



ELSEVIER

Journal of Alloys and Compounds 317–318 (2001) 621–630

Journal of
ALLOYS
AND COMPOUNDS

www.elsevier.com/locate/jallcom

Subject Index of Volumes 317–318

- A15 phase
hydrogen absorption in vanadium- and niobium-based topologically close-packed structures 71
- Activation surface treatments
electrochemical behaviour of Cu–Zr and Cu–Ti glassy alloys 595
nitric oxide reduction catalyzed by amorphous copper–zirconium and copper–titanium alloys 590
- Additions
miscibility of binary VC–MC carbides in quaternary Fe–V–M–C alloys 311
- Ag
the high temperature oxidation of a two-phase Ag–Y alloy under 1 and 10^{-20} atm O_2 573
- Al–Cr–Ni phase diagram
the effect of microstructure on hardness measurements in the aluminium-rich corner of the Al–Ni–Cr system 372
- Al-rich corner
phase relations in the Al-rich corner of the Ti–Ni–Al system 379
- Alloy
phase diagram of the Ti–Ga system 398
- Aluminides
getter potentialities of some intermetallics: $ZrAl_2$, $ZrAl_3$ and $CeNi_5$ 583
- Amorphous alloys
electrochemical behaviour of Cu–Zr and Cu–Ti glassy alloys 595
nitric oxide reduction catalyzed by amorphous copper–zirconium and copper–titanium alloys 590
- Anion adsorption
electrochemical behavior of Au–Gd alloys 603
- Anisotropic properties
electrical and optical anisotropic properties of rhenium-doped molybdenum disulphide 208
- Anisotropy
in-plane anisotropy of the optical and electrical properties of ReS_2 and $ReSe_2$ layered crystals 222
- Annealing
studies of the effect of internal and hydrostatic pressure on the structure and transport properties of $La_{2/3}Ca_{1/3}MnO_3$ thin films 141
- Antiferromagnetism
structural study of $UCuGe_{1.75}$ by X-ray and electron diffraction 331
structure, magnetism and electrical conductivity of a new ternary manganese oxide: $BaMn_3O_6$ 115
- Antimonides
crystal structure of Zr_2CuSb_3 and related compounds 284
- Au–Gd alloys
electrochemical behavior of Au–Gd alloys 603
- $\beta(\beta')$ - $A_xV_2O_5$
charge order and quasi-one-dimensional behavior in $\beta(\beta')$ - $A_xV_2O_5$ 109
- Ball-milling
metastable structures in α - β' brass 479
- Band structure
theoretical study of structural stability and magnetism in the Pd_3Mn antiphase 428
- Band structure calculations
electronic structure of $MnSi_{0.7}Al_{1.3}$ and related transition metal alloys with the $TiSi_2$ structure 327
structure and magnetism in the polymorphous MnFeAs 274
- Barium
synthesis, crystal structure and TEM study of the new hollandite-type $Ba_{-8/7}Mo_8O_{16}$ 120
- Bond valences
 $GaMgMo_4O_7$ and $Fe_2Mo_4O_7$ — two low-valent molybdenum oxides with a fully ordered $Sc_{0.75}Zn_{1.25}Mo_4O_7$ type structure 132
- Borate
orthoborates processed by soft routes: correlation luminescence structure 183
- Boride eutectics
the peculiarities of the structure formation in directionally crystallized eutectics EuB_6 – MeB_2 367
- Boron oxide
neutron diffraction studies of Zr-containing intermetallic hydrides. Cubic $Zr_3V_3B_{0.24}O_{0.36}D_{8.0}$ and $Zr_3V_3B_{0.40}O_{0.60}D_{6.4}$ with filled η_1 -type structures 92
- Brass
metastable structures in α - β' brass 479
- Calcium silicides
thermodynamic stabilities of intermediate phases in the Ca–Si system 525
- Calorimetry
thermodynamic investigation of samarium–nickel alloys 532
- CALPHAD
phase equilibria and diffusion paths in the Ti–Al–O–N system 19
- Carbon level
miscibility of binary VC–MC carbides in quaternary Fe–V–M–C alloys 311
- Casting
ternary Hf–Co–Sn system 347
V–Mn–{Sn,Sb} ternary systems 280
- Catalyst
nitric oxide reduction catalyzed by amorphous copper–zirconium and copper–titanium alloys 590
- CDW
NMR properties of CoRhP: mixing between Co and Rh sites 258
- Ce_3Pd_5Si
new ternary silicide of cerium and palladium Ce_3Pd_5Si 324
- Cerium intermetallics
physical properties of Ce_2CoSn_2 550
- Cerium palladium silicide
new ternary silicide of cerium and palladium Ce_3Pd_5Si 324
- Charge order transition
charge order and quasi-one-dimensional behavior in $\beta(\beta')$ - $A_xV_2O_5$ 109

