51 <sup>20</sup>                    | sl EtOH  |
| 2586 | Sodium hydrogen carbonate                  | NaHCO <sub>3</sub>  | 144-55-8    | 84.007      | wh monocl cry                 | ≈50 dec      |          | 2.20                       | 10.3 <sup>25</sup>                  | i EtOH   |
| 2587 | Sodium hydrogen fluoride                   | NaHF <sub>2</sub>   | 1333-83-1   | 61.995      | wh hex cry                    | >160 dec     |          | 2.08                       | 3.25 <sup>20</sup>                  |  |
| 2588 | Sodium hydrogen phosphate                  | Na <sub>2</sub> HPO <sub>4</sub>  | 7558-79-4   | 141.959     | wh hyg powder                 |              |          | 1.7                        | 11.8 <sup>25</sup>                  |  |
| 2589 | Sodium hydrogen phosphate heptahydrate     | Na <sub>2</sub> HPO <sub>4</sub> · 7H <sub>2</sub> O                                | 7782-85-6   | 268.066     | col cry                       |              |          | ≈1.7                       | 11.8 <sup>25</sup>                  | i EtOH   |
| 2590 | Sodium hydrogen phosphate dodecahydrate    | Na <sub>2</sub> HPO <sub>4</sub> · 12H <sub>2</sub> O                               | 10039-32-4  | 358.143     | col cry                       | ≈35 dec      |          | ≈1.5                       | 11.8 <sup>25</sup>                  | i EtOH   |
| 2591 | Sodium hydrogen sulfate                    | NaHSO <sub>4</sub>  | 7681-38-1   | 120.061     | wh hyg cry                    | ≈315         |          | 2.43                       | 28.5 <sup>25</sup>                  |  |
| 2592 | Sodium hydrogen sulfate monohydrate        | NaHSO <sub>4</sub> · H <sub>2</sub> O   | 10034-88-5  | 138.076     | wh monocl cry                 |              |          | 2.10                       | 28.5 <sup>25</sup>                  | reac EtOH  |
| 2593 | Sodium hydrogen sulfide                    | NaHS  | 16721-80-5  | 56.063      | col rhomb cry                 | 350          |          | 1.79                       |                                     | s H <sub>2</sub> O, EtOH, eth                              |
| 2594 | Sodium hydrogen sulfide dihydrate          | NaHS · 2H <sub>2</sub> O  | 16721-80-5  | 92.094      | yel hyg needles               | 55 dec       |          |                            |                                     | vs H <sub>2</sub> O, EtOH, eth                             |
| 2595 | Sodium hydrogen sulfite                    | NaHSO <sub>3</sub>  | 7631-90-5   | 104.061     | wh cry                        |              |          | 1.48                       |                                     | s H <sub>2</sub> O; sl EtOH                                |
| 2596 | Sodium hydroxide                           | NaOH  | 1310-73-2   | 39.997      | wh orth cry; hyg              | 323          | 1388     | 2.13                       | 100 <sup>25</sup>                   | s EtOH, MeOH   |
| 2597 | Sodium hypochlorite                        | NaClO   | 7681-52-9   | 74.442      | stab in aq soln               | anh form exp |          |                            | 79.9 <sup>25</sup>                  |  |
| 2598 | Sodium hypochlorite pentahydrate           | NaOCl · 5H <sub>2</sub> O   | 10022-70-5  | 164.518     | pale grn orth cry             | 18           |          | 1.6                        |                                     | s H <sub>2</sub> O   |
| 2599 | Sodium iodate                              | NaIO <sub>3</sub>   | 7681-55-2   | 197.892     | wh orth cry                   | 422          |          | 4.28                       | 9.47 <sup>25</sup>                  | i EtOH   |
| 2600 | Sodium iodide                              | NaI   | 7681-82-5   | 149.894     | wh cub cry; hyg               | 661          | 1304     | 3.67                       | 184 <sup>25</sup>                   | s EtOH, ace  |
| 2601 | Sodium iodide dihydrate                    | NaI · 2H <sub>2</sub> O   | 13517-06-1  | 185.925     | hyg col monocl cry            | 69 dec       |          | 2.45                       | 318 <sup>9</sup>                    | vs H <sub>2</sub> O  |
| 2602 | Sodium bismuthate                          | NaBiO <sub>3</sub>  | 12232-99-4  | 279.968     | yel-brn hyg cry               |              |          |                            |                                     | i cold H <sub>2</sub> O, reac acid                         |
| 2603 | Sodium metabisulfite                       | Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>                                       | 7681-57-4   | 190.107     | wh cry                        |              |          |                            | 66.7 <sup>25</sup>                  | sl EtOH  |
| 2604 | Sodium metaborate                          | NaBO <sub>2</sub>   | 7775-19-1   | 65.800      | wh hex cry                    | 966          | 1434     | 2.46                       |                                     | s H <sub>2</sub> O   |
| 2605 | Sodium metasilicate                        | Na <sub>2</sub> SiO <sub>3</sub>  | 6834-92-0   | 122.064     | wh amorp solid; hyg           | 1089         |          | 2.61                       |                                     | s cold H <sub>2</sub> O; reac hot H <sub>2</sub> O; i EtOH |
| 2606 | Sodium metasilicate pentahydrate           | Na <sub>2</sub> SiO <sub>3</sub> · 5H <sub>2</sub> O                                | 13517-24-3  | 212.140     | wh pow                        | 72 dec       |          |                            |                                     | s H <sub>2</sub> O   |
| 2607 | Sodium molybdate                           | Na <sub>2</sub> MoO <sub>4</sub>  | 7631-95-0   | 205.92      | col cub cry                   | 687          |          | ≈3.5                       | 65.0 <sup>25</sup>                  |  |
| 2608 | Sodium molybdate dihydrate                 | Na <sub>2</sub> MoO <sub>4</sub> · 2H <sub>2</sub> O                                | 10102-40-6  | 241.95      | cry powder                    | 100 dec      |          | ≈3.5                       | 65.0 <sup>25</sup>                  |  |
| 2609 | Sodium molybdophosphate                    | Na <sub>3</sub> PO <sub>4</sub> · 12MoO <sub>3</sub>                                | 1313-30-0   | 1891.20     | hyg solid                     |              |          | 2.83                       |                                     | vs H <sub>2</sub> O, EtOH                                  |
| 2610 | Sodium niobate                             | NaNbO <sub>3</sub>  | 12034-09-2  | 163.894     | rhomb cry                     | 1422         |          | 4.55                       |                                     | i H <sub>2</sub> O   |
| 2611 | Sodium nitrate                             | NaNO <sub>3</sub>   | 7631-99-4   | 84.995      | col hex cry; hyg              | 306.5        |          | 2.261                      | 91.2 <sup>25</sup>                  | sl EtOH, MeOH  |
| 2612 | Sodium nitrite                             | NaNO <sub>2</sub>   | 7632-00-0   | 68.996      | wh orth cry; hyg              | 284          | >320 dec | 2.17                       | 84.8 <sup>25</sup>                  | sl EtOH; reac acid   |
| 2613 | Sodium nitroferrocyanide dihydrate         | Na <sub>4</sub> [Fe(CN) <sub>5</sub> NO] · 2H <sub>2</sub> O                        | 13755-38-9  | 297.949     | red cry                       |              |          | 1.72                       | 40 <sup>16</sup>                    | sl EtOH  |
| 2614 | Sodium orthovanadate                       | Na <sub>3</sub> VO <sub>4</sub>   | 13721-39-6  | 183.909     | col hex prisms                | 860          |          |                            |                                     | s H <sub>2</sub> O; i EtOH                                 |
| 2615 | Sodium oxalate                             | Na <sub>2</sub> C <sub>2</sub> O <sub>4</sub>                                       | 62-76-0     | 133.999     | wh powder                     | ≈250 dec     |          | 2.34                       | 3.61 <sup>25</sup>                  | i EtOH   |



| No.  | Name   | Formula  | CAS Reg No. | Mol. weight | Physical form         | mp/°C    | bp/°C | Density g cm <sup>-3</sup> | Solubility g/100 g H <sub>2</sub> O | Qualitative solubility                             |
|------|--|--|-------------|-------------|-----------------------|----------|-------|----------------------------|-------------------------------------|--|
| 2616 | Sodium oxide                                 | Na <sub>2</sub> O  | 1313-59-3   | 61.979      | wh amorp powder       | 1134     |       | 2.27                       |                                     | react H <sub>2</sub> O                             |
| 2617 | Sodium perborate tetrahydrate                | NaBO <sub>3</sub> · 4H <sub>2</sub> O  | 7632-04-4   | 153.861     | wh cry                | 60 dec   |       |                            |                                     | react H <sub>2</sub> O                             |
| 2618 | Sodium perchlorate                           | NaClO <sub>4</sub>   | 7601-89-0   | 122.441     | wh orth cry; hyg      | 482 dec  |       | 2.52                       | 205 <sup>25</sup>                   |  |
| 2619 | Sodium perchlorate monohydrate               | NaClO <sub>4</sub> · H <sub>2</sub> O  | 7791-07-3   | 140.456     | wh hyg cry            | ≈130 dec |       | 2.02                       | 205 <sup>25</sup>                   |  |
| 2620 | Sodium periodate                             | NaIO <sub>4</sub>  | 7790-28-5   | 213.892     | wh tetr cry           | ≈300 dec |       | 3.86                       | 14.4 <sup>25</sup>                  | s acid   |
| 2621 | Sodium periodate trihydrate                  | NaIO <sub>4</sub> · 3H <sub>2</sub> O  | 13472-31-6  | 267.938     | wh hex cry            | 175 dec  |       | 3.22                       | 14.4 <sup>25</sup>                  |  |
| 2622 | Sodium permanganate trihydrate               | NaMnO <sub>4</sub> · 3H <sub>2</sub> O   | 10101-50-5* | 195.972     | red-blk hyg cry       | 170 dec  |       | 2.47                       | 144 <sup>20</sup>                   | react EtOH   |
| 2623 | Sodium peroxide                              | Na <sub>2</sub> O <sub>2</sub>   | 1313-60-6   | 77.979      | yel hyg powder        | 675      |       | 2.805                      |                                     | react H <sub>2</sub> O                             |
| 2624 | Sodium perrenate                             | NaReO <sub>4</sub>   | 13472-33-8  | 273.195     | cry                   | 300      |       | 5.39                       |                                     |  |
| 2625 | Sodium persulfate                            | Na <sub>2</sub> S <sub>2</sub> O <sub>8</sub>                                    | 7775-27-1   | 238.105     | wh hyg cry            |          |       |                            |                                     | vs H <sub>2</sub> O; react EtOH                    |
| 2626 | Sodium phosphate                             | Na <sub>3</sub> PO <sub>4</sub>  | 7601-54-9   | 163.940     | col cry               | 1583     |       | 2.54                       | 14.5 <sup>25</sup>                  | s H <sub>2</sub> O                                 |
| 2627 | Sodium phosphate dodecahydrate               | Na <sub>3</sub> PO <sub>4</sub> · 12H <sub>2</sub> O                             | 10101-89-0  | 380.124     | col hex cry           | ≈75      |       | 1.62                       | 14.4 <sup>25</sup>                  | i EtOH   |
| 2628 | Sodium phosphate, chlorinated                | Na <sub>3</sub> PO <sub>4</sub> · NaOCl  | 56802-99-4  | 238.383     | wh cry                |          |       |                            | 25 <sup>25</sup>                    |  |
| 2629 | Sodium phosphide                             | Na <sub>3</sub> P  | 12058-85-4  | 99.943      | red solid             | >650     |       |                            |                                     | react H <sub>2</sub> O                             |
| 2630 | Sodium phosphinate                           | NaH <sub>2</sub> PO <sub>2</sub>   | 7681-53-0   | 87.979      | wh cry                |          |       |                            | 100 <sup>25</sup>                   |  |
| 2631 | Sodium phosphinate monohydrate               | NaH <sub>2</sub> PO <sub>2</sub> · H <sub>2</sub> O                              | 10039-56-2  | 105.994     | col hyg cry           | 310 dec  |       |                            | 100 <sup>25</sup>                   | s EtOH   |
| 2632 | Sodium phosphonate pentahydrate              | Na <sub>2</sub> HPO <sub>3</sub> · 5H <sub>2</sub> O                             | 13517-23-2  | 216.036     | wh hex plates         | dec 200  |       |                            | 429 <sup>20</sup>                   | vs H <sub>2</sub> O; i EtOH                        |
| 2633 | Sodium pyrophosphate                         | Na <sub>2</sub> P <sub>2</sub> O <sub>7</sub>                                    | 7722-88-5   | 265.902     | col cry               | 988      |       | 2.53                       | 7.09 <sup>25</sup>                  |  |
| 2634 | Sodium selenate                              | Na <sub>2</sub> SeO <sub>4</sub>   | 13410-01-0  | 188.94      | col orth cry          |          |       |                            | 58.5 <sup>25</sup>                  |  |
| 2635 | Sodium selenate decahydrate                  | Na <sub>2</sub> SeO <sub>4</sub> · 10H <sub>2</sub> O                            | 10102-23-5  | 369.09      | wh cry                |          |       | 1.61                       | 58.5 <sup>25</sup>                  |  |
| 2636 | Sodium selenide                              | Na <sub>2</sub> Se   | 1313-85-5   | 124.94      | amorp solid           | >875     |       | 2.62                       |                                     | react H <sub>2</sub> O                             |
| 2637 | Sodium selenite                              | Na <sub>2</sub> SeO <sub>3</sub>   | 10102-18-8  | 172.94      | wh tetr cry           |          |       |                            | 89.8 <sup>25</sup>                  | i EtOH   |
| 2638 | Sodium selenite pentahydrate                 | Na <sub>2</sub> SeO <sub>3</sub> · 5H <sub>2</sub> O                             | 26970-82-1  | 184.054     | wh tetr cry           | dec      |       |                            |                                     | s H <sub>2</sub> O; i EtOH                         |
| 2639 | Sodium stannate trihydrate                   | Na <sub>2</sub> SnO <sub>3</sub> · 3H <sub>2</sub> O                             | 12209-98-2  | 266.734     | col hex cry           | dec 140  |       |                            | 61 <sup>15</sup>                    | vs H <sub>2</sub> O; i EtOH, ace                   |
| 2640 | Sodium stearate                              | NaC <sub>18</sub> H <sub>35</sub> O <sub>2</sub>                                 | 822-16-2    | 306.460     | wh powder             |          |       |                            |                                     | sl H <sub>2</sub> O, EtOH; vs hot H <sub>2</sub> O |
| 2641 | Sodium succinate hexahydrate                 | Na <sub>2</sub> C <sub>4</sub> H <sub>4</sub> O <sub>4</sub> · 6H <sub>2</sub> O | 150-90-3    | 270.144     | cry powder            | 120 dec  |       |                            | 20                                  | i EtOH   |
| 2642 | Sodium sulfate                               | Na <sub>2</sub> SO <sub>4</sub>  | 7757-82-6   | 142.043     | wh orth cry or powder | 884      |       | 2.7                        | 28.1 <sup>25</sup>                  | i EtOH   |
| 2643 | Sodium sulfate heptahydrate                  | Na <sub>2</sub> SO <sub>4</sub> · 7H <sub>2</sub> O                              | 13472-39-4  | 204.152     | wh cry                | dec      |       |                            |                                     | vs H <sub>2</sub> O                                |
| 2644 | Sodium sulfate decahydrate                   | Na <sub>2</sub> SO <sub>4</sub> · 10H <sub>2</sub> O                             | 7727-73-3   | 322.196     | col monocl cry        | 32 dec   |       | 1.46                       | 28.1 <sup>25</sup>                  | i EtOH   |
| 2645 | Sodium sulfide                               | Na <sub>2</sub> S  | 1313-82-2   | 78.045      | wh cub cry; hyg       | 1172     |       | 1.856                      | 20.6 <sup>25</sup>                  | sl EtOH; i eth                                     |
| 2646 | Sodium sulfide pentahydrate                  | Na <sub>2</sub> S · 5H <sub>2</sub> O  | 1313-83-3   | 168.121     | col orth cry          | 120 dec  |       | 1.58                       | 20.6 <sup>25</sup>                  | s EtOH; i eth                                      |
| 2647 | Sodium sulfide nonahydrate                   | Na <sub>2</sub> S · 9H <sub>2</sub> O  | 1313-84-4   | 240.183     | wh-yel hyg cry        | ≈50 dec  |       | 1.43                       | 20.6 <sup>25</sup>                  | sl EtOH; i eth                                     |
| 2648 | Sodium sulfite                               | Na <sub>2</sub> SO <sub>3</sub>  | 7757-83-7   | 126.043     | wh hex cry            | 911      |       | 2.63                       | 30.7 <sup>25</sup>                  | i EtOH   |
| 2649 | Sodium sulfite heptahydrate                  | Na <sub>2</sub> SO <sub>3</sub> · 7H <sub>2</sub> O                              | 10102-15-5  | 252.150     | wh monocl cry; unstab |          |       | 1.56                       | 30.7 <sup>25</sup>                  | sl EtOH  |
| 2650 | Sodium superoxide                            | NaO <sub>2</sub>   | 12034-12-7  | 54.989      | yel cub cry           | 552      |       | 2.2                        |                                     | react H <sub>2</sub> O                             |
| 2651 | Sodium tartrate dihydrate                    | Na <sub>2</sub> C <sub>4</sub> H <sub>4</sub> O <sub>6</sub> · 2H <sub>2</sub> O | 6106-24-7   | 230.082     |                       |          |       | 1.545                      |                                     | s H <sub>2</sub> O; i EtOH                         |
| 2652 | Sodium tellurate                             | Na <sub>2</sub> TeO <sub>4</sub>   | 10101-83-4  | 237.58      | wh powder             |          |       |                            | 0.8                                 |  |
| 2653 | Sodium tellurite                             | Na <sub>2</sub> TeO <sub>3</sub>   | 10102-20-2  | 221.58      | wh rhomb prisms       |          |       |                            |                                     | sl H <sub>2</sub> O                                |
| 2654 | Sodium tetraborate                           | Na <sub>2</sub> B <sub>4</sub> O <sub>7</sub>                                    | 1330-43-4   | 201.220     | col gl solid; hyg     | 743      | 1575  | 2.4                        | 3.17 <sup>25</sup>                  | sl MeOH  |
| 2655 | Sodium tetraborate tetrahydrate              | Na <sub>2</sub> B <sub>4</sub> O <sub>7</sub> · 4H <sub>2</sub> O                | 12045-87-3  | 273.281     | wh monocl cry         |          |       | 1.95                       | 3.17 <sup>25</sup>                  |  |
| 2656 | Sodium tetraborate pentahydrate              | Na <sub>2</sub> B <sub>4</sub> O <sub>7</sub> · 5H <sub>2</sub> O                | 12045-88-4  | 291.296     | hex cry               | dec      |       | 1.88                       | 3.17 <sup>25</sup>                  |  |
| 2657 | Sodium tetraborate decahydrate               | Na <sub>2</sub> B <sub>4</sub> O <sub>7</sub> · 10H <sub>2</sub> O               | 1303-96-4   | 381.373     | wh monocl cry         | 75 dec   |       | 1.73                       | 3.17 <sup>25</sup>                  | i EtOH   |
| 2658 | Sodium tetrachloroaluminate                  | NaAlCl <sub>4</sub>  | 7784-16-9   | 191.784     | orth cry              |          |       | 2.01                       |                                     | s H <sub>2</sub> O                                 |
| 2659 | Sodium tetrachloroaurate(III) dihydrate      | NaAuCl <sub>4</sub> · 2H <sub>2</sub> O  | 13874-02-7  | 397.800     | oran-yel rhom cry     | 100 dec  |       |                            | 150 <sup>10</sup>                   | s EtOH, eth  |
| 2660 | Sodium tetrachloropalladate(II) trihydrate   | Na <sub>2</sub> PdCl <sub>4</sub> · 3H <sub>2</sub> O                            | 13820-53-6  | 348.26      | brn-red hyg cry       |          |       |                            |                                     | vs H <sub>2</sub> O; s EtOH                        |
| 2661 | Sodium tetrachloroplatinate(II) tetrahydrate | Na <sub>2</sub> PtCl <sub>4</sub> · 4H <sub>2</sub> O                            | 10026-00-3  | 454.938     | red prisms            | 100      |       |                            |                                     | s H <sub>2</sub> O, EtOH                           |
| 2662 | Sodium tetrafluoroberyllate                  | Na <sub>2</sub> BeF <sub>4</sub>   | 13871-27-7  | 130.986     | orth cry              | 575      |       | 2.47                       |                                     | sl H <sub>2</sub> O                                |
| 2663 | Sodium tetrafluoroborate                     | NaBF <sub>4</sub>  | 13755-29-8  | 109.795     | wh orth prisms        | 384      |       | 2.47                       | 108 <sup>20</sup>                   | sl EtOH  |
| 2664 | Sodium thioantimonate nonahydrate            | Na <sub>3</sub> SbS <sub>4</sub> · 9H <sub>2</sub> O                             | 10101-91-4  | 481.127     | yel cry               | dec 108  |       | 1.8                        | 28 <sup>20</sup>                    | i EtOH   |
| 2665 | Sodium thiocyanate                           | NaSCN  | 540-72-7    | 81.073      | col hyg cry           | 287      |       |                            | 151 <sup>25</sup>                   |  |
