

tetrahedrally bonded ternary and quasi-binary compounds

general remarks on crystal structure and related properties

general remarks on band structure and dispersion relations

electronic polarizabilities of I-III-VI₂ and II-IV-V₂ compounds

application analysis with respect to nonlinear optical devices

microhardness and bulk modulus of I-III-VI₂ and II-IV-V₂ compounds

III₂-VI₃ compounds

crystal structure, lattice parameters: comparative table

Ga₂S₃

energy gap, interband transition energies

crystal structure, lattice parameters, further physical properties

Ga₂Se₃

crystal structure, lattice parameters, physical properties

Ga₂Te₃

crystal structure, lattice parameters, physical properties

In₂S₃

energy gaps, interband transition energies

transport and optical properties

crystal structure, lattice parameters, thermal expansion, melting point

In₂Se₃

band structure, energy gaps

phonon frequencies, dielectric constant, optical properties

impurities and defects, transport properties

crystal structure, phases

thermal expansion, heat capacity, melting point, magnetic susceptibility

In₂Te₃

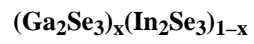
energy gaps, effective masses

sound velocity, refractive index, dielectric constant

transport properties

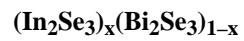
doping, impurities and defects

crystal structure, lattice parameters, thermal expansion, melting point, susceptibility

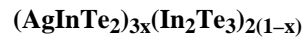


crystal structure, lattice parameters

thermal expansion, melting point

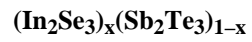


transport properties

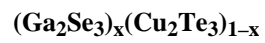


crystal structure, lattice parameters

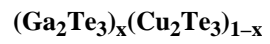
physical properties



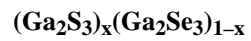
crystal structure, lattice parameters, physical properties



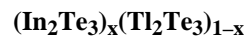
electrical conductivity



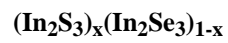
electrical conductivity



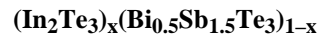
physical properties



electrical conductivity



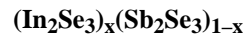
physical properties



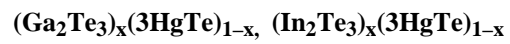
crystal structure, lattice parameters



phase diagram



crystal structure, lattice parameters



physical properties

I-III-VI₂ compounds

crystal structure, lattice parameters, density: comparative tables

high-temperature and high-pressure phases: comparative table

energy gaps: comparative table

impurity, lattice, transport and optical properties: comparative data

copper aluminum sulfide (CuAlS₂)

crystal structure, lattice parameters, microhardness, melting point

band structure, energy gap, other band energies

impurities and defects

phonon wavenumbers

resistivity, Seebeck coefficient, dielectric constants

copper aluminum selenide (CuAlSe₂)

crystal structure, lattice parameters, thermal expansion, melting point

band structure, energy gap, other band energies

impurities and defects

transport and optical properties

copper aluminum telluride (CuAlTe₂)

physical properties

copper gallium sulfide (CuGaS₂)

crystal structure, heat capacity, lattice parameters, thermal expansion and conductivity, Debye

temperature, melting point

band structure, energy gaps

intraband and interband transition energies

band and core state energies, effective masses

impurities and defects, diffusion

phonon wavenumbers, Grüneisen parameters

resonant Raman effect

transport properties

optical properties

dielectric constants

copper gallium selenide (CuGaSe₂)

crystal structure, thermal expansion, Debye temperature, melting point and related parameters

band structure, energy gaps, other band energies

impurities and defects

phonon wavenumbers

transport properties

optical properties, refractive index

copper gallium telluride (CuGaTe₂)

crystal structure, lattice parameters, Debye temperature, melting point, thermal expansion and conductivity

energy gaps, other band energies

impurities and defects

phonon wavenumbers, Grüneisen parameter

transport and optical properties

copper indium sulfide (roquesite, CuInS_2)

crystal structure, lattice parameters, Debye temperature, melting point, mechanical properties

electronic properties

impurities and defects

phonon wavenumbers

transport properties, photoconductivity

optical properties, refractive index

magnetic properties

copper indium selenide (CuInSe_2)

thermal expansion, Debye temperature, melting point and other lattice parameters

band structure, energy gaps

intraband and interband transition energies, exciton binding energy

band and core state energies, effective masses, deformation potentials

impurities and defects

lattice properties

transport properties

optical properties, dielectric constants

copper indium telluride (CuInTe₂)

crystal structure, lattice parameters, thermal expansion, Debye temperature, melting point and related parameters

energy gaps

intraband and interband energies, effective masses, deformation potential

impurities and defects

phonon wavenumbers, Grüneisen parameter

transport properties

optical properties, dielectric constants

silver gallium sulfide (AgGaS₂)

crystal structure, lattice parameters, Debye temperature, melting point and related lattice properties
energy gaps, intraband and interband energies
impurities and defects
phonon wavenumbers, Grüneisen parameter, piezoelectric constant
elastic moduli
transport properties
optical properties, refractive index
dielectric constants

silver gallium selenide (AgGaSe₂)

crystal structure, lattice parameters, thermal expansion, melting point
energy gaps
intraband and interband energies
impurities and defects
phonon wavenumbers, elastic moduli
transport properties
optical properties, refractive indices
dielectric constants

silver gallium telluride (AgGaTe₂)

crystal structure, lattice parameters, physical properties

silver indium sulfide (AgInS_2)

crystal structure, lattice parameters, melting point, Debye temperature, thermal expansion

electronic properties: chalcopyrite structure

impurities and defects

electronic properties: orthorhombic structure

transport and optical properties

silver indium selenide (AgInSe_2)

crystal structure, lattice parameters, melting point, Debye temperature, thermal expansion

energy gaps, splitting energies

interband transition energies

band and core state energies

impurities and defects

phonon wavenumbers

transport properties

optical properties, refractive indices, dielectric constants

silver indium teluride (AgInTe_2)

crystal structure, lattice parameters, physical properties

CuTlS₂

crystal structure, lattice parameters, physical properties

CuTlSe₂

crystal structure, lattice parameters, physical properties

CuTlTe₂

physical properties

AgTlSe₂

crystal structure, lattice parameters, physical properties

AlTlTe₂

crystal structure, lattice parameters, physical properties

chalcopyrite (CuFeS₂)

crystal structure, lattice parameters, density, melting point

electronic structure

transport and optical properties

phonon wavenumbers, magnetic properties

CuFeSe₂

physical properties

CuFeTe₂

physical properties

AgFeSe₂

physical properties

AgFeTe₂

physical properties

solid solutions of I-III-VI₂ compounds

crystal structure and lattice parameters: comparative table
physical properties of cationic intrinsic solutions
physical properties of anionic intrinsic solutions
physical properties of cationic/anionic intrinsic solutions
physical properties of chalcopyrite, zincblende solid solutions

II-IV-V₂ compounds

crystal structure, lattice parameters, density: comparative table
high-temperature phases: comparative table
structure of amorphous phases
band structure, energy gaps: comparative table
further comparative data on physical properties

magnesium silicon phosphide(MgSiP₂)

energy gap, interband transitions
resistivities, donor levels

zinc silicon phosphide(ZnSiP_2)

crystal structure, lattice parameters, thermal expansion, Debye temperature, melting point,
hardness
band structure, energy gaps
other band energies, effective masses
impurities and defects, diffusion
phonon wavenumbers
transport properties
refractive index, dielectric constants
luminescence, photoconductivity

zinc silicon arsenide(ZnSiAs_2)

crystal structure, lattice parameters, thermal conductivity, Debye temperature, melting point
band structure, energy gap
interband and intraband transitions
effective masses
impurities and defects
phonon wavenumbers
transport properties
optical properties, refractive indices
birefringence, luminescence, nonlinear optics

zinc germanium nitride (ZnGeN₂)

crystal structure, lattice parameters, physical properties

zinc germanium phosphide (ZnGeP₂)

crystal structure, lattice parameters, thermal expansion, Debye temperature, melting point,

thermal conductivity, hardness

band structure, energy gaps, interband transitions

splitting energies, band and core state energies

effective masses

impurities and defects

phonon wavenumbers, elastic moduli

transport properties

luminescence, photoconductivity, refractive indices

birefringence, dielectric constants, linear and nonlinear optical coefficients

zinc germanium arsenide (ZnGeAs₂)