- Chromium
on the kinetics of chromium electrodeposition on copper electrodes 612
- Chromium(III)
surface characterisation of spinels with Ti(IV) distributed in tetrahedral and octahedral sites 160
- Cluster variation method
theoretical investigation of L1₀-disorder phase equilibria in Fe–Pd alloy system 13
- Clusters
synthesis, crystal structure and TEM study of the new hollandite-type Ba_{-8/7}Mo₈O₁₆ 120
- ⁵⁹Co
NMR properties of CoRhP: mixing between Co and Rh sites 258
- Coercivity
magnetic properties of a DyCo₁₀V₂ single crystal 459
- Cold rolling
electrochemical and corrosion behaviour of cold rolled AISI 301 in 1 M H₂SO₄ 607
- Colossal magnetoresistance
studies of the effect of internal and hydrostatic pressure on the structure and transport properties of La_{2/3}Ca_{1/3}MnO₃ thin films 141
- Composition
new phases in the ternary Cu–Ti–Sn system 363
- Compound
phase diagram of the Ti–Ga system 398
- Compound prediction
binary, ternary and quaternary compound former/nonformer prediction via Mendeleev number 26
- Cooperative pseudo Jahn–Teller local lattice distortions
a quantum phase transition driven by the electron lattice interaction gives high T_c superconductivity 537
- Copper
on the kinetics of chromium electrodeposition on copper electrodes 612
- Copper alloys
effect of Cu and Zn on the melting and transformation temperatures of Pr and Gd 503
- Copper hafnium sulfide
preparation and crystal structures of Cu₂HfS₃ 217
- CoRhP
NMR properties of CoRhP: mixing between Co and Rh sites 258
- Corrosion
electrochemical and corrosion behaviour of cold rolled AISI 301 in 1 M H₂SO₄ 607
- Co-rich rare earth compounds
anisotropy and spin-reorientations in Co-rich rare earth compounds 2
- Co_{1-x}Ru_xSb₂
structural and electrical properties of Co_{1-x}Ru_xSb₂ 287
- Co₂TiGa
magnetic properties of Co₂TiGa compound 406
- Critical phenomena
magnetization curves in MnRhP around the Curie temperature 254
- Critical point
a quantum phase transition driven by the electron lattice interaction gives high T_c superconductivity 537
- Crystal and magnetic structure
magnetic characteristics of Er(Mn_{12-x}Fe_x) compounds (x=7, 9) determined by X-ray magnetic circular dichroism 470
- Crystal morphology
crystal growth by molten metal flux method and properties of manganese silicides 315
- Crystal structure
a comparative analysis of the three polymorphic structures H₃, O₁₀ and H₁₂ of FeRhP 262
- comparison of the interaction of components in the La–Co–Zn and Ce–Co–Zn ternary systems at 470 K 448
- crystal structure of Zr₂CuSb₃ and related compounds 284
- Cu_xHg_y: a puzzling compound 491
- GaMgMo₄O₇ and Fe₂Mo₄O₇ — two low-valent molybdenum oxides with a fully ordered Sc_{0.75}Zn_{1.25}Mo₄O₇ type structure 132
- new phases in the ternary Cu–Ti–Sn system 363
- new ternary silicide of cerium and palladium Ce₃Pd₅Si 324
- preparation and crystal structures of Cu₂HfS₃ 217
- structural and electrical properties of Co_{1-x}Ru_xSb₂ 287
- structural chemistry, magnetic and electrical properties of ternary rare-earth nickel phosphides, R₂₀Ni₄₂P₃₀ (R=Ce, Sm) 250
- Crystal structure and symmetry
crystallochemistry and Kondo-like behaviour of the thorium and uranium arsenoselenides 52
- crystallographic and magnetic behaviour of RCu₉Sn₄ and RCu_{9,4}Sn_{3,6} (R=La to Nd) compounds 560
- lanthanide polysulfides at high pressures 190
- Crystallographic structure
single crystal neutron diffraction investigations of the crystal and magnetic structures of R₂Fe₁₄B (R=Y, Nd, Ho, Er) 39
- Cr₃Te₄
heat capacity of (Cr_{1-x}Ni_x)₃Te₄ (x=0–0.2) at high temperatures 233
- CuO₂ chain
spin-1/2 quantum antiferromagnetic chains with adjustable superexchange interactions found in BaCu₂(Si_{1-x}Ge_x)₂O₇ 171
- S=1/2 antiferromagnetic chains and dimers on hole-doped edge-sharing CuO₂ chains 164
- Cupric oxide
spin-1/2 quantum antiferromagnetic chains with adjustable superexchange interactions found in BaCu₂(Si_{1-x}Ge_x)₂O₇ 171
- Curie temperature
magnetic and electrical properties of Fe_{2+x}V_{1-x}Al 390
- magnetism in HoCo₂ and ErCo₂ under high pressure 438
- Cu–Hg phase diagram
Cu_xHg_y: a puzzling compound 491
- Cu–Ni–Fe
oxidation of a ternary Cu–Ni–Fe alloy under low oxygen pressures at 800–900°C 578
- Cu–Zn alloys
metastable structures in α–β' brass 479
- Cyclic voltammetry
electrochemical behavior of Au–Gd alloys 603
- De Haas van Alphen effect
magnetic properties and electronic structure of CeB₂C₂ 302
- Dense Kondo effect
systematic composition dependence in YbCu_{5-x}Au_x from dense Kondo to antiferromagnetic system through quantum critical point around x=0.2–0.4 465
- Dental alloys
structural characterisation and corrosion resistance of Ga-precious metal alloys formed by liquid–solid reaction at room temperature 411
- Deuteride
neutron diffraction studies of Zr-containing intermetallic hydrides. Cubic Zr₃V₃B_{0.24}O_{0.36}D_{8.0} and Zr₃V₃B_{0.40}O_{0.60}D_{6.4} with filled η₁-type structures 92
- Differential scanning calorimetry
electrochemical behaviour of Cu–Zr and Cu–Ti glassy alloys 595
- Diffraction
layered ternary transition metal nitrides; synthesis, structure and physical properties 237
- Direction crystallization
the peculiarities of the structure formation in directionally crystallized eutectics EuB₆–MeB₂ 367

