

III/41: Semiconductors

[General Introduction](#) **Substance Index alphabetically ordered by element-systems:** [pdf-version](#) [html-version](#)

Subvolume III/41B: II-VI and I-VII compounds; semimagnetic compounds

[List of frequently used symbols, abbreviations, conversion factors](#)

Subvolume III/41C: Non-tetrahedrally bonded elements and binary compounds I

[List of frequently used symbols and abbreviations, conversion factors](#)

Subvolume III/41D Non-tetrahedrally binary compounds II

[List of frequently used symbols and abbreviations, conversion factors](#)

Subvolume III/41E Ternary compounds, organic semiconductors

[List of frequently used symbols and abbreviations, conversion factors](#)

[Fast preview of substances for III/41B](#)

Alphabetical List of Substances, fast and easy bookmark navigation

This list contains all substances (compounds) for which data are provided on this CD-ROM. Chemical formulae of the compounds are generally given as listed in the respective document. The compounds are arranged according to main groups (see below). These main groups are characterized by the group numbers of the Periodic System the elements of a class of compounds are belonging to. Amorphous and organic semiconductors are special substance groups.

I-I-VI compounds	II-V-VI compounds	IV-VI-VIII compounds
I-II-IV-VI compounds	II-V-VI-La compounds	IV-VI-La compounds
I-II-VI compounds	II-VI-VI compounds	IV-VII-La compounds
I-III-IV-VI compounds	II-V-VII compounds	V-V-VI compounds
I-III-VI compounds	II-VI-VII-La compounds	V-VI-VI compounds
I-IV-VI compounds	II-VI-VII-VIII-La	V-VI-VII compounds
I-IV-VI-VII compounds	compounds	V-VI-VIII compounds
I-IV-VI-VIII compounds	II-VI-VIII compounds	V-VI-La compounds
I-IV-VII compounds	II-VI-VIII-La compounds	VI-VI-VIII compounds
I-V-VI compounds	II-VI-La compounds	VI-VI-La compounds
I-V-La compounds	III-III-La compounds	VI-VII-La compounds
I-VI-VI compounds	III-V-VI compounds	VI-VII-VIII-La
I-VI-VII compounds	III-VI compounds	compounds
I-VI-VIII compounds	III-VI-VII compounds	VI-VIII-VIII compounds
I-VI-La compounds	III-VI-VII-VIII-La	VI-VIII-La compounds
I-VII-La compounds	compounds	VI-VIII-Ac-La
II-III-VI compounds	III-VI-VIII compounds	compounds
II-IV-V compounds	III-VI-La compounds	
II-IV-V-VI compounds	IV-IV-VI compounds	Amorphous semiconductors
II-IV-VI compounds	IV-V-VI compounds	Organic semiconductors
II-IV-VI-VIII compounds	IV-VI-VI compounds	

A main group can be divided into subgroups in which special types of compounds are summarized. Within a main group or subgroup the compounds are arranged firstly alphabetically according to the first (second, third, ...) element of the compound, and secondly according to the growing number of the first (second, third, ...) element. – For the organic semiconductors the sequence is alphabetically according to their names.

Examples:

AgIn_5S_8 is listed after $\text{Ag}_3\text{Ga}_5\text{Se}_9$ and before $\text{Ag}_3\text{In}_5\text{Se}_8$,

$\text{Cu}_2\text{In}_4\text{Te}_7$ is listed after CuIn_3Te_5 and before $\text{Cu}_3\text{In}_5\text{Te}_8$

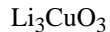
perylene, $\text{C}_{20}\text{H}_{12}$, is listed after naphthalene, C_{10}H_8 , and before phenazine, $\text{C}_{12}\text{H}_8\text{N}_2$

The compounds given in main or subgroups characterized by an asterisk are frequently not related to a specific document of the respective compound but only to documents in which data of the substances of the group are compared (e.g. data on $\text{Ag}_2\text{CdGeS}_4$ are only given in the document on $\text{I}_2\text{-II-IV-VI}_4$ compounds).

Please choose your substance of interest.

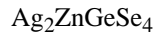
A click on the green rectangle next to the chosen substance leads you to a list of properties of this substance. From this list of properties you proceed in the same way to the selected property.

