

Subject Index of Volume 189

- Actinides**
distribution of actinides in molten chloride salt/cadmium metal systems, 37
- Aluminium**
permeation behaviour of deuterium implanted into pure Al, 195
specific heat measurement on UAl_4 , 123
the existence of a Co_3Al phase of the Cu_3Au structure type, 245
- Ball milling**
calculation of formation enthalpies of both the amorphous phase and the solid solution of a transition metal and a non-transition element, 113
- Barium**
crystal structure of $\text{Ba}_3\text{SnFe}_{10}\text{O}_{20}$, 191
- Borides**
compression study of U borides UB_2 , UB_4 and UB_{12} by synchrotron XRD, 205
thermionic emission properties of RE added LaB_6 crystal cathodes, L1
- Boron**
distribution of C atoms on the B carbide structure elements, 249
study of Pr–Fe–B–Cu permanent magnets produced by upset forging of cast ingot, 131
- Cadmium**
distribution of actinides in molten chloride salt/cadmium metal systems, 37
the Cd–Ga–In–Sn–Zn liquid system, 17
- Calcium tantalates**
thermodynamics of the formation of high Ca tantalates from e.m.f. measurements, L39
- Carbides**
distribution of C atoms on the B carbide structure elements, 249
- Cerium**
crystal structure of the compound $\text{Ce}_2\text{Pt}_7\text{Ge}_4$, L11
crystallographic properties of $\text{Ce}(\text{Si},\text{Ge})_{2-x}$ solid solutions, 9
determination of the solid solubility of Ce in α -Fe by the positron annihilation technique, L35
- Chemical vapour transport**
growth of $\text{Cu}_{1-x}\text{Ga}_x\text{Cr}_2\text{Se}_4$ single crystals by CVT and their electrical properties, 1
- Chromium**
growth of $\text{Cu}_{1-x}\text{Ga}_x\text{Cr}_2\text{Se}_4$ single crystals by CVT and their electrical properties, 1
- Cobalt**
corrosion resistance in O of electrolytic Ni and Co phosphorus coatings, 151
 Er_2RhSi_3 and R_2CoGa_3 ($\text{R} \equiv \text{Y}, \text{Tb}, \text{Dy}, \text{Ho}, \text{Er}, \text{Tm}, \text{Yb}$) with Lu_2CoGa_3 type structure: new members of the AlB_2 structure family, 221
H absorption–desorption and crystallographic characteristics of $\text{RCO}_{3-x}\text{Ga}_x$ ($\text{R} \equiv \text{Y}, \text{Gd}; x=0.6\text{--}1.2$) intermetallics, L27
- structural and magnetic properties of nanocrystalline b.c.c. Co particles obtained by leaching of mechanically alloyed Co–Al, 117
the existence of a Co_3Al phase of the Cu_3Au structure type, 245
- Conductivity**
electrical properties of thin Tb films, L9
- Copper**
500 °C isothermal section of the Ag–Cu–Nd (0–34 at.% Nd) phase diagram, L31
growth of $\text{Cu}_{1-x}\text{Ga}_x\text{Cr}_2\text{Se}_4$ single crystals by CVT and their electrical properties, 1
high-field magnetization in PrCu_2Si_2 , PrCu_2Ge_2 , TbCu_2Si_2 and DyCu_2Si_2 compounds, L19
structural implications of O stoichiometry in $\text{Eu}_{1.3}\text{Sr}_{1.7}\text{Cu}_2\text{O}_{6-\delta}$, 235
synthesis and crystal structure of a mixed-valent sodium oxocuprate(I,II): NaCu_2O_2 , 241
- Corrosion**
corrosion resistance in O of electrolytic Ni and Co phosphorus coatings, 151
- Crystal fields**
semiempirical crystal field calculations for f^N systems.
IV: Intermediate crystal field effect in $5f^2$ configuration in the $\text{NpO}_2\text{Cl}_4^{3-}$ anion, 163
- Deuterium**
in situ neutron diffraction study of the behaviour of $\text{LaNi}_{4.5}\text{Al}_{0.5}\text{D}_x$ electrode during deuterium charge–discharge, 59
permeation behaviour of deuterium implanted into pure Al, 195
- Dicarbides**
transformation temperatures and hydrolysis rates of three series of dicarbide solid solutions: $\text{YC}_2\text{--HoC}_2$, $\text{YC}_2\text{--LuC}_2$ and $\text{GdC}_2\text{--ErC}_2$, 31
- Dicyanobenzene**
X-ray analysis of phthalocyanines formed in the reaction of Au–Cu and Au–Sn alloys with 1,2-dicyanobenzene, 107
- Dysprosium**
dysprosium–tin phase diagram, 229
information on $\text{Ba}_8\text{Pt}_4\text{Ho}_3\text{O}_{17.5}$ and $\text{Ba}_8\text{Pt}_4\text{Dy}_3\text{O}_{17.5}$, L21
- Electrolytes**
thermodynamic properties of the Ti–H system using molten salt electrolytes containing hydride ions, 175
- Electron spin resonance**
Fe concentration on the ESR spectrum of Fe^{3+} in rutile, 201
- Europium**
structural implications of O stoichiometry in $\text{Eu}_{1.3}\text{Sr}_{1.7}\text{Cu}_2\text{O}_{6-\delta}$, 235
- EXAFS**
structural implications of O stoichiometry in $\text{Eu}_{1.3}\text{Sr}_{1.7}\text{Cu}_2\text{O}_{6-\delta}$, 235