- Disorder
 phase stability, structure and magnetic properties of $R_3(\text{Fe, TM})_{29}$,
 (R=Gd, Dy, Er, Y and TM=V, Ti) compounds with disordered
 structures 455
- Double-perovskites
 magnetic and transport properties of the solid solution system
 $\text{La}_{2-x}\text{Sr}_x\text{MnRuO}_6$ with double perovskite structure 136
- $\text{DyCo}_{10}\text{V}_2$
 magnetic properties of a $\text{DyCo}_{10}\text{V}_2$ single crystal 459
- Electrical properties
 magnetic and electrical properties of the $\text{UCu}_{4-x}\text{Mn}_x\text{Al}_8$ alloys
 395
- Electrical property
 characterization of RuO_2 and IrO_2 films deposited on Si substrate
 98
 in-plane anisotropy of the optical and electrical properties of ReS_2
 and ReSe_2 layered crystals 222
- Electrical resistivity
 crystal growth by molten metal flux method and properties of
 manganese silicides 315
 electrical resistivity and magnetism in some ternary intermetallics
 293
 magnetic and electrical properties of $\text{Fe}_{2+x}\text{V}_{1-x}\text{Al}$ 390
 magnetism in HoCo_2 and ErCo_2 under high pressure 438
 preparation and crystal structures of Cu_2HfS_3 217
 structural and electrical properties of $\text{Co}_{1-x}\text{Ru}_x\text{Sb}_2$ 287
 structural chemistry, magnetic and electrical properties of ternary
 rare-earth nickel phosphides, $\text{R}_{20}\text{Ni}_{42}\text{P}_{30}$ (R=Ce, Sm) 250
- Electrochemical behavior
 electrochemical behavior of Au–Gd alloys 603
- Electrochemical reactions
 structural characterisation and corrosion resistance of Ga-precious
 metal alloys formed by liquid–solid reaction at room
 temperature 411
- Electrodeposition
 on the kinetics of chromium electrodeposition on copper electrodes
 612
- Electromagnetic properties
 charge order and quasi-one-dimensional behavior in $\beta(\beta')\text{-A}_x\text{V}_2\text{O}_5$
 109
- Electron paramagnetic resonance
 synthesis, crystal structure and physical properties of ZrNiSn
 semiconductor doped with Mn 357
- Electronic properties
 magnetic properties and electronic structure of CeB_2C_2 302
- Electronic structure
 electronic structure and ESR in GdTAl ternary compounds; T=3d,
 4d transition metals 385
 electronic structure of RTX (R=Pr, Nd; T=Cu, Ag, Au; X=Ge,
 Sn) compounds 340
 electronic structure of a hole doped oxide with a quasi-1D crystal
 structure $\text{Y}_{2-x}(\text{Sr, Ca})_x\text{BaNiO}_5$ 149
- Electronic transport, magnetisation
 synthesis, crystal structure and physical properties of ZrNiSn
 semiconductor doped with Mn 357
- ESR
 electronic structure and ESR in GdTAl ternary compounds; T=3d,
 4d transition metals 385
- Europium hexaboride
 the peculiarities of the structure formation in directionally
 crystallized eutectics $\text{EuB}_6\text{–MeB}_2$ 367
- f* electron systems
 on the change of electronic states at the Fermi level by Ce doping
 in the intermetallic LaRu_2 542
- Fermi liquid
 systematic composition dependence in $\text{YbCu}_{5-x}\text{Au}_x$ from dense
 Kondo to antiferromagnetic system through quantum critical
 point around $x=0.2\text{–}0.4$ 465
- Ferrimagnetism
 ferrimagnetism in $\text{Tb}_3\text{Co}_6\text{Sn}_4$ intermetallic compound 556
 magnetic and transport properties of the solid solution system
 $\text{La}_{2-x}\text{Sr}_x\text{MnRuO}_6$ with double perovskite structure 136
- Ferromagnet
 spin reorientation in MnBi 297
- Fe–Pd phase equilibria
 theoretical investigation of L1_0 -disorder phase equilibria in Fe–Pd
 alloy system 13
- $\text{Fe}_{2+x}\text{V}_{1-x}\text{Al}$
 magnetic and electrical properties of $\text{Fe}_{2+x}\text{V}_{1-x}\text{Al}$ 390
- Fe_xNbS_2
 thermodynamic and magnetic properties of intercalated layered
 compounds Fe_xNbS_2 213
- Fluorescence XANES
 on the change of electronic states at the Fermi level by Ce doping
 in the intermetallic LaRu_2 542
- Formation enthalpy
 thermodynamic investigation of samarium–nickel alloys 532
- Franck–Kasper phases
 hydrogen absorption in vanadium- and niobium-based topologically
 close-packed structures 71
- Freezing temperature
 $\text{R}_9\text{Mg}_{34}\text{Zn}_{57}$ icosahedral quasicrystals: The tuning of a model spin
 glass 443
- Frustration
 structure, magnetism and electrical conductivity of a new ternary
 manganese oxide: BaMn_3O_6 115
- Gallium
 phase diagram of the Ti–Ga system 398
- Gas over solid reaction process
 nickel Chevrel phase supported on porous alumina 195
- Gas-solid reactions
 high temperature–high pressure nitridation of $\beta\text{-Ti}_{63}\text{Nb}_{37}$ by means
 of the chemical oven technique 245
- Getter
 getter potentialities of some intermetallics: ZrAl_2 , ZrAl_3 and CeNi_5
 583
- Hall coefficient
 electrical properties and phase transitions of TiCu_3S_2 and BaCu_2S_2
 201
 structural and electrical properties of $\text{Co}_{1-x}\text{Ru}_x\text{Sb}_2$ 287
- Hardness measurements
 the effect of microstructure on hardness measurements in the
 aluminium-rich corner of the Al–Ni–Cr system 372
- Heat capacity
 crystallographic and magnetic behaviour of RCu_9Sn_4 and
 $\text{RCu}_{9.4}\text{Sn}_{3.6}$ (R=La to Nd) compounds 560
 heat capacity of $(\text{Cr}_{1-x}\text{Ni}_x)_3\text{Te}_4$ ($x=0\text{–}0.2$) at high temperatures
 233
 thermodynamic and magnetic properties of intercalated layered
 compounds Fe_xNbS_2 213
- Heats of formation
 thermodynamic stabilities of intermediate phases in the Ca–Si
 system 525
- Heavy Fermion
 systematic composition dependence in $\text{YbCu}_{5-x}\text{Au}_x$ from dense
 Kondo to antiferromagnetic system through quantum critical
 point around $x=0.2\text{–}0.4$ 465
- Heavy fermion behaviour
 physical properties of Ce_2CoSn_2 550
- High pressure
 crystal structure, magnetic and electronic properties of
 $\text{Co}_x\text{Fe}_{1-x}\text{MnP}$ system 266

