

SUBJECT INDEX

- AA5083
Low temperature enhanced ductility of friction stir processed 5083 aluminum alloy 1447
- AA7020 Al–Mg–Zn alloy
Precipitation hardening and hydrogen embrittlement of aluminum alloy AA7020 311
- A.c. conductivity
Dielectric relaxation and ionic conductivity studies of $\text{Na}_2\text{ZnP}_2\text{O}_7$ 915
Conductivity and dielectric studies on $(\text{Na}_{0.4}\text{Ag}_{0.6})_2\text{PbP}_2\text{O}_7$ compound 1069
- $\text{A}_3\text{B}_3\text{O}_{11}$
Synthesis of new (Bi, La) $_3\text{MSb}_2\text{O}_{11}$ phases (M = Cr, Mn, Fe) with KSbO_3 -type structure and their magnetic and photocatalytic properties 271
- Ab initio* calculations
Structural, elastic and thermodynamic properties of Ti_2SC 1617
- Abrasive waterjet
An investigation on surface roughness of granite machined by abrasive waterjet 985
- ABS
Modeling of thermally stimulated depolarization current (TSDC) using dipole–dipole interaction concept 365
- Acetal homopolymer
Tribological effects of polymer surface modification through plastic deformation 1549
- Acetyl coumarines
Inhibition effects of acetyl coumarines and thiazole derivatives on corrosion of zinc in acidic medium 571
- Acid solutions
Electrochemical, surface analytical and quantum chemical studies on Schiff bases of 4-amino-4H-1,2,4-triazole-3,5-dimethanol (ATD) in corrosion protection of aluminium in 1N HNO_3 1245
- Acrylic acid
Synthesis and characterization of polycaprolactone/acrylic acid (PCL/AA) hydrogel for controlled drug delivery 1537
- Activated carbon fibres
Microwave absorbing properties of activated carbon fibre polymer composites 75
- Activation energy
On structural, optical and dielectric properties of zinc aluminate nanoparticles 251
Modeling of thermally stimulated depolarization current (TSDC) using dipole–dipole interaction concept 365
- Adhesion
Tribological characteristics of self-assembled nanometer film deposited on phosphorylated 3-aminopropyltriethoxysilane 583
- Adiabatic temperature change (T_{ad})
Magnetocaloric effect of $\text{Gd}_5\text{Si}_2\text{Ge}_2$ alloys in low magnetic field 825
- Admixtures
SEM investigation of minor constituents of carbide materials prepared from shungite rocks 1267
- Adsorbent
Photocatalytic degradation of reactive black-5 dye using TiO_2 impregnated ZSM-5 551
- Adsorption
Effect of ZnO loading technique on textural characteristic and methyl blue removal capacity of exfoliated graphite/ZnO composites 1569
- Adsorption isotherm
Inhibition effects of acetyl coumarines and thiazole derivatives on corrosion of zinc in acidic medium 571
- AFM
Improvement of multicrystalline silicon wafer solar cells by post-fabrication wet-chemical etching in phosphoric acid 1689
- $\text{Ag}_{0.8}\text{Pb}_{10}\text{SbTe}_{12}$
Electrical transport and thermoelectric properties of $\text{AgPb}_{10}\text{SbTe}_{12}$ prepared by high pressure method 1209
- Aging
Gel–sol synthesis and aging effect on highly crystalline anatase nanopowder 1189
- Aging treatment
Effect of aging treatment on wear properties and electrical conductivity of Cu–Cr–Zr alloy 1465
- Ag-loading SiO_2
Preparation of cellulose fibres with antibacterial Ag-loading nano- SiO_2 629
- Akermanite
Combustion synthesis and photoluminescence study of silicate biomaterials 1281
- $\gamma\text{-Al}_2\text{O}_3$
Synthesis of $\gamma\text{-Al}_2\text{O}_3$ nanowires through a boehmite precursor route 239
- $\gamma\text{-AlOOH}$
Synthesis of $\gamma\text{-Al}_2\text{O}_3$ nanowires through a boehmite precursor route 239
- Al/Mg/Al
Bonding strength of Al/Mg/Al alloy tri-metallic laminates fabricated by hot rolling 805
- Al_2O_3
Effect of surface roughness on grain growth and sintering of alumina 799
 $\text{MgAl}_2\text{O}_4\text{-}\gamma\text{-Al}_2\text{O}_3$ solid solution interaction: mathematical framework and phase separation of $\alpha\text{-Al}_2\text{O}_3$ at high temperature 859
- Al– B_4C nanocomposite powders
Preparation and investigation of Al–4 wt% B_4C nanocomposite powders using mechanical milling 1039
- Al–Cu alloy
Small-angle scattering from GP zones in Al–Cu alloy 1455

- Alkali treatment
Effect of fibre content and alkali treatment on mechanical properties of *Roystonea regia*-reinforced epoxy partially biodegradable composites 1575
- Alkaline earth
Effects of MO (M = Mg, Ca, Ba) on crystallization and flexural strength of semi-transparent lithium disilicate glass-ceramics 1511
- Alpha alumina
Densification and dielectric properties of SrO–Al₂O₃–B₂O₃ ceramic bodies 143
- Aluminium
Electrochemical, surface analytical and quantum chemical studies on Schiff bases of 4-amino-4H-1,2,4-triazole-3,5-dimethanol (ATD) in corrosion protection of aluminium in 1N HNO₃ 1245
- Aluminium alloy
Poisoning effect of bismuth on modification behaviour of strontium in LM25 alloy 1223
- Aluminium dihydrogen phosphate
Aqueous slip casting of MgAl₂O₄ spinel powder 327
- Aluminum alloy
On statistical behaviour of stress drops in Portevin–Le Chatelier effect 1113
- Amorphous films
Laser annealing of sputter-deposited *a*-SiC and *a*-SiC_xN_y films 1375
- Amorphous materials
Calorimetric studies of non-isothermal crystallization in amorphous Cu_xTi_{100-x} alloys 1459
- Anatase
Nanocrystalline TiO₂ preparation by microwave route and nature of anatase–rutile phase transition in nano TiO₂ 1163
Gel–sol synthesis and aging effect on highly crystalline anatase nanopowder 1189
- Anechoic chamber
Synthesis, characterization and evaluation of reflectivity of nanosized CaTiO₃/epoxy resin composites in microwave bands 699
- Annealing
Small angles X-ray diffraction and Mössbauer characterization of annealed Tb/Fe multilayer 71
Annealing twins in a multifunctional beta Ti–Nb–Ta–Zr–O alloy 1435
- Annealing temperature
Effect of annealing process of iron powder on magnetic properties and losses of motor cores 829
- Anodic aluminium oxide
Effect of process parameters on growth rate and diameter of nano-porous alumina templates 423
- Anodic polarization
Preparation of novel polymer–metal oxide nanocomposites with nanophase separated hierarchical structure 1289
- Anodization
Synthesis and characterization of polythiophene-modified TiO₂ nanotube arrays 1173
- Antibacterial
Chitosan–silver oxide nanocomposite film: Preparation and antimicrobial activity 29
- Antibacterial property
Preparation of cellulose fibres with antibacterial Ag-loading nano–SiO₂ 629
- Apparent coercive field
Effect of temperature on polarization reversal of strontium-doped lead zirconate titanate (PSZT) ceramics 129
- Aryl monomer
Facile synthesis of hypercrosslinked resins via chloromethylation and continuous condensation of simple aryl molecules 735
- Asymmetric integral function
Applicability of four parameter formalisms in interpreting thermodynamic properties of binary systems 401
- Atom transfer radical polymerization
Preparation of novel polymer–metal oxide nanocomposites with nanophase separated hierarchical structure 1289
- Atomic force microscopy
Aqueous colloids of graphene oxide nanosheets by exfoliation of graphite oxide without ultrasonication 25
Influence of polymer additive molecular weight on surface and microstructural characteristics of electrodeposited copper 347
- Aurivillius
Phase developments and dielectric responses of barium substituted four-layer CaBi₄Ti₄O₁₅ Aurivillius 1201
- AZ91 alloy
Effect of grain boundary misorientation on discontinuous precipitation in an AZ91 alloy 1471
- AZO target
Preparation and characterization of solid-state sintered aluminum-doped zinc oxide with different alumina contents 477
- AZO thin film
Preparation and characterization of solid-state sintered aluminum-doped zinc oxide with different alumina contents 477
- B₂O₃
Densification and dielectric properties of SrO–Al₂O₃–B₂O₃ ceramic bodies 143
- Bactericidal effect
Fabrication and performances of MWCNT/TiO₂ composites derived from MWCNTs and titanium(IV) alkoxide precursors 835
- Band structure
Electronic properties and charge density of Be_xZn_{1-x}Te alloys 499
Study of energy bands and magnetic properties of Co₂CrSi Heusler alloy 1219
- Barite
An investigation of X-ray and radio isotope energy absorption of heavyweight concretes containing barite 169
- Barium ferrite
Barium ferrite nanoparticles prepared by self-propagating low-temperature combustion method and its characterization 1319
- Barium phosphate/manganate(V)
Ba₃(P_{1-x}Mn_xO₄)₂: Blue/green inorganic materials based on tetrahedral Mn(V) 1257

- Barrier oxide layer
Effect of process parameters on growth rate and diameter of nano-porous alumina templates 423
- BaTiO₃
Effect of temperature and time on solvothermal synthesis of tetragonal BaTiO₃ 19
- Bauxite
Effect of particle size on microstructure and strength of porous spinel ceramics prepared by pore-forming *in situ* technique 1109
- BDT
Phase transition and dielectric study in Ba_{0.95}Dy_{0.05}TiO₃ ceramic 927
- Bearing steel
Plasma nitriding of AISI 52100 ball bearing steel and effect of heat treatment on nitrided layer 153
- BiFeO₃
Structural, dielectric and multiferroic properties of Er and La substituted BiFeO₃ ceramics 899
- Bi-layer
Effect of thin Mo₂C layer on thermal stability of Si/SiO₂/Ti/Cu system 1611
- Bioactive coatings
Formation of hydroxyapatite coating on titanium at 200°C through pulsed laser deposition followed by hydrothermal treatment 389
- Bioactive material
In vitro study on biomineralization of biphasic calcium phosphate biocomposite crosslinked with hydrolysable tannins of *Terminalia chebula* 589
- Bioactivity
In vitro bioactivity and cytocompatibility of tricalcium silicate 1151
- Bio-diagnosis
Metal-coated magnetic nanoparticles for surface enhanced Raman scattering studies 207
- Biomaterials
Gold nanoparticle-coated biomaterial as SERS micro-probes 417
Combustion synthesis and photoluminescence study of silicate biomaterials 1281
- Biomineralization
Polycarboxylate derivative of α -amino acid as growth modifier of sulphide minerals 97
In vitro study on biomineralization of biphasic calcium phosphate biocomposite crosslinked with hydrolysable tannins of *Terminalia chebula* 589
- Biomorphic materials
Preparation of SnO₂/C biomorphic materials by biotemplating from ramie fibres 1157
- Biosynthesis
Microbial synthesis of iron-based nanomaterials—A review 191
- Biotemplate
Preparation of SnO₂/C biomorphic materials by biotemplating from ramie fibres 1157
- Biphasic calcium phosphate
In vitro study on biomineralization of biphasic calcium phosphate biocomposite crosslinked with hydrolysable tannins of *Terminalia chebula* 589
- Birefringence
Synthesis, growth, optical, mechanical and electrical properties of *L*-lysine *L*-lysinium dichloride nitrate (*L*-LLDN) single crystal 469
- Bismuth
Poisoning effect of bismuth on modification behaviour of strontium in LM25 alloy 1223
- Blue/green chromophore
Ba₃(P_{1-x}Mn_xO₄)₂: Blue/green inorganic materials based on tetrahedral Mn(V) 1257
- Blue/green inorganic material
Ba₃(P_{1-x}Mn_xO₄)₂: Blue/green inorganic materials based on tetrahedral Mn(V) 1257
- Bonding strength
Bonding strength of Al/Mg/Al alloy tri-metallic laminates fabricated by hot rolling 805
- Bone ash
Preparation and characterization of a novel bone graft composite containing bone ash and egg shell powder 177
- Bone formation
Tissue-engineered triphasic ceramic coated hydroxyapatite induced bone formation and vascularization at an extra-skeletal site in a rat model 1721
- Bone graft
Preparation and characterization of a novel bone graft composite containing bone ash and egg shell powder 177
In vitro study on biomineralization of biphasic calcium phosphate biocomposite crosslinked with hydrolysable tannins of *Terminalia chebula* 589
- Boron carbide
Preparation of titanium diboride powders from titanium alkoxide and boron carbide powder 883
- Boron carbide nanoparticles
Preparation and investigation of Al-4 wt% B₄C nanocomposite powders using mechanical milling 1039
- Breakthrough curve
Uptake of permanganate from aqueous environment by surfactant modified montmorillonite batch and fixed bed studies 1675
- Breakthrough time
Uptake of permanganate from aqueous environment by surfactant modified montmorillonite batch and fixed bed studies 1675
- Bulk metallic glass
Formation of ternary Mg-Cu-Dy bulk metallic glasses 1507
- Burstein Moss effect
Burstein Moss effect in nanocrystalline CaS:Ce 673
- BZT
Dielectric behaviour of Pb-substituted BZT ceramics 1401
Effect of Zr on dielectric, ferroelectric and impedance properties of BaTiO₃ ceramic 1483
- Calcium borate
Synthesis of thorn-like Ca₂B₂O₅·H₂O by hydrothermal method 1197
- Calcium sulfate
Shape control synthesis of low-dimensional calcium sulfate 233
- Calcium sulphide
Burstein Moss effect in nanocrystalline CaS:Ce 673

- Calcium titanate
 Synthesis, characterization and evaluation of reflectivity of nanosized CaTiO₃/epoxy resin composites in microwave bands 699
- Carbide materials
 SEM investigation of minor constituents of carbide materials prepared from shungite rocks 1267
- Carbon
 Synthesis and chemical etching of Te/C nanocables 1185
- Carbon aerogel
 Microwave-assisted synthesis of high-loading, highly dispersed Pt/carbon aerogel catalyst for direct methanol fuel cell 577
- Carbon matrix
 Thermodynamic modeling to analyse composition of carbonaceous coatings of MnO and other oxides of manganese grown by MOCVD 11
- Carbon nanotubes
 Visible light photocatalytic properties of novel molybdenum treated carbon nanotube/titania composites 543
 Synthesis of nano-carbon (nanotubes, nanofibres, graphene) materials 607
 Transparent conducting film: Effect of mechanical stretching to optical and electrical properties of carbon nanotube mat 615
 Transparent conducting film: Effect of vacuum filtration of carbon nanotube suspended in oleum 623
- Carbon substrate
 Effect of poly(ethylene glycol) surfactant on carbon-doped MoO₃ nanocomposite materials and its photocatalytic activity 535
- Carbonaceous deposit
 Kaliophilite from fly ash: synthesis, characterization and stability 1671
- Carbonate
 Infrared spectra, Raman laser, XRD, DSC/TGA and SEM investigations on preparations of selenium metal (Sb₂O₃, Ga₂O₃, SnO and HgO) oxides and lead carbonate with pure grade using acetamide precursors 873
- Carbothermal-reduction
 Preparation of SnO₂/C biomorphic materials by biotemplating from ramie fibres 1157
- Catalyst support
 Kaliophilite from fly ash: synthesis, characterization and stability 1671
- Cathode catalyst
 Pt–Au/C cathode with enhanced oxygen-reduction activity in PEFCs 337
- CaTiO₃
 Electrical and microstructural properties of CaTiO₃-doped K_{1/2}Na_{1/2}NbO₃-lead free ceramics 1213
- Caulis sinomenii*
 Biodegradable poly(lactic acid) microspheres containing total alkaloids of *Caulis sinomenii* 1715
- CdCO₃
 Unusual route for preparation of manganese(II), cobalt(II), zinc(II) and cadmium(II) carbonate compounds: synthesis and spectroscopic characterizations 853
- Cellulose fibres
 Preparation of cellulose fibres with antibacterial Ag-loading nano–SiO₂ 629
- Cement matrix
 Influence of curing conditions on durability of alkali-resistant glass fibres in cement matrix 775
- Ceramic
 Effect of low level substitution of Sr–Ba on transport and magnetic behaviour of La_{0.67}Ca_{0.33}MnO₃ 121
 Densification and dielectric properties of SrO–Al₂O₃–B₂O₃ ceramic bodies 143
- Ceramic-matrix composites
 Processing–structure–property relations of chemically bonded phosphate ceramic composites 785
- Ceramics
 Dielectric relaxation behaviour of Sr₂SbMnO₆ ceramics fabricated from nanocrystalline powders prepared by molten salt synthesis 53
 Influence of lead oxide addition on LnTiTaO₆ (Ln = Ce, Pr and Nd) 125
 Combustion synthesis and characterization of Ba₂NdSbO₆ nanocrystals 661
- Chalcogenide glasses
 Photoconductivity and high-field effects in amorphous Se₈₃Te₁₅Zn₂ thin film 1351
- Characterization
 Computation of X-ray powder diffractograms of cement components and its application to phase analysis and hydration performance of OPC cement 1137
- Charge density
 Electronic properties and charge density of Be_xZn_{1-x}Te alloys 499
- Charge order
 Effect of cobalt substitution on magnetic and transport properties of Nd_{0.5}Sr_{0.5}Mn_{1-x}Co_xO₃ (x = 0.1, 0.3 and 0.5) 279
- Chemical bath deposition
 Structural and optical properties of zinc sulphide–polyvinyl alcohol (ZnS–PVA) nanocomposite thin films: effect of Zn source concentration 1285
- Chemical bonded ceramics
 Processing–structure–property relations of chemically bonded phosphate ceramic composites 785
- Chemical etching
 Synthesis and chemical etching of Te/C nanocables 1185
- Chemical synthesis
 Dielectric relaxation behaviour of Sr₂SbMnO₆ ceramics fabricated from nanocrystalline powders prepared by molten salt synthesis 53
 Biomimetic synthesis and characterization of semiconducting hybrid organic–inorganic composite materials based on polyaniline–polyethylene glycol–CdS system 1017
 Synthesis, structure and low temperature study of electric transport and magnetic properties of GdSr₂MnCrO₇ 1089
 Chemical synthesis and characterization of hydrous tin oxide (SnO₂:H₂O) thin films 1179
 Blue-shifted photoluminescence of Alq₃ dispersed in PMMA 1649
- Chemical vapour deposition processes
 Structural and electrical properties of Ta₂O₃ thin films prepared by photo-induced CVD 443
- Chitosan
 Chitosan–silver oxide nanocomposite film: Preparation and antimicrobial activity 29

