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-VI_2 and II-IV-V_2 compounds

application analysis with respect to nonlinear optical devices

microhardness and bulk modulus of I-III-VI_2 and II-IV-V_2 compounds

III_2–VI_3 compounds

crystal structure, lattice parameters: comparative table

Ga_2S_3

energy gap, interband transition energies

crystal structure, lattice parameters, further physical properties

Ga_2Se_3

crystal structure, lattice parameters, physical properties

Ga_2Te_3

crystal structure, lattice parameters, physical properties

In_2S_3

energy gaps, interband transition energies

transport and optical properties

crystal structure, lattice parameters, thermal expansion, melting point

In_2Se_3

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

In_2Te_3

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

$(Ga_2Se_3)_x(In_2Se_3)_{1-x}$

crystal structure, lattice parameters

thermal expansion, melting point

$(In_2Se_3)_x(Bi_2Se_3)_{1-x}$

transport properties

$(AgInTe_2)_{3x}(In_2Te_3)_{2(1-x)}$

crystal structure, lattice parameters

physical properties

$(In_2Se_3)_x(Sb_2Te_3)_{1-x}$

crystal structure, lattice parameters, physical properties

$(Ga_2Se_3)_x(Cu_2Te_3)_{1-x}$

electrical conductivity

$(Ga_2Te_3)_x(Cu_2Te_3)_{1-x}$

electrical conductivity

$(Ga_2S_3)_x(Ga_2Se_3)_{1-x}$

physical properties

$(In_2Te_3)_x(Tl_2Te_3)_{1–x}$

electrical conductivity

$(In_2S_3)_x(In_2Se_3)_{1-x}$

physical properties

$(In_2Te_3)_x(Bi_{0.5}Sb_{1.5}Te_3)_{1–x}$

crystal structure, lattice parameters

$(In_2Te_3)_x(BiTe_{3–y}Se_y)_{1–x}$

phase diagram

$(In_2Se_3)_x(Sb_2Se_3)_{1–x}$

crystal structure, lattice parameters

$(Ga_2Te_3)_x(3HgTe)_{1–x}$, $(In_2Te_3)_x(3HgTe)_{1–x}$

physical properties

I-III-VI_2 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 ($CuAlS_2$)

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 ($CuAlSe_2$)

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 ($CuAlTe_2$)

physical properties

copper gallium sulfide ($CuGaS_2$)

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 ($CuGaSe_2$)

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 ($CuGaTe_2$)

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 ($CuInTe_2$)

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 ($AgGaS_2$)

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 ($AgGaSe_2$)

crystal structure, lattice parameters, thermal expasion, 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 ($AgGaTe_2$)

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 parametees, physical properties

$CuTlS_2$

crystal structure, lattice parameters, physical properties

$CuTlSe_2$

crystal structure, lattice parameters, physical properties

$CuTlTe_2$

physical properties

$AgTlSe_2$

crystal structure, lattice parameters, physical properties

$AlTlTe_2$

crystal structure, lattice parameters, physical properties

chalcopyrite ($CuFeS_2$)

crystal structure, lattice parameters, density, melting point

electronic structure

transport and optical properties

phonon wavenumbers, magnetic properties

$CuFeSe_2$

physical properties

$CuFeTe_2$

physical properties

$AgFeSe_2$

physical properties

$AgFeTe_2$

physical properties

solid solutions of I-III-VI_2 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-V_2 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($MgSiP_2$)

- 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 ($ZnGeN_2$)

crystal structure, lattice parameters, physical properties

zinc germanium phosphide ($ZnGeP_2$)

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 ($ZnGeAs_2$)

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 ($CdGeP_2$)

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 ($CdGeAs_2$)

crystal structure, lattice parameters, thermal expansion, Debye temperature, melting point, heat capacity, hardnes, 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 ($CdSnP_2$)

strucutre, 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-V_2 compounds

crystal structure and lattice parameters

physical properties

I_2-IV-VI_3 compounds

comparative table on structure, density and lattice parameters

Cu_2SiS_3

crystal structure, lattice parameters, physical properties

Cu_2SiTe_3

crystal structure, lattice parameters, physical properties

Cu_2GeS_3

crystal structure, lattice parameters, physical properties

Cu_2GeSe_3

crystal structure, lattice parameters, physical properties

Cu_2GeTe_3

crystal structure, lattice parameters, physical properties

Cu_2SnS_3

crystal structure, lattice parameters, physical properties

Cu_2SnSe_3

crystal structure, lattice parameters, physical properties

Cu_2SnTe_3

crystal structure, lattice parameters, physical properties

Ag_2GeSe_3

physical properties

Ag_2GeTe_3

physical properties

Ag_2SnS_3

crystal structure, lattice parameters, physical properties

Ag_2SnSe_3

crystal structure, physical properties

Ag_2SnTe_3

crystal structure, physical properties

I_2–IV–VI_3 solid solutions

crystal structure, physical properties

I_3–V–VI_4 compounds

general characterization, crystal structure, density, lattice parameters

copper thiophosphate (Cu_3PS_4)

crystal structure, lattice parameters, physical properties

enargite-luzonite (Cu_3AsS_4)

crystal structure, lattice parameters, physical properties

copper arsenic selenide (Cu_3AsSe_4)

crystal structure, lattice parameters, physical properties

famatinite (Cu_3SbS_4)

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-III_2-VI_4 compounds

crystal structure, lattice parameters, density: comparative table

comparative remarks on the physical properties

$ZnAl_2S_4$

crystal structure, lattice parameters, physical properties

$ZnGa_2S_4$

crystal structure, lattice parameters, physical properties

$ZnGa_2Se_4$

crystal structure, lattice parameters, physical properties

$ZnGa_2Te_4$

crystal structure, lattice parameters, physical properties

zinc thioindate ($ZnIn_2S_4$)

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

merury 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 ($HgIn_2Se_4$, $HgIn_2Te_4$, $Hg_3In_2Te_6$, $Hg_5In_2Te_8$)

physical properties

further II-III_2-VI_4 compounds with II = Mg, Ca, Mn, Pb

physical properties

solid solutions of II–III_2–VI_4 compounds

physical properties

ordered vacancy compounds of the series II_3VI_3–III_2VI_3

crystal structure, lattice parameters: comparative table

zinc indium sulfide ($Zn_2In_2S_5$)

crystal structure, lattice parameters, physical properties

zinc indium sulfide ($Zn_3In_2S_6$)

crystal structure, lattice parameters, physical properties

mercury gallium telluride ($Hg_3Ga_2Te_6$)

crystal structure, lattice parameters, physical properties

mercury gallium telluride ($Hg_5Ga_2Te_8$)

crystal structure, lattice parameters, physical properties

mercury indium telluride ($Hg_3In_2Te_6$)

crystal structure, lattice parameters, physical properties

mercury indium telluride ($Hg_5In_2Te_8$)

