# TABLE OF CONTENTS

## BULK NANOSTRUCTURED MATERIALS

### INVESTIGATION OF MECHANICAL PROPERTIES OF AL/CU STRIP PRODUCED BY EQUAL CHANNEL ANGULAR ROLLING
M. Honarpisheh, M. Dehghani, E. Haghighat

### INVESTIGATION OF FRICTION STIR WELDING PARAMETERS OF 6063-7075 ALUMINUM ALLOYS BY TAGUCHI METHOD
S. M. Bayazid, H. Farhangi, A. Ghahramani

### EFFECT OF INGOT PROFILE ON DEFECTS OF FRICTION STIR WELDED 7075 ALUMINUM ALLOY
S. M. Bayazid, H. Farhangi, A. Ghahramani

### MICROSTRUCTURAL AND MECHANICAL PROPERTIES OF NANO/ULTRA-FINE STRUCTURED 7075 ALUMINUM ALLOY BY ACCUMULATIVE ROLL-BONDING PROCESS
H. Alvandi, K. Farmanesh

### THE EFFECT OF STRAIN RATE ON ULTRA-FINE GRAINED STRUCTURE OF COLD DRAWN 304L STAINLESS STEEL WIRES
P. Parnian, M. H. Parsa

### INVESTIGATION THE EFFECT OF AL-5TI-1B GRAIN REFINER AND T6 HEAT TREATMENT ON TENSILE PROPERTIES OF AL-8%MG
A. Amerioon, M. Emamy, Gh. Ashari

### EFFECT OF HOT EXTRUSION ON MICROSTRUCTURE AND TENSILE PROPERTIES OF CA MODIFIED MG-MG2SI COMPOSITE
M. Lotfpour, M. Emamy, S. H. Allameh, B. Pourbahari

### PHASE AND MORPHOLOGICAL EVALUATION OF MECHANICALLY ACTIVATED SINTERED YAG POWDERS
K. Emre Öksüz, F. Apaydin, A. Emniya Bozdag, M. Çevik, A. Özer

### EFFECT OF SiCp ON THE MICROSTRUCTURE AND MECHANICAL PROPERTIES OF SINTERED DISTALOY DC COMPOSITES
K. Emre Öksüz, L. Cenk Kumruoğlu, O. Tur

### THE EFFECT OF LA-INTERMETALLIC COMPOUNDS ON TENSILE PROPERTIES OF AL-15%MG2SI IN-SITU COMPOSITE
A. Akhlaghi, M. Noghani, M. Emamy

### EFFECTS OF THERMO-MECHANICAL PROCESSING ON THE MECHANICAL PROPERTIES AND SHAPE RECOVERY OF THE NANOSTRUCTURED Ti50Ni45Cu5 SHAPE MEMORY ALLOY
M. Abbasi, A. Kermanpour, R. Emadi

### EVALUATION OF MECHANICAL PROPERTIES AND STRUCTURE OF 1100-AL REINFORCED WITH ZRO2 NANO-PARTICLES VIA ACCUMULATIVELY ROLL-BONDED
A. Salimi, E. Borhani, E. Emadoddin

### FATIGUE BEHAVIOR OF FRICTION STIR WELDED JOINTS OF PURE COPPER WITH ULTRA-FINE GRAINS
S. Salah, G. G. Yapici

### THE EFFECT OF Si AND EXTRUSION PROCESS ON THE MICROSTRUCTURE AND TENSILE PROPERTIES OF MG-MG2SI COMPOSITE
S. Mosleh, M. Emamy, H. Majidi

### SIGNIFICANT INCREASE IN TENSILE STRENGTH AND HARDNESS IN 2024 ALUMINUM ALLOY BY CRYOGENIC ROLLING
A. Shahsavari, F. Karimzadeh, A. Rezaeian, H. Heydari

### EFFECT OF MICROSTRUCTURAL REFINEMENT ON TENSILE PROPERTIES OF AZ80 MAGNESIUM ALLOY VIA CA ADDITION AND EXTRUSION PROCESS
S. H. Allameh, M. Emamy, E. Maleki, B. Pourbahari

### EFFECT OF EQUAL CHANNEL ANGULAR PRESSING (ECAP) ON WEAR BEHAVIOR OF AL-7075 ALLOY
M. Chegini, A. Fallahi, M. H. Shaeri
AN ANALYTICAL INVESTIGATION ON THE EFFECTS OF HEAT INPUT ON MICROSTRUCTURES, PHASE TRANSFORMATIONS AND MECHANICAL PROPERTIES OF ULTRAFINE GRAINED MG ALLOYS FABRICATED BY FRICTION STIR PROCESSING IN DIFFERENT VELOCITY RATIOS

