



Subject Index of Volume 507

- ABE
deformation homogeneity in accumulative back extrusion processing of AZ31 magnesium alloy 207
- AC magnetic susceptibility
optical, magnetic and electrical investigation of cobalt ferrite nanoparticles synthesized by co-precipitation route 201
- Activation energy
optical, magnetic and electrical investigation of cobalt ferrite nanoparticles synthesized by co-precipitation route 201
- Activity
thermodynamic measurement of La–Fe and Y–Fe alloys by multi-Knudsen cell mass spectrometry 72
- Ag nano-particles
preparation and characterization of sol–gel derived silver-silica nanocomposite 101
- AgCl
investigations of the spin-Hamiltonian parameters and tetragonal distortions due to Jahn–Teller effect for the monovalent d^9 (Ni^+ , Pd^+ , Pt^+) impurity centers in AgCl crystals 498
- Ag₁₈SbTe₂₀
fabrication of Ag–Sn–Sb–Te based thermoelectric materials by MA-PAS and their properties 167
- Al-based alloy
comment on the paper ‘Thermal stability of the Al₇₀Ni₁₀Ti₁₀Zr₅Ta₅ amorphous alloy powder fabricated by mechanical alloying’ by Xiu Wei, Xinfu Wang, Fusheng Han, Haowen Xie, Cui’e Wen, J. Alloys Compd. 496 (2010) 313–316 L32
- Alq₃
structural and optical properties of Tris(8-hydroxyquinoline) aluminum (III) (Alq₃) thermal evaporated thin films 112
- Alumina
influence of nano boehmite on solid state reaction of alumina and magnesia 443
- 7055 aluminum alloy
effect of microstructure on the quench sensitivity of AlZnMgCu alloys 53
- Amino acid
amino acid-assisted synthesis of ZnO twin-prisms and functional group’s influence on their morphologies 326
- Amorphous alloys
optimization of soft magnetic properties and crystallization in FeAgNbSiB, FeAgNbB and FeAgCoNbB amorphous alloys 465
- Amorphous materials
comment on the paper ‘Thermal stability of the Al₇₀Ni₁₀Ti₁₀Zr₅Ta₅ amorphous alloy powder fabricated by mechanical alloying’ by Xiu Wei, Xinfu Wang, Fusheng Han, Haowen Xie, Cui’e Wen, J. Alloys Compd. 496 (2010) 313–316 L32
anomalous hydrogen absorption on non-stoichiometric iron-carbon compound 547
- Amorphous oxide semiconductors
flexible a-IZO thin film transistors fabricated by solution processes L1
- Anisotropy
synthesis of rare earth (Pr, Nd, Sm, Eu and Gd) hydroxide and oxide nanorods (nanobundles) by a widely applicable precipitation route 105
- Anode material
enhanced cycling performance of silicon/disordered carbon/carbon nanotubes composite for lithium ion batteries 309
- Anodic bonding
crystallization behaviors of R₂O–Al₂O₃–SiO₂ glass–ceramics for use as anodic bonding materials 531
- Antiferromagnetic
field-induced reversible magnetocaloric effect in CoCl₂ 26
- Antiferromagnetism
nature of magnetic phase transitions in TbCu₂X₂ (X = Si, Ge) and HoCu₂Si₂ compounds 16
- Antimony addition
effects of antimony addition on the microstructures of ZA84 magnesium alloy 322
- Arrott plot
magnetocaloric effect in nano- and polycrystalline manganites La_{0.5}Ca_{0.5}MnO₃ 350
- Atomic force microscopy
nano- and microtribological characterization of silanes deposited on cobalt substrate 273
- AZ31 alloy
deformation homogeneity in accumulative back extrusion processing of AZ31 magnesium alloy 207
- Ba doping
effect of Ba doping on magnetic and dielectric properties of nanocrystalline BiFeO₃ at room temperature 29
- Band structure
electronic structure and visible-light-driven photocatalytic performance of Cd₂SnO₄ 341
- Bandgap
synthesis and characterization of KCu₃S₂ microstructures through a composite-hydroxide mediated method 429
- Ba_xSr_{1-x}Fe₁₂O₁₉
characterization and magnetic properties of Ba_xSr_{1-x}Fe₁₂O₁₉ (x = 0–1) ferrite hollow fibers via gel-precursor transformation process 297
- α-Bi₂O₃ nanoparticle
fabrication and photocatalytic property of α-Bi₂O₃ nanoparticles by femtosecond laser ablation in liquid L43
- BiFeO₃
effect of Ba doping on magnetic and dielectric properties of nanocrystalline BiFeO₃ at room temperature 29
effect of Eu substitution on the crystal structure and multiferroic properties of BiFeO₃ 157
- BiFeO₃ thin films
multiferroic behavior and electrical conduction of BiFeO₃ thin film deposited on quartz substrate L4

- Biomimetic synthesis
 black pepper assisted biomimetic synthesis of silver nanoparticles L13
- Black pepper extract
 black pepper assisted biomimetic synthesis of silver nanoparticles L13
- Borates
 crystal growth and thermal properties of single crystal monoclinic NdCOB ($\text{NdCa}_4\text{O}(\text{BO}_3)_3$) 335
- Borocarbides
 biaxially textured $\text{LuNi}_2\text{B}_2\text{C}$ thin films on MgO single crystals 345
- Bulk metallic glasses (BMGs)
 design induced plastic deformation in Zr-based bulk metallic glass 414
- $\text{Ca}_{0.8}\text{Sm}_{0.4/3}\text{TiO}_3$
 microwave dielectric properties of $x(\text{Mg}_{0.7}\text{Zn}_{0.3})_{0.95}\text{Co}_{0.05}\text{TiO}_3-(1-x)\text{Ca}_{0.8}\text{Sm}_{0.4/3}\text{TiO}_3$ ceramics with a zero temperature coefficient of resonant frequency 286
- CALPHAD
 thermodynamic assessment of the Cr–Mn–O system 84
- CALPHAD technique
 thermodynamic modeling of the Pd–Sb system 521
- Carbon nanorods
 synthesis of carbon nanorods by reduction of carbon disulfide 38
- Carbon nanotubes
 enhanced cycling performance of silicon/disordered carbon/carbon nanotubes composite for lithium ion batteries 309
 CVD fabrication of carbon nanotubes on electrodeposited flower-like Fe nanostructures 494
- Carrier tuning
 optimization of thermoelectric properties of type-VIII clathrate $\text{Ba}_8\text{Ga}_{16}\text{Sn}_{30}$ by carrier tuning 1
- Carriers localization
 suppression of T_c in Co-doped $(\text{Cu}_{0.5}\text{Ti}_{0.5})\text{Ba}_2\text{Ca}_2\text{Cu}_{3-x}\text{Co}_x\text{O}_{10-8}$ superconductor 142
- Catalysis
 synthesis of $\text{La}_{1-x}\text{Fe}_x\text{VO}_4$ solid solutions and their photocatalytic activity L35
 structural investigations of nanomixed oxides $\text{SnO}_2-x\text{Al}_2\text{O}_3$ prepared by sol-gel technique 253
- Cathode material
 synthesis, structural and electrochemical properties of $\text{LiNi}_{0.79}\text{Co}_{0.1}\text{Mn}_{0.1}\text{Cr}_{0.01}\text{O}_2$ via fast co-precipitation 172
- Ceramics
 an ultrasonic therapeutic transducers using lead-free $\text{Na}_{0.5}\text{K}_{0.5}\text{NbO}_3-\text{CuNb}_2\text{O}_6$ ceramics 433
 phase structure and electrical properties of lead-free $(1-x)(\text{Bi}_{0.5}\text{Na}_{0.5})_{0.88}\text{Ba}_{0.12}\text{TiO}_3-x\text{Ag}_{0.9}\text{Li}_{0.1}\text{NbO}_3$ piezoelectric ceramics 479
 microstructure, dielectric and ferroelectric properties of $(1-x)(0.94\text{Bi}_{0.5}\text{Na}_{0.5}\text{TiO}_3-0.06\text{BaTiO}_3)-x\text{BiFeO}_3$ lead-free ceramics synthesized via a high energy ball milling method 535
- Cerium intermetallics
 influence of hydrogen absorption on structural and magnetic properties of $\text{Ce}_2\text{Ni}_2\text{In}$ 376
- Characterization
 crystal growth and thermal properties of single crystal monoclinic NdCOB ($\text{NdCa}_4\text{O}(\text{BO}_3)_3$) 335
- Chemical synthesis
 texture-controlled growth of ZnO nanorods/films by aluminum ion and solvent L21
 synthesis of $\text{La}_{1-x}\text{Fe}_x\text{VO}_4$ solid solutions and their photocatalytic activity L35
 structural and optical properties of nanocrystalline Ni–Zn ferrite thin films 21
 synthesis of carbon nanorods by reduction of carbon disulfide 38
 supercapacitive properties of ultra-fine MnO_2 prepared by a solid-state coordination reaction 526
- Chemical vapor deposition
 CVD fabrication of carbon nanotubes on electrodeposited flower-like Fe nanostructures 494
- Coating materials
 electrochemical impedance spectroscopy of HVOF-sprayed NiTi intermetallic coatings deposited on AISI 1045 steel 42
- Coefficient of thermal expansion
 crystallization behaviors of $\text{R}_2\text{O}-\text{Al}_2\text{O}_3-\text{SiO}_2$ glass–ceramics for use as anodic bonding materials 531
- Cold workability