crystal structure, lattice parameters, physical properties

I_2–II–IV–VI_4 compounds

crystal structure, lattice parameters

energy gaps and resistivities

I_2–IV–VI_4–VII compounds

crystal structure, lattice parameters

I_2–IV–VI_4–VIII compounds

crystal structure, lattice parameters

physical properties

I–III–IV–Se_4 compounds

crystal structure, energy gaps

$MnIn_2S_4$

physical properties

$FeIn_2S_4$

physical properties

$CoIn_2S_4$

physical properties

$NiIn_2S_4$

physical properties

$MnIn_2S_{4-x}Se_x$

physical properties

$FeIn_2S_{4-x}Se_x$

physical properties

$NiIn_2S_{3.5}Se_{0.5}$

physical properties

$MnGa_2S_4$

crystal structure, physical properties

$MnSb_2S_4$

physical properties

$CoRh_2S_4$

crystal structure, physical properties

$Fe(FeRh)S_4$

physical properties

$Cd_{1-x}Fe_x(FeSn)S_4$

physical properties

$CdCr_2S_4$

crystal structure, lattice parameters

enery 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

$FeCr_2S_4$

crystal structure, lattice parameters

transport properties

density, Curie temperature, heat capacity

$CoCr_2S_4$

crystal structure, lattice parameters

transport and optical properties

density, Curie temperature, Debye temperature,

$CuCr_2S_4$

crystal structure, physical properties

$Fe_{1-x}Cu_xCr_2S_4$

crystal structure, physical properties

$HgCr_2S_4$

crystal structure, physical properties

$ZnCr_2S_4$

crystal structure, physical properties

$MnCr_2S_4$

crystal structure, physical properties

$V_xCr_{3-x}S_4$

crystal structure, physical properties

$BaCr_2S_4$

crystal structure, physical properties

$CdCr_2Se_4$

crystal structure, lattice parameters

energy gap

phonon wavenumbers

transport properties

optical properties, dielectric constants

density, Curie temperature, Debye temperature, heat capacity

$CuCr_2Se_4$

physical properties

$CuCr_2(S,Se,Te,)_3(I,Br,Cl)$

physical properties

$CuCr_2S_{4-x}Se_x$

lattice parameters, physical properties

$HgCr_2Se_4$

crystal structure, lattice parameters

energy gap

transport properties

optical properties

Curie and Debye temperatures

$ZnCr_2Se_4$

crystal structure, lattice parameters

energy gap

transport properties

optical properties, dielectric constant

density, Néel temperature

$FeCr_2Se_4$

crystal structure, lattice parameters, density

transport properties

$NiCr_2Se_4$

crystal structure, lattice parameters, physical properties

VCr_2Se_4

crystal structure, lattice parameters, physical properties

$BaCr_2Se_4$

crystal structure, lattice parameters, physical properties

$CoCr_2Te_4$

crystal structure, lattice parameters, physical properties

$FeCr_2Te_4$

crystal structure, physical properties

$BaTiO_3$

crystal structure, lattice parameters

band gap, interband transition energies

phonon dispersion, phonon wavenumbers

transport properties

optical properties, dielectric constant

melting point, density, heat capacity

$PbTiO_3$

crystal structure, lattice parameters

phonon dispersion, elastic constants

transport properties

optical properties, dielectric constants

melting point, density, heat capacity

$NaNbO_3$

crystal structure, lattice parameters

physical properties

$KNbO_3$

crystal structure, lattice parameters, melting point, density

physical properties

$KTaO_3$

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

$SrTiO_3$

crystal structure, lattice parameters

band structure, energy gap, interband transition energies

phonon dispersion

transport properties

optical properties, dielectric constant

heat capacity, melting point, density

$PbZrO_3$

crystal structure, lattice parameters

physical properties

$CaTiO_3$

crystal structure, lattice parameters

physical properties

$LiVO_3$

crystal structure, lattice parameters, physical properties

$LaVO_3$

crystal structure, physical properties

$Cs_xV_3O_7$

crystal structure, physical properties

$Co_3V_2O_8$

crystal structure, lattice parameters, physical properties

MV_2O_4 (M = Co, Fe, Mg, Mn, Zn)

physical properties

$MnVO_3$

crystal structure, lattice parameters, physical properties

$CuNbO_3$

crystal structure, lattice parameters, physical properties

$SbNbO_4$

crystal structure, lattice parameters, physical properties

Sr_2MNbO_6 (M = Ti, Zr, Hf)

crystal structure, physical properties

$CuTaO_3$

crystal structure, lattice parameters, physical properties

$CuTa_2O_6$

crystal structure, lattice parameters, physical properties

K_2CrO_4

crystal structure, lattice parameters, physical properties

$PbCrO_3$

crystal structure, lattice parameters, physical properties

$PbMoO_4$

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

$PbWO_4$

crystal structure, lattice parameters, physical properties

$KMnO_4$

crystal structure, lattice parameters, physical properties

$LaMnO_3$

crystal structure, lattice parameters, physical properties

$LiFe_5O_8$

crystal structure, lattice parameters, physical properties

$BaFe_{12}O_{19}$

crystal structure, lattice parameters, physical properties

$SrFe_{12}O_{19}$

crystal structure, lattice parameters, physical properties

$PbFe_{12}O_{19}$

physical properties

$LaCoO_3$

crystal structure, physical properties

$Ba_{0.5}OsO_3$

crystal structure, lattice parameters, physical properties

$NiFe_2O_4$

crystal structure, lattice parameters, physical properties

$CuFe_2O_4$

crystal structure, lattice parameters, physical properties

$CoAl_2O_4$

crystal structure, lattice parameters, physical properties

$Cd_2Os_2O_7$

crystal structure, lattice parameters, physical properties

$Ca_2Os_2O_7$

crystal structure, lattice parameters, physical properties

$Bi_2Os_2O_7$

crystal structure, lattice parameters, physical properties

$Bi_2Pt_2O_7$

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_xNbS_2

crystal structure, lattice parameters, physical properties

Me_xNbS_2 (Me = Fe,Co,Ni)