- Ciprofloxacin hydrochloride
Evaluation of starch based cryogels as potential biomaterials for controlled release of antibiotic drugs 1739
- CNTs–polymer composite
Synthesis of nano-carbon (nanotubes, nanofibres, graphene) materials 607
- Coatings
Influence of polymer additive molecular weight on surface and microstructural characteristics of electrodeposited copper 347
Structural characteristics of titanium coating on copper substrates 483
- Cobalt
Preparation of an efficient humidity indicating silica gel from rice husk ash 1683
- Cobaltates
Effect of cobalt substitution on magnetic and transport properties of $\text{Nd}_{0.5}\text{Sr}_{0.5}\text{Mn}_{1-x}\text{Co}_x\text{O}_3$ ($x = 0.1, 0.3$ and 0.5) 279
- $\text{CoCO}_3 \cdot 4\text{H}_2\text{O}$
Unusual route for preparation of manganese(II), cobalt(II), zinc(II) and cadmium(II) carbonate compounds: synthesis and spectroscopic characterizations 853
- $\beta\text{-Co(OH)}_2$
Fabrication of hierarchical $\beta\text{-Co(OH)}_2$ microspheres via hydrothermal process 973
- Coefficient of friction
Effect of oil and oil with graphite on tribological properties of glass filled PTFE polymer composites 1003
Tribological effects of polymer surface modification through plastic deformation 1549
- Coercivity
Influence of temperature on structural and magnetic properties of $\text{Co}_{0.5}\text{Mn}_{0.5}\text{Fe}_2\text{O}_4$ ferrites 1415
- Coir fibre
Effect of glass hybridization and staking sequence on mechanical behaviour of interply coir–glass hybrid laminate 293
- Column studies
Uptake of permanganate from aqueous environment by surfactant modified montmorillonite batch and fixed bed studies 1675
- Combustion synthesis
Microwave absorbing properties of activated carbon fibre polymer composites 75
Effect of ion beam irradiation on metal particle doped polymer composite 81
Colossal magnetodielectric effect caused by magnetoelectric effect under low magnetic field 283
Synthesis and degradation properties of $\beta\text{-TCP/BG}$ porous composite materials 357
Combustion synthesis of Eu^{2+} and Dy^{3+} activated $\text{Sr}_3(\text{VO}_4)_2$ phosphor for LEDs 557
Combustion synthesis and structural characterization of Li–Ti mixed nanoferrites 1027
Combustion synthesis and photoluminescence study of silicate biomaterials 1281
- Composites
Effect of size of fly ash particle on enhancement of mullite content and glass formation 1663
- Composition modulated multilayer alloy
Corrosion resistant Zn–Co alloy coatings deposited using saw-tooth current pulse 1699
- Compressibility
Preparation and investigation of Al–4 wt% B_4C nano-composite powders using mechanical milling 1039
- Concrete
An investigation of X-ray and radio isotope energy absorption of heavyweight concretes containing barite 169
- Conducting polymers
Dielectric behaviour of nano-crystalline spinel $\text{Ni}_{0.2}\text{Ca}_{0.8}\text{Fe}_2\text{O}_4$ and their nano-composite with polypyrrole 1305
Synthesis, characterization and magnetic properties of polyaniline/ $\gamma\text{-Fe}_2\text{O}_3$ composites 1557
- Conductive films
Preparation and characterization of LaNiO_3 films grown by metal–organic deposition 1379
- Conductivity
Influence of dielectric constant of polymerization medium on processability and ammonia gas sensing properties of polyaniline 261
Synthesis, characterization and magnetic properties of polyaniline/ $\gamma\text{-Fe}_2\text{O}_3$ composites 1557
- Copper-ethanolamine wood preservatives
Performance of waterborne acrylic surface coatings on wood impregnated with Cu-ethanolamine preservatives 113
- Coprecipitation
Study of dependence of magnetic properties on seeding temperature in fine particles of $\text{Cu}_{0.25}\text{Co}_{0.25}\text{Zn}_{0.5}\text{Fe}_2\text{O}_4$ 1095
Influence of preparation method on structural and magnetic properties of nickel ferrite nanoparticles 1345
- Coprecipitation method
Magnetic and microwave-absorbing properties of $\text{SrAl}_4\text{Fe}_8\text{O}_{19}$ powders synthesized by coprecipitation and citric-combustion methods 463
- Coprecipitation technique
Enhancement of MgAl_2O_4 spinel formation from coprecipitated precursor by powder processing 865
- Core-shell nanostructure
Metal-coated magnetic nanoparticles for surface enhanced Raman scattering studies 207
- Corrosion
Electrolytic deposition and corrosion resistance of Zn–Ni coatings obtained from sulphate–chloride bath 997
- Corrosion inhibition
Inhibition effects of acetyl coumarines and thiazole derivatives on corrosion of zinc in acidic medium 571
- Corrosion resistance
Surface morphology and corrosion resistance of electrodeposited composite coatings containing polyethylene or polythiophene in Ni–Mo base 993
Corrosion resistant Zn–Co alloy coatings deposited using saw-tooth current pulse 1699
- Cotton effects
Helical *H*-type aggregation of trimeric *p*-phenylene vinylene with chiral ester groups 1049
- Coupling coefficient
Effect of temperature on polarization reversal of strontium-doped lead zirconate titanate (PSZT) ceramics 129
- Cr
Heat treatment and effects of Cr and Ni in low alloy steel 1439
- Creep rupture
Life prediction of Ni-base superalloy 305

- Crosslinking agent
In vitro study on biomineralization of biphasic calcium phosphate biocomposite crosslinked with hydrolysable tannins of *Terminalia chebula* 589
- Cryogels
 Evaluation of starch based cryogels as potential biomaterials for controlled release of antibiotic drugs 1739
- Crystal growth
 Shape control synthesis of low-dimensional calcium sulfate 233
 Growth of strontium oxalate crystals in agar-agar gel 377
 Synthesis, growth, optical, mechanical and electrical properties of *L*-lysine *L*-lysinium dichloride nitrate (*L*-LLDN) single crystal 469
 Energy transfer and thermal studies of Pr³⁺ doped cerium oxalate crystals 955
- Crystal structure
 Synthesis of new (Bi, La)₃MSb₂O₁₁ phases (M = Cr, Mn, Fe) with KSbO₃-type structure and their magnetic and photocatalytic properties 271
 Computation of X-ray powder diffractograms of cement components and its application to phase analysis and hydration performance of OPC cement 1137
- Crystal transformation
 Nonionic emulsion-mediated synthesis of zeolite beta 755
- Crystalline nanomaterials
 Effect of aging on copper nanoparticles synthesized by pulsed laser ablation in water: structural and optical characterizations 1363
- Crystalline phase
 Crystallization and microstructures of Y-Si-Al-O-N glass-ceramics containing main crystal phase Y₃Al₅O₁₂ 767
- Crystallite size
 Influence of temperature on structural and magnetic properties of Co_{0.5}Mn_{0.5}Fe₂O₄ ferrites 1415
- CsH₂PO₄
 Effect of surfactants in synthesis of CsH₂PO₄ as protonic conductive membrane 759
- CSL
 Annealing twins in a multifunctional beta Ti-Nb-Ta-Zr-O alloy 1435
- CTAB
 Flower-like CuO synthesized by CTAB-assisted hydrothermal method 967
- Cu@Cu₂O nanoparticles
 Effect of aging on copper nanoparticles synthesized by pulsed laser ablation in water: structural and optical characterizations 1363
- Cu-Cr-Zr
 Effect of aging treatment on wear properties and electrical conductivity of Cu-Cr-Zr alloy 1465
- Cu-doped ZnO
 Room-temperature ferromagnetic properties of Cu-doped ZnO rod arrays 1083
- CuO
 Flower-like CuO synthesized by CTAB-assisted hydrothermal method 967
- Curing conditions
 Influence of curing conditions on durability of alkali-resistant glass fibres in cement matrix 775
- Cyclic voltammetry
 Pitting corrosion protection of low nickel stainless steel by electropolymerized conducting polymer coating in 0.5M NaCl solution 563
- Cycling synthesis
 Method for increasing β -SiC yield on solid state reaction of coal fly ash and activated carbon powder 1013
- Cyclohexanol
 Catalytic oxidation of cyclohexane to cyclohexanone and cyclohexanol by *tert*-butyl hydroperoxide over Pt/oxide catalysts 1127
- Cyclohexanone
 Catalytic oxidation of cyclohexane to cyclohexanone and cyclohexanol by *tert*-butyl hydroperoxide over Pt/oxide catalysts 1127
- Cytocompatibility
In vitro bioactivity and cytocompatibility of tricalcium silicate 1151
- D.C. conductivity
 D.C. conductivity and spectroscopic studies of polyaniline doped with binary dopant ZrOCl₂/AgI 1237
- Damping materials
 Temperature dependent damping studies of Ni-Mn-Ga polymer composites 739
- Decomposition
 Effect of ZnO loading technique on textural characteristic and methyl blue removal capacity of exfoliated graphite/ZnO composites 1569
- Deep-level defect
 DLTS study of annihilation of oxidation induced deep-level defects in Ni/SiO₂/*n*-Si MOS structures 1627
- Defect states
 Photoconductivity and high-field effects in amorphous Se₈₃Te₁₅Zn₂ thin film 1351
- Defects
 Post irradiated microstructural characterization of Zr-1Nb alloy by X-ray diffraction technique and positron annihilation spectroscopy 507
- Degradation rate
 Synthesis and degradation properties of β -TCP/BG porous composite materials 357
- Delayed failure
 Precipitation hardening and hydrogen embrittlement of aluminum alloy AA7020 311
- Diameter polydispersity index
 Synthesis, surface characterization and optical properties of 3-thiopropionic acid capped ZnS:Cu nanocrystals 1077
- Dielectric
 Phase transition and dielectric study in Ba_{0.95}Dy_{0.05}TiO₃ ceramic 927
 Effect of Zr on dielectric, ferroelectric and impedance properties of BaTiO₃ ceramic 1483
- Dielectric constant
 Effect of temperature on polarization reversal of strontium-doped lead zirconate titanate (PSZT) ceramics 129
 Influence of dielectric constant of polymerization medium on processability and ammonia gas sensing properties of polyaniline 261

- Dielectric and piezoelectric properties of $\text{Bi}_{0.5}(\text{Na}_{0.82}\text{K}_{0.18})_{0.5}\text{TiO}_3$ - LiSbO_3 lead-free piezoelectric ceramics 933
- AC impedance and dielectric spectroscopic studies of Mg^{2+} ion conducting PVA-PEG blended polymer electrolytes 1063
- Dielectric behaviour of nano-crystalline spinel $\text{Ni}_{0.2}\text{Ca}_{0.8}\text{Fe}_2\text{O}_4$ and their nano-composite with polypyrrole 1305
- Dielectric materials
- Structural and electrical properties of Ta_2O_5 thin films prepared by photo-induced CVD 443
 - Synthesis, growth, optical, mechanical and electrical properties of *L*-lysine *L*-lysinium dichloride nitrate (*L*-LLDN) single crystal 469
- Dielectric permittivity
- On structural, optical and dielectric properties of zinc aluminate nanoparticles 251
- Dielectric properties
- Dielectric relaxation behaviour of $\text{Sr}_2\text{SbMnO}_6$ ceramics fabricated from nanocrystalline powders prepared by molten salt synthesis 53
 - Effect of ion beam irradiation on metal particle doped polymer composite 81
 - Densification and dielectric properties of $\text{SrO-Al}_2\text{O}_3\text{-B}_2\text{O}_3$ ceramic bodies 143
 - Microstructure and microwave dielectric properties of $(\text{Zn}_{1-x}\text{Mg}_x)_2\text{SiO}_4$ ceramics 921
 - Low-firing $\text{Li}_2\text{ZnTi}_3\text{O}_8$ microwave dielectric ceramics with $\text{BaCu}(\text{B}_2\text{O}_5)$ additive 1233
 - Dielectric and impedance spectroscopic studies of $(\text{Sr}_{1-x}\text{Pb}_x)\text{TiO}_2$ glass ceramics with addition of Nb_2O_5 1393
- Dielectric relaxation
- Dielectric response of PLZT ceramics $x/57/43$ across ferroelectric-paraelectric phase transition 133
 - Dielectric relaxation in double perovskite oxide, $\text{Ho}_2\text{CdTiO}_6$ 455
- Dielectric resonators
- Influence of lead oxide addition on LnTiTaO_6 ($\text{Ln} = \text{Ce}, \text{Pr}$ and Nd) 125
- Dielectric response
- Structural, dielectric and electrical properties of $\text{CaBa}_4\text{SmTi}_3\text{Nb}_7\text{O}_{30}$ ferroelectric ceramic 907
- Dielectric spectroscopy
- Corrosion resistant Zn-Co alloy coatings deposited using saw-tooth current pulse 1699
- Dielectrics
- Influence of lead oxide addition on LnTiTaO_6 ($\text{Ln} = \text{Ce}, \text{Pr}$ and Nd) 125
- Differential scanning calorimetry
- Biomimetic synthesis and characterization of semiconducting hybrid organic-inorganic composite materials based on polyaniline-polyethylene glycol-CdS system 1017
 - Morphology, thermal, electrical and electrochemical stability of nano aluminium-oxide-filled polyvinyl alcohol composite gel electrolyte 1297
 - Calorimetric studies of non-isothermal crystallization in amorphous $\text{Cu}_x\text{Ti}_{100-x}$ alloys 1459
- Diffuse phase transitions
- Dielectric response of PLZT ceramics $x/57/43$ across ferroelectric-paraelectric phase transition 133
 - Effect of Zr on dielectric, ferroelectric and impedance properties of BaTiO_3 ceramic 1483
- Diffusion
- Nitrates-melt synthesized $\text{LiNi}_{0.8}\text{Co}_{0.2}\text{O}_2$ and its performance as cathode in Li-ion cells 1693
- Diffusion barrier
- Effect of thin Mo_2C layer on thermal stability of Si/SiO₂/Ti/Cu system 1611
- Dipole-dipole interaction
- Modeling of thermally stimulated depolarization current (TSDC) using dipole-dipole interaction concept 365
- Direct methanol fuel cell
- Microwave-assisted synthesis of high-loading, highly dispersed Pt/carbon aerogel catalyst for direct methanol fuel cell 577
- Dislocations
- Hardness of metallic crystals 943
- DLTS
- DLTS study of annihilation of oxidation induced deep-level defects in Ni/SiO₂/*n*-Si MOS structures 1627
- DOS
- Study of energy bands and magnetic properties of Co_2CrSi Heusler alloy 1219
- Dosimeter
- Effect of gamma radiation on electrical and optical properties of $(\text{TeO}_2)_{0.9}(\text{In}_2\text{O}_3)_{0.1}$ thin films 61
- Double perovskite
- Dielectric relaxation in double perovskite oxide, $\text{Ho}_2\text{CdTiO}_6$ 455
- Double-stage firing process
- Aqueous slip casting of MgAl_2O_4 spinel powder 327
- Drug delivery
- Evaluation of starch based cryogels as potential biomaterials for controlled release of antibiotic drugs 1739
- Drug release
- Biodegradable poly(lactic acid) microspheres containing total alkaloids of *Caulis sinomenii* 1715
- DSC
- Effect of annealing on phase transition in poly(vinylidene fluoride) films prepared using polar solvent 727
 - Role of clay as catalyst in Friedel-Craft alkylation 1273
- Ductility
- Low temperature enhanced ductility of friction stir processed 5083 aluminum alloy 1447
- Duplex aging
- Precipitation hardening and hydrogen embrittlement of aluminum alloy AA7020 311
- Durability
- Influence of curing conditions on durability of alkali-resistant glass fibres in cement matrix 775
- Dynamic characteristics
- Dynamic characteristics of multi-walled carbon nanotubes under a transverse magnetic field 45
- Dynamic mechanical analysis
- Temperature dependent damping studies of Ni-Mn-Ga polymer composites 739
- Dynamometer
- Drilling analysis of coir-fibre-reinforced polyester composites 1563
- EBSD
- Annealing twins in a multifunctional beta Ti-Nb-Ta-Zr-O alloy 1435