| 2666 | Sodium thiophosphate dodecahydrate           | Na <sub>2</sub> PO <sub>3</sub> S · 12H <sub>2</sub> O                           | 10101-88-9  | 396.190     | hex hyg leaflets      | 60       |       |                            |                                     | vs hot H <sub>2</sub> O                            |
| 2667 | Sodium thiosulfate                           | Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>                                    | 7772-98-7   | 158.108     | col monocl cry        | 100 dec  |       | 1.69                       | 76.4 <sup>25</sup>                  | i EtOH   |
| 2668 | Sodium thiosulfate pentahydrate              | Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> · 5H <sub>2</sub> O                | 10102-17-7  | 248.184     | col cry               | ≈50 dec  |       | 1.69                       | 76.4 <sup>25</sup>                  | i EtOH   |
| 2669 | Sodium trimetaphosphate                      | Na <sub>3</sub> (PO <sub>3</sub> ) <sub>3</sub>                                  | 7785-84-4   | 305.885     | wh cry                |          |       | 2.49                       | 22                                  |  |
| 2670 | Sodium trimetaphosphate hexahydrate          | Na <sub>3</sub> (PO <sub>3</sub> ) <sub>3</sub> · 6H <sub>2</sub> O              | 7785-84-4   | 413.976     | tricl-rhom hyg prisms | 53       |       | 1.786                      | 22                                  | i EtOH   |
| 2671 | Sodium tripolyphosphate                      | Na <sub>5</sub> P <sub>3</sub> O <sub>10</sub>                                   | 7758-29-4   | 367.864     | wh hyg powder         | 622      |       |                            | 20 <sup>25</sup>                    |  |
| 2672 | Sodium tungstate                             | Na <sub>2</sub> WO <sub>4</sub>  | 13472-45-2  | 293.82      | wh rhom cry           | 695      |       | 4.18                       | 74.2 <sup>25</sup>                  |  |
| 2673 | Sodium tungstate dihydrate                   | Na <sub>2</sub> WO <sub>4</sub> · 2H <sub>2</sub> O                              | 10213-10-2  | 329.85      | wh orth cry           | 100 dec  |       | 3.25                       | 74.2 <sup>25</sup>                  | i EtOH   |
| 2674 | Sodium uranate(VI) monohydrate               | Na <sub>2</sub> UO <sub>7</sub> · H <sub>2</sub> O                               | 13721-34-1  | 652.049     | yel powder            |          |       |                            |                                     | i H <sub>2</sub> O; s acid                         |

| No.  | Name                                    | Formula  | CAS Reg No. | Mol. weight | Physical form                      | mp/°C                  | bp/°C    | Density g cm <sup>-3</sup> | Solubility g/100 g H <sub>2</sub> O | Qualitative solubility                                  |
|------|---|--|-------------|-------------|------------------------------------|------------------------|----------|----------------------------|-------------------------------------|---|
| 2675 | Sodium vanadate(V)                      | NaVO <sub>3</sub>  | 13718-26-8  | 121.930     | col monoc prisms                   | 630                    |          |                            | 21 <sup>25</sup>                    |   |
| 2676 | Sodium vanadate(V) tetrahydrate         | NaVO <sub>3</sub> · 4H <sub>2</sub> O                          | 13718-26-8  | 193.992     | yel-wh cry powder                  |                        |          |                            | 21 <sup>25</sup>                    |   |
| 2677 | Strontium                               | Sr   | 7440-24-6   | 87.62       | silv-wh metal; cub                 | 777                    | 1382     | 2.64                       |                                     | reac H <sub>2</sub> O; s EtOH                           |
| 2678 | Strontium acetate                       | Sr(C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> ) <sub>2</sub> | 543-94-2    | 205.71      | col hyg cry                        | dec                    |          | 2.1                        | 40 <sup>25</sup>                    | vs H <sub>2</sub> O                                     |
| 2679 | Strontium arsenite tetrahydrate         | Sr(AsO <sub>2</sub> ) <sub>2</sub> · 4H <sub>2</sub> O         | 10378-48-0  | 373.52      | wh powder                          |                        |          |                            |                                     | sl H <sub>2</sub> O, EtOH; sol dil acid                 |
| 2680 | Strontium bromate monohydrate           | Sr(BrO <sub>3</sub> ) <sub>2</sub> · H <sub>2</sub> O          | 14519-18-7  | 361.44      | yel hyg monoc cry                  | 120 dec                |          | 3.773                      | 39.0 <sup>25</sup>                  |   |
| 2681 | Strontium bromide                       | SrBr <sub>2</sub>  | 10476-81-0  | 247.43      | wh tetra cry                       | 657                    |          | 4.216                      | 107 <sup>25</sup>                   |   |
| 2682 | Strontium bromide hexahydrate           | SrBr <sub>2</sub> · 6H <sub>2</sub> O                          | 7789-53-9   | 355.52      | col hyg cry                        | 88 dec                 |          |                            | 107 <sup>25</sup>                   | s EtOH; i eth   |
| 2683 | Strontium carbide                       | SrC <sub>2</sub>   | 12071-29-3  | 111.64      | blk tetra cry                      | >1700                  |          | 3.19                       |                                     | i H <sub>2</sub> O                                      |
| 2684 | Strontium carbonate                     | SrCO <sub>3</sub>  | 1633-05-2   | 147.63      | wh orth cry; hyg                   | 1494                   |          | 3.785                      | 0.00034 <sup>20</sup>               | s dil acid  |
| 2685 | Strontium chlorate                      | Sr(ClO <sub>3</sub> ) <sub>2</sub>                             | 7791-10-8   | 254.52      | col cry                            | 120 dec                |          | 3.15                       | 176 <sup>25</sup>                   | sl EtOH   |
| 2686 | Strontium chloride                      | SrCl <sub>2</sub>  | 10476-85-4  | 158.53      | wh cub cry; hyg                    | 874                    | 1250     | 3.052                      | 54.7 <sup>25</sup>                  |   |
| 2687 | Strontium chloride hexahydrate          | SrCl <sub>2</sub> · 6H <sub>2</sub> O                          | 10025-70-4  | 266.62      | col hyg cry                        | 100 dec                |          | 1.96                       | 54.7 <sup>25</sup>                  | s EtOH  |
| 2688 | Strontium chromate                      | SrCrO <sub>4</sub>   | 7789-06-2   | 203.61      | yel monoc cry                      | dec                    |          | 3.9                        | 0.106 <sup>20</sup>                 | s dil acid  |
| 2689 | Strontium cyanide dihydrate             | Sr(CN) <sub>2</sub> · 4H <sub>2</sub> O                        | 52870-08-3  | 211.72      | wh hyg cry                         | dec                    |          |                            |                                     | vs H <sub>2</sub> O                                     |
| 2690 | Strontium ferrocyanide pentadecahydrate | SrFe(CN) <sub>6</sub> · 15H <sub>2</sub> O                     | 14654-44-5  | 569.80      | yel monoc cry                      |                        |          |                            | 50                                  |   |
| 2691 | Strontium fluoride                      | SrF <sub>2</sub>   | 7783-48-4   | 125.62      | wh cub cry or powder               | 1477                   | 2460     | 4.24                       | 0.021 <sup>25</sup>                 | s dil acid  |
| 2692 | Strontium formate                       | Sr(CHO <sub>2</sub> ) <sub>2</sub>                             | 592-89-2    | 177.66      | wh cry                             | 71.9                   |          | 2.693                      | 9.1 <sup>0</sup>                    |   |
| 2693 | Strontium formate dihydrate             | Sr(CHO <sub>2</sub> ) <sub>2</sub> · 2H <sub>2</sub> O         | 6160-34-5   | 213.69      | col rhom cry                       | 100 dec                |          | 2.25                       | 9.1 <sup>37</sup>                   | i EtOH, eth   |
| 2694 | Strontium hexaboride                    | SrB <sub>6</sub>   | 12046-54-7  | 152.49      | blk cub cry                        | 2235                   |          | 3.39                       |                                     | i H <sub>2</sub> O; s HNO <sub>3</sub>                  |
| 2695 | Strontium hydride                       | SrH <sub>2</sub>   | 13598-33-9  | 89.64       | orth cry                           | 1050                   |          | 3.26                       |                                     | reac H <sub>2</sub> O                                   |
| 2696 | Strontium hydroxide                     | Sr(OH) <sub>2</sub>  | 18480-07-4  | 121.64      | col orth cry; hyg                  | 535                    | 710 dec  | 3.625                      | 2.25 <sup>25</sup>                  |   |
| 2697 | Strontium iodate                        | Sr(IO <sub>3</sub> ) <sub>2</sub>                              | 13470-01-4  | 437.43      | tricl cry                          |                        |          | 5.045                      | 0.165 <sup>25</sup>                 |   |
| 2698 | Strontium iodide                        | SrI <sub>2</sub>   | 10476-86-5  | 341.43      | wh hyg cry                         | 538                    | 1773 dec | 4.55                       | 177 <sup>25</sup>                   |   |
| 2699 | Strontium iodide hexahydrate            | SrI <sub>2</sub> · 6H <sub>2</sub> O                           | 73796-25-5  | 449.52      | wh-yel hex cry; hyg                | 120 dec                |          | 4.4                        | 177 <sup>25</sup>                   | s EtOH  |
| 2700 | Strontium molybdate                     | SrMoO <sub>4</sub>   | 13470-04-7  | 247.56      | wh cry pow                         | 1040                   |          | 4.54                       |                                     | i H <sub>2</sub> O                                      |
| 2701 | Strontium niobate                       | SrNb <sub>2</sub> O <sub>6</sub>                               | 12034-89-8  | 369.43      | monoc cry                          | 1225                   |          | 5.11                       |                                     | i H <sub>2</sub> O                                      |
| 2702 | Strontium nitrate                       | Sr(NO <sub>3</sub> ) <sub>2</sub>                              | 10042-76-9  | 211.63      | wh cub cry                         | 570                    |          | 2.99                       | 80.2 <sup>25</sup>                  | sl EtOH, ace  |
| 2703 | Strontium nitride                       | Sr <sub>3</sub> N <sub>2</sub>                                 | 12033-82-8  | 290.87      | refrac solid                       | 1200                   |          |                            |                                     | reac H <sub>2</sub> O; s HCl                            |
| 2704 | Strontium nitrite                       | Sr(NO <sub>2</sub> ) <sub>2</sub>                              | 13470-06-9  | 179.63      | wh-yel hyg needles                 | 240 dec                |          | 2.8                        | 72.1 <sup>30</sup>                  | s H <sub>2</sub> O                                      |
| 2705 | Strontium orthosilicate                 | Sr <sub>2</sub> SiO <sub>4</sub>                               | 13597-55-2  | 267.32      | orth cry                           |                        |          | 4.5                        |                                     |   |
| 2706 | Strontium oxalate monohydrate           | SrC <sub>2</sub> O <sub>4</sub> · H <sub>2</sub> O             | 814-95-9    | 193.65      | cry pow                            | dec 150                |          |                            | 0.00005 <sup>20</sup>               | sl dil acid   |
| 2707 | Strontium oxide                         | SrO  | 1314-11-0   | 103.62      | col cub cry                        | 2531                   |          | 5.1                        |                                     | reac H <sub>2</sub> O                                   |
| 2708 | Strontium perchlorate                   | Sr(ClO <sub>4</sub> ) <sub>2</sub>                             | 13450-97-0  | 286.52      | col hyg cry                        |                        |          |                            | 306 <sup>25</sup>                   | s EtOH, MeOH  |
| 2709 | Strontium permanganate trihydrate       | Sr(MnO <sub>4</sub> ) <sub>2</sub> · 3H <sub>2</sub> O         | 14446-13-0  | 379.54      | purp cub cry                       | 175 dec                |          | 2.75                       | 250 <sup>18</sup>                   |   |
| 2710 | Strontium peroxide                      | SrO <sub>2</sub>   | 1314-18-7   | 119.62      | wh tetra cry; unstab               | 215 dec                |          | 4.78                       |                                     | reac H <sub>2</sub> O                                   |
| 2711 | Strontium phosphate                     | Sr <sub>3</sub> (PO <sub>4</sub> ) <sub>2</sub>                | 7446-28-8   | 452.80      | wh powder                          |                        |          |                            | 0.000011 <sup>20</sup>              | s acid  |
| 2712 | Strontium selenate                      | SrSeO <sub>4</sub>   | 7446-21-1   | 230.58      | orth cry                           |                        |          | 4.25                       | 0.115 <sup>20</sup>                 | s hot HCl   |
| 2713 | Strontium selenide                      | SrSe   | 1315-07-7   | 166.58      | wh cub cry                         | 1600                   |          | 4.54                       |                                     |   |
| 2714 | Strontium silicide                      | SrSi <sub>2</sub>  | 12138-28-2  | 143.79      | silv-gray cub cry                  | 1100                   |          | 3.35                       |                                     |   |
| 2715 | Strontium sulfate                       | SrSO <sub>4</sub>  | 7759-02-6   | 183.68      | wh orth cry                        | 1606                   |          | 3.96                       | 0.0135 <sup>25</sup>                | i EtOH; sl acid   |
| 2716 | Strontium sulfide                       | SrS  | 1314-96-1   | 119.69      | gray cub cry                       | 2226                   |          | 3.70                       |                                     | sl H <sub>2</sub> O; s acid                             |
| 2717 | Strontium sulfite                       | SrSO <sub>3</sub>  | 13451-02-0  | 167.68      | col cry                            | dec                    |          |                            | 0.0015 <sup>25</sup>                | s H <sub>2</sub> SO <sub>4</sub> , HCl                  |
| 2718 | Strontium telluride                     | SrTe   | 12040-08-3  | 215.22      | wh cub cry                         |                        |          | 4.83                       |                                     |   |
| 2719 | Strontium thiosulfate pentahydrate      | SrS <sub>2</sub> O <sub>3</sub> · 5H <sub>2</sub> O            | 15123-90-7  | 289.82      | monoc needles                      | 100 dec                |          | 2.17                       | 36.3 <sup>25</sup>                  | i EtOH  |
| 2720 | Strontium titanate                      | SrTiO <sub>3</sub>   | 12060-59-2  | 183.49      | wh cub cry                         | 2080                   |          | 5.1                        |                                     | i H <sub>2</sub> O                                      |
| 2721 | Strontium tungstate                     | SrWO <sub>4</sub>  | 13451-05-3  | 335.46      | col tetra cry                      | dec                    |          | 6.187                      | 0.14 <sup>15</sup>                  | i EtOH  |
| 2722 | Strontium zirconate                     | SrZrO <sub>3</sub>   | 12036-39-4  | 226.84      | col cry                            | 2600                   |          |                            |                                     |   |
| 2723 | Sulfur (rhombohedral)                   | S  | 7704-34-9   | 32.065      | yel orth cry                       | 95.3 (trans to monocl) | 444.61   | 2.07                       |                                     | i H <sub>2</sub> O; sl EtOH, bz, eth; s CS <sub>2</sub> |
| 2724 | Sulfur (monoclinic)                     | S  | 7704-34-9   | 32.065      | yel monoc needles, stable 95.3-120 | 115.21                 | 444.61   | 2.00                       |                                     | i H <sub>2</sub> O; sl EtOH, bz, eth; s CS <sub>2</sub> |
| 2725 | Sulfuric acid                           | H <sub>2</sub> SO <sub>4</sub>                                 | 7664-93-9   | 98.079      | col oily liq                       | 10.31                  | 337      | 1.8302                     |                                     | vs H <sub>2</sub> O                                     |
| 2726 | Peroxydisulfuric acid                   | H <sub>2</sub> S <sub>2</sub> O <sub>8</sub>                   | 7722-86-3   | 114.078     | wh cry; unstab                     | 45 dec                 |          |                            |                                     | vs H <sub>2</sub> O                                     |
| 2727 | Nitrosylsulfuric acid                   | HNOSO <sub>4</sub>   | 7782-78-7   | 127.077     | prisms                             | 73 dec                 |          |                            |                                     | reac H <sub>2</sub> O; s H <sub>2</sub> SO <sub>4</sub> |
| 2728 | Chlorosulfonic acid                     | SO <sub>2</sub> (OH)Cl   | 7790-94-5   | 116.524     | col-yel liq                        | -80                    | 152      | 1.75                       |                                     | reac H <sub>2</sub> O; s py                             |
| 2729 | Fluorosulfonic acid                     | SO <sub>2</sub> (OH)F  | 7789-21-1   | 100.069     | col liq                            | -89                    | 163      | 1.726                      |                                     | reac H <sub>2</sub> O                                   |
| 2730 | Sulfurous acid                          | H <sub>2</sub> SO <sub>3</sub>                                 | 7782-99-2   | 82.079      | exists only in aq soln             |                        |          |                            |                                     |   |
| 2731 | Sulfamic acid                           | H <sub>2</sub> NSO <sub>3</sub> H                              | 5329-14-6   | 97.094      | orth cry                           | ≈205 dec               |          | 2.15                       | 14.7 <sup>0</sup>                   | sl ace; i eth   |
| 2732 | Sulfur dioxide                          | SO <sub>2</sub>  | 7446-09-5   | 64.064      | col gas                            | -75.5                  | -10.05   | 2.619 g/L                  |                                     | s H <sub>2</sub> O, EtOH, eth, chl                      |

| No.  | Name                                      | Formula   | CAS Reg No. | Mol. weight | Physical form          | mp/°C      | bp/°C       | Density g cm <sup>-3</sup> | Solubility g/100 g H <sub>2</sub> O | Qualitative solubility                            |
|------|---|---|-------------|-------------|------------------------|------------|-------------|----------------------------|-------------------------------------|---|
| 2733 | Sulfur trioxide                           | SO <sub>3</sub>                                 | 7446-11-9   | 80.063      | wh needles             | 62.2       | subl        |                            |                                     | react H <sub>2</sub> O                            |
| 2734 | Sulfur trioxide (γ-form)                  | SO <sub>3</sub>                                 | 7446-11-9   | 80.063      | col solid or liq       | 16.8       | 44.5        | 1.90                       |                                     | react H <sub>2</sub> O                            |
| 2735 | Sulfur trioxide (β-form)                  | SO <sub>3</sub>                                 | 7446-11-9   | 80.063      | wh needles             | 30.5       | 44.5        |                            |                                     | react H <sub>2</sub> O                            |
| 2736 | Sulfur bromide (SSBr <sub>2</sub> )       | SSBr <sub>2</sub>                               | 13172-31-1  | 223.938     | red oily liq           | -46        | >25 dec     | 2.63                       |                                     | react H <sub>2</sub> O                            |
| 2737 | Sulfur chloride (SSCl <sub>2</sub> )      | SSCl <sub>2</sub>                               | 10025-67-9  | 135.036     | yel-red oily liq       | -77        | 137         | 1.69                       |                                     | react H <sub>2</sub> O; s EtOH, bz, eth, ctc      |
| 2738 | Sulfur fluoride (SSF <sub>2</sub> )       | SSF <sub>2</sub>                                | 16860-99-4  | 102.127     | col gas                | -164.6     | -10.6       | 4.174 g/L                  |                                     | react H <sub>2</sub> O                            |