M. Navazani, K. Dehghani

ADVANCED CHARACTERIZATION TECHNIQUES

THE STUDY OF PHOSPHATE ROCK FORMING MINERALS (FRANCOLITE) OF IRAN THROUGH THE EDX-SEM TO ASSESSMENT OF COMPOSITIONS IN NANO-SCALE
F. Bolourchifard, A. Memar

TUNABLE STRUCTURAL AND OPTICAL PROPERTIES OF CADMIUM TELLURIDE (CDTE) THIN FILMS WITH SUBSTRATE TEMPERATURE
M. T. Deipasand, H. Rezagholipour Dizaji, M. H. Eksani

CHARACTERIZATION OF CU-NIO NANO-COMPOSITE POWDER PREPARED BY BALL MILLING ASSISTED SOLID-STATE REACTION
Y. Kolvandi, S. Sheibani

NANOBIOMATERIALS

PREPARATION, CHARACTERIZATION AND MECHANICAL ASSESSMENT OF POLY (LACTIDE-CO-GLYCOLIDE)/ HYALURONIC ACID/ FIBRIN/ BIOACTIVE GLASS NANO-COMPOSITE SCAFFOLDS FOR CARTILAGE TISSUE ENGINEERING APPLICATIONS
E. Tavakoli, M. Mehdikhani-Nahrkhalaji, H. Hashemi-Beni, A. Zargar-Kharazi, M. Kharaziha

CARBON NANOTUBES FOR DELIVERY OF QUERCETIN AS ANTICANCER DRUG: THEORETICAL STUDY
S. Daneshmehr

AN ULTRASOUND-ASSISTED METHOD ON THE FORMATION OF NANOCRYSTALLINE FLUOROHYDROXYAPATITE COATINGS ON TITANIUM SCAFFOLD BY DIP COATING PROCESS
A. Salehi, H. Amini Mashhadi, M. S. Abravi, H. R. Jafarian

A FACILE ONE-STEP ELECTROCHEMICAL SYNTHESIS OF NICKEL NANOPARTICLE/GRAPIHENE COMPOSITES FOR NON-ENZYMATIC BIOSENSOR APPLICATIONS
S. Darvishi, F. Karmizadeh, M. Kharaziha

CHEMICAL SYNTHESIS OF POLYPYRROLE NANOTUBES FOR NEURAL MICROELECTRODES
Z. Deljoo Kojabad, S. A. Shojaosadati

NANOCLAY ENHANCED THE MECHANICAL PROPERTIES OF POLY(VINYL ALCOHOL)/CHITOSAN/MONTMORILLONITE NANOComposite HYDROGEL AS WOUND DRESSING
S. Noori, M. Kokabi, Z. M. Hassan

WETTING CHARACTERISTICS OF A NANO Y-TZP DENTAL CERAMIC BY A MOLTEN FELDSPATHIC VENEER
M. T. Marefati, A. M. Hadian, T. Hooshmand, A. Hadian, B. Eftekhari Yekta

ELECTROCATALYTIC OXIDATION AND DETERMINATION OF INSULIN AT RHODAMINE B –MULTI-WALLED CARBON NANOTUBES MODIFIED GLASSY CARBON ELECTRODE
A. Hatefi–mehrjardi, M. A. Karimi, S. Kamalabadi-Khorasani

A NOVEL METHOD TO PRODUCE AN ARTIFICIAL COMMON BILE DUCT USING ELECTROSPINNING TECHNIQUE
N. Moazzeni, D. Semnani, M. Lattifi, M. Sadrzahani

MICRO SCALE INVESTIGATION OF ENHANCED OIL RECOVERY USING NANO/BIO MATERIALS
R. Khademolhosseini, A. Jafari, M. H. Shabani

A NOVEL NANO-FIBER OF IRANIAN GUM TRAGACANTH-POLYVINYL ALCOHOL/NANOCLAY COMPOSITE FOR WOUND HEALING APPLICATIONS
H. Amiri Heydary, E. Karamian, E. Poorazizi, A. Khodan, J. Heydaripour