- Effect of grain boundary misorientation on discontinuous precipitation in an AZ91 alloy 1471
- EDS
Synthesis and investigation of optical properties of ZnS nanostructures 287
- Efficiency of power dissipation
Processing maps for Fe–24Ni–11Cr–3Ti–1Mo superalloy 525
- Egg shell powder
Preparation and characterization of a novel bone graft composite containing bone ash and egg shell powder 177
- EIS
Pitting corrosion protection of low nickel stainless steel by electropolymerized conducting polymer coating in 0.5M NaCl solution 563
Electrochemical, surface analytical and quantum chemical studies on Schiff bases of 4-amino-4H-1,2,4-triazole-3,5-dimethanol (ATD) in corrosion protection of aluminium in 1N HNO₃ 1245
- Elastic constants
Determination of elastic modulus in nickel alloy from ultrasonic measurements 323
- Elastic properties
Structural, elastic and thermodynamic properties of Ti₂SC 1617
- Electrical conductivity
Effect of aging treatment on wear properties and electrical conductivity of Cu–Cr–Zr alloy 1465
- Electrical modulus
Dielectric relaxation and ionic conductivity studies of Na₂ZnP₂O₇ 915
- Electrical properties
Colossal magnetodielectric effect caused by magnetoelectric effect under low magnetic field 283
Electrical properties and scaling behaviour of Sm³⁺ doped CaF₂-bismuth borate glasses 491
Transparent conducting film: Effect of mechanical stretching to optical and electrical properties of carbon nanotube mat 615
Structural, dielectric and electrical properties of CaBa₄SmTi₃Nb₇O₃₀ ferroelectric ceramic 907
Biomimetic synthesis and characterization of semiconducting hybrid organic–inorganic composite materials based on polyaniline–polyethylene glycol–CdS system 1017
Synthesis, structure and low temperature study of electric transport and magnetic properties of GdSr₂MnCrO₇ 1089
Chemical synthesis and characterization of hydrous tin oxide (SnO₂·H₂O) thin films 1179
Electrical and microstructural properties of CaTiO₃-doped K_{1/2}Na_{1/2}NbO₃-lead free ceramics 1213
Effect of Mn doping on electrical properties and accelerated ageing behaviours of ternary ZVM varistors 1385
- Electrical resistance
Structure and electric transport properties of LnSr₂FeTiO₇ (Ln = La, Nd and Gd) 149
- Electrocatalyst
Microwave-assisted synthesis of high-loading, highly dispersed Pt/carbon aerogel catalyst for direct methanol fuel cell 577
- Electrocatalytic activity
Microwave-assisted synthesis of high-loading, highly dispersed Pt/carbon aerogel catalyst for direct methanol fuel cell 577
- Electrochemical characterization
Nitrates–melt synthesized LiNi_{0.8}Co_{0.2}O₂ and its performance as cathode in Li-ion cells 1693
- Electrodeposition
Electrolytic deposition and corrosion resistance of Zn–Ni coatings obtained from sulphate–chloride bath 997
- Electromagnetic interference
Synthesis, characterization and evaluation of reflectivity of nanosized CaTiO₃/epoxy resin composites in microwave bands 699
- Electron accelerator
Possibilities of production of nanopowders with high power ELV electron accelerator 677
- Electron beam lithography
Photonic crystal waveguides by direct writing of e-beam on self-assembled photonic crystals 383
- Electron density
Hardness of metallic crystals 943
- Electron microscopy
Effect of temperature and time on solvothermal synthesis of tetragonal BaTiO₃ 19
Structural characteristics of titanium coating on copper substrates 483
Effect of surface roughness on grain growth and sintering of alumina 799
Fabrication of hierarchical β-Co(OH)₂ microspheres via hydrothermal process 973
Synthesis, surface characterization and optical properties of 3-thiopropionic acid capped ZnS:Cu nanocrystals 1077
- Electronic transport
Effect of low level substitution of Sr–Ba on transport and magnetic behaviour of La_{0.67}Ca_{0.33}MnO₃ 121
- Electrospinning
Preparation of ultrafine poly(sodium 4-styrenesulfonate) fibres via electrospinning 531
- Electrostatic spray deposition
Cost-effective electrostatic-sprayed SrAl₂O₄·Eu²⁺ phosphor coatings by using salted sol–gel derived solution 1059
- Empirical equations
P-wave velocity test for assessment of geotechnical properties of some rock materials 947
- Empirical pseudopotential method
Electronic properties and charge density of Be_xZn_{1-x}Te alloys 499
- Emulsion
Synthesis of hydroxyapatite nanopowders by sol–gel emulsion technique 1749
- Emulsion polymerization
Preparation of semi-IPN (BA–VAc–VAE) by emulsion polymerization and its properties investigation 1531
- Emulsion synthesis
Emulsion-based synthesis of NaA zeolite nanocrystals and its integration towards NaA membranes 651
- Energetic binder
Functionalization of terminal carbon atoms of hydroxyl terminated polybutadiene by polyazido nitrogen rich molecules 745

- Environmental applications
Using speciation diagrams to improve synthesis of magnetic nanosorbents for environmental applications 1357
- EPIR
Interface-dependent resistance switching in $\text{Nd}_{0.7}\text{Sr}_{0.3}\text{MnO}_3$ 793
- Epoxy resin
Effect of fibre content and alkali treatment on mechanical properties of *Roystonea regia*-reinforced epoxy partially biodegradable composites 1575
- Epoxy resin composites
Synthesis, characterization and evaluation of reflectivity of nanosized CaTiO_3 /epoxy resin composites in microwave bands 699
- Equivalent circuit
Dielectric relaxation and ionic conductivity studies of $\text{Na}_2\text{ZnP}_2\text{O}_7$ 915
- Ethylene glycol dimethacrylate
Synthesis and characterization of polycaprolactone/acrylic acid (PCL/AA) hydrogel for controlled drug delivery 1537
- Evaporation
Possibilities of production of nanopowders with high power ELV electron accelerator 677
- Exciton coupling effect
Helical *H*-type aggregation of trimeric *p*-phenylene vinylene with chiral ester groups 1049
- Exfoliated composite
Preparation of intercalated polyaniline/clay nanocomposite and its exfoliation exhibiting dendritic structure 635
- Exfoliated graphite/ZnO
Effect of ZnO loading technique on textural characteristic and methyl blue removal capacity of exfoliated graphite/ZnO composites 1569
- Exfoliation
Role of clay as catalyst in Friedel–Craft alkylation 1273
- α - Fe_2O_3
Solvothermal synthesis and characterization of acicular α - Fe_2O_3 nanoparticles 1313
- γ - Fe_2O_3
Synthesis, characterization and magnetic properties of polyaniline/ γ - Fe_2O_3 composites 1557
- Feedstock
Spray-drying of alumina powder for APS: effect of slurry properties and drying conditions upon particle size and morphology of feedstock 1653
- Fermi edge singularity
Fermi-edge singularity in photoluminescence spectra of modulation-doped AlGaAs/InGaAs/GaAs quantum wells 1645
- Ferrites
Ferrofluid thin films as optical gaussmeters proposed for field and magnetic moment sensing 245
Influence of temperature on structural and magnetic properties of $\text{Co}_{0.5}\text{Mn}_{0.5}\text{Fe}_2\text{O}_4$ ferrites 1415
- Ferroelectric
Phase transition and dielectric study in $\text{Ba}_{0.95}\text{Dy}_{0.05}\text{TiO}_3$ ceramic 927
- Ferroelectricity
Structural, dielectric and multiferroic properties of Er and La substituted BiFeO_3 ceramics 899
- Ferroelectrics
Structural, dielectric and electrical properties of $\text{CaBa}_4\text{SmTi}_3\text{Nb}_7\text{O}_{30}$ ferroelectric ceramic 907
Dielectric and piezoelectric properties of $\text{Bi}_{0.5}(\text{Na}_{0.82}\text{K}_{0.18})_{0.5}\text{TiO}_3$ – LiSbO_3 lead-free piezoelectric ceramics 933
- Ferrofluids
Ferrofluid thin films as optical gaussmeters proposed for field and magnetic moment sensing 245
- Film
Chitosan–silver oxide nanocomposite film: Preparation and antimicrobial activity 29
- FINEMET
High performance of low cost soft magnetic materials 1407
- Flexural strength
Effects of MO (M = Mg, Ca, Ba) on crystallization and flexural strength of semi-transparent lithium disilicate glass–ceramics 1511
- Flower
Flower-like CuO synthesized by CTAB-assisted hydrothermal method 967
- Fluorophore
Synthesis and characterization of fluorophore attached silver nanoparticles 639
- Fluoropolymers
Transient charging and discharging current study in pure PVF and PVF/PVDF fluoro polyblends for application in micro-electronics 105
- Fly ash
Effect of size of fly ash particle on enhancement of mullite content and glass formation 1663
Kaliophilite from fly ash: synthesis, characterization and stability 1671
- Food packaging
Chitosan–silver oxide nanocomposite film: Preparation and antimicrobial activity 29
- Forsterite (Mg_2SiO_4)
Microstructure and microwave dielectric properties of $(\text{Zn}_{1-x}\text{Mg}_x)_2\text{SiO}_4$ ceramics 921
- Four-parameter formalism
Applicability of four parameter formalisms in interpreting thermodynamic properties of binary systems 401
- FP–LAPW
Study of energy bands and magnetic properties of Co_2CrSi Heusler alloy 1219
- Freeze granulation
Aqueous slip casting of MgAl_2O_4 spinel powder 327
- Freeze-thaw
Evaluation of starch based cryogels as potential biomaterials for controlled release of antibiotic drugs 1739
- Friction
Tribological characteristics of self-assembled nanometer film deposited on phosphorylated 3-aminopropyltriethoxysilane 583
- Friction stir processing
Low temperature enhanced ductility of friction stir processed 5083 aluminum alloy 1447
- Friction welding
Determination of optimum welding parameters in connecting high alloyed X53CrMnNiN219 and X45CrSi93 steels by friction welding 815

- Friedel–Craft alkylation
 Role of clay as catalyst in Friedel–Craft alkylation 1273
- FTIR
 Growth of strontium oxalate crystals in agar–agar gel 377
 Preparation of ultrafine poly(sodium 4-styrenesulfonate) fibres via electrospinning 531
 Effect of annealing on phase transition in poly(vinylidene fluoride) films prepared using polar solvent 727
 Chemical synthesis and characterization of hydrous tin oxide (SnO₂·H₂O) thin films 1179
 D.C. conductivity and spectroscopic studies of polyaniline doped with binary dopant ZrOCl₂/AgI 1237
 Effect of complexing salt on conductivity of PVC/PEO polymer blend electrolytes 1525
- Functionalization of polymers
 Functionalization of terminal carbon atoms of hydroxyl terminated polybutadiene by polyazido nitrogen rich molecules 745
- Ga₂O₃ nanostructures
 Synthesis of one-dimensional N-doped Ga₂O₃ nanostructures: different morphologies and different mechanisms 1331
- Gas pressure
 Effect of heat treatment temperature on microstructure and electrochemical properties of hollow carbon spheres prepared in high-pressure argon 1707
- Gas sensing
 Influence of dielectric constant of polymerization medium on processability and ammonia gas sensing properties of polyaniline 261
- Gas shielded arc welding
 Characterization on strength and toughness of welded joint for Q550 steel 161
- GBCD
 Effect of grain boundary misorientation on discontinuous precipitation in an AZ91 alloy 1471
- (Gd_{1-x}Er_x)₅Si₂Ge₂ compounds
 Influence of 1523 K annealing on phase and magnetic properties in (Gd_{1-x}Er_x)₅Si₂Ge₂ compounds 1103
- Gelatin
 Preparation and characterization of a novel bone graft composite containing bone ash and egg shell powder 177
- Gel–sol
 Gel–sol synthesis and aging effect on highly crystalline anatase nanopowder 1189
- Glass
 Electrical properties and scaling behaviour of Sm³⁺ doped CaF₂-bismuth borate glasses 491
- Glass fibre
 Effect of glass hybridization and staking sequence on mechanical behaviour of interply coir–glass hybrid laminate 293
 Influence of curing conditions on durability of alkali-resistant glass fibres in cement matrix 775
 Effect of oil and oil with graphite on tribological properties of glass filled PTFE polymer composites 1003
- Glass–ceramics
 Crystallization and microstructures of Y–Si–Al–O–N glass–ceramics containing main crystal phase Y₃Al₅O₁₂ 767
 Effects of MO (M = Mg, Ca, Ba) on crystallization and flexural strength of semi-transparent lithium disilicate glass–ceramics 1511
- Glasses
 Effect of CdS nanoparticles on photoluminescence spectra of Tb³⁺ in sol–gel-derived silica glasses 227
- Glass-forming ability
 Formation of ternary Mg–Cu–Dy bulk metallic glasses 1507
- GP zones
 Small-angle scattering from GP zones in Al–Cu alloy 1455
- Grain growth
 Effect of surface roughness on grain growth and sintering of alumina 799
- Grain size
 An investigation on surface roughness of granite machined by abrasive waterjet 985
- Granite
 An investigation on surface roughness of granite machined by abrasive waterjet 985
- Graphene
 Synthesis of nano-carbon (nanotubes, nanofibres, graphene) materials 607
- Graphene oxide
 Aqueous colloids of graphene oxide nanosheets by exfoliation of graphite oxide without ultrasonication 25
- Graphite additive
 Effect of oil and oil with graphite on tribological properties of glass filled PTFE polymer composites 1003
- Graphite oxide
 Aqueous colloids of graphene oxide nanosheets by exfoliation of graphite oxide without ultrasonication 25
- Graphitic nanofibres
 Synthesis of nano-carbon (nanotubes, nanofibres, graphene) materials 607
- Growth mechanism
 Synthesis of one-dimensional N-doped Ga₂O₃ nanostructures: different morphologies and different mechanisms 1331
 Synthesis and *in situ* mechanism of nuclei growth of layered double hydroxides 1599
- GSAS
 Structure refinement of polycrystalline orthorhombic yttrium substituted calcium titanate: Ca_{1-x}Y_xTiO_{3+δ} (x = 0.1–0.3) 89
- H₂O₂ treatment
 Synthesis, characterization and catalytic performance of a novel zeolite ITQ-2-like by treating MCM-22 precursor with H₂O₂ 1605
- H₂S gas sensor
 Synthesis, characterization and gas sensing performance of SnO₂ thin films prepared by spray pyrolysis 1
- H₃PO₄ etch
 Improvement of multicrystalline silicon wafer solar cells by post-fabrication wet-chemical etching in phosphoric acid 1689
- Halloysite clay
 Mechanical and tribological studies of polymer hybrid nanocomposites with nano reinforcements 705
- Hardness
 Hardness of metallic crystals 943
- Hardness testing
 Multiple strengthening mechanisms in nanoparticle-reinforced copper matrix composites 217
- Heat treatment
 Crystallization and microstructures of Y–Si–Al–O–N glass–ceramics containing main crystal phase Y₃Al₅O₁₂ 767