crystal structure, lattice parameters, physical properties

Tl_3VS_4

crystal structure, lattice parameters, physical properties

Cu_3VS_4

crystal structure, lattice parameters, physical properties

Na_xVS_2, Na_xVSe_2

crystal structure, lattice parameters, physical properties

$CsZrCl_6$

crystal structure, lattice parameters, physical properties

VFe_2Se_4

crystal structure, lattice parameters, physical properties

$LaTiO_3$

crystal structure, physical properties

$CeTiO_3$

crystal structure, physical properties

$PrTiO_3$

crystal structure, physical properties

$NdTiO_3$

crystal structure, physical properties

$SmTiO_3$

crystal structure, physical properties

$EuTiO_3$

crystal structure

$GdTiO_3$

crystal structure, physical properties

$TbTiO_3$

crystal structure, physical properties

$DyTiO_3$

crystal structure, physical properties

$HoTiO_3$

crystal structure, physical properties

$ErTiO_3$

crystal structure, physical properties

$TmTiO_3$

crystal structure

$YbTiO_3$

crystal structure, physical properties

$LuTiO_3$

crystal structure

$La_{1-x}Sr_xVO_3$

physical properties

$CeVO_3$

crystal structure, physical properties

$PrVO_3$

crystal structure, physical properties

$NdVO_3$

crystal structure, physical properties

$SmVO_3$

crystal structure, physical properties

$EuVO_3$

crystal structure, physical properties

$GdVO_3$

crystal structure, physical properties

$TbVO_3$

crystal structure, physical properties

$DyVO_3$

crystal structure, physical properties

$HoVO_3$

crystal structure, physical properties

$ErVO_3$

crystal structure, physical properties

$TmVO_3$

crystal structure, physical properties

$YbVO_3$

crystal structure, physical properties

$LuVO_3$

crystal structure, physical properties

$LaCrO_3$

crystal structure, physical properties

$La_{0.8}Mg_{0.2}CrO_3$

physical properties

$La_{1-x}Sr_xCrO_3$

physical properties

$CeCrO_3$

crystal structure

$PrCrO_3$

crystal structure

$NdCrO_3$

crystal structure, physical properties

$SmCrO_3$

crystal structure, physical properties

$EuCrO_3$

crystal structure

$GdCrO_3$

crystal structure, physical properties

$TbCrO_3$

crystal structure

$DyCrO_3$

crystal structure, physical properties

$HoCrO_3$

crystal structure, physical properties

$ErCrO_3$

crystal structure, physical properties

$TmCrO_3$

crystal structure

$YbCrO_3$

crystal structure, physical properties

$LuCrO_3$

crystal structure, physical properties

$LaCo_{1-x}Mn_xO_3$

physical properties

$LaMn_{0.75}Mo_{0.25}O_3$

crystal structure, physical properties

$La_{1-x}Sr_xMnO_3$

physical properties

$La_{0.85}Ba_{0.15}Mn_{1-x}Cr_xO_3$

physical properties

$La_{0.85}Y_{0.15}Mn_{1-x}Co_xO_3$

physical properties

$CeMnO_3$

crystal structure

$PrMnO_3$

crystal structure

$NdMnO_3$

crystal structure

$SmMnO_3$

crystal structure

$EuMnO_3$

crystal structure

$GdMnO_3$

crystal structure

$TbMnO_3$

crystal structure

$DyMnO_3$

crystal structure

$HoMnO_3$

crystal structure, physical properties

$ErMnO_3$

crystal structure, physical properties

$TmMnO_3$

crystal structure

$YbMnO_3$

crystal structure, physical properties

$LuMnO_3$

crystal structure, physical properties

$LaFeO_3$

crystal structure, physical properties

$LaFe_{0.75}Mo_{0.25}O_3$

crystal structure, physical properties

$La_{1-x}Ca_xFe_{1-x}Mn_xO_3$

crystal structure, physical properties

$La_{1-x}Sr_xFeO_3$

physical properties

$La_{0.85}Ba_{0.15}Fe_xCr_{1-x}O_3$

physical properties

$La_{0.85}Ba_{0.15}Fe_xMn_{1-x}O_3$

physical properties

$CeFeO_3$

crystal structure

$PrFeO_3$

crystal structure, physical properties

$PrFe_{0.75}Mo_{0.25}O_3$

crystal structure, physical properties

$NdFeO_3$

crystal structure, physical properties

$NdFe_{0.75}Mo_{0.25}O_3$

crystal structure, physical properties

$SmFeO_3$

crystal structure, physical properties

$SmFe_{0.75}Mo_{0.25}O_3$

crystal structure, physical properties

$EuFeO_3$

crystal structure, physical properties

$EuFe_{0.75}Mo_{0.25}O_3$

crystal structure, physical properties

$GdFeO_3$

crystal structure, physical properties

$GdFe_{0.75}Mo_{0.25}O_3$

crystal structure, physical properties

$TbFeO_3$

crystal structure, physical properties

$TbFe_{0.75}Mo_{0.25}O_3$

crystal structure, physical properties

$DyFeO_3$

crystal structure, physical properties

$DyFe_{0.75}Mo_{0.25}O_3$

crystal structure, physical properties

$HoFeO_3$

crystal structure, physical properties

$HoFe_{0.75}Mo_{0.25}O_3$

crystal structure, physical properties

$ErFeO_3$

crystal structure, physical properties

$ErFe_{0.75}Mo_{0.25}O_3$

crystal structure, physical properties

$TmFeO_3$

crystal structure, physical properties

$TmFe_{0.75}Mo_{0.25}O_3$

crystal structure, physical properties

$YbFeO_3$

crystal structure, physical properties

$YbFe_{0.75}Mo_{0.25}O_3$

crystal structure, physical properties

$LuFeO_3$

crystal structure, physical properties

$LuFe_{0.75}Mo_{0.25}O_3$

crystal structure, physical properties

$La_{1-x}Sr_xCoO_3$

physical properties

$La_{1-x}Th_xCoO_3$

physical properties

$LaCo_{0.75}Mo_{0.25}O_3$

crystal structure, physical properties

$LaCo_{0.75}W_{0.25}O_3$

crystal structure, physical properties

$LaNi_{0.75}Mo_{0.25}O_3$

crystal structure, physical properties

$LaNi_{0.75}W_{0.25}O_3$

crystal structure, physical properties

La_2NiO_4

crystal structure, physical properties

$La_2(WO_4)_3$

crystal structure, physical properties

$Ce_2(WO_4)_3$

crystal structure, physical properties

Pr_2CuO_4

crystal structure, physical properties

$Pr_2(WO_4)_3$

crystal structure, physical properties

Nd_2NiO_4

crystal structure, physical properties

Nd_2CuO_4

crystal structure, physical properties

$Nd_2(WO_4)_3$