| 2739 | Sulfur fluoride (FSSF)                    | FSSF  | 13709-35-8  | 102.127     | col gas                | -133       | 15          | 4.174 g/L                  |                                     | react H <sub>2</sub> O                            |
| 2740 | Sulfur dichloride                         | SCl <sub>2</sub>                                | 10545-99-0  | 102.971     | red visc liq           | -122       | 59.6        | 1.62                       |                                     | react H <sub>2</sub> O                            |
| 2741 | Sulfur tetrafluoride                      | SF <sub>4</sub>                                 | 7783-60-0   | 108.059     | col gas                | -125       | -40.45      | 4.417 g/L                  |                                     | react H <sub>2</sub> O                            |
| 2742 | Sulfur hexafluoride                       | SF <sub>6</sub>                                 | 2551-62-4   | 146.055     | col gas                | -49.596 tp | -63.8 sp    | 5.970 g/L                  |                                     | sl H <sub>2</sub> O; s EtOH                       |
| 2743 | Sulfur bromide pentafluoride              | SF <sub>5</sub> Br                              | 15607-89-3  | 206.961     | col gas                | -79        | 3.1         | 8.459 g/L                  |                                     |   |
| 2744 | Sulfur chloride pentafluoride             | SF <sub>5</sub> Cl                              | 13780-57-9  | 162.510     | col gas                | -64        | -19.05      | 6.642 g/L                  |                                     |   |
| 2745 | Sulfur decafluoride                       | S <sub>2</sub> F <sub>10</sub>                  | 5714-22-7   | 254.114     | liq                    | -52.7      | 30; dec 150 | 2.08                       |                                     | i H <sub>2</sub> O                                |
| 2746 | Sulfuryl amide                            | (NH <sub>2</sub> ) <sub>2</sub> SO <sub>2</sub> | 7803-58-9   | 96.109      | orth plates            | 93         | 250 dec     |                            |                                     | vs H <sub>2</sub> O; sl EtOH                      |
| 2747 | Sulfuryl chloride                         | SO <sub>2</sub> Cl <sub>2</sub>                 | 7791-25-5   | 134.970     | col liq                | -51        | 69.4        | 1.680                      |                                     | react H <sub>2</sub> O; s bz, tol, eth            |
| 2748 | Sulfuryl fluoride                         | SO <sub>2</sub> F <sub>2</sub>                  | 2699-79-8   | 102.061     | col gas                | -135.8     | -55.4       | 4.172 g/L                  |                                     | sl H <sub>2</sub> O, EtOH; s tol, ctc             |
| 2749 | Sulfuryl bromide fluoride                 | SO <sub>2</sub> BrF                             | 13536-61-3  | 162.966     | col liq                | -86        | 41          |                            |                                     | react H <sub>2</sub> O                            |
| 2750 | Sulfuryl chloride fluoride                | SO <sub>2</sub> ClF                             | 13637-84-8  | 118.515     | col gas                | -124.7     | 7.1         | 1.62 <sup>o</sup>          |                                     | react H <sub>2</sub> O                            |
| 2751 | Pyrosulfuryl chloride                     | S <sub>2</sub> O <sub>3</sub> Cl <sub>2</sub>   | 7791-27-7   | 215.033     | col fuming liq         | -37        | 151         | 1.837                      |                                     | react H <sub>2</sub> O                            |
| 2752 | Thionyl bromide                           | SOBr <sub>2</sub>                               | 507-16-4    | 207.872     | yel liq                | -50        | 140         |                            |                                     | react H <sub>2</sub> O                            |
| 2753 | Thionyl chloride                          | SOCl <sub>2</sub>                               | 7719-09-7   | 118.970     | yel fuming liq         | -101       | 75.6        | 1.631                      |                                     | react H <sub>2</sub> O; s bz, ctc, chl            |
| 2754 | Thionyl fluoride                          | SOF <sub>2</sub>                                | 7783-42-8   | 86.061      | col gas                | -129.5     | -43.8       | 3.518 g/L                  |                                     | react H <sub>2</sub> O; s bz, eth                 |
| 2755 | Sulfur fluoride oxide (SOF <sub>4</sub> ) | SOF <sub>4</sub>                                | 13709-54-1  | 124.058     | col gas                | -99.6      | -48.5       | 1.95 <sup>82</sup>         |                                     | react H <sub>2</sub> O                            |
| 2756 | Sulfur fluoride hypofluorite              | F <sub>2</sub> SOF                              | 15179-32-5  | 162.054     | col gas                | -86        | -35.1       | 6.624 g/L                  |                                     |   |
| 2757 | Tetrasulfur tetranitride                  | S <sub>4</sub> N <sub>4</sub>                   | 28950-34-7  | 184.287     | yel-oran cry           | 178.2      | subl        |                            |                                     | i H <sub>2</sub> O; reac alk, acid                |
| 2758 | Tantalum                                  | Ta  | 7440-25-7   | 180.948     | gray metal; cub        | 3017       | 5458        | 16.4                       |                                     | reac HF   |
| 2759 | Tantalum aluminide                        | TaAl <sub>3</sub>                               | 12004-76-1  | 261.893     | gray refrac powder     | ≈1400      |             | 7.02                       |                                     | i H <sub>2</sub> O, acid, alk                     |
| 2760 | Tantalum boride (TaB)                     | TaB   | 12007-07-7  | 191.759     | refrac orth cry        | 2040       |             | 14.2                       |                                     |   |
| 2761 | Tantalum boride (TaB <sub>2</sub> )       | TaB <sub>2</sub>                                | 12007-35-1  | 202.570     | blk hex cry            | 3100       |             | 11.2                       |                                     | i H <sub>2</sub> O, acid, alk                     |
| 2762 | Tantalum carbide (TaC)                    | TaC   | 12070-06-3  | 192.959     | gold-brown powder; cub | 3880       | 4780        | 14.3                       |                                     | s HF-HNO <sub>3</sub> mixture                     |
| 2763 | Tantalum carbide (Ta <sub>2</sub> C)      | Ta <sub>2</sub> C                               | 12070-07-4  | 373.907     | refrac hex cry         | 3327       |             | 15.1                       |                                     |   |
| 2764 | Tantalum hydride                          | TaH   | 13981-95-8  | 181.956     | gray metallic solid    |            |             | 15.1                       |                                     | i acid  |
| 2765 | Tantalum nitride                          | TaN   | 12033-62-4  | 194.955     | blk hex cry            | 3090       |             | 13.7                       |                                     | i H <sub>2</sub> O; sl aqua regia; reac alk       |
| 2766 | Tantalum silicide                         | TaSi <sub>2</sub>                               | 12039-79-1  | 237.119     | gray powder            | 2200       |             | 9.14                       |                                     |   |
| 2767 | Tantalum(III) bromide                     | TaBr <sub>3</sub>                               | 13842-73-4  | 420.660     | gray-grn solid         | dec 220    |             |                            |                                     |   |
| 2768 | Tantalum(III) chloride                    | TaCl <sub>3</sub>                               | 13569-67-0  | 287.307     | blk-grn solid          | dec 440    |             |                            |                                     | s H <sub>2</sub> O                                |
| 2769 | Tantalum(IV) bromide                      | TaBr <sub>4</sub>                               | 13842-76-7  | 500.564     | dark blue solid        | 392        |             | 5.77                       |                                     | react H <sub>2</sub> O                            |
| 2770 | Tantalum(IV) chloride                     | TaCl <sub>4</sub>                               | 13569-72-7  | 322.760     | dark grn solid         | dec 300    | subl        | 4.35                       |                                     | react H <sub>2</sub> O                            |
| 2771 | Tantalum(IV) iodide                       | TaI <sub>4</sub>                                | 14693-80-2  | 688.566     | gray-blk solid         | 400 dec    |             |                            |                                     | react H <sub>2</sub> O                            |
| 2772 | Tantalum(IV) oxide                        | Ta <sub>2</sub> O <sub>5</sub>                  | 12036-14-5  | 212.947     | tetr cry               |            |             | 10.0                       |                                     |   |
| 2773 | Tantalum(IV) selenide                     | TaSe <sub>2</sub>                               | 12039-55-3  | 338.87      | hex cry                |            |             | 6.7                        |                                     |   |
| 2774 | Tantalum(IV) sulfide                      | TaS <sub>2</sub>                                | 12143-72-5  | 245.078     | blk hex cry            | >3000      |             | 6.86                       |                                     | i H <sub>2</sub> O                                |
| 2775 | Tantalum(IV) telluride                    | TaTe <sub>2</sub>                               | 12067-66-2  | 436.15      | monocl cry             |            |             | 9.4                        |                                     |   |
| 2776 | Tantalum(V) bromide                       | TaBr <sub>5</sub>                               | 13451-11-1  | 580.468     | yel cry powder         | 265.8      | 348.8       | 4.67                       |                                     |   |
| 2777 | Tantalum(V) chloride                      | TaCl <sub>5</sub>                               | 7721-01-9   | 358.213     | yel-wh monocl cry; hyg | 216.6      | 239         | 3.68                       |                                     | react H <sub>2</sub> O; s EtOH                    |
| 2778 | Tantalum(V) fluoride                      | TaF <sub>5</sub>                                | 7783-71-3   | 275.940     | wh monocl cry; hyg     | 96.9       | 229.5       | 4.74                       |                                     | s H <sub>2</sub> O, eth; sl CS <sub>2</sub> , ctc |
| 2779 | Tantalum(V) iodide                        | TaI <sub>5</sub>                                | 14693-81-3  | 815.470     | blk hex cry; hyg       | 496        | 543         | 5.80                       |                                     | react H <sub>2</sub> O                            |
| 2780 | Tantalum(V) oxide                         | Ta <sub>2</sub> O <sub>5</sub>                  | 1314-61-0   | 441.893     | wh rhomb cry or powder | 1875       |             | 8.24                       |                                     | i H <sub>2</sub> O, EtOH, acid; s HF              |
| 2781 | Technetium                                | Tc  | 7440-26-8   | 98          | hex cry                | 2157       | 4265        | 11                         |                                     |   |
| 2782 | Technetium(V) fluoride                    | TcF <sub>5</sub>                                | 31052-14-9  | 193         | yel solid              | 50         | dec         |                            |                                     |   |
| 2783 | Technetium(VI) fluoride                   | TcF <sub>6</sub>                                | 13842-93-8  | 212         | yel cub cry            | 37.4       | 55.3        | 3.0                        |                                     |   |
| 2784 | Tellurium                                 | Te  | 13494-80-9  | 127.60      | gray-wh rhomb cry      | 449.51     | 988         | 6.232                      |                                     | i H <sub>2</sub> O, bz, CS <sub>2</sub>           |
| 2785 | Telluric(VI) acid                         | H <sub>6</sub> TeO <sub>6</sub>                 | 7803-68-1   | 229.64      | wh monocl cry          | 136        |             | 3.07                       | 50.1 <sup>30</sup>                  |   |
| 2786 | Tellurous acid                            | H <sub>2</sub> TeO <sub>3</sub>                 | 10049-23-7  | 177.61      | wh cry                 | 40 dec     |             | 3.0                        |                                     | sl H <sub>2</sub> O; s dil acid, alk              |
| 2787 | Tellurium dioxide                         | TeO <sub>2</sub>                                | 7446-07-3   | 159.60      | wh orth cry            | 733        | 1245        | 5.9                        |                                     | i H <sub>2</sub> O; s alk, acid                   |
| 2788 | Tellurium trioxide                        | TeO <sub>3</sub>                                | 13451-18-8  | 175.60      | yel-oran cry           | 430        |             | 5.07                       |                                     | i H <sub>2</sub> O                                |

| No.  | Name                                | Formula   | CAS Reg No. | Mol. weight | Physical form           | mp/°C    | bp/°C    | Density g cm <sup>-3</sup> | Solubility g/100 g H <sub>2</sub> O | Qualitative solubility               |
|------|-------------------------------------|---|-------------|-------------|-------------------------|----------|----------|----------------------------|-------------------------------------|--------------------------------------|
| 2789 | Tellurium dibromide                 | TeBr <sub>2</sub>   | 7789-54-0   | 287.41      | grn-brn hyg cry         | 210      | 339      |                            |                                     | reac H <sub>2</sub> O; s eth; sl chl |
| 2790 | Tellurium dichloride                | TeCl <sub>2</sub>   | 10025-71-5  | 198.51      | blk amorp solid; hyg    | 208      | 328      | 6.9                        |                                     | reac H <sub>2</sub> O; i ctc         |
| 2791 | Tellurium tetrabromide              | TeBr <sub>4</sub>   | 10031-27-3  | 447.22      | yel-oran monocl cry     | 380      | ≈420 dec | 4.3                        |                                     | reac H <sub>2</sub> O; s eth         |
| 2792 | Tellurium tetrachloride             | TeCl <sub>4</sub>   | 10026-07-0  | 269.41      | wh monocl cry; hyg      | 224      | 387      | 3.0                        |                                     | reac H <sub>2</sub> O; s EtOH, tol   |
| 2793 | Tellurium tetrafluoride             | TeF <sub>4</sub>  | 15192-26-4  | 203.59      | col cry                 | 129      | 195 dec  |                            |                                     | reac H <sub>2</sub> O                |
| 2794 | Tellurium decafluoride              | Te <sub>2</sub> F <sub>10</sub>                                     | 53214-07-6  | 445.18      | col liq                 | -33.7    | 59       |                            |                                     |                                      |
| 2795 | Tellurium tetraiodide               | TeI <sub>4</sub>  | 7790-48-9   | 635.22      | blk orth cry            | 280      |          | 5.05                       |                                     | reac H <sub>2</sub> O; sl ace        |
| 2796 | Tellurium hexafluoride              | TeF <sub>6</sub>  | 7783-80-4   | 241.59      | col gas                 | -37.6 tp | -38.9 sp | 9.875 g/L                  |                                     | reac H <sub>2</sub> O                |
| 2797 | Terbium                             | Tb  | 7440-27-9   | 158.925     | silv metal; hex         | 1359     | 3230     | 8.23                       |                                     |                                      |
| 2798 | Terbium nitride                     | TbN   | 12033-64-6  | 172.932     | cub cry                 |          |          | 9.55                       |                                     |                                      |
| 2799 | Terbium silicide                    | TbSi <sub>2</sub>   | 12039-80-4  | 215.096     | orth cry                |          |          | 6.66                       |                                     |                                      |
| 2800 | Terbium(III) bromide                | TbBr <sub>3</sub>   | 14456-47-4  | 398.637     | wh hex cry              | 830      | 1490     |                            |                                     | s H <sub>2</sub> O                   |
| 2801 | Terbium(III) chloride               | TbCl <sub>3</sub>   | 10042-88-3  | 265.284     | wh orth cry; hyg        | 582      |          | 4.35                       |                                     | s H <sub>2</sub> O                   |
| 2802 | Terbium(III) chloride hexahydrate   | TbCl <sub>3</sub> · 6H <sub>2</sub> O                               | 13798-24-8  | 373.375     | hyg cry                 |          |          | 4.35                       |                                     | vs H <sub>2</sub> O                  |
| 2803 | Terbium(III) iodide                 | TbI <sub>3</sub>  | 13813-40-6  | 539.638     | hex cry; hyg            | 955      |          | ≈5.2                       |                                     | s H <sub>2</sub> O                   |
| 2804 | Terbium(III) nitrate                | Tb(NO <sub>3</sub> ) <sub>3</sub>                                   | 10043-27-3  | 344.940     | pink hyg solid          |          |          |                            | 157 <sup>25</sup>                   | s EtOH                               |
| 2805 | Terbium(III) nitrate hexahydrate    | Tb(NO <sub>3</sub> ) <sub>3</sub> · 6H <sub>2</sub> O               | 13451-19-9  | 453.031     | col needles             | 89       |          |                            |                                     | s H <sub>2</sub> O, EtOH, ace        |
| 2806 | Terbium(III) oxide                  | Tb <sub>2</sub> O <sub>3</sub>                                      | 12036-41-8  | 365.849     | wh cub cry              | 2303     |          | 7.91                       |                                     |                                      |
| 2807 | Terbium(III) sulfate octahydrate    | Tb <sub>2</sub> (SO <sub>4</sub> ) <sub>3</sub> · 8H <sub>2</sub> O | 13842-67-6  | 750.161     | wh cry                  | dec 360  |          |                            |                                     | sl H <sub>2</sub> O                  |
| 2808 | Terbium(III) sulfide                | Tb <sub>2</sub> S <sub>3</sub>                                      | 12138-11-3  | 414.046     | cub cry                 |          |          | 6.35                       |                                     |                                      |
| 2809 | Terbium(III) fluoride               | TbF <sub>3</sub>  | 13708-63-9  | 215.920     | wh solid                | 1175     | 2280     |                            |                                     | i H <sub>2</sub> O                   |
| 2810 | Terbium(IV) fluoride                | TbF <sub>4</sub>  | 36781-15-4  | 234.919     | wh monocl cry           | dec 300  |          |                            |                                     | i H <sub>2</sub> O                   |
| 2811 | Thallium                            | Tl  | 7440-28-0   | 204.383     | soft blue-wh metal      | 304      | 1473     | 11.8                       |                                     | i H <sub>2</sub> O; reac acid        |
| 2812 | Thallium(I) acetate                 | TlC <sub>2</sub> H <sub>3</sub> O <sub>2</sub>                      | 563-68-8    | 263.427     | hyg wh cry              | 131      |          | 3.68                       |                                     | s H <sub>2</sub> O, EtOH             |
| 2813 | Thallium(I) azide                   | TlN <sub>3</sub>  | 13847-66-0  | 246.403     | yel cry                 | 334      | exp      |                            |                                     | s H <sub>2</sub> O                   |
| 2814 | Thallium(I) bromate                 | TlBrO <sub>3</sub>  | 14550-84-6  | 332.285     | col needles             | 120 dec  |          |                            | 0.49 <sup>20</sup>                  | s EtOH                               |
| 2815 | Thallium(I) bromide                 | TlBr  | 7789-40-4   | 284.287     | yel cub cry             | 460      | 819      | 7.5                        | 0.059 <sup>20</sup>                 |                                      |
| 2816 | Thallium(I) carbonate               | Tl <sub>2</sub> CO <sub>3</sub>                                     | 6533-73-9   | 468.776     | wh monocl cry           | 273      |          | 7.11                       | 4.69 <sup>20</sup>                  | i EtOH                               |
| 2817 | Thallium(I) chlorate                | TlClO <sub>3</sub>  | 13453-30-0  | 287.834     | col hex cry             | dec 500  |          | 5.5                        | 3.92 <sup>20</sup>                  |                                      |
| 2818 | Thallium(I) chloride                | TlCl  | 7791-12-0   | 239.836     | wh cub cry              | 431      | 720      | 7.0                        | 0.33 <sup>20</sup>                  | i EtOH                               |
