

Journal of Alloys and Compounds 323-324 (2001) 869-882



www.elsevier.com/locate/jallcom

Subject Index of Volumes 323–324

Absorption local magnetic properties and micromagnetic structure of f-f Transition intensities of europium(III) acetate complexes in a FeCuNbSiB amorphous microwires 451 single crystal and in solution 150 Absorption spectra absorption spectrum analysis of uranium trichloride heptahydrate 678 Acetate f-f Transition intensities of europium(III) acetate complexes in a single crystal and in solution 150 A. high-Tc superconductors high-resolution and energy-filtered transmission electron microscopy of YBa2Cu3O7-x/PrBa2Cu3O7 superlattices 558 Alanine Sm(III) complexation with α -amino acids. X-ray crystal structure of $[Sm_2(Hala)_4(H_2O)_8](ClO_4)_4(Cl)_2$ 119 Allylic complexes organolanthanides, catalysts for specific olefin-diene copolymerization: access to new materials 592 Alumina surface properties of CeZrO₄-based materials employed as catalysts supports 605 Aluminium CeCl₃ and LaCl₃ binary solutions as environment-friendly corrosion inhibitors of AA5083 Al-Mg alloy in NaCl solutions 855 A. magnetically ordered materials structural and magnetic properties of RFe₄P₁₂ (R=Pr, Nd) studied by neutron diffraction 516 Amino acid 'Conjugate strategy' of lanthanide porphyrinate with crown ether toward synergistic binding and chirality sensing of biological substrates 133 Amino acids Sm(III) complexation with α -amino acids. X-ray crystal structure of $[Sm_2(Hala)_4(H_2O)_8](ClO_4)_4(Cl)_2$ 119 E Ammonium fluoride recovery recovery of uranium from the filtrate of 'ammonium diuranate' prepared from uranium hexafluoride 838 Amorphization E composition and annealing dependence of magnetic properties in amorphous Tb-Co based alloys 422 Amorphous materials F laser-induced internal cooling of Yb3+-doped fluoride-based glasses 239 E optical properties of Pr³⁺-doped lithium tetraborate glasses 250 upconversion processes in Nd³⁺-doped fluoroarsenate glasses 255 red, green and blue light generation in fluoride glasses controlled by double excitation 336 (compositional dependence of up-conversion process in $\mbox{Tm}^{3+}\mbox{-}\mbox{Yb}^{3+}$ codoped oxyfluoride glasses and glass-ceramics 358 (influence of annealing on optical properties of cerium doped sodalime-silicate glasses 367 composition and annealing dependence of magnetic properties in (amorphous Tb-Co based alloys 422 magnetic properties of thin film GdCoRe amorphous alloys 448

magnetic coupling in amorphous bilayers and sandwiches: (RCo)/ Y/(RCo)' (R: Y, Gd) 504
Anisotropy
on some magnetic phase transitions in CePtSn 380 composition and annealing dependence of magnetic properties in amorphous Tb-Co based alloys 422
magnetic coupling in amorphous bilayers and sandwiches: (RCo)/ Y/(RCo)' (R: Y, Gd) 504
coexistence of superconductivity and magnetism in $Y_{1-x}Dy_xNi_2B_2C$ single crystals 562
Antiferromagnetism
magnetic features of the $(U_{0.50}Tm_{0.50})Ni_2B_2C$ solid solution 477
Apatite
laser-induced time-resolved luminescence as a means for discrimination of oxidation states of Eu in minerals 842
Approximate assignment infrared spectra of Nd ₂ BaPdO ₅ and Nd ₂ BaPtO ₅ 707
Aryloxides
synthesis and characterization of polynuclear lanthanide aryloxides 169
Asparagine
europium(III)-asparagine complexation in aqueous methanol 190
A. thin films
high-resolution and energy-filtered transmission electron microscopy
of $YBa_2Cu_3O_{7-x}/PrBa_2Cu_3O_7$ superlattices 558
Azide
luminescence lifetime of lanthanide(III) ions in aqueous solution containing azide ion 125
energy transfer in the chemiluminescent system: Eu(II)/(III)-N_3^ H_2O_2 ~ 670
Biogenetic amine
'Conjugate strategy' of lanthanide porphyrinate with crown ether toward synergistic binding and chirality sensing of biological substrates 133
Bismuth germanates and silicates
Bi ₄ Ge ₃ O ₁₂ :Nd ³⁺ and Bi ₁₂ SiO ₂₀ :Nd ³⁺ . A comparative spectroscopic study 714
Bismuth–rare earth mixed oxides
$(Bi,R)_2O_3$ (R: Nd, Sm and Dy) oxides as potential pigments 372
Borophosphates
optical and dielectric properties of borophosphates $A_{1-x}Eu_xBPO_5$ (A=Ca, Sr, Ba and Pb) 673
Calcium titanate
improvement of the optical performances of Pr^{3+} in CaTiO ₃ 218
CaNi_5
catalytic transfer hydrogenation of butene on hydrogen-absorbing alloys (LaNi ₅ , CaNi ₅ and LaNi ₄ Al) 601
Catalysis
organolanthanides, catalysts for specific olefin-diene copolymerization: access to new materials 592

Catalyst catalytic transfer hydrogenation of butene on hydrogen-absorbing alloys (LaNi₅, CaNi₅ and LaNi₄Al) 601 Catalytic transfer hydrogenation catalytic transfer hydrogenation of butene on hydrogen-absorbing alloys (LaNi5, CaNi5 and LaNi4Al) 601 CeO, some recent developments in the characterization of ceria-based catalysts 584 Ceria some recent developments in the characterization of ceria-based catalysts 584 Ceria-silica some recent developments in the characterization of ceria-based catalysts 584 Ceria-zirconia some recent developments in the characterization of ceria-based catalysts 584 Cerium studies on triple orthovanadates. VIII. Synthesis and spectrostructural characterization of triple orthovanadates $BaLnTh(VO_4)_3$ (Ln=La or Pr) and $BaLnCe(VO_4)_3$ (Ln=La, Pr, Nd or Sm) 83 Charge transfer new Pr and Nd complexes containing TCNQ radicals 138 Chemical inhomogeneity chemical inhomogeneity in materials with f-elements: observation and interpretation 34 Chemical synthesis hydrated lanthanides picrate complexes with cis-1,3-dithiane-1,3dioxide (cis-DTSO₂). Structure of the Ho compound 13 uranyl nitrate complexes with lactams 18 complexes of lanthanide picrates with 1,4-pyrazine-dioxide 22 synthesis and crystal structure of Nd₃Ti₃O₈Se₂ 57 chemistry of lanthanide-metal carbonyl systems: the ytterbiumchromium carbonyls interaction 61 stabilization of the γ -Ce₂S₃ phase 66 synthesis and properties of Lu₂O₃ sol-gel films 74 structural and magnetic characterization of zircon-type PrCrO₄ oxide 115 preparation and optical properties of nanocrystalline and nanoporous Tb doped alumina and zinc aluminate 279 new ecological pigments in the Ca-Yb-S system 297 reverse Monte Carlo study of local structural and magnetic crosscorrelations in x=1/3 (La,Ca) manganites 404 structural, spin state, and magnetic transitions in $GdBaCo_2O_{5+\delta}$ $(\delta \approx 0.5)$ 468 oxygen content influence in the superconducting and electronic properties of Nd_{1.85}Ce_{0.15}Cu_{1.01}O_v ceramics 580 structural and electronic characterization of $Nd_{1.33}Na_{0.66}Mn_{0.66}Ti_{1.34}O_{6} \quad 618$ the blue phosphor Sr_2CeO_4 synthesized by Pechini's method 667 IR characterization of $Ln_{2-x}Sr_xCoO_4$ ($x \ge 1$; Ln=La, Nd) oxides 710 effects of dispersion by Gd³⁺ upon europium diphenylphosphinate luminescence 740 vibrational spectra of double diphosphates $CsLnP_2O_7$ (Ln=Gd, Tb, Dy, Ho, Y, Er, Tm, Yb) 800 Chemiluminescence energy transfer in the chemiluminescent system: $Eu(II)/(III)-N_3^-$ H₂O₂ 670 Chromates CeCl₃ and LaCl₃ binary solutions as environment-friendly corrosion inhibitors of AA5083 Al-Mg alloy in NaCl solutions 855 Circular dichroism 'Conjugate strategy' of lanthanide porphyrinate with crown ether toward synergistic binding and chirality sensing of biological substrates 133

Clusters the defect structure of CaF₂:U³⁺ 111 spectroscopic and magnetic investigation of one sandwich-type uranium(IV)-polyoxometalate with Ge(IV) as heteroatom 743 C. neutron diffraction structural and magnetic properties of RFe4P12 (R=Pr, Nd) studied by neutron diffraction 516 Colour self-frequency-sum mixing in Nd doped nonlinear crystals for laser generation in the three fundamental colours. The NYAB case 204 Colour pigments rare earth fluorosulfides LnSF and Ln₂AF₄S₂ as new colour pigments 223 Combustion synthesis preparation, X-ray analysis and spectroscopic investigation of nanostructured Lu₂O₃:Tb 8 4f²5d Configuration efficient $4f^{3}({}^{4}F_{3/2}) \rightarrow 4f^{2}5d$ excited-state absorption in Nd³⁺ doped fluoride crystals 722 Configuration interaction optical spectrum, crystal field analysis of Pr³⁺ in YPO₄ 783 Coordination chemistry a new bidimensional material: Ln₂(CO₃)₃.8 H₂O (Ln=La, Ce). Synthesis and crystal structure 193 synthesis, crystal structure of a new tridimensional family of materials: LnCHA(H₂O)₂·2.5H₂O (Ln=Dy-Yb) 199 Correlation comparison between correlation crystal field calculations using extended basis sets and two-electron operators 636 Cross-current extraction extraction of scandium from ion-adsorptive rare earth deposit by naphthenic acid 833 Cross relaxation upconversion-induced blue, green and red emission in Ho3+:BaY2F8 283 Crown ether 'Conjugate strategy' of lanthanide porphyrinate with crown ether toward synergistic binding and chirality sensing of biological substrates 133 Cr-Tm Cr³⁺-Tm³⁺ energy transfer in alkali silicate glasses 759 Cryptate comparison of different methods for structural analysis of lanthanide-induced NMR shifts: a case of lanthanide(III) cryptates 824 Crystal and ligand field, exchange and superexchange 4f-levels in rare earth cuprates: Crystal field and exchange interaction 549 Crystal and ligand fields measurement and crystal field analysis of energy levels of Ho3+ and Er^{3+} in KGd(WO₄)₂ single crystal 321 HoAs: a model compound for the cooling by the barocaloric effect 392 magnetic ordering and crystalline electric field splitting in Nd₃Pd₂₀Si₆ 509 Judd-Ofelt theory in a new light on its (almost) 40th anniversary 645 new excitement with crystal-field excitations 649 spectra and details of the structure of europium acetates with derivatives of 1,10-phenanthroline 661 EPR and optical spectroscopy of SrF_2 doped with Yb^{3+} 692 parametrization of f^{N} - f^{N} electric dipole transitions in point-group bases 726 simulation of the Gd³⁺ energy level scheme in GdOCl 811 Crystal and ligand fields, electronic band structure semi-empirical and ab-initio calculations of the crystal field