crystal structure, physical properties

Sm_2CuO_4

crystal structure, physical properties

$Sm_2(WO_4)_3$

crystal structure, physical properties

Eu_2CuO_4

crystal structure, physical properties

$EuNb_2O_6$

crystal structure, physical properties

$Eu_{1.2}Nb_2O_6$

crystal structure, physical properties

$Eu_xSr_{1-x}Nb_4O_{11}$

crystal structure

$EuTa_2O_6$

crystal structure, physical properties

$Eu_{1-x}Sr_xTa_4O_{11}$

crystal structure, physical properties

$EuWO_4$

crystal structure, physical properties

$Eu_2(WO_4)_3$

crystal structure, physical properties

Cu_3ErS_3

crystal structure, physical properties

Cu_3TmS_3

crystal structure, physical properties

Gd_2CuO_4

crystal structure, physical properties

$Gd_2(WO_4)_3$

crystal structure, physical properties

$Tb_2(WO_4)_3$

physical properties

$Dy_2(WO_4)_3$

physical properties

$Ho_2(WO_4)_3$

physical properties

$Er_2(WO_4)_3$

physical properties

$Tm_2(WO_4)_3$

physical properties

$Yb_2(WO_4)_3$

physical properties

$Gd_2(MoO_4)_3$

physical properties

$Tb_2(MoO_4)_3$

physical properties

$Dy_2(MoO_4)_3$

physical properties

$Ho_2(MoO_4)_3$

physical properties

$Er_2(MoO_4)_3$

physical properties

$Tm_2(MoO_4)_3$

physical properties

$Yb_2(MoO_4)_3$

physical properties

$La_2Te_3O_9$

physical properties

$Nd_2Mo_2O_7$

physical properties

$Sm_2Mo_2O_7$

crystal structure, physical properties

$Eu_2Mo_2O_7$

crystal structure, physical properties

$Gd_2Mo_2O_7$

crystal structure, physical properties

$Tb_2Mo_2O_7$

physical properties

$Dy_2Mo_2O_7$

crystal structure, physical properties

$Ho_2Mo_2O_7$

physical properties

$Er_2Mo_2O_7$

crystal structure, physical properties

$Tm_2Mo_2O_7$

physical properties

$Yb_2Mo_2O_7$

physical properties

$Pr_2Te_3O_9$

physical properties

$Nd_2Te_3O_9$

physical properties

$Sm_2Te_3O_9$

physical properties

$Eu_2Te_3O_9$

physical properties

$Gd_2Te_3O_9$

physical properties

$Tb_2Te_3O_9$

physical properties

$Dy_2Te_3O_9$

physical properties

$Ho_2Te_3O_9$

physical properties

$Er_2Te_3O_9$

physical properties

$Tm_2Te_3O_9$

physical properties

$Yb_2Te_3O_9$

physical properties

$Lu_2Te_3O_9$

physical properties

$La_2Mo_3O_9$

crystal structure, physical properties

$Ce_2Mo_3O_9$

crystal structure, physical properties

$Pr_2Mo_3O_9$

crystal structure, physical properties

$Nd_2Mo_3O_9$

crystal structure, physical properties

$Sm_2Mo_3O_9$

crystal structure, physical properties

$Gd_2Mo_3O_9$

crystal structure, physical properties

$Dy_2Mo_3O_9$

crystal structure, physical properties

$GdCrS_3$

crystal structure, physical properties

$TbCrS_3$

crystal structure, physical properties

$DyCrS_3$

crystal structure, physical properties

$HoCrS_3$

crystal structure, physical properties

$ErCrS_3$

crystal structure, physical properties

$TmCrS_3$

crystal structure, physical properties

$YbCrS_3$

crystal structure, physical properties

$LuCrS_3$

crystal structure, physical properties

$YCrS_3$

physical properties

$GdCrSe_3$

crystal structure, physical properties

$TbCrSe_3$

physical properties

$DyCrSe_3$

physical properties

$HoCrSe_3$

physical properties

$ErCrSe_3$

physical properties

$TmCrSe_3$

physical properties

$YbCrSe_3$

physical properties

$LuCrSe_3$

physical properties

$YCrSe_3$

physical properties

$YCrTe_3$

physical properties

$GdCrTe_3$

physical properties

Pr_2CrS_4

crystal structure, physical properties

Nd_2CrS_4

physical properties

Sm_2CrS_4

physical properties

Y_2CrS_4

crystal structure, physical properties

La_2CrSe_4

physical properties

Pr_2CrSe_4

crystal structure, physical properties

Nd_2CrSe_4

physical properties

Sm_2CrSe_4

physical properties

Gd_2CrSe_4

physical properties

Tb_2CrSe_4

physical properties

Dy_2CrSe_4

physical properties

Ho_2CrSe_4

physical properties

Er_2CrSe_4

physical properties

Yb_2CrSe_4

physical properties

Lu_2CrSe_4

physical properties

Y_2CrSe_4

crystal structure, physical properties

$EuCr_2S_4$

crystal structure, physical properties

$EuCr_2Se_4$

crystal structure

$EuCr_2Te_4$

crystal structure, physical properties

$YbCr_2S_4$

crystal structure, physical properties

$YbCr_2Se_4$

crystal structure, physical properties

$Gd_2(W_{2/3}V_{4/3})O_7$

crystal structure, physical properties

$Tb_2(W_{2/3}V_{4/3})O_7$

crystal structure, physical properties

$Dy_2(W_{2/3}V_{4/3})O_7$

crystal structure, physical properties

$Ho_2(W_{2/3}V_{4/3})O_7$

crystal structure, physical properties

$Er_2(W_{2/3}V_{4/3})O_7$

crystal structure, physical properties

$(Er_{1-x}Yb_{1-x})_2V_2O_7$

crystal structure, physical properties

$Tm_2V_2O_7$

crystal structure, physical properties

$Tm_2V_{4/3}W_{2/3}O_7$

crystal structure, physical properties

$Yb_2V_2O_7$

crystal structure, physical properties

$Yb_2V_{4/3}W_{2/3}O_7$

crystal structure, physical properties

$Lu_2V_2O_7$

crystal structure, physical properties

$La_2Pb_2O_7$

crystal structure, physical properties

$Gd_2Ti_2O_7$

crystal structure, physical properties

$Tb_2Mn_2O_7$

physical properties

$Dy_2Mn_2O_7$

crystal structure, physical properties

$Ho_2Mn_2O_7$

crystal structure, physical properties

$Er_2Mn_2O_7$

crystal structure, physical properties

$Tm_2Mn_2O_7$

crystal structure, physical properties

$Yb_2Mn_2O_7$

crystal structure, physical properties

$Lu_2Mn_2O_7$

crystal structure, physical properties

$Y_2Mn_2O_7$

crystal structure, physical properties

$Pr_2Ru_2O_7$

crystal structure, physical properties

$Nd_2Ru_2O_7$

crystal structure, physical properties

$Eu_2Ru_2O_7$

crystal structure, physical properties

$Gd_2Ru_2O_7$

crystal structure, physical properties

$Yb_2Ru_2O_7$