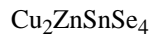
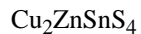
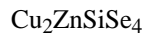
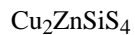
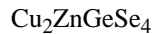
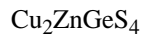
I–I–VI compounds



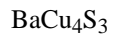
I–II–IV–VI compounds

I₂–II–IV–VI₄ compounds*





I-II-VI compounds



I–III–IV–VI compounds

I–III–IV–Se₄ compounds*

AgAlGeSe₄

AgAlSnSe₄

AgGaGeSe₄

AgGaSnSe₄

AgInGeSe₄

AgInSnSe₄

CuAlGeSe₄

CuAlSnSe₄

CuGaGeSe₄

CuGaSnSe₄

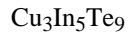
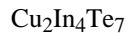
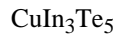
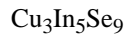
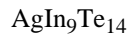
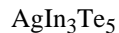
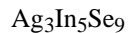
CuInGeSe₄

CuInSnSe₄

I-III-VI compounds

$(\text{I}_2\text{-VI})_m(\text{III}_2\text{-VI}_3)_n$ pseudobinary systems

general remarks



I-III-VI₂ compounds*

general tables

AgAlS₂

AgAlSe₂

AgAlTe₂

AgGaS₂

AgGaSe₂

AgGaTe₂

AgInS₂

AgInSe₂

AgInTe₂

AgTlSe₂

AgTlTe₂

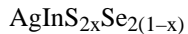
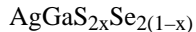
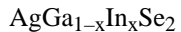
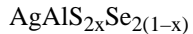
CuAlS₂

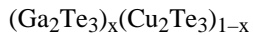
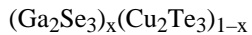
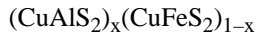
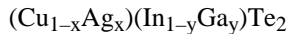
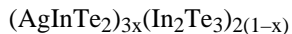
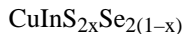
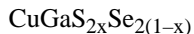
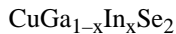
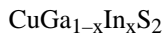
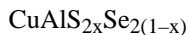
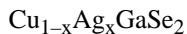
CuAlSe₂

CuAlTe₂

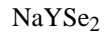
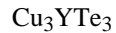
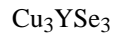
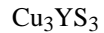
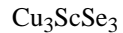
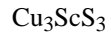


Solid solutions of I–III–VI₂ compounds*





$I_n-(Y,Sc)-VI_m$ compounds



I–IV–VI compounds

I₈-IV-VI₆ compounds

general tables

Ag₈GeS₆ (argyrodite)

Ag₈GeSe₆

Ag₈GeTe₆

Ag₈SiS₆

Ag₈SiSe₆

Ag₈SiTe₆

Ag₈SnS₆ (canfieldite)

Ag₈SnSe₆

Cu₄Ge₃S₅

Cu₈GeS₆

Cu₄Ge₃Se₅

Cu₈GeSe₆

Cu₈SiS₆

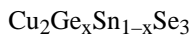
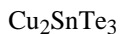
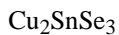
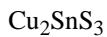
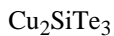
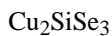
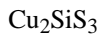
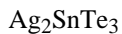
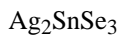
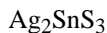
Cu₈SiSe₆

Cu₄SnS₄

Cu₄Sn₃Se₅

I₂-IV-VI₃ compounds*

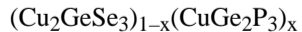
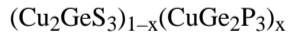
general tables



solid solutions

I–IV–VI–VII compounds*

I₂–IV–VI₄–VII compounds

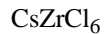


I–IV–VI–VIII compounds

Cu₂–IV–VI₄–VIII compounds*



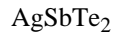
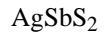
I–IV–VII compounds



I–V–VI compounds

I–V–VI₂ compounds

general tables



CuBiTe₂

CuSbS₂

CuSbSe₂

CuSbTe₂

NaSbSe₂ and related
compounds

I₃-V-VI₄ compounds*

general tables

Ag₃PS₄

Cu₃AsS₄

Cu₃AsSe₄

Cu₃AsTe₄

Cu₃PS₄

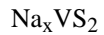
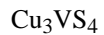
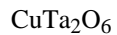
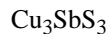
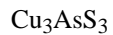
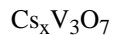
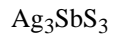
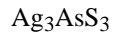
Cu₃PSe₄