- lanthanide polysulfides at high pressures 190
- structural and magnetic properties of RFe_2H_5 hydrides ($R=Y, Er$) 83
- vanadium oxides V_2O_5 and NaV_2O_5 under high pressures:
Structural, vibrational, and electronic properties 103
- High pressure synthesis
systematic composition dependence in $YbCu_{5-x}Au_x$ from dense
Kondo to antiferromagnetic system through quantum critical
point around $x=0.2-0.4$ 465
- High temperature
oxidation of a ternary Cu–Ni–Fe alloy under low oxygen pressures
at 800–900°C 578
- High T_C superconductors
a quantum phase transition driven by the electron lattice interaction
gives high T_C superconductivity 537
- Hole doping
electronic structure of a hole doped oxide with a quasi-1D crystal
structure $Y_{2-x}(Sr,Ca)_xBaNiO_5$ 149
- Hole-doping
 $S=1/2$ antiferromagnetic chains and dimers on hole-doped edge-
sharing CuO_2 chains 164
- Hollandite
synthesis, crystal structure and TEM study of the new hollandite-
type $Ba_{-8/7}Mo_8O_{16}$ 120
- Hopping conduction
structural and electrical properties of $Co_{1-x}Ru_xSb_2$ 287
- $hP6-CaIn_2$ type compounds
ternary intermetallic $RAgGa, RAuGa$ alloys (R =light rare earth and
Yb) 521
- Hydrides
hydrogen absorption in vanadium- and niobium-based topologically
close-packed structures 71
neutron diffraction study on the deuterium site occupation and
magnetic structure of the $Nd_2(Fe,Ga)_{14}BD_y$ compounds 60
structural and magnetic properties of RFe_2H_5 hydrides ($R=Y, Er$)
83
- Hydrodesulfurization
nickel Chevrel phase supported on porous alumina 195
- Hydrofluoric acid
electrochemical behaviour of Cu–Zr and Cu–Ti glassy alloys 595
- Hydrogen evolution reaction
electrochemical behaviour of Cu–Zr and Cu–Ti glassy alloys 595
- Hydrogen sorption
hydrogen absorption properties of CeNiAl: influence on its crystal
structure and magnetic behaviour 67
- Hydrogen–metal reactions
investigation of the vacancy-ordered phases in the Pd–H system
77
- Impurities in semiconductors
synthesis, crystal structure and physical properties of ZrNiSn
semiconductor doped with Mn 357
- Incommensurate charge density wave
a quantum phase transition driven by the electron lattice interaction
gives high T_C superconductivity 537
- Inorganic compounds
magnetic heat capacity and electrical resistivity of $RCoC$ ($R=Dy,$
Ho, Er, Y) 306
magnetic properties and electronic structure of CeB_2C_2 302
- Intercalated compounds
thermodynamic and magnetic properties of intercalated layered
compounds Fe_xNbS_2 213
- Intermediate coupling
a quantum phase transition driven by the electron lattice interaction
gives high T_C superconductivity 537
- Intermetallic and amorphous phases
low temperature formation of nanocrystalline Fe–W and Fe–Mo
compounds 423
- Intermetallic compounds
comparison of the interaction of components in the La–Co–Zn and
Ce–Co–Zn ternary systems at 470 K 448
magnetic structure of $Nd_2Co_6Al_7$ 546
magnetism of $U_4(Ru_{1-x}Os_x)_7Ge_6$ solid solutions 336
phase stability, structure and magnetic properties of $R_3(Fe,TM)_{29}$,
($R=Gd, Dy, Er, Y$ and $TM=V, Ti$) compounds with disordered
structures 455
- Intermetallic phases
electrochemical behavior of Au–Gd alloys 603
- Intermetallics
a Mössbauer study of the new phases $Th_4Fe_{13}Sn_5$ and $ThFe_{0.22}Sn_2$
567
crystallochemistry and Kondo-like behaviour of the thorium and
uranium arsenoselenides 52
crystallographic and magnetic behaviour of RCu_9Sn_4 and
 $RCu_{9.4}Sn_{3.6}$ ($R=La$ to Nd) compounds 560
effect of interstitial hydrogen on UFe_xAl_{12-x} 88
getter potentialities of some intermetallics: $ZrAl_2, ZrAl_3$ and $CeNi_5$
583
phase equilibria and magnetic studies in the ternary system Ce–
Au–Sn 350
structural characterisation and corrosion resistance of Ga-precious
metal alloys formed by liquid–solid reaction at room
temperature 411
synthesis, crystal structure and physical properties of ZrNiSn
semiconductor doped with Mn 357
ternary Hf–Co–Sn system 347
the effect of Th substitution for U in the heavy fermion U_2Pt_2In
419
thermodynamic stabilities of intermediate phases in the Ca–Si
system 525
- Interstitial alloys
high temperature–high pressure nitridation of $\beta-Ti_{63}Nb_{37}$ by means
of the chemical oven technique 245
- Interstitial atoms
effect of interstitial hydrogen on UFe_xAl_{12-x} 88
- Iron(III)
surface characterisation of spinels with Ti(IV) distributed in
tetrahedral and octahedral sites 160
- Iron manganese compounds
structure and magnetism in the polymorphous MnFeAs 274
- Itinerant and localized carriers
on the change of electronic states at the Fermi level by Ce doping
in the intermetallic $LaRu_2$ 542
- Jahn–Teller effect
structure, magnetism and electrical conductivity of a new ternary
manganese oxide: $BaMn_3O_6$ 115
- KKR–CPA calculations
crystal structure, magnetic and electronic properties of
 $Co_xFe_{1-x}MnP$ system 266
- KKR method
structure and magnetism in the polymorphous MnFeAs 274
theoretical study of structural stability and magnetism in the Pd_3Mn
antiphase 428
- Knudsen effusion-mass spectrometry
thermodynamic stabilities of intermediate phases in the Ca–Si
system 525
- Kondo effects
crystallochemistry and Kondo-like behaviour of the thorium and
uranium arsenoselenides 52
- Kondo lattice
magnetism of $U_4(Ru_{1-x}Os_x)_7Ge_6$ solid solutions 336
- $LaRu_2$ superconductor
on the change of electronic states at the Fermi level by Ce doping
in the intermetallic $LaRu_2$ 542

- L1₀ ordered phase
theoretical investigation of L1₀-disorder phase equilibria in Fe–Pd alloy system 13
- Lattice defects
defect structures in FeAl B2 alloys 485
- Layered compounds
thermodynamic and magnetic properties of intercalated layered compounds Fe_xNbS₂ 213
- La_{2–x}Sr_xMnRuO₆
magnetic and transport properties of the solid solution system La_{2–x}Sr_xMnRuO₆ with double perovskite structure 136
- Lennard-Jones type potential
theoretical investigation of L1₀-disorder phase equilibria in Fe–Pd alloy system 13
- Luminescence
orthoborates processed by soft routes: correlation luminescence structure 183
- Magnesium alloys
smith thermal analysis of selected Pr–Mg alloys 497
- Magnetic characterization
the effect of Th substitution for U in the heavy fermion U₂Pt₂In 419
- Magnetic clusters
effects of Li⁺ inclusion on the magnetic properties of mixed Cr/Fe oxide pillared α-zirconium phosphate materials 153
- Magnetic phase transitions
crystal structure, magnetic and electronic properties of Co_xFe_{1–x}MnP system 266
magnetic and electrical properties of Nd_{0.66}(Sr_{1–y}Li_y)_{0.34}MnO₃ manganites 145
- Magnetic phase transition
magnetization curves in MnRhP around the Curie temperature 254
- Magnetic properties
a Mössbauer study of the new phases Th₄Fe₁₃Sn₅ and ThFe_{0.22}Sn₂ 567
a comparative analysis of the three polymorphic structures H₃, O₁₀ and H₁₂ of FeRhP 262
electrical resistivity and magnetism in some ternary intermetallics 293
electronic structure of MnSi_{0.7}Al_{1.3} and related transition metal alloys with the TiSi₂ structure 327
ferrimagnetism in Tb₃Co₈Sn₄ intermetallic compound 556
magnetic and electrical properties of the UCu_{4–x}Mn_xAl₈ alloys 395
magnetic heat capacity and electrical resistivity of RCoC (R=Dy, Ho, Er, Y) 306
magnetic properties and electronic structure of CeB₂C₂ 302
magnetic properties of (Ho,Y)₆Fe₂₃ intermetallic compounds 450
magnetism of U₄(Ru_{1–x}Os_x)₇Ge₆ solid solutions 336
neutron diffraction study on the deuterium site occupation and magnetic structure of the Nd₂(Fe,Ga)₁₄BD_y compounds 60
phase equilibria and magnetic studies in the ternary system Ce–Au–Sn 350
theoretical study of structural stability and magnetism in the Pd₃Mn antiphase 428
⁵⁷Fe Mössbauer spectroscopy study of the AFe_xAl_{12–x} intermetallics (A=Y, Tm, Lu and U, 4≤x≤4.3) 44
- Magnetic relaxation
effects of Li⁺ inclusion on the magnetic properties of mixed Cr/Fe oxide pillared α-zirconium phosphate materials 153
- Magnetic structures
neutron diffraction study of magnetic ordering of two binary uranium tellurides U₃Te₅ and U₂Te₃ 227
magnetic structure of Nd₂Co₆Al₇ 546
single crystal neutron diffraction investigations of the crystal and magnetic structures of R₂Fe₁₄B (R=Y, Nd, Ho, Er) 39
- Magnetic susceptibility
thermodynamic and magnetic properties of intercalated layered compounds Fe_xNbS₂ 213
- Magnetically ordered materials
magnetization curves in MnRhP around the Curie temperature 254
- Magnetisation
crystallographic and magnetic behaviour of RCu₉Sn₄ and RCu_{9.4}Sn_{3.6} (R=La to Nd) compounds 560
structure and magnetism in the polymorphous MnFeAs 274
- Magnetism
structural and magnetic properties of RFe₂H₃ hydrides (R=Y, Er) 83
structural chemistry, magnetic and electrical properties of ternary rare-earth nickel phosphides, R₂₀Ni₄₂P₃₀ (R=Ce, Sm) 250
- Magnetization
quantized magnetization plateaux in the orthogonal dimer system SrCu₂(BO₃)₂ 177
R₉Mg₃₄Zn₅₇ icosahedral quasicrystals: The tuning of a model spin glass 443
- Magnetization measurements
hydrogen absorption properties of CeNiAl: influence on its crystal structure and magnetic behaviour 67
magnetic properties of Co₂TiGa compound 406
- Magnetization process
magnetic properties of a DyCo₁₀V₂ single crystal 459
- Magnetocrystalline anisotropy
anisotropy and spin-reorientations in Co-rich rare earth compounds 2
- Magneto-resistance
magnetic and electrical properties of Fe_{2+x}V_{1–x}Al 390
magnetic and electrical properties of Nd_{0.66}(Sr_{1–y}Li_y)_{0.34}MnO₃ manganites 145
- Manganese
thermodynamic optimization of the systems Mn–Gd and Mn–Y using new experimental results 433
- Manganese aluminium silicon compounds
electronic structure of MnSi_{0.7}Al_{1.3} and related transition metal alloys with the TiSi₂ structure 327
- Manganese oxides
structure, magnetism and electrical conductivity of a new ternary manganese oxide: BaMn₃O₆ 115
- Manganese(III)
surface characterisation of spinels with Ti(IV) distributed in tetrahedral and octahedral sites 160
- Manganites
studies of the effect of internal and hydrostatic pressure on the structure and transport properties of La_{2/3}Ca_{1/3}MnO₃ thin films 141
- Materials databases
binary, ternary and quaternary compound former/nonformer prediction via Mendeleev number 26
- Materials design
binary, ternary and quaternary compound former/nonformer prediction via Mendeleev number 26
- Metal clusters
GaMgMo₄O₇ and Fe₂Mo₄O₇ — two low-valent molybdenum oxides with a fully ordered Sc_{0.75}Zn_{1.25}Mo₄O₇ type structure 132
- 4f–3d Metal compounds
magnetic characteristics of Er(Mn_{12–x}Fe_x) compounds (x=7, 9) determined by X-ray magnetic circular dichroism 470
- Metal flux
crystal growth by molten metal flux method and properties of manganese silicides 315
- Metallography
structural characterisation and corrosion resistance of Ga-precious metal alloys formed by liquid–solid reaction at room temperature 411