INFLUENCE OF SPARK PLASMA SINTERING AND BAGHDADITE POWDER ON MECHANICAL PROPERTIES OF HYDROXYAPATITE
A. Khandan, E. Karamian, M. Mehdikhani-Nahrkhalaji, H. Mirmohammadi, A. Farzadi, N. Ozada, B. Heidarshenas, K. Zamani
EFFECT OF NANOHYDROXYAPATITE ADDITION ON THE PORE MORPHOLOGY AND MECHANICAL PROPERTIES OF FREEZE CAST HYDROXYAPATITE SCAFFOLDS ................................................................. 190
Z. Kaviani, A. Zamanian
EVALUATE OF DIFFERENT BIOACTIVE GLASS ON MECHANICAL PROPERTIES OF NANOCOMPOSITES PREPARED USING ELECTROSPINNING METHOD ........................................... 196
M. Otadi, D. Mohabibi-Kalhor
NANOSIZED CHITOSAN HYDROGELS CONTAINING SUMAC EXTRACT FOR ANTIMICROBIAL BIOFINISHING OF COTTON FABRIC, PREPARATION AND CHARACTERIZATION ........................................... 202
L.S. Taghavi, N. Hemmatinejad, A. Bashari
EFFECT OF PURIFICATION ON NANO MICROBIAL CELLULOSE PELLICLE PROPERTIES ......................................................... 206
A. Meftahi, R. Khajavi, A. Rashidi, M. K. Rahimi, A. Bahador
INVESTIGATION OF NANO BACTERIAL CELLULOSE COATED BY SESAMUM OIL FOR WOUND DRESSING APPLICATION ........................................................................... 212
A. Meftahi, D. Nasrolahi, V. Babaeipour, S. Alibakhshi, S. Shahbazi
CHARACTERIZATION OF BIODEGRADABLE P3HB/HA NANOCOMPOSITE SCAFFOLD FOR BONE TISSUE ENGINEERING .................................................................................. 217
A. Saadat, S. Karbasi, A. A. Behnam Ghaeder, M. Khodaei
BIOSYNTHESIS AND IN-VITRO STUDY OF GOLD NANOPARTICLES USING MENTHA AND PELARGONIUM EXTRACTS ................................................................. 224
A. Jafarizad, K. Safaee, S. Gharibian, Y. Omidi, D. Ekinci

NANOELECTRONIC AND MAGNETIC MATERIALS

STUDY ON THE MAGNETIC AND MICROWAVE PROPERTIES OF ELECTROPHORETICALLY DEPOSITED NANO-FE3O4 ON CARBON FIBER .............................................................. 231
H. Salimkhani, F. Movassaghi-Alanagh, H. Aghajani, K. Osouli-Bostanabad
THE INFLUENCE OF LA AND HO SUBSTITUTION ON STRUCTURAL, MICROSTRUCTURAL AND MAGNETIC PROPERTIES OF BIFEO3 NANOPowders ...................................................... 238
M. Rahimkhani, D. Sanavi Khosnood
INFLUENCE OF AG/CU SUBSTITUTION ON STRUCTURAL EFFECT OF NEW HIGH TEMPERATURE SUPERCONDUCTOR Y2BaCuO18 ........................................................................ 242
N. Zarabinia, V. Daadmehr, F. Shahrzad Tehrani, M. Abbas
EFFECTS OF GATE OXIDE MATERIALS ON ELECTRICAL PERFORMANCE OF AMORPHOUS INGANO THIN FILM TRANSISTORS: AN ANALYTICAL SURVEY ........................................................................ 248
M. Ghaneii, M. H. Shakrokh Abadi
THE INTERPARTICLE COUPLING EFFECT ON PLASMON RESONANCE PROPERTIES OF MAGNETITE@AU MAGNETOPLASMONIC NANOPARTICLES ........................................................................................................ 254
N. Ahmadi, R. Poursalabi, M. K. Moravej Farshi
DOPING EFFECT ON SPIN DEPENDENT ELECTRON TRANSPORT IN ZIGZAG SILICENE NANORIBBONS ........................................................................................................... 259
B. Sarebanha, S. Ahmadi
CHARACTERIZATION AND SYNTHESIS OF MAGNETITE NANOPARTICLES BY INNOVATIVE SONOCHEMICAL METHOD ................................................................. 265
S. Aliramaji, A. Zamanian, Z. Sohrabijam
GRAPHEME-BASED TERAHERTZ WAVEGUIDE AMPLIFIER ......................................................................................................................... 270
O. Abbaszadeh Azar, M. Abd, H. Baghban
PERIODICALLY GROWN QUANTUM NANOSTRUCTURES WITH ARBITRARY GEOMETRIES: PERIODICITY EFFECTS ON THE INDUCED ELECTRO-ELASTIC FIELDS .................................................. 275
E. Rashidnejad, H. M. Shodja
PREPARTITION AND CHARACTERIZATION OF SUPERPARAMAGNETIC CHITOSAN COATED MAGHEMITE (γ-Fe2O3) FOR GENE DELIVERY ........................................................................ 282
Z. Sohrabijam, A. Zamanian, M. Saidifar, A. Nouri
TUNNELING CARBON NANOTUBE FIELD EFFECT TRANSISTOR WITH ASYMMETRIC GRADED DOUBLE HALO DOPING IN CHANNEL: ASYM-GDH-T-CNTFET ........................................................................................................... 287
N. Valed Karimi, Y. Pourrasad
SYNTHESIS AND NANOFABRICATION