- Magnetocaloric effect of $Gd_5Si_2Ge_2$ alloys in low magnetic field 825
- Effect of thermomechanical processing on evolution of various phases in Ti–Nb alloys 1421
- Effect of heat treatment temperature on microstructure and electrochemical properties of hollow carbon spheres prepared in high-pressure argon 1707
- Heavyweight concrete
An investigation of X-ray and radio isotope energy absorption of heavyweight concretes containing barite 169
- Heterostructure
Synthesis and chemical etching of Te/C nanocables 1185
- Hierarchical
Fabrication of hierarchical β -Co(OH)₂ microspheres via hydrothermal process 973
- High pressure
Electrical transport and thermoelectric properties of $AgPb_{10}SbTe_{12}$ prepared by high pressure method 1209
- High temperature oxidation
High temperature oxidation of Ti–48Al–8Cr–2Ag alloy with sputtered coating at 1000° C in air 811
- High-resolution X-ray diffraction
Synthesis, growth, optical, mechanical and electrical properties of *L*-lysine *L*-lysinium dichloride nitrate (*L*-LLDN) single crystal 469
- Hollow carbon spheres
Effect of heat treatment temperature on microstructure and electrochemical properties of hollow carbon spheres prepared in high-pressure argon 1707
- Holmium cadmium titanate
Dielectric relaxation in double perovskite oxide, Ho_2CdTiO_6 455
- Hopping
Dielectric behaviour of nano-crystalline spinel $Ni_{0.2}Ca_{0.8}Fe_2O_4$ and their nano-composite with polypyrrole 1305
- Hopping mechanism
Dielectric relaxation and ionic conductivity studies of $Na_2ZnP_2O_7$ 915
- Hot deformation
Processing maps for Fe–24Ni–11Cr–3Ti–1Mo superalloy 525
- Hot pressing
Fabrication and characterization of Ti_3SiC_2 –SiC nanocomposite by *in situ* reaction synthesis of TiC/Si/Al powders 1309
- Hot pressing effect on $(Bi_{0.25}Sb_{0.75})_2Te_3$ mechanical and thermoelectric properties 1591
- Hot rolling
Bonding strength of Al/Mg/Al alloy tri-metallic laminates fabricated by hot rolling 805
- H*-type aggregation
Helical *H*-type aggregation of trimeric *p*-phenylene vinylene with chiral ester groups 1049
- Humidity
Preparation of an efficient humidity indicating silica gel from rice husk ash 1683
- Humidity sensitivity
Synthesis of Mn-doped CeO_2 nanorods and their application as humidity sensors 1033
- Humidity sensors
Morphological and humidity sensing characteristics of SnO_2 –CuO, SnO_2 – Fe_2O_3 and SnO_2 – SbO_2 nanocooides 689
- Hybrid laminate
Effect of glass hybridization and staking sequence on mechanical behaviour of interply coir–glass hybrid laminate 293
- Hydration
Hydration behaviour of synthetic saponite at variable relative humidity 1263
- Hydrogels
Synthesis and characterization of polycaprolactone/acrylic acid (PCL/AA) hydrogel for controlled drug delivery 1537
- Hydrogen bonding
Functionalization of terminal carbon atoms of hydroxyl terminated polybutadiene by polyazido nitrogen rich molecules 745
- Hydrogen embrittlement
Precipitation hardening and hydrogen embrittlement of aluminum alloy AA7020 311
- Hydrothermal method
Flower-like CuO synthesized by CTAB-assisted hydrothermal method 967
- Room-temperature ferromagnetic properties of Cu-doped ZnO rod arrays 1083
- Hydrothermal route
Synthesis of γ - Al_2O_3 nanowires through a boehmite precursor route 239
- Hydrothermal stability
Synthesis and characterization of super-microporous material with enhanced hydrothermal stability 979
- Hydrothermal synthesis
Hydrothermal synthesis of $NaEuF_4$ spindle-like nanocrystals 1371
- Hydrothermal technique
Emulsion-based synthesis of NaA zeolite nanocrystals and its integration towards NaA membranes 651
- Hydrothermal treatment
Formation of hydroxyapatite coating on titanium at 200°C through pulsed laser deposition followed by hydrothermal treatment 389
- Hydrous tin oxide
Chemical synthesis and characterization of hydrous tin oxide ($SnO_2 \cdot H_2O$) thin films 1179
- Hydroxyapatite
Formation of hydroxyapatite coating on titanium at 200°C through pulsed laser deposition followed by hydrothermal treatment 389
- In vitro* bioactivity and cytocompatibility of tricalcium silicate 1151
- Tissue-engineered triphasic ceramic coated hydroxyapatite induced bone formation and vascularization at an extraskelatal site in a rat model 1721
- Influence of preparation method on hydroxyapatite porous scaffolds 1733
- Synthesis of hydroxyapatite nanopowders by sol–gel emulsion technique 1749
- Hypercrosslinked resins
Facile synthesis of hypercrosslinked resins via chloromethylation and continuous condensation of simple aryl molecules 735
- Hysteresis
Effect of annealing on phase transition in poly(vinylidene fluoride) films prepared using polar solvent 727

- Combustion synthesis and structural characterization of Li–Ti mixed nanoferrites 1027
- IGZO
An investigation in $\text{InGaO}_3(\text{ZnO})_m$ pellets as cause of variability in thin film transistor characteristics 447
- Illite
Preparation of intercalated polyaniline/clay nanocomposite and its exfoliation exhibiting dendritic structure 635
- Impact strength
Mechanical and tribological studies of polymer hybrid nanocomposites with nano reinforcements 705
- Impedance
Inhibition effects of acetyl coumarines and thiazole derivatives on corrosion of zinc in acidic medium 571
- Impedance spectroscopy
Dielectric relaxation in double perovskite oxide, $\text{Ho}_2\text{CdTiO}_6$ 455
Conductivity and dielectric studies on $(\text{Na}_{0.4}\text{Ag}_{0.6})_2\text{PbP}_2\text{O}_7$ compound 1069
Dielectric and impedance spectroscopic studies of $(\text{Sr}_{1-x}\text{Pb}_x)\text{TiO}_2$ glass ceramics with addition of Nb_2O_5 1393
- Impregnation method
Effect of poly(ethylene glycol) surfactant on carbon-doped MoO_3 nanocomposite materials and its photocatalytic activity 535
- In vivo* studies
Synthesis and characterization of fluorophore attached silver nanoparticles 639
- Indium oxide
Effect of gamma radiation on electrical and optical properties of $(\text{TeO}_2)_{0.9}(\text{In}_2\text{O}_3)_{0.1}$ thin films 61
- Infrared spectra
Unusual route for preparation of manganese(II), cobalt(II), zinc(II) and cadmium(II) carbonate compounds: synthesis and spectroscopic characterizations 853
Infrared spectra, Raman laser, XRD, DSC/TGA and SEM investigations on preparations of selenium metal (Sb_2O_3 , Ga_2O_3 , SnO and HgO) oxides and lead carbonate with pure grade using acetamide precursors 873
- Infrared spectroscopy
Combustion synthesis and characterization of $\text{Ba}_2\text{NdSbO}_6$ nanocrystals 661
- Intercalation compounds
Nitrates–melt synthesized $\text{LiNi}_{0.8}\text{Co}_{0.2}\text{O}_2$ and its performance as cathode in Li-ion cells 1693
- Interfaces
Structural characteristics of titanium coating on copper substrates 483
Interface-dependent resistance switching in $\text{Nd}_{0.7}\text{Sr}_{0.3}\text{MnO}_3$ 793
- Interfacial polarization
On structural, optical and dielectric properties of zinc aluminate nanoparticles 251
- Ion beam irradiation
Effect of ion beam irradiation on metal particle doped polymer composite 81
- Ion implantation
Synthesis of copper nanoparticles in polycarbonate by ion implantation 645
- Ionic conductivity
AC impedance and dielectric spectroscopic studies of Mg^{2+} ion conducting PVA–PEG blended polymer electrolytes 1063
Morphology, thermal, electrical and electrochemical stability of nano aluminium-oxide-filled polyvinyl alcohol composite gel electrolyte 1297
- IR spectroscopy
IR and Raman spectroscopic studies of sol–gel derived alkaline-earth silicate glasses 299
Pitting corrosion protection of low nickel stainless steel by electropolymerized conducting polymer coating in 0.5M NaCl solution 563
- Iron reducing bacteria
Microbial synthesis of iron-based nanomaterials—A review 191
- Irradiation
Changes in microstructural parameters of NB4D2 silk fibres due to electron irradiation: X-ray line profile analysis 1583
- ITQ-2
Synthesis, characterization and catalytic performance of a novel zeolite ITQ-2-like by treating MCM-22 precursor with H_2O_2 1605
- ITQ-2-like
Synthesis, characterization and catalytic performance of a novel zeolite ITQ-2-like by treating MCM-22 precursor with H_2O_2 1605
- Kaliophilite
Kaliophilite from fly ash: synthesis, characterization and stability 1671
- Kinetics
Effect of grain boundary misorientation on discontinuous precipitation in an AZ91 alloy 1471
- KSbO_3
Synthesis of new $(\text{Bi}, \text{La})_3\text{MSb}_2\text{O}_{11}$ phases ($\text{M} = \text{Cr}, \text{Mn}, \text{Fe}$) with KSbO_3 -type structure and their magnetic and photocatalytic properties 271
- Laminated composite
Bonding strength of Al/Mg/Al alloy tri-metallic laminates fabricated by hot rolling 805
- Langmuir equation
Estimation of vapour pressure and partial pressure of subliming compounds by low-pressure thermogravimetry 1633
- LaNiO_3
Preparation and characterization of LaNiO_3 films grown by metal–organic deposition 1379
- Laser ablation in aqueous medium
Effect of aging on copper nanoparticles synthesized by pulsed laser ablation in water: structural and optical characterizations 1363
- Laser annealing
Laser annealing of sputter-deposited $a\text{-SiC}$ and $a\text{-SiC}_x\text{N}_y$ films 1375
- Laser transmission
Ferrofluid thin films as optical gaussmeters proposed for field and magnetic moment sensing 245
- Lattice dynamics
Lattice dynamical investigations on Zn diffusion in zinc oxide 371

- LDA+U
 Study of energy bands and magnetic properties of Co₂CrSi Heusler alloy 1219
- LDHs
 Synthesis and *in situ* mechanism of nuclei growth of layered double hydroxides 1599
- Leaching
 Performance of waterborne acrylic surface coatings on wood impregnated with Cu-ethanolamine preservatives 113
- Lead-free ceramics
 Electrical and microstructural properties of CaTiO₃-doped K_{1/2}Na_{1/2}NbO₃-lead free ceramics 1213
- Lead-free piezoelectric ceramics
 Dielectric and piezoelectric properties of Bi_{0.5}(Na_{0.82}K_{0.18})_{0.5}TiO₃-LiSbO₃ lead-free piezoelectric ceramics 933
 Effect of substitution of titanium by magnesium and niobium on structure and piezoelectric properties in (Bi_{1/2}Na_{1/2})TiO₃ ceramics 1491
- LED
 Combustion synthesis of Eu²⁺ and Dy³⁺ activated Sr₃(VO₄)₂ phosphor for LEDs 557
- Legendre polynomial
 Applicability of four parameter formalisms in interpreting thermodynamic properties of binary systems 401
- Life prediction
 Life prediction of Ni-base superalloy 305
- Ligand field tuning of colour
 Ba₃(P_{1-x}Mn_xO₄)₂: Blue/green inorganic materials based on tetrahedral Mn(V) 1257
- Light scattering
 Helical *H*-type aggregation of trimeric *p*-phenylene vinylene with chiral ester groups 1049
- Li-ion conduction
 Effect of complexing salt on conductivity of PVC/PEO polymer blend electrolytes 1525
- Limit strains
 Numerical simulation for determination of limit strains of a cold rolled and solution treated Nimonic C-263 alloy sheet 515
- Line broadening
 Temperature dependent grain-size and microstrain of CdO thin films prepared by spray pyrolysis method 601
- Lithium batteries
 Nitrates-melt synthesized LiNi_{0.8}Co_{0.2}O₂ and its performance as cathode in Li-ion cells 1693
- Lithium disilicate
 Effects of MO (M = Mg, Ca, Ba) on crystallization and flexural strength of semi-transparent lithium disilicate glass-ceramics 1511
- Lithium ion battery
 Effect of heat treatment temperature on microstructure and electrochemical properties of hollow carbon spheres prepared in high-pressure argon 1707
- Li-Ti mixed ferrites
 Combustion synthesis and structural characterization of Li-Ti mixed nanoferrites 1027
- Longitudinal
 Hot pressing effect on (Bi_{0.25}Sb_{0.75})₂Te₃ mechanical and thermoelectric properties 1591
- Low alloy high strength steel
 Characterization on strength and toughness of welded joint for Q550 steel 161
- Low alloy steel
 Heat treatment and effects of Cr and Ni in low alloy steel 1439
- Low temperature electron microscopy
 Thermal stability of gold-PS nanocomposites thin films 595
- Low-molecular-weight chiral polycarboxylate
 Polycarboxylate derivative of α -amino acid as growth modifier of sulphide minerals 97
- Low-pressure thermogravimetry
 Estimation of vapour pressure and partial pressure of subliming compounds by low-pressure thermogravimetry 1633
- LPG sensor
 Solid-state titania-based gas sensor for liquefied petroleum gas detection at room temperature 1639
- LTCC
 Low-firing Li₂ZnTi₃O₈ microwave dielectric ceramics with BaCu(B₂O₅) additive 1233
- Luminescence
 Thermoluminescence properties of γ -irradiated Bi doped BaS nanostructures 683
 Hydrothermal synthesis of NaEuF₄ spindle-like nanocrystals 1371
 Blue-shifted photoluminescence of Alq₃ dispersed in PMMA 1649
- Macroporous
 Evaluation of starch based cryogels as potential biomaterials for controlled release of antibiotic drugs 1739
- Magnesite
 Effect of particle size on microstructure and strength of porous spinel ceramics prepared by pore-forming *in situ* technique 1109
- Magnetic entropy change
 Influence of 1523 K annealing on phase and magnetic properties in (Gd_{1-x}Er_x)₅Si₂Ge₂ compounds 1103
- Magnetic entropy change (ΔS_M)
 Magnetocaloric effect of Gd₅Si₂Ge₂ alloys in low magnetic field 825
- Magnetic loss
 Effect of annealing process of iron powder on magnetic properties and losses of motor cores 829
- Magnetic measurements
 Effect of low level substitution of Sr-Ba on transport and magnetic behaviour of La_{0.67}Ca_{0.33}MnO₃ 121
- Magnetic moments
 Study of energy bands and magnetic properties of Co₂CrSi Heusler alloy 1219
- Magnetic nanoparticles
 Metal-coated magnetic nanoparticles for surface enhanced Raman scattering studies 207
- Magnetic nanosorbents
 Using speciation diagrams to improve synthesis of magnetic nanosorbents for environmental applications 1357
- Magnetic properties
 Effect of cobalt substitution on magnetic and transport properties of Nd_{0.5}Sr_{0.5}Mn_{1-x}Co_xO₃ ($x = 0.1, 0.3$ and 0.5) 279
 Magnetic and microwave-absorbing properties of SrAl₄Fe₈O₁₉ powders synthesized by coprecipitation and citric-combustion methods 463

- Effect of annealing process of iron powder on magnetic properties and losses of motor cores 829
- Room-temperature ferromagnetic properties of Cu-doped ZnO rod arrays 1083
- Synthesis, structure and low temperature study of electric transport and magnetic properties of $\text{GdSr}_2\text{MnCrO}_7$ 1089
- Study of dependence of magnetic properties on seeding temperature in fine particles of $\text{Cu}_{0.25}\text{Co}_{0.25}\text{Zn}_{0.5}\text{Fe}_2\text{O}_4$ 1095
- Barium ferrite nanoparticles prepared by self-propagating low-temperature combustion method and its characterization 1319
- Synthesis and characterization of zinc ferrite nanoparticles obtained by self-propagating low-temperature combustion method 1325
- Rapid heating effects on grain-size, texture and magnetic properties of 3% Si non-oriented electrical steel 1477
- Magnetic stirring**
- Aqueous colloids of graphene oxide nanosheets by exfoliation of graphite oxide without ultrasonication 25
- Magnetic transition**
- Influence of 1523 K annealing on phase and magnetic properties in $(\text{Gd}_{1-x}\text{Er}_x)_5\text{Si}_2\text{Ge}_2$ compounds 1103
- Magnetism**
- Small angles X-ray diffraction and Mössbauer characterization of annealed Tb/Fe multilayer 71
- Synthesis of new $(\text{Bi}, \text{La})_3\text{MSb}_2\text{O}_{11}$ phases ($\text{M} = \text{Cr}, \text{Mn}, \text{Fe}$) with KSbO_3 -type structure and their magnetic and photocatalytic properties 271
- Structural, dielectric and multiferroic properties of Er and La substituted BiFeO_3 ceramics 899
- Magnetodielectric effect**
- Colossal magnetodielectric effect caused by magnetoelectric effect under low magnetic field 283
- Magnetoelectric effect**
- Colossal magnetodielectric effect caused by magnetoelectric effect under low magnetic field 283
- Magneto-optics**
- Ferrofluid thin films as optical gaussmeters proposed for field and magnetic moment sensing 245
- Magnetotactic bacteria**
- Microbial synthesis of iron-based nanomaterials—A review 191
- Manganese oxide**
- Thermodynamic modeling to analyse composition of carbonaceous coatings of MnO and other oxides of manganese grown by MOCVD 11
- Manganites**
- Effect of cobalt substitution on magnetic and transport properties of $\text{Nd}_{0.5}\text{Sr}_{0.5}\text{Mn}_{1-x}\text{Co}_x\text{O}_3$ ($x = 0.1, 0.3$ and 0.5) 279
- Interface-dependent resistance switching in $\text{Nd}_{0.7}\text{Sr}_{0.3}\text{MnO}_3$ 793
- MCM-22**
- Synthesis, characterization and catalytic performance of a novel zeolite ITQ-2-like by treating MCM-22 precursor with H_2O_2 1605
- MCM-41**
- Synthesis and characterization of super-microporous material with enhanced hydrothermal stability 979
- Mechanical milling**
- Preparation and investigation of Al-4 wt% B_4C nanocomposite powders using mechanical milling 1039
- Mechanical properties**
- Characterization on strength and toughness of welded joint for Q550 steel 161
- Effect of glass hybridization and staking sequence on mechanical behaviour of interply coir-glass hybrid laminate 293
- Processing-structure-property relations of chemically bonded phosphate ceramic composites 785
- Effect of fibre content and alkali treatment on mechanical properties of *Roystonea regia*-reinforced epoxy partially biodegradable composites 1575
- Mesoporous**
- Synthesis and characterization of super-microporous material with enhanced hydrothermal stability 979
- Metal**
- Influence of polymer additive molecular weight on surface and microstructural characteristics of electrodeposited copper 347
- Metal insulator transition**
- Ce-doped LCMO CMR manganites: a consequence of enhanced T_c and T_{IM} 1501
- Metallic crystals**
- Hardness of metallic crystals 943
- Metal-matrix composites**
- Multiple strengthening mechanisms in nanoparticle-reinforced copper matrix composites 217
- Metalorganic chemical vapour deposition**
- Estimation of vapour pressure and partial pressure of subliming compounds by low-pressure thermogravimetry 1633
- Metal-organic deposition**
- Preparation and characterization of LaNiO_3 films grown by metal-organic deposition 1379
- Metalorganic synthesis**
- Nanocrystalline TiO_2 preparation by microwave route and nature of anatase-rutile phase transition in nano TiO_2 1163
- Methane aromatization**
- Synthesis, characterization and catalytic performance of a novel zeolite ITQ-2-like by treating MCM-22 precursor with H_2O_2 1605
- Methyl blue**
- Effect of ZnO loading technique on textural characteristic and methyl blue removal capacity of exfoliated graphite/ZnO composites 1569
- $\text{Mg}(\text{NO}_3)_2$**
- AC impedance and dielectric spectroscopic studies of Mg^{2+} ion conducting PVA-PEG blended polymer electrolytes 1063
- MgAl_2O_4 spinel**
- Aqueous slip casting of MgAl_2O_4 spinel powder 327
- MgAl_2O_4 - γ - Al_2O_3 solid solution interaction: mathematical framework and phase separation of α - Al_2O_3 at high temperature 859
- Enhancement of MgAl_2O_4 spinel formation from co-precipitated precursor by powder processing 865
- Mg-Cu-Dy**
- Formation of ternary Mg-Cu-Dy bulk metallic glasses 1507
- Microbes**
- Microbial synthesis of iron-based nanomaterials—A review 191
- Microhardness**
- Plasma nitriding of AISI 52100 ball bearing steel and effect of heat treatment on nitrided layer 153
- Micro-probes**
- Gold nanoparticle-coated biomaterial as SERS micro-probes 417