| 2819 | Thallium(I) chromate                | Tl <sub>2</sub> CrO <sub>4</sub>                                    | 13473-75-1  | 524.761     | yel cry                 |          |          |                            | 0.003 <sup>20</sup>                 | sl acid, alk                         |
| 2820 | Thallium(I) cyanide                 | TlCN  | 13453-34-4  | 230.401     | wh hex plates           |          |          | 6.523                      |                                     | s H <sub>2</sub> O, acid, EtOH       |
| 2821 | Thallium(I) ethanolate              | TlC <sub>2</sub> H <sub>5</sub> O                                   | 20398-06-5  | 249.443     | cloudy liq              | -3       | 130 dec  | 3.49                       |                                     | reac H <sub>2</sub> O                |
| 2822 | Thallium(I) fluoride                | TlF   | 7789-27-7   | 223.381     | wh orth cry             | 326      | 826      | 8.36                       | 245 <sup>25</sup>                   |                                      |
| 2823 | Thallium(I) formate                 | TlCHO <sub>2</sub>  | 992-98-3    | 249.401     | hyg col needles         | 101      |          | 4.97                       |                                     | vs H <sub>2</sub> O; s MeOH          |
| 2824 | Thallium(I) hexafluorophosphate     | TlPF <sub>6</sub>   | 60969-19-9  | 349.347     | wh cub cry              |          |          | 4.6                        |                                     |                                      |
| 2825 | Thallium(I) hydroxide               | TlOH  | 12026-06-1  | 221.390     | yel needles             | 139 dec  |          | 7.44                       | 34.3 <sup>18</sup>                  |                                      |
| 2826 | Thallium(I) iodate                  | TlIO <sub>3</sub>   | 14767-09-0  | 379.285     | wh needles              |          |          | 0.058                      |                                     | sl HNO <sub>3</sub>                  |
| 2827 | Thallium(I) iodide                  | TlI   | 7790-30-9   | 331.287     | yel cry powder          | 441.7    | 824      | 7.1                        | 0.0085 <sup>20</sup>                | i EtOH                               |
| 2828 | Thallium(I) molybdate               | Tl <sub>2</sub> MoO <sub>4</sub>                                    | 34128-09-1  | 568.71      | yel-wh cub cry          |          |          |                            |                                     | i H <sub>2</sub> O                   |
| 2829 | Thallium(I) nitrate                 | TlNO <sub>3</sub>   | 10102-45-1  | 266.388     | wh cry                  | 206      | 450 dec  | 5.55                       | 9.55 <sup>20</sup>                  | s H <sub>2</sub> O; i EtOH           |
| 2830 | Thallium(I) nitrite                 | TlNO <sub>2</sub>   | 13826-63-6  | 250.389     | yel cub cry             | 186      |          | 5.7                        | 32.1 <sup>25</sup>                  | s H <sub>2</sub> O                   |
| 2831 | Thallium(I) oxalate                 | Tl <sub>2</sub> C <sub>2</sub> O <sub>4</sub>                       | 30737-24-7  | 496.786     | wh powder               |          |          | 6.31                       | 1.83 <sup>20</sup>                  |                                      |
| 2832 | Thallium(I) oxide                   | Tl <sub>2</sub> O   | 1314-12-1   | 424.766     | blk rhomb cry; hyg      | 579      | ≈1080    | 9.52                       |                                     | s H <sub>2</sub> O, EtOH             |
| 2833 | Thallium(I) perchlorate             | TlClO <sub>4</sub>  | 13453-40-2  | 303.834     | col orth cry            | 501      |          | 4.89                       | 19.7 <sup>20</sup>                  |                                      |
| 2834 | Thallium(I) selenate                | Tl <sub>2</sub> SeO <sub>4</sub>                                    | 7446-22-2   | 551.73      | orth cry                | >400     |          | 6.875                      | 2.8 <sup>20</sup>                   | i EtOH, eth                          |
| 2835 | Thallium(I) selenide                | Tl <sub>2</sub> Se  | 15572-25-5  | 487.73      | gray plates             | 340      |          |                            |                                     | i H <sub>2</sub> O, acid             |
| 2836 | Thallium(I) sulfate                 | Tl <sub>2</sub> SO <sub>4</sub>                                     | 7446-18-6   | 504.830     | wh rhomb prisms         | 632      |          | 6.77                       | 5.47 <sup>25</sup>                  |                                      |
| 2837 | Thallium(I) sulfide                 | Tl <sub>2</sub> S   | 1314-97-2   | 440.832     | blue-blk cry            | 457      | 1367     | 8.39                       | 0.02 <sup>20</sup>                  | sl alk; s acid                       |
| 2838 | Thallium(III) acetate               | Tl(C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> ) <sub>3</sub>      | 2570-63-0   | 381.514     | hyg wh platelets        | 182 dec  |          |                            |                                     |                                      |
| 2839 | Thallium(III) bromide tetrahydrate  | TlBr <sub>3</sub> · 4H <sub>2</sub> O                               | 13701-90-1  | 516.157     | yel orth cry            |          |          | 3.65                       |                                     | s H <sub>2</sub> O, EtOH             |
| 2840 | Thallium(III) chloride              | TlCl <sub>3</sub>   | 13453-32-2  | 310.742     | monocl cry              | 155      |          | 4.7                        |                                     | vs H <sub>2</sub> O, EtOH, eth       |
| 2841 | Thallium(III) chloride tetrahydrate | TlCl <sub>3</sub> · 4H <sub>2</sub> O                               | 13453-32-2* | 382.804     | orth cry                |          |          | 3.00                       |                                     | s H <sub>2</sub> O                   |
| 2842 | Thallium(III) fluoride              | TlF <sub>3</sub>  | 7783-57-5   | 261.378     | wh orth cry; hyg        | 550 dec  |          | 8.65                       |                                     | reac H <sub>2</sub> O                |
| 2843 | Thallium(III) nitrate               | Tl(NO <sub>3</sub> ) <sub>3</sub>                                   | 13746-98-0  | 390.398     | col cry                 |          |          |                            |                                     | reac H <sub>2</sub> O                |
| 2844 | Thallium(III) oxide                 | Tl <sub>2</sub> O <sub>3</sub>                                      | 1314-32-5   | 456.765     | brn cub cry             | 834      |          | 10.2                       |                                     | i H <sub>2</sub> O; reac acid        |
| 2845 | Thallium(III) sulfate               | Tl <sub>2</sub> (SO <sub>4</sub> ) <sub>3</sub>                     | 16222-66-5  | 696.955     | col leaflets            |          |          |                            |                                     | reac H <sub>2</sub> O                |
| 2846 | Thallium selenide                   | TlSe  | 12039-52-0  | 283.34      | blk solid               | 330      |          |                            |                                     | i H <sub>2</sub> O, acid             |
| 2847 | Thorium                             | Th  | 7440-29-1   | 232.038     | soft gray-wh metal; cub | 1750     | 4788     | 11.7                       |                                     | s acid                               |
| 2848 | Thorium hydride                     | ThH <sub>2</sub>  | 16689-88-6  | 234.054     | tetr cry                |          |          | 9.5                        |                                     |                                      |
| 2849 | Thorium boride                      | ThB <sub>6</sub>  | 12229-63-9  | 296.904     | refrac solid            | 2450     |          | 6.99                       |                                     |                                      |
| 2850 | Thorium(IV) bromide                 | ThBr <sub>4</sub>   | 13453-49-1  | 551.654     | wh hyg cry              | 679      |          |                            | 65 <sup>20</sup>                    |                                      |

| No.  | Name                               | Formula   | CAS Reg No. | Mol. weight | Physical form             | mp/°C               | bp/°C    | Density g cm <sup>-3</sup> | Solubility g/100 g H <sub>2</sub> O | Qualitative solubility                       |
|------|------------------------------------|---|-------------|-------------|---------------------------|---------------------|----------|----------------------------|-------------------------------------|--|
| 2851 | Thorium carbide                    | ThC   | 12012-16-7  | 244.049     | cub cry                   | 2500                |          | 10.6                       |                                     | react H <sub>2</sub> O                       |
| 2852 | Thorium dicarbide                  | ThC <sub>2</sub>  | 12071-31-7  | 256.059     | yel monocl cry            | ≈2650               |          | 9.0                        |                                     | react H <sub>2</sub> O                       |
| 2853 | Thorium(IV) chloride               | ThCl <sub>4</sub>   | 10026-08-1  | 373.850     | gray-wh tetr needles; hyg | 770                 | 921      | 4.59                       |                                     | s H <sub>2</sub> O, EtOH                     |
| 2854 | Thorium(IV) fluoride               | ThF <sub>4</sub>  | 13709-59-6  | 308.032     | wh monocl cry; hyg        | 1110                | 1680     | 6.1                        |                                     |  |
| 2855 | Thorium(IV) iodide                 | ThI <sub>4</sub>  | 7790-49-0   | 739.656     | wh-yel monocl cry         | 566                 | 837      |                            |                                     |  |
| 2856 | Thorium(IV) nitrate                | Th(NO <sub>3</sub> ) <sub>4</sub>   | 13823-29-5  | 480.058     | hyg wh plates             | 55 dec              |          |                            |                                     | vs H <sub>2</sub> O, EtOH                    |
| 2857 | Thorium(IV) nitrate tetrahydrate   | Th(NO <sub>3</sub> ) <sub>4</sub> · 4H <sub>2</sub> O                             | 13470-07-0  | 552.119     | wh hyg cry                | 500 dec             |          |                            | 191 <sup>20</sup>                   | s EtOH                                       |
| 2858 | Thorium nitride                    | ThN   | 12033-65-7  | 246.045     | refrac cub cry            | 2820                |          | 11.6                       |                                     | react H <sub>2</sub> O                       |
| 2859 | Thorium(IV) oxide                  | ThO <sub>2</sub>  | 1314-20-1   | 264.037     | wh cub cry                | 3350                | 4400     | 10.0                       |                                     | i H <sub>2</sub> O, alk; sl acid             |
| 2860 | Thorium(IV) selenide               | ThSe <sub>2</sub>   | 60763-24-8  | 389.96      | orth cry                  |                     |          | 8.5                        |                                     |  |
| 2861 | Thorium orthosilicate              | ThSiO <sub>4</sub>  | 14553-44-7  | 324.122     | brn tetr cry              |                     |          | 6.7                        |                                     |  |
| 2862 | Thorium silicide                   | ThSi <sub>2</sub>   | 12067-54-8  | 288.209     | tetr cry                  | 1850                |          | 7.9                        |                                     |  |
| 2863 | Thorium(IV) sulfate nonahydrate    | Th(SO <sub>4</sub> ) <sub>2</sub> · 9H <sub>2</sub> O                             | 10381-37-0  | 586.301     | wh monocl cry             | dec                 |          | 2.8                        | 4.2 <sup>20</sup>                   |  |
| 2864 | Thorium(IV) sulfide                | ThS <sub>2</sub>  | 12138-07-7  | 296.168     | dark brn cry              | 1905                |          | 7.30                       |                                     | i H <sub>2</sub> O; s acid                   |
| 2865 | Thulium                            | Tm  | 7440-30-4   | 168.934     | silv metal; hex           | 1545                | 1950     | 9.32                       |                                     | s dil acid                                   |
| 2866 | Thulium(II) bromide                | TmBr <sub>2</sub>   | 64171-97-7  | 328.742     | dark grn solid            | 619                 |          |                            |                                     |  |
| 2867 | Thulium(II) chloride               | TmCl <sub>2</sub>   | 22852-11-5  | 239.840     | red or grn cry            | 718                 |          |                            |                                     | react H <sub>2</sub> O                       |
| 2868 | Thulium(II) iodide                 | TmI <sub>2</sub>  | 60864-26-8  | 422.743     | blk hyg solid             | 756                 |          |                            |                                     | react H <sub>2</sub> O                       |
| 2869 | Thulium(III) bromide               | TmBr <sub>3</sub>   | 14456-51-0  | 408.646     | wh hyg cry                | 954                 |          |                            |                                     | s H <sub>2</sub> O                           |
| 2870 | Thulium(III) chloride              | TmCl <sub>3</sub>   | 13537-18-3  | 275.293     | yel hyg cry               | 845                 |          |                            |                                     | s H <sub>2</sub> O                           |
| 2871 | Thulium(III) chloride heptahydrate | TmCl <sub>3</sub> · 7H <sub>2</sub> O   | 13778-39-7  | 401.400     | hyg cry                   |                     |          |                            |                                     | s H <sub>2</sub> O, EtOH                     |
| 2872 | Thulium(III) fluoride              | TmF <sub>3</sub>  | 13760-79-7  | 225.929     | wh cry                    | 1158                |          |                            |                                     | s H <sub>2</sub> O                           |
| 2873 | Thulium(III) hydroxide             | Tm(OH) <sub>3</sub>   | 1311-33-7   | 219.956     | wh or grn prec            |                     |          |                            |                                     | i H <sub>2</sub> O                           |
| 2874 | Thulium(III) iodide                | TmI <sub>3</sub>  | 13813-43-9  | 549.647     | yel hyg cry               | 1021                |          |                            |                                     |  |
| 2875 | Thulium(III) nitrate               | Tm(NO <sub>3</sub> ) <sub>3</sub>   | 14985-19-4  | 354.949     | grn hyg solid             |                     |          |                            | 212 <sup>25</sup>                   | s EtOH                                       |
| 2876 | Thulium(III) nitrate pentahydrate  | Tm(NO <sub>3</sub> ) <sub>3</sub> · 5H <sub>2</sub> O                             | 36548-87-5  | 445.025     | grn hyg cry               |                     |          |                            |                                     | s H <sub>2</sub> O, EtOH, ace                |
| 2877 | Thulium(III) oxalate hexahydrate   | Tm <sub>2</sub> (C <sub>2</sub> O <sub>4</sub> ) <sub>3</sub> · 6H <sub>2</sub> O | 26677-68-9  | 710.016     | grn solid                 | dec 50              |          |                            |                                     | s alk oxalates                               |
| 2878 | Thulium(III) oxide                 | Tm <sub>2</sub> O <sub>3</sub>  | 12036-44-1  | 385.866     | grn-wh cub cry            | 2341                | 3945     | 8.6                        |                                     | sl acid                                      |
| 2879 | Tin (gray)                         | Sn  | 7440-31-5   | 118.710     | cub cry                   | trans to wh Sn 13.2 | 2602     | 5.769                      |                                     |  |
| 2880 | Tin (white)                        | Sn  | 7440-31-5   | 118.710     | silv tetr cry             | 231.93              | 2602     | 7.287                      |                                     |  |
| 2881 | Stannane                           | SnH <sub>4</sub>  | 2406-52-2   | 122.742     | unstab col gas            | -146                | -51.8    | 5.017 g/L                  |                                     |  |
| 2882 | Methylstannane                     | SnH <sub>3</sub> CH <sub>3</sub>  | 1631-78-3   | 136.769     | col gas                   |                     | 1.4      | 5.590 g/L                  |                                     | react H <sub>2</sub> O                       |
| 2883 | (Dimethylamino)trimethylstannane   | Sn(CH <sub>3</sub> ) <sub>3</sub> N(CH <sub>3</sub> ) <sub>2</sub>                | 993-50-0    | 207.890     | liq                       | 1                   | 126      | 1.22                       |                                     | react H <sub>2</sub> O                       |
| 2884 | Tin monophosphide                  | SnP   | 25324-56-5  | 149.684     | dull metallic solid       | 540                 |          |                            |                                     |  |
| 2885 | Tin triphosphide                   | Sn <sub>3</sub> P <sub>3</sub>  | 12286-33-8  | 567.761     | wh cry                    | ≈550                |          | 5.2                        |                                     |  |
| 2886 | Tin(II) acetate                    | Sn(C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> ) <sub>2</sub>                    | 638-39-1    | 236.799     | wh orth cry               | 183                 | subl     | 2.31                       |                                     | s dil HCl                                    |
| 2887 | Tin(II) bromide                    | SnBr <sub>2</sub>   | 10031-24-0  | 278.518     | yel powder                | 215                 | 639      | 5.12                       | 85 <sup>0</sup>                     | s EtOH, eth, ace                             |
| 2888 | Tin(II) chloride                   | SnCl <sub>2</sub>   | 7772-99-8   | 189.616     | wh orth cry               | 247.0               | 623      | 3.90                       | 178 <sup>10</sup>                   | s EtOH, ace, eth; i xyl                      |
| 2889 | Tin(II) chloride dihydrate         | SnCl <sub>2</sub> · 2H <sub>2</sub> O   | 10025-69-1  | 225.647     | wh monocl cry             | 37 dec              |          | 2.71                       | 178 <sup>10</sup>                   | s EtOH, NaOH; vs HCl                         |
| 2890 | Tin(II) fluoride                   | SnF <sub>2</sub>  | 7783-47-3   | 156.707     | wh monocl cry; hyg        | 215                 | 850      | 4.57                       |                                     | s H <sub>2</sub> O; i EtOH, eth, chl         |
| 2891 | Tin(II) hexafluorozirconate        | SnZrF <sub>6</sub>  | 12419-43-1  | 323.924     | cry                       |                     |          | 4.21                       |                                     | s H <sub>2</sub> O                           |
| 2892 | Tin(II) hydroxide                  | Sn(OH) <sub>2</sub>   | 12026-24-3  | 152.725     | wh amorp solid            |                     |          |                            |                                     |  |
| 2893 | Tin(II) iodide                     | SnI <sub>2</sub>  | 10294-70-9  | 372.519     | red-oran powder           | 320                 | 714      | 5.28                       | 0.98 <sup>20</sup>                  | s bz, chl, CS <sub>2</sub>                   |
| 2894 | Tin(II) oxalate                    | SnC <sub>2</sub> O <sub>4</sub>   | 814-94-8    | 206.729     | wh powder                 | 280 dec             |          | 3.56                       |                                     | i H <sub>2</sub> O; s dil HCl                |
| 2895 | Tin(II) oxide                      | SnO   | 21651-19-4  | 134.709     | blue-blk tetr cry         | 1080 dec            |          | 6.45                       |                                     | i H <sub>2</sub> O, EtOH; s acid             |
| 2896 | Tin(II) pyrophosphate              | Sn <sub>2</sub> P <sub>2</sub> O <sub>7</sub>                                     | 15578-26-4  | 411.363     | wh amorp powder           | 400 dec             |          | 4.009                      |                                     | i H <sub>2</sub> O; s conc acid              |
| 2897 | Tin(II) selenide                   | SnSe  | 1315-06-6   | 197.67      | gray orth cry             | 861                 |          | 6.18                       |                                     | i H <sub>2</sub> O; s aqua regia             |
| 2898 | Tin(II) sulfate                    | SnSO <sub>4</sub>   | 7488-55-3   | 214.773     | wh orth cry               | 378 dec             |          | 4.15                       | 18.8 <sup>19</sup>                  |  |
| 2899 | Tin(II) sulfide                    | SnS   | 1314-95-0   | 150.775     | gray orth cry             | 881                 | 1210     | 5.08                       |                                     | i H <sub>2</sub> O; s conc acid              |
| 2900 | Tin(II) tartrate                   | SnC <sub>4</sub> H <sub>4</sub> O <sub>6</sub>                                    | 815-85-0    | 266.781     | wh cry powder             |                     |          |                            |                                     | s H <sub>2</sub> O, dil HCl                  |