Cu₃SbS₄

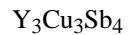
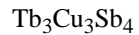
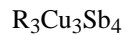
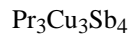
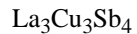
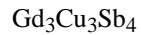
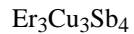
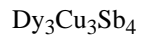
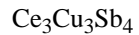
Cu₃SbSe₄

Cu₃SbTe₄

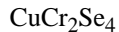
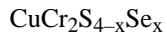
further I–V–VI compounds



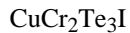
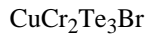
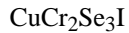
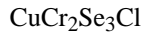
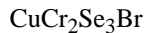
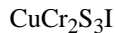
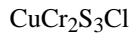
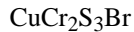
I-V-La compounds



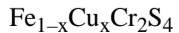
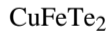
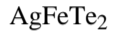
I-VI-VI compounds



I-VI-VII compounds

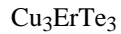
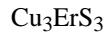
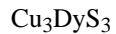


I–VI–VIII compounds



I-VI-La compounds

I-La-VI₂ compounds



Cu_3HoS_3

Cu_3HoSe_3

Cu_3HoTe_3

CuLaS_2

Cu_3LuS_3

CuNdS_2

CuPrS_2

CuSmS_2

Cu_3SmS_3

Cu_3SmSe_3

Cu_3SmTe_3

CuTbS_2

Cu_3TbS_3

Cu_3TbSe_3

Cu_3TbTe_3

Cu_3TmS_3

Cu_3TmTe_3

Cu_3YbS_3

Cu_3YbSe_3

KCeS_2

KDyS_2

KErS_2

KEuS_2

KGdS_2

KHoS_2

KLaS_2

KNdS_2

KPrS_2

KSmS_2

KTbS_2

KYbS_2

LiErS_2

LiHoS_2

LiYbS_2

NaCeS_2

NaCeSe_2

NaDyS_2

NaDySe_2

NaErS_2

NaErSe_2

NaEuS_2

NaEuSe_2

NaGdS₂

NaGdSe₂

NaHoS₂

NaHoSe₂

NaLaS₂

NaLaSe₂

NaNdS₂

NaNdSe₂

NaPrS₂

NaPrSe₂

NaSmS₂

NaSmSe₂

NaTbS₂

NaTbSe₂

RbCeS₂

RbEuS₂

RbGdS₂

RbLaS₂

RbNdS₂

RbPrS₂

RbSmS₂

RbTbS₂

Cu₅-La-VI₄ compounds

Cu₅DyS₄

Cu₅DySe₄

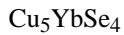
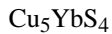
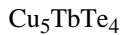
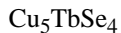
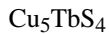
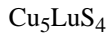
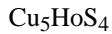
Cu₅DyTe₄

Cu₅ErS₄

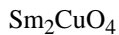
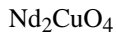
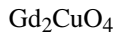
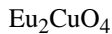
Cu₅ErSe₄