- Metals
V–Mn–{Sn,Sb} ternary systems 280
- Metal–insulator transitions
magnetic and electrical properties of $\text{Nd}_{0.66}(\text{Sr}_{1-y}\text{Li}_y)_{0.34}\text{MnO}_3$ manganites 145
- Metastable phase
phase relations in the Al-rich corner of the Ti–Ni–Al system 379
- Metastable structures
metastable structures in α – β' brass 479
- Microprobe analysis
miscibility of binary VC–MC carbides in quaternary Fe–V–M–C alloys 311
- Microstructure
high temperature–high pressure nitridation of β -Ti₆₃Nb₃₇ by means of the chemical oven technique 245
- Miscibility
miscibility of binary VC–MC carbides in quaternary Fe–V–M–C alloys 311
- Mixed oxide
effects of Li⁺ inclusion on the magnetic properties of mixed Cr/Fe oxide pillared α -zirconium phosphate materials 153
- Mixed-valence
structure, magnetism and electrical conductivity of a new ternary manganese oxide: BaMn₃O₆ 115
- MnBi
spin reorientation in MnBi 297
- MnRhP
magnetization curves in MnRhP around the Curie temperature 254
- MnSi
crystal growth by molten metal flux method and properties of manganese silicides 315
- Mn₂₇Si₄₇
crystal growth by molten metal flux method and properties of manganese silicides 315
- Mn₅Si₃
crystal growth by molten metal flux method and properties of manganese silicides 315
- Molecular clusters
single molecule magnets: a new class of magnetic materials 8
- Molecular field theory
magnetic properties of (Ho,Y)₆Fe₂₃ intermetallic compounds 450
- Molecular magnetism
single molecule magnets: a new class of magnetic materials 8
- Molybdenum
synthesis, crystal structure and TEM study of the new hollandite-type Ba_{-8/7}Mo₈O₁₆ 120
- Molybdenum oxides
GaMgMo₄O₇ and Fe₂Mo₄O₇ — two low-valent molybdenum oxides with a fully ordered Sc_{0.75}Zn_{1.25}Mo₄O₇ type structure 132
- Mössbauer spectroscopy
a Mössbauer study of the new phases Th₄Fe₁₃Sn₅ and ThFe_{0.22}Sn₂ 567
crystal structure, magnetic and electronic properties of Co_xFe_{1-x}MnP system 266
defect structures in FeAl B2 alloys 485
low temperature formation of nanocrystalline Fe–W and Fe–Mo compounds 423
⁵⁷Fe Mössbauer spectroscopy study of the AFe_xAl_{12-x} intermetallics (A=Y, Tm, Lu and U, 4≤x≤4.3) 44
- Mott insulator
structure, magnetism and electrical conductivity of a new ternary manganese oxide: BaMn₃O₆ 115
- Multiphase ceramics
phase equilibria and diffusion paths in the Ti–Al–O–N system 19
- Nanocrystalline compounds
low temperature formation of nanocrystalline Fe–W and Fe–Mo compounds 423
- Nanocrystalline material
nickel Chevrel phase supported on porous alumina 195
- Nd₂Fe₁₄B
neutron diffraction study on the deuterium site occupation and magnetic structure of the Nd₂(Fe,Ga)₁₄BD_y compounds 60
- Nd₇Co₆Al₇
magnetic structure of Nd₇Co₆Al₇ 546
- Neural networks
binary, ternary and quaternary compound former/nonformer prediction via Mendeleev number 26
- Neutron diffraction
neutron diffraction study of magnetic ordering of two binary uranium tellurides U₃Te₅ and U₂Te₃ 227
phase stability, structure and magnetic properties of R₃(Fe,TM)₂₉, (R=Gd, Dy, Er, Y and TM=V, Ti) compounds with disordered structures 455
single crystal neutron diffraction investigations of the crystal and magnetic structures of R₂Fe₁₄B (R=Y, Nd, Ho, Er) 39
structure and magnetism in the polymorphous MnFeAs 274
- NiAs-type crystal structure
heat capacity of (Cr_{1-x}Ni_x)₃Te₄ (x=0–0.2) at high temperatures 233
- Nickel Chevrel phases
nickel Chevrel phase supported on porous alumina 195
- Nickel oxide
electronic structure of a hole doped oxide with a quasi-1D crystal structure Y_{2-x}(Sr,Ca)_xBaNiO₅ 149
- Nitric oxide reduction
nitric oxide reduction catalyzed by amorphous copper–zirconium and copper–titanium alloys 590
- Nitridation
high temperature–high pressure nitridation of β -Ti₆₃Nb₃₇ by means of the chemical oven technique 245
- Nitrides
layered ternary transition metal nitrides; synthesis, structure and physical properties 237
- Ni₃Te₄
heat capacity of (Cr_{1-x}Ni_x)₃Te₄ (x=0–0.2) at high temperatures 233
- NMR
NMR properties of CoRhP: mixing between Co and Rh sites 258
- Non-Fermi liquid
systematic composition dependence in YbCu_{5-x}Au_x from dense Kondo to antiferromagnetic system through quantum critical point around x=0.2–0.4 465
- Non-Fermi liquid behaviour
the effect of Th substitution for U in the heavy fermion U₂Pt₂Ir 419
- Optical property
characterization of RuO₂ and IrO₂ films deposited on Si substrate 98
in-plane anisotropy of the optical and electrical properties of ReS₂ and ReSe₂ layered crystals 222
- Optical reflectivity
vanadium oxides V₂O₅ and NaV₂O₅ under high pressures: Structural, vibrational, and electronic properties 103
- Ordered structures
defect structures in FeAl B2 alloys 485
- Order–disorder transition
heat capacity of (Cr_{1-x}Ni_x)₃Te₄ (x=0–0.2) at high temperatures 233
- Oxidation
getter potentialities of some intermetallics: ZrAl₂, ZrAl₃ and CeNi₅ 583
oxidation of a ternary Cu–Ni–Fe alloy under low oxygen pressures at 800–900°C 578
phase equilibria and diffusion paths in the Ti–Al–O–N system 19