interaction in rare earth cuprates 567

Crystal and ligand fields (D) a non-Euclidean crystal field for f electrons 640 Crystal field growth and 10 K spectroscopy of Nd³⁺ in NaBi(WO₄)₂ single crystal 315 magnetic properties of AgLnSe2 compounds (Ln=Ho, Er, Tm and Yb) 513 magnetic properties and resistivity of ternary compounds CeNi2X2 (X=Sb, As, P) 520 comparison between correlation crystal field calculations using extended basis sets and two-electron operators 636 spectroscopy of defect centers in LaGaO₃ crystals 696 Crystal field analysis absorption spectrum analysis of uranium trichloride heptahydrate 678 optical spectrum, crystal field analysis of Pr^{3+} in YPO_4 783 Crystal fields dimer splitting of Er³⁺ in Cs₃Er₂Br₉ 481 Crystal growth holmium polysulfides: crystal growth, structure and properties 26 crystal structure and microstructure of δ -Er₂S₃ 91 overview of the best Yb³⁺-doped laser crystals 210 growth and characterisation of RbTiOPO4:Nb crystals as a host for rare earth ions 231 site-selective spectroscopy and infrared-to-visible upconversion in a Nd³⁺-doped Pb₅Al₃F₁₉ crystal 267 effect of temperature on excitation energy transfer and upconversion phenomena in Er:YVO₄ single crystals 288 EPR Identification of coupled Yb³⁺ ion pairs in optically bistable compound CsCdBr₃:Yb 308 growth and 10 K spectroscopy of Nd³⁺ in NaBi(WO₄), single crystal 315 EPR spectroscopy of Yb³⁺ in LiNbO₃ and Mg:LiNbO₃ 340 coexistence of superconductivity and magnetism in Y1-xDyxNi2B2C single crystals 562 EPR and optical spectroscopy of SrF_2 doped with Yb^{3+} 692 Crystal structure complexes of lanthanide picrates with 1,4-pyrazine-dioxide 22 Sm(III) complexation with α -amino acids. X-ray crystal structure of $[Sm_2(Hala)_4(H_2O)_8](ClO_4)_4(Cl)_2$ 119 synthesis and structure of bis(triethanolamine)europium(II) diperchlorate 159 effect of the solvent and different crystal packing on the europium podand complex: tris(2-hydroxy-3-methoxybenzyl)amino) ethylamine) tris(nitrato) europium(III) 185 a new bidimensional material: Ln₂(CO₃)₃.8 H₂O (Ln=La, Ce). Synthesis and crystal structure 193 synthesis, crystal structure of a new tridimensional family of materials: LnCHA(H₂O)₂·2.5H₂O (Ln=Dy-Yb) 199 optical spectroscopy of Nd³⁺ ions in $Gd_xY_{1-x}Al_3(BO_3)_4$ 355 crystal structure and magnetic properties of R₂Co₃Al₉ compounds (R=Y, Pr, Gd, Tb, Dy, Ho, Er, Tm) 427 structural chemistry, magnetic and electrical properties of ternary rare-earth-nickel-phosphides, R2Ni7P4 (R=Ce, Pr, Nd) 498 Crystal structure and symmetry hydrated lanthanides picrate complexes with cis-1,3-dithiane-1,3dioxide (cis-DTSO₂). Structure of the Ho compound 13 uranyl nitrate complexes with lactams 18 synthesis and crystal structure of Nd₃Ti₃O₈Se₂ 57 transmission electron microscopy study of $Y_{1-x} \Box_x Cr_2 S_4$, $x \sim 1/3$ phase 86 crystal structure and microstructure of δ -Er₂S₃ 91 crystal structure of lanthanum(III) butyrate monohydrate 142 EPR Identification of coupled Yb³⁺ ion pairs in optically bistable compound CsCdBr₃:Yb 308 phase segregation and orbital ordering in $Bi_{1-x}Ca_xMnO_3$ (x ≥ 0.75):

a neutron and synchrotron X-ray diffraction study 408

synthesis, characterization, magnetism and transport properties of $Nd_{1-x}Sr_{x}CoO_{3}$ perovskites 444 IR characterization of $Ln_{2-x}Sr_xCoO_4$ ($x \ge 1$; Ln=La, Nd) oxides 710 effects of dispersion by Gd³⁺ upon europium diphenylphosphinate luminescence 740 vibrational spectra of double diphosphates CsLnP₂O₇ (Ln=Gd, Tb, Dy, Ho, Y, Er, Tm, Yb) 800 Crystal structure and symmetry (C) a non-Euclidean crystal field for f electrons 640 C. scanning and transmission electron microscopy high-resolution and energy-filtered transmission electron microscopy of YBa₂Cu₃O_{7-r}/PrBa₂Cu₃O₇ superlattices 558 Cyclohexanic ligands solution properties of trivalent lanthanide trinuclear complexes with ligand 1,3,5-triamino-1,3,5-trideoxy-cis-inositol 128 Decomposition of methane hydrogen production from methane and water by lattice oxygen transfer with $Ce_{0.70}Zr_{0.25}Tb_{0.05}O_{2-x}$ 97 Defect fluorite structure rare-earth and tungsten oxynitrides with a defect fluorite-type structure as new pigments 45 de Haas-van Alphen effect De Haas-van Alphen effect in LuAl₃ 623 Density functional theory phase transitions in cerium by pseudopotential methods 628 Dielectric response low temperature ac conductivity in the fast ionic conductor Li_{0.18}La_{0.61}TiO₃ 545 optical and dielectric properties of borophosphates A1-rEurBPO5 (A=Ca, Sr, Ba and Pb) 673 Differential dissolving analysis chemical inhomogeneity in materials with f-elements: observation and interpretation 34 Diffraction HoAs: a model compound for the cooling by the barocaloric effect 392 Diffuse reflectance rare earth fluorosulfides LnSF and Ln₂AF₄S₂ as new colour pigments 223 Diffusion some recent developments in the characterization of ceria-based catalysts 584 Dimers dimer splitting of Er³⁺ in Cs₃Er₂Br₉ 481 Dinuclear complexes new supramolecular dinuclear Schiff base complexes of yttrium and lanthanides 173 Disordered materials concentration effect on the up-conversion luminescence of neodymium activated calcium gallium germanium garnet crystal 312 Disordered systems the defect structure of CaF₂:U³⁺ 111 Pr³⁺ Centers in YSZ single crystals 768 photoluminescence and up-conversion of Er³⁺ in tetragonal NaBi(XO₄)₂, X=Mo or W, scheelites 806 Divalent synthesis and structure of bis(triethanolamine)europium(II) diperchlorate 159 D. phase transitions structural and magnetic properties of RFe₄P₁₂ (R=Pr, Nd) studied by neutron diffraction 516

EELS

V.U.V absorption coefficient measurements of borate matrices 816

Effluent treatment recovery of uranium from the filtrate of 'ammonium diuranate' prepared from uranium hexafluoride 838 Elasticity Gd thin films: relationship between elastic properties and microstructure 107 Electrical transport structural chemistry, magnetic and electrical properties of ternary rare-earth-nickel-phosphides, R₂Ni₇P₄ (R=Ce, Pr, Nd) 498 Electric-dipole transitions electric-dipole $4f^N - 4f^N$ transition intensity parametrizations for lanthanides: an examination of multiple local minima 778 Electrochemical reactions an estimation of the ionization potentials of actinides from a simple dependence of the aqueous standard potentials on the ionization potentials of elements including lanthanides 614 Electron-electron interactions optical properties of Pr^{3+} -doped lithium tetraborate glasses 250 Electron energy loss spectroscopy interface formation in the Gd/HOPG and Dy/HOPG systems 701 Electronic band structure absorption spectroscopy of Er:GdCOB and Yb:GdCOB crystals 292 De Haas-van Alphen effect in LuAl₃ 623 Electronic states an estimation of the ionization potentials of actinides from a simple dependence of the aqueous standard potentials on the ionization potentials of elements including lanthanides 614 infra-red-to-visible wavelength upconversion in Sm³⁺-activated YAG crystals 736 spectroscopic and magnetic investigation of one sandwich-type uranium(IV)-polyoxometalate with Ge(IV) as heteroatom 743 simulation of the Gd³⁺ energy level scheme in GdOCl 811 Electronic states (localized) overview of the best Yb³⁺-doped laser crystals 210 EPR spectroscopy of Yb³⁺ in LiNbO₃ and Mg:LiNbO₃ 340 parametrization of $f^{N}-f^{N}$ electric dipole transitions in point-group bases 726 Electronic structures magnetic properties and electronic structures of $RCo_{2-x}Si_x$ (R=Gd, Y) compounds 490 Electronic transitions rare earth fluorosulfides LnSF and Ln2AF4S2 as new colour pigments 223 Electronic transport Er local structure around Fe and Cu ions in PrBaFeCuO₅₊₈ 102 high temperature electrical resistivity in U₁₋La_vPt compounds 384 complex magnetic order in EuRh₂Si₂ 396 magnetoresistance behaviour of the ternary stannides CeNi086Sn2 and Ce₃Ni₂Sn₇ 435 synthesis, characterization, magnetism and transport properties of $Nd_{1-x}Sr_{x}CoO_{3}$ perovskites 444 magnetic and transport properties of La_{0.7}Cd_{0.3}(Mn_{0.9}TM_{0.1})O₃ transition metal doped manganites 524 chain oxygen disorder in deoxygenated YBa2Cu3O7-8 thin films induced by light ion irradiation 576 oxygen content influence in the superconducting and electronic properties of Nd_{1.85}Ce_{0.15}Cu_{1.01}O_y ceramics 580 Electron paramagnetic resonance the defect structure of $CaF_2:U^{3+}$ 111 EPR Identification of coupled Yb³⁺ ion pairs in optically bistable compound CsCdBr₃:Yb 308 EPR spectroscopy of Yb³⁺ in LiNbO₃ and Mg:LiNbO₃ 340 Electron-phonon interaction

spectra and details of the structure of europium acetates with derivatives of 1,10-phenanthroline 661

