



Subject Index of Volume 216

- Aliphatic imines**
preparation of YbBr₂ and its reaction with aliphatic imines, 509
- Alkaline earth metals**
MgB₂C₂, a new graphite-related refractory compound, 75
- Alloy disorders**
Raman scattering in ZnSe_xTe_{1-x} thin films: a probe for alloy disorder, 265
- Aluminates**
the crystal structure of alkaline earth aluminates Ba₃Al₂O₆ and Ba_{2.33}Ca_{0.67}Al₂O₆ (≡ Ba₇Ca₂Al₆O₁₈), 105
- Aluminium**
solubility of carbon in liquid Al and stability of Al₄C₃, 55
structural and magnetic studies of the REPt_{5-x}M_x (RE ≡ La, Nd; M ≡ Al, Ga, In) systems, 251
- Aluminium carbide**
solubility of carbon in liquid Al and stability of Al₄C₃, 55
- Aluminium doping**
high temperature microhardness of Zr-, Sc- and Al-doped rutile crystals, 517
- Annealing**
the crystal structure of a new ternary germanide, Ho₂₆Pd₄(Pd, Ge)_{19-x}, 231
- Antiferromagnetism**
¹⁵⁵Gd Mössbauer effect in several BaNiSn₃-type compounds, 95
- Antiferromagnets**
crystal structure and complex magnetic behaviour of a novel uranium oxyphosphide UCuPO, 117
- Arc melting**
the effects of boron on the magnetostrictive properties of Tb_{0.27}Dy_{0.73}Fe₂, 85
the crystal structure of a new ternary germanide, Ho₂₆Pd₄(Pd, Ge)_{19-x}, 231
- Argon**
on the influence of nitrogen pressure on the ordering of hexagonal boron nitride, 505
- Bismuth**
intermetallic compounds formed by electrodeposition of indium on bismuth, 149
- Bonding**
bonding and interlayer charge transfer in the solid state compound Na_{1.9}Cu₂Se₂Cu₂O, 177
- Borocarbides**
MgB₂C₂, a new graphite-related refractory compound, 75
- Boron**
the effects of boron on the magnetostrictive properties of Tb_{0.27}Dy_{0.73}Fe₂, 85
- Calcium**
on the ternary calcium-containing phases CaM_xGa_{4-x} (M ≡ Pd, Pt, Cu, Ag, Au) with BaAl₄ structure, 207
- Carbon solubility**
solubility of carbon in liquid Al and stability of Al₄C₃, 55
- Cathodic charging**
hydride formation in two-phase (Ti₃Al + TiAl) titanium aluminides during cathodic charging and its dissociation, 1
- Conductivity**
dielectric constant and conductivity of Er₂Cu₂O₅, 99
- Covalency**
a single-crystal X-ray structure determination of neptunium tetrachloride, 269
- Crystal chemistry**
crystal chemistry of the series LnT₂B₂C (Ln = rare earth, T = transition element), 135
- Crystal structure**
contribution to thermal behaviour of sulphates. XIV. Thermal behaviour of PdSO₄·2H₂O and PdSO₄·0.75H₂O with an M-PdSO₄ structure, 11
the Ba analogue of Sr₂Mg₃H₁₀, 501
- Crystal structure refinement**
crystal structure and complex magnetic behaviour of a novel uranium oxyphosphide UCuPO, 117
- Cubic structure**
transition from hexagonal to cubic structure and enhanced specific heat in CePt_{5-x}Au_x, 227
- Cuprate oxides**
dielectric constant and conductivity of Er₂Cu₂O₅, 99
- Deuterides**
synthesis and structure determination of complex zinc hydrides Part 2. Tripotassiumtetrahydrozincate(II) hydride, K₃[ZnH₄]H, 43
- Deuterium**
synthesis and structure determination of complex zinc hydrides Part 1: Dipotassiumtetrahydrozincate(II): K₂[ZnH₄], 39
- Dielectric properties**
dielectric constant and conductivity of Er₂Cu₂O₅, 99
- Differential thermal analysis**
phase equilibria in the In–Rh–As system at 600 °C, 67
- Direct synthesis calorimetry**