crystal structure, lattice parameters, melting point

energy gaps, intraband and interband transition energies

band and core state energies, effective masses

impurities and defects, transport properties

optical properties

zinc tin phosphide (ZnSnP_2)

crystal structure, lattice parameters, melting point

energy gap, intra- and interband energies

phonon wavenumbers

transport properties

optical properties, dielectric constants

zinc tin arsenide (ZnSnAs_2)

crystal structure, lattice parameters, Debye temperature, melting point, hardness

energy gap, intraband and interband transition energies, effective masses

impurities and defects

transport properties

optical absorption, dielectric constant

zinc tin antimonide (ZnSnSb_2)

crystal structure, lattice parameters, physical properties

cadmium silicon phosphide (CdSiP_2)

crystal structure, lattice parameters, thermal expansion, melting point

band structure, energy gaps

intra- and interband structure energies, effective masses

impurities and defects

phonon wavenumbers, Grüneisen parameter

transport properties

optical properties

cadmium silicon arsenide (CdSiAs_2)

crystal structure, lattice parameters, melting point

energy gap, intra- and interband energies, effective masses

impurities and defects

transport properties

photoluminescence, photoconductivity

cadmium germanium phosphide (CdGeP₂)

crystal structure, lattice parameters, thermal expansion, Debye temperature, melting point

energy gaps

intra- and interband energies, effective masses

impurities and defects

phonon wavenumbers

transport properties

refractive indices

nonlinear and electrooptic coefficients, optical activity, dichroism, photovoltaic effect

photoluminescence, photoconductivity

cadmium germanium arsenide (CdGeAs₂)

crystal structure, lattice parameters, thermal expansion, Debye temperature, melting point, heat capacity, hardness, internal friction
energy gaps, intra- and interband energies
effective masses, *g*-factor
impurities and defects
phonon wavenumbers, elastic moduli
transport properties
refractive indices, dielectric constant
non-linear dielectric susceptibilities
photoconductivity, photoluminescence
magnetic properties

cadmium tin phosphide (CdSnP_2)

structure, lattice parameters, melting point
band structure, energy gaps
intra- and interband energies, effective masses
impurities and defects
phonon wavenumbers
transport properties
optical properties, dielectric constants, refractive index
magnetic properties

cadmium tin arsenide (CdSnAs_2)

crystal structure, lattice parameters, thermal expansion, Debye temperature, melting point, compressibility
band structure, energy gaps
intra- and interband transition energies
effective masses
transport properties
optical properties, dielectric constants, luminescence, photoconductivity
magnetic properties

solid solutions of II-IV-V₂ compounds

crystal structure and lattice parameters

physical properties

I₂-IV-VI₃ compounds

comparative table on structure, density and lattice parameters

Cu₂SiS₃

crystal structure, lattice parameters, physical properties

Cu₂SiTe₃

crystal structure, lattice parameters, physical properties

Cu₂GeS₃

crystal structure, lattice parameters, physical properties

Cu₂GeSe₃

crystal structure, lattice parameters, physical properties

Cu₂GeTe₃

crystal structure, lattice parameters, physical properties

Cu₂SnS₃

crystal structure, lattice parameters, physical properties

Cu₂SnSe₃

crystal structure, lattice parameters, physical properties

Cu₂SnTe₃

crystal structure, lattice parameters, physical properties

Ag₂GeSe₃

physical properties

Ag₂GeTe₃

physical properties

Ag₂SnS₃

crystal structure, lattice parameters, physical properties

Ag₂SnSe₃

crystal structure, physical properties

Ag₂SnTe₃

crystal structure, physical properties

I₂–IV–VI₃ solid solutions

crystal structure, physical properties

I₃–V–VI₄ compounds

general characterization, crystal structure, density, lattice parameters

copper thiophosphate (Cu₃PS₄)

crystal structure, lattice parameters, physical properties

enargite-luzonite (Cu₃AsS₄)

crystal structure, lattice parameters, physical properties

copper arsenic selenide (Cu₃AsSe₄)

crystal structure, lattice parameters, physical properties

famatinite (Cu₃SbS₄)

crystal structure, lattice parameters, physical properties

copper antimony selenide (Cu_3SbSe_4)

energy gap, effective mass, defect states

hole concentrations, mobilities, Seebeck coefficients and Nernst coefficient

crystal structure, further physical properties

 Cu_3AsTe_4

physical properties

 Cu_3SbTe_4

physical properties

 Ag_3PS_4

physical properties

II-III₂-VI₄ compounds

crystal structure, lattice parameters, density: comparative table

comparative remarks on the physical properties

ZnAl₂S₄

crystal structure, lattice parameters, physical properties

ZnGa₂S₄

crystal structure, lattice parameters, physical properties

ZnGa₂Se₄

crystal structure, lattice parameters, physical properties

ZnGa₂Te₄

crystal structure, lattice parameters, physical properties

zinc thioindate (ZnIn₂S₄)

crystal structure, lattice parameters

electronic properties, impurities and defects

phonon frequencies

transport and optical properties

magnetic properties

zinc indium selenide (ZnIn_2Se_4)

crystal structure, lattice parameters, physical properties

zinc indium telluride (ZnIn_2Te_4)

crystal structure, lattice parameters, physical properties

cadmium thiogallate (CdAl_2S_4)

crystal structure, lattice parameters, electronic properties

cadmium thiogallate (CdGa_2S_4)

crystal structure, lattice parameters, electronic properties

impurities and defects

heat capacity, Debye temperature

phonon wavenumbers

transport properties

optical properties, dielectric constants

cadmium gallium selenide (CdGa_2Se_4)

crystal structure, lattice parameters, electronic properties

impurities and defects

thermal expansion, melting point

phonon wavenumbers, force constants

transport and optical properties, dielectric properties

magnetic properties

cadmium gallium telluride (CdGa_2Te_4)

crystal structure, lattice parameters, energy gap

cadmium thioindate (CdIn_2S_4)

crystal structure, lattice parameters, density

electronic properties

impurities and defects

phonon wavenumbers and energies

elastic moduli, heat capacity, Debye temperature, melting point

transport properties

optical and magnetic properties, dielectric constants

cadmium indium selenide (CdIn_2Se_4)

crystal structure, lattice parameters, density

physical properties

cadmium indium telluride (CdIn_2Te_4)

crystal structure, lattice parameters, physical properties

cadmium thallium selenide (CdTl_2Se_4)

crystal structure, lattice parameters, physical properties

mercury thioaluminate (HgAl_2S_4)

crystal structure, lattice parameters, physical properties

mercury thiogallate (HgGa_2S_4)

crystal structure, lattice parameters, physical properties

mercury gallium selenide (HgGa_2Se_4)

crystal structure, lattice parameters, physical properties

mercury indium telluride (HgIn_2Te_4)

crystal structure, lattice parameters, physical properties

mercury indium selenides and tellurides (HgIn_2Se_4 , HgIn_2Te_4 , $\text{Hg}_3\text{In}_2\text{Te}_6$, $\text{Hg}_5\text{In}_2\text{Te}_8$)

physical properties

further II-III₂-VI₄ compounds with II = Mg, Ca, Mn, Pb

physical properties

solid solutions of II-III₂-VI₄ compounds

physical properties

ordered vacancy compounds of the series II₃VI₃-III₂VI₃

crystal structure, lattice parameters: comparative table

zinc indium sulfide ($\text{Zn}_2\text{In}_2\text{S}_5$)

crystal structure, lattice parameters, physical properties

zinc indium sulfide ($\text{Zn}_3\text{In}_2\text{S}_6$)

crystal structure, lattice parameters, physical properties

mercury gallium telluride ($\text{Hg}_3\text{Ga}_2\text{Te}_6$)

crystal structure, lattice parameters, physical properties

mercury gallium telluride ($\text{Hg}_5\text{Ga}_2\text{Te}_8$)

crystal structure, lattice parameters, physical properties

mercury indium telluride ($\text{Hg}_3\text{In}_2\text{Te}_6$)

crystal structure, lattice parameters, physical properties

mercury indium telluride ($\text{Hg}_5\text{In}_2\text{Te}_8$)