 effect of strengthening mechanisms on cold workability and instantaneous strain hardening behavior during grain refinement of AA 6061–10 wt.% TiO_2 composite prepared by mechanical alloying 236
- Cole–Cole plot
 investigation of structural and dielectric behavior of $\text{Eu}_2(\text{B}'_{0.5}\text{B}''_{0.5})_2\text{O}_7$ ($\text{B}' = \text{Ba}$; $\text{B}'' = \text{W}, \text{Mo}$) ceramics 542
- Columnar structure
 sintering and microstructure evolution of columnar nickel-based superalloy sheets prepared by EB-PVD 146
- Composite
 research on YAl_2 intermetallics particles reinforced Mg–14Li–3Al matrix composites 137
- Composite manganites
 intrinsic and extrinsic transport properties of $\text{Pr}_{0.67}\text{Ba}_{0.33}\text{MnO}_3\cdot\text{Ag}_2\text{O}$ composites 439
- Composite materials
 synthesis of electrospun ZnO/CuO nanocomposite fibers and their dielectric and non-linear optic studies 225
 magnetic properties of A- and B-site cation doped $\text{La}_{0.65}\text{Ca}_{0.35}\text{MnO}_3$ manganites 380
- Compression test
 design induced plastic deformation in Zr-based bulk metallic glass 414
- Computer simulation
 first principles calculations of electronic and optical properties of Mo-doped rutile TiO_2 33
- Contact angle
 effect of phase transformation on structural, electrical and hydrophobic properties of nanocomposite $\text{Ti}_{1-x}\text{Al}_x\text{N}$ films L47
- Co-precipitation
 fabrication and characterization of $\text{Lu}_2\text{O}_3\cdot\text{Eu}^{3+}$ nanopowders and X-ray films L26
- Corrosion
 electrochemical impedance spectroscopy of HVOF-sprayed NiTi intermetallic coatings deposited on AISI 1045 steel 42
- Cr substitution
 synthesis, structural and electrochemical properties of $\text{LiNi}_{0.79}\text{Co}_{0.1}\text{Mn}_{0.1}\text{Cr}_{0.01}\text{O}_2$ via fast co-precipitation 172
- Crack closure
 shape memory effect-induced crack closure in Si thin film deposited on a Ti–50.3Ni (at%) alloy substrate L8
- Cr–Mn–O system
 thermodynamic assessment of the Cr–Mn–O system 84
- Cross-energy transfer
 efficient energy transfer between Ce^{3+} and Nd^{3+} in cerium codoped Nd: YAG laser quality transparent ceramics 475
- Crystal and ligand field theory
 investigations of the spin-Hamiltonian parameters and tetragonal distortions due to Jahn–Teller effect for the monovalent d^9 (Ni^+ , Pd^+ , Pt^+) impurity centers in AgCl crystals 498
- Crystal growth
 texture-controlled growth of ZnO nanorods/films by aluminum ion and solvent L21
 template-free synthesis, growth mechanism and photoluminescent properties of $\text{Ln}(\text{OH})_3$ and Ln_2O_3 nanorods (Ln: lanthanide ion) 245
- Crystal structure
 peculiarity of component interaction in Er–Fe–Sn ternary system at 670 K and 770 K 67
 crystal growth and thermal properties of single crystal monoclinic NdCOB ($\text{NdCa}_4\text{O}(\text{BO}_3)_3$) 335

- Crystallization kinetics
 evaluation of the transformation kinetics of $\text{Ga}_{7.5}\text{Se}_{92.5}$ chalcogenide glass using the theoretical method developed and isoconversional analyses 6
- 3C-SiC diode
 electrical characterization of Au/3C-SiC/n-Si/Al Schottky junction 508
- $(\text{Cu}_{0.5}\text{Tl}_{0.5})\text{Ba}_2\text{Ca}_2\text{Cu}_{3-x}\text{Co}_x\text{O}_{10-8}$ superconductor
 suppression of T_c in Co-doped $(\text{Cu}_{0.5}\text{Tl}_{0.5})\text{Ba}_2\text{Ca}_2\text{Cu}_{3-x}\text{Co}_x\text{O}_{10-8}$ superconductor 142
- CuInS_2 thin film
 chemical synthesis of Cu(In) metal inks to prepare CuInS_2 thin films and solar cells 317
- Current-transport mechanism
 temperature and voltage dependent current-transport mechanisms in GaAs/AlGaAs single-quantum-well lasers 190
- Current-voltage characteristics
 memory switching of ZnGa_2Se_4 thin films as a new material for phase change memories (PCMs) 551
- CuSe
 optical spectroscopy, optical conductivity, dielectric properties and new methods for determining the gap states of CuSe thin films 557
- Czochralski method
 crystal growth and thermal properties of single crystal monoclinic NdCOB ($\text{NdCa}_4\text{O}(\text{BO}_3)_3$) 335
- DC conductivity
 Fe concentration dependent transport properties of $\text{LiI-AgI-B}_2\text{O}_3$ glass system 391
- Dc electrical conductivity
 memory switching of ZnGa_2Se_4 thin films as a new material for phase change memories (PCMs) 551
- Decomposition temperature
 thermodynamic properties of RhO_2 L17
- Defect chalcopyrite semiconductor
 memory switching of ZnGa_2Se_4 thin films as a new material for phase change memories (PCMs) 551
- Density- and adhesion-controlled
 density- and adhesion-controlled ZnO nanorod arrays on the ITO flexible substrates and their electrochromic performance 261
- Determination of the gap states
 optical spectroscopy, optical conductivity, dielectric properties and new methods for determining the gap states of CuSe thin films 557
- Dielectric constant
 optical, magnetic and electrical investigation of cobalt ferrite nanoparticles synthesized by co-precipitation route 201
 investigation of structural and dielectric behavior of $\text{Eu}_2(\text{B}'_{0.5}\text{B}''_{0.5})_2\text{O}_7$ ($\text{B}' = \text{Ba}$; $\text{B}'' = \text{W}, \text{Mo}$) ceramics 542
- Dielectric properties
 effect of Ba doping on magnetic and dielectric properties of nanocrystalline BiFeO_3 at room temperature 29
 temperature dependent dielectric characterization of manganese dioxide nanostructures with different morphologies at low frequency 126
 influence of copper substitution on structural, electrical and dielectric properties of $\text{Ni}_{(1-x)}\text{Cu}_x\text{Mn}_2\text{O}_4$ ($0 \leq x \leq 1$) ceramics 151
 dielectric properties of $(\text{NaBi}_{(1-x)}\text{K}_x)_{0.5}\text{Ti}_{(1-x)}\text{Nb}_x\text{O}_3$ ceramics fabricated by mechanical alloying 196
 Fe concentration dependent transport properties of $\text{LiI-AgI-B}_2\text{O}_3$ glass system 391
 phase structure and electrical properties of lead-free $(1-x)(\text{Bi}_{0.5}\text{Na}_{0.5})_{0.88}\text{Ba}_{0.12}\text{TiO}_3-x\text{Ag}_{0.9}\text{Li}_{0.1}\text{NbO}_3$ piezoelectric ceramics 479
 optical spectroscopy, optical conductivity, dielectric properties and new methods for determining the gap states of CuSe thin films 557
- Diffuser films
 preparation of villus-like PMMA/silica hybrids via surface modification and wet grinding 302
- Diffusion
 effect of substitutional Mo on diffusion and site occupation of hydrogen in the BCT monohydride phase of V-H system studied by ^1H NMR 399
 wettability and interfacial reactions between the molten Sn-3.0 wt%Ag-0.5 wt%Cu solder (SAC305) and Ni-Co alloys 419
- Dilatometry
 synthesis, characterization and thermal expansion of $\text{Cr}_{2-x}\text{Ti}_x\text{O}_{3+\delta}$ 267
- Dislocation
 synthesis and dislocations of 1111-type GdFePO superconductor 93
- Disordered carbon
 enhanced cycling performance of silicon/disordered carbon/carbon nanotubes composite for lithium ion batteries 309
- Dispersoids
 effect of microstructure on the quench sensitivity of AlZnMgCu alloys 53
- Doping
 suppression of T_c in Co-doped $(\text{Cu}_{0.5}\text{Tl}_{0.5})\text{Ba}_2\text{Ca}_2\text{Cu}_{3-x}\text{Co}_x\text{O}_{10-8}$ superconductor 142
- Doping effects
 study of hydrogenation versus de-loading of Co and Mn doped ZnO semiconductor 312
- Driving force
 estimation of driving force for martensitic transformation in $(\text{Ni}_{52.5}\text{Mn}_{23.5}\text{Ga}_{24})_{100-x}\text{Co}_x$ alloys 331
- DSC
 evaluation of the transformation kinetics of $\text{Ga}_{7.5}\text{Se}_{92.5}$ chalcogenide glass using the theoretical method developed and isoconversional analyses 6
- ϵ -AlMn phase
 grain refining mechanism of Al-containing Mg alloys with the addition of Mn-Al alloys 410
- EB-PVD
 sintering and microstructure evolution of columnar nickel-based superalloy sheets prepared by EB-PVD 146
 thermal and mechanical properties of sintered bodies and EB-PVD layers of Y_2O_3 added $\text{Gd}_2\text{Zr}_2\text{O}_7$ ceramics for thermal barrier coatings 448