note on the standard enthalpies of formation of Ta₅Ge₃ and OsGe₂ by direct synthesis calorimetry, 513
- Elastic properties**
non-linearity–elastic properties and lifetimes of the lasing transition (⁴F_{3/2} → ⁴I_{11/2}) of Nd³⁺-doped semiconducting glasses, 281
- Electrical resistivity**
resistivity anomalies in heavy-fermion CeCu₂Sb₂ and CeNi₂Sb₂, 131
- Electrodeposition**
intermetallic compounds formed by electrodeposition of indium on bismuth, 149

- Electronic structure
bonding and interlayer charge transfer in the solid state compound $\text{Na}_{1.9}\text{Cu}_2\text{Se}_2\text{Cu}_2\text{O}$, 177
- Electron microscopy investigations
contribution to thermal behaviour of sulphates. XIV. Thermal behaviour of $\text{PdSO}_4 \cdot 2\text{H}_2\text{O}$ and $\text{PdSO}_4 \cdot 0.75\text{H}_2\text{O}$ with an M-PdSO₄ structure, 11
- Electron probe microanalysis
low-temperature magnetic susceptibility and resistivity measurements and electron probe microanalysis of $\text{Y}_{1-x}\text{U}_x\text{Pd}_3$, 33
phase equilibria in the In-Rh-As system at 600 °C, 67
- Electron single crystal diffraction
the crystal structure of the low-temperature A-type modification of Pr_2O_3 from X-ray powder and electron single crystal diffraction, 255
- EMF
thermodynamic stabilities of ternary oxides in Bi-Cu-O system by solid electrolyte EMF method, 47
- Enthalpies of formation
note on the standard enthalpies of formation of Ta_5Ge_3 and OsGe_2 by direct synthesis calorimetry, 513
- Gallium
on the ternary calcium-containing phases $\text{CaM}_x\text{Ga}_{4-x}$ (M = Pd, Pt, Cu, Ag, Au) with BaAl₄ structure, 207
structural and magnetic studies of the $\text{REPt}_{5-x}\text{M}_x$ (RE = La, Nd; M = Al, Ga, In) systems, 251
- Germanides
the crystal structure of a new ternary germanide, $\text{Ho}_{26}\text{Pd}_4(\text{Pd}, \text{Ge})_{19-x}$, 231
- Germanium
study of the equilibrium phase diagram of the ternary system germanium-tin-tellurium, 285
- Gibbs energy
thermodynamic stabilities of ternary oxides in Bi-Cu-O system by solid electrolyte EMF method, 47
- Graphite
 MgB_2C_2 , a new graphite-related refractory compound, 75
- Hafnium
 Hf_2Se_3 , a new structure in the binary Hf-Se system, 113
- Hard magnetic materials
magnetic anisotropy and magnetostriction of $\text{UFe}_{10}\text{Si}_2$, 221
- Heavy fermions
resistivity anomalies in heavy-fermion CeCu_2Sb_2 and CeNi_2Sb_2 , 131
- Hexagonal boron nitride
on the influence of nitrogen pressure on the ordering of hexagonal boron nitride, 505
- Hexagonal structure
transition from hexagonal to cubic structure and enhanced specific heat in $\text{CePt}_{5-x}\text{Au}_x$, 227
- High pressure synthesis
 Na_3As revisited: high-pressure synthesis of single crystals and structure refinement, 7
- Hot alkaline solutions
activation of $\text{Zr}_{0.5}\text{Ti}_{0.5}\text{V}_{0.75}\text{Ni}_{1.25}$ alloy electrodes by hot alkaline solutions, 237
- Hydride formation
hydride formation in two-phase ($\text{Ti}_3\text{Al} + \text{TiAl}$) titanium aluminides during cathodic charging and its dissociation, 1
the temperature-dependent changes of the kinetics and morphology of hydride formation in zirconium, 187
- Hydrides
the Ba analogue of $\text{Sr}_2\text{Mg}_3\text{H}_{10}$, 501
- Hydriding kinetics
hydriding kinetics of powders, 159