Faulting

thermodynamic calculation of the probability of stacking fault formation in b.c.c. Fe-Zn alloys, 67

Ferromagnetism

thermal conductivity of UCuP₂ and UCuAs₂ single crystals, 217

Gadolinium

H absorption-desorption and crystallographic characteristics of RCo_{3-x}Ga_x (R = Y, Gd; x = 0.6-1.2) intermetallics, L27

Gallium

a new oxometallate with tridymite structure: Ba₃Fe₂Ga₂-Al₂O₁₂, L15

Er₂RhSi₃ and R₂CoGa₃ (R = Y, Tb, Dy, Ho, Er, Tm, Yb) with Lu₂CoGa₃ type structure: new members of the AlB₂ structure family, 221

growth of Cu_{1-x}Ga_xCr₂Se₄ single crystals by CVT and their electrical properties, 1

H absorption-desorption and crystallographic characteristics of RCo_{3-x}Ga_x (R = Y, Gd; x = 0.6-1.2) intermetallics, L27

the Cd-Ga-In-Sn-Zn liquid system, 17

Germanium

crystal structure of the compound Ce₂Pt₇Ge₄, L11

crystallographic properties of Ce(Si,Ge)_{2-x} solid solutions, 9

thermodynamic investigation of Pt-Ge and Pd-Ge binary alloys, 23

Glasses

suppression of the glassy solidification of the alloy Pd₇₇Cu₆Si₁₇ by the b.c.c. phase under high pressure, L5

Gold

X-ray analysis of phthalocyanines formed in the reaction of Au-Cu and Au-Sn alloys with 1,2-dicyanobenzene, 107

the existence of a Co₃Al phase of the Cu₃Au structure type, 245

Holmium

information on Ba₈Pt₄Ho₃O_{17.5} and Ba₈Pt₄Dy₃O_{17.5}, L21

two new oxometallates of the Ba₅Mn₄Ln₈O₂₁ type: Ba₅Mn₄Sm₈O₂₁ and Ba₅Mn₄Ho₈O₂₁, 101

Hydrides

H absorption-desorption and crystallographic characteristics of RCo_{3-x}Ga_x (R = Y, Gd; x = 0.6-1.2) intermetallics, L27

thermodynamic properties of the Ti-H system using molten salt electrolytes containing hydride ions, 175

Ti Knight shift in Ti_{1-x}V_x (0 ≤ x ≤ 0.65) dihydrides, 141

Hydrogen

H-stabilized Y monoselenide

stable and metastable phases in the metal-rich Y-Zr-Si system and their H reactivity

Hydrolysis

transformation temperatures and hydrolysis rates of three series of dicarbide solid solutions: YC₂-HoC₂, YC₂-LuC₂ and GdC₂-ErC₂, 31

Indium

the Cd-Ga-In-Sn-Zn liquid system, 17

IR spectroscopy

metal sulphide-tetraphosphorusdekasulphide phase diagrams, 209

Iron

determination of the solid solubility of Ce in α-Fe by the positron annihilation technique, L35

Fe concentration on the ESR spectrum of Fe³⁺ in rutile, 201

structure and magnetic properties of mechanically alloyed Sm_xFe_{100-x} nitride, 83

thermodynamic calculation of the probability of stacking fault formation in b.c.c. Fe-Zn alloys, 67

crystal structure of Ba₃SnFe₁₀O₂₀, 191

Iron monoselenide

decomposition pressure and standard enthalpies of sublimation and of formation of Fe monoselenide, 263