Electron-phonon interactions laser-induced internal cooling of Yb3+-doped fluoride-based glasses 239 red, green and blue light generation in fluoride glasses controlled by double excitation 336 compositional dependence of up-conversion process in Tm³⁺-Yb³⁺ codoped oxyfluoride glasses and glass-ceramics 358 phase segregation and orbital ordering in $Bi_{1-x}Ca_xMnO_3$ (x ≥ 0.75): a neutron and synchrotron X-ray diffraction study 408 raman phonons and the Jahn-Teller transition in RMnO3 manganites 417 raman phonons and light scattering in RMnO₃ (R=La, Pr, Nd, Ho, Er Tb and Y) orthorhombic and hexagonal manganites 494 conduction mechanisms in pure and doped polycrystalline orthorhombic manganites 527 femtosecond relaxation in Ce3+ ions in LiCaAlF₆ and LiSrAlF₆ 688 vibronic oscillator strengths of Tm³⁺ in Cs₂NaTmCl₆ 718 Enamel film lanthanide complexes dispersed in enamel: a promising new material for photonic devices 820 Energy transfer erbium doped glass-ceramics: concentration effect on crystal structure and energy transfer between active ions 245 upconversion-induced blue, green and red emission in Ho3+:BaY2F8 283 a spectroscopic study of K₂YF₅:Pr³⁺ 303 energy transfer in the chemiluminescent system: $Eu(II)/(III)-N_3^-$ H₂O₂ 670 room temperature photon avalanche in Ho³⁺ doped YAG, YAP, YLF and ZBLAN 731 optical properties of Er³⁺ ions in transparent glass ceramics 753 Cr³⁺-Tm³⁺ energy transfer in alkali silicate glasses 759 energy transfer between Eu3+ ions in sol-gel derived silica glasses 773 optical characterisation of rare earths in natural fluorapatite 851 E. neutron scattering, diffraction structural and magnetic properties of RFe₄P₁₂ (R=Pr, Nd) studied by neutron diffraction 516 Environmental applications solar ultraviolet-B detectors using Eu²⁺ doped alkali halide crystals 847 EPR and optical spectroscopy EPR and optical spectroscopy of SrF, doped with Yb³⁺ 692 spectroscopy of Er³⁺ in Zn-diffused LiNbO₃ waveguides 348 Erbium structure and properties of hydrated La(III), Nd(III) and Er(III) methanesulfonates 39 erbium doped glass-ceramics: concentration effect on crystal structure and energy transfer between active ions 245 Er³⁺ optical properties of Er³⁺ ions in transparent glass ceramics 753 magnetic field effect in the luminescence of Er³⁺ ion in $(Er_{0.05}Y_{0.95})_2BaZnO_5$ 788 ES-MS solution properties of trivalent lanthanide trinuclear complexes with ligand 1,3,5-triamino-1,3,5-trideoxy-cis-inositol 128 Eu(III) derivatives of β-diketones correlation between spectroscopic characteristics and structure of lanthanide phosphoro-azo derivatives of β-diketones 792 Eu(MHD)₃·o-phen structure and emission spectrum of the o-phenanthroline adduct of tris(6-methyl-2,4-heptanedionato)europium(III) 177 Europium FT-ICR studies of polypyrazolyl-1-yl borates of europium(II) adducts 147

f-f Transition intensities of europium(III) acetate complexes in a
single crystal and in solution 150
synthesis and structure of bis(triethanolamine)europium(II)
diperchlorate 159 synthesis and characterization of polynuclear lanthanide aryloxides
effect of the solvent and different crystal packing on the europium podand complex: tris(2-hydroxy-3-methoxybenzyl)amino)
ethylamine) tris(nitrato) europium(III) 185 energy transfer in the chemiluminescent system: $Eu(II)/(III)-N_3^-$
H_2O_2 670 laser-induced time-resolved luminescence as a means for
discrimination of oxidation states of Eu in minerals 842 Europium complexes
europium(III)–asparagine complexation in aqueous methanol 190
Europium(III) ion
luminescence study on preferential solvation of Europium(III) in
water/non-aqueous solvent mixtures 164
Eu ³⁺ energy transfer between Eu ³⁺ ions in sol-gel derived silica glasses 773
Eu ²⁺ doped alkali halide crystals
solar ultraviolet-B detectors using Eu ²⁺ doped alkali halide crystals 847
EXAFS
local structure around Fe and Cu ions in PrBaFeCuO _{5+δ} 102 EXAFS determination of the Nd ³⁺ lattice position in Nd:LiNbO ₃ : influence of lithium niobate stoichiometry and Mg ²⁺ and Zn ²⁺ co-doping 331
Exchange and superexchange
structural and magnetic characterization of zircon-type PrCrO ₄ oxide 115
EPR Identification of coupled Yb ³⁺ ion pairs in optically bistable compound CsCdBr ₃ :Yb 308
reverse Monte Carlo study of local structural and magnetic cross- correlations in $x=1/3$ (La,Ca) manganites 404
raman phonons and the Jahn–Teller transition in RMnO ₃ manganites 417
magnetic and transport properties of $La_{0.7}Cd_{0.3}(Mn_{0.9}TM_{0.1})O_3$ transition metal doped manganites 524
conduction mechanisms in pure and doped polycrystalline orthorhombic manganites 527
spectroscopic and magnetic investigation of one sandwich-type
uranium(IV)-polyoxometalate with Ge(IV) as heteroatom 743 Excited state absorption
the up-conversion processes in Ho^{3+} doped LiTaO_3 273 upconversion-induced blue, green and red emission in Ho^{3+} :BaY ₂ F ₈
283 efficient $4f^{3}({}^{4}F_{3/2}) \rightarrow 4f^{2}5d$ excited-state absorption in Nd ³⁺ doped fluoride crystals 722
f electrons
phase transitions in cerium by pseudopotential methods 628 Fermi surface
De Haas-van Alphen effect in LuAl ₃ 623
EXAFS determination of the Nd ³⁺ lattice position in Nd:LiNbO ₃ :
influence of lithium niobate stoichiometry and Mg^{2+} and Zn^{2+} co-doping 331
FLAPW method
De Haas-van Alphen effect in LuAl ₃ 623 Fluorapatite
optical characterisation of rare earths in natural fluorapatite 851
Fluoride a spectroscopic study of K_2YF_5 : Pr^{3+} 303
Fluoride crystals efficient $4f^{3}({}^{4}F_{3/2}) \rightarrow 4f^{2}5d$ excited-state absorption in Nd ³⁺ doped

fluoride crystals 722

Fluorite-related quaternary oxides hydrogen production from methane and water by lattice oxygen transfer with $Ce_{0.70}Zr_{0.25}Tb_{0.05}O_{2-x}$ 97 Fluorosulfides rare earth fluorosulfides LnSF and Ln₂AF₄S₂ as new colour pigments 223 Flux pinning and creep effect of anisotropy on the vortex liquid dissipation in $YBa_2Cu_3O_{7-\delta}$ thin films 572 Formation constant raman spectroscopic determination of formation constant of uranyl hydrolysis species $(UO_2)_2(OH)_2^{2+}$ 859 Frustration magnetic features of the (U_{0.50}Tm_{0.50})Ni₂B₂C solid solution 477 FT-ICR/MS FT-ICR studies of polypyrazolyl-1-yl borates of europium(II) adducts 147 GdCOB:Pr3+ optical transitions of Pr³⁺ ions in Ca₄GdO(BO₃)₃ crystals 214 Gibbs free energy of transfer luminescence study on preferential solvation of Europium(III) in water/non-aqueous solvent mixtures 164 Glass-ceramic erbium doped glass-ceramics: concentration effect on crystal structure and energy transfer between active ions 245 Glass ceramics optical properties of Er³⁺ ions in transparent glass ceramics 753 Grain boundaries conduction mechanisms in pure and doped polycrystalline orthorhombic manganites 527 Green inhibitors CeCl₃ and LaCl₃ binary solutions as environment-friendly corrosion inhibitors of AA5083 Al-Mg alloy in NaCl solutions 855 Heat capacity complex magnetic order in EuRh₂Si₂ 396 magnetic and neutron diffraction study on ordered perovskites Sr₂LnRuO₆ (Ln=Tb, Ho) 455 dimer splitting of Er³⁺ in Cs₃Er₂Br₉ 481 new excitement with crystal-field excitations 649 Heavy fermions anomalous physical properties of cerium-lanthanum filled skutterudites 389 Heteronuclear metal carbonyls chemistry of lanthanide-metal carbonyl systems: the ytterbiumchromium carbonyls interaction 61 Hexamethylphosphoramide structural characterization of [Ln(TFA)₃(HMPA)₃] (Ln=La, Nd, Er) complexes 181 High-performance liquid chromatography determination of trace amounts of rare earth elements in highly pure praseodymium oxide by double focusing inductively coupled plasma mass spectrometry and high-performance liquid chromatography 49 High pressure HoAs: a model compound for the cooling by the barocaloric effect 392 High temperature oxidation low cost rare earth elements deposition method for enhancing the oxidation resistance at high temperature of Cr2O3 and Al2O3 forming alloys 70 High $T_{\rm C}$ superconductors effect of anisotropy on the vortex liquid dissipation in $YBa_2Cu_3O_{7-\delta}$ thin films 572 High T_c superconductors local structure around Fe and Cu ions in PrBaFeCuO₅₊₈ 102