SYNTHESIS, CHARACTERIZATION AND THERMOLUMINESCENCE PROPERTIES OF NANO-STRUCTURE GADOLINIUM DOPED HYDROXYAPATITE (HAP:GD) ................................................................. 293
A. Zarinfar, M. Shafras, F. Ziaie

SYNTHESIS OF GAN CAULIFLOWER-LIKE NANOSTRUCTURES VIA PLASMA ENHANCED-CVD ............................................................................................................................... 299
M. Gholampour, A. Abdollah-Zadeh, R. Poursalehi, L. Shekari, S. Hatamikhal

FROM NANO PARTICLES TO NANOWIRES OF GAN WITH DIFFERENT HYDROGEN GAS FLOW RATES BY PDC-PECVD ................................................................. 304
M. Gholampour, A. Abdollah-Zadeh, L. Shekari, R. Poursalehi

MECHANO CHEMICAL SYNTHESIS OF FE₂O₃ NANO PARTICLES .................................................. 309
M. Seyed, S. Huri, J. Vahdati Khaki

SUPERSPIN GLASS STATE IN MgF₂O₄ NANO PARTICLES ................................................................. 314
M. Hasanpour, M. Aliofkhazraei, H. Delavari

MICROWAVE-ASSISTED SYNTHESIS OF ZINC OXIDE NANO PARTICLES ........................................ 320
M. Ghorban, H. Abdizadeh, M. R. Golobostanfard

SYNTHESIS AND ANALYSIS OF OPTICAL PROPERTIES OF COR DIERITE NANO POWDER PREPARED BY THE PECHINI METHOD ................................................................. 331
M. Nadjaf, R. Malekfar, Z. Dehghani, Gh. H. Khorrani

HYDROTHERMAL SYNTHESIS OF LITHIUM META TITANATE NANOCRYSTALLITES .................. 336
A. R. Abbassian, M. R. Rahimpour, Z. Hamnabard

SYNTHESIS AND SURFACE CHARACTERIZATION OF MAGNETITE-TITANIA NANO PARTICLES/POLYAMIDE NANOCOMPOSITE SMART RO MEMBRANE ........................................................... 342
A. Tayefeh, S. A. Mousavi, M. Wiesner, R. Poursalehi

THE EFFECT OF LIQUID ENVIRONMENT ON COMPOSITION, COLLOIDAL STABILITY AND OPTICAL PROPERTIES OF NICKEL NANO PARTICLES SYNTHESIZED BY ARC DISCHARGE IN LIQUID ................................................................. 347
N. Rahnemai Haghighi, R. Poursalehi

ZNO NANORODS ARRAY SYNTHESIZED BY CHEMICAL BATH DEPOSITION: EFFECT OF SEED LAYER SOL CONCENTRATION ....................................................................................... 352
E. Poursabhan, H. Abdizadeh, M. R. Golobostanfard

SYNTHESIS OF Ni NANO PARTICLES BY PULSED LASER ABLATION METHOD IN LIQUID PHASE ................................................................................................................................. 359
M. Ganjali, M. Ganjali, P. Vahdatkhalgh, S. M. B. Marsadi

GROWTH OF ZNO NANORODS ON GLASS SUBSTRATE BY CHEMICAL BATH DEPOSITION ................ 364
S. Rezaiegi, M. Behboudnia, N. Nobari

EFFECT OF SALT ADDITIVES ON THE FABRICATION OF POLY (VINYLIDENE FLUORIDE-CO-HEXAFLUOROPROPYLENE) (PVDF-HFP) NANOFIBER MEMBRANES FOR AIR GAP MEMBRANE DISTILLATION ................................................................. 370
A. Hennat, S. M. Ghoreishi, J. Karimi Sabet