- Hydrogenation
hydrogenation and X-ray diffraction study of microstresses in Pd alloys, 183
- Hydrogen decomposition-re-formation
decomposition-re-formation reactions under H_2 of intermetallics based on LaNi_5 , 21
- Hydrogen storage applications
decomposition-re-formation reactions under H_2 of intermetallics based on LaNi_5 , 21
- Hydrothermal synthesis
the thallium sulfarsenites Tl_3AsS_3 and TlAsS_2 [thallium(I)-thioarsenates(III)]: structural characterization and syntheses, 155
- Indium
intermetallic compounds formed by electrodeposition of indium on bismuth, 149
structural and magnetic studies of the $\text{REPt}_{5-x}\text{M}_x$ (RE = La, Nd; M = Al, Ga, In) systems, 251
- Inhomogeneities
low-temperature magnetic susceptibility and resistivity measurements and electron probe microanalysis of $\text{Y}_{1-x}\text{U}_x\text{Pd}_3$, 33
- Ino-sulfarsenite
the thallium sulfarsenites Tl_3AsS_3 and TlAsS_2 [thallium(I)-thioarsenates(III)]: structural characterization and syntheses, 155
- Interlayer charge transfer
bonding and interlayer charge transfer in the solid state compound $\text{Na}_{1.9}\text{Cu}_2\text{Se}_2\text{Cu}_2\text{O}$, 177
- Intermetallic compounds
intermetallic compounds formed by electrodeposition of indium on bismuth, 149
- Ionic conductivity
 MgB_2C_2 , a new graphite-related refractory compound, 75
- Iron
structural investigation of the metastable compound Al in an as-cast Fe-Nd eutectic alloy, 273
- Kinetics
the temperature-dependent changes of the kinetics and morphology of hydride formation in zirconium, 187
- Lanthanides
crystal chemistry of the series $\text{LnT}_2\text{B}_2\text{C}$ (Ln = rare earth, T = transition element), 135
- Lanthanide separation
TEM study on extractive organic phase containing lanthanide ions, 521
- Lanthanide spectroscopy
spectroscopic study of lanthanide squarate hydrates, 61
- Lanthanide squarate hydrates
spectroscopic study of lanthanide squarate hydrates, 61
- Magnetic anisotropy
magnetic anisotropy and magnetostriction of $\text{UFe}_{10}\text{Si}_2$, 221
- Magnetic properties
crystal structure and complex magnetic behaviour of a novel uranium oxyphosphide UCuPO , 117
- Magnetic structure
magnetic structure of TbMn_6Ge_6 from neutron diffraction study, 243
- Magnetic studies
structural and magnetic studies of the $\text{REPt}_{5-x}\text{M}_x$ (RE = La, Nd; M = Al, Ga, In) systems, 251

- Magnetic susceptibility**
 low-temperature magnetic susceptibility and resistivity measurements and electron probe microanalysis of $Y_{1-x}U_xPd_3$, 33
 resistivity anomalies in heavy-fermion $CeCu_2Sb_2$ and $CeNi_2Sb_2$, 131
- Magnetostriction**
 magnetic anisotropy and magnetostriction of $UF_{10}Si_2$, 221
- Magnetostrictive properties**
 the effects of boron on the magnetostrictive properties of $Tb_{0.27}Dy_{0.73}Fe_2$, 85
- Martensitic transformations**
 shear-like transformation in dilute U–W alloys, 89
- Mechanical alloying**
 morphological and structural studies of amorphous $Fe_{74}Cr_{18}Ni_8$ alloy prepared by the rod-milling technique, 213
- Microhardness**
 high temperature microhardness of Zr-, Sc- and Al-doped rutile crystals, 517
- Microstresses**
 hydrogenation and X-ray diffraction study of microstresses in Pd alloys, 183
- Mineral lorandite**