crystal structure, physical properties

$Y_2Ru_2O_7$

crystal structure, physical properties

$Nd_2Ir_2O_7$

crystal structure, physical properties

$Sm_2Ir_2O_7$

crystal structure, physical properties

$Eu_2Ir_2O_7$

crystal structure, physical properties

$Dy_2Ir_2O_7$

crystal structure, physical properties

$Y_2Ir_2O_7$

crystal structure, physical properties

$Gd_2Os_2O_7$

crystal structure, physical properties

$Nd_2Pt_2O_7$

crystal structure, physical properties

$Gd_2Pt_2O_7$

crystal structure, physical properties

$EuO_{1-x}N_x$

crystal structure, physical properties

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

crystal structure, physical properties

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

crystal structure, physical properties

$LaBiS_3$

crystal structure

$CeBiS_3$

crystal structure, physical properties

$PrBiS_3$

crystal structure

$GdBiS_3$

crystal structure

$LaBiSe_3$

crystal structure

$CeBiSe_3$

crystal structure

$PrBiSe_3$

crystal structure

$NdBiSe_3$

crystal structure

$GdBiSe_3$

crystal structure

$LaSbSe_3$

crystal structure

$CeSbSe_3$

crystal structure, physical properties

$PrSbSe_3$

crystal structure, physical properties

$NdSbSe_3$

crystal structure, physical properties

$SmSbSe_3$

crystal structure, physical properties

$GdSbSe_3$

crystal structure, physical properties

$LaSbTe_3$

crystal structure

$CeSbTe_3$

physical properties

$NdSbTe_3$

crystal structure

$SmSbTe_3$

crystal structure

$EuSbTe_3$

crystal structure, physical properties

$GdSbTe_3$

crystal structure, physical properties

$DySbTe_3$

crystal structure

$YSbTe_3$

crystal structure

$LaBiTe_3$

crystal structure

$CeBiTe_3$

crystal structure, physical properties

$PrBiTe_3$

crystal structure

$NdBiTe_3$

crystal structure

$SmBiTe_3$

crystal structure, physical properties

$GdBiTe_3$

crystal structure

$TbBiTe_3$

crystal structure, physical properties

$DyBiTe_3$

crystal structure

$HoBiTe_3$

crystal structure

$ErBiTe_3$

crystal structure

$TmBiTe_3$

crystal structure, physical properties

$LuBiTe_3$

crystal structure, physical properties

$YBiTe_3$

crystal structure, physical properties

$EuSb_2S_4$

crystal structure, physical properties

$EuSb_2Se_4$

crystal structure, physical properties

$EuSb_2Te_4$

crystal structure, physical properties

$EuBi_2S_4$

crystal structure

$EuBi_2Se_4$

crystal structure, physical properties

$EuBi_2Te_4$

crystal structure, physical properties

$LiHoS_2$

crystal structure

$LiErS_2$

crystal structure

$LiYbS_2$

crystal structure

$NaLaS_2$

crystal structure

$NaCeS_2$

crystal structure

$NaPrS_2$

crystal structure

$NaNdS_2$

crystal structure

$NaSmS_2$

crystal structure

$NaEuS_2$

crystal structure

$NaGdS_2$

crystal structure

$NaTbS_2$

crystal structure

$NaDyS_2$

crystal structure

$NaHoS_2$

crystal structure

$NaErS_2$

crystal structure

$NaYS_2$

crystal structure

$NaLaSe_2$

crystal structure

$NaCeSe_2$

crystal structure

$NaPrSe_2$

crystal structure

$NaNdSe_2$

crystal structure

$NaSmSe_2$

crystal structure

$NaEuSe_2$

crystal structure

$NaGdSe_2$

crystal structure

$NaTbSe_2$

crystal structure

$NaDySe_2$

crystal structure

$NaHoSe_2$

crystal structure

$NaErSe_2$

crystal structure

$NaYSe_2$

crystal structure

$KLaS_2$

crystal structure

$KCeS_2$

crystal structure

$KPrS_2$

crystal structure

$KNdS_2$

crystal structure

$KSmS_2$

crystal structure

$KEuS_2$

crystal structure

$KGdS_2$

crystal structure

$KTbS_2$

crystal structure

$KDyS_2$

crystal structure

KYS_2

crystal structure

$KHoS_2$

crystal structure

$KErS_2$

crystal structure

$KYbS_2$

crystal structure

$RbLaS_2$

crystal structure

$RbCeS_2$

crystal structure

$RbPrS_2$

crystal structure

$RbNdS_2$

crystal structure

$RbSmS_2$

crystal structure

$RbEuS_2$

crystal structure

$RbGdS_2$

crystal structure

$RbTbS_2$

crystal structure

$CsLaS_2$

crystal structure

$CsCeS_2$

crystal structure

$CaLa_2S_4$

crystal structure, physical properties

$CaCe_2S_4$

crystal structure, physical properties

$CaPr_2S_4$

crystal structure, physical properties

$CaNd_2S_4$

crystal structure, physical properties

$CaSm_2S_4$

crystal structure, physical properties

$CaGd_2S_4$

crystal structure, physical properties

$CaTb_2S_4$

crystal structure

$CaDy_2S_4$

crystal structure

$CaHo_2S_4$

crystal structure

$CaEr_2S_4$

crystal structure

$CaTm_2S_4$

crystal structure

$CaYb_2S_4$

crystal structure

$CaLu_2S_4$

crystal structure, physical properties

CaY_2Se_4

crystal structure

$CaHo_2Se_4$

crystal structure

$CaEr_2Se_4$

crystal structure

$CaTm_2Se_4$

crystal structure

$CaYb_2Se_4$

crystal structure

$CaLu_2Se_4$

crystal structure

$CaDy_2Te_4$

crystal structure

$CaHo_2Te_4$

crystal structure

$CaEr_2Te_4$

crystal structure

$CaTm_2Te_4$

crystal structure

$CaLu_2Te_4$

crystal structure

CaY_2Te_4

crystal structure

$SrLa_2S_4$

crystal structure, physical properties

$SrCe_2S_4$

crystal structure

$SrPr_2S_4$

crystal structure, physical properties

$SrNd_2S_4$

crystal structure, physical properties

$SrSm_2S_4$

crystal structure, physical properties

$SrGd_2S_4$

crystal structure

$SrTb_2S_4$

crystal structure

$SrDy_2S_4$

crystal structure

$SrHo_2S_4$

crystal structure

$SrEr_2S_4$

crystal structure

$SrTm_2S_4$

crystal structure

$SrYb_2S_4$

crystal structure

$SrLu_2S_4$

crystal structure

SrY_2S_4

crystal structure

$SrLa_2Se_4$

crystal structure

$SrCe_2Se_4$

crystal structure

$SrPr_2Se_4$

crystal structure

$SrNd_2Se_4$

crystal structure

$SrSm_2Se_4$

crystal structure

$SrGd_2Se_4$

crystal structure

$SrTb_2Se_4$

crystal structure

$SrDy_2Se_4$

crystal structure

$SrEr_2Se_4$