crystal structure, lattice parameters, physical properties

$\text{I}_2\text{-II-IV-VI}_4$ compounds

crystal structure, lattice parameters

energy gaps and resistivities

$\text{I}_2\text{-IV-VI}_4\text{-VII}$ compounds

crystal structure, lattice parameters

$\text{I}_2\text{-IV-VI}_4\text{-VIII}$ compounds

crystal structure, lattice parameters

physical properties

I-III-IV-Se_4 compounds

crystal structure, energy gaps

MnIn₂S₄

physical properties

FeIn₂S₄

physical properties

CoIn₂S₄

physical properties

NiIn₂S₄

physical properties

MnIn₂S_{4-x}Se_x

physical properties

FeIn₂S_{4-x}Se_x

physical properties

NiIn₂S_{3.5}Se_{0.5}

physical properties

MnGa₂S₄

crystal structure, physical properties

MnSb₂S₄

physical properties

CoRh₂S₄

crystal structure, physical properties

Fe(FeRh)S₄

physical properties

Cd_{1-x}Fe_x(FeSn)S₄

physical properties

CdCr₂S₄

crystal structure, lattice parameters

energy gap

phonon wavenumbers

thermal expansion, Grüneisen constant, compressibility

transport properties

optical absorption

refractive index, dielectric constants

figures and further references to optical properties

density, Curie temperature, Debye temperature, heat capacity

FeCr₂S₄

crystal structure, lattice parameters

transport properties

density, Curie temperature, heat capacity

CoCr₂S₄

crystal structure, lattice parameters

transport and optical properties

density, Curie temperature, Debye temperature,

CuCr₂S₄

crystal structure, physical properties

Fe_{1-x}Cu_xCr₂S₄

crystal structure, physical properties

HgCr₂S₄

crystal structure, physical properties

ZnCr₂S₄

crystal structure, physical properties

MnCr₂S₄

crystal structure, physical properties

V_xCr_{3-x}S₄

crystal structure, physical properties

BaCr₂S₄

crystal structure, physical properties

CdCr₂Se₄

crystal structure, lattice parameters

energy gap

phonon wavenumbers

transport properties

optical properties, dielectric constants

density, Curie temperature, Debye temperature, heat capacity

CuCr₂Se₄

physical properties

CuCr₂(S,Se,Te)₃(I,Br,Cl)

physical properties

CuCr₂S_{4-x}Se_x

lattice parameters, physical properties

HgCr₂Se₄

crystal structure, lattice parameters

energy gap

transport properties

optical properties

Curie and Debye temperatures

ZnCr₂Se₄

crystal structure, lattice parameters

energy gap

transport properties

optical properties, dielectric constant

density, Néel temperature

FeCr₂Se₄

crystal structure, lattice parameters, density

transport properties

NiCr₂Se₄

crystal structure, lattice parameters, physical properties

VCr₂Se₄

crystal structure, lattice parameters, physical properties

BaCr₂Se₄

crystal structure, lattice parameters, physical properties

CoCr₂Te₄

crystal structure, lattice parameters, physical properties

FeCr₂Te₄

crystal structure, physical properties

BaTiO₃

crystal structure, lattice parameters

band gap, interband transition energies

phonon dispersion, phonon wavenumbers

transport properties

optical properties, dielectric constant

melting point, density, heat capacity

PbTiO₃

crystal structure, lattice parameters
phonon dispersion, elastic constants
transport properties
optical properties, dielectric constants
melting point, density, heat capacity

NaNbO₃

crystal structure, lattice parameters
physical properties

KNbO₃

crystal structure, lattice parameters, melting point, density
physical properties

KTaO₃

crystal structure, lattice parameters, thermal expansion
band structure, energy gap, interband transition energies
phonon dispersion, elastic properties
transport properties
optical properties, dielectric constants
melting point, density

SrTiO₃

crystal structure, lattice parameters
band structure, energy gap, interband transition energies
phonon dispersion
transport properties
optical properties, dielectric constant
heat capacity, melting point, density

PbZrO₃

crystal structure, lattice parameters
physical properties

CaTiO₃

crystal structure, lattice parameters

physical properties

LiVO₃

crystal structure, lattice parameters, physical properties

LaVO₃

crystal structure, physical properties

Cs_xV₃O₇

crystal structure, physical properties

Co₃V₂O₈

crystal structure, lattice parameters, physical properties

MV₂O₄ (M = Co, Fe, Mg, Mn, Zn)

physical properties

MnVO₃

crystal structure, lattice parameters, physical properties

CuNbO₃

crystal structure, lattice parameters, physical properties

SbNbO₄

crystal structure, lattice parameters, physical properties

Sr₂MNbO₆ (M = Ti, Zr, Hf)

crystal structure, physical properties

CuTaO₃

crystal structure, lattice parameters, physical properties

CuTa₂O₆

crystal structure, lattice parameters, physical properties

K₂CrO₄

crystal structure, lattice parameters, physical properties

PbCrO₃

crystal structure, lattice parameters, physical properties

PbMoO₄

crystal structure, lattice parameters, thermal expansion
phonon wavenumbers, sound velocity,
elastic moduli, bulk modulus, compressibility, elastooptic constants
transport and optical properties
density, Debye temperature, heat capacity

PbWO₄

crystal structure, lattice parameters, physical properties

KMnO₄

crystal structure, lattice parameters, physical properties

LaMnO₃

crystal structure, lattice parameters, physical properties

LiFe₅O₈

crystal structure, lattice parameters, physical properties

BaFe₁₂O₁₉

crystal structure, lattice parameters, physical properties

SrFe₁₂O₁₉

crystal structure, lattice parameters, physical properties

PbFe₁₂O₁₉

physical properties

LaCoO₃

crystal structure, physical properties

Ba_{0.5}OsO₃

crystal structure, lattice parameters, physical properties

NiFe₂O₄

crystal structure, lattice parameters, physical properties

CuFe₂O₄

crystal structure, lattice parameters, physical properties

CoAl₂O₄

crystal structure, lattice parameters, physical properties

$\text{Cd}_2\text{Os}_2\text{O}_7$

crystal structure, lattice parameters, physical properties

 $\text{Ca}_2\text{Os}_2\text{O}_7$

crystal structure, lattice parameters, physical properties

 $\text{Bi}_2\text{Os}_2\text{O}_7$

crystal structure, lattice parameters, physical properties

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

physical properties

 Ca_4PtO_6

physical properties

 Me_xZrS_2 (Me = Fe, Co, Ni)

crystal structure, lattice parameters, physical properties

 CuCrS_2

crystal structure, lattice parameters, physical properties

Mn_xNbS₂

crystal structure, lattice parameters, physical properties

Me_xNbS₂ (Me = Fe,Co,Ni)