Ising model

order-disorder in binary substitutional alloys: a simple Ising approach, 169

Kinetics

transformation temperatures and hydrolysis rates of three series of dicarbide solid solutions: YC₂-HoC₂, YC₂-LuC₂ and GdC₂-ErC₂, 31

Knight shift

Ti Knight shift in Ti_{1-x}V_x (0 ≤ x ≤ 0.65) dihydrides, 141

Lanthanides

Er₂RhSi₃ and R₂CoGa₃ (R = Y, Tb, Dy, Ho, Er, Tm, Yb) with Lu₂CoGa₃ type structure: new members of the AlB₂ structure family, 221

magnetic properties of RFeSi (R = La-Sm, Gd-Dy) from susceptibility measurements and neutron diffraction studies, 49

structural implications of O stoichiometry in Eu_{1.3}Sr_{1.7}-Cu₂O_{6-δ}, 235

transformation temperatures and hydrolysis rates of three series of dicarbide solid solutions: YC₂-HoC₂, YC₂-LuC₂ and GdC₂-ErC₂, 31

information on Ba₈Pt₄Ho₃O_{17.5} and Ba₈Pt₄Dy₃O_{17.5}, L21

two new oxometallates of the Ba₅Mn₄Ln₈O₂₁ type: Ba₅Mn₄Sm₈O₂₁ and Ba₅Mn₄Ho₈O₂₁, 101

Lanthanum

in situ neutron diffraction study of the behaviour of LaNi_{4.5}Al_{0.5}D_x electrode during deuterium charge-discharge, 59

thermionic emission properties of RE added LaB₆ crystal cathodes, L1

Lasers

crystal structure of Ba₃SnFe₁₀O₂₀, 191

Leaching

structural and magnetic properties of nanocrystalline b.c.c. Co particles obtained by leaching of mechanically alloyed Co-Al, 117

Luminescence

luminescence of K₂(NbO)₂Si₄O₁₂, 259

Macrospherals

centimetre-size platelets grown from partially melted bulk YBa₂Cu₃O_{7-δ}, L23

Magnetism

high-field magnetization in PrCu₂Si₂, PrCu₂Ge₂, TbCu₂Si₂ and DyCu₂Si₂ compounds, L19

magnetic properties of RFeSi (R = La-Sm, Gd-Dy) from susceptibility measurements and neutron diffraction studies, 49