crystal structure

$SrYb_2Se_4$

crystal structure

$SrLu_2Se_4$

crystal structure

SrY_2Se_4

crystal structure

$BaLa_2S_4$

crystal structure

$BaCe_2S_4$

crystal structure

$BaPr_2S_4$

crystal structure

$BaNd_2S_4$

crystal structure

$BaSm_2S_4$

crystal structure

$BaGd_2S_4$

crystal structure

$BaTb_2S_4$

crystal structure

$BaDy_2S_4$

crystal structure

$BaHo_2S_4$

crystal structure

$BaEr_2S_4$

crystal structure

$BaTm_2S_4$

crystal structure

$BaYb_2S_4$

crystal structure

$BaLu_2S_4$

crystal structure

BaY_2S_4

crystal structure

$BaLa_2Se_4$

crystal structure

$BaCe_2Se_4$

crystal structure

$BaPr_2Se_4$

crystal structure

$BaNd_2Se_4$

crystal structure

$BaSm_2Se_4$

crystal structure

$BaGd_2Se_4$

crystal structure

$BaDy_2Se_4$

crystal structure

$BaEr_2Se_4$

crystal structure

$BaYb_2Se_4$

crystal structure

$BaLu_2Se_4$

crystal structure

BaY_2Se_4

crystal structure

$ZrLa_2S_5$

crystal structure, physical properties

$ZrSm_2S_5$

crystal structure

$ZrHo_2S_5$

crystal structure

$ZrEr_2S_5$

crystal structure

$ZrLa_2Se_5$

crystal structure

$ZrSm_2Se_5$

crystal structure

$ZrGd_2Se_5$

crystal structure

$ZrTb_2Se_5$

crystal structure

$HfCe_2S_5$

crystal structure, physical properties

$HfSm_2S_5$

crystal structure, physical properties

$HfHo_2S_5$

crystal structure

$HfEr_2S_5$

crystal structure

$HfLa_2Se_5$

crystal structure

$HfCe_2Se_5$

crystal structure

$CuLaS_2$

crystal structure

$CuCeS_2$

crystal structure

$CuPrS_2$

crystal structure

$CuNdS_2$

crystal structure

$CuSmS_2$

crystal structure

$CuGdS_2$

crystal structure

$CuTbS_2$

crystal structure

Cu_3SmS_3

crystal structure, physical properties

Cu_3GdS_3

crystal structure, physical properties

Cu_3TbS_3

crystal structure, physical properties

Cu_3DyS_3

crystal structure, physical properties

Cu_3YS_3

crystal structure, physical properties

Cu_3HoS_3

crystal structure, physical properties

Cu_3YbS_3

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

Cu_3ErTe_3

crystal structure, physical properties

Cu_3TmTe_3

crystal structure, physical properties

Cu_5GdS_4

crystal structure, physical properties

Cu_5TbS_4

crystal structure, physical properties

Cu_5DyS_4

crystal structure, physical properties

Cu_5HoS_4

crystal structure, physical properties

Cu_5LuS_4

crystal structure, physical properties

Cu_5ErS_4

crystal structure

Cu_5YbS_4

crystal structure

Cu_5GdSe_4

crystal structure, physical properties

Cu_5TbSe_4

crystal structure, physical properties

Cu_5YbSe_4

crystal structure, physical properties

Cu_5LuSe_4

crystal structure, physical properties

Cu_5DySe_4

crystal structure

Cu_5HoSe_4

crystal structure

Cu_5ErSe_4

crystal structure

Cu_5GdTe_4

crystal structure, physical properties

Cu_5DyTe_4

crystal structure, physical properties

Cu_5TbTe_4

crystal structure

$GdClH_y$

crystal structure, physical properties

$GdBrH_y$

crystal structure, physical properties

$GdBrH_2$

crystal structure, physical properties

$GdIH_y$

crystal structure, physical properties

$TbBrD_y$

crystal structure, physical properties

$TbBrD_2$

crystal structure, physical properties

$ZnTm_2S_4$

crystal structure, physical properties

$ZnYb_2S_4$

crystal structure, physical properties

$ZnLu_2S_4$

crystal structure, physical properties

$ZnSc_2S_4$

crystal structure, physical properties

$CdLa_2S_4$

crystal structure, physical properties

$CdCe_2S_4$

crystal structure, physical properties

$CdPr_2S_4$

crystal structure, physical properties

$CdNd_2S_4$

crystal structure

$CdSm_2S_4$

crystal structure, physical properties

$CdGd_2S_4$

crystal structure, physical properties

$CdTb_2S_4$

crystal structure, physical properties

$CdDy_2S_4$

physical properties

$CdHo_2S_4$

crystal structure

$CdEr_2S_4$

crystal structure, physical properties

$CdTm_2S_4$

crystal structure, physical properties

$CdYb_2S_4$

crystal structure, physical properties

$CdLu_2S_4$

crystal structure

CdY_2S_4

crystal structure

$CdSc_2S_4$

crystal structure, physical properties

CdY_2Se_4

crystal structure

$CdDy_2Se_4$

crystal structure

$CdHo_2Se_4$

crystal structure

$CdEr_2Se_4$

crystal structure

$CdYb_2Se_4$

crystal structure

$CdLa_2Se_4$

crystal structure, physical properties

$CdCe_2Se_4$

crystal structure, physical properties

$CdPr_2Se_4$

crystal structure, physical properties

$CdNd_2Se_4$

crystal structure, physical properties

$CdSm_2Se_4$

crystal structure, physical properties

$CdGd_2Se_4$

crystal structure, physical properties

$YbYb_4S_7$

crystal structure

$CdYb_4S_7$

crystal structure

$CdYb_4Se_7$

crystal structure

$ZnYb_4S_7$

crystal structure

$CdEr_4S_7$

crystal structure

$CdEr_4Se_7$

crystal structure

$CdHo_4S_7$

crystal structure

$CdHo_4Se_7$

crystal structure

$CdTm_4S_7$

crystal structure

$GaLaS_3$

crystal structure, physical properties

$Ga_{10/3}La_6S_{14}$

crystal structure

$GaCeS_3$

crystal structure, physical properties

$Ga_{10/3}Ce_6S_{14}$

crystal structure

Ga_2EuS_4

crystal structure, physical properties

Ga_2EuSe_4

crystal structure, physical properties

Ga_2EuTe_4

crystal structure, physical properties

In_2EuS_4

crystal structure, physical properties

In_2EuSe_4

crystal structure, physical properties

In_2EuTe_4

crystal structure, physical properties

$PrGaS_3$

crystal structure, physical properties

$NdGaS_3$

crystal structure, physical properties

$SmGaS_3$

crystal structure, physical properties

$GdGaS_3$

crystal structure, physical properties

$ErGaS_3$

crystal structure, physical properties

$YbGaS_3$

crystal structure, physical properties

$LaInS_3$

crystal structure, physical properties

$CeInS_3$