- Elasticity
 first principles study of the responses to equibiaxial in-plane tensile stresses in tetragonal BaTiO_3 513
- Electrical properties
 influence of copper substitution on structural, electrical and dielectric properties of $\text{Ni}_{(1-x)}\text{Cu}_x\text{Mn}_2\text{O}_4$ ($0 \leq x \leq 1$) ceramics 151
 fabrication of Ag-Sn-Sb-Te based thermoelectric materials by MA-PAS and their properties 167
- Electrical resistivity
 optical, magnetic and electrical investigation of cobalt ferrite nanoparticles synthesized by co-precipitation route 201
- Electrochemical behavior
 synthesis, structural and electrochemical properties of $\text{LiNi}_{0.79}\text{Co}_{0.1}\text{Mn}_{0.1}\text{Cr}_{0.01}\text{O}_2$ via fast co-precipitation 172
- Electrochemical impedance spectroscopy
 electrochemical impedance spectroscopy of HVOF-sprayed NiTi intermetallic coatings deposited on AISI 1045 steel 42
- Electrochemical measurements
 supercapacitive properties of ultra-fine MnO_2 prepared by a solid-state coordination reaction 526
- Electrochemical properties
 supercapacitive properties of ultra-fine MnO_2 prepared by a solid-state coordination reaction 526
- Electrochromic performance
 density- and adhesion-controlled ZnO nanorod arrays on the ITO flexible substrates and their electrochromic performance 261
- Electrodeposition
 CVD fabrication of carbon nanotubes on electrodeposited flower-like Fe nanostructures 494
- Electromotive force (emf)
 thermodynamic properties of RhO_2 L17
- Electron diffraction
 the microstructure and magnetic susceptibilities of $\text{LaFe}_{11.4}\text{Si}_{1.6}$ compound 257
- Electron microscopy
 black pepper assisted biomimetic synthesis of silver nanoparticles L13
 hydrothermal synthesis of double sheaf-like Sb_2S_3 using copolymer as a crystal splitting agent L38
- Electron paramagnetic resonance
 investigations of the spin-Hamiltonian parameters and tetragonal distortions due to Jahn-Teller effect for the monovalent d^9 (Ni^+ , Pd^+ , Pt^+) impurity centers in AgCl crystals 498

- Electronic and optical properties
 first-principles calculations of structural, electronic and optical properties of $\text{Cd}_x\text{Zn}_{1-x}\text{S}$ alloys 356
- Electronic properties
 microstructure, dielectric and ferroelectric properties of $(1-x)(0.94\text{Bi}_{0.5}\text{Na}_{0.5}\text{TiO}_3-0.06\text{BaTiO}_3)-x\text{BiFeO}_3$ lead-free ceramics synthesized via a high energy ball milling method 535
- Electronic structure
 first-principles study of structural, elastic, electronic and lattice dynamic properties of $\text{As}_x\text{P}_y\text{N}_{1-x-y}\text{Al}$ quaternary alloys 120
- Electronic structures and optical properties
 first principles calculations of electronic and optical properties of Mo-doped rutile TiO_2 33
- Electrospinning
 synthesis and optical properties of Mg-doped ZnO nanofibers prepared by electrospinning 97
- Electrothermal model
 memory switching of ZnGa_2Se_4 thin films as a new material for phase change memories (PCMs) 551
- Enthalpy
 thermodynamic properties of RhO_2 L17
- Entropy
 thermodynamic properties of RhO_2 L17
- Epitaxial growth
 biaxially textured $\text{LuNi}_2\text{B}_2\text{C}$ thin films on MgO single crystals 345
- Epitaxial stress
 first principles study of the responses to equibiaxial in-plane tensile stresses in tetragonal BaTiO_3 513
- Eu^{3+}
 luminescence of Eu-doped langanite nanopowders synthesized by a citrate sol-gel method 470
- Femtosecond laser ablation
 fabrication and photocatalytic property of $\alpha\text{-Bi}_2\text{O}_3$ nanoparticles by femtosecond laser ablation in liquid L43
- Ferrite
 optical, magnetic and electrical investigation of cobalt ferrite nanoparticles synthesized by co-precipitation route 201
 characterization and magnetic properties of $\text{Ba}_x\text{Sr}_{1-x}\text{Fe}_{12}\text{O}_{19}$ ($x = 0-1$) ferrite hollow fibers via gel-precursor transformation process 297
- Ferroelectrics
 phase structure and electrical properties of lead-free $(1-x)(\text{Bi}_{0.5}\text{Na}_{0.5})_{0.88}\text{Ba}_{0.12}\text{TiO}_3-x\text{Ag}_{0.9}\text{Li}_{0.1}\text{NbO}_3$ piezoelectric ceramics 479
- Ferromagnetic
 field-induced reversible magnetocaloric effect in CoCl_2 26
- Field-induced transition
 field-induced reversible magnetocaloric effect in CoCl_2 26
- Finite element modeling
 research on YAl_2 intermetallics particles reinforced Mg-14Li-3Al matrix composites 137
- First principles
 first principles calculations of electronic and optical properties of Mo-doped rutile TiO_2 33
 first principles study of the responses to equibiaxial in-plane tensile stresses in tetragonal BaTiO_3 513
- First-principles calculations
 first-principles calculations of structural, electronic and optical properties of $\text{Cd}_x\text{Zn}_{1-x}\text{S}$ alloys 356
- Flexible substrate
 density- and adhesion-controlled ZnO nanorod arrays on the ITO flexible substrates and their electrochromic performance 261
- Flexible TFTs
 flexible a-IZO thin film transistors fabricated by solution processes L1
- Fluoroalkylsilanes
 nano- and microtribological characterization of silanes deposited on cobalt substrate 273
- $\text{Ga}_{7.5}\text{Se}_{92.5}$ chalcogenide glass
 evaluation of the transformation kinetics of $\text{Ga}_{7.5}\text{Se}_{92.5}$ chalcogenide glass using the theoretical method developed and isoconversional analyses 6
- Gadolinium zirconate
 thermal and mechanical properties of sintered bodies and EB-PVD layers of Y_2O_3 added $\text{Gd}_2\text{Zr}_2\text{O}_7$ ceramics for thermal barrier coatings 448
- Gas-solid reactions
 synthesis and cathodoluminescence of $\text{In}_2\text{O}_3\text{-SnO}_2$ nanowires heterostructures 456
- Giant dielectric response
 enhanced giant dielectric response in Al-substituted $\text{La}_{1.75}\text{Sr}_{0.25}\text{NiO}_4$ ceramics 230
- Glass-ceramics
 crystallization behaviors of $\text{R}_2\text{O-Al}_2\text{O}_3\text{-SiO}_2$ glass-ceramics for use as anodic bonding materials 531
- Grain orientation
 texture and magnetostriction studies in Bridgman solidified $\text{Ho}_{0.85}\text{Tb}_{0.15}\text{Fe}_{1.95}$ alloys 162
- Grain refinement
 grain refining mechanism of Al-containing Mg alloys with the addition of Mn-Al alloys 410
- Hollow fibers
 characterization and magnetic properties of $\text{Ba}_x\text{Sr}_{1-x}\text{Fe}_{12}\text{O}_{19}$ ($x = 0-1$) ferrite hollow fibers via gel-precursor transformation process 297
- Hot rolling
 effect of hot rolling on the microstructure and mechanical properties of Mg-5Al-0.3Mn-2Nd alloy 178
- Hydrogen absorbing materials
 controlled shape of magnesium hydride synthesized by chemical vapor deposition 502
 anomalous hydrogen absorption on non-stoichiometric iron-carbon compound 547
- Hydrogen storage
 hydrogen storage properties of the supersaturated Mg_{12}YNi solid solution 489
- Hydrogen storage materials
 effect of substitutional Mo on diffusion and site occupation of hydrogen in the BCT monohydride phase of V-H system studied by ^1H NMR 399
- Hydrogenation
 influence of hydrogen absorption on structural and magnetic properties of $\text{Ce}_2\text{Ni}_2\text{In}$ 376
- Hydrogenation behavior
 hydrogen storage properties of the supersaturated Mg_{12}YNi solid solution 489
- Hydrothermal
 synthesis of star-shaped PbS nanocrystals using single-source precursor 77
- Hydrothermal synthesis
 synthesis, electronic and magnetic properties of the double B mixed perovskite series $\text{La}_{0.5}\text{Sr}_{0.5}\text{Mn}_{1-x}\text{Fe}_x\text{O}_3$ 47
- Impedance spectroscopy
 an ultrasonic therapeutic transducers using lead-free $\text{Na}_{0.5}\text{K}_{0.5}\text{NbO}_3\text{-CuNb}_2\text{O}_6$ ceramics 433
- Impedance spectrum
 enhanced giant dielectric response in Al-substituted $\text{La}_{1.75}\text{Sr}_{0.25}\text{NiO}_4$ ceramics 230
- Impedance study