phase characterization of Fe₁₇Nd₂N_x samples with different N contents, 45

- semiempirical crystal field calculations for f^N systems.
 IV: Intermediate crystal field effect in $5f^2$ configuration in the $\text{NpO}_2\text{Cl}_4^{3-}$ anion, 163
 specific heat measurement on UAl_4 , 123
 structural and magnetic properties of nanocrystalline b.c.c. Co particles obtained by leaching of mechanically alloyed Co–Al, 117
 structure and magnetic properties of mechanically alloyed $\text{Sm}_x\text{Fe}_{100-x}$ nitride, 83
- Mechanical alloying**
 structural and magnetic properties of nanocrystalline b.c.c. Co particles obtained by leaching of mechanically alloyed Co–Al, 117
- Misch metal**
 the misch metal–iron system, 145
- Molybdenum**
 a computer assessment of the Mo–Rh phase diagram, 97
- Neodymium**
 500 °C isothermal section of the Ag–Cu–Nd (0–34 at.% Nd) phase diagram, L31
 phase characterization of $\text{Fe}_{17}\text{Nd}_2\text{N}_x$ samples with different Ni contents, 45
- Neptunium**
 semiempirical crystal field calculations for f^N systems.
 IV: Intermediate crystal field effect in $5f^2$ configuration in the $\text{NpO}_2\text{Cl}_4^{3-}$ anion, 163
- Neutron diffraction**
in situ neutron diffraction study of the behaviour of $\text{LaNi}_{4.5}\text{Al}_{0.5}\text{D}_x$ electrode during deuterium charge–discharge, 59
 magnetic properties of RFeSi ($\text{R} \equiv \text{La–Sm, Gd–Dy}$) from susceptibility measurements and neutron diffraction studies, 49
- Nickel**
 corrosion resistance in O of electrolytic Ni and Co phosphorus coatings, 151
in situ neutron diffraction study of the behaviour of $\text{LaNi}_{4.5}\text{Al}_{0.5}\text{D}_x$ electrode during deuterium charge–discharge, 59
- Niobates**
 luminescence of $\text{K}_2(\text{NbO})_2\text{Si}_4\text{O}_{12}$, 259
- Nitrides**
 phase characterization of $\text{Fe}_{17}\text{Nd}_2\text{N}_x$ samples with different N contents, 45
 structure and magnetic properties of mechanically alloyed $\text{Sm}_x\text{Fe}_{100-x}$ nitride, 83
- Order–disorder transformation**
 order–disorder in binary substitutional alloys: a simple Ising approach, 169
- Oxides**
 metal sulphide–tetrphosphorusdekasulphide phase diagrams, 209
 two new oxometallates of the $\text{Ba}_5\text{Mn}_4\text{Ln}_8\text{O}_{21}$ type: $\text{Ba}_5\text{Mn}_4\text{Sm}_8\text{O}_{21}$ and $\text{Ba}_5\text{Mn}_4\text{Ho}_8\text{O}_{21}$, 101
- Oxygen**
 corrosion resistance in O of electrolytic Ni and Co phosphorus coatings, 151
- Palladium**
 suppression of the glassy solidification of the alloy $\text{Pd}_{77}\text{Cu}_6\text{Si}_{17}$ by the b.c.c. phase under high pressure, L5
 thermodynamic investigation of Pt–Ge and Pd–Ge binary alloys, 23
- Permanent magnets**
 study of Pr–Fe–B–Cu permanent magnets produced by upset forging of cast ingot, 131
- Permeation**
 permeation behaviour of deuterium implanted into pure Al, 195
- Phosphides**
 corrosion resistance in O of electrolytic Ni and Co phosphorus coatings, 151
- Phthalocyanines**
 X-ray analysis of phthalocyanines formed in the reaction of Au–Cu and Au–Sn alloys with 1,2-dicyanobenzene, 107
- Platelets**
 centimetre-size platelets grown from partially melted bulk $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$, L23
- Platinum**
 crystal structure of the compound $\text{Ce}_2\text{Pt}_7\text{Ge}_4$, L11
 structure defects and charge transport of BTa_2O_5 in thermodynamic equilibrium at high temperature, 157
 thermodynamic investigation of Pt–Ge and Pd–Ge binary alloys, 23
 information on $\text{Ba}_8\text{Pt}_4\text{Ho}_3\text{O}_{17.5}$ and $\text{Ba}_8\text{Pt}_4\text{Dy}_3\text{O}_{17.5}$, L21
- Positron annihilation**
 determination of the solid solubility of Ce in α -Fe by the positron annihilation technique, L35
- Praseodymium**
 study of Pr–Fe–B–Cu permanent magnets produced by upset forging of cast ingot, 131
- Raman spectroscopy**
 metal sulphide–tetrphosphorusdekasulphide phase diagrams, 209
- Rare earths**
 crystallographic properties of $\text{Ce}(\text{Si,Ge})_{2-x}$ solid solutions, 9
 determination of the solid solubility of Ce in α -Fe by the positron annihilation technique, L35
 Er_2RhSi_3 and R_2CoGa_3 ($\text{R} \equiv \text{Y, Tb, Dy, Ho, Er, Tm, Yb}$) with Lu_2CoGa_3 type structure: new members of the AlB_2 structure family, 221
 dysprosium–tin phase diagram, 229
 the misch metal–iron system, 145
 thermionic emission properties of RE added LaB_6 crystal cathodes, L1
- Rhodium**
 a computer assessment of the Mo–Rh phase diagram, 97
- Rutile**
 Fe concentration on the ESR spectrum of Fe^{3+} in rutile, 201
- Samarium**
 structure and magnetic properties of mechanically alloyed $\text{Sm}_x\text{Fe}_{100-x}$ nitride, 83
 two new oxometallates of the $\text{Ba}_5\text{Mn}_4\text{Ln}_8\text{O}_{21}$ type: $\text{Ba}_5\text{Mn}_4\text{Sm}_8\text{O}_{21}$ and $\text{Ba}_5\text{Mn}_4\text{Ho}_8\text{O}_{21}$, 101
- Scandium**
 crystal structure of $\text{Ba}_2\text{ScAlO}_5$ and $\text{Sr}_2\text{Sc}_{0.5}\text{Al}_{1.5}\text{O}_5$, 127
 synthesis and structure of a new layer compound: ScPS_4 , 269
- Selenides**
 H-stabilized Y monoselenide, 75
- Selenium**
 growth of $\text{Cu}_{1-x}\text{Ga}_x\text{Cr}_2\text{Se}_4$ single crystals by CVT and their electrical properties, 1