crystal structure, lattice parameters, physical properties

Tl₃VS₄

crystal structure, lattice parameters, physical properties

Cu₃VS₄

crystal structure, lattice parameters, physical properties

Na_xVS₂, Na_xVSe₂

crystal structure, lattice parameters, physical properties

CsZrCl₆

crystal structure, lattice parameters, physical properties

VFe₂Se₄

crystal structure, lattice parameters, physical properties

LaTiO₃

crystal structure, physical properties

CeTiO₃

crystal structure, physical properties

PrTiO₃

crystal structure, physical properties

NdTiO₃

crystal structure, physical properties

SmTiO₃

crystal structure, physical properties

EuTiO₃

crystal structure

GdTiO₃

crystal structure, physical properties

TbTiO₃

crystal structure, physical properties

DyTiO₃

crystal structure, physical properties

HoTiO₃

crystal structure, physical properties

ErTiO₃

crystal structure, physical properties

TmTiO₃

crystal structure

YbTiO₃

crystal structure, physical properties

LuTiO₃

crystal structure

La_{1-x}Sr_xVO₃

physical properties

CeVO₃

crystal structure, physical properties

PrVO₃

crystal structure, physical properties

NdVO₃

crystal structure, physical properties

SmVO₃

crystal structure, physical properties

EuVO₃

crystal structure, physical properties

GdVO₃

crystal structure, physical properties

TbVO₃

crystal structure, physical properties

DyVO₃

crystal structure, physical properties

HoVO₃

crystal structure, physical properties

ErVO₃

crystal structure, physical properties

TmVO₃

crystal structure, physical properties

YbVO₃

crystal structure, physical properties

LuVO₃

crystal structure, physical properties

LaCrO₃

crystal structure, physical properties

La_{0.8}Mg_{0.2}CrO₃

physical properties

La_{1-x}Sr_xCrO₃

physical properties

CeCrO₃

crystal structure

PrCrO₃

crystal structure

NdCrO₃

crystal structure, physical properties

SmCrO₃

crystal structure, physical properties

EuCrO₃

crystal structure

GdCrO₃

crystal structure, physical properties

TbCrO₃

crystal structure

DyCrO₃

crystal structure, physical properties

HoCrO₃

crystal structure, physical properties

ErCrO₃

crystal structure, physical properties

TmCrO₃

crystal structure

YbCrO₃

crystal structure, physical properties

LuCrO₃

crystal structure, physical properties

LaCo_{1-x}Mn_xO₃

physical properties

LaMn_{0.75}Mo_{0.25}O₃

crystal structure, physical properties

La_{1-x}Sr_xMnO₃

physical properties



physical properties



physical properties



crystal structure



crystal structure



crystal structure



crystal structure



crystal structure



crystal structure

TbMnO₃

crystal structure

DyMnO₃

crystal structure

HoMnO₃

crystal structure, physical properties

ErMnO₃

crystal structure, physical properties

TmMnO₃

crystal structure

YbMnO₃

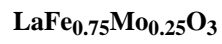
crystal structure, physical properties

LuMnO₃

crystal structure, physical properties

LaFeO₃

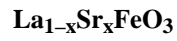
crystal structure, physical properties



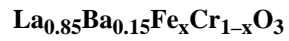
crystal structure, physical properties



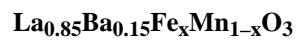
crystal structure, physical properties



physical properties



physical properties



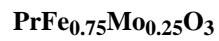
physical properties



crystal structure



crystal structure, physical properties



crystal structure, physical properties

NdFeO₃

crystal structure, physical properties

NdFe_{0.75}Mo_{0.25}O₃

crystal structure, physical properties

SmFeO₃

crystal structure, physical properties

SmFe_{0.75}Mo_{0.25}O₃

crystal structure, physical properties

EuFeO₃

crystal structure, physical properties

EuFe_{0.75}Mo_{0.25}O₃

crystal structure, physical properties

GdFeO₃

crystal structure, physical properties

GdFe_{0.75}Mo_{0.25}O₃

crystal structure, physical properties

TbFeO₃

crystal structure, physical properties

TbFe_{0.75}Mo_{0.25}O₃

crystal structure, physical properties

DyFeO₃

crystal structure, physical properties

DyFe_{0.75}Mo_{0.25}O₃

crystal structure, physical properties

HoFeO₃

crystal structure, physical properties

HoFe_{0.75}Mo_{0.25}O₃

crystal structure, physical properties

ErFeO₃

crystal structure, physical properties

ErFe_{0.75}Mo_{0.25}O₃

crystal structure, physical properties

TmFeO₃

crystal structure, physical properties

TmFe_{0.75}Mo_{0.25}O₃

crystal structure, physical properties

YbFeO₃

crystal structure, physical properties

YbFe_{0.75}Mo_{0.25}O₃

crystal structure, physical properties

LuFeO₃

crystal structure, physical properties

LuFe_{0.75}Mo_{0.25}O₃

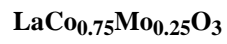
crystal structure, physical properties

La_{1-x}Sr_xCoO₃

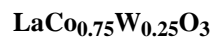
physical properties

La_{1-x}Th_xCoO₃

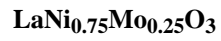
physical properties



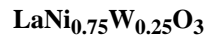
crystal structure, physical properties



crystal structure, physical properties



crystal structure, physical properties



crystal structure, physical properties



crystal structure, physical properties



crystal structure, physical properties



crystal structure, physical properties



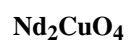
crystal structure, physical properties



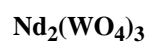
crystal structure, physical properties



crystal structure, physical properties



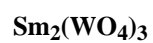
crystal structure, physical properties



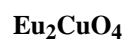
crystal structure, physical properties



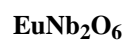
crystal structure, physical properties



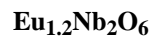
crystal structure, physical properties



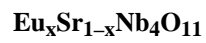
crystal structure, physical properties



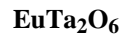
crystal structure, physical properties



crystal structure, physical properties



crystal structure



crystal structure, physical properties



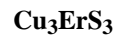
crystal structure, physical properties



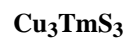
crystal structure, physical properties



crystal structure, physical properties



crystal structure, physical properties



crystal structure, physical properties

Gd₂CuO₄

crystal structure, physical properties

Gd₂(WO₄)₃

crystal structure, physical properties

Tb₂(WO₄)₃

physical properties

Dy₂(WO₄)₃

physical properties

Ho₂(WO₄)₃

physical properties

Er₂(WO₄)₃

physical properties

Tm₂(WO₄)₃

physical properties

Yb₂(WO₄)₃

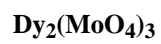
physical properties



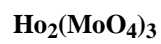
physical properties



physical properties



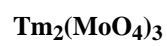
physical properties



physical properties



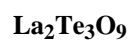
physical properties



physical properties



physical properties



physical properties

Nd₂Mo₂O₇

physical properties

Sm₂Mo₂O₇

crystal structure, physical properties

Eu₂Mo₂O₇

crystal structure, physical properties

Gd₂Mo₂O₇

crystal structure, physical properties

Tb₂Mo₂O₇

physical properties

Dy₂Mo₂O₇

crystal structure, physical properties

Ho₂Mo₂O₇

physical properties

Er₂Mo₂O₇

crystal structure, physical properties

Tm₂Mo₂O₇

physical properties

Yb₂Mo₂O₇

physical properties

Pr₂Te₃O₉

physical properties

Nd₂Te₃O₉

physical properties

Sm₂Te₃O₉

physical properties

Eu₂Te₃O₉

physical properties

Gd₂Te₃O₉

physical properties

Tb₂Te₃O₉

physical properties

Dy₂Te₃O₉

physical properties

Ho₂Te₃O₉

physical properties

Er₂Te₃O₉

physical properties

Tm₂Te₃O₉

physical properties

Yb₂Te₃O₉

physical properties

Lu₂Te₃O₉

physical properties

La₂Mo₃O₉

crystal structure, physical properties

Ce₂Mo₃O₉

crystal structure, physical properties

Pr₂Mo₃O₉

crystal structure, physical properties

Nd₂Mo₃O₉

crystal structure, physical properties

Sm₂Mo₃O₉

crystal structure, physical properties

Gd₂Mo₃O₉

crystal structure, physical properties

Dy₂Mo₃O₉

crystal structure, physical properties

GdCrS₃

crystal structure, physical properties

TbCrS₃

crystal structure, physical properties

DyCrS₃

crystal structure, physical properties

HoCrS₃