- the high temperature oxidation of a two-phase Ag–Y alloy under 1 and 10^{-20} atm O_2 573
- Oxide
synthesis, crystal structure and TEM study of the new hollandite-type $Ba_{-8/7}Mo_8O_{16}$ 120
- ^{31}P
NMR properties of CoRhP: mixing between Co and Rh sites 258
- Pairing mechanism
a quantum phase transition driven by the electron lattice interaction gives high T_C superconductivity 537
- Palladium compounds
theoretical study of structural stability and magnetism in the Pd_3Mn antiphase 428
- Pd–H system
investigation of the vacancy-ordered phases in the Pd–H system 77
- Permeability
spin reorientation in MnBi 297
- μ phase
hydrogen absorption in vanadium- and niobium-based topologically close-packed structures 71
- σ phase
hydrogen absorption in vanadium- and niobium-based topologically close-packed structures 71
- Phase diagram
a quantum phase transition driven by the electron lattice interaction gives high T_C superconductivity 537
comparison of the interaction of components in the La–Co–Zn and Ce–Co–Zn ternary systems at 470 K 448
phase diagram of the Ti–Ga system 398
thermodynamic optimization of the systems Mn–Gd and Mn–Y using new experimental results 433
V–Mn–{Sn,Sb} ternary systems 280
- Phase diagrams
effect of Cu and Zn on the melting and transformation temperatures of Pr and Gd 503
ternary Hf–Co–Sn system 347
the isothermal section at 400°C of the Yb–Ag–Sn ternary system 513
- Phase equilibria
isothermal cross-section of the Ce–Pd–Si phase diagram at 600°C 320
phase equilibria and diffusion paths in the Ti–Al–O–N system 19
phase relations in the Al-rich corner of the Ti–Ni–Al system 379
the interaction of palladium with cobalt and erbium at 600°C 475
- Phase relation
preparation and crystal structures of Cu_2HfS_3 217
- Phase transition
electrical properties and phase transitions of $TiCu_3S_2$ and $BaCu_2S_2$ 201
magnetic heat capacity and electrical resistivity of RCoC (R=Dy, Ho, Er, Y) 306
preparation and crystal structures of Cu_2HfS_3 217
vanadium oxides V_2O_5 and NaV_2O_5 under high pressures: Structural, vibrational, and electronic properties 103
- Phase transitions
lanthanide polysulfides at high pressures 190
- Photoemission spectroscopy
electronic structure of RTX (R=Pr, Nd; T=Cu, Ag, Au; X=Ge, Sn) compounds 340
- Physical properties
physical properties of Ce_2CoSn_2 550
- Pillared materials
effects of Li^+ inclusion on the magnetic properties of mixed Cr/Fe oxide pillared α -zirconium phosphate materials 153
- Polytypes
a comparative analysis of the three polymorphic structures H_3 , O_{10} and H_{12} of FeRhP 262
- Positron annihilation
defect structures in FeAl B2 alloys 485
- Powder neutron diffraction
neutron diffraction studies of Zr-containing intermetallic hydrides. Cubic $Zr_3V_3B_{0.24}O_{0.36}D_{8.0}$ and $Zr_3V_3B_{0.40}O_{0.60}D_{6.4}$ with filled η_1 -type structures 92
neutron diffraction study on the deuterium site occupation and magnetic structure of the $Nd_2(Fe,Ga)_{14}BD_y$ compounds 60
- Preparative methods
new synthetic routes to transition metal ternary nitrides and sulfides 186
- Pressure
studies of the effect of internal and hydrostatic pressure on the structure and transport properties of $La_{2/3}Ca_{1/3}MnO_3$ thin films 141
- Pressure effects
magnetic properties of Co_2TiGa compound 406
spin reorientation in MnBi 297
magnetism in $HoCo_2$ and $ErCo_2$ under high pressure 438
- Propylene
nitric oxide reduction catalyzed by amorphous copper–zirconium and copper–titanium alloys 590
- Quadrupolar ordering
magnetic heat capacity and electrical resistivity of RCoC (R=Dy, Ho, Er, Y) 306
- Quantum spin system
spin-1/2 quantum antiferromagnetic chains with adjustable superexchange interactions found in $BaCu_2(Si_{1-x}Ge_x)_2O_7$ $S=1/2$ antiferromagnetic chains and dimers on hole-doped edge-sharing CuO_2 chains 164
- Quantum tunneling of the magnetization
single molecule magnets: a new class of magnetic materials 8
- Quasicrystal
 $R_9Mg_{34}Zn_{57}$ icosahedral quasicrystals: The tuning of a model spin glass 443
- Quasi-one-dimensional behavior
charge order and quasi-one-dimensional behavior in $\beta(\beta')-A_xV_2O_5$ 109
- Raman scattering
characterization of RuO_2 and IrO_2 films deposited on Si substrate 98
- Raman spectroscopy
vanadium oxides V_2O_5 and NaV_2O_5 under high pressures: Structural, vibrational, and electronic properties 103
- Rare earth alloys
effect of Cu and Zn on the melting and transformation temperatures of Pr and Gd 503
smith thermal analysis of selected Pr–Mg alloys 497
- Rare earth cobalt stannides
physical properties of Ce_2CoSn_2 550
- Rare earth compounds
isothermal cross-section of the Ce–Pd–Si phase diagram at 600°C 320
the isothermal section at 400°C of the Yb–Ag–Sn ternary system 513
- Rare earth gold gallides
ternary intermetallic RAgGa, RAuGa alloys (R=light rare earth and Yb) 521
- Rare Earth intermetallic compounds
ferrimagnetism in $Tb_3Co_8Sn_4$ intermetallic compound 556
- Rare earth intermetallics
electronic structure of RTX (R=Pr, Nd; T=Cu, Ag, Au; X=Ge, Sn) compounds 340