- Microsphere
Biodegradable poly(lactic acid) microspheres containing total alkaloids of *Caulis sinomenii* 1715
- Microstructural characterization
Multiple strengthening mechanisms in nanoparticle-reinforced copper matrix composites 217
- Microstructural parameters
Temperature dependent grain-size and microstrain of CdO thin films prepared by spray pyrolysis method 601
Changes in microstructural parameters of NB4D2 silk fibres due to electron irradiation: X-ray line profile analysis 1583
- Microstructure
Characterization on strength and toughness of welded joint for Q550 steel 161
Shape control synthesis of low-dimensional calcium sulfate 233
Influence of polymer additive molecular weight on surface and microstructural characteristics of electrodeposited copper 347
Post irradiated microstructural characterization of Zr-1Nb alloy by X-ray diffraction technique and positron annihilation spectroscopy 507
Numerical simulation for determination of limit strains of a cold rolled and solution treated Nimonic C-263 alloy sheet 515
Emulsion-based synthesis of NaA zeolite nanocrystals and its integration towards NaA membranes 651
Crystallization and microstructures of Y-Si-Al-O-N glass-ceramics containing main crystal phase $Y_3Al_5O_{12}$ 767
Determination of optimum welding parameters in connecting high alloyed X53CrMnNiN219 and X45CrSi93 steels by friction welding 815
Magnetocaloric effect of $Gd_5Si_2Ge_2$ alloys in low magnetic field 825
Microstructure and microwave dielectric properties of $(Zn_{1-x}Mg_x)_2SiO_4$ ceramics 921
Fabrication of hierarchical β -Co(OH)₂ microspheres via hydrothermal process 973
Effect of particle size on microstructure and strength of porous spinel ceramics prepared by pore-forming *in situ* technique 1109
Effect of Mn doping on electrical properties and accelerated ageing behaviours of ternary ZVM varistors 1385
Effect of thermomechanical processing on evolution of various phases in Ti-Nb alloys 1421
Synthesis of hydroxyapatite nanopowders by sol-gel emulsion technique 1749
- Microwave
Influence of lead oxide addition on $LnTiTaO_6$ ($Ln = Ce, Pr$ and Nd) 125
Densification and dielectric properties of $SrO-Al_2O_3-B_2O_3$ ceramic bodies 143
- Microwave absorbing properties
Microwave absorbing properties of activated carbon fibre polymer composites 75
- Microwave absorption
Magnetic and microwave-absorbing properties of $SrAl_4Fe_8O_{19}$ powders synthesized by coprecipitation and citric-combustion methods 463
- Microwave-assisted polyol process
Microwave-assisted synthesis of high-loading, highly dispersed Pt/carbon aerogel catalyst for direct methanol fuel cell 577
- Microwave ceramics
Microstructure and microwave dielectric properties of $(Zn_{1-x}Mg_x)_2SiO_4$ ceramics 921
Low-firing $Li_2ZnTi_3O_8$ microwave dielectric ceramics with $BaCu(B_2O_5)_2$ additive 1233
- Microwave irradiation
Nanocrystalline TiO_2 preparation by microwave route and nature of anatase-rutile phase transition in nano TiO_2 1163
- Microwave/radio frequency absorber
Synthesis, characterization and evaluation of reflectivity of nanosized $CaTiO_3$ /epoxy resin composites in microwave bands 699
- Millimeter-wave frequency
Microstructure and microwave dielectric properties of $(Zn_{1-x}Mg_x)_2SiO_4$ ceramics 921
- Milling
Enhancement of $MgAl_2O_4$ spinel formation from coprecipitated precursor by powder processing 865
- Mixing
Enhancement of $MgAl_2O_4$ spinel formation from coprecipitated precursor by powder processing 865
- $MnCO_3 \cdot H_2O$
Unusual route for preparation of manganese(II), cobalt(II), zinc(II) and cadmium(II) carbonate compounds: synthesis and spectroscopic characterizations 853
- Mn-doped CeO_2
Synthesis of Mn-doped CeO_2 nanorods and their application as humidity sensors 1033
- Mn-valence
Effect of Mn doping on electrical properties and accelerated ageing behaviours of ternary ZVM varistors 1385
- MOCVD
Thermodynamic modeling to analyse composition of carbonaceous coatings of MnO and other oxides of manganese grown by MOCVD 11
- Modeling
Modeling of thermally stimulated depolarization current (TSDC) using dipole-dipole interaction concept 365
- Modification
Preparation of cellulose fibres with antibacterial Ag-loading nano-SiO₂ 629
Poisoning effect of bismuth on modification behaviour of strontium in LM25 alloy 1223
Preparation of semi-IPN (BA-VAc-VAE) by emulsion polymerization and its properties investigation 1531
- Modulation doping
Fermi-edge singularity in photoluminescence spectra of modulation-doped AlGaAs/InGaAs/GaAs quantum wells 1645
- Modulus formalism
Conductivity and dielectric studies on $(Na_{0.4}Ag_{0.6})_2PbP_2O_7$ compound 1069
- Molybdenum
Visible light photocatalytic properties of novel molybdenum treated carbon nanotube/titania composites 543
- Molybdenum carbide
Effect of thin Mo_2C layer on thermal stability of Si/SiO₂/Ti/Cu system 1611
- Montmorillonite clay
Role of clay as catalyst in Friedel-Craft alkylation 1273

- MoO₃
Effect of poly(ethylene glycol) surfactant on carbon-doped MoO₃ nanocomposite materials and its photocatalytic activity 535
- Morphology
Morphological and humidity sensing characteristics of SnO₂-CuO, SnO₂-Fe₂O₃ and SnO₂-SbO₂ nanocooides 689
Barium ferrite nanoparticles prepared by self-propagating low-temperature combustion method and its characterization 1319
Synthesis and characterization of zinc ferrite nanoparticles obtained by self-propagating low-temperature combustion method 1325
Synthesis and *in situ* mechanism of nuclei growth of layered double hydroxides 1599
Spray-drying of alumina powder for APS: effect of slurry properties and drying conditions upon particle size and morphology of feedstock 1653
- MOS capacitor
Structural and electrical properties of Ta₂O₅ thin films prepared by photo-induced CVD 443
DLTS study of annihilation of oxidation induced deep-level defects in Ni/SiO₂/n-Si MOS structures 1627
- Mössbauer spectroscopy
Small angles X-ray diffraction and Mössbauer characterization of annealed Tb/Fe multilayer 71
Study of dependence of magnetic properties on seeding temperature in fine particles of Cu_{0.25}Co_{0.25}Zn_{0.5}Fe₂O₄ 1095
- Mullite
Effect of size of fly ash particle on enhancement of mullite content and glass formation 1663
- Multiferroics
Structural, dielectric and multiferroic properties of Er and La substituted BiFeO₃ ceramics 899
- Multi-walled carbon nanotubes
Facile synthesis of poly (*p*-phenylenediamine)/MWCNT nanocomposites and characterization for investigation of structural effects of carbon nanotubes 37
Dynamic characteristics of multi-walled carbon nanotubes under a transverse magnetic field 45
- MWCNTs
Fabrication and performances of MWCNT/TiO₂ composites derived from MWCNTs and titanium(IV) alkoxide precursors 835
- Na_{0.5}K_{0.5}NbO₃
Electrical and microstructural properties of CaTiO₃-doped K_{1/2}Na_{1/2}NbO₃-lead free ceramics 1213
- NaA membrane
Emulsion-based synthesis of NaA zeolite nanocrystals and its integration towards NaA membranes 651
- NaEuF₄
Hydrothermal synthesis of NaEuF₄ spindle-like nanocrystals 1371
- Nanoceramic
Structure refinement of polycrystalline orthorhombic yttrium substituted calcium titanate: Ca_{1-x}Y_xTiO_{3+δ} ($x = 0.1-0.3$) 89
- Nanocomposite
Chitosan-silver oxide nanocomposite film: Preparation and antimicrobial activity 29
- Facile synthesis of poly (*p*-phenylenediamine)/MWCNT nanocomposites and characterization for investigation of structural effects of carbon nanotubes 37
Preparation of intercalated polyaniline/clay nanocomposite and its exfoliation exhibiting dendritic structure 635
Synthesis and characterization of composites of mixed oxides of iron and neodymium in polymer matrix of aniline-formaldehyde 843
Structural and optical properties of zinc sulphide-polyvinyl alcohol (ZnS-PVA) nanocomposite thin films: effect of Zn source concentration 1285
Preparation of novel polymer-metal oxide nanocomposites with nanophase separated hierarchical structure 1289
- Nanocooides
Morphological and humidity sensing characteristics of SnO₂-CuO, SnO₂-Fe₂O₃ and SnO₂-SbO₂ nanocooides 689
- Nanocrystalline ceramics
Grain-size effects on thermal properties of BaTiO₃ ceramics 963
- Nanocrystallites
A facile synthesis of ZnS nanocrystallites by pyrolysis of single molecule precursors, Zn (cinnamtsch)₂ and ZnCl₂ (cinnamtschH)₂ 667
- Nano-crystals
Hydrothermal synthesis of NaEuF₄ spindle-like nanocrystals 1371
- Nanomaterials
Study of structural transformations and phases formation upon calcination of Zn-Ni-Al hydrotalcite nanosheets 183
Shape control synthesis of low-dimensional calcium sulfate 233
Synthesis of thorn-like Ca₂B₂O₅·H₂O by hydrothermal method 1197
- Nanoparticles
Microbial synthesis of iron-based nanomaterials—A review 191
Rayleigh like scattering from silica-titania core-shell particles and their application in protection against harmful ultraviolet rays 199
Multiple strengthening mechanisms in nanoparticle-reinforced copper matrix composites 217
Effect of CdS nanoparticles on photoluminescence spectra of Tb³⁺ in sol-gel-derived silica glasses 227
On structural, optical and dielectric properties of zinc aluminate nanoparticles 251
Formation of nanoscale tungsten oxide structures and colouration characteristics 435
Synthesis of copper nanoparticles in polycarbonate by ion implantation 645
Possibilities of production of nanopowders with high power ELV electron accelerator 677
Effect of surfactants in synthesis of CsH₂PO₄ as protonic conductive membrane 759
Gel-sol synthesis and aging effect on highly crystalline anatase nanopowder 1189
Dielectric behaviour of nano-crystalline spinel Ni_{0.2}Ca_{0.8}Fe₂O₄ and their nano-composite with polypyrrole 1305
Synthesis of hydroxyapatite nanopowders by sol-gel emulsion technique 1749
- Nanophosphors
Burstein Moss effect in nanocrystalline CaS:Ce 673

- Nano-pores
Effect of process parameters on growth rate and diameter of nano-porous alumina templates 423
- Nanorods
Synthesis of Mn-doped CeO₂ nanorods and their application as humidity sensors 1033
- Nanosilica
Synthesis and characterization of mixture of nanozirconia and nanosilica obtained from commercially available zircon flour by sol-gel method 1339
- Nanostructure
Effect of poly(ethylene glycol) surfactant on carbon-doped MoO₃ nanocomposite materials and its photocatalytic activity 535
- Nanostructured materials
Effect of aging on copper nanoparticles synthesized by pulsed laser ablation in water: structural and optical characterizations 1363
- Nanostructures
Thermoluminescence properties of γ -irradiated Bi doped BaS nanostructures 683
- Nanowires
Synthesis of γ -Al₂O₃ nanowires through a boehmite precursor route 239
- Nanozirconia
Synthesis and characterization of mixture of nanozirconia and nanosilica obtained from commercially available zircon flour by sol-gel method 1339
- NaPSS
Preparation of ultrafine poly(sodium 4-styrenesulfonate) fibres via electrospinning 531
- Neodymium oxide
Synthesis and characterization of composites of mixed oxides of iron and neodymium in polymer matrix of aniline-formaldehyde 843
- Ni
Heat treatment and effects of Cr and Ni in low alloy steel 1439
- Nickel alloy
Determination of elastic modulus in nickel alloy from ultrasonic measurements 323
- Nickel ferrite
Influence of preparation method on structural and magnetic properties of nickel ferrite nanoparticles 1345
- Ni-Mn-Ga
Temperature dependent damping studies of Ni-Mn-Ga polymer composites 739
- Ni-Mo + PE composite coatings
Surface morphology and corrosion resistance of electrodeposited composite coatings containing polyethylene or polythiophene in Ni-Mo base 993
- Ni-Mo + Pth composite coatings
Surface morphology and corrosion resistance of electrodeposited composite coatings containing polyethylene or polythiophene in Ni-Mo base 993
- Ni-Mo coatings
Surface morphology and corrosion resistance of electrodeposited composite coatings containing polyethylene or polythiophene in Ni-Mo base 993
- Nimonic C-263 alloy
Numerical simulation for determination of limit strains of a cold rolled and solution treated Nimonic C-263 alloy sheet 515
- Nitrogen doping
Synthesis of one-dimensional N-doped Ga₂O₃ nanostructures: different morphologies and different mechanisms 1331
- Noble metals
SEM investigation of minor constituents of carbide materials prepared from shungite rocks 1267
- Nonionic emulsion system
Nonionic emulsion-mediated synthesis of zeolite beta 755
- Nonlinear optical material
Synthesis, growth, optical, mechanical and electrical properties of *L*-lysine *L*-lysinium dichloride nitrate (*L*-LLDN) single crystal 469
- Nonlinear optics
Hyperpolarizability studies of some nonconjugated twin donor-acceptor molecules 893
- Nonlinear properties
Synthesis and nonlinear optical characterization of new 1,3,4-oxadiazoles 887
- Non-oriented electrical steel
Rapid heating effects on grain-size, texture and magnetic properties of 3% Si non-oriented electrical steel 1477
- Non-polystyrene
Facile synthesis of hypercrosslinked resins via chloromethylation and continuous condensation of simple aryl molecules 735
- Norway spruce wood
Performance of waterborne acrylic surface coatings on wood impregnated with Cu-ethanolamine preservatives 113
- Novel phosphor
Synthesis and photoluminescence characterization of Ce³⁺ and Dy³⁺ activated ALa (WO₄)₂ (A = Na and Li) novel phosphors 1119
- Nucleation and growth
Small-angle scattering from GP zones in Al-Cu alloy 1455
- NUV excitation
Synthesis and photoluminescence characterization of Ce³⁺ and Dy³⁺ activated ALa (WO₄)₂ (A = Na and Li) novel phosphors 1119
- Oleum
Transparent conducting film: Effect of vacuum filtration of carbon nanotube suspended in oleum 623
- Optical characterization
Effect of aging on copper nanoparticles synthesized by pulsed laser ablation in water: structural and optical characterizations 1363
- Optical gap
Hyperpolarizability studies of some nonconjugated twin donor-acceptor molecules 893
- Optical gaussmeter
Ferrofluid thin films as optical gaussmeters proposed for field and magnetic moment sensing 245
- Optical limiting
Synthesis and nonlinear optical characterization of new 1,3,4-oxadiazoles 887
- Optical materials
Energy transfer and thermal studies of Pr³⁺ doped cerium oxalate crystals 955
- Optical properties
Transparent conducting film: Effect of mechanical stretching to optical and electrical properties of carbon nanotube mat 615