Cu₅GdS₄

Cu₅GdSe₄



$\text{La}_2\text{-Cu-O}_4$ compounds



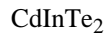
I–VII–La compounds



II–III–VI compounds

II-III-VI₂ compounds

general tables



CdTlS₂

CdTlSe₂

CdTITe₂

HgTlS₂

ZnInTe₂, see general tables

II–III₂–VI₄ compounds*

general tables

BaY₂S₄

BaY₂Se₄

CaIn₂Se₄

CaY₂Se₄

CaY₂Te₄

CdAl_2S_4

CdAl_2Se_4

CdAl_2Te_4

CdGa_2S_4

CdGa_2Se_4

CdGa_2Te_4

CdIn_2S_4

CdIn_2Se_4

CdIn_2Te_4

CdSc_2S_4

CdTl_2Se_4

CdY_2S_4

CdY_2Se_4

HgAl_2S_4

HgAl_2Se_4

HgAl_2Te_4

HgGa_2S_4

HgGa_2Se_4

HgGa_2Te_4

HgIn_2Se_4

HgIn_2Te_4

MgGa_2S_4

MgGa_2Se_4

SrY_2S_4

SrY_2Se_4

ZnAl_2S_4

ZnAl_2Se_4

ZnAl_2Te_4

ZnGa_2S_4

ZnGa_2Se_4

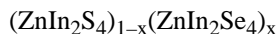
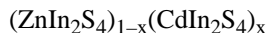
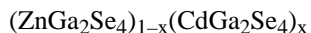
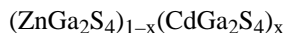
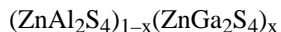
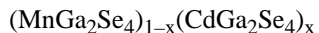
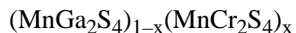
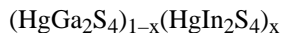
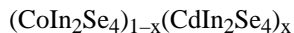
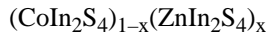
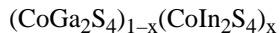
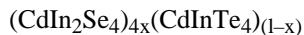
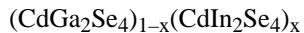
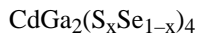
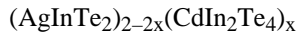
ZnGa_2Te_4

ZnIn_2S_4

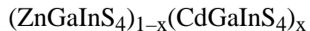
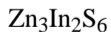
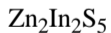
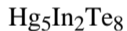
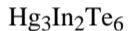
ZnIn_2Se_4

ZnIn_2Te_4

ZnSc_2S_4



other $\text{II}_x\text{-III}_y\text{-VI}_z$ compounds*



II-IV-V compounds*

general tables

CdGeAs_2

CdGeP_2

CdSiAs_2

CdSiP_2

CdSnAs_2

CdSnP_2

MgGeP_2

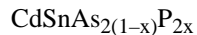
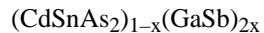
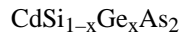
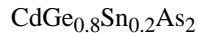
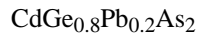
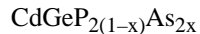
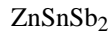
MgSiP_2

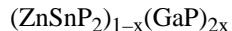
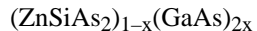
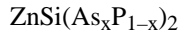
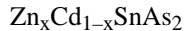
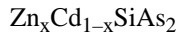
ZnGeAs_2

ZnGeN_2

ZnGeP_2

ZnSiAs_2

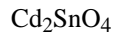




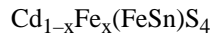
II-IV-V-VI compounds



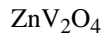
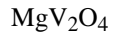
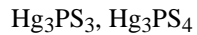
II–IV–VI compounds



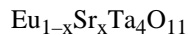
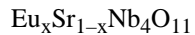
II–IV–VI–VIII compounds



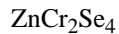
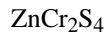
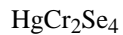
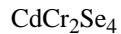
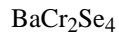
II–V–VI compounds



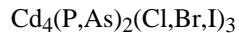
II–V–VI–La compounds



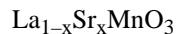
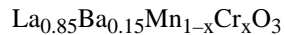
II–VI–VI compounds



II–V–VII compounds



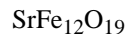
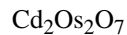
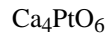
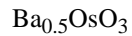
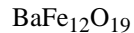
II–VI–VII–La compounds



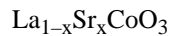
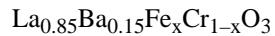
II–VI–VII–VIII–La compounds



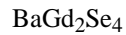
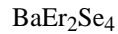
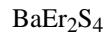
II–VI–VIII compounds



II–VI–VIII–La compounds



II–VI–La compounds



BaLa₂S₄

BaLa₂Se₄

BaLu₂S₄

BaLu₂Se₄

BaNd₂S₄

BaNd₂Se₄

BaPr₂S₄

BaPr₂Se₄

BaSm₂S₄

BaSm₂Se₄

BaTb₂S₄

BaTm₂S₄

BaYb₂S₄

BaYb₂Se₄

CaCe_2S_4

CaDy_2S_4

CaDy_2Te_4

CaEr_2S_4

CaEr_2Se_4

CaEr_2Te_4

CaGd_2S_4

CaHo_2S_4

CaHo_2Se_4

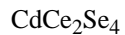
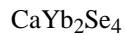
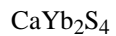
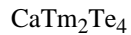
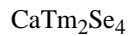
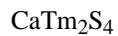
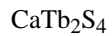
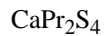
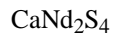
CaHo_2Te_4