| 2901 | Tin(II) telluride                  | SnTe  | 12040-02-7  | 246.31      | gray cub cry              | 806                 |          | 6.5                        |                                     |  |
| 2902 | Tin(IV) bromide                    | SnBr <sub>4</sub>   | 7789-67-5   | 438.326     | wh cry                    | 29.1                | 205      | 3.34                       |                                     | vs H <sub>2</sub> O; s EtOH                  |
| 2903 | Tin(IV) chloride                   | SnCl <sub>4</sub>   | 7646-78-8   | 260.522     | col fuming liq            | -34.07              | 114.15   | 2.234                      |                                     | react H <sub>2</sub> O; s EtOH, ctc, bz, ace |
| 2904 | Tin(IV) chloride pentahydrate      | SnCl <sub>4</sub> · 5H <sub>2</sub> O   | 10026-06-9  | 350.598     | wh-yel cry                | 56 dec              |          | 2.04                       |                                     | vs H <sub>2</sub> O; s EtOH                  |
| 2905 | Tin(IV) chromate                   | Sn(CrO <sub>4</sub> ) <sub>2</sub>  | 38455-77-5  | 350.697     | brn-yel cry powder        | dec                 |          |                            |                                     | s H <sub>2</sub> O                           |
| 2906 | Tin(IV) fluoride                   | SnF <sub>4</sub>  | 7783-62-2   | 194.704     | wh tetr cry               | 442                 | 705 subl | 4.78                       |                                     | react H <sub>2</sub> O                       |
| 2907 | Tin(IV) iodide                     | SnI <sub>4</sub>  | 7790-47-8   | 626.328     | yel-brn cub cry           | 143                 | 364.35   | 4.46                       |                                     | react H <sub>2</sub> O; s EtOH, bz, chl, eth |
| 2908 | Tin(IV) oxide                      | SnO <sub>2</sub>  | 18282-10-5  | 150.709     | gray tetr cry             | 1630                |          | 6.85                       |                                     | i H <sub>2</sub> O, EtOH; s hot conc alk     |
| 2909 | Tin(IV) selenide                   | SnSe <sub>2</sub>   | 20770-09-6  | 276.63      | red-brn cry               | 650                 |          | ≈5.0                       |                                     | i H <sub>2</sub> O; s alk, conc acid         |

| No.  | Name  | Formula   | CAS Reg No. | Mol. weight | Physical form          | mp/°C    | bp/°C    | Density g cm <sup>-3</sup> | Solubility g/100 g H <sub>2</sub> O | Qualitative solubility                        |
|------|---|---|-------------|-------------|------------------------|----------|----------|----------------------------|-------------------------------------|---|
| 2910 | Tin(IV) selenite                                    | Sn(SeO <sub>3</sub> ) <sub>2</sub>                              | 7446-25-5   | 372.63      | cry powder             |          |          |                            |                                     | i H <sub>2</sub> O; s hot HCl                 |
| 2911 | Tin(IV) sulfide                                     | SnS <sub>2</sub>  | 1315-01-1   | 182.840     | gold-yel hex cry       | 600 dec  |          | 4.5                        |                                     | i H <sub>2</sub> O; s alk, aqua regia         |
| 2912 | Titanium  | Ti  | 7440-32-6   | 47.867      | gray metal; hex        | 1668     | 3287     | 4.506                      |                                     |   |
| 2913 | Titanocene dichloride                               | Ti(C <sub>5</sub> H <sub>5</sub> ) <sub>2</sub> Cl <sub>2</sub> | 1271-19-8   | 248.959     | red cry                | 289      |          | 1.60                       |                                     | sl H <sub>2</sub> O, bz; s chl, EtOH, tol     |
| 2914 | Titanium hydride                                    | TiH <sub>2</sub>  | 7704-98-5   | 49.883      | gray-blk powder        | ≈450 dec |          | 3.75                       |                                     | i H <sub>2</sub> O                            |
| 2915 | Titanium boride                                     | TiB <sub>2</sub>  | 12045-63-5  | 69.489      | gray refrac solid; hex | 3225     |          | 4.38                       |                                     |   |
| 2916 | Titanium carbide                                    | TiC   | 12070-08-5  | 59.878      | cub cry                | 3067     |          | 4.93                       |                                     | i H <sub>2</sub> O; s HNO <sub>3</sub>        |
| 2917 | Titanium nitride                                    | TiN   | 25583-20-4  | 61.874      | yel-brn cub cry        | 2947     |          | 5.21                       |                                     | i H <sub>2</sub> O; s aqua regia              |
| 2918 | Titanium phosphide                                  | TiP   | 12037-65-9  | 78.841      | gray hex cry           | 1990     |          | 4.08                       |                                     |   |
| 2919 | Titanium silicide                                   | TiSi <sub>2</sub>   | 12039-83-7  | 104.038     | blk orth cry           | 1500     |          | 4.0                        |                                     | i H <sub>2</sub> O, acid, alk; s HF           |
| 2920 | Titanium(II) bromide                                | TiBr <sub>2</sub>   | 13783-04-5  | 207.675     | blk powder             | dec 400  |          | 4.0                        |                                     | reac H <sub>2</sub> O                         |
| 2921 | Titanium(II) chloride                               | TiCl <sub>2</sub>   | 10049-06-6  | 118.773     | blk hex cryc           | 1035     | 1500     | 3.13                       |                                     | reac H <sub>2</sub> O; s EtOH; i chl, eth     |
| 2922 | Titanium(II) iodide                                 | TiI <sub>2</sub>  | 13783-07-8  | 301.676     | blk hex cry            | dec 400  |          | 5.02                       |                                     | reac H <sub>2</sub> O                         |
| 2923 | Titanium(II) oxide                                  | TiO   | 12137-20-1  | 63.866      | yel cub cry            | 1770     | 3227     | 4.95                       |                                     |   |
| 2924 | Titanium(II) sulfide                                | TiS   | 12039-07-5  | 79.932      | brn hex cry            | 1927     |          | 3.85                       |                                     | i H <sub>2</sub> O; s conc acid               |
| 2925 | Titanium(III) bromide                               | TiBr <sub>3</sub>   | 13135-31-4  | 287.579     | viol hex cry           | dec 400  |          |                            |                                     | s H <sub>2</sub> O                            |
| 2926 | Titanium(III) chloride                              | TiCl <sub>3</sub>   | 7705-07-9   | 154.226     | red-viol hex cry; hyg  | 425 dec  | 960      | 2.64                       |                                     | reac H <sub>2</sub> O                         |
| 2927 | Titanium(III) fluoride                              | TiF <sub>3</sub>  | 13470-08-1  | 104.862     | viol hex cry           | 950 dec  |          | 2.98                       |                                     | i H <sub>2</sub> O, dil acid, alk             |
| 2928 | Titanium(III) iodide                                | TiI <sub>3</sub>  | 13783-08-9  | 428.580     | viol cry               | dec 350  |          |                            |                                     |   |
| 2929 | Titanium(III) oxide                                 | Ti <sub>2</sub> O <sub>3</sub>                                  | 1344-54-3   | 143.732     | blk hex cry            | 1842     |          | 4.486                      |                                     | s hot HF                                      |
| 2930 | Titanium(III) sulfate                               | Ti <sub>2</sub> (SO <sub>4</sub> ) <sub>3</sub>                 | 10343-61-0  | 383.922     | grn cry                |          |          |                            |                                     | i H <sub>2</sub> O, EtOH; s dil HCl           |
| 2931 | Titanium(III) sulfide                               | Ti <sub>2</sub> S <sub>3</sub>                                  | 12039-16-6  | 191.929     | blk hex cry            |          |          | 3.56                       |                                     |   |
| 2932 | Titanium(III,IV) oxide                              | Ti <sub>3</sub> O <sub>5</sub>                                  | 12065-65-5  | 223.598     | blk monocl cry         | 1777     |          | 4.24                       |                                     |   |
| 2933 | Titanium(IV) bromide                                | TiBr <sub>4</sub>   | 7789-68-6   | 367.483     | yel-oran cub cry; hyg  | 38.3     | 233.5    | 3.37                       |                                     | reac H <sub>2</sub> O                         |
| 2934 | Titanium(IV) chloride                               | TiCl <sub>4</sub>   | 7550-45-0   | 189.679     | col or yel liq         | -24.12   | 136.45   | 1.73                       |                                     | reac H <sub>2</sub> O; s EtOH                 |
| 2935 | Titanium(IV) fluoride                               | TiF <sub>4</sub>  | 7783-63-3   | 123.861     | wh hyg powder          | 377      | subl 284 | 2.798                      |                                     | reac H <sub>2</sub> O; s EtOH, py             |
| 2936 | Titanium(IV) iodide                                 | TiI <sub>4</sub>  | 7720-83-4   | 555.485     | red hyg powder         | 155      | 377      | 4.3                        |                                     | reac H <sub>2</sub> O                         |
| 2937 | Titanium(IV) oxide (anatase)                        | TiO <sub>2</sub>  | 1317-70-0   | 79.866      | brn tetr cry           | 1560     |          | 3.9                        |                                     |   |
| 2938 | Titanium(IV) oxide (brookite)                       | TiO <sub>2</sub>  | 12188-41-9  | 79.866      | wh orth cry            |          |          | 4.17                       |                                     |   |
| 2939 | Titanium(IV) oxide (rutile)                         | TiO <sub>2</sub>  | 1317-80-2   | 79.866      | wh tetr cry            | 1843     | ≈3000    | 4.17                       |                                     | i H <sub>2</sub> O, dil acid; s conc acid     |
| 2940 | Titanium(IV) oxysulfate monohydrate                 | TiOSO <sub>4</sub> · H <sub>2</sub> O                           | 13825-74-6* | 177.944     | col orth cry           |          |          | 2.71                       |                                     | reac H <sub>2</sub> O                         |
| 2941 | Titanium(IV) sulfate                                | Ti(SO <sub>4</sub> ) <sub>2</sub>                               | 13693-11-3  | 239.992     | wh-yel hyg cry         | 150 dec  |          |                            |                                     | s H <sub>2</sub> O                            |
| 2942 | Titanium(IV) sulfide                                | TiS <sub>2</sub>  | 12039-13-3  | 111.997     | yel-brn hex cry; hyg   |          |          | 3.37                       |                                     | s H <sub>2</sub> SO <sub>4</sub>              |
| 2943 | Tungsten  | W   | 7440-33-7   | 183.84      | gray-wh metal; cub     | 3422     | 5555     | 19.3                       |                                     |   |
| 2944 | Tungstic acid                                       | H <sub>2</sub> WO <sub>4</sub>                                  | 7783-03-1   | 249.85      | yel amorp powder       | 100 dec  |          | 5.5                        |                                     | i H <sub>2</sub> O, acid; s alk               |
| 2945 | Tungsten boride (W <sub>2</sub> B)                  | W <sub>2</sub> B  | 12007-10-2  | 378.49      | refrac blk powder      | 2670     |          | 16.0                       |                                     | i H <sub>2</sub> O                            |
| 2946 | Tungsten boride (WB)                                | WB  | 12007-09-9  | 194.65      | blk refrac powder      | 2665     |          | 15.2                       |                                     | i H <sub>2</sub> O                            |
| 2947 | Tungsten boride (W <sub>2</sub> B <sub>3</sub> )    | W <sub>2</sub> B <sub>3</sub>                                   | 12007-98-6  | 421.74      | refrac solid           | 2370     |          | 11.0                       |                                     | i H <sub>2</sub> O                            |
| 2948 | Tungsten carbide (W <sub>2</sub> C)                 | W <sub>2</sub> C  | 12070-13-2  | 379.69      | refrac hex cry         | ≈2800    |          | 14.8                       |                                     | i H <sub>2</sub> O                            |
| 2949 | Tungsten carbide (WC)                               | WC  | 12070-12-1  | 195.85      | gray hex cry           | 2785     |          | 15.6                       |                                     | i H <sub>2</sub> O; s HNO <sub>3</sub> /HF    |
| 2950 | Tungsten carbonyl                                   | W(CO) <sub>6</sub>  | 14040-11-0  | 351.90      | wh cry                 | 170 dec  | subl     | 2.65                       |                                     | i H <sub>2</sub> O; s os                      |
| 2951 | Tungsten nitride (WN <sub>2</sub> )                 | WN <sub>2</sub>   | 60922-26-1  | 211.85      | hex cry                | 600 dec  |          | 7.7                        |                                     |   |
| 2952 | Tungsten nitride (W <sub>2</sub> N)                 | W <sub>2</sub> N  | 12033-72-6  | 381.69      | gray cub cry           | dec      |          | 17.8                       |                                     |   |
| 2953 | Tungsten silicide (WSi <sub>2</sub> )               | WSi <sub>2</sub>  | 12039-88-2  | 240.01      | blue-gray tetr cry     | 2160     |          | 9.3                        |                                     | i H <sub>2</sub> O                            |
| 2954 | Tungsten silicide (W <sub>5</sub> Si <sub>3</sub> ) | W <sub>5</sub> Si <sub>3</sub>                                  | 12039-95-1  | 1003.46     | blue-gray refrac solid | 2320     |          | 14.4                       |                                     |   |
| 2955 | Tungsten(II) bromide                                | WBr <sub>2</sub>  | 13470-10-5  | 343.65      | yel powder             | dec 400  |          |                            |                                     | i H <sub>2</sub> O                            |
| 2956 | Tungsten(II) chloride                               | WCl <sub>2</sub>  | 13470-12-7  | 254.75      | gray solid             | dec 500  |          | 5.44                       |                                     | sl H <sub>2</sub> O                           |
| 2957 | Tungsten(II) iodide                                 | WI <sub>2</sub>   | 13470-17-2  | 437.65      | oran-brn cry           | dec 800  |          | 6.79                       |                                     | i H <sub>2</sub> O                            |
| 2958 | Tungsten(III) bromide                               | WBr <sub>3</sub>  | 15163-24-3  | 423.55      | blk hex cry            | dec 180  |          |                            |                                     | i H <sub>2</sub> O                            |
| 2959 | Tungsten(III) chloride                              | WCl <sub>3</sub>  | 20193-56-0  | 290.20      | red solid              | 550 dec  | subl     |                            |                                     | reac H <sub>2</sub> O                         |
| 2960 | Tungsten(III) iodide                                | WI <sub>3</sub>   | 15513-69-6  | 564.55      | blk solid              | dec r.t. |          |                            |                                     | i H <sub>2</sub> O; s ace; sl EtOH, chl       |
| 2961 | Tungsten(IV) bromide                                | WBr <sub>4</sub>  | 14055-81-3  | 503.46      | blk orth cry           |          | 240 subl |                            |                                     | reac H <sub>2</sub> O                         |
| 2962 | Tungsten(IV) chloride                               | WCl <sub>4</sub>  | 13470-13-8  | 325.65      | blk hyg powder         | 450 dec  |          | 4.62                       |                                     | reac H <sub>2</sub> O                         |
| 2963 | Tungsten(IV) fluoride                               | WF <sub>4</sub>   | 13766-47-7  | 259.83      | red-brn cry            | dec 800  |          |                            |                                     | reac H <sub>2</sub> O; s MeCN; i bz, tol, etc |

| No.  | Name   | Formula  | CAS Reg No. | Mol. weight | Physical form           | mp/°C     | bp/°C          | Density g cm <sup>-3</sup> | Solubility g/100 g H <sub>2</sub> O | Qualitative solubility                        |
|------|--|--|-------------|-------------|-------------------------|-----------|----------------|----------------------------|-------------------------------------|---|
| 2964 | Tungsten(IV) iodide                              | WI <sub>4</sub>  | 14055-84-6  | 691.46      | blk cry                 | dec       |                |                            |                                     | react H <sub>2</sub> O; s EtOH; i eth chl     |
| 2965 | Tungsten(IV) oxide                               | WO <sub>2</sub>  | 12036-22-5  | 215.84      | brn monocl cry          | ≈1500 dec | 1730           | 10.8                       |                                     | i H <sub>2</sub> O, os                        |
| 2966 | Tungsten(IV) selenide                            | WSe <sub>2</sub>   | 12067-46-8  | 341.76      | gray hex cry            |           |                | 9.2                        |                                     |   |
| 2967 | Tungsten(IV) sulfide                             | WS <sub>2</sub>  | 12138-09-9  | 247.97      | gray hex cry            | 1250 dec  |                | 7.6                        |                                     | i H <sub>2</sub> O, HCl, alk                  |
| 2968 | Tungsten(IV) telluride                           | WTe <sub>2</sub>   | 12067-76-4  | 439.04      | gray orth cry           | 1020      |                | 9.43                       |                                     |   |
| 2969 | Tungsten(V) bromide                              | WBr <sub>5</sub>   | 13470-11-6  | 583.36      | brn-blk hyg solid       | 286       | 333            |                            |                                     | react H <sub>2</sub> O                        |
| 2970 | Tungsten(V) chloride                             | WCl <sub>5</sub>   | 13470-14-9  | 361.11      | blk-grn hyg cry         | 253       | 286            | 3.88                       |                                     | react H <sub>2</sub> O                        |
| 2971 | Tungsten(V) ethanolate                           | W(C <sub>2</sub> H <sub>5</sub> O) <sub>3</sub>  | 62571-53-3  | 409.14      | powder                  |           | 105(0.05 mmHg) |                            |                                     | s EtAc  |
| 2972 | Tungsten(V) fluoride                             | WF <sub>5</sub>  | 19357-83-6  | 278.83      | yel solid               | dec 20    |                |                            |                                     | react H <sub>2</sub> O                        |
| 2973 | Tungsten(V) oxytribromide                        | WOBr <sub>3</sub>  | 20213-56-3  | 439.55      | dark brn tetr cry       |           |                | ≈5.9                       |                                     |   |
| 2974 | Tungsten(V) oxytrichloride                       | WOC <sub>l</sub> <sub>3</sub>  | 14249-98-0  | 306.20      | grn tetr cry            |           |                | ≈4.6                       |                                     |   |
| 2975 | Tungsten(VI) bromide                             | WBr <sub>6</sub>   | 13701-86-5  | 663.26      | blue-blk cry            | 309       |                | 6.9                        |                                     | react H <sub>2</sub> O                        |
| 2976 | Tungsten(VI) chloride                            | WCl <sub>6</sub>   | 13283-01-7  | 396.56      | purp hex cry; hyg       | 282       | 337            | 3.52                       |                                     | react H <sub>2</sub> O; s EtOH, os            |
| 2977 | Tungsten(VI) dioxydibromide                      | WO <sub>2</sub> Br <sub>2</sub>  | 13520-75-7  | 375.65      | red cry                 |           | 440 subl       |                            |                                     |   |
| 2978 | Tungsten(VI) dioxydichloride                     | WO <sub>2</sub> Cl <sub>2</sub>  | 13520-76-8  | 286.75      | yel orth cry            | 265       |                | 4.67                       |                                     | i H <sub>2</sub> O                            |
| 2979 | Tungsten(VI) dioxydiiodide                       | WO <sub>2</sub> I <sub>2</sub>   | 14447-89-3  | 469.65      | grn monocl cry          | 400 dec   |                | 6.39                       |                                     |   |
| 2980 | Tungsten(VI) fluoride                            | WF <sub>6</sub>  | 7783-82-6   | 297.83      | yel liq or col gas      | 1.9       | 17.1           | 3.44                       |                                     | react H <sub>2</sub> O; vs ctc, cyhex         |