- Room-temperature ferromagnetic properties of Cu-doped ZnO rod arrays 1083
- Optical spectroscopy
Energy transfer and thermal studies of Pr³⁺ doped cerium oxalate crystals 955
- Organic matrix
Polycarboxylate derivative of α -amino acid as growth modifier of sulphide minerals 97
- Organo-clays
Uptake of permanganate from aqueous environment by surfactant modified montmorillonite batch and fixed bed studies 1675
- Organometallic compounds
Blue-shifted photoluminescence of Alq₃ dispersed in PMMA 1649
- Orientation distribution function
Rapid heating effects on grain-size, texture and magnetic properties of 3% Si non-oriented electrical steel 1477
- Orthophosphoric acid
Aqueous slip casting of MgAl₂O₄ spinel powder 327
- Orthorhombic distortion
Phase developments and dielectric responses of barium substituted four-layer CaBi₄Ti₄O₁₅ Aurivillius 1201
- Oscillator strength
Hyperpolarizability studies of some nonconjugated twin donor-acceptor molecules 893
- Osteoblasts
In vitro bioactivity and cytocompatibility of tricalcium silicate 1151
- 1,3,4-Oxadiazole
Synthesis and nonlinear optical characterization of new 1,3,4-oxadiazoles 887
- Oxidation
Catalytic oxidation of cyclohexane to cyclohexanone and cyclohexanol by *tert*-butyl hydroperoxide over Pt/oxide catalysts 1127
- Oxidative polymerization
Facile synthesis of poly (*p*-phenylenediamine)/MWCNT nanocomposites and characterization for investigation of structural effects of carbon nanotubes 37
- Oxides
Structural and electrical properties of Ta₂O₃ thin films prepared by photo-induced CVD 443
Infrared spectra, Raman laser, XRD, DSC/TGA and SEM investigations on preparations of selenium metal (Sb₂O₃, Ga₂O₃, SnO and HgO) oxides and lead carbonate with pure grade using acetamide precursors 873
Mathematical aspects of Rietveld refinement and crystal structure studies on PbTiO₃ ceramics 1495
- Oxygen-reduction reaction
Pt-Au/C cathode with enhanced oxygen-reduction activity in PEFCs 337
- Partial pressure
Estimation of vapour pressure and partial pressure of subliming compounds by low-pressure thermogravimetry 1633
- Particle size
Nonionic emulsion-mediated synthesis of zeolite beta 755
Effect of particle size on microstructure and strength of porous spinel ceramics prepared by pore-forming *in situ* technique 1109
- Spray-drying of alumina powder for APS: effect of slurry properties and drying conditions upon particle size and morphology of feedstock 1653
- Particle-reinforced composites
Processing-structure-property relations of chemically bonded phosphate ceramic composites 785
- Passivation
Improvement of multicrystalline silicon wafer solar cells by post-fabrication wet-chemical etching in phosphoric acid 1689
- PbTiO₃
Mathematical aspects of Rietveld refinement and crystal structure studies on PbTiO₃ ceramics 1495
- PECVD
Improvement of multicrystalline silicon wafer solar cells by post-fabrication wet-chemical etching in phosphoric acid 1689
- PEG
Effect of poly(ethylene glycol) surfactant on carbon-doped MoO₃ nanocomposite materials and its photocatalytic activity 535
- Pellet
An investigation in InGaO₃(ZnO)_m pellets as cause of variability in thin film transistor characteristics 447
- Performance
Synthesis and degradation properties of β -TCP/BG porous composite materials 357
- Permanganate adsorption
Uptake of permanganate from aqueous environment by surfactant modified montmorillonite batch and fixed bed studies 1675
- Perovskite lead strontium titanate
Dielectric and impedance spectroscopic studies of (Sr_{1-x}Pb_x)TiO₂ glass ceramics with addition of Nb₂O₅ 1393
- Perovskite structure
Dielectric and piezoelectric properties of Bi_{0.5}(Na_{0.82}K_{0.18})_{0.5}TiO₃-LiSbO₃ lead-free piezoelectric ceramics 933
Effect of substitution of titanium by magnesium and niobium on structure and piezoelectric properties in (Bi_{1/2}Na_{1/2})TiO₃ ceramics 1491
- Perovskites
Structure refinement of polycrystalline orthorhombic yttrium substituted calcium titanate: Ca_{1-x}Y_xTiO_{3+ δ} ($x = 0.1-0.3$) 89
- pH value
Synthesis of γ -Al₂O₃ nanowires through a boehmite precursor route 239
- Phase stability diagram
Thermodynamic modeling to analyse composition of carbonate coatings of MnO and other oxides of manganese grown by MOCVD 11
- Phase transformation
MgAl₂O₄- γ -Al₂O₃ solid solution interaction: mathematical framework and phase separation of α -Al₂O₃ at high temperature 859
Enhancement of MgAl₂O₄ spinel formation from co-precipitated precursor by powder processing 865
- Phase transition
Effect of annealing on phase transition in poly(vinylidene fluoride) films prepared using polar solvent 727
Phase developments and dielectric responses of barium substituted four-layer CaBi₄Ti₄O₁₅ Aurivillius 1201

- Calorimetric studies of non-isothermal crystallization in amorphous $\text{Cu}_x\text{Ti}_{100-x}$ alloys 1459
- Phosphate
Ce and Eu activated $\text{Na}_2\text{Zn}_5(\text{PO}_4)_4$, a new promising novel phosphor 937
- Phosphate coating
Aqueous slip casting of MgAl_2O_4 spinel powder 327
- Phosphors
Combustion synthesis of Eu^{2+} and Dy^{3+} activated $\text{Sr}_3(\text{VO}_4)_2$ phosphor for LEDs 557
Ce and Eu activated $\text{Na}_2\text{Zn}_5(\text{PO}_4)_4$, a new promising novel phosphor 937
- Photocatalysis
Synthesis of new $(\text{Bi}, \text{La})_3\text{MSb}_2\text{O}_{11}$ phases ($\text{M} = \text{Cr}, \text{Mn}, \text{Fe}$) with KSbO_3 -type structure and their magnetic and photocatalytic properties 271
Photocatalytic degradation of reactive black-5 dye using TiO_2 impregnated ZSM-5 551
- Photocatalytic
Visible light photocatalytic properties of novel molybdenum treated carbon nanotube/titania composites 543
- Photocatalytic decomposition
Fabrication and performances of MWCNT/ TiO_2 composites derived from MWCNTs and titanium(IV) alkoxide precursors 835
- Photocatalytic degradation
Effect of poly(ethylene glycol) surfactant on carbon-doped MoO_3 nanocomposite materials and its photocatalytic activity 535
- Photochromic
Formation of nanoscale tungsten oxide structures and colouration characteristics 435
- Photoconductivity
Photoconductivity and high-field effects in amorphous $\text{Se}_{83}\text{Te}_{15}\text{Zn}_2$ thin film 1351
- Photoluminescence
Polycarboxylate derivative of α -amino acid as growth modifier of sulphide minerals 97
Effect of CdS nanoparticles on photoluminescence spectra of Tb^{3+} in sol-gel-derived silica glasses 227
Ce and Eu activated $\text{Na}_2\text{Zn}_5(\text{PO}_4)_4$, a new promising novel phosphor 937
Synthesis, surface characterization and optical properties of 3-thiopropionic acid capped $\text{ZnS}:\text{Cu}$ nanocrystals 1077
Synthesis and photoluminescence characterization of Ce^{3+} and Dy^{3+} activated $\text{ALa}(\text{WO}_4)_2$ ($\text{A} = \text{Na}$ and Li) novel phosphors 1119
Combustion synthesis and photoluminescence study of silicate biomaterials 1281
Fermi-edge singularity in photoluminescence spectra of modulation-doped $\text{AlGaAs}/\text{InGaAs}/\text{GaAs}$ quantum wells 1645
- Photonic crystals
Photonic crystal waveguides by direct writing of e-beam on self-assembled photonic crystals 383
- Pin-on-disk
Mechanical and tribological studies of polymer hybrid nanocomposites with nano reinforcements 705
- Pitting corrosion
Pitting corrosion protection of low nickel stainless steel by electropolymerized conducting polymer coating in 0.5M NaCl solution 563
- PL
Synthesis and investigation of optical properties of ZnS nanostructures 287
D.C. conductivity and spectroscopic studies of polyaniline doped with binary dopant $\text{ZrOCl}_2/\text{AgI}$ 1237
- PLA
Biodegradable poly(lactic acid) microspheres containing total alkaloids of *Caulis sinomenii* 1715
- Plasma ion nitriding
Plasma nitriding of AISI 52100 ball bearing steel and effect of heat treatment on nitrided layer 153
- Plasmonics
Gold nanoparticle-coated biomaterial as SERS micro-probes 417
- Plastic deformation
On statistical behaviour of stress drops in Portevin–Le Chatelier effect 1113
- Platinum
Catalytic oxidation of cyclohexane to cyclohexanone and cyclohexanol by *tert*-butyl hydroperoxide over Pt/oxide catalysts 1127
- Platinum–gold alloy
Pt–Au/C cathode with enhanced oxygen-reduction activity in PEFCs 337
- PLZT
Dielectric response of PLZT ceramics $x/57/43$ across ferroelectric–paraelectric phase transition 133
- PMCs
Effect of oil and oil with graphite on tribological properties of glass filled PTFE polymer composites 1003
- Poisson distribution
On statistical behaviour of stress drops in Portevin–Le Chatelier effect 1113
- Polarizability
Hyperpolarizability studies of some nonconjugated twin donor–acceptor molecules 893
- Polarization
Electrochemical, surface analytical and quantum chemical studies on Schiff bases of 4-amino-4H-1,2,4-triazole-3,5-dimethanol (ATD) in corrosion protection of aluminium in 1N HNO_3 1245
- Polarization reversal
Effect of temperature on polarization reversal of strontium-doped lead zirconate titanate (PSZT) ceramics 129
- Polarons
Synthesis, characterization and magnetic properties of polyaniline/ $\gamma\text{-Fe}_2\text{O}_3$ composites 1557
- Poling temperature
Effect of temperature on polarization reversal of strontium-doped lead zirconate titanate (PSZT) ceramics 129
- Poly ethylene glycol
Influence of polymer additive molecular weight on surface and microstructural characteristics of electrodeposited copper 347
- Polyacrylamide
Synthesis of nano-carbon (nanotubes, nanofibres, graphene) materials 607
- Polyaniline
Preparation of intercalated polyaniline/clay nanocomposite and its exfoliation exhibiting dendritic structure 635
D.C. conductivity and spectroscopic studies of polyaniline doped with binary dopant $\text{ZrOCl}_2/\text{AgI}$ 1237

- Polyaniline composites
 Synthesis, characterization and magnetic properties of polyaniline/ γ -Fe₂O₃ composites 1557
- Polyblend
 Transient charging and discharging current study in pure PVF and PVF/PVDF fluoro polyblends for application in micro-electronics 105
- Polybutadiene
 Functionalization of terminal carbon atoms of hydroxyl terminated polybutadiene by polyazido nitrogen rich molecules 745
- Polycaprolactone
 Synthesis and characterization of polycaprolactone/acrylic acid (PCL/AA) hydrogel for controlled drug delivery 1537
- Polycarbonate
 Synthesis of copper nanoparticles in polycarbonate by ion implantation 645
- Polyester resin
 Effect of glass hybridization and staking sequence on mechanical behaviour of interply coir-glass hybrid laminate 293
- Polymer blend
 AC impedance and dielectric spectroscopic studies of Mg²⁺ ion conducting PVA-PEG blended polymer electrolytes 1063
- Polymer electrolyte fuel cells
 Pt-Au/C cathode with enhanced oxygen-reduction activity in PEFCs 337
- Polymer electrolytes
 Morphology, thermal, electrical and electrochemical stability of nano aluminium-oxide-filled polyvinyl alcohol composite gel electrolyte 1297
- Polymer matrix
 Synthesis and characterization of composites of mixed oxides of iron and neodymium in polymer matrix of aniline-formaldehyde 843
- Polymer nanocomposite gel electrolytes
 Morphology, thermal, electrical and electrochemical stability of nano aluminium-oxide-filled polyvinyl alcohol composite gel electrolyte 1297
- Polymer nanocomposites
 Thermal stability of gold-PS nanocomposites thin films 595
- Polymers
 Biomimetic synthesis and characterization of semiconducting hybrid organic-inorganic composite materials based on polyaniline-polyethylene glycol-CdS system 1017
- Polythiophene
 Structure-property relationships of electroluminescent polythiophenes: role of nitrogen-based heterocycles as side chains 713
 Synthesis and characterization of polythiophene-modified TiO₂ nanotube arrays 1173
- Polyurethane
 Tribological effects of polymer surface modification through plastic deformation 1549
- Polyvinyl alcohol
 Structural and optical properties of zinc sulphide-polyvinyl alcohol (ZnS-PVA) nanocomposite thin films: effect of Zn source concentration 1285
- Porosity
 Synthesis and degradation properties of β -TCP/BG porous composite materials 357
- Porous media
 Morphological and humidity sensing characteristics of SnO₂-CuO, SnO₂-Fe₂O₃ and SnO₂-SbO₂ nanoco oxides 689
- Porous scaffolds
 Influence of preparation method on hydroxyapatite porous scaffolds 1733
- Porous spinel ceramics
 Effect of particle size on microstructure and strength of porous spinel ceramics prepared by pore-forming *in situ* technique 1109
- Portevin-Le Chatelier effect
 On statistical behaviour of stress drops in Portevin-Le Chatelier effect 1113
- Portland cement
 Computation of X-ray powder diffractograms of cement components and its application to phase analysis and hydration performance of OPC cement 1137
- Positron annihilation spectroscopy
 Post irradiated microstructural characterization of Zr-1Nb alloy by X-ray diffraction technique and positron annihilation spectroscopy 507
- Poultry industry
 Preparation and characterization of a novel bone graft composite containing bone ash and egg shell powder 177
- Powder X-ray diffraction
 Structure refinement of polycrystalline orthorhombic yttrium substituted calcium titanate: Ca_{1-x}Y_xTiO_{3+ δ} ($x = 0.1-0.3$) 89
- Powdered XRD
 Synthesis, surface characterization and optical properties of 3-thiopropionic acid capped ZnS:Cu nanocrystals 1077
- Powders—chemical preparation
 Effect of temperature and time on solvothermal synthesis of tetragonal BaTiO₃ 19
- p*-Phenylenediamine
 Facile synthesis of poly (*p*-phenylenediamine)/MWCNT nanocomposites and characterization for investigation of structural effects of carbon nanotubes 37
- Precipitation
 Determination of elastic modulus in nickel alloy from ultrasonic measurements 323
 Effect of grain boundary misorientation on discontinuous precipitation in an AZ91 alloy 1471
- Precursor
 Estimation of vapour pressure and partial pressure of subliming compounds by low-pressure thermogravimetry 1633
- Processability
 Influence of dielectric constant of polymerization medium on processability and ammonia gas sensing properties of polyaniline 261
- Processing maps
 Processing maps for Fe-24Ni-11Cr-3Ti-1Mo superalloy 525
- Product technology
 High performance of low cost soft magnetic materials 1407
- Protonic conductivity
 Effect of surfactants in synthesis of CsH₂PO₄ as protonic conductive membrane 759
- Pseudopotential
 Superconducting state parameters of ternary metallic glasses 1517

- Pt
 Microwave-assisted synthesis of high-loading, highly dispersed Pt/carbon aerogel catalyst for direct methanol fuel cell 577
- Pulsed laser deposition
 Formation of hydroxyapatite coating on titanium at 200°C through pulsed laser deposition followed by hydrothermal treatment 389
- PVA-PEG
 AC impedance and dielectric spectroscopic studies of Mg²⁺ ion conducting PVA-PEG blended polymer electrolytes 1063
- PVC
 Modeling of thermally stimulated depolarization current (TSDC) using dipole-dipole interaction concept 365
- PVDF
 Transient charging and discharging current study in pure PVF and PVF/PVDF fluoro polyblends for application in micro-electronics 105
 Effect of annealing on phase transition in poly(vinylidene fluoride) films prepared using polar solvent 727
- PVF
 Transient charging and discharging current study in pure PVF and PVF/PVDF fluoro polyblends for application in micro-electronics 105
- PVP
 Nanocrystalline TiO₂ preparation by microwave route and nature of anatase-rutile phase transition in nano TiO₂ 1167
- P*-wave velocity
P-wave velocity test for assessment of geotechnical properties of some rock materials 947
- Pyrophosphate
 Conductivity and dielectric studies on (Na_{0.4}Ag_{0.6})₂PbP₂O₇ compound 1069
- Quadrupole splitting
 Synthesis and characterization of composites of mixed oxides of iron and neodymium in polymer matrix of aniline-formaldehyde 843
- Quantum-chemical calculation
 Structure-property relationships of electroluminescent polythiophenes: role of nitrogen-based heterocycles as side chains 713
- Radiation shielding
 An investigation of X-ray and radio isotope energy absorption of heavyweight concretes containing barite 169
- Raman spectra
 Effect of annealing on phase transition in poly(vinylidene fluoride) films prepared using polar solvent 727
- Raman spectroscopy
 IR and Raman spectroscopic studies of sol-gel derived alkaline-earth silicate glasses 299
- Rapid heating
 Rapid heating effects on grain-size, texture and magnetic properties of 3% Si non-oriented electrical steel 1477
- Rare earth
 Electrical properties and scaling behaviour of Sm³⁺ doped CaF₂-bismuth borate glasses 491
- Rat model
 Tissue-engineered triphasic ceramic coated hydroxyapatite induced bone formation and vascularization at an extraskeletal site in a rat model 1721
- Raw materials
 High performance of low cost soft magnetic materials 1407
- Rayleigh scattering
 Rayleigh like scattering from silica-titania core-shell particles and their application in protection against harmful ultraviolet rays 199
- Reaction synthesis
 Fabrication and characterization of Ti₃SiC₂-SiC nanocomposite by *in situ* reaction synthesis of TiC/Si/Al powders 1309
- Reactive black-5
 Photocatalytic degradation of reactive black-5 dye using TiO₂ impregnated ZSM-5 551
- Recrystallization texture
 Rapid heating effects on grain-size, texture and magnetic properties of 3% Si non-oriented electrical steel 1477
- Recrystallized grain-size
 Rapid heating effects on grain-size, texture and magnetic properties of 3% Si non-oriented electrical steel 1477
- Redlich-Kister polynomial
 Applicability of four parameter formalisms in interpreting thermodynamic properties of binary systems 401
- Reduced iron powders
 Effect of annealing process of iron powder on magnetic properties and losses of motor cores 829
- Reduction
 Preparation of titanium diboride powders from titanium alkoxide and boron carbide powder 883
- Refractive index
 Synthesis, growth, optical, mechanical and electrical properties of *L*-lysine *L*-lysiniun dichloride nitrate (*L*-LLDN) single crystal 469
- Regression analysis
P-wave velocity test for assessment of geotechnical properties of some rock materials 947
- Relaxation
 Modeling of thermally stimulated depolarization current (TSDC) using dipole-dipole interaction concept 365
- Relaxor
 Phase transition and dielectric study in Ba_{0.95}Dy_{0.05}TiO₃ ceramic 927
- Rene 80
 Life prediction of Ni-base superalloy 305
- Resistance-switching
 Interface-dependent resistance switching in Nd_{0.7}Sr_{0.3}MnO₃ 793
- Resistivity
 Preparation and characterization of solid-state sintered aluminum-doped zinc oxide with different alumina contents 477
- RH
 Hydration behaviour of synthetic saponite at variable relative humidity 1263
- Rheological behaviour
 Influence of preparation method on hydroxyapatite porous scaffolds 1733
- Rheumatoid arthritis
 Biodegradable poly(lactic acid) microspheres containing total alkaloids of *Caulis sinomenii* 1715
- Rhodamine
 Synthesis and characterization of fluorophore attached silver nanoparticles 639