crystal structure, physical properties

ErCrS₃

crystal structure, physical properties

TmCrS₃

crystal structure, physical properties

YbCrS₃

crystal structure, physical properties

LuCrS₃

crystal structure, physical properties

YCrS₃

physical properties

GdCrSe₃

crystal structure, physical properties

TbCrSe₃

physical properties

DyCrSe₃

physical properties

HoCrSe₃

physical properties

ErCrSe₃

physical properties

TmCrSe₃

physical properties

YbCrSe₃

physical properties

LuCrSe₃

physical properties

YCrSe₃

physical properties

YCrTe₃

physical properties

GdCrTe₃

physical properties

Pr₂CrS₄

crystal structure, physical properties

Nd₂CrS₄

physical properties

Sm₂CrS₄

physical properties

Y₂CrS₄

crystal structure, physical properties

La₂CrSe₄

physical properties

Pr₂CrSe₄

crystal structure, physical properties

Nd₂CrSe₄

physical properties

Sm₂CrSe₄

physical properties

Gd₂CrSe₄

physical properties

Tb₂CrSe₄

physical properties

Dy₂CrSe₄

physical properties

Ho₂CrSe₄

physical properties

Er₂CrSe₄

physical properties

Yb₂CrSe₄

physical properties

Lu₂CrSe₄

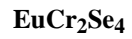
physical properties



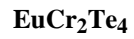
crystal structure, physical properties



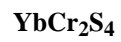
crystal structure, physical properties



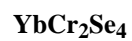
crystal structure



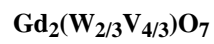
crystal structure, physical properties



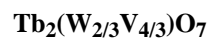
crystal structure, physical properties



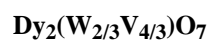
crystal structure, physical properties



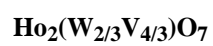
crystal structure, physical properties



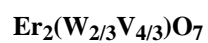
crystal structure, physical properties



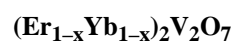
crystal structure, physical properties



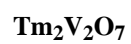
crystal structure, physical properties



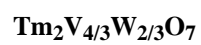
crystal structure, physical properties



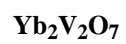
crystal structure, physical properties



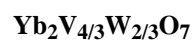
crystal structure, physical properties



crystal structure, physical properties



crystal structure, physical properties



crystal structure, physical properties

Lu₂V₂O₇

crystal structure, physical properties

La₂Pb₂O₇

crystal structure, physical properties

Gd₂Ti₂O₇

crystal structure, physical properties

Tb₂Mn₂O₇

physical properties

Dy₂Mn₂O₇

crystal structure, physical properties

Ho₂Mn₂O₇

crystal structure, physical properties

Er₂Mn₂O₇

crystal structure, physical properties

Tm₂Mn₂O₇

crystal structure, physical properties

Yb₂Mn₂O₇

crystal structure, physical properties

Lu₂Mn₂O₇

crystal structure, physical properties

Y₂Mn₂O₇

crystal structure, physical properties

Pr₂Ru₂O₇

crystal structure, physical properties

Nd₂Ru₂O₇

crystal structure, physical properties

Eu₂Ru₂O₇

crystal structure, physical properties

Gd₂Ru₂O₇

crystal structure, physical properties

Yb₂Ru₂O₇

crystal structure, physical properties

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

crystal structure, physical properties

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

crystal structure, physical properties

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

crystal structure, physical properties

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

crystal structure, physical properties

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

crystal structure, physical properties

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

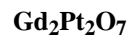
crystal structure, physical properties

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

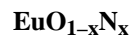
crystal structure, physical properties

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

crystal structure, physical properties



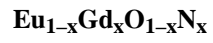
crystal structure, physical properties



crystal structure, physical properties



crystal structure, physical properties



crystal structure, physical properties



crystal structure



crystal structure, physical properties



crystal structure



crystal structure

LaBiSe₃

crystal structure

CeBiSe₃

crystal structure

PrBiSe₃

crystal structure

NdBiSe₃

crystal structure

GdBiSe₃

crystal structure

LaSbSe₃

crystal structure

CeSbSe₃

crystal structure, physical properties

PrSbSe₃

crystal structure, physical properties

NdSbSe₃

crystal structure, physical properties

SmSbSe₃

crystal structure, physical properties

GdSbSe₃

crystal structure, physical properties

LaSbTe₃

crystal structure

CeSbTe₃

physical properties

NdSbTe₃

crystal structure

SmSbTe₃

crystal structure

EuSbTe₃

crystal structure, physical properties

GdSbTe₃

crystal structure, physical properties

DySbTe₃

crystal structure

YSbTe₃

crystal structure

LaBiTe₃

crystal structure

CeBiTe₃

crystal structure, physical properties

PrBiTe₃

crystal structure

NdBiTe₃

crystal structure

SmBiTe₃

crystal structure, physical properties

GdBiTe₃

crystal structure

TbBiTe₃

crystal structure, physical properties

DyBiTe₃

crystal structure

HoBiTe₃

crystal structure

ErBiTe₃

crystal structure

TmBiTe₃

crystal structure, physical properties

LuBiTe₃

crystal structure, physical properties

YBiTe₃

crystal structure, physical properties

EuSb₂S₄

crystal structure, physical properties

EuSb₂Se₄

crystal structure, physical properties

EuSb₂Te₄

crystal structure, physical properties

EuBi₂S₄

crystal structure

EuBi₂Se₄

crystal structure, physical properties

EuBi₂Te₄

crystal structure, physical properties

LiHoS₂

crystal structure

LiErS₂

crystal structure

LiYbS₂

crystal structure

NaLaS₂

crystal structure

NaCeS₂

crystal structure

NaPrS₂

crystal structure

NaNdS₂

crystal structure

NaSmS₂

crystal structure

NaEuS₂

crystal structure

NaGdS₂

crystal structure

NaTbS₂

crystal structure

NaDyS₂

crystal structure

NaHoS₂

crystal structure

NaErS₂

crystal structure

NaYS₂

crystal structure

NaLaSe₂

crystal structure

NaCeSe₂

crystal structure

NaPrSe₂

crystal structure

NaNdSe₂

crystal structure

NaSmSe₂

crystal structure

NaEuSe₂

crystal structure

NaGdSe₂

crystal structure

NaTbSe₂

crystal structure

NaDySe₂

crystal structure

NaHoSe₂

crystal structure

NaErSe₂

crystal structure

NaYSe₂

crystal structure

KLaS₂

crystal structure

KCeS₂

crystal structure

KPrS₂

crystal structure

KNdS₂

crystal structure

KSmS₂

crystal structure

KEuS₂

crystal structure

KGdS₂

crystal structure

KTbS₂

crystal structure

KDyS₂

crystal structure

KYS₂

crystal structure

KHoS₂

crystal structure

KErS₂

crystal structure

KYbS₂

crystal structure

RbLaS₂

crystal structure

RbCeS₂

crystal structure

RbPrS₂

crystal structure

RbNdS₂

crystal structure

RbSmS₂

crystal structure

RbEuS₂

crystal structure

RbGdS₂

crystal structure

RbTbS₂

crystal structure

CsLaS₂

crystal structure

CsCeS₂

crystal structure

CaLa₂S₄

crystal structure, physical properties

CaCe₂S₄

crystal structure, physical properties

CaPr₂S₄

crystal structure, physical properties

CaNd₂S₄

crystal structure, physical properties

CaSm₂S₄

crystal structure, physical properties

CaGd₂S₄

crystal structure, physical properties

CaTb₂S₄

crystal structure

CaDy₂S₄

crystal structure

CaHo₂S₄

crystal structure

CaEr₂S₄

crystal structure

CaTm₂S₄

crystal structure

CaYb₂S₄

crystal structure

CaLu₂S₄

crystal structure, physical properties

CaY₂Se₄

crystal structure

CaHo₂Se₄

crystal structure

CaEr₂Se₄

crystal structure

CaTm₂Se₄

crystal structure

CaYb₂Se₄

crystal structure

CaLu₂Se₄

crystal structure

CaDy₂Te₄

crystal structure

CaHo₂Te₄

crystal structure

CaEr₂Te₄

crystal structure

CaTm₂Te₄

crystal structure

CaLu₂Te₄

crystal structure

CaY₂Te₄

crystal structure

SrLa₂S₄

crystal structure, physical properties

SrCe₂S₄

crystal structure

SrPr₂S₄

crystal structure, physical properties

SrNd₂S₄

crystal structure, physical properties

SrSm₂S₄

crystal structure, physical properties

SrGd₂S₄

crystal structure

SrTb₂S₄

crystal structure

