Landolt-Bornstein (L-B) / SpringerMaterials (SM)

SpringerMaterials [www.springermaterials.com/] is a search interface for locating physical and chemical data in the Landolt-Bornstein New Series (L-B NS). SpringerMaterials does not include data from the 6th Edition of Landolt-Bornstein, but print indexes are available (page 5).

Caltech does not subscribe to SpringerMaterials but has an extensive collection of the print volumes of L-B NS, as well as the complete 6th edition of L-B (MIL-8 REF QC63 L33/L332).

SpringerMaterials is freely searchable and the contents of individual L-B NS volumes are freely browsable under the Bookshelf tab. The Periodic Table tab allows searching for element systems (e.g., binary and ternary alloys of Manganese).

Use of Advanced Search is strongly recommended for Substances, Properties, ... searching:

Go to http://www.springermaterials.com/ and click ‘Advanced Search’. Searching for a compound and property will yield the best results. Typing in a compound name (e.g. Antimony Selenide) in the ‘Search for’ box automatically lists options that include the CAS Registry Number and Molecular Formula. Choosing one adds these terms to the ‘Your Query’ box (e.g., (“Antimony selenide, Sb2Se3" or "1315-05-5" or "Sb2Se3")). The quote marks limit the search to these specific terms and will not include results that have these terms as fragments.

The 3D Molecules search provides a rotatable 3D image with only the first few L-B NS references and EINECS Regulations.

Bibliographic References search allows searching for author names and/or journal abbreviations.
After clicking the ‘I’ icon, you’ll see some key information, please note the volume numbers in ‘Cite as:’

Cite as:


Source:

Title Antimony selenide (Sb2Se3) mobility, Seebeck effect
Author Collaboration: Authors and editors of the volumes III/17E-17F-41C
Part of Landolt-Börnstein - Group III Condensed Matter Numerical Data and Functional Relationships in Science and Technology
Volume 41C: Non-Tetrahedrally Bonded Elements and Binary Compounds I
Edited by O. Madelung, U. Rössler, M. Schulz
Chapter-DOI 10.1007/10681727_1042
Book-DOI 10.1007/b71138 (Volume in Bookshelf)

To check Caltech Library holdings, please check CLAS with the CALL NO. e.g. [QC 61 L332 pt. 3 v.17 or 41 Please note: Since Caltech does not subscribe to SpringerMaterials, the Download PDF link will not work.

As you scroll down this page, you will see find references to the literature (mostly journals) where the data in this chapter can be found. These references can be extremely helpful, since they are the source data for SM.
References:

69A  Abrikov ... : Semiconducting II- VI, IV-VI and V-VI-compounds; Plenum Press, N. Y., 1969.

It is very important to check the dates in the references. ‘Source’ (above) indicates that the data is found in v. 41C: Non-Tetrahedrally Bonded Elements and Binary Compounds I ... However, ‘Cite as:’ indicates the data is in v.17E-17F-41C

Since v.17 was published in 1983 and the references were all published prior to 1981, the SM information was very likely published in v.17, and if not the journal references can be retrieved.

SM can also be accessed thru Google. Simply search for the chapter DOI [10.1007/10681727_1042] or chapter title [Antimony selenide (Sb2Se3) mobility, Seebeck effect], if known.

The book DOI [10.1007/b71138] gives a complete listing of the volume’s chapter titles

SpringerMaterials also includes searchable files of:

Inorganic Solid Phases [The Linus Pauling Files (LPF)]
http://www.springermaterials.com/navigation/vsppreface.html

Each result provides an extensive listing of ‘data from’ journal references.

Thermophysical property data from the Dortmund Data Bank Software & Separation Technology (DDBST)  http://www.springermaterials.com/navigation/tppreface.html

The free online search only provides information on availability of data in the fee-based database

Chemical safety documents:  http://www.springermaterials.com/navigation/reach.html
REACH-Registration, Evaluation, Authorization and Restriction of Chemicals
GHS-Globally Harmonized System
RoHS-Restiction of Hazardous Substances
WEEE-Waste from Electrical and Electronic Equipment

Subscription required for searching

SpringerMaterials provides access to over 400 print LB-NS volumes and property data for over 250K substances, 44K chemicals safety documents, over 300K data points from the DDBST, and data from over 190K documents from the LPF.
Landolt-Bornstein New Series
Numerical Data and Functional Relationships in Science and Technology. (Zahlenwerte und Funktionen aus Naturwissenschaften und Technik)
Berlin, Springer-Verlag, 1961-
http://www.springermaterials.com/navigation/bookshelf.html

Group I  Elementary Particles, Nuclei and Atoms – Caltech has thru v.14
(formerly: Nuclear and Particle Physics)
http://www.springer.com/series/286

Group II  Molecules and Radicals – Caltech has thru v.23
(formerly: Atomic and Molecular Physics)
http://www.springer.com/series/288

Group III  Condensed Matter – Caltech has thru v.31B
(formerly: Crystal and Solid State Physics)
http://www.springer.com/series/290

Group IV  Physical Chemistry – Caltech has thru v.8A
(formerly: Macroscopic and Technical Properties of Matter)
http://www.springer.com/series/292

Group V  Geophysics - Caltech has thru v.1B
(formerly: Geophysics and Space Research)
http://www.springer.com/series/294

Group VI  Astronomy and Astrophysics – Caltech has thru v. 3A
(formerly: Astronomy, Astrophysics, and Space Research)
http://www.springer.com/series/296

Group VII  Biophysics – Caltech has thru v.1D
http://www.springer.com/series/1152

Group VIII  Advanced Materials and Technologies
http://www.springer.com/series/4488

1.  Additional print volumes:

http://www.springer.com/series/2416 - Caltech has
Landolt-Bornstein - Indexes

Substance and Physical Property Indexes include:
http://www.springer.com/series/3029

- Comprehensive Index (for 6th edition and NS 1961-1985), 1987 – Caltech has
- Comprehensive Index, 1996
- Compounds with ... Carbon Atoms (15 volumes), 2001-2011
- Elements and Binary Substances (e.g. F and ClNa), 1993 – Caltech has
- Ternary Substances (e.g. CrFeS4), 1993 – Caltech has
- Polynary Substances (e.g. B-La-O-Si), 1993 – Caltech has

Indexes for individual volumes/subvolumes include:

- Index to Group II, v.4, v.6, v.14, v.19 (Molecular Constants)
- Index to Group III, v.7 (Crystal Structure Data of Inorganic Compounds)
- Index for Group III, v. 17 a,b,c,d,e,f,g,h,i (Semiconductors)
- Index to Group III, v. 29a, b, & v. 30a, b (Low and high frequency ... dielectric materials).

Online indexes:

- Landolt-Börnstein Search http://lb.chemie.uni-hamburg.de/ (Organic Compounds)

  Searchable by structure, substructure, name, formula, CAS RN, etc.