- Rice husk ash
Preparation of an efficient humidity indicating silica gel from rice husk ash 1683
- Rietveld
Mathematical aspects of Rietveld refinement and crystal structure studies on PbTiO_3 ceramics 1495
- Rietveld method
Computation of X-ray powder diffractograms of cement components and its application to phase analysis and hydration performance of OPC cement 1137
- Rietveld refinement
Structure refinement of polycrystalline orthorhombic yttrium substituted calcium titanate: $\text{Ca}_{1-x}\text{Y}_x\text{TiO}_{3+\delta}$ ($x = 0.1-0.3$) 89
- Rock properties
P-wave velocity test for assessment of geotechnical properties of some rock materials 947
- Roller burnishing
Tribological effects of polymer surface modification through plastic deformation 1549
- Roystonea regia* fibre
Effect of fibre content and alkali treatment on mechanical properties of *Roystonea regia*-reinforced epoxy partially biodegradable composites 1575
- RP type phases
Structure and electric transport properties of $\text{LnSr}_2\text{FeTiO}_7$ ($\text{Ln} = \text{La}, \text{Nd}$ and Gd) 149
- Rutile
Nanocrystalline TiO_2 preparation by microwave route and nature of anatase–rutile phase transition in nano TiO_2 1163
- Saponite
Hydration behaviour of synthetic saponite at variable relative humidity 1263
- Saw-tooth current pulse
Corrosion resistant Zn–Co alloy coatings deposited using saw-tooth current pulse 1699
- Scaling
Conductivity and dielectric studies on $(\text{Na}_{0.4}\text{Ag}_{0.6})_2\text{PbP}_2\text{O}_7$ compound 1069
- Scanning probe microscopy
Hot pressing effect on $(\text{Bi}_{0.25}\text{Sb}_{0.75})_2\text{Te}_3$ mechanical and thermoelectric properties 1591
- Scherrer equation
Synthesis and characterization of composites of mixed oxides of iron and neodymium in polymer matrix of aniline–formaldehyde 843
- SCLC
Photoconductivity and high-field effects in amorphous $\text{Se}_{83}\text{Te}_{15}\text{Zn}_2$ thin film 1351
- Scratch/wear
Tribological characteristics of self-assembled nanometer film deposited on phosphorylated 3-aminopropyltriethoxysilane 583
- Seeding temperature
Study of dependence of magnetic properties on seeding temperature in fine particles of $\text{Cu}_{0.25}\text{Co}_{0.25}\text{Zn}_{0.5}\text{Fe}_2\text{O}_4$ 1095
- Selectivity
Synthesis, characterization and gas sensing performance of SnO_2 thin films prepared by spray pyrolysis 1
- Self diffusion
Lattice dynamical investigations on Zn diffusion in zinc oxide 371
- Self-propagating combustion method
Barium ferrite nanoparticles prepared by self-propagating low-temperature combustion method and its characterization 1319
- Synthesis and characterization of zinc ferrite nanoparticles obtained by self-propagating low-temperature combustion method 1325
- SEM
Synthesis and investigation of optical properties of ZnS nanostructures 287
- Preparation of ultrafine poly(sodium 4-styrenesulfonate) fibres via electrospinning 531
- Pitting corrosion protection of low nickel stainless steel by electropolymerized conducting polymer coating in 0.5M NaCl solution 563
- Morphological and humidity sensing characteristics of SnO_2 – CuO , SnO_2 – Fe_2O_3 and SnO_2 – Sb_2O_3 nanooxides 689
- Infrared spectra, Raman laser, XRD, DSC/TGA and SEM investigations on preparations of selenium metal (Sb_2O_3 , Ga_2O_3 , SnO and HgO) oxides and lead carbonate with pure grade using acetamide precursors 873
- Low-firing $\text{Li}_2\text{ZnTi}_3\text{O}_8$ microwave dielectric ceramics with $\text{BaCu}(\text{B}_2\text{O}_5)$ additive 1233
- Solid-state titania-based gas sensor for liquefied petroleum gas detection at room temperature 1639
- II–VI Semiconductor alloys
Electronic properties and charge density of $\text{Be}_x\text{Zn}_{1-x}\text{Te}$ alloys 499
- Semiconductors
Effect of CdS nanoparticles on photoluminescence spectra of Tb^{3+} in sol–gel-derived silica glasses 217
- Semi-interpenetrating polymer networks
Preparation of semi-IPN (BA–VAc–VAE) by emulsion polymerization and its properties investigation 1531
- Sensitivity
Synthesis, characterization and gas sensing performance of SnO_2 thin films prepared by spray pyrolysis 1
- Effect of gamma radiation on electrical and optical properties of $(\text{TeO}_2)_{0.9}(\text{In}_2\text{O}_3)_{0.1}$ thin films 61
- Solid-state titania-based gas sensor for liquefied petroleum gas detection at room temperature 1639
- Shape anisotropy
Magnetic and microwave-absorbing properties of $\text{SrAl}_4\text{Fe}_8\text{O}_{19}$ powders synthesized by coprecipitation and citric-combustion methods 463
- Shungite rocks
SEM investigation of minor constituents of carbide materials prepared from shungite rocks 1267
- SiC
Method for increasing β -SiC yield on solid state reaction of coal fly ash and activated carbon powder 1013
- SiC– Al_2O_3
SEM investigation of minor constituents of carbide materials prepared from shungite rocks 1267
- Silica
Mechanical and tribological studies of polymer hybrid nanocomposites with nano reinforcements 705
- Silica fume
Influence of curing conditions on durability of alkali-resistant glass fibres in cement matrix 775

- Silica gel
Preparation of an efficient humidity indicating silica gel from rice husk ash 1683
- Silicates
IR and Raman spectroscopic studies of sol-gel derived alkaline-earth silicate glasses 299
Combustion synthesis and photoluminescence study of silicate biomaterials 1281
- Silicon
Improvement of multicrystalline silicon wafer solar cells by post-fabrication wet-chemical etching in phosphoric acid 1689
- Silicon carbide
Laser annealing of sputter-deposited α -SiC and α -SiC_xN_y films 1375
- Silicon carbonitride
Laser annealing of sputter-deposited α -SiC and α -SiC_xN_y films 1375
- Silver nanoparticles
Synthesis and characterization of fluorophore attached silver nanoparticles 639
- Silver oxide
Chitosan-silver oxide nanocomposite film: Preparation and antimicrobial activity 29
- Simulation
Hydration behaviour of synthetic saponite at variable relative humidity 1263
- Sinter
Hot pressing effect on (Bi_{0.25}Sb_{0.75})₂Te₃ mechanical and thermoelectric properties 1591
- Sintering
Influence of lead oxide addition on LnTiTaO₆ (Ln = Ce, Pr and Nd) 125
An investigation in InGaO₃(ZnO)_m pellets as cause of variability in thin film transistor characteristics 447
Effect of surface roughness on grain growth and sintering of alumina 799
- Size effect
Grain-size effects on thermal properties of BaTiO₃ ceramics 963
- Slip casting
Aqueous slip casting of MgAl₂O₄ spinel powder 327
- Slurry preparation
Influence of preparation method on hydroxyapatite porous scaffolds 1733
- Smart materials
Temperature dependent damping studies of Ni-Mn-Ga polymer composites 739
- SnO₂ thin films
Synthesis, characterization and gas sensing performance of SnO₂ thin films prepared by spray pyrolysis 1
- Soft magnetic materials
High performance of low cost soft magnetic materials 1407
- Sol-gel
Preparation of titanium diboride powders from titanium alkoxide and boron carbide powder 883
- Sol-gel method
Synthesis and characterization of pyrochlore-type yttrium titanate nanoparticles by modified sol-gel method 429
Synthesis and characterization of mixture of nanozirconia and nanosilica obtained from commercially available zircon flour by sol-gel method 1339
- Sol-gel preparation
Influence of temperature on structural and magnetic properties of Co_{0.5}Mn_{0.5}Fe₂O₄ ferrites 1415
Synthesis of hydroxyapatite nanopowders by sol-gel emulsion technique 1749
- Sol-gel process
Effect of low level substitution of Sr-Ba on transport and magnetic behaviour of La_{0.67}Ca_{0.33}MnO₃ 121
Role of clay as catalyst in Friedel-Craft alkylation 1273
- Sol-gel silicate glasses
IR and Raman spectroscopic studies of sol-gel derived alkaline-earth silicate glasses 299
- Sol-gel technique
Influence of preparation method on structural and magnetic properties of nickel ferrite nanoparticles 1345
- Solid polymer electrolytes
Effect of complexing salt on conductivity of PVC/PEO polymer blend electrolytes 1525
- Solid solution
MgAl₂O₄- γ -Al₂O₃ solid solution interaction: mathematical framework and phase separation of α -Al₂O₃ at high temperature 859
- Solid state lighting
Combustion synthesis of Eu²⁺ and Dy³⁺ activated Sr₃(VO₄)₂ phosphor for LEDs 557
Ce and Eu activated Na₂Zn₅(PO₄)₄, a new promising novel phosphor 937
Synthesis and photoluminescence characterization of Ce³⁺ and Dy³⁺ activated ALa (WO₄)₂ (A = Na and Li) novel phosphors 1119
- Solid state reaction
Method for increasing β -SiC yield on solid state reaction of coal fly ash and activated carbon powder 1013
XRD spectra of new YBaCuO superconductors 1053
- Solid waste
Preparation and characterization of a novel bone graft composite containing bone ash and egg shell powder 177
- Solid-state reaction
Structural, dielectric and electrical properties of CaBa₄SmTi₃Nb₇O₃₀ ferroelectric ceramic 907
- Solid-state reaction route
Ce-doped LCMO CMR manganites: a consequence of enhanced T_c and T_{IM} 1501
- Solvothermal
Solvothermal synthesis and characterization of acicular α -Fe₂O₃ nanoparticles 1313
- Sonication
Mechanical and tribological studies of polymer hybrid nanocomposites with nano reinforcements 705
- Space charge limited current
Interface-dependent resistance switching in Nd_{0.7}Sr_{0.3}MnO₃ 793
- Specific wear rate
Effect of oil and oil with graphite on tribological properties of glass filled PTFE polymer composites 1003
- Spin glass transition
Ce-doped LCMO CMR manganites: a consequence of enhanced T_c and T_{IM} 1501
- Spin state transition
Effect of cobalt substitution on magnetic and transport properties of Nd_{0.5}Sr_{0.5}Mn_{1-x}Co_xO₃ ($x = 0.1, 0.3$ and 0.5) 279

- Spindle-like
Hydrothermal synthesis of NaEuF₄ spindle-like nanocrystals 1371
- Spinel ferrites
Synthesis and characterization of composites of mixed oxides of iron and neodymium in polymer matrix of aniline-formaldehyde 843
- Spinel
Effect of size of fly ash particle on enhancement of mullite content and glass formation 1663
- Spinodal decomposition
Small-angle scattering from GP zones in Al–Cu alloy 1455
- Spray drying
Spray-drying of alumina powder for APS: effect of slurry properties and drying conditions upon particle size and morphology of feedstock 1653
- Spray pyrolysis
Synthesis, characterization and gas sensing performance of SnO₂ thin films prepared by spray pyrolysis 1
Temperature dependent grain-size and microstrain of CdO thin films prepared by spray pyrolysis method 601
- Sputtering
Structural characteristics of titanium coating on copper substrates 483
Laser annealing of sputter-deposited *a*-SiC and *a*-SiC_{*x*}N_{*y*} films 1375
- Sr₃(VO₄)₂
Combustion synthesis of Eu²⁺ and Dy³⁺ activated Sr₃(VO₄)₂ phosphor for LEDs 557
- SrAl₄Fe₈O₁₉
Magnetic and microwave-absorbing properties of SrAl₄Fe₈O₁₉ powders synthesized by coprecipitation and citric-combustion methods 463
- SrO
Densification and dielectric properties of SrO–Al₂O₃–B₂O₃ ceramic bodies 143
- Stability
Effect of Mn doping on electrical properties and accelerated ageing behaviours of ternary ZVM varistors 1385
- Stainless steel
Pitting corrosion protection of low nickel stainless steel by electropolymerized conducting polymer coating in 0.5M NaCl solution 563
- Steel
On statistical behaviour of stress drops in Portevin–Le Chatelier effect 1113
- Strength
Effect of particle size on microstructure and strength of porous spinel ceramics prepared by pore-forming *in situ* technique 1109
- Strontium aluminate
Cost-effective electrostatic-sprayed SrAl₂O₄:Eu²⁺ phosphor coatings by using salted sol–gel derived solution 1059
- Strontium oxalate
Growth of strontium oxalate crystals in agar–agar gel 377
- Structural and magnetic properties
High performance of low cost soft magnetic materials 1407
- Structure
IR and Raman spectroscopic studies of sol–gel derived alkaline-earth silicate glasses 299
- Structure–property relationship
Structure–property relationships of electroluminescent polythiophenes: role of nitrogen-based heterocycles as side chains 713
- Substitution
Phase developments and dielectric responses of barium substituted four-layer CaBi₄Ti₄O₁₅ Aurivillius 1201
Effect of substitution of titanium by magnesium and niobium on structure and piezoelectric properties in (Bi_{1/2}Na_{1/2})TiO₃ ceramics 1491
- Sulphate reducing bacteria
Microbial synthesis of iron-based nanomaterials—A review 191
- Sulphide mineral
Polycarboxylate derivative of α -amino acid as growth modifier of sulphide minerals 97
- Sunscreen
Rayleigh like scattering from silica–titania core-shell particles and their application in protection against harmful ultraviolet rays 199
- Superalloy
Processing maps for Fe–24Ni–11Cr–3Ti–1Mo superalloy 525
- Superconducting state parameters
Superconducting state parameters of ternary metallic glasses 1517
- Super-microporous
Synthesis and characterization of super-microporous material with enhanced hydrothermal stability 979
- Superparamagnetism
Influence of preparation method on structural and magnetic properties of nickel ferrite nanoparticles 1345
- Superplasticity
Low temperature enhanced ductility of friction stir processed 5083 aluminum alloy 1447
- Surface charge density
Using speciation diagrams to improve synthesis of magnetic nanosorbents for environmental applications 1357
- Surface enhanced Raman scattering
Gold nanoparticle-coated biomaterial as SERS micro-probes 417
- Surface morphology
Combustion synthesis and characterization of Ba₂NdSbO₆ nanocrystals 661
- Surface roughness
Effect of surface roughness on grain growth and sintering of alumina 799
An investigation on surface roughness of granite machined by abrasive waterjet 985
- Surface-enhanced Raman scattering
Metal-coated magnetic nanoparticles for surface enhanced Raman scattering studies 207
- Surfactants
Effect of surfactants in synthesis of CsH₂PO₄ as protonic conductive membrane 759
Uptake of permanganate from aqueous environment by surfactant modified montmorillonite batch and fixed bed studies 1675
- Synthesis
Synthesis of new (Bi, La)₃MSb₂O₁₁ phases (M = Cr, Mn, Fe) with KSbO₃-type structure and their magnetic and photocatalytic properties 271