CaLa_2S_4

CaLu_2S_4

CaLu_2Se_4

CaLu_2Te_4



CdEr_2S_4

CdEr_4S_7

CdEr_2Se_4

CdEr_4Se_7

CdGd_2S_4

CdGd_2Se_4

CdHo_2S_4

CdHo_4S_7

CdHo_2Se_4

CdHo_4Se_7

CdLa_2S_4

CdLa_2Se_4

CdLu_2S_4

CdNd_2S_4

CdNd_2Se_4

CdPr_2S_4

CdPr_2Se_4

CdSm_2S_4

CdSm_2Se_4

CdTb_2S_4

CdTm_2S_4

CdTm_4S_7

CdYb_2S_4

CdYb_4S_7

CdYb_2Se_4

CdYb_4Se_7

SrCe_2S_4

SrCe_2Se_4

SrDy_2S_4

SrDy_2Se_4

SrEr_2S_4

SrEr_2Se_4

SrGd_2S_4

SrGd_2Se_4

SrHo_2S_4

SrLa_2S_4

SrLa_2Se_4

SrLu_2S_4

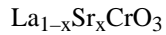
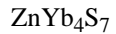
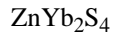
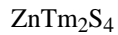
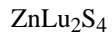
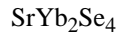
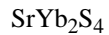
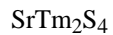
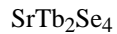
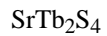
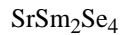
SrLu_2Se_4

SrNd_2S_4

SrNd_2Se_4

SrPr_2S_4

SrPr_2Se_4

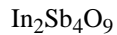
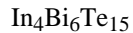
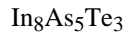
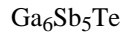


III–III–La compounds



III–V–VI compounds*

general



InSbS₃

InSb₃S₆

InSbSe₃

In₆Sb₅Te

In₇SbTe₆

In₇Sb₃Te₁₅

TlAsS₂

Tl₃AsS₃

Tl₄As₂S₅

Tl₆As₄S₉

TlAsSe₂

Tl₃AsSe₃

TlBiS₂

Tl₄Bi₂S₅

TlBiSe₂

TlBiTe₂

TlBiTe₃

Tl₉BiTe₆

TlSbS₂

TlSb₅S₈

Tl₃SbS₃

TlSbSe₂

Tl₅SbSe₄

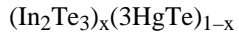
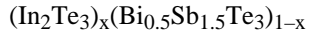
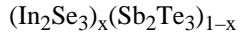
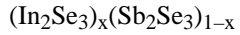
Tl₉SbSe₆

TlSbTe₂

Tl₃VS₄

(Ga₂Te₃)_x(3HgTe)_{1-x}

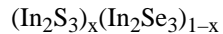
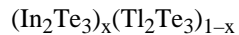
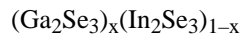
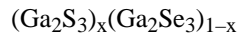
(In₂Se₃)_x(Bi₂Se₃)_{1-x}



III–VI compounds*

general





III–VI–VII compounds

InOF

MnGa₂S₄

MnGa₂Se₄

MnIn₂S₄

MnIn₂Se₄

MnIn₂S_{4-x}Se_x

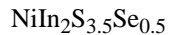
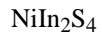
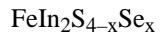
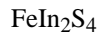
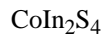
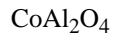
MnIn₂Te₄