- Rare earth silver gallides
ternary intermetallic RAgGa, RAuGa alloys (R=light rare earth and Yb) 521
- Rare earth ternary alloys
ternary intermetallic RAgGa, RAuGa alloys (R=light rare earth and Yb) 521
- Rare earths
orthoborates processed by soft routes: correlation luminescence structure 183
the interaction of palladium with cobalt and erbium at 600°C 475
thermodynamic optimization of the systems Mn–Gd and Mn–Y using new experimental results 433
- Rare earth–nickel alloys
thermodynamic investigation of samarium–nickel alloys 532
- Rare-earth intermetallics
electrical resistivity and magnetism in some ternary intermetallics 293
- Rare-earth iron aluminides
Fe Mössbauer spectroscopy study of the $\text{AFe}_x\text{Al}_{12-x}$ intermetallics (A=Y, Tm, Lu and U, $4 \leq x \leq 4.3$) 44
- Rare-earth–transition-metal compounds
magnetic properties of a $\text{DyCo}_{10}\text{V}_2$ single crystal 459
- Reaction mechanism
on the kinetics of chromium electrodeposition on copper electrodes 612
- Reentrant spin glass
ferrimagnetism in $\text{Tb}_3\text{Co}_8\text{Sn}_4$ intermetallic compound 556
- Resistivity
electrical properties and phase transitions of TiCu_3S_2 and BaCu_2S_2 201
- RE–T compounds
magnetism in HoCo_2 and ErCo_2 under high pressure 438
- Rhenium-doped molybdenum disulphide
electrical and optical anisotropic properties of rhenium-doped molybdenum disulphide 208
- Rietveld refinement
phase relations in the Al-rich corner of the Ti–Ni–Al system 379
- Semiconducting oxides
synthesis, characterization, electrical and magnetic properties of CrTa_2O_6 and CrNb_2O_6 127
- Semiconductor
structure, magnetism and electrical conductivity of a new ternary manganese oxide: BaMn_3O_6 115
- Semiconductors
lanthanide polysulfides at high pressures 190
- Shastry–Sutherland model
quantized magnetization plateaux in the orthogonal dimer system $\text{SrCu}_2(\text{BO}_3)_2$ 177
- Single crystal
 $\text{R}_y\text{Mg}_{34}\text{Zn}_{57}$ icosahedral quasicrystals: The tuning of a model spin glass 443
- Single molecule magnets
single molecule magnets: a new class of magnetic materials 8
- Smith thermal analysis
smith thermal analysis of selected Pr–Mg alloys 497
- Sol–gel
orthoborates processed by soft routes: correlation luminescence structure 183
- Spin clusters
single molecule magnets: a new class of magnetic materials 8
- Spin fluctuation
magnetic properties of Co_2TiGa compound 406
- Spin glass
 $\text{R}_y\text{Mg}_{34}\text{Zn}_{57}$ icosahedral quasicrystals: The tuning of a model spin glass 443
- Spin reorientation
spin reorientation in MnBi 297
- Spinel
surface characterisation of spinels with Ti(IV) distributed in tetrahedral and octahedral sites 160
- Spin-reorientation transitions
anisotropy and spin-reorientations in Co-rich rare earth compounds 2
- Spontaneous magnetization
magnetic and electrical properties of $\text{Fe}_{2+x}\text{V}_{1-x}\text{Al}$ 390
- $\text{SrCu}_2(\text{BO}_3)_2$
quantized magnetization plateaux in the orthogonal dimer system $\text{SrCu}_2(\text{BO}_3)_2$ 177
- Stainless steel
electrochemical and corrosion behaviour of cold rolled AISI 301 in 1 M H_2SO_4 607
- Stripes
a quantum phase transition driven by the electron lattice interaction gives high T_C superconductivity 537
quantized magnetization plateaux in the orthogonal dimer system $\text{SrCu}_2(\text{BO}_3)_2$ 177
- Structural stability
theoretical study of structural stability and magnetism in the Pd_3Mn antiphase 428
- Structure
layered ternary transition metal nitrides; synthesis, structure and physical properties 237
orthoborates processed by soft routes: correlation luminescence structure 183
phase stability, structure and magnetic properties of $\text{R}_3(\text{Fe, TM})_{29}$, (R=Gd, Dy, Er, Y and TM=V, Ti) compounds with disordered structures 455
- Structure determination
the effect of Th substitution for U in the heavy fermion $\text{U}_2\text{Pt}_2\text{In}$ 419
- Superconductivity
high temperature–high pressure nitridation of $\beta\text{-Ti}_{63}\text{Nb}_{37}$ by means of the chemical oven technique 245
- Supported material
nickel Chevrel phase supported on porous alumina 195
- Synthesis
layered ternary transition metal nitrides; synthesis, structure and physical properties 237
- TEM investigation
structural study of $\text{UCuGe}_{1.75}$ by X-ray and electron diffraction 331
- TEM studies
nickel Chevrel phase supported on porous alumina 195
synthesis, crystal structure and TEM study of the new hollandite-type $\text{Ba}_{-8/7}\text{Mo}_8\text{O}_{16}$ 120
- Ternary alloy
oxidation of a ternary Cu–Ni–Fe alloy under low oxygen pressures at 800–900°C 578
- Ternary alloy systems
the isothermal section at 400°C of the Yb–Ag–Sn ternary system 513
- Ternary copper sulfide
electrical properties and phase transitions of TiCu_3S_2 and BaCu_2S_2 201
- Ternary GdT aluminides
electronic structure and ESR in GdTAl ternary compounds; T=3d, 4d transition metals 385
- Ternary germanide
structural study of $\text{UCuGe}_{1.75}$ by X-ray and electron diffraction 331
- Ternary nitrides
new synthetic routes to transition metal ternary nitrides and sulfides 186