4f-levels in rare earth cuprates: Crystal field and exchange interaction 549 coexistence of superconductivity and magnetism in Y_{1-x}Dy_xNi₂B₂C single crystals 562 semi-empirical and ab-initio calculations of the crystal field interaction in rare earth cuprates 567 chain oxygen disorder in deoxygenated YBa2Cu3O7-8 thin films induced by light ion irradiation 576 new excitement with crystal-field excitations 649 Holmium ion room temperature photon avalanche in Ho³⁺ doped YAG, YAP, YLF and ZBLAN 731 Holmium polysulfides holmium polysulfides: crystal growth, structure and properties 26 Ho³ the up-conversion processes in Ho³⁺ doped LiTaO₃ 273 $Ho^{3+}:BaY_{2}F_{8}$ upconversion-induced blue, green and red emission in Ho³⁺:BaY₂F₈ 283 Hydrogen-absorbing alloy catalytic transfer hydrogenation of butene on hydrogen-absorbing alloys (LaNi₅, CaNi₅ and LaNi₄Al) 601 Hydrogen production hydrogen production from methane and water by lattice oxygen transfer with $Ce_{0.70}Zr_{0.25}Tb_{0.05}O_{2-x}$ 97 Hydrogen storage materials formation and structure of highly over-stoichiometric LaNi_{5+x} (x~1) alloys obtained by manifold non-equilibrium methods 4 IARED extraction of scandium from ion-adsorptive rare earth deposit by naphthenic acid 833 Inductively coupled plasma mass spectrometry determination of trace amounts of rare earth elements in highly pure praseodymium oxide by double focusing inductively coupled plasma mass spectrometry and high-performance liquid chromatography 49 Inelastic light scattering Gd thin films: relationship between elastic properties and microstructure 107 raman phonons and the Jahn-Teller transition in RMnO3 manganites 417 raman phonons and light scattering in RMnO3 (R=La, Pr, Nd, Ho, Er Tb and Y) orthorhombic and hexagonal manganites 494 Infrared studies on triple orthovanadates. VIII. Synthesis and spectrostructural characterization of triple orthovanadates BaLnTh(VO₄)₃ (Ln=La or Pr) and BaLnCe(VO₄)₃ (Ln=La, Pr, Nd or Sm) 83 Inner-sphere complexes europium(III)-asparagine complexation in aqueous methanol 190 In situ DRIFTS NH₃ adsorption over lanthanide doped V₂O₅/Al₂O₃ catalysts 597 Insulators overview of the best Yb³⁺-doped laser crystals 210 the up-conversion processes in Ho³⁺ doped LiTaO₃ 273 absorption spectroscopy of Er:GdCOB and Yb:GdCOB crystals 292 EPR Identification of coupled Yb³⁺ ion pairs in optically bistable compound CsCdBr₂:Yb 308 measurement and crystal field analysis of energy levels of Ho³⁺ and Er^{3+} in KGd(WO₄)₂ single crystal 321 EPR spectroscopy of Yb³⁺ in LiNbO₃ and Mg:LiNbO₃ 340 modulation of the Yb^{3+} to Er^{3+} energy transfer in LiNbO₃ crystals by applying magnetic field 344

a new crystalline host for lasing Ln³⁺ ions: disordered calciumlutetium fluoride 376

femtosecond relaxation in Ce³⁺ ions in LiCaAlF₆ and LiSrAlF₆ EPR and optical spectroscopy of SrF₂ doped with Yb³⁺ 692 spectroscopy of defect centers in LaGaO₃ crystals 696 vibronic oscillator strengths of Tm³⁺ in Cs₂NaTmCl₆ 718 infra-red-to-visible wavelength upconversion in Sm³⁺-activated YAG crystals 736 Intensity analysis f-f Transition intensities of europium(III) acetate complexes in a single crystal and in solution 150 Intermetallic high temperature electrical resistivity in U_{1-r}La_rPt compounds 384 Intermetallic compounds selective isoprene hydrogenation over LnNi (Ln=Pr, Gd, Tm) intermetallic compounds 610 Intermetallics formation and structure of highly over-stoichiometric LaNi_{5+x} (x~1) alloys obtained by manifold non-equilibrium methods 4 Y-Fe-Al ternary system: partial isothermal section at 1070 K. Power X-ray diffraction and Mössbauer spectroscopy study 78 on some magnetic phase transitions in CePtSn 380 SmCo₅/Cu particles elaboration using a supercritical fluid process 412 crystal structure and magnetic properties of R2Co3Al9 compounds (R=Y, Pr, Gd, Tb, Dy, Ho, Er, Tm) 427 mixed valence state of Ce ions in CeNi₂Al₂ 431 magnetoresistance behaviour of the ternary stannides CeNi_{0.86}Sn₂ and Ce₃Ni₂Sn₇ 435 magnetic ordering and crystalline electric field splitting in Nd₃Pd₂₀Si₆ 509 magnetic properties and resistivity of ternary compounds CeNi₂X₂ (X=Sb, As, P) 520 magnetism of $UFe_{4-x}Al_{8+x}$ (x=(-0.4, 0.4)) intermetallics 531 new excitement with crystal-field excitations 649 Ion exchange recovery of uranium from the filtrate of 'ammonium diuranate' prepared from uranium hexafluoride 838 Ionic conduction trivalent cation conduction in $R_{1/3}Zr_2(PO_4)_3$ (R: rare earths) with the NASICON-type structure 540 low temperature ac conductivity in the fast ionic conductor Li_{0.18}La_{0.61}TiO₃ 545 Ion-selectivity lanthanide(III) perchlorate complexes of two 24 membered N₃O₄donor macrocycles 155 IR spectra infrared spectra of Nd₂BaPdO₅ and Nd₂BaPtO₅ 707 Isoprene selective isoprene hydrogenation over LnNi (Ln=Pr, Gd, Tm) intermetallic compounds 610 Judd-Ofelt parameters Bi₄Ge₃O₁₂:Nd³⁺ and Bi₁₂SiO₂₀:Nd³⁺. A comparative spectroscopic study 714 Kondo effects high temperature electrical resistivity in U_{1-x}La_xPt compounds 384 magnetoresistance behaviour of the ternary stannides CeNi_{0.86}Sn₂ and Ce₃Ni₂Sn₇ 435 magnetic properties and resistivity of ternary compounds CeNi₂X₂ (X=Sb, As, P) 520 Kondo temperature

effect of pressure on transport properties of mixed-valence compound YbAl₃ 632

LaNi. catalytic transfer hydrogenation of butene on hydrogen-absorbing alloys (LaNi5, CaNi5 and LaNi4Al) 601 LaNi₄Al catalytic transfer hydrogenation of butene on hydrogen-absorbing alloys (LaNi₅, CaNi₅ and LaNi₄Al) 601 Lanthanide complexes new supramolecular dinuclear Schiff base complexes of yttrium and lanthanides 173 experimental and theoretical study of ligand field, 4f-4f intensities and emission quantum yield in the compound $Eu(bpyO_2)_4(ClO_4)_2 = 654$ lanthanide complexes dispersed in enamel: a promising new material for photonic devices 820 Lanthanide(III) complexes lanthanide(III) perchlorate complexes of two 24 membered N₃O₄donor macrocycles 155 Lanthanide(III) ions luminescence lifetime of lanthanide(III) ions in aqueous solution containing azide ion 125 Lanthanide-induced shifts comparison of different methods for structural analysis of lanthanide-induced NMR shifts: a case of lanthanide(III) cryptates 824 Lanthanide ions electric-dipole $4f^{N}-4f^{N}$ transition intensity parametrizations for lanthanides: an examination of multiple local minima 778 Lanthanide methanesulfonates structure and properties of hydrated La(III), Nd(III) and Er(III) methanesulfonates 39 Lanthanide porphyrinate 'Conjugate strategy' of lanthanide porphyrinate with crown ether toward synergistic binding and chirality sensing of biological substrates 133 Lanthanides studies on triple orthovanadates. VIII. Synthesis and spectrostructural characterization of triple orthovanadates $BaLnTh(VO_4)_3$ (Ln=La or Pr) and $BaLnCe(VO_4)_3$ (Ln=La, Pr, Nd or Sm) 83 solution properties of trivalent lanthanide trinuclear complexes with ligand 1,3,5-triamino-1,3,5-trideoxy-cis-inositol 128 new Pr and Nd complexes containing TCNQ radicals 138 crystal structure of lanthanum(III) butyrate monohydrate 142 f-f Transition intensities of europium(III) acetate complexes in a single crystal and in solution 150 synthesis and structure of bis(triethanolamine)europium(II) diperchlorate 159 structural characterization of [Ln(TFA)3(HMPA)3] (Ln=La, Nd, Er) complexes 181 a new bidimensional material: Ln₂(CO₃)₃.8 H₂O (Ln=La, Ce). Synthesis and crystal structure 193 synthesis, crystal structure of a new tridimensional family of materials: LnCHA(H₂O)₂·2.5H₂O (Ln=Dy-Yb) 199 organolanthanides, catalysts for specific olefin-diene copolymerization: access to new materials 592 selective isoprene hydrogenation over LnNi (Ln=Pr, Gd, Tm) intermetallic compounds 610 interaction of $[Ln(DO2A)(H_2O)_{2-3}]^+$ and $[Ln(DO2P)(H_2O)_{2-3}]^$ with phosphate, acetate and fluoride anions in aqueous solution 828 Lanthanide-transition metal carbonyls chemistry of lanthanide-metal carbonyl systems: the ytterbiumchromium carbonyls interaction 61 Lanthanum structure and properties of hydrated La(III), Nd(III) and Er(III) methanesulfonates 39

Laser generation self-frequency-sum mixing in Nd doped nonlinear crystals for laser generation in the three fundamental colours. The NYAB case 204 LCMD lanthanide complexes dispersed in enamel: a promising new material for photonic devices 820 LEED interface formation in the Gd/HOPG and Dy/HOPG systems 701 Lifetime erbium doped glass-ceramics: concentration effect on crystal structure and energy transfer between active ions 245 Light absorption measurement and crystal field analysis of energy levels of Ho3+ and Er^{3+} in KGd(WO₄)₂ single crystal 321 influence of annealing on optical properties of cerium doped sodalime-silicate glasses 367 spectroscopic and magnetic investigation of one sandwich-type uranium(IV)-polyoxometalate with Ge(IV) as heteroatom 743 simulation of the Gd³⁺ energy level scheme in GdOCl 811 V.U.V absorption coefficient measurements of borate matrices 816 Light absorption and reflection absorption spectroscopy of Er:GdCOB and Yb:GdCOB crystals 292 local magnetic properties and micromagnetic structure of FeCuNbSiB amorphous microwires 451 4f-levels in rare earth cuprates: Crystal field and exchange interaction 549 influence of complex formation on the electronic structure of uranyl 683 IR characterization of $Ln_{2-x}Sr_{x}CoO_{4}$ ($x \ge 1$; Ln=La, Nd) oxides 710 vibronic oscillator strengths of Tm³⁺ in Cs₂NaTmCl₆ 718 stark level structure and oscillator strengths of Nd³⁺ ion in different fluoride single crystals 763 Lithium niobate spectroscopy of Er³⁺ in Zn-diffused LiNbO₃ waveguides 348 pulsed, broadly tuneable, photoacoustic study of rare-earth doped LiNbO₂ 351 Lithium tantalate the up-conversion processes in Ho³⁺ doped LiTaO₃ 273 LuAl₃ De Haas-van Alphen effect in LuAl₃ 623 effect of pressure on transport properties of mixed-valence compound YbAl₂ 632 Luminescence hydrated lanthanides picrate complexes with cis-1,3-dithiane-1,3dioxide (cis-DTSO₂). Structure of the Ho compound 13 uranyl nitrate complexes with lactams 18 overview of the best Yb³⁺-doped laser crystals 210 optical transitions of Pr^{3+} ions in Ca₄GdO(BO₃)₃ crystals 214 laser-induced internal cooling of Yb3+-doped fluoride-based glasses 239 optical properties of Pr³⁺-doped lithium tetraborate glasses 250 upconversion processes in Nd³⁺-doped fluoroarsenate glasses 255 site-selective spectroscopy and infrared-to-visible upconversion in a Nd³⁺-doped Pb₅Al₃F₁₉ crystal 267 the up-conversion processes in Ho3+ doped LiTaO₃ 273 preparation and optical properties of nanocrystalline and nanoporous Tb doped alumina and zinc aluminate 279 effect of temperature on excitation energy transfer and upconversion phenomena in Er:YVO₄ single crystals 288 a spectroscopic study of K₂YF₅:Pr³⁺ 303 concentration effect on the up-conversion luminescence of neodymium activated calcium gallium germanium garnet crystal 312