PbGa₂S₄

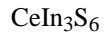
III–VI–VII–VIII–La compounds

La_{0.85}Y_{0.15}Mn_{1-x}Co_xO₃

III–VI–VIII compounds



III–VI–La compounds



DyIn₃S₆

DyTlS₂

DyTlSe₂

DyTlTe₂

ErGaS₃

ErIn₃S₆

ErTlS₂

ErTlSe₂

ErTlTe₂

EuGa₂S₄

EuGa₂Se₄

EuGa₂Te₄

EuIn_2S_4

EuIn_2Se_4

EuIn_2Te_4

EuTlS_2

EuTlSe_2

EuTlTe_2

GaCeS_3

$\text{Ga}_{10/3}\text{Ce}_6\text{S}_{14}$

Ga_2EuS_4

Ga_2EuSe_4

Ga_2EuTe_4

GaLaS_3

$\text{Ga}_{10/3}\text{La}_6\text{S}_{14}$

GdGaS₃

GdIn₃S₆

GdTlS₂

GdTlSe₂

GdTlTe₂

HoIn₃S₆

HoTlS₂

HoTlSe₂

HoTlTe₂

In₂EuS₄

In₂EuSe₄

In₂EuTe₄

LaGaSe₃

LaInS₃

LaIn₃S₆

LaTlS₂

LaTlSe₂

LaTlTe₂

LuTlS₂

LuTlSe₂

LuTlTe₂

NdGaS₃

NdGaSe₃

NdInS₃

NdIn₃S₆

NdTlS₂

NdTlSe₂

NdTlTe₂

PrGaS₃

PrGaSe₃

PrInS₃

PrIn₃S₆

PrTlS₂

PrTlSe₂

PrTlTe₂

SmGaS₃

SmGaSe₃

SmInS₃

SmIn₃S₆

SmTlS₂

SmTlSe₂

SmTlTe₂

TbIn₃S₆

TbTlS₂

TbTlSe₂

TbTlTe₂

TmTlS₂

TmTlSe₂

TmTlTe₂

YIn₃S₆

YTlS₂

YTlSe₂

YTlTe₂

YbGaS₃

YbGa₂S₄

YbGa₂Se₄

YbIn₂S₄

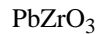
YbIn₂Se₄

YbTlS₂

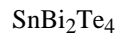
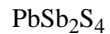
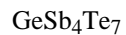
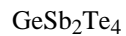
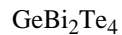
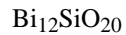
YbTlSe₂

YbTlTe₂

IV–IV–VI compounds



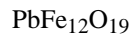
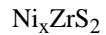
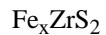
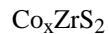
IV–V–VI compounds



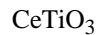
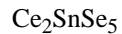
IV–VI–VI compounds



IV–VI–VIII compounds



IV–VI–La compounds



DyTiO₃

ErTiO₃

EuTiO₃

Gd₂GeSe₅

Gd₂SnSe₅

GdTiO₃

Gd₂Ti₂O₇

HfCe₂S₅

HfCe₂Se₅

HfEr₂S₅

HfHo₂S₅

HfLa₂Se₅

HfSm₂S₅

HoTiO_3

La_2GeSe_5

$\text{La}_2\text{Pb}_2\text{O}_7$

La_2SnSe_5

LaTiO_3

LuTiO_3

Nd_2GeSe_5

Nd_2SnSe_5

NdTiO_3

Pr_2GeSe_5

Pr_2SnSe_5

PrTiO_3

Sm_2GeSe_5

Sm_2SnSe_5

SmTiO_3

TbTiO_3

TmTiO_3

YbTiO_3

ZrEr_2S_5

ZrGd_2Se_5

ZrHo_2S_5

ZrLa_2S_5

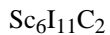
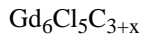
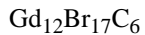
ZrLa_2Se_5

ZrSm_2S_5

ZrSm_2Se_5

ZrTb_2Se_5

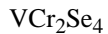
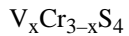
IV–VII–La compounds



V–V–VI compounds



V–VI–VI compounds



V–VI–VII compounds

general tables

AsSBr

BiOBr

BiOCl

BiOI

BiSBr

BiSCl

BiSI

BiSeBr

BiSeI

BiTeBr

BiTeI

MnV₂O₄

SbSBr

SbSI

SbSeBr

SbSeI

SbTeI

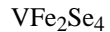
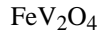
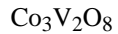
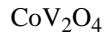
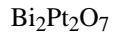
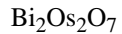
further V–VI–VII compounds

Mn_xNbS_2

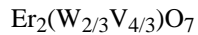
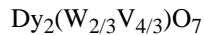
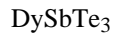
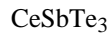
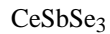
MnSb_2S_4