| 2981 | Tungsten(VI) oxide                               | WO <sub>3</sub>  | 1314-35-8   | 231.84      | yel powder              | 1473      | ≈1700          | 7.2                        |                                     | i H <sub>2</sub> O, os; sl acid; s alk        |
| 2982 | Tungsten(VI) oxytetrabromide                     | WOBr <sub>4</sub>  | 13520-77-9  | 519.46      | red tetr cry            | 277       | 327            | ≈5.5                       |                                     | react H <sub>2</sub> O                        |
| 2983 | Tungsten(VI) oxytetrachloride                    | WOC <sub>l</sub> <sub>4</sub>  | 13520-78-0  | 341.65      | red hyg cry             | 210       | 230            | 11.92                      |                                     | react H <sub>2</sub> O; s bz, CS <sub>2</sub> |
| 2984 | Tungsten(VI) oxytetrafluoride                    | WOF <sub>4</sub>   | 13520-79-1  | 275.83      | wh monocl cry           | 105       | 185.9          | 5.07                       |                                     | react H <sub>2</sub> O                        |
| 2985 | Tungsten(VI) sulfide                             | WS <sub>3</sub>  | 12125-19-8  | 280.04      | brn powder              |           |                |                            |                                     | sl H <sub>2</sub> O; s alk                    |
| 2986 | Uranium  | U  | 7440-61-1   | 238.029     | silv-wh orth cry        | 1135      | 4131           | 19.1                       |                                     |   |
| 2987 | Uranium boride (UB <sub>2</sub> )                | UB <sub>2</sub>  | 12007-36-2  | 259.651     | refrac solid            | 2430      |                | 12.7                       |                                     |   |
| 2988 | Uranium boride (UB <sub>3</sub> )                | UB <sub>3</sub>  | 12007-84-0  | 281.273     | refrac solid            | 2530      |                | 9.32                       |                                     | i H <sub>2</sub> O                            |
| 2989 | Uranium carbide (UC)                             | UC   | 12070-09-6  | 250.040     | gray cub cry            | 2790      |                |                            |                                     |   |
| 2990 | Uranium carbide (UC <sub>2</sub> )               | UC <sub>2</sub>  | 12071-33-9  | 262.050     | gray tetr cry           | 2350      | 4370           | 11.3                       |                                     | react H <sub>2</sub> O; sl EtOH               |
| 2991 | Uranium carbide (U <sub>2</sub> C <sub>3</sub> ) | U <sub>2</sub> C <sub>3</sub>  | 12076-62-9  | 512.090     | gray cub cry            | ≈1700 dec |                | 12.7                       |                                     |   |
| 2992 | Uranium nitride (UN)                             | UN   | 25658-43-9  | 252.036     | gray cub cry            | 2805      |                | 14.3                       |                                     | i H <sub>2</sub> O                            |
| 2993 | Uranium nitride (U <sub>3</sub> N <sub>4</sub> ) | U <sub>3</sub> N <sub>4</sub>  | 12033-83-9  | 518.078     | cub cry                 | dec       |                | 11.3                       |                                     |   |
| 2994 | Uranium(III) bromide                             | UBr <sub>3</sub>   | 13470-19-4  | 477.741     | red hyg cry             | 727       |                |                            |                                     | s H <sub>2</sub> O                            |
| 2995 | Uranium(III) chloride                            | UCl <sub>3</sub>   | 10025-93-1  | 344.388     | grn hyg cry             | 837       |                | 5.51                       |                                     | vs H <sub>2</sub> O; i bz, ctc                |
| 2996 | Uranium(III) fluoride                            | UF <sub>3</sub>  | 13775-06-9  | 295.024     | blk hex cry             | 1495      |                | 8.9                        |                                     | i H <sub>2</sub> O; s acid                    |
| 2997 | Uranium(III) hydride                             | UH <sub>3</sub>  | 13598-56-6  | 241.053     | gray-blk cub cry        |           |                | 11.1                       |                                     |   |
| 2998 | Uranium(III) iodide                              | UI <sub>3</sub>  | 13775-18-3  | 618.742     | blk hyg cry             | 766       |                |                            |                                     | s H <sub>2</sub> O                            |
| 2999 | Uranium(IV) bromide                              | UBr <sub>4</sub>   | 13470-20-7  | 557.645     | brn hyg cry             | 519       |                |                            |                                     | s H <sub>2</sub> O, EtOH                      |
| 3000 | Uranium(IV) chloride                             | UCl <sub>4</sub>   | 10026-10-5  | 379.841     | grn octahed cry         | 590       | 791            | 4.72                       |                                     | react H <sub>2</sub> O; s EtOH                |
| 3001 | Uranium(IV) fluoride                             | UF <sub>4</sub>  | 10049-14-6  | 314.023     | grn monocl cry          | 1036      | 1417           | 6.7                        | 0.01 <sup>25</sup>                  | s conc acid, alk                              |
| 3002 | Uranium(IV) iodide                               | UI <sub>4</sub>  | 13470-22-9  | 745.647     | blk hyg cry             | 506       |                |                            |                                     | s H <sub>2</sub> O, EtOH                      |
| 3003 | Uranium(IV) oxide                                | UO <sub>2</sub>  | 1344-57-6   | 270.028     | brn cub cry             | 2847      |                | 10.97                      |                                     | i H <sub>2</sub> O, dil acid; s conc acid     |
| 3004 | Uranium(IV,V) oxide                              | U <sub>4</sub> O <sub>9</sub>  | 12037-15-9  | 1096.111    | cub cry                 |           |                | 11.2                       |                                     |   |
| 3005 | Uranium(V) bromide                               | UBr <sub>5</sub>   | 13775-16-1  | 637.549     | brn hyg cry             |           |                |                            |                                     | react H <sub>2</sub> O                        |
| 3006 | Uranium(V) chloride                              | UCl <sub>5</sub>   | 13470-21-8  | 415.294     | brn hyg cry             | 287       |                |                            |                                     | react H <sub>2</sub> O                        |
| 3007 | Uranium(V) fluoride                              | UF <sub>5</sub>  | 13775-07-0  | 333.021     | pale blue tetr cry; hyg | 348       |                | 5.81                       |                                     | s H <sub>2</sub> O                            |
| 3008 | Uranium(V,VII) oxide                             | U <sub>3</sub> O <sub>8</sub>  | 1344-59-8   | 842.082     | grn-blk orth cry        | 1300 dec  |                | 8.38                       |                                     |   |
| 3009 | Uranium(VI) chloride                             | UCl <sub>6</sub>   | 13763-23-0  | 450.747     | grn hex cry             | 177       |                | 3.6                        |                                     |   |
| 3010 | Uranium(VI) fluoride                             | UF <sub>6</sub>  | 7783-81-5   | 352.019     | wh monocl solid         | 64.06 tp  | 56.5 sp        | 5.09                       |                                     | react H <sub>2</sub> O; s ctc, chl            |
| 3011 | Uranium(VI) oxide                                | UO <sub>3</sub>  | 1344-58-7   | 286.027     | oran-yel cry            |           |                | ≈7.3                       |                                     | i H <sub>2</sub> O; s acid                    |
| 3012 | Uranium(VI) oxide monohydrate                    | UO <sub>3</sub> · H <sub>2</sub> O   | 12326-21-5  | 304.043     | yel orth cry            | 570 dec   |                | 7.05                       |                                     |   |
| 3013 | Uranium peroxide dihydrate                       | UO <sub>2</sub> · 2H <sub>2</sub> O  | 19525-15-6  | 338.057     | yel hyg cry             | 115 dec   |                |                            |                                     | i H <sub>2</sub> O                            |
| 3014 | Uranyl acetate dihydrate                         | UO <sub>2</sub> (C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> ) <sub>2</sub> · 2H <sub>2</sub> O | 6159-44-0   | 424.146     | ye cry (HOAc)           | 80 dec    |                | 2.89                       |                                     | sl EtOH                                       |
| 3015 | Uranyl chloride                                  | UO <sub>2</sub> Cl <sub>2</sub>  | 7791-26-6   | 340.934     | yel orth cry; hyg       | 577       |                |                            |                                     | vs H <sub>2</sub> O; s EtOH, ace; i bz        |
| 3016 | Uranyl fluoride                                  | UO <sub>2</sub> F <sub>2</sub>   | 13536-84-0  | 308.025     | yel hyg solid           |           |                |                            | 64.4 <sup>20</sup>                  | i bz  |
| 3017 | Uranyl hydrogen phosphate tetrahydrate           | UO <sub>2</sub> HPO <sub>4</sub> · 4H <sub>2</sub> O   | 18433-48-2  | 438.068     | yel cry pow             |           |                |                            |                                     | i H <sub>2</sub> O; s acid                    |
| 3018 | Uranyl nitrate                                   | UO <sub>2</sub> (NO <sub>3</sub> ) <sub>2</sub>  | 10102-06-4  | 394.037     | yel cry                 |           |                |                            | 127 <sup>25</sup>                   | s eth   |
| 3019 | Uranyl nitrate hexahydrate                       | UO <sub>2</sub> (NO <sub>3</sub> ) <sub>2</sub> · 6H <sub>2</sub> O                              | 13520-83-7  | 502.129     | yel orth cry; hyg       | 60        | 118 dec        | 2.81                       | 127 <sup>25</sup>                   | s EtOH, eth                                   |
| 3020 | Uranyl sulfate                                   | UO <sub>2</sub> SO <sub>4</sub>  | 1314-64-3   | 366.090     | yel cry                 |           |                |                            |                                     |   |
| 3021 | Uranyl sulfate trihydrate                        | UO <sub>2</sub> SO <sub>4</sub> · 3H <sub>2</sub> O  | 20910-28-5  | 420.137     | yel cry                 |           |                | 3.28                       | 152 <sup>16</sup>                   | sl EtOH                                       |
| 3022 | Vanadium   | V  | 7440-62-2   | 50.942      | gray-wh metal; cub      | 1910      | 3407           | 6.0                        |                                     | i H <sub>2</sub> O; s acid                    |

| No.  | Name                                   | Formula  | CAS Reg No. | Mol. weight | Physical form             | mp/°C                  | bp/°C     | Density g cm <sup>-3</sup> | Solubility g/100 g H <sub>2</sub> O | Qualitative solubility                  |
|------|--|--|-------------|-------------|---------------------------|------------------------|-----------|----------------------------|-------------------------------------|---|
| 3023 | Vanadocene                             | V(C <sub>5</sub> H <sub>5</sub> ) <sub>2</sub>                 | 1277-47-0   | 181.128     | viol cry; hyg             | 167                    |           |                            |                                     | s bz, thf                               |
| 3024 | Vanadocene dichloride                  | V(C <sub>5</sub> H <sub>5</sub> ) <sub>2</sub> Cl <sub>2</sub> | 12083-48-6  | 252.034     | dark grn cry              | 205 dec                |           |                            |                                     | s H <sub>2</sub> O, chl, EtOH           |
| 3025 | Vanadium boride (VB)                   | VB   | 12045-27-1  | 61.753      | refrac solid              | 2250                   |           |                            |                                     | i H <sub>2</sub> O                      |
| 3026 | Vanadium boride (VB <sub>2</sub> )     | VB <sub>2</sub>  | 12007-37-3  | 72.564      | refrac solid              | 2450                   |           |                            |                                     |   |
| 3027 | Vanadium carbide (VC)                  | VC   | 12070-10-9  | 62.953      | refrac blk cry; cub       | 2810                   |           | 5.77                       |                                     | i H <sub>2</sub> O                      |
| 3028 | Vanadium carbide (V <sub>2</sub> C)    | V <sub>2</sub> C   | 12012-17-8  | 113.894     | hex cry                   | 2167                   |           |                            |                                     |   |
| 3029 | Vanadium carbonyl                      | V(CO) <sub>6</sub>   | 14024-00-1  | 219.002     | blue-grn cry; flam        | 60 dec                 | subl      |                            |                                     |   |
| 3030 | Vanadium nitride                       | VN   | 24646-85-3  | 64.949      | blk powder; cub           | 2050                   |           | 6.13                       |                                     | i H <sub>2</sub> O; s aqua regia        |
| 3031 | Vanadium silicide (VSi <sub>2</sub> )  | VSi <sub>2</sub>   | 12039-87-1  | 107.113     | metallic prisms           |                        |           | 4.42                       |                                     | s HF                                    |
| 3032 | Vanadium silicide (V <sub>3</sub> Si)  | V <sub>3</sub> Si  | 12039-76-8  | 180.911     | cub cry                   | 1935                   |           | 5.70                       |                                     |   |
| 3033 | Vanadium(II) bromide                   | VBr <sub>2</sub>   | 14890-41-6  | 210.750     | oran-brn hex cry          |                        | 800 subl  | 4.58                       |                                     | reac H <sub>2</sub> O                   |
| 3034 | Vanadium(II) chloride                  | VCl <sub>2</sub>   | 10580-52-6  | 121.848     | grn hex plates            | 1350                   | 910 subl  | 3.23                       |                                     | reac H <sub>2</sub> O; s EtOH, eth      |
| 3035 | Vanadium(II) fluoride                  | VF <sub>2</sub>  | 13842-80-3  | 88.939      | blue hyg cry              | 1490                   |           |                            |                                     | reac H <sub>2</sub> O                   |
| 3036 | Vanadium(II) iodide                    | VI <sub>2</sub>  | 15513-84-5  | 304.751     | red-viol hex cry          |                        | subl 800  | 5.44                       |                                     | reac H <sub>2</sub> O                   |
| 3037 | Vanadium(II) oxide                     | VO   | 12035-98-2  | 66.941      | gray-blk cry              | 1790                   |           | 5.758                      |                                     | s acid                                  |
| 3038 | Vanadium(II) sulfate heptahydrate      | VSO <sub>4</sub> · 7H <sub>2</sub> O                           | 36907-42-3  | 273.111     | viol cry                  |                        |           |                            |                                     |   |
| 3039 | Vanadium(III) bromide                  | VBr <sub>3</sub>   | 13470-26-3  | 290.654     | blk-grn hyg cry           | dec 500                | subl      | 4.00                       |                                     | reac H <sub>2</sub> O                   |
| 3040 | Vanadium(III) chloride                 | VCl <sub>3</sub>   | 7718-98-1   | 157.301     | red-viol hex cry; hyg     | 500 dec                |           | 3.00                       |                                     | reac H <sub>2</sub> O; s EtOH, eth      |
| 3041 | Vanadium(III) fluoride                 | VF <sub>3</sub>  | 10049-12-4  | 107.937     | yel-grn hex cry           | 1395                   | subl      | 3.363                      |                                     | i H <sub>2</sub> O, EtOH                |
| 3042 | Vanadium(III) fluoride trihydrate      | VF <sub>3</sub> · 3H <sub>2</sub> O                            | 10049-12-4* | 161.983     | grn rhomb cry             | ≈100 dec               |           |                            |                                     | sl H <sub>2</sub> O                     |
| 3043 | Vanadium(III) iodide                   | VI <sub>3</sub>  | 15513-94-7  | 431.655     | brn-blk rhomb cry; hyg    | dec 300                |           | 5.21                       |                                     | reac H <sub>2</sub> O                   |
| 3044 | Vanadium(III) oxide                    | V <sub>2</sub> O <sub>3</sub>                                  | 1314-34-7   | 149.881     | blk powder                | 1957                   | ≈3000     | 4.87                       |                                     | i H <sub>2</sub> O                      |
| 3045 | Vanadium(III) 2,4-pentanedioate        | V(CH <sub>3</sub> COCHCOCH <sub>3</sub> ) <sub>3</sub>         | 13476-99-8  | 348.266     | brn cry                   | ≈185                   | subl      | ≈1.0                       |                                     | s MeOH, ace, bz chl                     |
| 3046 | Vanadium(III) sulfate                  | V <sub>2</sub> (SO <sub>4</sub> ) <sub>3</sub>                 | 13701-70-7  | 390.071     | yel powder                | ≈400 dec               |           |                            |                                     | sl H <sub>2</sub> O                     |
| 3047 | Vanadium(III) sulfide                  | V <sub>2</sub> S <sub>3</sub>                                  | 1315-03-3   | 198.078     | grn-blk powder            | dec                    |           | 4.7                        |                                     | i H <sub>2</sub> O; s hot HCl           |
| 3048 | Vanadium(IV) bromide                   | VBr <sub>4</sub>   | 13595-30-7  | 370.558     | unstab purp cry           | -23 dec                |           |                            |                                     |   |
| 3049 | Vanadium(IV) chloride                  | VCl <sub>4</sub>   | 7632-51-1   | 192.754     | red-brn liq               | -28                    | 151       | 1.816                      |                                     | reac H <sub>2</sub> O; s EtOH, eth      |
| 3050 | Vanadium(IV) fluoride                  | VF <sub>4</sub>  | 10049-16-8  | 126.936     | grn hyg powder            | 325 dec                | subl      | 3.15                       |                                     | vs H <sub>2</sub> O                     |
| 3051 | Vanadium(IV) oxide                     | VO <sub>2</sub>  | 12036-21-4  | 82.941      | blue-blk powder           | 1967                   |           | 4.339                      |                                     | i H <sub>2</sub> O; s acid, alk         |
| 3052 | Vanadium(V) fluoride                   | VF <sub>5</sub>  | 7783-72-4   | 145.934     | col liq                   | 19.5                   | 48.3      | 2.50                       |                                     | reac H <sub>2</sub> O                   |
| 3053 | Vanadium(V) dioxide fluoride           | VO <sub>2</sub> F  | 14259-82-6  | 101.939     | brn hyg cry               | 350 dec                |           |                            |                                     | reac H <sub>2</sub> O                   |
| 3054 | Vanadium(V) dioxide chloride           | VO <sub>2</sub> Cl   | 13759-30-3  | 118.394     | oran hyg cry              | dec 180                |           |                            |                                     | s thf                                   |
| 3055 | Vanadium(V) oxide                      | V <sub>2</sub> O <sub>5</sub>                                  | 1314-62-1   | 181.880     | yel-brn orth cry          | 681                    | 1750      | 3.35                       | 0.07 <sup>25</sup>                  | s conc acid, alk; i EtOH                |
| 3056 | Vanadium(V) sulfide                    | V <sub>2</sub> S <sub>5</sub>                                  | 12138-17-9  | 262.208     | grn-blk pow               | dec                    |           | 3.0                        |                                     | i H <sub>2</sub> O; s acid, alk         |
| 3057 | Vanadyl bromide                        | VOBr   | 13520-88-2  | 146.845     | viol cry                  | 480 dec                |           |                            |                                     |   |
| 3058 | Vanadyl chloride                       | VOCl   | 13520-87-1  | 102.394     | brn orth cry              |                        | 127       | 1.72                       |                                     |   |
| 3059 | Vanadyl dibromide                      | VOBr <sub>2</sub>  | 13520-89-3  | 226.749     | yel-brn cry               | 180 dec                |           |                            |                                     |   |
| 3060 | Vanadyl dichloride                     | VOCl <sub>2</sub>  | 10213-09-9  | 137.847     | grn hyg cry               | 380 dec                |           | 2.88                       |                                     | reac H <sub>2</sub> O; s EtOH           |