 the thallium sulfarsenites Tl_3AsS_3 and $TlAsS_2$ [thallium(I)-thioarsenates(III)]: structural characterization and syntheses, 155
- Mössbauer spectroscopy**
 ^{155}Gd Mössbauer effect in several $BaNiSn_3$ -type compounds, 95
 quasi-reversible transformations and thermal stability of $BiPb-Sr_{2-x}Ca_xFeO_{6+z}$ with $x=0$ and 1, 141
- Neodymium**
 structural investigation of the metastable compound A1 in an as-cast Fe–Nd eutectic alloy, 273
- Neptunium tetrachloride**
 a single-crystal X-ray structure determination of neptunium tetrachloride, 269
- Neso-sulfarsenite**
 the thallium sulfarsenites Tl_3AsS_3 and $TlAsS_2$ [thallium(I)-thioarsenates(III)]: structural characterization and syntheses, 155
- Neutron diffraction**
 a neutron diffraction investigation of the $LaNi_5$ -D phase diagram, 123
 magnetic structure of $TbMn_6Ge_6$ from neutron diffraction study, 243
- Nitrogen pressure**
 on the influence of nitrogen pressure on the ordering of hexagonal boron nitride, 505
- Non-Fermi liquid**
 low-temperature magnetic susceptibility and resistivity measurements and electron probe microanalysis of $Y_{1-x}U_xPd_3$, 33
- Non-linearity**
 non-linearity–elastic properties and lifetimes of the lasing transition ($^4F_{3/2} \rightarrow ^4I_{11/2}$) of Nd^{3+} -doped semiconducting glasses, 281
- Organic synthesis**
 preparation of $YbBr_2$ and its reaction with aliphatic imines, 509
- Palladium**
 hydrogenation and X-ray diffraction study of microstresses in Pd alloys, 183
- Palladium compounds**
 contribution to thermal behaviour of sulphates. XIV. Thermal behaviour of $PdSO_4 \cdot 2H_2O$ and $PdSO_4 \cdot 0.75H_2O$ with an M- $PdSO_4$ structure, 11
- Phase diagrams**
 a neutron diffraction investigation of the $LaNi_5$ -D phase diagram, 123
- Phase equilibria**
 phase equilibria in the In–Rh–As system at 600 °C, 67
 phase equilibria in the Ti–Te system, 197
- Phase equilibrium**
 thermodynamic stabilities of ternary oxides in Bi–Cu–O system by solid electrolyte EMF method, 47
- Phase relationships**
 investigation of phase relationships and physical properties of Yb–Pd–Ge compounds, 259
- Physical properties**
 investigation of phase relationships and physical properties of Yb–Pd–Ge compounds, 259
- Physicochemical analysis techniques**
 investigation of phase relationships and physical properties of Yb–Pd–Ge compounds, 259
- Potassium**
 synthesis and structure determination of complex zinc hydrides Part 2. Tripotassiumtetrahydrido-zincate(II) hydride, $K_3[ZnH_4]H$, 43
- Powder diffraction**
 the Ba analogue of $Sr_2Mg_3H_{10}$, 501
- Powders**
 hydriding kinetics of powders, 159
- Quadrupole splitting**
 ^{155}Gd Mössbauer effect in several $BaNiSn_3$ -type compounds, 95
- Quasi-reversible transformations**
 quasi-reversible transformations and thermal stability of $BiPb-Sr_{2-x}Ca_xFeO_{6+z}$ with $x=0$ and 1, 141
- Radiocrystallography**
 study of the equilibrium phase diagram of the ternary system germanium–tin–tellurium, 285
- Raman scattering**
 Raman scattering in $ZnSe_xTe_{1-x}$ thin films: a probe for alloy disorder, 265
- Rapid cooling**
 shear-like transformation in dilute U–W alloys, 89
- Resistivity anomalies**
 resistivity anomalies in heavy-fermion $CeCu_2Sb_2$ and $CeNi_2Sb_2$, 131
- Resistivity measurements**