 multiferroic behavior and electrical conduction of BiFeO_3 thin film deposited on quartz substrate L4
- Impingement mode
 evaluation of the transformation kinetics of $\text{Ga}_{7.5}\text{Se}_{92.5}$ chalcogenide glass using the theoretical method developed and isoconversional analyses 6
- Interface
 research on YAl_2 intermetallics particles reinforced Mg-14Li-3Al matrix composites 137
- Interface structure
 shape memory effect-induced crack closure in Si thin film deposited on a Ti-50.3Ni (at%) alloy substrate L8
- Interfacial state density
 electrical characterization of Au/3C-SiC/n-Si/Al Schottky junction 508
- Intermetallics
 electrochemical impedance spectroscopy of HVOF-sprayed NiTi intermetallic coatings deposited on AISI 1045 steel 42

- Intermetallics
 peculiarity of component interaction in Er-Fe-Sn ternary system at 670 K and 770 K 67
 research on YAl_2 intermetallics particles reinforced Mg-14Li-3Al matrix composites 137
 wettability and strength of In-Bi-Sn lead-free solder alloy on copper substrate 290
 wettability and interfacial reactions between the molten Sn-3.0 wt%Ag-0.5 wt%Cu solder (SAC305) and Ni-Co alloys 419
- Iron-rare earth alloy
 thermodynamic measurement of La-Fe and Y-Fe alloys by multi-Knudsen cell mass spectrometry 72
- Isoconversional methods
 evaluation of the transformation kinetics of $\text{Ga}_{7.5}\text{Se}_{92.5}$ chalcogenide glass using the theoretical method developed and isoconversional analyses 6
- Isothermal decay curves
 computational modeling of isothermal decay curves of trapping centers in TlGaSeS layered single crystals 517
- $I-V-T$ characteristics
 temperature and voltage dependent current-transport mechanisms in GaAs/AlGaAs single-quantum-well lasers 190
- IZO
 flexible a-IZO thin film transistors fabricated by solution processes L1
- Jahn-Teller effect
 investigations of the spin-Hamiltonian parameters and tetragonal distortions due to Jahn-Teller effect for the monovalent d^9 (Ni^+ , Pd^+ , Pt^+) impurity centers in AgCl crystals 498
- KCu_3S_2
 synthesis and characterization of KCu_3S_2 microstructures through a composite-hydroxide mediated method 429
- Kinetics
 mechanically induced polymorphic phase transformation in nanocrystalline TiO_2 powder 484
- Knudsen cell mass spectrometry
 thermodynamic measurement of La-Fe and Y-Fe alloys by multi-Knudsen cell mass spectrometry 72
- Langanite
 luminescence of Eu-doped langanite nanopowders synthesized by a citrate sol-gel method 470
- Laser oscillation
 efficient energy transfer between Ce^{3+} and Nd^{3+} in cerium codoped Nd: YAG laser quality transparent ceramics 475
- Lattice matched and mismatched alloys
 first-principles study of structural, elastic, electronic and lattice dynamic properties of $\text{As}_x\text{P}_y\text{N}_{1-x-y}\text{Al}$ quaternary alloys 120
- Laves phase
 texture and magnetostriction studies in Bridgman solidified $\text{Ho}_{0.85}\text{Tb}_{0.15}\text{Fe}_{1.95}$ alloys 162
- Lead sulfide
 synthesis of star-shaped PbS nanocrystals using single-source precursor 77
- Lead-free solders
 the study of mechanical properties of Sn-Ag-Cu lead-free solders with different Ag contents and Ni doping under different strain rates and temperatures 215
- Light absorption and reflection
 raman scattering from ZnO incorporating Fe nanoparticles: Vibrational modes and low-frequency acoustic modes 386
- Lil-Agl- B_2O_3 glass system
 Fe concentration dependent transport properties of Lil-Agl- B_2O_3 glass system 391
- Liquid-solid reactions
 wettability and interfacial reactions between the molten Sn-3.0 wt%Ag-0.5 wt%Cu solder (SAC305) and Ni-Co alloys 419
- Li_2SiO_3
 crystallization behaviors of $\text{R}_2\text{O}-\text{Al}_2\text{O}_3-\text{SiO}_2$ glass-ceramics for use as anodic bonding materials 531
- Lithium ion battery
 synthesis, structural and electrochemical properties of $\text{LiNi}_{0.79}\text{Co}_{0.1}\text{Mn}_{0.1}\text{Cr}_{0.01}\text{O}_2$ via fast co-precipitation 172
- Low field magnetoresistance
 intrinsic and extrinsic transport properties of $\text{Pr}_{0.67}\text{Ba}_{0.33}\text{MnO}_3:\text{Ag}_2\text{O}$ composites 439
- Luminescence
 molten salt synthesis, characterization and luminescence of $\text{ZnWO}_4:\text{Eu}^{3+}$ nanophosphors 460
 luminescence of Eu-doped langanite nanopowders synthesized by a citrate sol-gel method 470
- $\text{Lu}_2\text{O}_3:\text{Eu}^{3+}$
 fabrication and characterization of $\text{Lu}_2\text{O}_3:\text{Eu}^{3+}$ nanopowders and X-ray films L26
- Magnesia
 influence of nano boehmite on solid state reaction of alumina and magnesia 443
- Magnesium alloy
 effects of antimony addition on the microstructures of ZA84 magnesium alloy 322
 grain refining mechanism of Al-containing Mg alloys with the addition of Mn-Al alloys 410
- Magnetic entropy change
 effect of Co substitution on magnetocaloric effect in $\text{La}_{0.67}\text{Pb}_{0.33}\text{Mn}_{1-x}\text{Co}_x\text{O}_3$ ($0.15 \leq x \leq 0.3$) 405
- Magnetic intermetallics
 the microstructure and magnetic susceptibilities of $\text{LaFe}_{11.4}\text{Si}_{1.6}$ compound 257
- Magnetic measurements
 magnetic properties of A- and B-site cation doped $\text{La}_{0.65}\text{Ca}_{0.35}\text{MnO}_3$ manganites 380
 optimization of soft magnetic properties and crystallization in FeAgNbSiB, FeAgNbB and FeAgCoNbB amorphous alloys 465
- Magnetic properties
 effect of Ba doping on magnetic and dielectric properties of nanocrystalline BiFeO_3 at room temperature 29
 the microstructure and magnetic susceptibilities of $\text{LaFe}_{11.4}\text{Si}_{1.6}$ compound 257
 characterization and magnetic properties of $\text{Ba}_x\text{Sr}_{1-x}\text{Fe}_{12}\text{O}_{19}$ ($x = 0-1$) ferrite hollow fibers via gel-precursor transformation process 297
- Magnetic refrigeration
 magnetocaloric effect in nano- and polycrystalline manganites $\text{La}_{0.5}\text{Ca}_{0.5}\text{MnO}_3$ 350
 effect of Co substitution on magnetocaloric effect in $\text{La}_{0.67}\text{Pb}_{0.33}\text{Mn}_{1-x}\text{Co}_x\text{O}_3$ ($0.15 \leq x \leq 0.3$) 405
- Magnetic semiconductors
 study of hydrogenation versus de-loading of Co and Mn doped ZnO semiconductor 312
- Magnetic susceptibility
 the microstructure and magnetic susceptibilities of $\text{LaFe}_{11.4}\text{Si}_{1.6}$ compound 257
- Magnetocaloric effect
 field-induced reversible magnetocaloric effect in CoCl_2 26
 magnetocaloric effect in nano- and polycrystalline manganites $\text{La}_{0.5}\text{Ca}_{0.5}\text{MnO}_3$ 350
 magnetic and magnetocaloric properties of the ternary Gd-based metallic glasses $\text{Gd}_{60}\text{Mn}_{30}\text{X}_{10}$, with X = Al, Ga, In 370
 magnetic properties of A- and B-site cation doped $\text{La}_{0.65}\text{Ca}_{0.35}\text{MnO}_3$ manganites 380
 effect of Co substitution on magnetocaloric effect in $\text{La}_{0.67}\text{Pb}_{0.33}\text{Mn}_{1-x}\text{Co}_x\text{O}_3$ ($0.15 \leq x \leq 0.3$) 405
- Magnetolectric coupling
 effect of Eu substitution on the crystal structure and multiferroic properties of BiFeO_3 157

- Magnetostriction
texture and magnetostriction studies in Bridgman solidified $\text{Ho}_{0.85}\text{Tb}_{0.15}\text{Fe}_{1.95}$ alloys 162
- Manganese dioxide
temperature dependent dielectric characterization of manganese dioxide nanostructures with different morphologies at low frequency 126
- Manganites
magnetocaloric effect in nano- and polycrystalline manganites $\text{La}_{0.5}\text{Ca}_{0.5}\text{MnO}_3$ 350
effect of Co substitution on magnetocaloric effect in $\text{La}_{0.67}\text{Pb}_{0.33}\text{Mn}_{1-x}\text{Co}_x\text{O}_3$ ($0.15 \leq x \leq 0.3$) 405
- Martensitic phase transformation
estimation of driving force for martensitic transformation in $(\text{Ni}_{52.5}\text{Mn}_{23.5}\text{Ga}_{24})_{100-x}\text{Co}_x$ alloys 331
- Mechanical alloying
electrochemical impedance spectroscopy of HVOF-sprayed NiTi intermetallic coatings deposited on AISI 1045 steel 42