crystal structure, physical properties

$PrInS_3$

crystal structure, physical properties

$NdInS_3$

crystal structure, physical properties

$SmInS_3$

crystal structure, physical properties

$LaGaSe_3$

crystal structure, physical properties

$CeGaSe_3$

crystal structure, physical properties

$PrGaSe_3$

crystal structure, physical properties

$NdGaSe_3$

crystal structure, physical properties

$SmGaSe_3$

crystal structure, physical properties

$EuGa_2S_4$

crystal structure, physical properties

$EuGa_2Se_4$

crystal structure, physical properties

$EuGa_2Te_4$

crystal structure, physical properties

$EuIn_2S_4$

crystal structure, physical properties

$EuIn_2Se_4$

crystal structure, physical properties

$EuIn_2Te_4$

crystal structure, physical properties

$YbGa_2S_4$

crystal structure, physical properties

$YbGa_2Se_4$

crystal structure, physical properties

$YbIn_2S_4$

crystal structure, physical properties

$YbIn_2Se_4$

crystal structure, physical properties

$LaIn_3S_6$

crystal structure, physical properties

$CeIn_3S_6$

crystal structure, physical properties

$PrIn_3S_6$

crystal structure, physical properties

$NdIn_3S_6$

crystal structure, physical properties

$SmIn_3S_6$

crystal structure, physical properties

$GdIn_3S_6$

crystal structure, physical properties

$TbIn_3S_6$

crystal structure, physical properties

$DyIn_3S_6$

crystal structure, physical properties

YIn_3S_6

crystal structure, physical properties

$HoIn_3S_6$

crystal structure, physical properties

$ErIn_3S_6$

crystal structure, physical properties

$LaTlS_2$

physical properties

$CeTlS_2$

physical properties

$PrTlS_2$

physical properties

$NdTlS_2$

physical properties

$SmTlS_2$

crystal structure, physical properties

$EuTlS_2$

crystal structure, physical properties

$GdTlS_2$

crystal structure

$TbTlS_2$

crystal structure

$DyTlS_2$

crystal structure

$HoTlS_2$

crystal structure

$ErTlS_2$

crystal structure

$TmTlS_2$

crystal structure

$YbTlS_2$

crystal structure

$LuTlS_2$

crystal structure

$YTlS_2$

crystal structure

$LaTlSe_2$

physical properties

$CeTlSe_2$

physical properties

$PrTlSe_2$

crystal structure, physical properties

$NdTlSe_2$

crystal structure, physical properties

$SmTlSe_2$

crystal structure, physical properties

$EuTlSe_2$

physical properties

$GdTlSe_2$

crystal structure

$TbTlSe_2$

crystal structure

$DyTlSe_2$

crystal structure

$HoTlSe_2$

crystal structure

$ErTlSe_2$

crystal structure

$TmTlSe_2$

crystal structure

$YbTlSe_2$

crystal structure

$LuTlSe_2$

crystal structure

$YTlSe_2$

crystal structure

$LaTlTe_2$

physical properties

$CeTlTe_2$

physical properties

$PrTlTe_2$

crystal structure, physical properties

$NdTlTe_2$

crystal structure, physical properties

$SmTlTe_2$

crystal structure

$EuTlTe_2$

crystal structure, physical properties

$GdTlTe_2$

crystal structure, physical properties

$TbTlTe_2$

crystal structure, physical properties

$DyTlTe_2$

crystal structure

$HoTlTe_2$

crystal structure

$ErTlTe_2$

crystal structure

$TmTlTe_2$

physical properties

$YbTlTe_2$

crystal structure

$LuTlTe_2$

crystal structure

$YTlTe_2$

crystal structure

La_2GeSe_5

physical properties

La_2SnSe_5

physical properties

Ce_2GeSe_5

physical properties

Ce_2SnSe_5

physical properties

Pr_2GeSe_5

physical properties

Pr_2SnSe_5

physical properties

Nd_2GeSe_5

physical properties

Nd_2SnSe_5

physical properties

Sm_2GeSe_5

physical properties

Sm_2SnSe_5

physical properties

Gd_2GeSe_5

physical properties

Gd_2SnSe_5

physical properties

$Gd_{10}Cl_{18}C_4$

crystal structure, physical properties

$Gd_{10}Cl_{17}C_4$

crystal structure, physical properties

$Gd_{12}Br_{17}C_6$

crystal structure, physical properties

Gd_4I_5C

crystal structure, physical properties

Gd_3I_3C

crystal structure, physical properties

$Gd_6Cl_5C_{3+x}$

crystal structure, physical properties

$Sc_6I_{11}C_2$

crystal structure, physical properties

$TbAlB_{14}$

crystal structure, physical properties

$DyAlB_{14}$

crystal structure, physical properties

$HoAlB_{14}$

crystal structure, physical properties

$ErAlB_{14}$

crystal structure, physical properties

$YbAlB_{14}$

crystal structure

$LuAlB_{14}$

crystal structure

$R_3Cu_3Sb_4$

physical properties

$Y_3Cu_3Sb_4$

crystal structure, physical properties

$La_3Cu_3Sb_4$

crystal structure

$Ce_3Cu_3Sb_4$

crystal structure, physical properties

$Pr_3Cu_3Sb_4$

crystal structure, physical properties

$Nd_3Cu_3Sb_4$

crystal structure, physical properties

$Sm_3Cu_3Sb_4$

crystal structure, physical properties

$Gd_3Cu_3Sb_4$

crystal structure, physical properties

$Tb_3Cu_3Sb_4$

crystal structure, physical properties

$Dy_3Cu_3Sb_4$

crystal structure, physical properties

$Ho_3Cu_3Sb_4$

crystal structure, physical properties

$Er_3Cu_3Sb_4$

crystal structure, physical properties

I_8-IV-VI_6 compounds

crystal structure

Ag_8SiS_6

crystal structure**,** melting point, density

Ag_8GeS_6 (argyrodite)

crystal structure, physical properties

Ag_8SnS_6 (canfieldite)

crystal structure, physical properties

Ag_8SiSe_6

crystal structure, physical properties

Ag_8GeSe_6

crystal structure, physical properties

Ag_8SnSe_6

crystal structure, physical properties

Ag_8SiTe_6

crystal structure, melting point, density

Ag_8GeTe_6

crystal structure, physical properties

Cu_8SiS_6

crystal structure, density

Cu_8GeS_6

crystal structure, physical properties

Cu_8SiSe_6, Cu_8GeSe_6

crystal structure, physical properties

$Cu_4Ge_3S_5$, $Cu_4Ge_3Se_5$ and $Cu_4Sn_3Se_5$

crystal structure, physical properties

Cu_4SnS_4

crystal structure, physical properties

I–V–VI_2 compounds(I = Ag, V = Sb, Bi, VI = S, Se, Te)