MnVO_3

V–VI–VIII compounds



V-VI-La compounds



EuBi_2S_4

EuBi_2Se_4

EuBi_2Te_4

EuNb_2O_6

$\text{Eu}_{1.2}\text{Nb}_2\text{O}_6$

EuSb_2S_4

EuSb_2Se_4

EuSbTe_3

EuSb_2Te_4

EuTa_2O_6

EuVO_3

GdBiS_3

GdBiSe_3

GdBiTe_3

GdSbSe₃

GdSbTe₃

GdVO₃

Gd₂(W_{2/3}V_{4/3})O₇

HoBiTe₃

HoVO₃

Ho₂(W_{2/3}V_{4/3})O₇

LaBiS₃

LaBiSe₃

LaBiTe₃

LaSbSe₃

LaSbTe₃

LaVO₃

LuBiTe₃

LuVO₃

$\text{Lu}_2\text{V}_2\text{O}_7$

NdBiSe_3

NdBiTe_3

NdSbSe_3

NdSbTe_3

NdVO_3

PrBiS_3

PrBiSe_3

PrBiTe_3

PrSbSe_3

PrVO_3

SmBiTe_3

SmSbSe_3

SmSbTe_3

SmVO_3

TbBiTe₃

TbVO₃

Tb₂(W_{2/3}V_{4/3})O₇

TmBiTe₃

TmVO₃

Tm₂V₂O₇

Tm₂V_{4/3}W_{2/3}O₇

YBiTe₃

YSbTe₃

YbVO₃

Yb₂V₂O₇

Yb₂V_{4/3}W_{2/3}O₇

(Er_{1-x}Yb_{1-x})₂V₂O₇

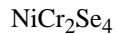
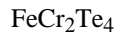
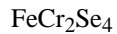
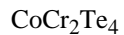
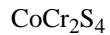
Eu_{1-x}Gd_xO_{1-x}N_x

Eu_{1-x}Nd_xO_{1-x}N_x

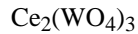
EuO_{1-x}N_x

La_{1-x}Sr_xVO₃

VI–VI–VIII compounds



VI–VI–La compounds



DyCrSe₃

Dy₂CrSe₄

Dy₂Mo₂O₇

Dy₂Mo₃O₉

Dy₂(MoO₄)₃

Dy₂Te₃O₉

Dy₂(WO₄)₃

ErCrO₃

ErCrS₃

ErCrSe₃

Er₂CrSe₄

Er₂Mo₂O₇

Er₂(MoO₄)₃

Er₂(WO₄)₃

Er₂Te₃O₉

EuCrO_3

EuCr_2S_4

EuCr_2Se_4

EuCr_2Te_4

$\text{Eu}_2\text{Mo}_2\text{O}_7$

$\text{Eu}_2\text{Te}_3\text{O}_9$

EuWO_4

$\text{Eu}_2(\text{WO}_4)_3$

GdCrO_3

GdCrS_3

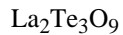
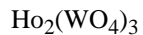
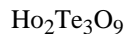
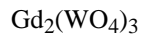
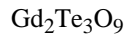
GdCrSe_3

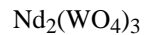
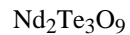
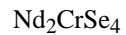
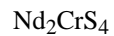
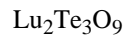
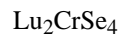
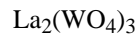
Gd_2CrSe_4

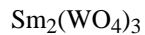
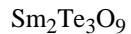
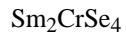
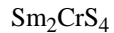
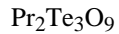
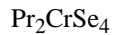
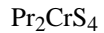
GdCrTe_3

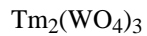
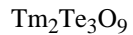
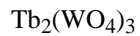
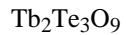
$\text{Gd}_2\text{Mo}_2\text{O}_7$

$\text{Gd}_2\text{Mo}_3\text{O}_9$









YCrSe₃

Y₂CrSe₄

YCrTe₃

YbCrO₃

YbCrS₃

YbCr₂S₄

YbCrSe₃

YbCr₂Se₄

Yb₂CrSe₄

Yb₂Mo₂O₇

Yb₂(MoO₄)₃

Yb₂Te₃O₉

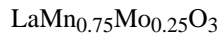
Yb₂(WO₄)₃

YbYb₄S₇

VI–VII–compounds



VI–VII–La compounds



LuMnO_3

$\text{Lu}_2\text{Mn}_2\text{O}_7$

NdMnO_3

PrMnO_3

SmMnO_3

TbMnO_3

$\text{Tb}_2\text{Mn}_2\text{O}_7$

TmMnO_3

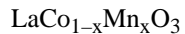
$\text{Tm}_2\text{Mn}_2\text{O}_7$

$\text{Y}_2\text{Mn}_2\text{O}_7$

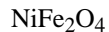
YbMnO_3

$\text{Yb}_2\text{Mn}_2\text{O}_7$

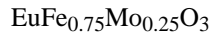
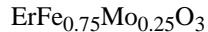
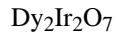
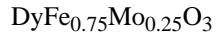
VI–VII–VIII–La compounds

