

## SOME INFORMATION SOURCES FOR INORGANIC CHEMISTRY

Reference Tools	Size/Scope	Arrangement of Compounds	Information Provided	Indexes, Special Features
(1) <b>Dictionary of Inorganic Compounds, 1st ed., 1992</b> QD 148 D55 Physical Sciences REF	<ul style="list-style-type: none"> <li>• 5 volumes, 1 supplement (1993)</li> <li>• more than 22000 entries</li> </ul>	<ul style="list-style-type: none"> <li>• by empirical formula</li> </ul>	<ul style="list-style-type: none"> <li>• entry name, synonyms, CAS registry numbers, molecular formula/weight, structure diagram, synthesis/source, physical properties, toxicity, use/importance, bibliographic references</li> </ul>	<ul style="list-style-type: none"> <li>• structural type, name, CAS registry number and element indexes in vol. 4 and 5</li> </ul>
(2) <b>Encyclopedia of Inorganic Compounds, c1994</b> QD 148 E56 Physical Sciences REF	<ul style="list-style-type: none"> <li>• 8 volumes (1994)</li> </ul>	<ul style="list-style-type: none"> <li>• alphabetical listing of 260 self-contained main articles and 860 short reference articles and cross references</li> </ul>	<ul style="list-style-type: none"> <li>• general information, structures, properties, syntheses, for compounds</li> <li>• articles on specific subjects</li> <li>• definitions</li> </ul>	<ul style="list-style-type: none"> <li>• each main article has a bibliography</li> <li>• master index in volume 8</li> <li>• table of contents in volume 1</li> </ul>
(3) <b>Comprehensive Inorganic Chemistry, 1st ed., 1973</b> QD 151.2 C73 Physical Sciences REF	<ul style="list-style-type: none"> <li>• 5 volumes (1973)</li> </ul>	<ul style="list-style-type: none"> <li>• chapters for each element (or group of elements) are in order of the CAS group numbers of the periodic table of the elements</li> </ul>	<ul style="list-style-type: none"> <li>• general information, structures, physical and chemical properties, purification methods for each element; same info. for compounds containing each element</li> </ul>	<ul style="list-style-type: none"> <li>• master index in vol. 5; table of contents for whole series at front of each volume</li> </ul>
(4) <b>Gmelin Handbook</b> QD 151 G5 Physical Sciences Stacks	<ul style="list-style-type: none"> <li>• multi volume series</li> </ul>	<ul style="list-style-type: none"> <li>• compounds arranged under Gmelin system numbers</li> <li>• alphabetical by inorganic atom in stacks</li> </ul>	<ul style="list-style-type: none"> <li>• physical properties, synthesis, history, natural occurrence</li> </ul>	<ul style="list-style-type: none"> <li>• Gmelin Formula Index in separate volumes</li> <li>• most data in German until last 10 years</li> <li>• some data available on-line: see reference personnel</li> </ul>
(5) <b>Brauer's Handbook of Preparative Inorganic Chemistry, 2nd ed., 1963</b> QD 155 B82 1963 Physical Sciences REF	<ul style="list-style-type: none"> <li>• 2 volumes (1963)</li> </ul>	<ul style="list-style-type: none"> <li>• the first volume covers the "A" elemental groups (CAS nomenclature); the second volume covers the "B" elemental groups</li> </ul>	<ul style="list-style-type: none"> <li>• method of synthesis, properties, and bibliographic references</li> </ul>	<ul style="list-style-type: none"> <li>• formula index for 1st volume in 1st volume; collective formula and subject indexes in 2nd volume</li> </ul>
(6) <b>CRC's Handbook of Chemistry and Physics, 77th ed., 1996-97</b> QD 65 H23 Last 2 volumes in REF (older editions: STACKS)	<ul style="list-style-type: none"> <li>• approx 4000 compounds in main table</li> <li>• many smaller tables</li> </ul>	<ul style="list-style-type: none"> <li>• alphabetical listing of compounds in main table</li> <li>• alphabetical listing of other tables in index under "inorganic"</li> </ul>	<ul style="list-style-type: none"> <li>• main table: molecular weight, crystalline form, index of refraction, density/specific gravity, melting point, boiling point, solubilities</li> <li>• other tables: activity coefficient, bond lengths &amp; angles, enthalpy, entropy, heat capacity, etc.</li> </ul>	<ul style="list-style-type: none"> <li>• alphabetical subject index in back of book</li> </ul>
(7) <b>Landolt-Bornstein</b> Q 199 L25 Physical Sciences REF	<ul style="list-style-type: none"> <li>• multiple volume set for crystal structure</li> <li>• many smaller tables and data</li> </ul>	<ul style="list-style-type: none"> <li>• crystal structure volumes arranged loosely on elemental groups</li> <li>• other info. spread out through collection</li> </ul>	<ul style="list-style-type: none"> <li>• crystal structure volumes: space-group, lattice constants, density, structure type, number of formula units in unit cell, etc.</li> <li>• properties of inorganic substances (found under respective subject keywords in index)</li> </ul>	<ul style="list-style-type: none"> <li>• comprehensive alphabetical index in one separate volume (usually found at end of collection)</li> <li>• most data in German; index in English</li> </ul>
(8) <b>Sadtler's Infrared Spectra Handbook of Inorganic Compounds 1st ed., 1984</b> QD 152.3 I43 Physical Sciences REF	<ul style="list-style-type: none"> <li>• 345 inorganic compounds</li> </ul>	<ul style="list-style-type: none"> <li>• compounds are presented in order of increasing group number of the central anion, and increasing atomic number within the group</li> </ul>	<ul style="list-style-type: none"> <li>• IR absorption spectra (4000 - 250 <math>\text{cm}^{-1}</math>), molecular weight/formula, preparation method, source, type of spectrometer used. Where available, density, melting point, solubility, color, crystalline structure, CAS registry number are given</li> </ul>	<ul style="list-style-type: none"> <li>• alphabetical and molecular formula indexes</li> </ul>