SrDy₂S₄

crystal structure

SrHo₂S₄

crystal structure

SrEr₂S₄

crystal structure

SrTm₂S₄

crystal structure

SrYb₂S₄

crystal structure

SrLu₂S₄

crystal structure

SrY₂S₄

crystal structure

SrLa₂Se₄

crystal structure

SrCe₂Se₄

crystal structure

SrPr₂Se₄

crystal structure

SrNd₂Se₄

crystal structure

SrSm₂Se₄

crystal structure

SrGd₂Se₄

crystal structure

SrTb₂Se₄

crystal structure

SrDy₂Se₄

crystal structure

SrEr₂Se₄

crystal structure

SrYb₂Se₄

crystal structure

SrLu₂Se₄

crystal structure

SrY₂Se₄

crystal structure

BaLa₂S₄

crystal structure

BaCe₂S₄

crystal structure

BaPr₂S₄

crystal structure

BaNd₂S₄

crystal structure

BaSm₂S₄

crystal structure

BaGd₂S₄

crystal structure

BaTb₂S₄

crystal structure

BaDy₂S₄

crystal structure

BaHo₂S₄

crystal structure

BaEr₂S₄

crystal structure

BaTm₂S₄

crystal structure

BaYb₂S₄

crystal structure

BaLu₂S₄

crystal structure

BaY₂S₄

crystal structure

BaLa₂Se₄

crystal structure

BaCe₂Se₄

crystal structure

BaPr₂Se₄

crystal structure

BaNd₂Se₄

crystal structure

BaSm₂Se₄

crystal structure

BaGd₂Se₄

crystal structure

BaDy₂Se₄

crystal structure

BaEr₂Se₄

crystal structure

BaYb₂Se₄

crystal structure

BaLu₂Se₄

crystal structure

BaY₂Se₄

crystal structure

ZrLa₂S₅

crystal structure, physical properties

ZrSm₂S₅

crystal structure

ZrHo₂S₅

crystal structure

ZrEr₂S₅

crystal structure

ZrLa₂Se₅

crystal structure

ZrSm₂Se₅

crystal structure

ZrGd₂Se₅

crystal structure

ZrTb₂Se₅

crystal structure

HfCe₂S₅

crystal structure, physical properties

HfSm₂S₅

crystal structure, physical properties

HfHo₂S₅

crystal structure

HfEr₂S₅

crystal structure

HfLa₂Se₅

crystal structure

HfCe₂Se₅

crystal structure

CuLaS₂

crystal structure

CuCeS₂

crystal structure

CuPrS₂

crystal structure

CuNdS₂

crystal structure

CuSmS₂

crystal structure

CuGdS₂

crystal structure

CuTbS₂

crystal structure

Cu₃SmS₃

crystal structure, physical properties

Cu₃GdS₃

crystal structure, physical properties

Cu₃TbS₃

crystal structure, physical properties

Cu₃DyS₃

crystal structure, physical properties

Cu₃YS₃

crystal structure, physical properties

Cu₃HoS₃

crystal structure, physical properties

Cu₃YbS₃

crystal structure, physical properties

Cu_3LuS_3

crystal structure, physical properties

 Cu_3ScS_3

crystal structure, physical properties

 Cu_3SmSe_3

crystal structure, physical properties

 Cu_3GdSe_3

crystal structure, physical properties

 Cu_3TbSe_3

crystal structure, physical properties

 Cu_3DySe_3

crystal structure, physical properties

 Cu_3YSe_3

crystal structure, physical properties

 Cu_3HoSe_3

crystal structure, physical properties

Cu_3YbSe_3

crystal structure, physical properties

 Cu_3ScSe_3

crystal structure, physical properties

 Cu_3SmTe_3

crystal structure, physical properties

 Cu_3GdTe_3

crystal structure, physical properties

 Cu_3TbTe_3

crystal structure, physical properties

 Cu_3DyTe_3

crystal structure, physical properties

 Cu_3YTe_3

crystal structure, physical properties

 Cu_3HoTe_3

crystal structure, physical properties

Cu₃ErTe₃

crystal structure, physical properties

Cu₃TmTe₃

crystal structure, physical properties

Cu₅GdS₄

crystal structure, physical properties

Cu₅TbS₄

crystal structure, physical properties

Cu₅DyS₄

crystal structure, physical properties

Cu₅HoS₄

crystal structure, physical properties

Cu₅LuS₄

crystal structure, physical properties

Cu₅ErS₄

crystal structure

Cu₅YbS₄

crystal structure

Cu₅GdSe₄

crystal structure, physical properties

Cu₅TbSe₄

crystal structure, physical properties

Cu₅YbSe₄

crystal structure, physical properties

Cu₅LuSe₄

crystal structure, physical properties

Cu₅DySe₄

crystal structure

Cu₅HoSe₄

crystal structure

Cu₅ErSe₄

crystal structure

Cu₅GdTe₄

crystal structure, physical properties

Cu₅DyTe₄

crystal structure, physical properties

Cu₅TbTe₄

crystal structure

GdClH_y

crystal structure, physical properties

GdBrH_y

crystal structure, physical properties

GdBrH₂

crystal structure, physical properties

GdIH_y

crystal structure, physical properties

TbBrD_y

crystal structure, physical properties

TbBrD₂

crystal structure, physical properties

ZnTm₂S₄

crystal structure, physical properties

ZnYb₂S₄

crystal structure, physical properties

ZnLu₂S₄

crystal structure, physical properties

ZnSc₂S₄

crystal structure, physical properties

CdLa₂S₄

crystal structure, physical properties

CdCe₂S₄

crystal structure, physical properties

CdPr₂S₄

crystal structure, physical properties

CdNd₂S₄

crystal structure

CdSm₂S₄

crystal structure, physical properties

CdGd₂S₄

crystal structure, physical properties

CdTb₂S₄

crystal structure, physical properties

CdDy₂S₄

physical properties

CdHo₂S₄

crystal structure

CdEr₂S₄

crystal structure, physical properties

CdTm₂S₄

crystal structure, physical properties

CdYb₂S₄

crystal structure, physical properties

CdLu₂S₄

crystal structure

CdY₂S₄

crystal structure

CdSc₂S₄

crystal structure, physical properties

CdY₂Se₄

crystal structure

CdDy₂Se₄

crystal structure

CdHo₂Se₄

crystal structure

CdEr₂Se₄

crystal structure

CdYb₂Se₄

crystal structure

CdLa₂Se₄

crystal structure, physical properties

CdCe₂Se₄

crystal structure, physical properties

CdPr₂Se₄

crystal structure, physical properties

CdNd₂Se₄

crystal structure, physical properties

CdSm₂Se₄

crystal structure, physical properties

CdGd₂Se₄

crystal structure, physical properties

YbYb₄S₇

crystal structure

CdYb₄S₇

crystal structure

CdYb₄Se₇

crystal structure

ZnYb₄S₇

crystal structure

CdEr₄S₇

crystal structure

CdEr₄Se₇

crystal structure

CdHo₄S₇

crystal structure

CdHo₄Se₇

crystal structure

CdTm₄S₇

crystal structure

GaLaS₃

crystal structure, physical properties

Ga_{10/3}La₆S₁₄

crystal structure

GaCeS₃

crystal structure, physical properties

Ga_{10/3}Ce₆S₁₄

crystal structure

Ga₂EuS₄

crystal structure, physical properties

Ga₂EuSe₄

crystal structure, physical properties

Ga₂EuTe₄

crystal structure, physical properties

In₂EuS₄

crystal structure, physical properties

In₂EuSe₄

crystal structure, physical properties

In₂EuTe₄

crystal structure, physical properties

PrGaS₃

crystal structure, physical properties

NdGaS₃

crystal structure, physical properties

SmGaS₃

crystal structure, physical properties

GdGaS₃

crystal structure, physical properties

ErGaS₃

crystal structure, physical properties

YbGaS₃

crystal structure, physical properties

LaInS₃

crystal structure, physical properties

CeInS₃

crystal structure, physical properties

PrInS₃

crystal structure, physical properties

NdInS₃

crystal structure, physical properties

SmInS₃

crystal structure, physical properties

LaGaSe₃

crystal structure, physical properties

CeGaSe₃

crystal structure, physical properties

PrGaSe₃

crystal structure, physical properties

NdGaSe₃

crystal structure, physical properties

SmGaSe₃

crystal structure, physical properties

EuGa₂S₄

crystal structure, physical properties

EuGa₂Se₄

crystal structure, physical properties

EuGa₂Te₄

crystal structure, physical properties

EuIn₂S₄

crystal structure, physical properties

EuIn₂Se₄

crystal structure, physical properties

EuIn₂Te₄

crystal structure, physical properties

YbGa₂S₄

crystal structure, physical properties

YbGa₂Se₄

crystal structure, physical properties

YbIn₂S₄

crystal structure, physical properties

YbIn₂Se₄

crystal structure, physical properties

LaIn₃S₆

crystal structure, physical properties

CeIn₃S₆

crystal structure, physical properties

PrIn₃S₆

crystal structure, physical properties

NdIn₃S₆

crystal structure, physical properties

SmIn₃S₆

crystal structure, physical properties

GdIn₃S₆

crystal structure, physical properties

TbIn₃S₆

crystal structure, physical properties

DyIn₃S₆

crystal structure, physical properties

YIn₃S₆

crystal structure, physical properties

HoIn₃S₆

crystal structure, physical properties

ErIn₃S₆

crystal structure, physical properties

LaTiS₂

physical properties

CeTiS₂

physical properties

PrTiS₂

physical properties

NdTiS₂

physical properties

SmTiS₂

crystal structure, physical properties

EuTiS₂

crystal structure, physical properties

GdTiS₂