- Ternary phase diagram
phase equilibria and magnetic studies in the ternary system Ce–Au–Sn 350
- Ternary rare-earth nickel phosphides
structural chemistry, magnetic and electrical properties of ternary rare-earth nickel phosphides, $R_{20}Ni_{42}P_{30}$ (R=Ce, Sm) 250
- Ternary section
the interaction of palladium with cobalt and erbium at 600°C 475
- Ternary sulfides
new synthetic routes to transition metal ternary nitrides and sulfides 186
- Ternary system
isothermal cross-section of the Ce–Pd–Si phase diagram at 600°C 320
- Tetragonal $CrNb_2O_6$
synthesis, characterization, electrical and magnetic properties of $CrTa_2O_6$ and $CrNb_2O_6$ 127
- Thermal expansion
spin reorientation in MnBi 297
- Thermal properties
crystal growth by molten metal flux method and properties of manganese silicides 315
- Thermochemistry
thermodynamic investigation of samarium–nickel alloys 532
- Thermodynamic and thermochemical properties
thermodynamic stabilities of intermediate phases in the Ca–Si system 525
- Thermodynamic calculations
thermodynamic optimization of the systems Mn–Gd and Mn–Y using new experimental results 433
- Thermodynamic properties
thermodynamic investigation of samarium–nickel alloys 532
- Thermoelectric power
magnetic and electrical properties of $Fe_{2+x}V_{1-x}Al$ 390
structural and electrical properties of $Co_{1-x}Ru_xSb_2$ 287
- Thermopower
electrical properties and phase transitions of $TiCu_3S_2$ and $BaCu_2S_2$ 201
- Thin films
studies of the effect of internal and hydrostatic pressure on the structure and transport properties of $La_{2/3}Ca_{1/3}MnO_3$ thin films 141
- Th Mn_{12} -type structure
effect of interstitial hydrogen on UFe_xAl_{12-x} 88
- Titanium
phase diagram of the Ti–Ga system 398
- Titanium(IV)
surface characterisation of spinels with Ti(IV) distributed in tetrahedral and octahedral sites 160
- Ti–Al–O–N system
phase equilibria and diffusion paths in the Ti–Al–O–N system 19
- Ti–Ni–Al
phase relations in the Al-rich corner of the Ti–Ni–Al system 379
- Ti $_3$ Sn $_3$ Cu
new phases in the ternary Cu–Ti–Sn system 363
- Total energy analysis
structure and magnetism in the polymorphous MnFeAs 274
- Total energy calculations
theoretical study of structural stability and magnetism in the Pd $_3$ Mn antiphase 428
- Transition metal phosphides
a comparative analysis of the three polymorphic structures H_3 , O_{10} and H_{12} of FeRhP 262
- Transition-metal dichalcogenides
in-plane anisotropy of the optical and electrical properties of ReS $_2$ and ReSe $_2$ layered crystals 222
- Transition-metal dioxide
characterization of RuO $_2$ and IrO $_2$ films deposited on Si substrate 98
- Trirutile $CrTa_2O_6$
synthesis, characterization, electrical and magnetic properties of $CrTa_2O_6$ and $CrNb_2O_6$ 127
- Two-phase alloys
the high temperature oxidation of a two-phase Ag–Y alloy under 1 and 10 $^{-20}$ atm O $_2$ 573
- UCu $_{4-x}$ Mn $_x$ Al $_8$
magnetic and electrical properties of the UCu $_{4-x}$ Mn $_x$ Al $_8$ alloys 395
- Uranium
magnetism of U $_4$ (Ru $_{1-x}$ Os $_x$) $_7$ Ge $_6$ solid solutions 336
structural study of UCuGe $_{1.75}$ by X-ray and electron diffraction 331
- Uranium compounds
effect of interstitial hydrogen on UFe $_x$ Al $_{12-x}$ 88
- Uranium iron aluminides
 ^{57}Fe Mössbauer spectroscopy study of the AFe $_x$ Al $_{12-x}$ intermetallics (A=Y, Tm, Lu and U, 4 $\leq x \leq 4.3$) 44
- U $_2$ Pt $_2$ In
the effect of Th substitution for U in the heavy fermion U $_2$ Pt $_2$ In 419
- Uranium tellurides
neutron diffraction study of magnetic ordering of two binary uranium tellurides U $_3$ Te $_5$ and U $_2$ Te $_3$ 227
- Vacancy-ordered phases
investigation of the vacancy-ordered phases in the Pd–H system 77
- Vanadium
neutron diffraction studies of Zr-containing intermetallic hydrides. Cubic Zr $_3$ V $_3$ B $_{0.24}$ O $_{0.36}$ D $_{8.0}$ and Zr $_3$ V $_3$ B $_{0.40}$ O $_{0.60}$ D $_{6.4}$ with filled η_1 -type structures 92
- Vanadium oxide
vanadium oxides V $_2$ O $_5$ and NaV $_2$ O $_5$ under high pressures: Structural, vibrational, and electronic properties 103
- Vaporization behaviour
thermodynamic stabilities of intermediate phases in the Ca–Si system 525
- VC carbides
miscibility of binary VC–MC carbides in quaternary Fe–V–M–C alloys 311
- Vickers microhardness
crystal growth by molten metal flux method and properties of manganese silicides 315
- Work hardening
electrochemical and corrosion behaviour of cold rolled AISI 301 in 1 M H $_2$ SO $_4$ 607
- XPS
surface characterisation of spinels with Ti(IV) distributed in tetrahedral and octahedral sites 160
- X-ray absorption
electronic structure of a hole doped oxide with a quasi-1D crystal structure Y $_{2-x}$ (Sr,Ca) $_x$ BaNiO $_5$ 149
- X-Ray diffraction
defect structures in FeAl B2 alloys 485
ternary Hf–Co–Sn system 347
- X-ray diffraction
crystal structure, magnetic and electronic properties of Co $_x$ Fe $_{1-x}$ MnP system 266
metastable structures in α – β' brass 479
structural and magnetic properties of RFe $_2$ H $_5$ hydrides (R=Y, Er) 83

- V–Mn–{Sn,Sb} ternary systems 280
- X-ray magnetic circular dichroism
 magnetic characteristics of $\text{Er}(\text{Mn}_{12-x}\text{Fe}_x)$ compounds ($x=7, 9$)
 determined by X-ray magnetic circular dichroism 470
- X-Ray powder diffraction
 hydrogen absorption properties of CeNiAl: influence on its crystal
 structure and magnetic behaviour 67
- X-ray powder diffraction
 vanadium oxides V_2O_5 and NaV_2O_5 under high pressures:
 Structural, vibrational, and electronic properties 103
- Y
 the high temperature oxidation of a two-phase Ag–Y alloy under 1
 and 10^{-20} atm O_2 573
- YbCu_5
 systematic composition dependence in $\text{YbCu}_{5-x}\text{Au}_x$ from dense
 Kondo to antiferromagnetic system through quantum critical
 point around $x=0.2-0.4$ 465
- Yb compounds
 the isothermal section at 400°C of the Yb–Ag–Sn ternary system
 513
- Yttrium
 thermodynamic optimization of the systems Mn–Gd and Mn–Y
 using new experimental results 433
- Zinc alloys
 effect of Cu and Zn on the melting and transformation temperatures
 of Pr and Gd 503
- Zirconium
 neutron diffraction studies of Zr-containing intermetallic hydrides.
 Cubic $\text{Zr}_3\text{V}_3\text{B}_{0.24}\text{O}_{0.36}\text{D}_{8.0}$ and $\text{Zr}_3\text{V}_3\text{B}_{0.40}\text{O}_{0.60}\text{D}_{6.4}$ with filled
 η_1 -type structures 92