fabrication of Ag–Sn–Sb–Te based thermoelectric materials by MA-PAS and their properties 167
effect of strengthening mechanisms on cold workability and instantaneous strain hardening behavior during grain refinement of AA 6061-10 wt.% TiO_2 composite prepared by mechanical alloying 236
- Mechanical alloying technique
dielectric properties of $(\text{NaBi}_{(1-x)}\text{K}_x)_{0.5}\text{Ti}_{(1-x)}\text{Nb}_x\text{O}_3$ ceramics fabricated by mechanical alloying 196
- Mechanical properties
research on YAl_2 intermetallics particles reinforced Mg–14Li–3Al matrix composites 137
sintering and microstructure evolution of columnar nickel-based superalloy sheets prepared by EB-PVD 146
effect of hot rolling on the microstructure and mechanical properties of Mg–5Al–0.3Mn–2Nd alloy 178
the study of mechanical properties of Sn–Ag–Cu lead-free solders with different Ag contents and Ni doping under different strain rates and temperatures 215
- Mechanochemical processing
microstructure, dielectric and ferroelectric properties of $(1-x)(0.94\text{Bi}_{0.5}\text{Na}_{0.5}\text{TiO}_3-0.06\text{BaTiO}_3)-x\text{BiFeO}_3$ lead-free ceramics synthesized via a high energy ball milling method 535
anomalous hydrogen absorption on non-stoichiometric iron-carbon compound 547
- Melt-spinning
hydrogen storage properties of the supersaturated Mg_{12}YNi solid solution 489
- Memory switching
memory switching of ZnGa_2Se_4 thin films as a new material for phase change memories (PCMs) 551
- Metal hydrides
controlled shape of magnesium hydride synthesized by chemical vapor deposition 502
effect of substitutional Mo on diffusion and site occupation of hydrogen in the BCT monohydride phase of V–H system studied by ^1H NMR 399
- Metal inks
chemical synthesis of Cu(In) metal inks to prepare CuInS_2 thin films and solar cells 317
- Metal oxides
structural investigations of nanomixed oxides $\text{SnO}_2-x\text{Al}_2\text{O}_3$ prepared by sol-gel technique 253
- Metallic glasses
comment on the paper 'Thermal stability of the $\text{Al}_{70}\text{Ni}_{10}\text{Ti}_{10}\text{Zr}_5\text{Ta}_5$ amorphous alloy powder fabricated by mechanical alloying' by Xiu Wei, Xinfu Wang, Fusheng Han, Haowen Xie, Cui'e Wen, J. Alloys Compd. 496 (2010) 313–316 L32
magnetic and magnetocaloric properties of the ternary Gd-based metallic glasses $\text{Gd}_{60}\text{Mn}_{30}\text{X}_{10}$, with X = Al, Ga, In 370
- Metals and alloys
phase equilibria in the ternary Al–Zr–La system 62
wettability and strength of In–Bi–Sn lead-free solder alloy on copper substrate 290
- Mg dopant
synthesis and optical properties of Mg-doped ZnO nanofibers prepared by electrospinning 97
- $(\text{Mg}_{0.7}\text{Zn}_{0.3})_{0.95}\text{Co}_{0.05}\text{TiO}_3$
microwave dielectric properties of $x(\text{Mg}_{0.7}\text{Zn}_{0.3})_{0.95}\text{Co}_{0.05}\text{TiO}_3-(1-x)\text{Ca}_{0.8}\text{Sm}_{0.4/3}\text{TiO}_3$ ceramics with a zero temperature coefficient of resonant frequency 286
- Mg–Al–Mn–Nd alloy
effect of hot rolling on the microstructure and mechanical properties of Mg–5Al–0.3Mn–2Nd alloy 178
- Mg–Li alloy
research on YAl_2 intermetallics particles reinforced Mg–14Li–3Al matrix composites 137
- Mg–8Zn–4Al alloy
effects of antimony addition on the microstructures of ZA84 magnesium alloy 322
- Micro- and nanostructure
synthesis and characterization of KCu_3S_2 microstructures through a composite-hydroxide mediated method 429
- Microrods
temperature dependent dielectric characterization of manganese dioxide nanostructures with different morphologies at low frequency 126
- Microsphere
preparation of villus-like PMMA/silica hybrids via surface modification and wet grinding 302
- Microstructural characterization
effect of phase transformation on structural, electrical and hydrophobic properties of nanocomposite $\text{Ti}_{1-x}\text{Al}_x\text{N}$ films L47
- Microstructures
effect of microstructure on the quench sensitivity of AlZnMgCu alloys 53
effect of hot rolling on the microstructure and mechanical properties of Mg–5Al–0.3Mn–2Nd alloy 178
the study of mechanical properties of Sn–Ag–Cu lead-free solders with different Ag contents and Ni doping under different strain rates and temperatures 215
wettability and strength of In–Bi–Sn lead-free solder alloy on copper substrate 290
effects of antimony addition on the microstructures of ZA84 magnesium alloy 322
microstructure, dielectric and ferroelectric properties of $(1-x)(0.94\text{Bi}_{0.5}\text{Na}_{0.5}\text{TiO}_3-0.06\text{BaTiO}_3)-x\text{BiFeO}_3$ lead-free ceramics synthesized via a high energy ball milling method 535
- Microwave dielectric properties
microwave dielectric properties of $x(\text{Mg}_{0.7}\text{Zn}_{0.3})_{0.95}\text{Co}_{0.05}\text{TiO}_3-(1-x)\text{Ca}_{0.8}\text{Sm}_{0.4/3}\text{TiO}_3$ ceramics with a zero temperature coefficient of resonant frequency 286
- Microwave heating
flexible a-IZO thin film transistors fabricated by solution processes L1
- Mineralizer
influence of nano boehmite on solid state reaction of alumina and magnesia 443
- Mixed binary semiconductors
first-principles calculations of structural, electronic and optical properties of $\text{Cd}_x\text{Zn}_{1-x}\text{S}$ alloys 356
- Mn–Al master alloys
grain refining mechanism of Al-containing Mg alloys with the addition of Mn–Al alloys 410
- Modeling
computational modeling of isothermal decay curves of trapping centers in TiGaSeS layered single crystals 517
- Mo-doped
first principles calculations of electronic and optical properties of Mo-doped rutile TiO_2 33
- Mössbauer spectroscopy
anomalous hydrogen absorption on non-stoichiometric iron-carbon compound 547
- Multiferroic
effect of Eu substitution on the crystal structure and multiferroic properties of BiFeO_3 157

- Multiferroic properties
multiferroic behavior and electrical conduction of BiFeO₃ thin film deposited on quartz substrate L4
- N₂ physisorption
synthesis of carbon nanorods by reduction of carbon disulfide 38
- Nano boehmite
influence of nano boehmite on solid state reaction of alumina and magnesia 443
- Nano-/microtribology
nano- and microtribological characterization of silanes deposited on cobalt substrate 273
- Nanocomposite films
effect of phase transformation on structural, electrical and hydrophobic properties of nanocomposite Ti_{1-x}Al_xN films L47
- Nanocomposites
magnetic and magnetocaloric properties of the ternary Gd-based metallic glasses Gd₆₀Mn₃₀X₁₀, with X = Al, Ga, In 370
- Nanocrystalline
effect of Ba doping on magnetic and dielectric properties of nanocrystalline BiFeO₃ at room temperature 29
- Nanocrystals
magnetocaloric effect in nano- and polycrystalline manganites La_{0.5}Ca_{0.5}MnO₃ 350
- Nanomaterials
black pepper assisted biomimetic synthesis of silver nanoparticles L13
hydrothermal synthesis of double sheaf-like Sb₂S₃ using copolymer as a crystal splitting agent L38
- Nanoparticles
electrical characterization and device characterization of ZnO microring shaped films by sol-gel method 184
optical, magnetic and electrical investigation of cobalt ferrite nanoparticles synthesized by co-precipitation route 201
chemical synthesis of Cu(In) metal inks to prepare CuInS₂ thin films and solar cells 317
- Nanopowder
luminescence of Eu-doped langanite nanopowders synthesized by a citrate sol-gel method 470
- Nanostructures
synthesis of carbon nanorods by reduction of carbon disulfide 38
synthesis of star-shaped PbS nanocrystals using single-source precursor 77
structural investigations of nanomixed oxides SnO_{2-x}Al₂O₃ prepared by sol-gel technique 253
CVD fabrication of carbon nanotubes on electrodeposited flower-like Fe nanostructures 494
- Nanostructured materials
synthesis of La_{1-x}Fe_xVO₄ solid solutions and their photocatalytic activity L35
synthesis of rare earth (Pr, Nd, Sm, Eu and Gd) hydroxide and oxide nanorods (nanobundles) by a widely applicable precipitation route 105