| 3061 | Vanadyl difluoride                     | VOF <sub>2</sub>   | 13814-83-0  | 104.938     | yel cry                   |                        |           |                            |                                     |   |
| 3062 | Vanadyl selenite hydrate               | VSeO <sub>3</sub> · H <sub>2</sub> O                           | 133578-89-9 | 211.92      | grn tricli plates         |                        |           | 3.506                      |                                     |   |
| 3063 | Vanadyl sulfate dihydrate              | VOSO <sub>4</sub> · 2H <sub>2</sub> O                          | 27774-13-6  | 199.035     | blue cry powder           |                        |           |                            |                                     | s H <sub>2</sub> O                      |
| 3064 | Vanadyl tribromide                     | VOBr <sub>3</sub>  | 13520-90-6  | 306.653     | deep red liq              | -59                    | 170       |                            |                                     | reac H <sub>2</sub> O                   |
| 3065 | Vanadyl trichloride                    | VOCl <sub>3</sub>  | 7727-18-6   | 173.300     | fuming red-yel liq        | -79                    | 127       | 1.829                      |                                     | reac H <sub>2</sub> O; s MeOH, eth, ace |
| 3066 | Vanadyl trifluoride                    | VOF <sub>3</sub>   | 13709-31-4  | 123.936     | yel hyg powder            | 300                    | 480       | 2.459                      |                                     | reac H <sub>2</sub> O                   |
| 3067 | Water                                  | H <sub>2</sub> O   | 7732-18-5   | 18.015      | col liq                   | 0.00                   | 99.974    | 0.9970 <sup>25</sup>       |                                     | vs EtOH, MeOH, ace                      |
| 3068 | Water-d <sub>2</sub>                   | D <sub>2</sub> O   | 7789-20-0   | 20.027      | col liq                   | 3.82                   | 101.42    | 1.1044 <sup>25</sup>       |                                     |   |
| 3069 | Water-t <sub>2</sub>                   | T <sub>2</sub> O   | 14940-65-9  | 22.032      | col liq                   | 4.48                   | 101.51    | 1.2138 <sup>25</sup>       |                                     |   |
| 3070 | Xenon                                  | Xe   | 7440-63-3   | 131.293     | col gas                   | -111.745 tp (81.6 kPa) | -108.09   | 5.366 g/L                  |                                     | sl H <sub>2</sub> O                     |
| 3071 | Xenon trioxide                         | XeO <sub>3</sub>   | 13776-58-4  | 179.291     | col orth cry              | exp ≈25                |           | 4.55                       |                                     | s H <sub>2</sub> O                      |
| 3072 | Xenon tetroxide                        | XeO <sub>4</sub>   | 12340-14-6  | 195.291     | yel solid or col gas; exp | -35.9                  | ≈0 dec    |                            |                                     |   |
| 3073 | Xenon difluoride                       | XeF <sub>2</sub>   | 13709-36-9  | 169.290     | col tetr cry              | 129.03 tp              | 114.35 sp | 4.32                       |                                     | sl H <sub>2</sub> O                     |
| 3074 | Xenon tetrafluoride                    | XeF <sub>4</sub>   | 13709-61-0  | 207.287     | col monocl cry            | 117.10 tp              | 115.75 sp | 4.04                       |                                     | reac H <sub>2</sub> O                   |
| 3075 | Xenon hexafluoride                     | XeF <sub>6</sub>   | 13693-09-9  | 245.283     | col monocl cry            | 49.48                  | 75.6      | 3.56                       |                                     | reac H <sub>2</sub> O                   |
| 3076 | Xenon fluoride oxide                   | XeOF <sub>2</sub>  | 13780-64-8  | 185.289     | yel solid, stab <-25      | exp ≈0                 |           |                            |                                     | reac H <sub>2</sub> O                   |
| 3077 | Xenon oxytetrafluoride                 | XeOF <sub>4</sub>  | 13774-85-1  | 223.286     | col liq                   | -46.2                  |           | 3.17 <sup>9</sup>          |                                     | reac H <sub>2</sub> O                   |
| 3078 | Xenon dioxydifluoride                  | XeO <sub>2</sub> F <sub>2</sub>                                | 13875-06-4  | 201.289     | col orth cry              | 30.8 exp               |           | 4.10                       |                                     |   |
| 3079 | Xenon difluoride trioxide              | XeO <sub>3</sub> F <sub>2</sub>                                | 15192-14-0  | 217.288     | unstab at r.t.            | -54.1                  | exp       |                            |                                     |   |
| 3080 | Xenon pentafluoride hexafluoroarsenate | XeF <sub>5</sub> AsF <sub>6</sub>                              | 20328-94-3  | 415.197     | wh monocl cry             | 130.5                  |           | 3.51                       |                                     |   |



| No.  | Name  | Formula  | CAS Reg No. | Mol. weight | Physical form      | mp/°C   | bp/°C | Density g cm <sup>-3</sup> | Solubility g/100 g H <sub>2</sub> O | Qualitative solubility            |
|------|---|--|-------------|-------------|--------------------|---------|-------|----------------------------|-------------------------------------|-----------------------------------|
| 3081 | Xenon pentafluoride<br>hexafluororuthenate  | XeF <sub>5</sub> RuF <sub>6</sub>  | 39796-98-0  | 441.35      | grn orth cry       | 152     |       | 3.79                       |                                     |                                   |
| 3082 | Xenon fluoride<br>hexafluoroantimonate      | XeF <sub>5</sub> SbF <sub>6</sub>  | 39797-63-2  | 424.039     | yel-grn monocry    | ≈110    |       | 3.92                       |                                     |                                   |
| 3083 | Xenon fluoride hexafluoroarsenate           | XeF <sub>5</sub> AsF <sub>6</sub>  | 50432-32-1  | 508.494     | yel-grn monocry    | 99      |       | 3.62                       |                                     | reac H <sub>2</sub> O             |
| 3084 | Xenon fluoride hexafluororuthenate          | XeFRuF <sub>6</sub>  | 22527-13-5  | 365.35      | yel-grn monocry    | 110     |       | 3.78                       |                                     |                                   |
| 3085 | Xenon fluoride<br>undecafluoroantimonate    | XeFSb <sub>2</sub> F <sub>11</sub>   | 15364-10-0  | 602.794     | yel monocry        | 63      |       | 3.69                       |                                     |                                   |
| 3086 | Xenon trifluoride<br>undecafluoroantimonate | XeF <sub>3</sub> Sb <sub>2</sub> F <sub>11</sub>                                   | 35718-37-7  | 640.791     | yel-grn tricl cry  | 82      |       | 3.98                       |                                     |                                   |
| 3087 | Ytterbium                                   | Yb   | 7440-64-4   | 173.04      | silv metal; cub    | 824     | 1196  | 6.90                       |                                     | s dil acid                        |
| 3088 | Ytterbium silicide                          | YbSi <sub>2</sub>  | 12039-89-3  | 229.21      | hex cry            |         |       | 7.54                       |                                     |                                   |
| 3089 | Ytterbium(II) bromide                       | YbBr <sub>2</sub>  | 25502-05-0  | 332.85      | yel cry            | 673     |       |                            |                                     | reac H <sub>2</sub> O             |
| 3090 | Ytterbium(II) chloride                      | YbCl <sub>2</sub>  | 13874-77-6  | 243.95      | grn cry            | 721     |       | 5.27                       |                                     | reac H <sub>2</sub> O             |
| 3091 | Ytterbium(II) fluoride                      | YbF <sub>2</sub>   | 15192-18-4  | 211.04      | gray solid         | 1407    |       |                            |                                     | i H <sub>2</sub> O                |
| 3092 | Ytterbium(II) iodide                        | YbI <sub>2</sub>   | 19357-86-9  | 426.85      | blk cry            | 772     |       |                            |                                     | reac H <sub>2</sub> O             |
| 3093 | Ytterbium(III) acetate tetrahydrate         | Yb(C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> ) <sub>3</sub> · 4H <sub>2</sub> O | 15280-58-7  | 422.23      | hyg col cry        | dec 70  |       | 2.09                       |                                     | vs H <sub>2</sub> O               |
| 3094 | Ytterbium(III) bromide                      | YbBr <sub>3</sub>  | 13759-89-2  | 412.75      | col cry            | 956 dec |       |                            |                                     | s H <sub>2</sub> O                |
| 3095 | Ytterbium(III) chloride                     | YbCl <sub>3</sub>  | 10361-91-8  | 279.40      | wh hyg powder      | 854     |       |                            |                                     | s H <sub>2</sub> O                |
| 3096 | Ytterbium(III) chloride hexahydrate         | YbCl <sub>3</sub> · 6H <sub>2</sub> O  | 19423-87-1  | 387.49      | grn hyg cry        | 150 dec |       | 2.57                       |                                     | vs H <sub>2</sub> O               |
| 3097 | Ytterbium(III) fluoride                     | YbF <sub>3</sub>   | 13760-80-0  | 230.04      | wh cry             | 1157    |       | 8.2                        |                                     | i H <sub>2</sub> O                |
| 3098 | Ytterbium(III) iodide                       | YbI <sub>3</sub>   | 13813-44-0  | 553.75      | yel cry            | dec 700 |       |                            |                                     | s H <sub>2</sub> O                |
| 3099 | Ytterbium(III) nitrate                      | Yb(NO <sub>3</sub> ) <sub>3</sub>  | 13768-67-7  | 359.06      | col hyg solid      |         |       |                            | 239 <sup>25</sup>                   | s EtOH                            |
| 3100 | Ytterbium(III) oxide                        | Yb <sub>2</sub> O <sub>3</sub>   | 1314-37-0   | 394.08      | col cub cry        | 2355    | 4070  | 9.2                        |                                     | s dil acid                        |
| 3101 | Ytterbium(III) sulfate octahydrate          | Yb <sub>2</sub> (SO <sub>4</sub> ) <sub>3</sub> · 8H <sub>2</sub> O                | 10034-98-7  | 778.39      | col cry            |         |       | 3.3                        | 38.4 <sup>20</sup>                  |                                   |
| 3102 | Yttrium                                     | Y  | 7440-65-5   | 88.906      | silv metal; hex    | 1522    | 3345  | 4.47                       |                                     | reac H <sub>2</sub> O; s dil acid |
| 3103 | Yttrium aluminum oxide                      | Y <sub>2</sub> Al <sub>5</sub> O <sub>12</sub>                                     | 12005-21-9  | 593.619     | grn cub cry        |         |       | ≈4.5                       |                                     |                                   |
| 3104 | Yttrium antimonide                          | YSb  | 12186-97-9  | 210.666     | cub cry            | 2310    |       | 5.97                       |                                     |                                   |
| 3105 | Yttrium arsenide                            | YAs  | 12255-48-0  | 163.828     | cub cry            |         |       | 5.59                       |                                     |                                   |
| 3106 | Yttrium boride                              | YB <sub>3</sub>  | 12008-32-1  | 153.772     | refrac solid       | 2600    |       | 3.72                       |                                     |                                   |
| 3107 | Yttrium bromide                             | YBr <sub>3</sub>   | 13469-98-2  | 328.618     | col hyg cry        | 904     |       |                            | 83.3 <sup>20</sup>                  |                                   |
| 3108 | Yttrium carbide                             | YC <sub>2</sub>  | 12071-35-1  | 112.927     | refrac solid       | ≈2400   |       | 4.13                       |                                     |                                   |
| 3109 | Yttrium carbonate trihydrate                | Y <sub>2</sub> (CO <sub>3</sub> ) <sub>3</sub> · 3H <sub>2</sub> O                 | 5970-44-5   | 411.885     | red-brn powder     |         |       |                            |                                     | i H <sub>2</sub> O; s dil acid    |
| 3110 | Yttrium chloride                            | YCl <sub>3</sub>   | 10361-92-9  | 195.265     | wh monocry; hyg    | 721     | 1482  | 2.61                       | 75.1 <sup>20</sup>                  | vs H <sub>2</sub> O               |
| 3111 | Yttrium chloride hexahydrate                | YCl <sub>3</sub> · 6H <sub>2</sub> O   | 10025-94-2  | 303.356     | hyg col cry        | dec 100 |       |                            |                                     | vs H <sub>2</sub> O; s EtOH       |
| 3112 | Yttrium fluoride                            | YF <sub>3</sub>  | 13709-49-4  | 145.901     | wh hyg powder      | 1155    |       | 4.0                        |                                     | i H <sub>2</sub> O                |
| 3113 | Yttrium hydroxide                           | Y(OH) <sub>3</sub>   | 16469-22-0  | 139.928     | wh prec or pow     | dec 190 |       |                            |                                     | i H <sub>2</sub> O                |
| 3114 | Yttrium iodide                              | YI <sub>3</sub>  | 13470-38-7  | 469.619     | hyg wh-yel cry     | 997     |       |                            |                                     | s H <sub>2</sub> O, ace, EtOH     |
| 3115 | Yttrium iron oxide                          | Y <sub>2</sub> Fe <sub>2</sub> O <sub>7</sub>                                      | 12063-56-8  | 737.936     | cub cry            | 1555    |       |                            |                                     |                                   |
| 3116 | Yttrium nitrate                             | Y(NO <sub>3</sub> ) <sub>3</sub>   | 10361-93-0  | 274.921     | wh hyg solid       |         |       |                            | 149 <sup>25</sup>                   | s EtOH                            |
| 3117 | Yttrium nitrate tetrahydrate                | Y(NO <sub>3</sub> ) <sub>3</sub> · 4H <sub>2</sub> O                               | 13773-69-8  | 346.982     | red-wh prisms      |         |       | 2.68                       | 149 <sup>25</sup>                   |                                   |
| 3118 | Yttrium nitrate hexahydrate                 | Y(NO <sub>3</sub> ) <sub>3</sub> · 6H <sub>2</sub> O                               | 13494-98-9  | 383.012     | hyg cry            |         |       |                            | 149 <sup>25</sup>                   |                                   |
| 3119 | Yttrium oxide                               | Y <sub>2</sub> O <sub>3</sub>  | 1314-36-9   | 225.810     | wh cry; cub        | 2439    |       | 5.03                       |                                     | s dil acid                        |
| 3120 | Yttrium phosphide                           | YP   | 12294-01-8  | 119.880     | cub cry            |         |       | ≈4.4                       |                                     |                                   |
| 3121 | Yttrium sulfate octahydrate                 | Y <sub>2</sub> (SO <sub>4</sub> ) <sub>3</sub> · 8H <sub>2</sub> O                 | 7446-33-5   | 610.122     | red monocry        |         |       | 2.6                        | 7.47 <sup>16</sup>                  |                                   |
| 3122 | Yttrium sulfide                             | Y <sub>2</sub> S <sub>3</sub>  | 12039-19-9  | 274.007     | yel cub cry        | 1925    |       | 3.87                       |                                     |                                   |
| 3123 | Zinc  | Zn   | 7440-66-6   | 65.409      | blue-wh metal; hex | 419.53  | 907   | 7.134                      |                                     | s acid, alk                       |
| 3124 | Zinc acetate dihydrate                      | Zn(C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> ) <sub>2</sub> · 2H <sub>2</sub> O | 5970-45-6   | 219.527     | wh powder          | 237 dec |       | 1.735                      | 30.0 <sup>20</sup>                  | s EtOH                            |
| 3125 | Zinc ammonium sulfate                       | Zn(NH <sub>4</sub> ) <sub>2</sub> (SO <sub>4</sub> ) <sub>2</sub>                  | 7783-24-6   | 293.611     | wh cry             |         |       |                            | 9.2 <sup>20</sup>                   |                                   |
| 3126 | Zinc antimonide                             | ZnSb   | 12039-35-9  | 187.169     | silv-wh orth cry   | 565     |       | 6.33                       |                                     | reac H <sub>2</sub> O             |
| 3127 | Zinc arsenate                               | Zn <sub>3</sub> (AsO <sub>4</sub> ) <sub>2</sub>                                   | 13464-44-3  | 474.065     | wh powder          |         |       |                            | 0.000078 <sup>20</sup>              | s acid, alk                       |
| 3128 | Zinc arsenate octahydrate                   | Zn <sub>3</sub> (AsO <sub>4</sub> ) <sub>2</sub> · 8H <sub>2</sub> O               | 13464-45-4  | 618.187     | wh monocry         |         |       | 3.33                       | 0.000078 <sup>20</sup>              | s acid, alk                       |
| 3129 | Zinc arsenite                               | Zn <sub>3</sub> As <sub>2</sub>  | 12006-40-5  | 346.070     | powder             | 1015    |       | 5.528                      |                                     |                                   |
| 3130 | Zinc arsenite                               | Zn(AsO <sub>2</sub> ) <sub>2</sub>   | 10326-24-6  | 279.250     | col powder         |         |       |                            |                                     | i H <sub>2</sub> O; s acid        |
| 3131 | Zinc borate                                 | 3ZnO · 2B <sub>2</sub> O <sub>3</sub>  | 27043-84-1  | 383.466     | wh amorp powder    |         |       | 3.64                       |                                     | sl H <sub>2</sub> O; s dil acid   |
| 3132 | Zinc borate hemiheptahydrate                | 2ZnO · 3B <sub>2</sub> O <sub>3</sub> · 3.5H <sub>2</sub> O                        | 12513-27-8  | 434.69      | wh cry             | 980     |       | 4.22                       |                                     | i H <sub>2</sub> O                |
| 3133 | Zinc borate pentahydrate                    | 2ZnO · 3B <sub>2</sub> O <sub>3</sub> · 5H <sub>2</sub> O                          | 12536-65-1  | 461.753     | wh powder          |         |       | 3.64                       | 0.007 <sup>25</sup>                 | sl HCl                            |
| 3134 | Zinc bromate hexahydrate                    | Zn(BrO <sub>3</sub> ) <sub>2</sub> · 6H <sub>2</sub> O                             | 13517-27-6  | 429.305     | wh hyg solid       | 100     |       | 2.57                       |                                     | vs H <sub>2</sub> O               |
| 3135 | Zinc bromide                                | ZnBr <sub>2</sub>  | 7699-45-8   | 225.217     | wh hex cry; hyg    | 402     | ≈670  | 4.5                        | 488 <sup>25</sup>                   | vs EtOH; s eth                    |
| 3136 | Zinc caprylate                              | Zn(C <sub>8</sub> H <sub>15</sub> O <sub>2</sub> ) <sub>2</sub>                    | 557-09-5    | 351.816     | wh hyg cry         | 136     |       |                            |                                     | sl H <sub>2</sub> O               |
| 3137 | Zinc carbonate                              | ZnCO <sub>3</sub>  | 3486-35-9   | 125.418     | wh hex cry         | 140 dec |       | 4.434                      | 0.000091 <sup>20</sup>              | s dil acid, alk                   |
| 3138 | Zinc carbonate hydroxide                    | 3Zn(OH) <sub>2</sub> · 2ZnCO <sub>3</sub>  | 12070-69-8  | 549.107     | wh powder          |         |       |                            |                                     |                                   |
| 3139 | Zinc chlorate                               | Zn(ClO <sub>3</sub> ) <sub>2</sub>   | 10361-95-2  | 232.311     | yel hyg cry        | 60 dec  |       | 2.15                       | 200 <sup>20</sup>                   |                                   |
| 3140 | Zinc chloride                               | ZnCl <sub>2</sub>  | 7646-85-7   | 136.315     | wh hyg cry         | 290     | 732   | 2.907                      | 408 <sup>25</sup>                   | vs H <sub>2</sub> O; s EtOH, ace  |

| No.  | Name                                | Formula  | CAS Reg No. | Mol. weight | Physical form          | mp/°C               | bp/°C    | Density g cm <sup>-3</sup> | Solubility g/100 g H <sub>2</sub> O | Qualitative solubility                     |
|------|-------------------------------------|--|-------------|-------------|------------------------|---------------------|----------|----------------------------|-------------------------------------|--|