crystal structure

TbTiS₂

crystal structure

DyTiS₂

crystal structure

HoTlS₂

crystal structure

ErTlS₂

crystal structure

TmTlS₂

crystal structure

YbTlS₂

crystal structure

LuTlS₂

crystal structure

YTlS₂

crystal structure

LaTlSe₂

physical properties

CeTlSe₂

physical properties

PrTlSe₂

crystal structure, physical properties

NdTlSe₂

crystal structure, physical properties

SmTlSe₂

crystal structure, physical properties

EuTlSe₂

physical properties

GdTlSe₂

crystal structure

TbTlSe₂

crystal structure

DyTlSe₂

crystal structure

HoTlSe₂

crystal structure

ErTlSe₂

crystal structure

TmTlSe₂

crystal structure

YbTlSe₂

crystal structure

LuTlSe₂

crystal structure

YTlSe₂

crystal structure

LaTlTe₂

physical properties

CeTlTe₂

physical properties

PrTlTe₂

crystal structure, physical properties

NdTiTe₂

crystal structure, physical properties

SmTiTe₂

crystal structure

EuTiTe₂

crystal structure, physical properties

GdTiTe₂

crystal structure, physical properties

TbTiTe₂

crystal structure, physical properties

DyTiTe₂

crystal structure

HoTiTe₂

crystal structure

ErTiTe₂

crystal structure

TmTlTe₂

physical properties

YbTlTe₂

crystal structure

LuTlTe₂

crystal structure

YTlTe₂

crystal structure

La₂GeSe₅

physical properties

La₂SnSe₅

physical properties

Ce₂GeSe₅

physical properties

Ce₂SnSe₅

physical properties

Pr₂GeSe₅

physical properties

Pr₂SnSe₅

physical properties

Nd₂GeSe₅

physical properties

Nd₂SnSe₅

physical properties

Sm₂GeSe₅

physical properties

Sm₂SnSe₅

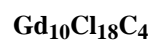
physical properties

Gd₂GeSe₅

physical properties

Gd₂SnSe₅

physical properties



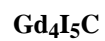
crystal structure, physical properties



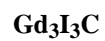
crystal structure, physical properties



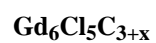
crystal structure, physical properties



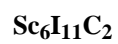
crystal structure, physical properties



crystal structure, physical properties



crystal structure, physical properties



crystal structure, physical properties



crystal structure, physical properties

DyAlB₁₄

crystal structure, physical properties

HoAlB₁₄

crystal structure, physical properties

ErAlB₁₄

crystal structure, physical properties

YbAlB₁₄

crystal structure

LuAlB₁₄

crystal structure

R₃Cu₃Sb₄

physical properties

Y₃Cu₃Sb₄

crystal structure, physical properties

La₃Cu₃Sb₄

crystal structure

Ce₃Cu₃Sb₄

crystal structure, physical properties

Pr₃Cu₃Sb₄

crystal structure, physical properties

Nd₃Cu₃Sb₄

crystal structure, physical properties

Sm₃Cu₃Sb₄

crystal structure, physical properties

Gd₃Cu₃Sb₄

crystal structure, physical properties

Tb₃Cu₃Sb₄

crystal structure, physical properties

Dy₃Cu₃Sb₄

crystal structure, physical properties

Ho₃Cu₃Sb₄

crystal structure, physical properties

Er₃Cu₃Sb₄

crystal structure, physical properties

I₈-IV-VI₆ compounds

crystal structure

Ag₈SiS₆

crystal structure, melting point, density

Ag₈GeS₆ (argyrodite)

crystal structure, physical properties

Ag₈SnS₆ (canfieldite)

crystal structure, physical properties

Ag₈SiSe₆

crystal structure, physical properties

Ag₈GeSe₆

crystal structure, physical properties

Ag₈SnSe₆

crystal structure, physical properties

Ag₈SiTe₆

crystal structure, melting point, density

Ag₈GeTe₆

crystal structure, physical properties

Cu₈SiS₆

crystal structure, density

Cu₈GeS₆

crystal structure, physical properties

Cu₈SiSe₆, Cu₈GeSe₆

crystal structure, physical properties

Cu₄Ge₃S₅, Cu₄Ge₃Se₅ and Cu₄Sn₃Se₅

crystal structure, physical properties

Cu₄SnS₄

crystal structure, physical properties

I–V–VI₂ compounds (I = Ag, V = Sb, Bi, VI = S, Se, Te)

crystal structure, lattice parameters, phase transitions

AgAsS₂

crystal structure, physical properties

AgAsSe₂

physical properties

AgAsTe₂

physical properties

AgSbS₂

crystal structure, physical properties

AgSbSe₂

crystal structure, physical properties

AgSbTe₂

crystal structure, physical properties

AgBiS₂

crystal structure, physical properties

AgBiSe₂

crystal structure, physical properties

AgBiTe₂

crystal structure, physical properties

CuSbS₂

crystal structure, physical properties

CuSbSe₂

crystal structure, physical properties

CuSbTe₂

crystal structure, physical properties

CuBiSe₂

crystal structure, physical properties

CuBiTe₂

crystal structure, physical properties

NaSbSe₂ and related compounds

crystal structure, physical properties

Cu₃AsS₃, Cu₃SbS₃

general characterization

Ag₃AsS₃

general characterization, crystal structure, lattice parameters

physical properties

Ag₃SbS₃

general characterization, structure, lattice parameters

physical properties

II-III-VI₂ compounds

crystal structure, lattice parameters

CdInS₂

crystal structure, physical properties

CdInSe₂

crystal structure, physical properties

CdInTe₂

crystal structure, physical properties

CdTiS₂

crystal structure, physical properties

CdTlSe₂

crystal structure, physical properties

CdTTe₂

crystal structure, physical properties

HgTlS₂

crystal structure, physical properties

III_x-V_y-VI_z compounds

crystal structure, general characterization

TlAsS₂

crystal structure, physical properties

TlSbS₂

crystal structure, physical properties

TlSbSe₂

crystal structure, physical properties

TlSbTe₂

crystal structure, physical properties

TlBiS₂

crystal structure, physical properties

TlBiSe₂

crystal structure, physical properties

TlBiTe₂

crystal structure, physical properties

Ga₆Sb₅Te

crystal structure, physical properties

In₆Sb₅Te

crystal structure, physical properties

In₇SbTe₆

crystal structure, physical properties

Bi₁₂SiO₂₀

general characterization ,structure

physical properties

Bi₁₂GeO₂₀

general characterization ,structure

physical properties

PbSb₂S₄, GeSb₂Te₄, GeBi₂Te₄, SnBi₂Te₄

crystal structure, physical properties

GeBi₄Te₇, SnBi₄Te₇, GeSb₄Te₇, PbBi₄Te₇

crystal structure, physical properties

V-VI-VII compounds

crystal structure, lattice parameters, phase transitions

AsSBr

crystal structure, physical properties

SbSI

crystal structure, lattice parameters, phase transitions

band structure, energy gap

interband transition energies

phonon dispersion, phonon wavenumbers

elastic moduli

optical spectra, refractive index, dielectric constants

transport properties

heat capacity, melting point, transition heat, entropy

magnetic properties

SbSBr

crystal structure, physical properties

SbSeBr

crystal structure, physical properties

SbSeI

crystal structure, physical properties

SbTeI

crystal structure, physical properties

BiOCl

crystal structure, physical properties

BiOBr

crystal structure, physical properties

BiOI

crystal structure, physical properties

BiSCl

crystal structure, physical properties

BiSBr

crystal structure, physical properties

BiSI

crystal structure, physical properties

BiSeBr

crystal structure, physical properties

BiSeI

crystal structure, physical properties

BiTeBr

crystal structure, physical properties

BiTeI

crystal structure, physical properties

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

general characterization

 $\text{Cu}_3\text{In}_5\text{Se}_9$

crystal structure, physical properties

 $\text{Cu}_3\text{In}_5\text{Te}_9$

crystal structure, physical properties

 $\text{Cu}_3\text{Ga}_5\text{Se}_9$

crystal structure, physical properties

 $\text{Ag}_3\text{In}_5\text{Se}_9$

crystal structure, physical properties

 $\text{Ag}_3\text{Ga}_5\text{Se}_9$

crystal structure, physical properties

 $\text{Cu}_2\text{Ga}_4\text{Te}_7$

crystal structure, physical properties

Cu₂In₄Te₇

crystal structure, physical properties

CuIn₃Te₅

crystal structure, physical properties

AgIn₃Te₅

crystal structure, physical properties

AgIn₅S₈

crystal structure, physical properties

AgIn₉Te₁₄, Ag₂Ga₂₀S₃₁

crystal structure, physical properties

Cd₂SnO₄

crystal structure, physical properties

CdSnO₃

crystal structure, physical properties

Li₃CuO₃

physical properties

Hg₃PS₃, Hg₃PS₄

physical properties

InOF

physical properties

BaCu₄S₃

physical properties

Cd₄(P,As)₂(Cl,Br,I)₃

physical properties

amorphous silicon (a-Si)