crystal 315 measurement and crystal field analysis of energy levels of Ho3+ and Er^{3+} in KGd(WO₄)₂ single crystal 321 persistent luminescence of Eu²⁺ doped alkaline earth aluminates, $MAl_2O_4:Eu^{2+}$ 326 red, green and blue light generation in fluoride glasses controlled by double excitation 336 modulation of the Yb³⁺ to Er³⁺ energy transfer in LiNbO₃ crystals by applying magnetic field 344 pulsed, broadly tuneable, photoacoustic study of rare-earth doped LiNbO₃ 351 compositional dependence of up-conversion process in Tm³⁺-Yb³⁺ codoped oxyfluoride glasses and glass-ceramics 358 Yb sensitising of Er³⁺ up-conversion emission in KGd(WO₄)₂:Er:Yb single crystals 362 influence of annealing on optical properties of cerium doped sodalime-silicate glasses 367 a new crystalline host for lasing Ln3+ ions: disordered calciumlutetium fluoride 376 spectra and details of the structure of europium acetates with derivatives of 1,10-phenanthroline 661 the blue phosphor Sr₂CeO₄ synthesized by Pechini's method 667 optical and dielectric properties of borophosphates A1-xEuxBPO5 (A=Ca, Sr, Ba and Pb) 673 femtosecond relaxation in Ce^{3+} ions in LiCaAlF₆ and LiSrAlF₆ 688 infra-red-to-visible wavelength upconversion in Sm³⁺-activated YAG crystals 736 effects of dispersion by Gd³⁺ upon europium diphenylphosphinate luminescence 740 upconversion luminescence of Er³⁺-doped YSZ single crystals 748 stark level structure and oscillator strengths of Nd³⁺ ion in different fluoride single crystals 763 photoluminescence and up-conversion of Er³⁺ in tetragonal $NaBi(XO_4)_2$, X=Mo or W, scheelites 806 laser-induced time-resolved luminescence as a means for discrimination of oxidation states of Eu in minerals 842 optical characterisation of rare earths in natural fluorapatite 851 Luminescence and time resolved optical spectroscopies Pr³⁺ Centers in YSZ single crystals 768 Luminescence lifetime luminescence lifetime of lanthanide(III) ions in aqueous solution containing azide ion 125 luminescence study on preferential solvation of Europium(III) in water/non-aqueous solvent mixtures 164 Luminescence spectroscopy structure and emission spectrum of the o-phenanthroline adduct of tris(6-methyl-2,4-heptanedionato)europium(III) 177 Lutetium oxide preparation, X-ray analysis and spectroscopic investigation of nanostructured Lu₂O₃:Tb 8 Magnetically ordered materials structural and magnetic characterization of zircon-type PrCrO₄ oxide 115 HoAs: a model compound for the cooling by the barocaloric effect 392 complex magnetic order in EuRh₂Si₂ 396 magnetic ordering within the layered terbium carbide iodide, Tb₂C₂I₂ 400 reverse Monte Carlo study of local structural and magnetic crosscorrelations in x=1/3 (La,Ca) manganites 404 phase segregation and orbital ordering in $Bi_{1-x}Ca_xMnO_3$ (x ≥ 0.75): a neutron and synchrotron X-ray diffraction study 408

growth and 10 K spectroscopy of Nd³⁺ in NaBi(WO₄)₂ single

raman phonons and the Jahn-Teller transition in RMnO3 manganites 417 Fe doping in La_{0.7}Sr_{0.3}MnO₃ magnetoresistant perovskite 440 magnetic and neutron diffraction study on ordered perovskites Sr_2LnRuO_{ϵ} (Ln=Tb, Ho) 455 structural, spin state, and magnetic transitions in GdBaCo₂O₅₊₈ $(\delta \approx 0.5)$ 468 study of the incommensurate-commensurate magnetic transition in HoMnO₃ perovskite 486 raman phonons and light scattering in RMnO₃ (R=La, Pr, Nd, Ho, Er Tb and Y) orthorhombic and hexagonal manganites 494 magnetic ordering and crystalline electric field splitting in Nd₃Pd₂₀Si₆ 509 magnetic and transport properties of La_{0.7}Cd_{0.3}(Mn_{0.9}TM_{0.1})O₃ transition metal doped manganites 524 conduction mechanisms in pure and doped polycrystalline orthorhombic manganites 527 IR characterization of $Ln_{2-x}Sr_xCoO_4$ ($x \ge 1$; Ln=La, Nd) oxides 710 Magnetic films composition and annealing dependence of magnetic properties in amorphous Tb-Co based alloys 422 Magnetic films and multilayers magnetic properties of thin film GdCoRe amorphous alloys 448 magnetic coupling in amorphous bilayers and sandwiches: (RCo)/ Y/(RCo)' (R: Y, Gd) 504 Magnetic measurements structural and magnetic characterization of zircon-type PrCrO₄ oxide 115 new ecological pigments in the Ca-Yb-S system 297 modulation of the Yb³⁺ to Er³⁺ energy transfer in LiNbO₃ crystals by applying magnetic field 344 anomalous physical properties of cerium-lanthanum filled skutterudites 389 crystal structure and magnetic properties of R₂Co₃Al₉ compounds (R=Y, Pr, Gd, Tb, Dy, Ho, Er, Tm) 427 mixed valence state of Ce ions in CeNi₂Al₃ 431 magnetoresistance behaviour of the ternary stannides CeNi_{0.86}Sn₂ and Ce₃Ni₂Sn₇ 435 Fe doping in La_{0.7}Sr_{0.3}MnO₃ magnetoresistant perovskite 440 synthesis, characterization, magnetism and transport properties of Nd_{1-x}Sr_xCoO₃ perovskites 444 magnetic properties of thin film GdCoRe amorphous alloys 448 magnetic and neutron diffraction study on ordered perovskites Sr₂LnRuO₆ (Ln=Tb, Ho) 455 structural chemistry, magnetic and electrical properties of ternary rare-earth-nickel-phosphides, R₂Ni₇P₄ (R=Ce, Pr, Nd) 498 magnetic coupling in amorphous bilayers and sandwiches: (RCo)/ Y/(RCo)' (R: Y, Gd) 504 magnetic properties of AgLnSe2 compounds (Ln=Ho, Er, Tm and Yb) 513 magnetic and transport properties of La_{0.7}Cd_{0.3}(Mn_{0.9}TM_{0.1})O₃ transition metal doped manganites 524 magnetism of $UFe_{4-x}Al_{8+x}$ (x=(-0.4, 0.4)) intermetallics 531 coexistence of superconductivity and magnetism in Y1__Dy_Ni2B2C single crystals 562 structural and electronic characterization of $Nd_{1.33}Na_{0.66}Mn_{0.66}Ti_{1.34}O_{6}$ 618 spectroscopic and magnetic investigation of one sandwich-type uranium(IV)-polyoxometalate with Ge(IV) as heteroatom 743 Magnetic properties simulation of optical and magnetic properties of neodymium (4f³) in the solid state: extreme sensitivity to the wave vector's composition 460

magnetic ordering in HoNiAl-single crystal study 472

magnetic properties and electronic structures of RCo2_rSi, (R=Gd, Y) compounds 490 Magnetisation complex magnetic order in EuRh₂Si₂ 396 magnetism of $UFe_{4-x}AI_{8+x}$ (x=(-0.4, 0.4)) intermetallics 531 coexistence of superconductivity and magnetism in Y1-xDyxNi2B2C single crystals 562 oxygen content influence in the superconducting and electronic properties of Nd_{1.85}Ce_{0.15}Cu_{1.01}O_y ceramics 580 Magnetization on some magnetic phase transitions in CePtSn 380 composition and annealing dependence of magnetic properties in amorphous Tb-Co based alloys 422 local magnetic properties and micromagnetic structure of FeCuNbSiB amorphous microwires 451 magnetic and neutron diffraction study on ordered perovskites Sr₂LnRuO₆ (Ln=Tb, Ho) 455 Magnetoresistant materials Fe doping in La_{0.7}Sr_{0.3}MnO₃ magnetoresistant perovskite 440 Materials with f-elements chemical inhomogeneity in materials with f-elements: observation and interpretation 34 Mechanical alloying formation and structure of highly over-stoichiometric LaNi_{5+x} (x~1) alloys obtained by manifold non-equilibrium methods 4 SmCo₅/Cu particles elaboration using a supercritical fluid process 412 Metals an estimation of the ionization potentials of actinides from a simple dependence of the aqueous standard potentials on the ionization potentials of elements including lanthanides 614 influence of complex formation on the electronic structure of uranyl 683 vibrational spectra of double diphosphates CsLnP2O7 (Ln=Gd, Tb, Dy, Ho, Y, Er, Tm, Yb) 800 Metal soaps crystal structure of lanthanum(III) butyrate monohydrate 142 Methoxy FTIR surface properties of CeZrO₄-based materials employed as catalysts supports 605 Minerals laser-induced time-resolved luminescence as a means for discrimination of oxidation states of Eu in minerals 842 Mixed oxides infrared spectra of Nd₂BaPdO₅ and Nd₂BaPtO₅ 707 Molecular recognition 'Conjugate strategy' of lanthanide porphyrinate with crown ether toward synergistic binding and chirality sensing of biological substrates 133 Mössbauer spectroscopy Fe doping in $La_{0.7}Sr_{0.3}MnO_3$ magnetoresistant perovskite 440 MRI contrast agents interaction of $[Ln(DO2A)(H_2O)_{2-3}]^+$ and $[Ln(DO2P)(H_2O)_{2-3}]^$ with phosphate, acetate and fluoride anions in aqueous solution 828 Multiple local minima electric-dipole $4f^N - 4f^N$ transition intensity parametrizations for lanthanides: an examination of multiple local minima 778 Nanofabrications local magnetic properties and micromagnetic structure of FeCuNbSiB amorphous microwires 451 Nanostructures preparation and optical properties of nanocrystalline and nanoporous Tb doped alumina and zinc aluminate 279