crystal structure, lattice parameters, phase transitions

$AgAsS_2$

crystal structure, physical properties

$AgAsSe_2$

physical properties

$AgAsTe_2$

physical properties

$AgSbS_2$

crystal structure, physical properties

$AgSbSe_2$

crystal structure, physical properties

$AgSbTe_2$

crystal structure, physical properties

$AgBiS_2$

crystal structure, physical properties

$AgBiSe_2$

crystal structure, physical properties

$AgBiTe_2$

crystal structure, physical properties

$CuSbS_2$

crystal structure, physical properties

$CuSbSe_2$

crystal structure, physical properties

$CuSbTe_2$

crystal structure, physical properties

$CuBiSe_2$

crystal structure, physical properties

$CuBiTe_2$

crystal structure, physical properties

$NaSbSe_2$ and related compounds

crystal structure, physical properties

Cu_3AsS_3, Cu_3SbS_3

general characterization

Ag_3AsS_3

general characterization, crystal structure, lattice parameters

physical properties

Ag_3SbS_3

general characterization, structure, lattice parameters

physical properties

II-III-VI_2 compounds

crystal structure, lattice parameters

$CdInS_2$

crystal structure, physical properties

$CdInSe_2$

crystal structure, physical properties

$CdInTe_2$

crystal structure, physical properties

$CdTlS_2$

crystal structure, physical properties

$CdTlSe_2$

crystal structure, physical properties

$CdTlTe_2$

crystal structure, physical properties

$HgTlS_2$

crystal structure, physical properties

III_x-V_y-VI_z compounds

crystal structure, general characterization

$TlAsS_2$

crystal structure, physical properties

$TlSbS_2$

crystal structure, physical properties

$TlSbSe_2$

crystal structure, physical properties

$TlSbTe_2$

crystal structure, physical properties

$TlBiS_2$

crystal structure, physical properties

$TlBiSe_2$

crystal structure, physical properties

$TlBiTe_2$

crystal structure, physical properties

Ga_6Sb_5Te

crystal structure, physical properties

In_6Sb_5Te

crystal structure, physical properties

In_7SbTe_6

crystal structure, physical properties

$Bi_{12}SiO_{20}$

general characterization ,structure

physical properties

$Bi_{12}GeO_{20}$

general characterization ,structure

physical properties

$PbSb_2S_4$, $GeSb_2Te_4$, $GeBi_2Te_4$, $SnBi_2Te_4$

crystal structure, physical properties

$GeBi_4Te_7$, $SnBi_4Te_7$, $GeSb_4Te_7$, $PbBi_4Te_7$

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 $(I_2\text{-}VI)_m(III_2\text{-}VI_3)_n$

general characterization

$Cu_3In_5Se_9$

crystal structure, physical properties

$Cu_3In_5Te_9$

crystal structure, physical properties

$Cu_3Ga_5Se_9$

crystal structure, physical properties

$Ag_3In_5Se_9$

crystal structure, physical properties

$Ag_3Ga_5Se_9$

crystal structure, physical properties

$Cu_2Ga_4Te_7$

crystal structure, physical properties

$Cu_2In_4Te_7$

crystal structure, physical properties

$CuIn_3Te_5$

crystal structure, physical properties

$AgIn_3Te_5$

crystal structure, physical properties

$AgIn_5S_8$

crystal structure, physical properties

$AgIn_9Te_{14}$, $Ag_2Ga_{20}S_{31}$

crystal structure, physical properties

Cd_2SnO_4

crystal structure, physical properties

$CdSnO_3$

crystal structure, physical properties

Li_3CuO_3

physical properties

Hg_3PS_3, Hg_3PS_4

physical properties

InOF

physical properties

$BaCu_4S_3$

physical properties

$Cd_4(P,As)_2(Cl,Br,I)_3$

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, $C_{14}H_{10}$

crystal structure, lattice parameters and related properties

elastic moduli, density, melting point

enthalpies of fusion and sublimatin; 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, $C_{12}H_8S$

crystal structure, lattice parameters, melting point, related parameters

exciton parameters

photoelectron and Raman spectra

charge carrier mobilities

optical tensor

1,4-dibromonaphthalene, $C_{10}H_6Br_2$

crystal structure, lattice parameters, melting point, density

exciton and vibron parameters

charge carrier mobilities

9,10-dichloroanthracene, $C_{14}H_8Cl_{12}$, α-form

crystal structure, lattice parameters, melting point, density

exciton parameters, radical ion states

charge carrier mobilities

1,4-diiodobenzene, $C_6H_4I_2$

crystal structure, lattice parameters, phase transitions

melting point, density

charge carrier mobilities

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

crystal structure, lattice parameters, density, melting point

physical properties

iodoform, CHI_3

crystal structure, lattice parameters, density, melting point

charge carrier mobilities

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

crystal structure, lattice parameters, melting point

exciton parameters, radical ion states

charge carrier mobilities

naphthalene, $C_{10}H_8$

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, $C_{20}H_{12}$, 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, $C_{12}H_8N_2$, α-form

crystal structure, lattice parameters, melting point, density

exciton parameters, radical ion states, electron mobilities

vibrons, Raman spectra, optical tensor

phenothiazine, $C_{12}H_9NS$

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

radical ion states

charge carrier mobilities

vibrons, optical tensor

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

crystal structure, lattice parameters, density

radical ion states

charge carrier mobilities

further properties: dark conduction, absorption

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

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, $C_{14}H_{12}$**

crystal structure, lattice parameters, melting point

physical properties

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

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

$(TMTSF)_2$:PF_6, (tetramethyltetraselenafulvalene)$_2$:hexafluorophosphate, $(C_{10}H_{12}Se_4)_2$:PF_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)$_2$:(PF_6)$_{1.1}$×0.8(CH_2Cl_2), $C_{40}H_{24}$:(PF_6)$_{1.1}$×0.8(CH_2Cl_2)

crystal structure, lattice parameters, physical properties

(TTT)$_2$:I_3, (tetrathiatetracene)$_2$:I_3, ($C_{18}H_8S_4$)$_2$:I_3

crystal structure, lattice parameters, physical properties

TTF:$Br_{0.7}$, Tetrathialfulvalene:bromine, $C_6H_4S_4$:$Br_{0.7}$

crystal structure, lattice parameters, physical properties

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

crystal structure, lattice parameters, physical properties

TTF:TCNQ, tetrathiafulvalene:tetracyanoquinodimethane, $C_6H_4S_4$:$C_{12}H_4N_4$

crystal structure, lattice parameters, physical properties

charge transfer complexes with TTF and TCNQ

general properties

TTF:chloranil, tetrathiafulvalene:tetrachloro-*p*-benzoquinone, $C_6H_4S_4$:$C_6Cl_4O_2$

crystal structure, lattice parameters, physical properties

low molecular weight photo- and semicond. polycryst. and amorphous organic solids,

photo- and semiconducting and polymers

general characterization

organic semiconductors, comparative tables

comparative table on molecular photoelectron spectra

comparative table on electronic radical ion transitions

comparative table on solid state photoelectron emission yield curves

comparative table on solid state photoelectron spectra

energetic comparison of gas phase and solid state photoelectron spectra;

polarization energies

comparative table on molecular electron affinities

comparative table on crystal electron affinity

band energy scheme of the acene class of organic photoconductors

excitonic absorption spectra