general characterization

structural characterization

figures to structural characterization

tables to structural characterization: correlation distances and related parameters

tables to structural characterization: crystallization temperatures

tables to structural characterization: diffusion coefficients

defect states, characterization

figures to defect states, characterization

vibrational properties

figures to vibrational properties

tables to vibrational properties: wavenumbers of vibrational modes

tables to vibrational properties: elastic properties

density of states

figures to density of states

absorption edge and optical spectra

figures to absorption edge and optical spectra

photoluminescence

figures to photoluminescence

magnetic properties

figures to magnetic properties

transport properties, general

electrical conductivity

figures to electrical conductivity

drift mobility

figures to drift mobility

density of localized gap states

figures to density of localized gap states

Hall mobility and magnetoresistance

figures to Hall mobility and magnetoresistance

photoconductivity

figures to photoconductivity

amorphous germanium (a-Ge)

general characterization

structural characterization

figures to structural characterization

tables to structural characterization: structural data for sputtered films

tables to structural characterization: density, electrical conductivity

tables to structural characterization: crystallization temperature

tables to structural characterization: impurity content of sputtered films

defect states, characterization

figures to defect states, characterization

vibrational properties

figures to vibrational properties

tables to vibrational properties; wavenumbers of vibrational modes

density of states

figures to density of states

absorption edge and optical spectra

figures to absorption edge and optical spectra

tables to absorption edge and optical spectra: optical data of sputtered films

photoluminescence

magnetic properties

figures to magnetic properties

electrical conductivity

figures to electrical conductivity

density of localized gap states and drift mobility

Hall mobility and magnetoresistance

photoconductivity

amorphous III-V compounds (a-GaP, a-GaAs, a-GaSb, a-InP, a-InAs, a-InSb)

general and structural characterization

table to structural characterization

vibrational properties

table to vibrational properties: local modes

density of states

optical properties

table to optical properties: survey of optical data

transport properties

organic semiconductors

symbols, definitions and abbreviations

general remarks

general remarks to wide gap photoconductive organic semiconductors

general remarks to systems with intermediate or high dark conductivity

anthracene, C₁₄H₁₀

crystal structure, lattice parameters and related properties

elastic moduli, density, melting point

enthalpies of fusion and sublimation; vapor pressure

energy levels and lifetimes of excitons

absorption coefficient, reflectivity

vibron wavenumbers

parameters of radical ion states

polarization energies

position of the valence and of the conduction band relative to vacuum level, band gap

charge transfer exciton states

charge carrier mobilities

charge carrier generation and recombination processes

dielectric and optical tensor

carrier trapping levels

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

crystal structure, lattice parameters, density, melting point

exciton properties, radical ion states

mobilities of charge carriers

charge carrier generation and recombination processes

benzene, C_6H_6

crystal structure, lattice parameters

elastic moduli, melting point, vapor pressure

exciton parameters, radical ion states

charge carrier mobilities and generation processes

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

crystal structure, lattice parameters, phase transitions

elastic moduli, sound velocity, density, melting point

exciton and vibron parameters, radical ion states

charge carrier mobilities

dibenzothiophene, C₁₂H₈S

crystal structure, lattice parameters, melting point, related parameters

exciton parameters

photoelectron and Raman spectra

charge carrier mobilities

optical tensor

1,4-dibromonaphthalene, C₁₀H₆Br₂

crystal structure, lattice parameters, melting point, density

exciton and vibron parameters

charge carrier mobilities

9,10-dichloroanthracene, C₁₄H₈Cl₂, α -form

crystal structure, lattice parameters, melting point, density

exciton parameters, radical ion states

charge carrier mobilities

1,4-diiodobenzene, C₆H₄I₂

crystal structure, lattice parameters, phase transitions

melting point, density

charge carrier mobilities

durene, C₁₀H₁₄

crystal structure, lattice parameters, density, melting point

physical properties

iodoform, CHI₃

crystal structure, lattice parameters, density, melting point

charge carrier mobilities

9-methylanthracene, C₁₅H₁₂

crystal structure, lattice parameters, melting point

exciton parameters, radical ion states

charge carrier mobilities

naphthalene, C₁₀H₈

crystal structure, lattice parameters, density, melting point

elastic constants, enthalpies of fusion and sublimation

exciton parameters, radical ion states, polarization energies

wavenumbers of vibrons

phonon parameters, sound velocities

charge carrier mobilities

charge carrier generation and recombination, injection, carrier trapping

dielectric and optical tensor

perylene, C₂₀H₁₂, α -form

crystal structure, lattice parameters, density, melting point

enthalpies of fusion and sublimation, vapor pressure

exciton parameters, radical ion states, polarization energies

vibrons

charge carrier mobilities

photoelectrical and optical properties

phenazine, C₁₂H₈N₂, α-form

crystal structure, lattice parameters, melting point, density

exciton parameters, radical ion states, electron mobilities

vibrons, Raman spectra, optical tensor

phenothiazine, C₁₂H₉NS

crystal structure, lattice parameters, phase transitions, melting point, density

radical ion states

charge carrier mobilities

vibrons, optical tensor

phthalocyanine, C₃₂H₁₈N₈, β-form

crystal structure, lattice parameters, density

radical ion states

charge carrier mobilities

further properties: dark conduction, absorption

pyrene, C₁₆H₁₀

crystal structure, lattice parameters, phase transitions, density, melting point

enthalpy of sublimation, vapor pressure

exciton parameters, radical ion states

vibrons, phonons, polarization energies

charge carrier mobilities, generation and recombination

dielectric and optical tensor

***trans*-stilbene, C₁₄H₁₂**

crystal structure, lattice parameters, melting point

physical properties

***p*-terphenyl, C₁₈H₁₄**

crystal structure, lattice parameters, melting point, density

exciton properties, radical ion states

vibrons, phonons, polarization energies

charge carrier mobilities, generation and recombination

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

crystal structure, lattice parameters, melting point, density
enthalpy of sublimation, vapor pressure
exciton parameters, radical ion states, band gap
vibrons, polarization energies, hole mobilities, luminescence

tetracyanoethylene, TCNE, C_6N_4

crystal structure, lattice parameters, melting point, density
vibrons, phonons, molecular electron affinity, hole mobilities

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

crystal structure, lattice parameters, melting point, density
radical ion states, charge carrier mobilities

 $(TMTSF)_2PF_6$, (tetramethyltetraselenafulvalene) $_2$:hexafluorophosphate, $(C_{10}H_{12}Se_4)_2PF_6$

crystal structure, lattice parameters
electrical conductivity, charge carrier mobilities, Hall effect

 $(TMTSF)_2$ -radical-cation salts:anion

properties of $(TMTSF)_2$ with other anions

(perylene)₂:(PF₆)_{1.1}×0.8(CH₂Cl₂), C₄₀H₂₄:(PF₆)_{1.1}×0.8(CH₂Cl₂)

crystal structure, lattice parameters, physical properties

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

crystal structure, lattice parameters, physical properties

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

crystal structure, lattice parameters, physical properties

K:TCNQ, potassium:tetracyanoquinodimethane, K:C₁₂H₄N₄

crystal structure, lattice parameters, physical properties

TTF:TCNQ, tetrathiafulvalene:tetracyanoquinodimethane, C₆H₄S₄:C₁₂H₄N₄

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Ternary Compounds, Organic Semiconductors

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