A NOVEL ROBUST QCA FULL-ADDER ........................................................................................................ 376
S. Hashemi, K. Navi

SYNTHESIZING OF NANOSTRUCTURED FE-MN ALLOYS BY MECHANICAL ALLOYING PROCESS ................................................................................................................................. 381
N. Salehi, M. Khakbiz, S. Sheibani, P. Sotoudeh Bagha

SYNTHESIS OF CRACK-FREE PZT THIN FILMS BY SOL-GEL PROCESSING ON GLASS SUBSTRATE ................................................................................................................................. 386
A. Shoghi, A. Shakeri, H. Abdizadeh, M. R. Golobostanfard

MODELING AND SIMULATION OF UFGNSM

CALCULATING THE BULK MODULUS OF IRON AND STEEL USING EQUILIBRIUM MOLECULAR DYNAMICS SIMULATION ........................................................................................................ 391
A. Rajabpour, L. Seidabadi, M. Soltanpour

FORMATION OF NANO STRUCTURE IN AISI 316L AUSTENITIC STAINLESS STEEL BY FRICTION STIR PROCESSING ........................................................................................................ 397
S. S. Rezaei-Nejad, A. Abdollah-Zadeh, M. Hajian, F. Kargar, R. Seraj
EVALUATION OF CAPILLARY PROPERTIES OF CARBON NANOTUBES THROUGH MOLECULAR DYNAMICS SIMULATIONS .......................................................................................................................... 403
M. Darvish Ganji, S. Mirzaei

SIMULATION FIELD EFFECT TRANSISTOR BIPOLAR GRAPHENE NANO-RIBBON .......................................................................................................................... 407
S. Masoumi, H. Hajighasem, S. Esfandian, A. Molaei Rad

AN INVESTIGATION OF EDDY CURRENT, SOLID LOSS, INDUCED VOLTAGE AND MAGNETIC TORQUE IN HIGHLY PURE THIN CONDUCTORS, USING FINITE ELEMENT METHOD .......................................................................................................................... 412
M. Jalali Mehrabad, M. H. Ehsani

MODELING OF DEFORMATION BEHAVIOR AND DYNAMIC STRAIN AGEING IN ECAP .......................................................................................................................... 418
M. Vaseghi

MULTI-SCALE SIMULATION OF CARBON NANOTUBES INTERACTIONS WITH CELL MEMBRANE: DFT CALCULATIONS AND MOLECULAR DYNAMIC SIMULATION .......................................................................................................................... 423
S. H. Tabari, Y. Jamali, R. Poursalehi

GEOMETRIC MODELING OF INFILTRATED SOLID OXIDE FUEL CELL ELECTRODES FOR PERFORMANCE OPTIMIZATION .......................................................................................................................... 428
M. Tafazoli, M. Baniassadi, A. Babaei, M. Shakeri

THE EFFECTS OF SURFACE OXIDATION AND INTERPARTICLE COUPLING ON SURFACE PLASMON RESONANCE PROPERTIES OF ALUMINUM NANO-PARTICLES AS A UV PLASMONIC MATERIAL .......................................................................................................................... 434
A. Ziaashahabi, R. Poursalehi

EFFECT OF AL-15ZR MASTER ALLOY AND EXTRUSION PROCESS ON MICROSTRUCTURE AND MECHANICAL PROPERTIES OF AL-6%Mg ALLOY .......................................................................................................................... 438
H. Hosseiny, M. Emamy, G. Ashuri

SIMULATION ANALYSIS OF HAFNIUM-BASED-OXIDE AND EFFECTS OF METALLIZATION ON ELECTRICAL PERFORMANCE OF GATE-ALL-AROUND FINFET DEVICES .......................................................................................................................... 444
M. Salami, M. H. Shahrokh Abadi

MOLECULAR DYNAMICS SIMULATIONS OF CARBON MONOXIDE SELF-DIFFUSION IN THE NANOPOROUS OF THE Cu-BTC .......................................................................................................................... 449
F. Fallahi, H. Mohammad-Mani-Manesh

INVESTIGATION ON THE EFFECT OF OVERLAPPING LASER PULSES IN LASER SHOCK PEENING WITH FINITE ELEMENT METHOD .......................................................................................................................... 454
H. R. Karbalai, A. Yousefi-Koma, M. Karimpour, S. S. Mohtasebi