| 3141 | Zinc chromate                       | ZnCrO <sub>4</sub>   | 13530-65-9  | 181.403     | yel prisms             | 316                 |          | 3.40                       | 3.08                                | s acid; i ace                              |
| 3142 | Zinc chromite                       | ZnCr <sub>2</sub> O <sub>4</sub>   | 12018-19-8  | 233.399     | grn cub cry            |                     |          |                            | 5.29                                |  |
| 3143 | Zinc citrate dihydrate              | Zn <sub>3</sub> (C <sub>6</sub> H <sub>5</sub> O <sub>7</sub> ) <sub>2</sub> · 2H <sub>2</sub> O | 546-46-3    | 610.456     | col powder             |                     |          |                            |                                     | sl H <sub>2</sub> O; s dil acid, alk       |
| 3144 | Zinc cyanide                        | Zn(CN) <sub>2</sub>  | 557-21-1    | 117.443     | wh powder              |                     |          | 1.852                      | 0.00047 <sup>20</sup>               | react acid                                 |
| 3145 | Zinc diethyl                        | Zn(C <sub>2</sub> H <sub>5</sub> ) <sub>2</sub>  | 557-20-0    | 123.531     | col liq                | -28                 | 118      | 1.2065                     |                                     | react H <sub>2</sub> O; msc eth, peth, bz  |
| 3146 | Zinc dithionate                     | ZnS <sub>2</sub> O <sub>4</sub>  | 7779-86-4   | 193.537     | wh amorp solid         | 200 dec             |          |                            | 40 <sup>20</sup>                    |  |
| 3147 | Zinc fluoride                       | ZnF <sub>2</sub>   | 7783-49-5   | 103.406     | wh tetr needles; hyg   | 872                 | 1500     | 4.9                        | 1.55 <sup>25</sup>                  | sl H <sub>2</sub> O                        |
| 3148 | Zinc fluoride tetrahydrate          | ZnF <sub>2</sub> · 4H <sub>2</sub> O   | 13986-18-0  | 175.468     | wh orth cry            |                     |          | 2.30                       | 1.55 <sup>25</sup>                  |  |
| 3149 | Zinc fluoroborate hexahydrate       | Zn(BF <sub>4</sub> ) <sub>2</sub> · 6H <sub>2</sub> O  | 27860-83-9  | 347.109     | hex cry                |                     |          | 2.12                       |                                     | vs H <sub>2</sub> O; s EtOH                |
| 3150 | Zinc formate dihydrate              | Zn(CHO <sub>2</sub> ) <sub>2</sub> · 2H <sub>2</sub> O   | 5970-62-7   | 191.474     | wh cry                 |                     |          | 2.207                      | 5.2 <sup>20</sup>                   | i EtOH                                     |
| 3151 | Zinc hexafluorosilicate hexahydrate | ZnSiF <sub>6</sub> · 6H <sub>2</sub> O   | 16871-71-9  | 315.576     | wh cry                 |                     |          |                            |                                     | s H <sub>2</sub> O                         |
| 3152 | Zinc hydroxide                      | Zn(OH) <sub>2</sub>  | 20427-58-1  | 99.424      | col orth cry           | 125 dec             |          | 3.05                       | 0.000042 <sup>20</sup>              |  |
| 3153 | Zinc iodate                         | Zn(IO <sub>3</sub> ) <sub>2</sub>  | 7790-37-6   | 415.214     | wh cry powder          |                     |          |                            | 0.64 <sup>25</sup>                  |  |
| 3154 | Zinc iodide                         | ZnI <sub>2</sub>   | 10139-47-6  | 319.218     | wh-yel hyg cry         | 450                 | 625      | 4.74                       | 438 <sup>25</sup>                   | vs H <sub>2</sub> O; s EtOH, eth           |
| 3155 | Zinc laurate                        | Zn(C <sub>12</sub> H <sub>23</sub> O <sub>2</sub> ) <sub>2</sub>                                 | 2452-01-9   | 464.029     | wh powder              | 128                 |          |                            |                                     | sl H <sub>2</sub> O                        |
| 3156 | Zinc molybdate                      | ZnMoO <sub>4</sub>   | 13767-32-3  | 225.35      | wh tetr cry            | >700                |          | 4.3                        |                                     | i H <sub>2</sub> O                         |
| 3157 | Zinc nitrate                        | Zn(NO <sub>3</sub> ) <sub>2</sub>  | 7779-88-6   | 189.418     | wh powder              |                     |          |                            | 120 <sup>25</sup>                   |  |
| 3158 | Zinc nitrate hexahydrate            | Zn(NO <sub>3</sub> ) <sub>2</sub> · 6H <sub>2</sub> O  | 10196-18-6  | 297.510     | col orth cry           | 36 dec              |          | 2.067                      | 120 <sup>25</sup>                   | vs EtOH                                    |
| 3159 | Zinc nitride                        | Zn <sub>3</sub> N <sub>2</sub>   | 1313-49-1   | 224.240     | blue-gray cub cry      | 700 dec             |          | 6.22                       |                                     | i H <sub>2</sub> O                         |
| 3160 | Zinc nitrite                        | Zn(NO <sub>2</sub> ) <sub>2</sub>  | 10102-02-0  | 157.420     | hyg solid              |                     |          |                            |                                     | react H <sub>2</sub> O                     |
| 3161 | Zinc oleate                         | Zn(C <sub>18</sub> H <sub>33</sub> O <sub>2</sub> ) <sub>2</sub>                                 | 557-07-3    | 628.316     | wh powder              | 70 dec              |          |                            |                                     | i H <sub>2</sub> O; s EtOH, eth, bz        |
| 3162 | Zinc oxalate                        | ZnC <sub>2</sub> O <sub>4</sub>  | 547-68-2    | 153.428     | wh pwd                 |                     |          |                            | 0.0026 <sup>25</sup>                |  |
| 3163 | Zinc oxalate dihydrate              | ZnC <sub>2</sub> O <sub>4</sub> · 2H <sub>2</sub> O  | 4255-07-6   | 189.458     | wh powder              | 100 dec             |          | 2.56                       | 0.0026 <sup>25</sup>                | s dil acid                                 |
| 3164 | Zinc tartrate dihydrate             | ZnC <sub>4</sub> H <sub>4</sub> O <sub>6</sub> · 2H <sub>2</sub> O                               | 22570-08-7  | 249.511     | wh cry pow             | dec 150             |          |                            | 0.022 <sup>20</sup>                 |  |
| 3165 | Zinc oxide                          | ZnO  | 1314-13-2   | 81.408      | wh powder; hex         | 1974                |          | 5.6                        |                                     | i H <sub>2</sub> O; s dil acid             |
| 3166 | Zinc 2,4-pentanedioate              | Zn(CH <sub>3</sub> COCHCOCH <sub>3</sub> ) <sub>2</sub>  | 14024-63-6  | 263.625     | cry                    | 137 dec             |          |                            |                                     | sl H <sub>2</sub> O; s EtOH, DMSO          |
| 3167 | Zinc pentanoate dihydrate           | Zn(C <sub>5</sub> H <sub>9</sub> O <sub>2</sub> ) <sub>2</sub> · 2H <sub>2</sub> O               | 556-38-7    | 303.687     | scales or powder       |                     |          |                            |                                     | sl H <sub>2</sub> O; react acid; s EtOH    |
| 3168 | Zinc perchlorate hexahydrate        | Zn(ClO <sub>4</sub> ) <sub>2</sub> · 6H <sub>2</sub> O   | 10025-64-6  | 372.402     | wh cub cry; hyg        | 106 dec             |          | 2.2                        | 121.3 <sup>25</sup>                 | s EtOH                                     |
| 3169 | Zinc permanganate hexahydrate       | Zn(MnO <sub>4</sub> ) <sub>2</sub> · 6H <sub>2</sub> O   | 23414-72-4  | 411.372     | blk orth cry; hyg      |                     |          | 2.45                       |                                     | s H <sub>2</sub> O; react EtOH             |
| 3170 | Zinc peroxide                       | ZnO <sub>2</sub>   | 1314-22-3   | 97.408      | yel-wh powder          | >150 dec            | 212 exp  | 1.57                       |                                     | i H <sub>2</sub> O; react acid, EtOH, ace  |
| 3171 | Zinc phosphate                      | Zn <sub>3</sub> (PO <sub>4</sub> ) <sub>2</sub>  | 7779-90-0   | 386.170     | wh monocl cry          | 900                 |          | 4.0                        |                                     | i H <sub>2</sub> O                         |
| 3172 | Zinc phosphate tetrahydrate         | Zn <sub>3</sub> (PO <sub>4</sub> ) <sub>2</sub> · 4H <sub>2</sub> O                              | 7543-51-3   | 458.231     | col orth cry           |                     |          | 3.04                       |                                     | i H <sub>2</sub> O, EtOH; s dil acid, alk  |
| 3173 | Zinc phosphide                      | Zn <sub>3</sub> P <sub>2</sub>   | 1314-84-7   | 258.175     | gray tetr cry          | 1160                |          | 4.55                       |                                     | i H <sub>2</sub> O, EtOH; react acid; s bz |
| 3174 | Zinc pyrophosphate                  | Zn <sub>2</sub> P <sub>2</sub> O <sub>7</sub>  | 7446-26-6   | 304.761     | wh cry powder          |                     |          | 3.75                       |                                     | i H <sub>2</sub> O; s dil acid             |
| 3175 | Zinc selenate pentahydrate          | ZnSeO <sub>4</sub> · 5H <sub>2</sub> O   | 13597-54-1  | 298.44      | tricl cry              | 50 dec              |          | 2.59                       | 63.4 <sup>25</sup>                  |  |
| 3176 | Zinc selenide                       | ZnSe   | 1315-09-9   | 144.37      | yel-red cub cry        | >1100               | subl     | 5.65                       |                                     | i H <sub>2</sub> O; s dil acid             |
| 3177 | Zinc orthosilicate                  | Zn <sub>2</sub> SiO <sub>4</sub>   | 13597-65-4  | 222.902     | wh hex cry             | 1509                |          | 4.1                        |                                     | i H <sub>2</sub> O, dil acid               |
| 3178 | Zinc selenite                       | ZnSeO <sub>3</sub>   | 13597-46-1  | 192.37      | wh powder              | 621                 |          |                            |                                     |  |
| 3179 | Zinc stearate                       | Zn(C <sub>18</sub> H <sub>35</sub> O <sub>2</sub> ) <sub>2</sub>                                 | 557-05-1    | 632.348     | wh powder              | 130                 |          | 1.095                      |                                     | i H <sub>2</sub> O, EtOH, eth; s bz        |
| 3180 | Zinc sulfate                        | ZnSO <sub>4</sub>  | 7733-02-0   | 161.472     | col orth cry           | 680 dec             |          | 3.8                        | 57.7 <sup>25</sup>                  |  |
| 3181 | Zinc sulfate monohydrate            | ZnSO <sub>4</sub> · H <sub>2</sub> O   | 7446-19-7   | 179.487     | wh monocl cry          | 238 dec             |          | 3.20                       | 57.7 <sup>25</sup>                  | i EtOH                                     |
| 3182 | Zinc sulfate heptahydrate           | ZnSO <sub>4</sub> · 7H <sub>2</sub> O  | 7446-20-0   | 287.578     | col orth cry           | 100 dec             |          | 1.97                       | 57.7 <sup>25</sup>                  | i EtOH                                     |
| 3183 | Zinc sulfide (sphalerite)           | ZnS  | 1314-98-3   | 97.474      | gray-wh cub cry        | trans wurtzite 1020 |          | 4.04                       |                                     | i H <sub>2</sub> O, EtOH; s dil acid       |
| 3184 | Zinc sulfide (wurtzite)             | ZnS  | 1314-98-3   | 97.474      | wh hex cry             | 1700                | subl     | 4.09                       |                                     | i H <sub>2</sub> O; s dil acid             |
| 3185 | Zinc sulfite dihydrate              | ZnSO <sub>3</sub> · 2H <sub>2</sub> O  | 7488-52-0   | 181.503     | wh powder              | 200 dec             |          |                            | 0.224 <sup>25</sup>                 | i EtOH                                     |
| 3186 | Zinc telluride                      | ZnTe   | 1315-11-3   | 193.01      | red cub cry            | 1239                |          | 5.9                        |                                     | i H <sub>2</sub> O                         |
| 3187 | Zinc thiocyanate                    | Zn(SCN) <sub>2</sub>   | 557-42-6    | 181.573     | wh hyg cry             |                     |          |                            |                                     | sl H <sub>2</sub> O; s EtOH                |
| 3188 | Zirconium                           | Zr   | 7440-67-7   | 91.224      | gray-wh metal; hex     | 1854.7              | 4409     | 6.52                       |                                     | s hot conc acid                            |
| 3189 | Zirconocene dichloride              | Zr(C <sub>2</sub> H <sub>5</sub> ) <sub>2</sub> Cl <sub>2</sub>                                  | 1291-32-3   | 292.316     | col cry                | 248                 | subl 150 |                            |                                     |  |
| 3190 | Zirconium boride                    | ZrB <sub>2</sub>   | 12045-64-6  | 112.846     | gray refrac solid; hex | 3050                |          | 6.17                       |                                     |  |
| 3191 | Zirconium carbide                   | ZrC  | 12020-14-3  | 103.235     | gray refrac solid; cub | 3532                |          | 6.73                       |                                     | s HF                                       |
| 3192 | Zirconium nitride                   | ZrN  | 25658-42-8  | 105.231     | yel cub cry            | 2952                |          | 7.09                       |                                     | s conc HF; sl dil acid                     |
| 3193 | Zirconium phosphide                 | ZrP <sub>2</sub>   | 12037-80-8  | 153.172     | orth cry               |                     |          | ≈5.1                       |                                     |  |
| 3194 | Zirconium silicide                  | ZrSi <sub>2</sub>  | 12039-90-6  | 147.395     | gray powder            | 1620                |          | 4.88                       |                                     | i H <sub>2</sub> O, aqua regia; s HF       |

| No.  | Name                                       | Formula   | CAS Reg No. | Mol. weight | Physical form      | mp/°C    | bp/°C  | Density g cm <sup>-3</sup> | Solubility g/100 g H <sub>2</sub> O | Qualitative solubility             |
|------|--|---|-------------|-------------|--------------------|----------|--------|----------------------------|-------------------------------------|------------------------------------|
| 3195 | Zirconium(II) bromide                      | ZrBr <sub>2</sub>   | 24621-17-8  | 251.032     | blue-blk cry       | dec 400  |        |                            |                                     |                                    |
| 3196 | Zirconium(II) chloride                     | ZrCl <sub>2</sub>   | 13762-26-0  | 162.130     | blk cry            | 772      |        | 3.16                       |                                     | reac H <sub>2</sub> O              |
| 3197 | Zirconium(II) fluoride                     | ZrF <sub>2</sub>  | 13842-94-9  | 129.221     | blk cry            | 902      |        |                            |                                     |                                    |
| 3198 | Zirconium(II) hydride                      | ZrH <sub>2</sub>  | 7704-99-6   | 93.240      | gray tetr cry      | 800 dec  |        | 5.6                        |                                     | i H <sub>2</sub> O                 |
| 3199 | Zirconium(II) iodide                       | ZrI <sub>2</sub>  | 15513-85-6  | 345.033     | blk cry            | 827      |        |                            |                                     |                                    |
| 3200 | Zirconium(III) bromide                     | ZrBr <sub>3</sub>   | 24621-18-9  | 330.936     | dark blue cry      | dec 300  |        |                            |                                     |                                    |
| 3201 | Zirconium(III) chloride                    | ZrCl <sub>3</sub>   | 10241-03-9  | 197.583     | dark blue cry      | 627      |        | 3.05                       |                                     | reac H <sub>2</sub> O              |
| 3202 | Zirconium(III) fluoride                    | ZrF <sub>3</sub>  | 13814-22-7  | 148.219     | blue-grn cry       | 927      |        | 4.26                       |                                     | i H <sub>2</sub> O; s acid         |
| 3203 | Zirconium(III) iodide                      | ZrI <sub>3</sub>  | 13779-87-8  | 471.937     | dark blue cry      | 727      |        |                            |                                     |                                    |
| 3204 | Zirconium(IV) acetate hydroxide            | Zr(C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> ) <sub>2</sub> (OH) <sub>2</sub>        | 14311-93-4  | 243.327     | wh amorp solid     |          |        |                            |                                     | s H <sub>2</sub> O                 |
| 3205 | Zirconium(IV) ammonium carbonate dihydrate | Zr(NH <sub>4</sub> ) <sub>3</sub> OH(CO <sub>3</sub> ) <sub>3</sub> · 2H <sub>2</sub> O | 12616-24-9* | 362.404     | prisms; unstab     |          |        |                            |                                     | s H <sub>2</sub> O                 |
| 3206 | Zirconium(IV) bromide                      | ZrBr <sub>4</sub>   | 13777-25-8  | 410.840     | wh cub cry         | 450 tp   | 360 sp | 3.98                       |                                     | reac H <sub>2</sub> O              |
| 3207 | Zirconium(IV) chloride                     | ZrCl <sub>4</sub>   | 10026-11-6  | 233.036     | wh monocl cry; hyg | 437 tp   | 331 sp | 2.80                       |                                     | reac H <sub>2</sub> O; s EtOH, eth |
| 3208 | Zirconium(IV) fluoride                     | ZrF <sub>4</sub>  | 7783-64-4   | 167.218     | wh monocl cry      | 910      | 912 sp | 4.43                       | 1.5 <sup>25</sup>                   |                                    |
| 3209 | Zirconium(IV) hydroxide                    | Zr(OH) <sub>4</sub>   | 14475-63-9  | 159.254     | wh amorp powder    | dec      |        | 3.25                       |                                     | i H <sub>2</sub> O; s acid         |
| 3210 | Zirconium(IV) iodide                       | ZrI <sub>4</sub>  | 13986-26-0  | 598.842     | yel-oran cub cry   | 500      | 431 sp | 4.85                       |                                     | vs H <sub>2</sub> O                |
| 3211 | Zirconium(IV) nitrate pentahydrate         | Zr(NO <sub>3</sub> ) <sub>4</sub> · 5H <sub>2</sub> O                                   | 13746-89-9  | 429.320     | wh hyg cry         | 100 dec  |        |                            |                                     | vs H <sub>2</sub> O; s EtOH        |
| 3212 | Zirconium(IV) orthosilicate                | ZrSiO <sub>4</sub>  | 10101-52-7  | 183.308     | wh tetr cry        | 1540 dec |        | 4.6                        |                                     | i H <sub>2</sub> O, acid           |
| 3213 | Zirconium(IV) oxide                        | ZrO <sub>2</sub>  | 1314-23-4   | 123.223     | wh amorp powder    | 2710     | 4300   | 5.68                       |                                     | i H <sub>2</sub> O; sl acid        |
| 3214 | Zirconium(IV) pyrophosphate                | ZrP <sub>2</sub> O <sub>7</sub>   | 13565-97-4  | 265.167     | wh refrac solid    | dec 1550 |        |                            |                                     | i H <sub>2</sub> O, dil acid; s HF |
| 3215 | Zirconium(IV) sulfate                      | Zr(SO <sub>4</sub> ) <sub>2</sub>   | 14644-61-2  | 283.349     | wh hyg cry         | 410 dec  |        | 3.22                       |                                     | s H <sub>2</sub> O; sl EtOH        |
| 3216 | Zirconium(IV) sulfate tetrahydrate         | Zr(SO <sub>4</sub> ) <sub>2</sub> · 4H <sub>2</sub> O                                   | 7446-31-3   | 355.411     | wh tetr cry        | 100 dec  |        | 2.80                       |                                     | vs H <sub>2</sub> O                |
| 3217 | Zirconium(IV) sulfide                      | ZrS <sub>2</sub>  | 12039-15-5  | 155.354     | red-brn hex cry    | 1550     |        | 3.87                       |                                     | i H <sub>2</sub> O                 |
| 3218 | Zirconium(IV) tungstate                    | Zr(WO <sub>4</sub> ) <sub>2</sub>   | 16853-74-0  | 586.90      | grn pow            |          |        |                            |                                     |                                    |
| 3219 | Zirconyl chloride                          | ZrOCl <sub>2</sub>  | 7699-43-6   | 178.129     | wh solid           | 250 dec  |        |                            |                                     | s H <sub>2</sub> O, EtOH           |
| 3220 | Zirconyl chloride octahydrate              | ZrOCl <sub>2</sub> · 8H <sub>2</sub> O  | 13520-92-8  | 322.252     | tetr cry           | 400 dec  |        | 1.91                       |                                     | vs H <sub>2</sub> O, EtOH          |