Naphthenic acid

extraction of scandium from ion-adsorptive rare earth deposit by naphthenic acid 833

NASICON-type trivalent cation conduction in $R_{1/3}Zr_2(PO_4)_3$ (R: rare earths) with the NASICON-type structure 540 Nd doped nonlinear crystals self-frequency-sum mixing in Nd doped nonlinear crystals for laser generation in the three fundamental colours. The NYAB case 204Nd(III) correlation between spectroscopic characteristics and structure of lanthanide phosphoro-azo derivatives of β-diketones 792 Neodymium structure and properties of hydrated La(III), Nd(III) and Er(III) methanesulfonates 39 synthesis and crystal structure of Nd₃Ti₃O₈Se₂ 57 simulation of optical and magnetic properties of neodymium (4f³) in the solid state: extreme sensitivity to the wave vector's composition 460 efficient $4f^{3}(^{4}F_{3/2}) \rightarrow 4f^{2}5d$ excited-state absorption in Nd³⁺ doped fluoride crystals 722 Neodymium spectra Bi4Ge3O12:Nd3+ and Bi12SiO20:Nd3+. A comparative spectroscopic study 714 Neutron diffraction the defect structure of $CaF_{2}:U^{3+}$ 111 magnetic ordering within the layered terbium carbide iodide, Tb,C,I, 400 magnetic and neutron diffraction study on ordered perovskites Sr₂LnRuO₆ (Ln=Tb, Ho) 455 magnetic ordering in HoNiAl-single crystal study 472 study of the incommensurate-commensurate magnetic transition in HoMnO₃ perovskite 486 Neutron scattering anomalous physical properties of cerium-lanthanum filled skutterudites 389 HoAs: a model compound for the cooling by the barocaloric effect 392 dimer splitting of Er³⁺ in Cs₃Er₂Br₉ 481 magnetic ordering and crystalline electric field splitting in Nd₃Pd₂₀Si₆ 509 Neutron scattering, diffraction magnetism of UFe_{4-x}Al_{8+x} ($x = \langle -0.4, 0.4 \rangle$) intermetallics 531 NEXAFS local structure around Fe and Cu ions in PrBaFeCuO₅₊₈ 102 NH₃ adsorption NH₃ adsorption over lanthanide doped V₂O₅/Al₂O₃ catalysts 597 Nickel selective isoprene hydrogenation over LnNi (Ln=Pr, Gd, Tm) intermetallic compounds 610 NMR solution properties of trivalent lanthanide trinuclear complexes with ligand 1,3,5-triamino-1,3,5-trideoxy-cis-inositol 128 comparison of different methods for structural analysis of lanthanide-induced NMR shifts: a case of lanthanide(III) cryptates 824 Nonlinear material optical transitions of Pr³⁺ ions in Ca₄GdO(BO₃)₃ crystals 214 Nonlinear optics growth and characterisation of RbTiOPO4:Nb crystals as a host for rare earth ions 231 upconversion processes in Nd³⁺-doped fluoroarsenate glasses 255 site-selective spectroscopy and infrared-to-visible upconversion in a Nd³⁺-doped Pb₅Al₃F₁₉ crystal 267 Yb sensitising of Er³⁺ up-conversion emission in KGd(WO₄)₂:Er:Yb single crystals 362 Nonlinear processes room temperature photon avalanche in Ho3+ doped YAG, YAP, YLF and ZBLAN 731

Nuclear resonances Y-Fe-Al ternary system: partial isothermal section at 1070 K. Power X-ray diffraction and Mössbauer spectroscopy study 78 interaction of $[Ln(DO2A)(H_2O)_{2-3}]^+$ and $[Ln(DO2P)(H_2O)_{2-3}]^$ with phosphate, acetate and fluoride anions in aqueous solution 828 Optical materials a new crystalline host for lasing Ln³⁺ ions: disordered calciumlutetium fluoride 376 spectroscopy of defect centers in LaGaO₃ crystals 696 Optical properties holmium polysulfides: crystal growth, structure and properties 26 stabilization of the γ -Ce₂S₃ phase 66 synthesis and properties of Lu₂O₃ sol-gel films 74 overview of the best Yb³⁺-doped laser crystals 210 growth and characterisation of RbTiOPO4:Nb crystals as a host for rare earth ions 231 laser-induced internal cooling of Yb3+-doped fluoride-based glasses 239 optical properties of Pr³⁺-doped lithium tetraborate glasses 250 upconversion processes in Nd³⁺-doped fluoroarsenate glasses 255 site-selective spectroscopy and infrared-to-visible upconversion in a Nd³⁺-doped Pb₅Al₃F₁₉ crystal 267 the up-conversion processes in Ho³⁺ doped LiTaO₃ 273 preparation and optical properties of nanocrystalline and nanoporous Tb doped alumina and zinc aluminate 279 effect of temperature on excitation energy transfer and upconversion phenomena in Er:YVO₄ single crystals 288 absorption spectroscopy of Er:GdCOB and Yb:GdCOB crystals 292 new ecological pigments in the Ca-Yb-S system 297 growth and 10 K spectroscopy of Nd^{3+} in $NaBi(WO_4)_2$ single crystal 315 measurement and crystal field analysis of energy levels of Ho3+ and Er³⁺ in KGd(WO₄)₂ single crystal 321 EXAFS determination of the Nd³⁺ lattice position in Nd:LiNbO₃: influence of lithium niobate stoichiometry and Mg²⁺ and Zn² co-doping 331 red, green and blue light generation in fluoride glasses controlled by double excitation 336 modulation of the Yb3+ to Er3+ energy transfer in LiNbO3 crystals by applying magnetic field 344 compositional dependence of up-conversion process in Tm³⁺-Yb³⁺ codoped oxyfluoride glasses and glass-ceramics 358 Yb sensitising of Er³⁺ up-conversion emission in KGd(WO₄)₂:Er:Yb single crystals 362 influence of annealing on optical properties of cerium doped sodalime-silicate glasses 367 (Bi,R)₂O₃ (R: Nd, Sm and Dy) oxides as potential pigments 372 simulation of optical and magnetic properties of neodymium (4f³) in the solid state: extreme sensitivity to the wave vector's composition 460 Judd-Ofelt theory in a new light on its (almost) 40th anniversary 645 the blue phosphor Sr₂CeO₄ synthesized by Pechini's method 667 optical and dielectric properties of borophosphates A_{1-x}Eu_xBPO₅ (A=Ca, Sr, Ba and Pb) 673 influence of complex formation on the electronic structure of uranyl 683 femtosecond relaxation in Ce³⁺ ions in LiCaAlF₆ and LiSrAlF₆ 688 vibronic oscillator strengths of Tm³⁺ in Cs₂NaTmCl₆ 718

efficient $4f^{3}({}^{4}F_{3/2}) \rightarrow 4f^{2}5d$ excited-state absorption in Nd³⁺ doped fluoride crystals 722

parametrization of $f^{N}-f^{N}$ electric dipole transitions in point-group bases 726

infra-red-to-visible wavelength upconversion in Sm3+-activated YAG crystals 736 effects of dispersion by Gd³⁺ upon europium diphenylphosphinate luminescence 740 upconversion luminescence of Er³⁺-doped YSZ single crystals 748 optical properties of Er³⁺ ions in transparent glass ceramics 753 stark level structure and oscillator strengths of Nd³⁺ ion in different fluoride single crystals 763 Pr³⁺ Centers in YSZ single crystals 768 photoluminescence and up-conversion of Er³⁺ in tetragonal NaBi(XO₄)₂, X=Mo or W, scheelites 806 simulation of the Gd³⁺ energy level scheme in GdOCl 811 V.U.V absorption coefficient measurements of borate matrices 816 Optical spectrocopy optical spectrum, crystal field analysis of Pr³⁺ in YPO₄ 783 Optical spectroscopy optical spectroscopy of Nd³⁺ ions in $Gd_xY_{1-x}Al_3(BO_3)_4$ 355 Order-disorder effects transmission electron microscopy study of $Y_{1-x} \Box_x Cr_2 S_4$, $x \sim 1/3$ phase 86 Organic radical salts new Pr and Nd complexes containing TCNQ radicals 138 Outer-sphere complexes europium(III)-asparagine complexation in aqueous methanol 190 Oxaazamacrocycle lanthanide(III) perchlorate complexes of two 24 membered N₃O₄donor macrocycles 155 Oxoborates optical transitions of Pr³⁺ ions in Ca₄GdO(BO₃)₃ crystals 214 Oxygen storage some recent developments in the characterization of ceria-based catalysts 584 Oxynitride rare-earth and tungsten oxynitrides with a defect fluorite-type structure as new pigments 45 Paramagnetic effects comparison of different methods for structural analysis of lanthanide-induced NMR shifts: a case of lanthanide(III) cryptates 824 PdO₄- and PtO₄-units infrared spectra of Nd₂BaPdO₅ and Nd₂BaPtO₅ 707 Permanent magnets SmCo₅/Cu particles elaboration using a supercritical fluid process 412 Phase diagrams Y-Fe-Al ternary system: partial isothermal section at 1070 K. Power X-ray diffraction and Mössbauer spectroscopy study 78 Phase transition magnetic ordering within the layered terbium carbide iodide, Tb,C,I, 400 Phase transitions stabilization of the γ -Ce₂S₃ phase 66 HoAs: a model compound for the cooling by the barocaloric effect 392 structural, spin state, and magnetic transitions in GdBaCo₂O₅₊₈ (*δ*≈0.5) 468 raman phonons and light scattering in RMnO3 (R=La, Pr, Nd, Ho, Er Tb and Y) orthorhombic and hexagonal manganites 494 magnetic ordering and crystalline electric field splitting in Nd₃Pd₂₀Si₆ 509 magnetism of UFe_{4-x}Al_{8+x} ($x = \langle -0.4, 0.4 \rangle$) intermetallics 531 Phenomena Judd-Ofelt theory in a new light on its (almost) 40th anniversary 645 Phonons laser-induced internal cooling of Yb3+-doped fluoride-based glasses 239