 low-temperature magnetic susceptibility and resistivity measurements and electron probe microanalysis of $Y_{1-x}U_xPd_3$, 33
- Rod-milling technique**
 morphological and structural studies of amorphous $Fe_{74}Cr_{18}Ni_8$ alloy prepared by the rod-milling technique, 213
- Rutile crystals**
 high temperature microhardness of Zr-, Sc- and Al-doped rutile crystals, 517
- Scandium doping**
 high temperature microhardness of Zr-, Sc- and Al-doped rutile crystals, 517
- Scanning electron microscopy**
 phase equilibria in the In–Rh–As system at 600 °C, 67
- Selenium**
 Hf_2Se_3 , a new structure in the binary Hf–Se system, 113

- Semiconducting glasses
 non-linearity-elastic properties and lifetimes of the lasing transition (${}^4F_{3/2} \rightarrow {}^4I_{11/2}$) of Nd^{3+} -doped semiconducting glasses, 281
- Single crystals
 Na_3As revisited: high-pressure synthesis of single crystals and structure refinement, 7
 the crystal structure of alkaline earth aluminates $\text{Ba}_3\text{Al}_2\text{O}_6$ and $\text{Ba}_{2.33}\text{Ca}_{0.67}\text{Al}_2\text{O}_6$ ($\equiv \text{Ba}_7\text{Ca}_2\text{Al}_6\text{O}_{18}$), 105
 a single-crystal X-ray structure determination of neptunium tetrachloride, 269
- Single-particle analysis
 hydriding kinetics of powders, 159
- Solid electrolytes
 thermodynamic stabilities of ternary oxides in Bi-Cu-O system by solid electrolyte EMF method, 47
- Solid solutions
 the crystal structure of alkaline earth aluminates $\text{Ba}_3\text{Al}_2\text{O}_6$ and $\text{Ba}_{2.33}\text{Ca}_{0.67}\text{Al}_2\text{O}_6$ ($\equiv \text{Ba}_7\text{Ca}_2\text{Al}_6\text{O}_{18}$), 105
- Solid state reactions
 synthesis and structure determination of complex zinc hydrides
 Part 1: Dipotassiumtetrahydrido-zincate(II): $\text{K}_2[\text{ZnH}_4]$, 39
- Solvent extraction
 TEM study on extractive organic phase containing lanthanide ions, 521
- Specific heat
 transition from hexagonal to cubic structure and enhanced specific heat in $\text{CePt}_{5-x}\text{Au}_x$, 227
- Structure refinement
 Na_3As revisited: high-pressure synthesis of single crystals and structure refinement, 7
- Surface collision
 activation of $\text{Zr}_{0.5}\text{Ti}_{0.5}\text{V}_{0.75}\text{Ni}_{1.25}$ alloy electrodes by hot alkaline solutions, 237
- Susceptibility measurements
 magnetic structure of TbMn_6Ge_6 from neutron diffraction study, 243
- Synthetic procedures
 spectroscopic study of lanthanide squarate hydrates, 61
- Tellurium
 phase equilibria in the Ti-Te system, 197
 study of the equilibrium phase diagram of the ternary system germanium-tin-tellurium, 285
- Temperature dependence
 the temperature-dependent changes of the kinetics and morphology of hydride formation in zirconium, 187
- Ternary rhenium chalcogenides
 $\text{Cs}_6\text{Re}_6\text{S}_{12}$, the first ternary sulphide with a two-dimensional linkage of $[\text{Re}_6\text{S}_8]$ -units, 25
- Ternary sulphides
 $\text{Cs}_6\text{Re}_6\text{S}_{12}$, the first ternary sulphide with a two-dimensional linkage of $[\text{Re}_6\text{S}_8]$ -units, 25
 preparation and structure of $\text{Rb}_4\text{Re}_6\text{S}_{12}$, 29
- Thermal analysis
 study of the equilibrium phase diagram of the ternary system germanium-tin-tellurium, 285
- Thermal stability