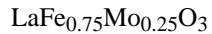
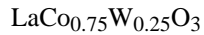
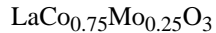
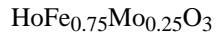
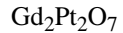
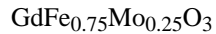
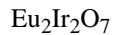


VI–VIII–VIII compounds



VI–VIII–La compounds





LaFeO_3

$\text{LaNi}_{0.75}\text{Mo}_{0.25}\text{O}_3$

La_2NiO_4

$\text{LaNi}_{0.75}\text{W}_{0.25}\text{O}_3$

$\text{LuFe}_{0.75}\text{Mo}_{0.25}\text{O}_3$

LuFeO_3

$\text{NdFe}_{0.75}\text{Mo}_{0.25}\text{O}_3$

NdFeO_3

$\text{Nd}_2\text{Ir}_2\text{O}_7$

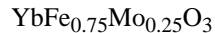
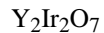
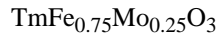
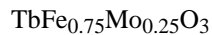
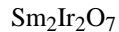
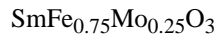
Nd_2NiO_4

$\text{Nd}_2\text{Pt}_2\text{O}_7$

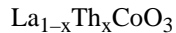
$\text{Nd}_2\text{Ru}_2\text{O}_7$

$\text{PrFe}_{0.75}\text{Mo}_{0.25}\text{O}_3$

PrFeO_3



VI–VIII–Ac–La compounds



Amorphous semiconductors

III–V compounds

GaAs (amorphous)

GaP (amorphous)

GaSb (amorphous)

InSb (amorphous)

IV–elements

Ge (amorphous)

Si (amorphous)

Organic semiconductors

organic semiconductors, general

anthracene, $C_{14}H_{10}$

anthracene: PMDA, $C_{14}H_{10}:C_{10}H_2O_6$

benzene, C_6H_6

biphenyl, $C_{12}H_{10}$

dibenzothiophene, $C_{12}H_8S$

dibromonaphthalene, $C_{10}H_6Br_2$

9,10-dichloroanthracene, $C_{14}H_8Cl_2$, α -form

1,4-diiodobenzene, $C_6H_4I_2$

durene, $C_{10}H_{14}$

iodoform, CHI_3

9-methylanthracene, $C_{15}H_{12}$

naphthalene, $C_{10}H_8$

perylene, $C_{20}H_{12}$, α -form

(perylene)₂:(PF₆)_{1.1}×0.8(CH₂Cl₂), $C_{40}H_{24}$:(PF₆)_{1.1}×0.8(CH₂Cl₂)

phenazine, $C_{12}H_8N_2$, α -form

phenothiazine, $C_{12}H_9NS$

phthalocyanine, $C_{32}H_{18}N_8$, β -form

K:TCNQ, potassium:tetracyanoquinodimethane, K: $C_{12}H_4N_4$

pyrene, $C_{16}H_{10}$

trans-stilbene, $C_{14}H_{12}$

p-terphenyl, $C_{18}H_{14}$

tetracene, $C_{18}H_{12}$

tetracyanoethylene, TCNE, C_6N_4

7,7,8,8-tetracyanoquinodimethane, TCNQ, $C_{12}H_4N_4$

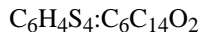
(TMTSF)₂:PF₆, (tetramethyltetraselenafulvalene)₂

hexafluorophosphate, $(C_{10}H_{12}Se_4)_2$:PF₆

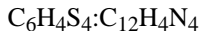
(TMTSF)₂:anion, (tetramethyltetraselenafulvalene)₂:anion

TTF:Br_{0.7}, Tetrathiafulvalene:bromine, C₆H₄S₄:Br_{0.7}

TTF:chloranil, tetrathiafulvalene:tetrachloro-*p*-benzoquinone,



TTF:TCNQ, tetrathiafulvalene:tetracyanoquinodimethane,



(TTT)₂:I₃, (tetrathiatetracene)₂:I₃, (C₁₈H₈S₄)₂:I₃

charge transfer complexes with TTF and TCNQ

photo- and semiconducting polymers

organic semiconductors, comparative tables