859

49

improvement of the optical performances of Pr³⁺ in CaTiO₃ 218 red, green and blue light generation in fluoride glasses controlled Precipitation by double excitation 336 preparation of highly pure thorium nitrate via thorium sulfate and raman phonons and the Jahn-Teller transition in RMnO3 manganites 417 thorium peroxide 53 raman phonons and light scattering in RMnO3 (R=La, Pr, Nd, Ho, Preferential solvation luminescence study on preferential solvation of Europium(III) in Er Tb and Y) orthorhombic and hexagonal manganites 494 water/non-aqueous solvent mixtures 164 IR characterization of $Ln_{2-x}Sr_xCoO_4$ ($x \ge 1$; Ln=La, Nd) oxides Pressure effect 710 effect of pressure on transport properties of mixed-valence Phosphor improvement of the optical performances of Pr³⁺ in CaTiO₃ 218 compound YbAl₃ 632 Pr(III) Phosphors correlation between spectroscopic characteristics and structure of growth and 10 K spectroscopy of Nd³⁺ in NaBi(WO₄)₂ single lanthanide phosphoro-azo derivatives of β-diketones 792 crystal 315 Pr^{3+} persistent luminescence of Eu²⁺ doped alkaline earth aluminates, a spectroscopic study of K₂YF₅:Pr³⁺ 303 $MAl_{2}O_{4}:Eu^{2+}$ 326 Pseudopotentials the blue phosphor Sr_2CeO_4 synthesized by Pechini's method 667 phase transitions in cerium by pseudopotential methods 628 vibronic oscillator strengths of Tm³⁺ in Cs₂NaTmCl₆ 718 Pseudoquaternary borocarbides effects of dispersion by Gd³⁺ upon europium diphenylphosphinate magnetic features of the (U_{0.50}Tm_{0.50})Ni₂B₂C solid solution 477 luminescence 740 Pyrolysis simulation of the Gd³⁺ energy level scheme in GdOCl 811 low cost rare earth elements deposition method for enhancing the V.U.V absorption coefficient measurements of borate matrices 816 oxidation resistance at high temperature of Cr₂O₃ and Al₂O₃ Photoacoustic forming alloys 70 pulsed, broadly tuneable, photoacoustic study of rare-earth doped LiNbO₃ 351 Photoelectron spectroscopy Quantum yield interface formation in the Gd/HOPG and Dy/HOPG systems 701 experimental and theoretical study of ligand field, 4f-4f intensities Photoluminescence and emission quantum yield in the compound improvement of the optical performances of Pr³⁺ in CaTiO₃ 218 $Eu(bpyO_2)_4(ClO_4)_3$ 654 Photon avalanche Quenching rate constants room temperature photon avalanche in Ho³⁺ doped YAG, YAP, luminescence lifetime of lanthanide(III) ions in aqueous solution YLF and ZBLAN 731 containing azide ion 125 Photonic devices lanthanide complexes dispersed in enamel: a promising new material for photonic devices 820 Raman spectrometry Pigment raman spectroscopic determination of formation constant of uranyl rare-earth and tungsten oxynitrides with a defect fluorite-type hydrolysis species $(UO_2)_2(OH)_2^{2+}$ structure as new pigments 45 Rare earth compounds dimer splitting of Er³⁺ in Cs₃Er₂Br₉ 481 Plane wave calculations phase transitions in cerium by pseudopotential methods 628 magnetic properties and electronic structures of RCo_{2-x}Si_x (R=Gd, Podand Y) compounds 490 effect of the solvent and different crystal packing on the europium Rare-earth intermetallic compounds podand complex: tris(2-hydroxy-3-methoxybenzyl)amino) magnetic ordering in HoNiAl-single crystal study 472 ethylamine) tris(nitrato) europium(III) 185 Rare-earth intermetallics Point defects structural chemistry, magnetic and electrical properties of ternary EPR spectroscopy of Yb³⁺ in LiNbO₃ and Mg:LiNbO₃ 340 rare-earth-nickel-phosphides, R₂Ni₂P₄ (R=Ce, Pr, Nd) 498 oxygen content influence in the superconducting and electronic Rare-earth metal carbide halide magnetic ordering within the layered terbium carbide iodide, properties of $Nd_{1.85}Ce_{0.15}Cu_{1.01}O_{y}$ ceramics 580 EPR and optical spectroscopy of SrF_2 doped with Yb^{3+} 692 $Tb_2C_2I_2$ 400 spectroscopy of defect centers in LaGaO₃ crystals 696 Rare earths Pr³⁺ Centers in YSZ single crystals 768 crystal structure of lanthanum(III) butyrate monohydrate 142 Polarizability rare earth ion conduction in solids 534 raman spectroscopic determination of formation constant of uranyl trivalent cation conduction in $R_{1/3}Zr_2(PO_4)_3$ (R: rare earths) with hydrolysis species $(UO_2)_2(OH)_2^{2+}$ the NASICON-type structure 540 859 interaction of [Ln(DO2A)(H2O)2-3]⁺ and [Ln(DO2P)(H2O)2-3]⁻ Polymerization with phosphate, acetate and fluoride anions in aqueous solution organolanthanides, catalysts for specific olefin-diene copolymerization: access to new materials 592 828 Polypyrazolylborates optical characterisation of rare earths in natural fluorapatite 851 FT-ICR studies of polypyrazolyl-1-yl borates of europium(II) CeCl₂ and LaCl₂ binary solutions as environment-friendly corrosion adducts 147 inhibitors of AA5083 Al-Mg alloy in NaCl solutions 855 Rare earths elements Porous solid synthesis, crystal structure of a new tridimensional family of determination of trace amounts of rare earth elements in highly materials: LnCHA(H₂O)₂·2.5H₂O (Ln=Dy-Yb) 199 pure praseodymium oxide by double focusing inductively coupled plasma mass spectrometry and high-performance liquid Potentiometry Sm(III) complexation with α-amino acids. X-ray crystal structure of chromatography $[Sm_2(Hala)_4(H_2O)_8](ClO_4)_4(Cl)_2$ 119 Rare-earths separation Praseodymium preparation of highly pure thorium nitrate via thorium sulfate and optical transitions of Pr³⁺ ions in Ca₄GdO(BO₃)₃ crystals 214 thorium peroxide 53

Rare earth tungstate rare-earth and tungsten oxynitrides with a defect fluorite-type structure as new pigments 45 Reactive metal effect low cost rare earth elements deposition method for enhancing the oxidation resistance at high temperature of Cr₂O₃ and Al₂O₃ forming alloys 70 Recombination and trapping persistent luminescence of Eu²⁺ doped alkaline earth aluminates, MAl₂O₄:Eu²⁺ 326 Safe inorganic pigments (Bi,R)₂O₃ (R: Nd, Sm and Dy) oxides as potential pigments 372 Samarium Sm(III) complexation with α -amino acids. X-ray crystal structure of $[Sm_2(Hala)_4(H_2O)_8](ClO_4)_4(Cl)_2$ 119 organolanthanides, catalysts for specific olefin-diene copolymerization: access to new materials 592 Scandium extraction of scandium from ion-adsorptive rare earth deposit by naphthenic acid 833 Scanning and transmission electron microscopy crystal structure and microstructure of δ -Er₂S₃ 91 new ecological pigments in the Ca-Yb-S system 297 Schiff-base lanthanide(III) perchlorate complexes of two 24 membered N₃O₄donor macrocycles 155 Schiff base podates new supramolecular dinuclear Schiff base complexes of yttrium and lanthanides 173 Sc₂(WO₄)₃ type rare earth ion conduction in solids 534 Selective hydrogenation selective isoprene hydrogenation over LnNi (Ln=Pr, Gd, Tm) intermetallic compounds 610 Semiconductors structural and electronic characterization of $Nd_{1.33}Na_{0.66}Mn_{0.66}Ti_{1.34}O_{6} \quad 618$ Semi-precious mineral optical characterisation of rare earths in natural fluorapatite 851 Silicate glasses Cr³⁺-Tm³⁺ energy transfer in alkali silicate glasses 759 Solar UV radiation solar ultraviolet-B detectors using Eu²⁺ doped alkali halide crystals 847 Sol-gel improvement of the optical performances of Pr³⁺ in CaTiO₃ 218 Sol-gel silica glass energy transfer between Eu³⁺ ions in sol-gel derived silica glasses 773 Solid electrolyte trivalent cation conduction in $R_{1/3}Zr_2(PO_4)_3$ (R: rare earths) with the NASICON-type structure 540 Solid electrolytes rare earth ion conduction in solids 534 Solid state lasers concentration effect on the up-conversion luminescence of neodymium activated calcium gallium germanium garnet crystal optical spectroscopy of Nd³⁺ ions in $Gd_XY_{1-X}Al_3(BO_3)_4$ 355 Solution structures comparison of different methods for structural analysis of lanthanide-induced NMR shifts: a case of lanthanide(III) cryptates 824 Specific heat on some magnetic phase transitions in CePtSn 380

Spectroscopy experimental and theoretical study of ligand field, 4f-4f intensities and emission quantum yield in the compound $Eu(bpyO_2)_4(ClO_4)_3$ 654 magnetic field effect in the luminescence of Er³⁺ ion in $(Er_{0.05}Y_{0.95})_2BaZnO_5$ 788 correlation between spectroscopic characteristics and structure of lanthanide phosphoro-azo derivatives of β-diketones 792 Spin-orbit effects Judd-Ofelt theory in a new light on its (almost) 40th anniversary 645 Stability constants solution properties of trivalent lanthanide trinuclear complexes with ligand 1,3,5-triamino-1,3,5-trideoxy-cis-inositol 128 Stainless steel low cost rare earth elements deposition method for enhancing the oxidation resistance at high temperature of Cr₂O₃ and Al₂O₃ forming alloys 70 Strain HoAs: a model compound for the cooling by the barocaloric effect 392 Structure holmium polysulfides: crystal growth, structure and properties 26 Structure determination rare earth fluorosulfides LnSF and Ln₂AF₄S₂ as new colour pigments 223 Structures structural characterization of [Ln(TFA)₃(HMPA)₃] (Ln=La, Nd, Er) complexes 181 Superconductors oxygen content influence in the superconducting and electronic properties of Nd_{1.85}Ce_{0.15}Cu_{1.01}O_y ceramics 580 Supercritical fluid SmCo5/Cu particles elaboration using a supercritical fluid process 412 Superoxide EPR surface properties of CeZrO4-based materials employed as catalysts supports 605 Surfaces and interfaces interface formation in the Gd/HOPG and Dy/HOPG systems 701 Synchrotron radiation local structure around Fe and Cu ions in $PrBaFeCuO_{5+\delta}$ 102 EXAFS determination of the Nd³⁺ lattice position in Nd:LiNbO₃: influence of lithium niobate stoichiometry and Mg²⁺ and Zn² co-doping 331 structural, spin state, and magnetic transitions in GdBaCo₂O₅₊₈ $(\delta \approx 0.5)$ 468 Synthesis effect of the solvent and different crystal packing on the europium podand complex: tris(2-hydroxy-3-methoxybenzyl)amino) ethylamine) tris(nitrato) europium(III) 185 Tb³⁺ preparation, X-ray analysis and spectroscopic investigation of nanostructured Lu₂O₃:Tb 8 Tb^{4+} preparation, X-ray analysis and spectroscopic investigation of nanostructured Lu₂O₃:Tb 8 Tb₂C₂I₂ magnetic ordering within the layered terbium carbide iodide, $Tb_2C_2I_2$ 400 Tb luminescence preparation, X-ray analysis and spectroscopic investigation of nanostructured Lu₂O₃:Tb 8 Template synthesis lanthanide(III) perchlorate complexes of two 24 membered N₃O₄donor macrocycles 155