NANO COATINGS AND THIN FILMS

STRESS-INDUCED SOLUTE SEGREGATION AT THE EDGE OF NANO-SCALE THIN-FILM ELECTRODES ON THICK SUBSTRATES .......................................................................................................................... 459
H. Haftbaradaran

FABRICATION OF ZNS ZIGZAG SCULPTURED NANO-STRUCTURED THIN FILMS .......................................................................................................................... 464
S. Z. Rahchamani, H. R. Gholipour Dizaji, M. H. Eksani

AMMONIA SENSING PROPERTIES OF α-Fe2O3 THIN FILMS DURING POST-ANNEALING PROCESS .......................................................................................................................... 469
S. Zolghadr, K. Khojier, S. Kимиagar

ON THE DEPENDENCE OF H2 GAS SENSITIVITY OF ZNO THIN FILMS ON FILM THICKNESS .......................................................................................................................... 474
F. Teimoori, K. Khojier, N. Z. Dehnavi

WEIGHING ACETONITRILE AGAINST WATER AS DISPERSING MEDIA FOR FABRICATION OF GRAPHENE OXIDE FILMS VIA ELECTROPHORETIC DEPOSITION .......................................................................................................................... 480
A. Hosseinpour, H. Abidizadeh, M. R. Golobostanfard

SONO-CHEMICAL ASSISTED SYNTHESIS OF ZNO NANO-STRUCTURED THIN FILMS PREPARED BY SOL-GEL METHOD .......................................................................................................................... 486
M. Heshmat, H. Abidizadeh, M. R. Golobostanfard

LASER MELTING EFFECTS ON MICROSTRUCTURE AND CORROSION BEHAVIOR OF PLASMA ELECTROLYTIC OXIDATION NANO-COMPOSITE COATINGS ON PURE TITANIUM .......................................................................................................................... 491
M. Habibi, R. Miresmaeili, M. Aliofkhazraei, S. Alikhani Chamgordani

EFFECT OF PULSE FREQUENCY ON TRIBOLOGICAL BEHAVIOUR OF FUNCTIONALLY GRADED Ni/Al2O3 NANO-COMPOSITE COATINGS .......................................................................................................................... 498
NANOCOMPOSITES

IMPROVEMENT OF POLYESTER BLANKET THERMAL INSULATOR PROPERTIES USING PHENOLIC AEROGEL
M. Razzaghi, H. R. Hadizadeh Raeisi, A. R. Bahramian

CELLULOSE CORK/PHENOLIC AEROGEL NANOCOMPOSITES AS A LIGHTWEIGHT THERMAL INSULATOR
H. R. Hadizadeh Raeisi, M. Razzaghi, A. R. Bahramian, M. Razzaghi Kashani

PREPARATION AND CHARACTERIZATION OF HYDROGEL NANOCOMPOSITES BASED ON OXIDIZED STARCH AND INCOMPLETELY CONDENSED POLYHEDRAL OLIGOMERIC SILSESQUIOXANES
F. Sadrykia, N. Arsalani

CORROSION AND WEAR PROPERTIES OF NANOCLAY-POLYESTER NANOCOMPOSITE COATINGS FABRICATED BY ELECTROSTATIC METHOD
A. Golgoon, M. Aliofkhazraei, M. Toorani, M. H. Moradi, A. Sabour Roughghdami

IN-SITU WATER BASED EMULSION COPOLYMERIZATION OF STYRENE/ETHYLHEXYL ACRYLATE IN PRESENCE OF CLOSITE ISA
N. Nemati, F. Afshar Taromi, M. Mirzaehi

SYNTHESIS AND CHARACTERIZATION OF MONOLITHIC TITANIA/NANOCLAY NANOCOMPOSITE AEROGELS
A. Zirakjou, R. Mehdinavaz Aghdam, F. Pashaei Soorbaghi

FABRICATION OF NANO-COMPOSITE Al-B4C FOAM VIA POWDER METALLURGY-SPACE HOLDER TECHNIQUE
M. R. Moradi, A. Moloodi, A. Habibolahzadeh

DISPERSION OF CARBON NANOTUBES IN CU-CR MATRIX NANO-COMPOSITE BY WET MILLING
M. Masroor, S. Sheibani, A. Atae

ENHANCED OIL RECOVERY USING POLYMER/NANOSILICA
H. YOUSEFYAND, A. JAFARI

A NEW APPROACH FOR SYNTHESIZING THE HYBRID SILICA AEROGELS
Z. Talebi Mazraeh-Shahi, A. Mousavi Shoushtari, A. R. Bahramian