template-free synthesis, growth mechanism and photoluminescent properties of Ln(OH)₃ and Ln₂O₃ nanorods (Ln: lanthanide ion) 245
characterization of nanometric multidoped ceria powders 279
raman scattering from ZnO incorporating Fe nanoparticles: Vibrational modes and low-frequency acoustic modes 386
controlled shape of magnesium hydride synthesized by chemical vapor deposition 502
synthesis and cathodoluminescence of In₂O₃-SnO₂ nanowires heterostructures 456
- Nanowires
temperature dependent dielectric characterization of manganese dioxide nanostructures with different morphologies at low frequency 126
- Narrow-band-gap semiconductor
composition dependence of thermoelectric properties of binary narrow-gap Ga_{67-x}Ru_{33+x} compound 364
- Neutron diffraction
nature of magnetic phase transitions in TbCu₂X₂ (X = Si, Ge) and HoCu₂Si₂ compounds 16
- Ni⁺
investigations of the spin-Hamiltonian parameters and tetragonal distortions due to Jahn-Teller effect for the monovalent d⁹ (Ni⁺, Pd⁺, Pt⁺) impurity centers in AgCl crystals 498
- Nickel manganite
influence of copper substitution on structural, electrical and dielectric properties of Ni_(1-x)Cu_xMn₂O₄ (0 ≤ x ≤ 1) ceramics 151
- Nickel-based superalloy
sintering and microstructure evolution of columnar nickel-based superalloy sheets prepared by EB-PVD 146
- Ni₂MnGa
estimation of driving force for martensitic transformation in (Ni_{52.5}Mn_{23.5}Ga₂₄)_{100-x}Co_x alloys 331
- Niobates
dielectric properties of (NaBi_(1-x)K_x)_{0.5}Ti_(1-x)Nb_xO₃ ceramics fabricated by mechanical alloying 196
- Nonlinear optic materials
crystal growth and thermal properties of single crystal monoclinic NdCOB (NdCa₄O(BO₃)₃) 335
- Non-linear optics
synthesis of electrospun ZnO/CuO nanocomposite fibers and their dielectric and non-linear optic studies 225
- Nowotny chimney-ladder phase
composition dependence of thermoelectric properties of binary narrow-gap Ga_{67-x}Ru_{33+x} compound 364
- NTC ceramics
influence of copper substitution on structural, electrical and dielectric properties of Ni_(1-x)Cu_xMn₂O₄ (0 ≤ x ≤ 1) ceramics 151
- Nuclear magnetic resonance (NMR)
effect of substitutional Mo on diffusion and site occupation of hydrogen in the BCT monohydride phase of V-H system studied by ¹H NMR 399
- Optical conductivity
optical spectroscopy, optical conductivity, dielectric properties and new methods for determining the gap states of CuSe thin films 557
- Optical dispersion parameters
optical spectroscopy, optical conductivity, dielectric properties and new methods for determining the gap states of CuSe thin films 557
- Optical materials
molten salt synthesis, characterization and luminescence of ZnWO₄:Eu³⁺ nanophosphors 460
- Optical properties
synthesis of star-shaped PbS nanocrystals using single-source precursor 77
synthesis and optical properties of Mg-doped ZnO nanofibers prepared by electrospinning 97
structural and optical properties of Tris(8-hydroxyquinoline) aluminum (III) (Alq₃) thermal evaporated thin films 112
first-principles study of structural, elastic, electronic and lattice dynamic properties of As_xP_yN_{1-x-y}Al quaternary alloys 120
a novel orange emissive phosphor SrWO₄:Sm³⁺ for white light-emitting diodes 133
template-free synthesis, growth mechanism and photoluminescent properties of Ln(OH)₃ and Ln₂O₃ nanorods (Ln: lanthanide ion) 245
raman scattering from ZnO incorporating Fe nanoparticles: Vibrational modes and low-frequency acoustic modes 386
synthesis and cathodoluminescence of In₂O₃-SnO₂ nanowires heterostructures 456
efficient energy transfer between Ce³⁺ and Nd³⁺ in cerium codoped Nd: YAG laser quality transparent ceramics 475
- Optimization effects
optimization of soft magnetic properties and crystallization in FeAgNbSiB, FeAgNbB and FeAgCoNbB amorphous alloys 465
- Optimized crystallinity
amino acid-assisted synthesis of ZnO twin-prisms and functional group's influence on their morphologies 326
- Optoelectronics materials
computational modeling of isothermal decay curves of trapping centers in TlGaSeS layered single crystals 517
- Organic materials
structural and optical properties of Tris(8-hydroxyquinoline) aluminum (III) (Alq₃) thermal evaporated thin films 112
- Oxides
electronic structure and visible-light-driven photocatalytic performance of Cd₂SnO₄ 341

- supercapacitive properties of ultra-fine MnO_2 prepared by a solid-state coordination reaction 526
- Oxide materials
- characterization of nanometric multidoped ceria powders 279
 - molten salt synthesis, characterization and luminescence of $\text{ZnWO}_4:\text{Eu}^{3+}$ nanophosphors 460
 - mechanically induced polymorphic phase transformation in nanocrystalline TiO_2 powder 484
- Pd^+
- investigations of the spin-Hamiltonian parameters and tetragonal distortions due to Jahn-Teller effect for the monovalent d^9 (Ni^+ , Pd^+ , Pt^+) impurity centers in AgCl crystals 498
- Pd-Sb phase diagram
- thermodynamic modeling of the Pd-Sb system 521
- Perovskite-type oxides
- synthesis, electronic and magnetic properties of the double B mixed perovskite series $\text{La}_{0.5}\text{Sr}_{0.5}\text{Mn}_{1-x}\text{Fe}_x\text{O}_3$ 47
- Phase diagrams
- phase equilibria in the ternary Al-Zr-La system 62
 - peculiarity of component interaction in Er-Fe-Sn ternary system at 670 K and 770 K 67
 - wettability and interfacial reactions between the molten $\text{Sn-3.0 wt\%Ag-0.5 wt\%Cu}$ solder (SAC305) and Ni-Co alloys 419
- Phase transitions
- nature of magnetic phase transitions in TbCu_2X_2 ($\text{X} = \text{Si, Ge}$) and HoCu_2Si_2 compounds 16
 - mechanically induced polymorphic phase transformation in nanocrystalline TiO_2 powder 484
 - first principles study of the responses to equibiaxial in-plane tensile stresses in tetragonal BaTiO_3 513
- Phosphors
- fabrication and characterization of $\text{Lu}_2\text{O}_3:\text{Eu}^{3+}$ nanopowders and X-ray films L26
 - a novel orange emissive phosphor $\text{SrWO}_4:\text{Sm}^{3+}$ for white light-emitting diodes 133
- Photocatalysis
- electronic structure and visible-light-driven photocatalytic performance of Cd_2SnO_4 341
- Photocatalyst
- fabrication and photocatalytic property of $\alpha\text{-Bi}_2\text{O}_3$ nanoparticles by femtosecond laser ablation in liquid L43
- Piezoelectricity
- phase structure and electrical properties of lead-free $(1-x)(\text{Bi}_{0.5}\text{Na}_{0.5})_{0.88}\text{Ba}_{0.12}\text{TiO}_3-x\text{Ag}_{0.9}\text{Li}_{0.1}\text{NbO}_3$ piezoelectric ceramics 479
 - first principles study of the responses to equibiaxial in-plane tensile stresses in tetragonal BaTiO_3 513
- Plasma activated sintering
- fabrication of Ag-Sn-Sb-Te based thermoelectric materials by MA-PAS and their properties 167
- PMN-0.08PT single crystal
- large quadratic electro-optic properties of ferroelectric base $0.92\text{Pb}(\text{Mg}_{1/3}\text{Nb}_{2/3})\text{O}_3-0.08\text{PbTiO}_3$ single crystal 425
- Polarization
- first principles study of the responses to equibiaxial in-plane tensile stresses in tetragonal BaTiO_3 513
- Polymethylmethacrylate (PMMA)
- preparation of villus-like PMMA/silica hybrids via surface modification and wet grinding 302
- Precipitation
- synthesis of rare earth (Pr, Nd, Sm, Eu and Gd) hydroxide and oxide nanorods (nanobundles) by a widely applicable precipitation route 105
- Pseudopotential calculations
- first-principles study of structural, elastic, electronic and lattice dynamic properties of $\text{As}_x\text{P}_y\text{N}_{1-x-y}\text{Al}$ quaternary alloys 120
- Pt^+
- investigations of the spin-Hamiltonian parameters and tetragonal distortions due to Jahn-Teller effect for the monovalent d^9 (Ni^+ , Pd^+ , Pt^+) impurity centers in AgCl crystals 498
- Pulsed laser deposition
- biaxially textured $\text{LuNi}_2\text{B}_2\text{C}$ thin films on MgO single crystals 345
- Pyrochlore
- investigation of structural and dielectric behavior of $\text{Eu}_2(\text{B}'_{0.5}\text{B}''_{0.5})_2\text{O}_7$ ($\text{B}' = \text{Ba}$; $\text{B}'' = \text{W, Mo}$) ceramics 542