- Synthesis and degradation properties of β -TCP/BG porous composite materials 357
- Synthesis and characterization of pyrochlore-type yttrium titanate nanoparticles by modified sol-gel method 429
- Facile synthesis of hypercrosslinked resins via chloromethylation and continuous condensation of simple aryl molecules 735
- Ce and Eu activated $\text{Na}_2\text{Zn}_5(\text{PO}_4)_4$, a new promising novel phosphor 937
- Synthesis of thorn-like $\text{Ca}_2\text{B}_2\text{O}_5 \cdot \text{H}_2\text{O}$ by hydrothermal method 1197
- Taguchi method
- Drilling analysis of coir-fibre-reinforced polyester composites 1563
- Tb/Fe multilayers
- Small angles X-ray diffraction and Mössbauer characterization of annealed Tb/Fe multilayer 71
- TBHP
- Catalytic oxidation of cyclohexane to cyclohexanone and cyclohexanol by *tert*-butyl hydroperoxide over Pt/oxide catalysts 1127
- Te nanocable
- Synthesis and chemical etching of Te/C nanocables 1185
- Tellurium dioxide
- Effect of gamma radiation on electrical and optical properties of $(\text{TeO}_2)_{0.9}(\text{In}_2\text{O}_3)_{0.1}$ thin films 61
- TEM
- Fabrication and performances of MWCNT/TiO₂ composites derived from MWCNTs and titanium(IV) alkoxide precursors 835
- Solvothermal synthesis and characterization of acicular α -Fe₂O₃ nanoparticles 1313
- Tempered martensite microstructure
- Plasma nitriding of AISI 52100 ball bearing steel and effect of heat treatment on nitrided layer 153
- Tensile deformation
- Numerical simulation for determination of limit strains of a cold rolled and solution treated Nimonic C-263 alloy sheet 515
- Tensile strength
- Mechanical and tribological studies of polymer hybrid nanocomposites with nano reinforcements 705
- Ternary metallic glasses
- Superconducting state parameters of ternary metallic glasses 1517
- Tetragonal phase
- Effect of temperature and time on solvothermal synthesis of tetragonal BaTiO₃ 19
- Tetragonality
- Dielectric behaviour of Pb-substituted BZT ceramics 1401
- Tetrahedral manganate(V)
- Ba₃(P_{1-x}Mn_xO₄)₂: Blue/green inorganic materials based on tetrahedral Mn(V) 1257
- Texture
- Numerical simulation for determination of limit strains of a cold rolled and solution treated Nimonic C-263 alloy sheet 515
- Preparation and characterization of LaNiO₃ films grown by metal-organic deposition 1379
- TG/DTA
- Effect of complexing salt on conductivity of PVC/PEO polymer blend electrolytes 1525
- Thermal analysis
- Study of structural transformations and phases formation upon calcination of Zn-Ni-Al hydrotalcite nanosheets 183
- Energy transfer and thermal studies of Pr³⁺ doped cerium oxalate crystals 955
- Poisoning effect of bismuth on modification behaviour of strontium in LM25 alloy 1223
- Thermal annealing
- DLTS study of annihilation of oxidation induced deep-level defects in Ni/SiO₂/n-Si MOS structures 1627
- Thermal conductivity
- Hot pressing effect on (Bi_{0.25}Sb_{0.75})₂Te₃ mechanical and thermoelectric properties 1591
- Thermal processing
- SEM investigation of minor constituents of carbide materials prepared from shungite rocks 1267
- Thermal properties
- Grain-size effects on thermal properties of BaTiO₃ ceramics 963
- Thermal stability
- Thermal stability of gold-PS nanocomposites thin films 595
- Effect of thin Mo₂C layer on thermal stability of Si/SiO₂/Ti/Cu system 1611
- Thermochromic
- Formation of nanoscale tungsten oxide structures and colouration characteristics 435
- Thermodynamic analysis
- Thermodynamic modeling to analyse composition of carbonaceous coatings of MnO and other oxides of manganese grown by MOCVD 11
- Thermodynamic properties
- Structural, elastic and thermodynamic properties of Ti₂SC 1617
- Thermoelectric properties
- Electrical transport and thermoelectric properties of AgPb₁₀SbTe₁₂ prepared by high pressure method 1209
- Thermomechanical processing
- Effect of thermomechanical processing on evolution of various phases in Ti-Nb alloys 1421
- Thin films
- Effect of gamma radiation on electrical and optical properties of $(\text{TeO}_2)_{0.9}(\text{In}_2\text{O}_3)_{0.1}$ thin films 61
- Tribological characteristics of self-assembled nanometer film deposited on phosphorylated 3-aminopropyltriethoxysilane 583
- Chemical synthesis and characterization of hydrous tin oxide (SnO₂:H₂O) thin films 1179
- Photoconductivity and high-field effects in amorphous Se₈₃Te₁₅Zn₂ thin film 1351
- Thiosemicarbazones
- A facile synthesis of ZnS nanocrystallites by pyrolysis of single molecule precursors, Zn (cinnamtszcz)₂ and ZnCl₂ (cinnamtszczH)₂ 667
- Thrust force
- Drilling analysis of coir-fibre-reinforced polyester composites 1563

- Ti₂SC
Structural, elastic and thermodynamic properties of Ti₂SC 1617
- Ti₃SiC₂-SiC composites
Fabrication and characterization of Ti₃SiC₂-SiC nanocomposite by *in situ* reaction synthesis of TiC/Si/Al powders 1309
- Ti-Al-Cr-Ag nanocrystalline coating
High temperature oxidation of Ti-48Al-8Cr-2Ag alloy with sputtered coating at 1000° C in air 811
- Ti-Nb alloys
Effect of thermomechanical processing on evolution of various phases in Ti-Nb alloys 1421
- TiO₂
Nanocrystalline TiO₂ preparation by microwave route and nature of anatase-rutile phase transition in nano TiO₂ 1163
Photocatalytic degradation of reactive black-5 dye using TiO₂ impregnated ZSM-5 551
Solid-state titania-based gas sensor for liquefied petroleum gas detection at room temperature 1639
- TiO₂ nanotube arrays
Synthesis and characterization of polythiophene-modified TiO₂ nanotube arrays 1173
- Titania
Visible light photocatalytic properties of novel molybdenum treated carbon nanotube/titania composites 543
Gel-sol synthesis and aging effect on highly crystalline anatase nanopowder 1189
- Titanium
Structural characteristics of titanium coating on copper substrates 483
Effect of thin Mo₂C layer on thermal stability of Si/SiO₂/Ti/Cu system 1611
- Titanium alloy
Annealing twins in a multifunctional beta Ti-Nb-Ta-Zr-O alloy 1435
- Titanium diboride
Preparation of titanium diboride powders from titanium alkoxide and boron carbide powder 883
- Titanium implants
Formation of hydroxyapatite coating on titanium at 200°C through pulsed laser deposition followed by hydrothermal treatment 389
- Tool wear
Drilling analysis of coir-fibre-reinforced polyester composites 1563
- Torque
Drilling analysis of coir-fibre-reinforced polyester composites 1563
- Toughness
Plasma nitriding of AISI 52100 ball bearing steel and effect of heat treatment on nitrided layer 153
- Toxicity studies
Synthesis and characterization of fluorophore attached silver nanoparticles 639
- Tramadol
Synthesis and characterization of polycaprolactone/acrylic acid (PCL/AA) hydrogel for controlled drug delivery 1537
- Transient current
Transient charging and discharging current study in pure PVF and PVF/PVDF fluoro polyblends for application in micro-electronics 105
- Transition temperature
Dielectric behaviour of Pb-substituted BZT ceramics 1401
- Transmittance
Rayleigh like scattering from silica-titania core-shell particles and their application in protection against harmful ultraviolet rays 199
- Transparent conducting film
Transparent conducting film: Effect of mechanical stretching to optical and electrical properties of carbon nanotube mat 615
Transparent conducting film: Effect of vacuum filtration of carbon nanotube suspended in oleum 623
- Transverse
Hot pressing effect on (Bi_{0.25}Sb_{0.75})₂Te₃ mechanical and thermoelectric properties 1591
- Transverse magnetic field
Dynamic characteristics of multi-walled carbon nanotubes under a transverse magnetic field 45
- Tricalcium silicate
In vitro bioactivity and cytocompatibility of tricalcium silicate 1151
- TSDC
Modeling of thermally stimulated depolarization current (TSDC) using dipole-dipole interaction concept 365
- TTIP
Preparation of titanium diboride powders from titanium alkoxide and boron carbide powder 883
- Tungsten oxide
Formation of nanoscale tungsten oxide structures and colouration characteristics 435
- Twinning
Annealing twins in a multifunctional beta Ti-Nb-Ta-Zr-O alloy 1435
- Ultrafine fibre
Preparation of ultrafine poly(sodium 4-styrenesulfonate) fibres via electrospinning 531
- Ultrasonic
Determination of elastic modulus in nickel alloy from ultrasonic measurements 323
- Ultraviolet ray
Rayleigh like scattering from silica-titania core-shell particles and their application in protection against harmful ultraviolet rays 199
- UV-visible
D.C. conductivity and spectroscopic studies of polyaniline doped with binary dopant ZrOCl₂/AgI 1237
- UV-Visible spectroscopy
Synthesis of copper nanoparticles in polycarbonate by ion implantation 645
- van der Waals force
Dynamic characteristics of multi-walled carbon nanotubes under a transverse magnetic field 45
- Vanadate
Combustion synthesis of Eu²⁺ and Dy³⁺ activated Sr₃(VO₄)₂ phosphor for LEDs 557
- Vapour pressure
Estimation of vapour pressure and partial pressure of subliming compounds by low-pressure thermogravimetry 1633

- Vascularization
Tissue-engineered triphasic ceramic coated hydroxyapatite induced bone formation and vascularization at an extra-skeletal site in a rat model 1721
- Vibration damping
Temperature dependent damping studies of Ni–Mn–Ga polymer composites 739
- Vinyl acetate–ethylene
Preparation of semi-IPN (BA–VAc–VAE) by emulsion polymerization and its properties investigation 1531
- Visible light
Visible light photocatalytic properties of novel molybdenum treated carbon nanotube/titania composites 543
- VLS
Synthesis and investigation of optical properties of ZnS nanostructures 287
- Waterborne acrylic surface coatings
Performance of waterborne acrylic surface coatings on wood impregnated with Cu-ethanolamine preservatives 113
- Waveguides
Photonic crystal waveguides by direct writing of e-beam on self-assembled photonic crystals 383
- WAXS, fibre
Changes in microstructural parameters of NB4D2 silk fibres due to electron irradiation: X-ray line profile analysis 1583
- Wear
Effect of oil and oil with graphite on tribological properties of glass filled PTFE polymer composites 1003
Effect of aging treatment on wear properties and electrical conductivity of Cu–Cr–Zr alloy 1465
- Wear rate
Tribological effects of polymer surface modification through plastic deformation 1549
- Welding parameters
Determination of optimum welding parameters in connecting high alloyed X53CrMnNiN219 and X45CrSi93 steels by friction welding 815
- White light emission
Synthesis of one-dimensional N-doped Ga₂O₃ nanostructures: different morphologies and different mechanisms 1331
- Willemite (Zn₂SiO₄)
Microstructure and microwave dielectric properties of (Zn_{1-x}Mg_x)₂SiO₄ ceramics 921
- X-ray analysis
Study of structural transformations and phases formation upon calcination of Zn–Ni–Al hydrotalcite nanosheets 183
- X-ray diffraction
Dielectric relaxation behaviour of Sr₂SbMnO₆ ceramics fabricated from nanocrystalline powders prepared by molten salt synthesis 53
Effect of ion beam irradiation on metal particle doped polymer composite 81
Effect of low level substitution of Sr–Ba on transport and magnetic behaviour of La_{0.67}Ca_{0.33}MnO₃ 121
Structural characteristics of titanium coating on copper substrates 483
Thermoluminescence properties of γ -irradiated Bi doped BaS nanostructures 683
- MgAl₂O₄– γ -Al₂O₃ solid solution interaction: mathematical framework and phase separation of α -Al₂O₃ at high temperature 859
Structural, dielectric and electrical properties of CaBa₄SmTi₃Nb₇O₃₀ ferroelectric ceramic 907
Synthesis, structure and low temperature study of electric transport and magnetic properties of GdSr₂MnCrO₇ 1089
Computation of X-ray powder diffractograms of cement components and its application to phase analysis and hydration performance of OPC cement 1137
Morphology, thermal, electrical and electrochemical stability of nano aluminium-oxide-filled polyvinyl alcohol composite gel electrolyte 1297
Solvothermal synthesis and characterization of acicular α -Fe₂O₃ nanoparticles 1313
Barium ferrite nanoparticles prepared by self-propagating low-temperature combustion method and its characterization 1319
Synthesis and characterization of zinc ferrite nanoparticles obtained by self-propagating low-temperature combustion method 1325
Effect of thermomechanical processing on evolution of various phases in Ti–Nb alloys 1421
- X-ray diffraction technique
Post irradiated microstructural characterization of Zr–1Nb alloy by X-ray diffraction technique and positron annihilation spectroscopy 507
- X-ray methods
Effect of temperature and time on solvothermal synthesis of tetragonal BaTiO₃ 19
Effect of size of fly ash particle on enhancement of mullite content and glass formation 1663
- X-ray spectroscopy
Growth of strontium oxalate crystals in agar–agar gel 377
- XRD
Structure and electric transport properties of LnSr₂FeTiO₇ (Ln = La, Nd and Gd) 149
Synthesis and investigation of optical properties of ZnS nanostructures 287
Morphological and humidity sensing characteristics of SnO₂–CuO, SnO₂–Fe₂O₃ and SnO₂–SbO₂ nanoco oxides 689
Effect of annealing on phase transition in poly(vinylidene fluoride) films prepared using polar solvent 727
Infrared spectra, Raman laser, XRD, DSC/TGA and SEM investigations on preparations of selenium metal (Sb₂O₃, Ga₂O₃, SnO and HgO) oxides and lead carbonate with pure grade using acetamide precursors 873
Synthesis and photoluminescence characterization of Ce³⁺ and Dy³⁺ activated ALa (WO₄)₂ (A = Na and Li) novel phosphors 1119
Low-firing Li₂ZnTi₃O₈ microwave dielectric ceramics with BaCu(B₂O₅) additive 1233
D.C. conductivity and spectroscopic studies of polyaniline doped with binary dopant ZrOCl₂/AgI 1237
Hydration behaviour of synthetic saponite at variable relative humidity 1263
Dielectric behaviour of Pb-substituted BZT ceramics 1401
Effect of complexing salt on conductivity of PVC/PEO polymer blend electrolytes 1525
Solid-state titania-based gas sensor for liquefied petroleum gas detection at room temperature 1639

- YBaCuO superconductor
 XRD spectra of new YBaCuO superconductors 1053
- Yellow peak
 Cost-effective electrostatic-sprayed SrAl₂O₄:Eu²⁺ phosphor coatings by using salted sol-gel derived solution 1059
- Y-Si-Al-O-N
 Crystallization and microstructures of Y-Si-Al-O-N glass-ceramics containing main crystal phase Y₃Al₅O₁₂ 767
- Yttrium titanate
 Synthesis and characterization of pyrochlore-type yttrium titanate nanoparticles by modified sol-gel method 429
- Zeolite beta
 Nonionic emulsion-mediated synthesis of zeolite beta 755
- Zeolite nanocrystals
 Emulsion-based synthesis of NaA zeolite nanocrystals and its integration towards NaA membranes 651
- Zeolite ZSM-5
 Nonionic emulsion-mediated synthesis of zeolite beta 755
- Zinc
 Inhibition effects of acetyl coumarines and thiazole derivatives on corrosion of zinc in acidic medium 571
- Zinc ferrite
 Synthesis and characterization of zinc ferrite nanoparticles obtained by self-propagating low-temperature combustion method 1325
- Zinc oxide
 Lattice dynamical investigations on Zn diffusion in zinc oxide 371
- Zinc sulphide
 A facile synthesis of ZnS nanocrystallites by pyrolysis of single molecule precursors, Zn (cinnamtscz)₂ and ZnCl₂ (cinnamtsczH)₂ 667
- Structural and optical properties of zinc sulphide-polyvinyl alcohol (ZnS-PVA) nanocomposite thin films: effect of Zn source concentration 1285
- Zircon flour (commercially available)
 Synthesis and characterization of mixture of nanozirconia and nanosilica obtained from commercially available zircon flour by sol-gel method 1339
- ZnAl₂O₄ spinel
 Preparation and characterization of solid-state sintered aluminum-doped zinc oxide with different alumina contents 477
- Zn-Co
 Corrosion resistant Zn-Co alloy coatings deposited using saw-tooth current pulse 1699
- ZnCO₃
 Unusual route for preparation of manganese(II), cobalt(II), zinc(II) and cadmium(II) carbonate compounds: synthesis and spectroscopic characterizations 853
- Zn-Ni coatings
 Electrolytic deposition and corrosion resistance of Zn-Ni coatings obtained from sulphate-chloride bath 997
- ZnS nanowires
 Synthesis and investigation of optical properties of ZnS nanostructures 287
- ZnS:Cu nanocrystals
 Synthesis, surface characterization and optical properties of 3-thiopropionic acid capped ZnS:Cu nanocrystals 1077
- Zn-V-Mn-based varistors
 Effect of Mn doping on electrical properties and accelerated ageing behaviours of ternary ZVM varistors 1385
- z-Scan
 Synthesis and nonlinear optical characterization of new 1,3,4-oxadiazoles 887
- ZSM-5
 Photocatalytic degradation of reactive black-5 dye using TiO₂ impregnated ZSM-5 551