EFFECT OF DUTY CYCLE ON CORROSION RESISTANCE AND MECHANICAL PROPERTIES OF TERTIARY Al2O3/Y2O3/GRAPHENE PULSED ELECTRODEPOSITED Ni-BASED NANO-COMPOSITE
A. Seza, H. Jafarian, M. Hasheminiasari, M. Aliofkhazraei

A NEW METHOD FOR MEASURING THE THERMAL INSULATION PROPERTIES OF FIBROUS SILICA AEROGEL COMPOSITE
Z. Talebi Mazraeh-Shahi, A. Mousavi Shoushtari, A. R. Bahramian

PREPARATION AND CHARACTERIZATION A NOVEL NANO COMPOSITE BARRIER FOR GTR / GBR
N. Alikhanifard, A. Zargar, S. Karbasi

INVESTIGATION OF MECHANICAL AND DURABILITY PROPERTIES OF CONCRETE INFLUENCED BY HYBRID NANO SILICA AND MICRO ZEOLITE
H. Eskandari, M. Vaghefi, K. Kowsari

FINISHING OF NYLON/COTTON FABRIC WITH ZNO/TIO2 NANOCOMPOSITE
A. Meftahi, F. Salehi, F. Yadegori, S. Alibakhsh, S. Vatandoost, H. Mohammadi

HYDROGEN DESORPTION PROPERTIES OF MGH2-5 AT% Ti-CR-MN-FE-V COMPOSITE VIA COMBINED VACUUM ARC REMELTING AND MECHANICAL ALLOYING
M. R. Haghparast, M. Rajabi
HYDROGEN DESORPTION PROPERTIES OF MGH2-5 WT% TI-MN-CR COMPOSITE VIA COMBINED MELT SPINNING AND MECHANICAL ALLOYING

V. Khodaparast, M. Rajabi

NANOMATERIALS FOR ENERGY

EVALUATING THE CATALYTIC PERFORMANCE OF LA1-XCEXNi1-YZNYO3 NANOSTRUCTURE PEROVSKITES IN THE CARBON DIOXIDE REFORMING OF METHANE

S. Marmarshahi, A. Niaei, D. Salari, F. Abdedini, M. Abbasi, N. Kalantari

SENSITIZATION OF TIO2 NANOPARTICLES WITH COBALT PHTHALOCYANINE: AN ACTIVE PHOTOCATALYST FOR DEGRADATION OF 4-CHLOROPHENOL UNDER VISIBLE LIGHT

A. Ebrahimian Pirbazari

CU-DOPED NANO- LA0.8Sr0.2MNO3 PROTECTIVE COATINGS ON METALLIC INTERCONNECTS FOR SOLID OXIDE FUEL CELL APPLICATION

H. R. Farnoush, H. Abdoli, S. Bozorgmehri

GROWTH OF CARBON NANO TUBES ON COPPER SUBSTRATE SUITABLE FOR LITHIUM ION BATTERY ANODE

S. Sepahvand, P. Safaei, Z. Sanaee

PERFORMANCE IMPROVEMENT OF P3HT:CDSE HYBRID SOLAR CELL BY MODIFYING HOLE INJECTION LAYER

K. Oniy Aghmiyoni, V. Ahmadi, F. Arabpour Koghahadi

NANOMATERIALS PROPERTIES

COMMERCIALIZING USAGE OF NANO-INSULATING MATERIALS IN BUILDING INDUSTRY AND FUTURE ARCHITECTURE

N. Gholami Rostam, M. J. Mahdavinejad, M. Gholami Rostam

CAPILLARY FORCES AND SORPTION HYSTERESIS OF CEMENT PASTES WITH SMALL SLIT PORES

P. Schiller, M. Wahab, Th. Bier, S. Waida, H. J. Mögel

PERFORMANCE STUDY F V2O5/TIO2 MIXED METAL OXIDE NANOCATALYSTS IN SELECTIVE CATALYTIC REDUCTION OF NOX PREPARED BY CO-PRECIPITATION METHOD

H. Soleimanzadeh, A. Niaei, D. Salari, S. M. Mousavi, A. Tarjamannejad

SIZE, MORPHOLOGY AND OPTICAL PROPERTIES OF TITANIUM-BASED COLLOIDAL NANO PARTICLES PREPARED BY DC ELECTRICAL ARC DISCHARGE IN DIFFERENT LIQUIDS