- Quadratic electro-optic coefficient
- large quadratic electro-optic properties of ferroelectric base $0.92\text{Pb}(\text{Mg}_{1/3}\text{Nb}_{2/3})\text{O}_3-0.08\text{PbTiO}_3$ single crystal 425
- Quartz substrate
- multiferroic behavior and electrical conduction of BiFeO_3 thin film deposited on quartz substrate L4
- Quench sensitivity
- effect of microstructure on the quench sensitivity of AlZnMgCu alloys 53
- QW lasers
- temperature and voltage dependent current-transport mechanisms in GaAs/AlGaAs single-quantum-well lasers 190
- Rare earth alloys and compounds
- synthesis of rare earth (Pr, Nd, Sm, Eu and Gd) hydroxide and oxide nanorods (nanobundles) by a widely applicable precipitation route 105
- Rare earth intermetallics
- nature of magnetic phase transitions in TbCu_2X_2 ($\text{X} = \text{Si, Ge}$) and HoCu_2Si_2 compounds 16
- Refractive indices
- large quadratic electro-optic properties of ferroelectric base $0.92\text{Pb}(\text{Mg}_{1/3}\text{Nb}_{2/3})\text{O}_3-0.08\text{PbTiO}_3$ single crystal 425
- Relative cooling power
- effect of Co substitution on magnetocaloric effect in $\text{La}_{0.67}\text{Pb}_{0.33}\text{Mn}_{1-x}\text{Co}_x\text{O}_3$ ($0.15 \leq x \leq 0.3$) 405
- Relaxation time
- optical spectroscopy, optical conductivity, dielectric properties and new methods for determining the gap states of CuSe thin films 557
- Resistivity
- effect of phase transformation on structural, electrical and hydrophobic properties of nanocomposite $\text{Ti}_{1-x}\text{Al}_x\text{N}$ films L47
- Ruthenium gallide
- composition dependence of thermoelectric properties of binary narrow-gap $\text{Ga}_{67-x}\text{Ru}_{33+x}$ compound 364
- Rutile TiO_2
- first principles calculations of electronic and optical properties of Mo-doped rutile TiO_2 33
- Scanning electron microscope (SEM)
- phase equilibria in the ternary Al-Zr-La system 62
 - design induced plastic deformation in Zr-based bulk metallic glass 414
- Scanning electron microscopy (SEM)
- shape memory effect-induced crack closure in Si thin film deposited on a Ti-50.3Ni (at%) alloy substrate L8
 - synthesis of carbon nanorods by reduction of carbon bisulfide 38
 - synthesis of electrospun ZnO/CuO nanocomposite fibers and their dielectric and non-linear optic studies 225
 - wettability and strength of In-Bi-Sn lead-free solder alloy on copper substrate 290
 - template-free synthesis, growth mechanism and photoluminescent properties of $\text{Ln}(\text{OH})_3$ and Ln_2O_3 nanorods (Ln : lanthanide ion) 245
 - controlled shape of magnesium hydride synthesized by chemical vapor deposition 502
- Schottky diode
- electrical characterization and device characterization of ZnO microring shaped films by sol-gel method 184
 - electrical characterization of Au/3C-SiC/n-Si/Al Schottky junction 508
- SEM
- wettability and strength of In-Bi-Sn lead-free solder alloy on copper substrate 290
 - microstructure, dielectric and ferroelectric properties of $(1-x)(0.94\text{Bi}_{0.5}\text{Na}_{0.5}\text{TiO}_3-0.06\text{BaTiO}_3)-x\text{BiFeO}_3$ lead-free ceramics synthesized via a high energy ball milling method 535
- Semiconducting
- synthesis, electronic and magnetic properties of the double B mixed perovskite series $\text{La}_{0.5}\text{Sr}_{0.5}\text{Mn}_{1-x}\text{Fe}_x\text{O}_3$ 47
- Semiconductors
- texture-controlled growth of ZnO nanorods/films by aluminum ion and solvent L21

- electronic structure and visible-light-driven photocatalytic performance of Cd_2SnO_4 341
- Sensors
hydrothermal synthesis of double sheaf-like Sb_2S_3 using copolymer as a crystal splitting agent L38
- Shape deformation
estimation of driving force for martensitic transformation in $(\text{Ni}_{52.5}\text{Mn}_{23.5}\text{Ga}_{24})_{100-x}\text{Co}_x$ alloys 331
- Shape memory alloys (SMA)
shape memory effect-induced crack closure in Si thin film deposited on a Ti-50.3Ni (at%) alloy substrate L8
- Silica
preparation of villus-like PMMA/silica hybrids via surface modification and wet grinding 302
- Silica gel
preparation and characterization of sol-gel derived silver-silica nanocomposite 101
- Silicon
enhanced cycling performance of silicon/disordered carbon/carbon nanotubes composite for lithium ion batteries 309
- Silver nanoparticles (AgNPs)
black pepper assisted biomimetic synthesis of silver nanoparticles L13
- Single crystal growth
crystal growth and thermal properties of single crystal monoclinic NdCOB ($\text{NdCa}_4\text{O}(\text{BO}_3)_3$) 335
- Sintering
sintering and microstructure evolution of columnar nickel-based superalloy sheets prepared by EB-PVD 146
- Sn-Ag-Cu
the study of mechanical properties of Sn-Ag-Cu lead-free solders with different Ag contents and Ni doping under different strain rates and temperatures 215
- $\text{SnO}_2\text{-Al}_2\text{O}_3$
structural investigations of nanomixed oxides $\text{SnO}_2\text{-}x\text{Al}_2\text{O}_3$ prepared by sol-gel technique 253
- SnTe
fabrication of Ag-Sn-Sb-Te based thermoelectric materials by MA-PAS and their properties 167
- Solar cells
chemical synthesis of Cu(In) metal inks to prepare CuInS_2 thin films and solar cells 317
- Sol-gel
preparation and characterization of sol-gel derived silver-silica nanocomposite 101
electrical characterization and device characterization of ZnO microring shaped films by sol-gel method 184
luminescence of Eu-doped langanite nanopowders synthesized by a citrate sol-gel method 470
- Sol-gel processes
synthesis of electrospun ZnO/CuO nanocomposite fibers and their dielectric and non-linear optic studies 225
magnetic properties of A- and B-site cation doped $\text{La}_{0.65}\text{Ca}_{0.35}\text{MnO}_3$ manganites 380
- Solid solutions
characterization of nanometric multidoped ceria powders 279
- Solid-state reactions
synthesis and dislocations of 1111-type GdFePO superconductor 93
an ultrasonic therapeutic transducers using lead-free $\text{Na}_{0.5}\text{K}_{0.5}\text{NbO}_3\text{-CuNb}_2\text{O}_6$ ceramics 433
influence of nano boehmite on solid state reaction of alumina and magnesia 443
- Solvothermal
amino acid-assisted synthesis of ZnO twin-prisms and functional group's influence on their morphologies 326
- Spark plasma sintering
composition dependence of thermoelectric properties of binary narrow-gap $\text{Ga}_{67-x}\text{Ru}_{33+x}$ compound 364
- SPD
deformation homogeneity in accumulative back extrusion processing of AZ31 magnesium alloy 207
- Specific heat
intrinsic and extrinsic transport properties of $\text{Pr}_{0.67}\text{Ba}_{0.33}\text{MnO}_3\text{:Ag}_2\text{O}$ composites 439
- Spinel
influence of nano boehmite on solid state reaction of alumina and magnesia 443
- Sputtering
shape memory effect-induced crack closure in Si thin film deposited on a Ti-50.3Ni (at%) alloy substrate L8
effect of phase transformation on structural, electrical and hydrophobic properties of nanocomposite $\text{Ti}_{1-x}\text{Al}_x\text{N}$ films L47
- $\text{SrWO}_4\text{:Sm}^{3+}$
a novel orange emissive phosphor $\text{SrWO}_4\text{:Sm}^{3+}$ for white light-emitting diodes 133
- Stability
thermodynamic properties of RhO_2 L17
- Stannides
peculiarity of component interaction in Er-Fe-Sn ternary system at 670 K and 770 K 67
- Star-shaped
synthesis of star-shaped PbS nanocrystals using single-source precursor 77
- Strain hardening
effect of strengthening mechanisms on cold workability and instantaneous strain hardening behavior during grain refinement of AA 6061-10 wt.% TiO_2 composite prepared by mechanical alloying 236
- Strain homogeneity
deformation homogeneity in accumulative back extrusion processing of AZ31 magnesium alloy 207
- Strain rate
the study of mechanical properties of Sn-Ag-Cu lead-free solders with different Ag contents and Ni doping under different strain rates and temperatures 215
- Strengthening mechanism