## FURTHER INFORMATION SOURCES FOR INORGANIC CHEMISTRY

Reference Tools	Size/Scope	Arrangement of Compounds	Information Provided	Indexes, Special Features
<p>(1) <b>Progress in Inorganic Chemistry, v. 1 - , 1959 -</b>                      QD 151 P96                      Physical Sciences Stacks</p>	<ul style="list-style-type: none"> <li>• 40 volumes (1992)</li> </ul>	<ul style="list-style-type: none"> <li>• not arranged by compound</li> </ul>	<ul style="list-style-type: none"> <li>• contains chapters reviewing subjects in inorganic chemistry</li> </ul>	<ul style="list-style-type: none"> <li>• subject index for each volume; cumulative author index</li> </ul>
<p>(2) <b>Advances in Inorganic Chemistry and Radiochemistry, v. 1 - , 1959 - (new name as of 1987: Advances in Inorganic Chemistry)</b>                      QD 151 A24                      Physical Sciences Stacks</p>	<ul style="list-style-type: none"> <li>• 40 volumes (1993)</li> </ul>	<ul style="list-style-type: none"> <li>• not arranged by compound</li> </ul>	<ul style="list-style-type: none"> <li>• contains chapters reviewing subjects in inorganic chemistry</li> </ul>	<ul style="list-style-type: none"> <li>• subject index for each volume; contents of recent volumes summarized at end of each volume</li> </ul>
<p>(3) <b>Advances in Inorganic Biochemistry</b>                      QD 415 E341 1979                      Physical Sciences Stacks</p>	<ul style="list-style-type: none"> <li>• 6 volumes (1993)</li> </ul>	<ul style="list-style-type: none"> <li>• not arranged by compound</li> </ul>	<ul style="list-style-type: none"> <li>• contains chapters reviewing subjects in inorganic biochemistry</li> </ul>	<ul style="list-style-type: none"> <li>• subject index for each volume; titles of recent volumes listed at beginning of each volume</li> </ul>
<p>(4) <b>Inorganic Syntheses, v. 1 - , 1939 -</b>                      QD 155 I58                      Physical Sciences Stacks</p>	<ul style="list-style-type: none"> <li>• 29 volumes (1992)</li> </ul>	<ul style="list-style-type: none"> <li>• not arranged by compound</li> </ul>	<ul style="list-style-type: none"> <li>• contains chapters giving methods for the synthesis of inorganic compounds</li> </ul>	<ul style="list-style-type: none"> <li>• each volume contains a subject index and an index of contributors</li> <li>• starting with volume 2, each volume has a formula index</li> <li>• starting with volume 15, 5-volume cumulative indexes appear every 5 volumes</li> </ul>