N. Rahnemai Haghighi, R. Poursalehi

ON THE ELASTIC CONSTANTS OF SINGLE WALLED CARBON NANOTUBES

M. M. Zaeri, S. Ziaei-Rad, A. R. Shahidi

INVESTIGATION ON CORROSION BEHAVIOUR OF COPPER BRAZED JOINTS

A. M. Aminazad, A. M. Hadian, F. Ghasimakbari

OPTICAL PROPERTIES AND COLLOIDAL STABILITY MECHANISM OF BISMUTH NANOPARTICLES PREPARED BY Q-SWITCHED ND:YAG LASER ABLATION IN LIQUID

S. Dadashi, H. Delavari, R. Poursalehi

THE EFFECT OF SURFACANT ON COLLOIDAL STABILITY, OXIDATION AND OPTICAL PROPERTIES OF ALUMINUM NANO PARTICLES PREPARED VIA DC ARC DISCHARGE IN WATER

M. Faraji, R. Poursalehi, M. Alikofshazraei

MICROWAVE-ASSISTED SINTERING OF FE-AL2O3 NANOCOMPOSITES: STUDY OF CORROSION AND WEAR PROPERTIES

M. Baghani, M. Alikofshazraei, R. Poursalehi

THE EFFECT OF DISSOLVED OXYGEN IN ARC MEDIUM ON CRYSTAL STRUCTURE AND OPTICAL PROPERTIES OF IRON BASED NANO PARTICLES PREPARED VIA DC ARC DISCHARGE IN WATER

E. Kheradmand, H. Delavari, R. Poursalehi

SHIELDING EFFECTIVENESS OF POLYMERIC NANOCOMPOSITES FILLED WITH IRON/WÜSTITE NANOPARTICLES

N. Iranpour Anaraki, R. Poursalehi
NONLINEAR REFRACTIVE (NLR) INDEX OF TiO₂ NPS IN E₅CN₇ NEMATIC LIQUID CRYSTAL UNDER CW LASER ILLUMINATION

Z. Dehghani, M. H. Majles Ara, H. Hoseinzade Saraf, M. Nadafan, N. Dalir

EFFECT OF PROCESSING PARAMETERS ON COMPRESSIVE STRENGTH OF METAKAOLINITE BASED GEOPOLYMERs: USING DOE APPROACH

M. Ghahbari, A. M. Hadian, A. A. Nourbakhsh

OPTICAL PROPERTIES OF PURE AND ALLOYED SILVER-COPPER NANOPARTICLES EMBEDDED AND COUPLED IN DIELECTRIC MATRIXES

H. Zabihi Hashjin, R. Poursalehi

STRUCTURAL AND OPTICAL PROPERTIES OF PURE IRON AND IRON OXIDE NANOPARTICLES PREPARED VIA PULSED Nd:YAG LASER ABLATION IN LIQUID

S. Dadashi, R. Poursalehi, H. Delavari

EFFECT OF INTERDIFFUSION ON OPTOELECTRONIC PROPERTIES OF In₁₋ₓGaₓAs/InAs/InₓGaₙAlₓAs QUANTUM WELL

V. L. Aziz-Aghcheghala, M. Pishbaz

JOINING OF ALUMINA TO ALUMINA USING BISMUTH OXIDE NANO POWDER

O. B. Dehkordi, A. M. Hadian

OPTICAL PROPERTIES OF Ag-Cu ALLOY NANOPARTICLES SYNTHESIZED BY DC ARC DISCHARGE IN LIQUID

S. H. Hashemian Rabaghi, R. Poursalehi, R. Miresmaeili

OPTICAL PROPERTIES OF Al@Al₂O₃ NANOROD AS A UV AND VISIBLE WAVELENGTHS PLASMONIC NANOSTRUCTURE

A. Ziaashahabi, R. Poursalehi

SEPARATION AND PURIFICATION

COMPARISON OF CATALYTIC BEHAVIOR OF IRIDIUM AND NICKEL NANOCACTALYSTS FOR DECOMPOSITION OF HYDRAZINE

S. G. Pakdehi, M. Rasoolzadeh

INVESTIGATING THE EFFECT OF MECHANICAL ACTIVATION PARAMETERS ON STRUCTURAL CHANGES AND LEACHING RATE OF MOLYBDENITE CONCENTRATE

H. Shalchian, J. Vahdati Khaki, A. Babakhani, M. Torabi Parizi

Author Index