new supramolecular dinuclear Schiff base complexes of yttrium and lanthanides 173 Ternary lanthanide chalcogenides magnetic properties of AgLnSe2 compounds (Ln=Ho, Er, Tm and Yb) 513 Theoretical methods comparison between correlation crystal field calculations using extended basis sets and two-electron operators 636 Thermal analysis uranyl nitrate complexes with lactams 18 synthesis and properties of Lu₂O₃ sol-gel films 74 Thermodynamic properties an estimation of the ionization potentials of actinides from a simple dependence of the aqueous standard potentials on the ionization TWC potentials of elements including lanthanides 614 Thermoluminescence dosimetry solar ultraviolet-B detectors using Eu²⁺ doped alkali halide crystals 847 Thin films synthesis and properties of Lu₂O₃ sol-gel films 74 Gd thin films: relationship between elastic properties and microstructure 107 magnetic properties of thin film GdCoRe amorphous alloys 448 effect of anisotropy on the vortex liquid dissipation in $YBa_2Cu_3O_{7-\delta}$ thin films 572 chain oxygen disorder in deoxygenated YBa₂Cu₃O₇₋₈ thin films induced by light ion irradiation 576 V.U.V absorption coefficient measurements of borate matrices 816 Thorim studies on triple orthovanadates.VIII. Synthesis and spectrostructural characterization of triple orthovanadates BaLnTh(VO₄)₃ (Ln= La or Pr) and BaLnCe(VO₄)₃ (Ln=La, Pr, Nd or Sm) 83 Thorium nitrate preparation of highly pure thorium nitrate via thorium sulfate and thorium peroxide 53 Thorium peroxide preparation of highly pure thorium nitrate via thorium sulfate and thorium peroxide 53 Thorium sulfate preparation of highly pure thorium nitrate via thorium sulfate and thorium peroxide 53 Time-resolved laser-induced time-resolved luminescence as a means for discrimination of oxidation states of Eu in minerals 842 Time-resolved optical spectroscopies upconversion processes in Nd³⁺-doped fluoroarsenate glasses 255 site-selective spectroscopy and infrared-to-visible upconversion in a Nd³⁺-doped Pb₅Al₃F₁₉ crystal 267 femtosecond relaxation in Ce³⁺ ions in LiCaAlF₆ and LiSrAlF₆ 688 infra-red-to-visible wavelength upconversion in Sm3+-activated YAG crystals 736 energy transfer between Eu³⁺ ions in sol-gel derived silica glasses 773 Time-resolved spectroscopies optical properties of Pr³⁺-doped lithium tetraborate glasses 250 Transmission electron microscopy transmission electron microscopy study of $Y_{1-x} \Box_x Cr_2 S_4$, $x \sim 1/3$ phase 86 Transport property effect of pressure on transport properties of mixed-valence compound YbAl₃ 632 Triethanolamine synthesis and structure of bis(triethanolamine)europium(II) diperchlorate 159 Trifluoroacetate structural characterization of [Ln(TFA)₃(HMPA)₃] (Ln=La, Nd, Er) complexes 181

Trigonal symmetry correlation between spectroscopic characteristics and structure of lanthanide phosphoro-azo derivatives of β-diketones 792 Trinuclear complexes solution properties of trivalent lanthanide trinuclear complexes with ligand 1,3,5-triamino-1,3,5-trideoxy-cis-inositol 128 Trivalent ion rare earth ion conduction in solids 534 Trivalent rare-earth pulsed, broadly tuneable, photoacoustic study of rare-earth doped LiNbO₂ 351 Tunneling conduction mechanisms in pure and doped polycrystalline orthorhombic manganites 527 surface properties of CeZrO₄-based materials employed as catalysts supports 605 Upconversion the up-conversion processes in Ho³⁺ doped LiTaO₃ 273 upconversion-induced blue, green and red emission in Ho3+:BaY2F8 283 a spectroscopic study of K₂YF₅:Pr³⁺ 303 room temperature photon avalanche in Ho3+ doped YAG, YAP, YLF and ZBLAN 731 optical properties of Er³⁺ ions in transparent glass ceramics 753 Uranium recovery of uranium from the filtrate of 'ammonium diuranate' prepared from uranium hexafluoride 838 Uranium(3+)absorption spectrum analysis of uranium trichloride heptahydrate 678 Uranium recovery recovery of uranium from the filtrate of 'ammonium diuranate' prepared from uranium hexafluoride 838 Uranium trichloride heptahydrate absorption spectrum analysis of uranium trichloride heptahydrate 678 Uranyl, hydrolysis product raman spectroscopic determination of formation constant of uranyl hydrolysis species $(UO_2)_2(OH)_2^{2+}$ 859 $(U_{0.50}Tm_{0.50})Ni_2B_2C$ magnetic features of the (U_{0.50}Tm_{0.50})Ni₂B₂C solid solution 477 UV biosensors solar ultraviolet-B detectors using Eu²⁺ doped alkali halide crystals 847 UV dosimetry lanthanide complexes dispersed in enamel: a promising new material for photonic devices 820 Valence fluctuations mixed valence state of Ce ions in CeNi₂Al₃ 431 an estimation of the ionization potentials of actinides from a simple dependence of the aqueous standard potentials on the ionization potentials of elements including lanthanides 614 Vapour deposition Gd thin films: relationship between elastic properties and microstructure 107 magnetic properties of thin film GdCoRe amorphous alloys 448 V₂O₅/Al₂O₃ catalysts NH₃ adsorption over lanthanide doped V₂O₅/Al₂O₃ catalysts 597 Water/non-aqueous solvent mixture luminescence study on preferential solvation of Europium(III) in water/non-aqueous solvent mixtures 164 Water reduction hydrogen production from methane and water by lattice oxygen transfer with $Ce_{0.70}Zr_{0.25}Tb_{0.05}O_{2-x}$ 97

Waveguide spectroscopy of Er³⁺ in Zn-diffused LiNbO₃ waveguides 348 Wave vector composition simulation of optical and magnetic properties of neodymium (4f³) in the solid state: extreme sensitivity to the wave vector's composition 460 X-ray analysis erbium doped glass-ceramics: concentration effect on crystal structure and energy transfer between active ions 245 X-ray and *-ray spectroscopies vibrational spectra of double diphosphates CsLnP₂O₇ (Ln=Gd, Tb, Dy, Ho, Y, Er, Tm, Yb) 800 X-ray and X-ray spectroscopies synthesis and crystal structure of Nd₃Ti₃O₈Se₂ 57 EXAFS determination of the Nd³⁺ lattice position in Nd:LiNbO₃: influence of lithium niobate stoichiometry and Mg²⁺ and Zn² co-doping 331 X-ray diffraction formation and structure of highly over-stoichiometric LaNi_{5+x} (x~1) alloys obtained by manifold non-equilibrium methods 4 hydrated lanthanides picrate complexes with cis-1,3-dithiane-1,3dioxide (cis-DTSO₂). Structure of the Ho compound 13 uranyl nitrate complexes with lactams 18 complexes of lanthanide picrates with 1,4-pyrazine-dioxide 22 stabilization of the γ -Ce₂S₃ phase 66 synthesis and properties of Lu₂O₂ sol-gel films 74 Y-Fe-Al ternary system: partial isothermal section at 1070 K. Power X-ray diffraction and Mössbauer spectroscopy study 78 studies on triple orthovanadates.VIII. Synthesis and spectrostructural characterization of triple orthovanadates BaLnTh(VO₄)₃ (Ln= La or Pr) and BaLnCe(VO₄)₃ (Ln=La, Pr, Nd or Sm) 83 crystal structure and microstructure of δ -Er₂S₃ 91 Gd thin films: relationship between elastic properties and microstructure 107 structural and magnetic characterization of zircon-type PrCrO₄ oxide 115 crystal structure of lanthanum(III) butyrate monohydrate 142 structure and emission spectrum of the o-phenanthroline adduct of tris(6-methyl-2,4-heptanedionato)europium(III) 177 growth and characterisation of RbTiOPO4:Nb crystals as a host for rare earth ions 231

new ecological pigments in the Ca-Yb-S system 297

complex magnetic order in EuRh, Si, 396 Fe doping in La_{0.7}Sr_{0.3}MnO₃ magnetoresistant perovskite 440 structural, spin state, and magnetic transitions in GdBaCo₂O_{5+δ} (*δ*≈0.5) 468 magnetic and transport properties of La_{0.7}Cd_{0.3}(Mn_{0.9}TM_{0.1})O₃ transition metal doped manganites 524 coexistence of superconductivity and magnetism in Y1__Dy_Ni_2B_2C single crystals 562 structural and electronic characterization of $Nd_{1,33}Na_{0,66}Mn_{0,66}Ti_{1,34}O_{6}$ 618 the blue phosphor Sr₂CeO₄ synthesized by Pechini's method 667 optical and dielectric properties of borophosphates A1-rEurBPO5 (A=Ca, Sr, Ba and Pb) 673 vibrational spectra of double diphosphates CsLnP2O7 (Ln=Gd, Tb, Dy, Ho, Y, Er, Tm, Yb) 800 X-ray photoelectron spectroscopy mixed valence state of Ce ions in CeNi₂Al₃ 431 YbAl, effect of pressure on transport properties of mixed-valence compound YbAl₃ 632 Y,BaZnO, magnetic field effect in the luminescence of Er³⁺ ion in $(Er_{0.05}Y_{0.95})_2BaZnO_5$ 788 YPO₄:Pr³ optical spectrum, crystal field analysis of Pr^{3+} in YPO_{4} 783 Ytterbium synthesis and characterization of polynuclear lanthanide aryloxides 169 Ytterbium-chromium carbonyl compounds chemistry of lanthanide-metal carbonyl systems: the ytterbiumchromium carbonyls interaction 61 Yttrium complexes new supramolecular dinuclear Schiff base complexes of yttrium and lanthanides 173 Zirconia-ceria mixed oxide surface properties of CeZrO₄-based materials employed as catalysts supports 605 Zn-diffusion spectroscopy of Er³⁺ in Zn-diffused LiNbO₃ waveguides 348