- Sesquisulphides
single crystals of F-Tm₂S₃ and T-Yb₂S₃, 69
- Silicides
magnetic properties of RFeSi (R≡La-Sm, Gd-Dy) from susceptibility measurements and neutron diffraction studies, 49
- Silicon
crystallographic properties of Ce(Si,Ge)_{2-x} solid solutions, 9
stable and metastable phases in the metal-rich Y-Zr-Si system and their H reactivity, 87
suppression of the glassy solidification of the alloy Pd₇₇-Cu₆Si₁₇ by the b.c.c. phase under high pressure, L5
- Silver
500 °C isothermal section of the Ag-Cu-Nd (0-34 at.% Nd) phase diagram, L31
- Sodium
synthesis and crystal structure of a mixed-valent sodium oxocuprate(I,II): NaCu₂O₂, 241
- Strontium
crystal structure of Ba₂ScAlO₅ and Sr₂Sc_{0.5}Al_{1.5}O₅, 127
- Sulphides
metal sulphide-tetraphosphorusdekasulphide phase diagrams, 209
- Tantalum
structure defects and charge transport of BTa₂O₅ in thermodynamic equilibrium at high temperature, 157
- Terbium
electrical properties of thin Tb films, L9
- Thermal conductivity
thermal conductivity of UCuP₂ and UCuAs₂ single crystals, 217
- Thermal stability
H absorption-desorption and crystallographic characteristics of RCo_{3-x}Ga_x (R≡Y, Gd; x=0.6-1.2) intermetallics, L27
- Thermionic emission
thermionic emission properties of RE added LaB₆ crystal cathodes, L1
- Thermodynamics
a computer assessment of the Mo-Rh phase diagram, 97
calculation of formation enthalpies of both the amorphous phase and the solid solution of a transition metal and a non-transition element, 113
decomposition pressure and standard enthalpies of sublimation and of formation of Fe monoselenide, 263
thermodynamic properties of the Ti-H system using molten salt electrolytes containing hydride ions, 175
specific heat measurement on UAl₄, 123
the Cd-Ga-In-Sn-Zn liquid system, 17
thermodynamic investigation of Pt-Ge and Pd-Ge binary alloys, 23
thermodynamics of the formation of high Ca tantalates from e.m.f. measurements L39
- Thin films
electrical properties of thin Tb films, L9
- Thulium
single crystals of F-Tm₂S₃ and T-Yb₂S₃, 69
- Tin
dysprosium-tin phase diagram, 229
crystal structure of Ba₃SnFe₁₀O₂₀, 191
- Titanium
thermodynamic properties of the Ti-H system using molten salt electrolytes containing hydride ions, 175
Ti Knight shift in Ti_{1-x}V_x (0≤x≤0.65) dihydrides, 141
- Transuranic elements
distribution of actinides in molten chloride salt/cadmium metal systems, 37
- Upset forging
study of Pr-Fe-B-Cu permanent magnets produced by upset forging of cast ingot, 131
- Uranium
compression study of U borides UB₂, UB₄ and UB₁₂ by synchrotron XRD, 205
distribution of actinides in molten chloride salt/cadmium metal systems, 37
specific heat measurement on UAl₄, 123
thermal conductivity of UCuP₂ and UCuAs₂ single crystals, 217
- X-ray diffraction
500 °C isothermal section of the Ag-Cu-Nd (0-34 at.% Nd) phase diagram, L31
compression study of U borides UB₂, UB₄ and UB₁₂ by synchrotron XRD, 205
synthesis and structure of a new layer compound: ScPs₄, 269
luminescence of K₂(NbO)₂Si₄O₁₂, 259
- Ytterbium
single crystals of F-Tm₂S₃ and T-Yb₂S₃, 69
- Yttrium
centimetre-size platelets grown from partially melted bulk YBa₂Cu₃O₇₋₈, L23
H absorption-desorption and crystallographic characteristics of RCo_{3-x}Ga_x (R≡Y, Gd; x=0.6-1.2) intermetallics, L27
H-stabilized Y monoselenide, 75
stable and metastable phases in the metal-rich Y-Zr-Si system and their H reactivity, 87
- Zinc
thermodynamic calculation of the probability of stacking fault formation in b.c.c. Fe-Zn alloys, 67
- Zirconium
stable and metastable phases in the metal-rich Y-Zr-Si system and their H reactivity, 87