effect of strengthening mechanisms on cold workability and instantaneous strain hardening behavior during grain refinement of AA 6061-10 wt.% TiO_2 composite prepared by mechanical alloying 236
- Structural properties
structural and optical properties of Tris(8-hydroxyquinoline) aluminum (III) (Alq_3) thermal evaporated thin films 112
- (Sub)grain boundaries
effect of microstructure on the quench sensitivity of AlZnMgCu alloys 53
- Substitution
effect of Eu substitution on the crystal structure and multiferroic properties of BiFeO_3 157
- Superconductor
synthesis and dislocations of 1111-type GdFePO superconductor 93
- Supersaturated solid solution
hydrogen storage properties of the supersaturated Mg_{12}YNi solid solution 489
- Surface interaction
amino acid-assisted synthesis of ZnO twin-prisms and functional group's influence on their morphologies 326
- Synthesis
synthesis and characterization of KCu_3S_2 microstructures through a composite-hydroxide mediated method 429
- T_c suppression
suppression of T_c in Co-doped $(\text{Cu}_{0.5}\text{Tl}_{0.5})\text{Ba}_2\text{Ca}_2\text{Cu}_{3-x}\text{Co}_x\text{O}_{10-8}$ superconductor 142
- TEM
synthesis of $\text{La}_{1-x}\text{Fe}_x\text{VO}_4$ solid solutions and their photocatalytic activity L35
characterization of nanometric multidoped ceria powders 279
- Temperature
preparation and characterization of sol-gel derived silver-silica nanocomposite 101

- Thermal analysis
 anomalous hydrogen absorption on non-stoichiometric iron-carbon compound 547
- Thermal barrier coatings
 thermal and mechanical properties of sintered bodies and EB-PVD layers of Y_2O_3 added $Gd_2Zr_2O_7$ ceramics for thermal barrier coatings 448
- Thermal conductivity
 thermal and mechanical properties of sintered bodies and EB-PVD layers of Y_2O_3 added $Gd_2Zr_2O_7$ ceramics for thermal barrier coatings 448
- Thermal decomposition
 synthesis of star-shaped PbS nanocrystals using single-source precursor 77
- Thermal expansion
 synthesis, characterization and thermal expansion of $Cr_{2-x}Ti_xO_{3+\delta}$ 267
- Thermally stimulated current
 computational modeling of isothermal decay curves of trapping centers in TlGaSeS layered single crystals 517
- Thermodynamic modeling
 thermodynamic modeling of the Pd-Sb system 521
- Thermodynamic modelling
 thermodynamic assessment of the Cr-Mn-O system 84
- Thermodynamic properties
 thermodynamic properties of RhO_2 L17
 thermodynamic measurement of La-Fe and Y-Fe alloys by multi-Knudsen cell mass spectrometry 72
- Thermoelectric figure of merit ZT
 optimization of thermoelectric properties of type-VIII clathrate $Ba_8Ga_{16}Sn_{30}$ by carrier tuning 1
- Thermoelectric material
 composition dependence of thermoelectric properties of binary narrow-gap $Ga_{67-x}Ru_{33+x}$ compound 364
- Thermoelectric properties
 optimization of thermoelectric properties of type-VIII clathrate $Ba_8Ga_{16}Sn_{30}$ by carrier tuning 1
- Thin films
 structural and optical properties of nanocrystalline Ni-Zn ferrite thin films 21
 biaxially textured $LuNi_2B_2C$ thin films on MgO single crystals 345
 memory switching of $ZnGa_2Se_4$ thin films as a new material for phase change memories (PCMs) 551
 optical spectroscopy, optical conductivity, dielectric properties and new methods for determining the gap states of CuSe thin films 557
- Titanates
 dielectric properties of $(NaBi_{(1-x)}K_x)_{0.5}Ti_{(1-x)}Nb_xO_3$ ceramics fabricated by mechanical alloying 196
- Transmission electron microscopy
 synthesis and dislocations of 1111-type GdFePO superconductor 93
- Transmission spectrum
 large quadratic electro-optic properties of ferroelectric base $0.92Pb(Mg_{1/3}Nb_{2/3})O_3-0.08PbTiO_3$ single crystal 425
- Transparent ceramics
 efficient energy transfer between Ce^{3+} and Nd^{3+} in cerium codoped Nd: YAG laser quality transparent ceramics 475
- Type-VIII clathrate
 optimization of thermoelectric properties of type-VIII clathrate $Ba_8Ga_{16}Sn_{30}$ by carrier tuning 1
- Ultrasonics
 an ultrasonic therapeutic transducers using lead-free $Na_{0.5}K_{0.5}NbO_3-CuNb_2O_6$ ceramics 433
- Vacancy formation
 characterization of nanometric multidoped ceria powders 279
- Valence fluctuations
 influence of hydrogen absorption on structural and magnetic properties of Ce_2Ni_2In 376
- Vapor deposition
 controlled shape of magnesium hydride synthesized by chemical vapor deposition 502
- Vinyltriethoxysilane (VTEOS)
 preparation of villus-like PMMA/silica hybrids via surface modification and wet grinding 302
- V-Mo alloys
 effect of substitutional Mo on diffusion and site occupation of hydrogen in the BCT monohydride phase of V-H system studied by 1H NMR 399
- Wet grinding
 preparation of villus-like PMMA/silica hybrids via surface modification and wet grinding 302
- White LEDs
 a novel orange emissive phosphor $SrWO_4:Sm^{3+}$ for white light-emitting diodes 133
- X-ray and gamma-ray spectroscopies
 anomalous hydrogen absorption on non-stoichiometric iron-carbon compound 547
- X-ray diffraction (XRD)
 structural and optical properties of nanocrystalline Ni-Zn ferrite thin films 21
 synthesis of carbon nanorods by reduction of carbon bisulfide 38
 electrochemical impedance spectroscopy of HVOF-sprayed NiTi intermetallic coatings deposited on AISI 1045 steel 42
 phase equilibria in the ternary Al-Zr-La system 62
 peculiarity of component interaction in Er-Fe-Sn ternary system at 670 K and 770 K 67
 optical, magnetic and electrical investigation of cobalt ferrite nanoparticles synthesized by co-precipitation route 201
 structural investigations of nanomixed oxides $SnO_2-xAl_2O_3$ prepared by sol-gel technique 253
 characterization of nanometric multidoped ceria powders 279
 design induced plastic deformation in Zr-based bulk metallic glass 414
 phase structure and electrical properties of lead-free $(1-x)(Bi_{0.5}Na_{0.5})_{0.88}Ba_{0.12}TiO_3-xAg_{0.9}Li_{0.1}NbO_3$ piezoelectric ceramics 479
 mechanically induced polymorphic phase transformation in nanocrystalline TiO_2 powder 484
 controlled shape of magnesium hydride synthesized by chemical vapor deposition 502
 investigation of structural and dielectric behavior of $Eu_2(B'_{0.5}B''_{0.5})_2O_7$ ($B' = Ba; B'' = W, Mo$) ceramics 542
- X-ray luminescence
 fabrication and characterization of $Lu_2O_3:Eu^{3+}$ nanopowders and X-ray films L26
- X-ray powder diffraction
 magnetic and magnetocaloric properties of the ternary Gd-based metallic glasses $Gd_{60}Mn_{30}X_{10}$, with $X = Al, Ga, In$ 370
- X-ray spectroscopy
 study of hydrogenation versus de-loading of Co and Mn doped ZnO semiconductor 312
- X-ray techniques
 hydrothermal synthesis of double sheaf-like Sb_2S_3 using copolymer as a crystal splitting agent L38
- XRD
 microstructure, dielectric and ferroelectric properties of $(1-x)(0.94Bi_{0.5}Na_{0.5}TiO_3-0.06BaTiO_3)-xBiFeO_3$ lead-free ceramics synthesized via a high energy ball milling method 535
- Yield strength
 estimation of driving force for martensitic transformation in $(Ni_{52.5}Mn_{23.5}Ga_{24})_{100-x}Co_x$ alloys 331
- Yttrium oxide
 thermal and mechanical properties of sintered bodies and EB-PVD layers of Y_2O_3 added $Gd_2Zr_2O_7$ ceramics for thermal barrier coatings 448
- Zinc oxide
 texture-controlled growth of ZnO nanorods/films by aluminum ion and solvent L21
 study of hydrogenation versus de-loading of Co and Mn doped ZnO semiconductor 312

- ZnGa₂Se₄
memory switching of ZnGa₂Se₄ thin films as a new material for phase change memories (PCMs) 551
- ZnO
electrical characterization and device characterization of ZnO microring shaped films by sol-gel method 184
- ZnO nanofibers
synthesis and optical properties of Mg-doped ZnO nanofibers prepared by electrospinning 97
- ZnO nanorod arrays
density- and adhesion-controlled ZnO nanorod arrays on the ITO flexible substrates and their electrochromic performance 261
- ZnO twins
amino acid-assisted synthesis of ZnO twin-prisms and functional group's influence on their morphologies 326