 quasi-reversible transformations and thermal stability of $\text{BiPb-Sr}_{2-x}\text{Ca}_x\text{FeO}_{6+x}$ with $x=0$ and 1, 141
 morphological and structural studies of amorphous $\text{Fe}_{74}\text{Cr}_{18}\text{Ni}_8$ alloy prepared by the rod-milling technique, 213
- Thermodynamics
 contribution to thermal behaviour of sulphates. XIV. Thermal behaviour of $\text{PdSO}_4 \cdot 2\text{H}_2\text{O}$ and $\text{PdSO}_4 \cdot 0.75\text{H}_2\text{O}$ with an M-PdSO₄ structure, 11
 solubility of carbon in liquid Al and stability of Al_4C_3 , 55
- Thin films
 Raman scattering in $\text{ZnSe}_x\text{Te}_{1-x}$ thin films: a probe for alloy disorder, 265
- Tin
 study of the equilibrium phase diagram of the ternary system germanium-tin-tellurium, 285
- Titanium
 phase equilibria in the Ti-Te system, 197
- Titanium aluminides
 hydride formation in two-phase ($\text{Ti}_3\text{Al} + \text{TiAl}$) titanium aluminides during cathodic charging and its dissociation, 1
- Transition metal germanides
 note on the standard enthalpies of formation of Ta_5Ge_3 and OsGe_2 by direct synthesis calorimetry, 513
- Transition metals
 crystal chemistry of the series $\text{LnT}_2\text{B}_2\text{C}$ (Ln=rare earth, T=transition element), 135
- Transmission electron microscopy
 structural investigation of the metastable compound Al1 in an as-cast Fe-Nd eutectic alloy, 273
 TEM study on extractive organic phase containing lanthanide ions, 521
- Tungsten
 shear-like transformation in dilute U-W alloys, 89
- Uranium
 shear-like transformation in dilute U-W alloys, 89
- Uranium intermetallics
 magnetic anisotropy and magnetostriction of $\text{UFe}_{10}\text{Si}_2$, 221
- Uranium pnictides
 crystal structure and complex magnetic behaviour of a novel uranium oxyphosphide UCuPO , 117
- Vibronic spectra
 spectroscopic study of lanthanide squarate hydrates, 61
- X-ray diffraction
 phase equilibria in the In-Rh-As system at 600 °C, 67
 the effects of boron on the magnetostrictive properties of $\text{Tb}_{0.27}\text{Dy}_{0.73}\text{Fe}_2$, 85
 hydrogenation and X-ray diffraction study of microstresses in Pd alloys, 183
- X-ray powder diffraction
 the crystal structure of the low-temperature A-type modification of Pr_2O_3 from X-ray powder and electron single crystal diffraction, 255
- X-ray powder pattern
 contribution to thermal behaviour of sulphates. XIV. Thermal behaviour of $\text{PdSO}_4 \cdot 2\text{H}_2\text{O}$ and $\text{PdSO}_4 \cdot 0.75\text{H}_2\text{O}$ with an M-PdSO₄ structure, 11
- Ytterbium
 on the ternary calcium-containing phases $\text{Ca}_m\text{Ga}_{4-x}$ (M≡Pd, Pt, Cu, Ag, Au) with BaAl_4 structure, 207
- Ytterbium dibromide
 preparation of YbBr_2 and its reaction with aliphatic imines, 509
- Zinc hydrides
 synthesis and structure determination of complex zinc hydrides
 Part 1: Dipotassiumtetrahydrido-zincate(II): $\text{K}_2[\text{ZnH}_4]$, 39

- synthesis and structure determination of complex zinc hydrides
Part 2. Tripotassiumtetrahydrido-zincate(II) hydride,
 $K_3[ZnH_4]H$, 43
- Zirconium
the temperature-dependent changes of the kinetics and morphology of hydride formation in zirconium, 187
- activation of $Zr_{0.5}Ti_{0.5}V_{0.75}Ni_{1.25}$ alloy electrodes by hot alkaline solutions, 237
- Zirconium doping
high temperature microhardness of Zr-, Sc- and Al-doped rutile crystals, 517