Arghya Banerjee

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86
papers

2,829
citations

89
ext. papers

3,198
ext. citations

30
h-index

4.3
avg, IF

5.68
L-index

| # | Paper | IF | Citations |
|----|---|-----|-----------|
| 86 | Recent developments in the emerging field of crystalline p-type transparent conducting oxide thin films. <i>Progress in Crystal Growth and Characterization of Materials</i> , 2005 , 50, 52-105 | 3.5 | 277 |
| 85 | Low-temperature deposition of ZnO thin films on PET and glass substrates by DC-sputtering technique. <i>Thin Solid Films</i> , 2006 , 496, 112-116 | 2.2 | 165 |
| 84 | The design, fabrication, and photocatalytic utility of nanostructured semiconductors: focus on TiO2-based nanostructures. <i>Nanotechnology, Science and Applications</i> , 2011 , 4, 35-65 | 3.9 | 164 |
| 83 | Synthesis and characterization of p-type transparent conducting CuAlO2 thin film by DC sputtering. <i>Thin Solid Films</i> , 2003 , 440, 5-10 | 2.2 | 128 |
| 82 | Oxygen Vacancy-Induced Structural, Optical, and Enhanced Supercapacitive Performance of Zinc Oxide Anchored Graphitic Carbon Nanofiber Hybrid Electrodes. <i>ACS Applied Materials & Amp; Interfaces</i> , 2016 , 8, 5025-39 | 9.5 | 123 |
| 81 | Size-dependent optical properties of sputter-deposited nanocrystalline p-type transparent CuAlO2 thin films. <i>Journal of Applied Physics</i> , 2005 , 97, 084308 | 2.5 | 110 |
| 80 | Thermoelectric properties and electrical characteristics of sputter-deposited p-CuAlO2 thin films. <i>Thin Solid Films</i> , 2005 , 474, 261-266 | 2.2 | 106 |
| 79 | Graphene and its derivatives as biomedical materials: future prospects and challenges. <i>Interface Focus</i> , 2018 , 8, 20170056 | 3.9 | 101 |
| 78 | Effect of excess oxygen on the electrical properties of transparent p-type conducting CuAlO thin films. <i>Solar Energy Materials and Solar Cells</i> , 2005 , 89, 75-83 | 6.4 | 87 |
| 77 | A Review on Cu2O and CuI-Based p-Type Semiconducting Transparent Oxide Materials: Promising Candidates for New Generation Oxide Based Electronics. <i>Reviews in Advanced Sciences and Engineering</i> , 2013 , 2, 273-304 | | 86 |
| 76 | Preparation of p-type transparent conducting CuAlO2 thin films by reactive DC sputtering. <i>Materials Letters</i> , 2004 , 58, 10-13 | 3.3 | 83 |
| 75 | Recent developments in TiO2 as n- and p-type transparent semiconductors: synthesis, modification, properties, and energy-related applications. <i>Journal of Materials Science</i> , 2015 , 50, 7495-7536 | 4.3 | 75 |
| 74 | Synthesis and Characterization of Nano-Crystalline Fluorine-Doped Tin Oxide Thin Films by Sol-Gel Method. <i>Journal of Sol-Gel Science and Technology</i> , 2003 , 28, 105-110 | 2.3 | 69 |
| 73 | Synthesis of crystalline carbon nitride thin films by electrolysis of methanolŪrea solution. <i>Materials Letters</i> , 2003 , 57, 2193-2197 | 3.3 | 68 |
| 72 | Fabrication and characterization of all-oxide heterojunction p-CuAlO2+x/n-Zn1\(\text{NALXO} \) transparent diode for potential application in \(\text{Invisible} \) electronics\(\text{IThin Solid Films}, \(\text{2007}, 515, 7324-7330 \) | 2.2 | 60 |
| 71 | Low-threshold field emission from transparent p-type conducting CuAlO2 thin film prepared by dc sputtering. <i>Applied Surface Science</i> , 2004 , 225, 243-249 | 6.7 | 54 |
| 70 | Bio-silica coated with amorphous manganese oxide as an efficient catalyst for rapid degradation of organic pollutant. <i>Colloids and Surfaces B: Biointerfaces</i> , 2013 , 106, 151-7 | 6 | 44 |

| 69 | Biofilm formation on a TiOIhanotube with controlled pore diameter and surface wettability. <i>Nanotechnology</i> , 2015 , 26, 065102 | 3.4 | 43 |
|----|---|--------------------|----|
| 68 | Cell electrofusion in microfluidic devices: A review. Sensors and Actuators B: Chemical, 2013, 178, 63-85 | 8.5 | 43 |
| 67 | Electro-optical characteristics and field-emission properties of reactive DC-sputtered p-CuAlO2+x thin films. <i>Physica B: Condensed Matter</i> , 2005 , 370, 264-276 | 2.8 | 42 |
| 66 | Enhanced thermo-optical performance and high BET surface area of graphene@PVC nanocomposite fibers prepared by simple facile deposition technique: N 2 adsorption study. <i>Journal of Industrial and Engineering Chemistry</i> , 2015 , 21, 828-834 | 6.3 | 40 |
| 65 | Poole F renkel effect in nanocrystalline SnO2:F thin films prepared by a sol g el dip-coating technique. <i>Physica Status Solidi A</i> , 2004 , 201, 983-989 | | 38 |
| 64 | A simple biogenic route to rapid synthesis of Au@TiO2 nanocomposites by electrochemically active biofilms. <i>Journal of Nanoparticle Research</i> , 2012 , 14, 1 | 2.3 | 35 |
| 63 | Photocatalytic Degradation of Organic Dye by Sol-Gel-Derived Gallium-Doped Anatase Titanium Oxide Nanoparticles for Environmental Remediation. <i>Journal of Nanomaterials</i> , 2012 , 2012, 1-14 | 3.2 | 35 |
| 62 | Size controlled deposition of Cu and Si nano-clusters by an ultra-high vacuum sputtering gas aggregation technique. <i>Applied Physics A: Materials Science and Processing</i> , 2007 , 90, 299-303 | 2.6 | 35 |
| 61 | Improved electrochemical properties of morphology-controlled titania/titanate nanostructures prepared by in-situ hydrothermal surface modification of self-source Ti substrate for high-performance supercapacitors. <i>Scientific Reports</i> , 2017 , 7, 13227 | 4.9 | 34 |
| 60 | A comparative study of the effect of Pd-doping on the structural, optical, and photocatalytic properties of solgel derived anatase TiO2 nanoparticles. <i>Ceramics International</i> , 2016 , 42, 12010-12026 | 5.1 | 34 |
| 59 | Fast degradation of dyes in water using manganese-oxide-coated diatomite for environmental remediation. <i>Journal of Physics and Chemistry of Solids</i> , 2016 , 98, 50-58 | 3.9 | 33 |
| 58 | High-speed droplet actuation on single-plate electrode arrays. <i>Journal of Colloid and Interface Science</i> , 2011 , 362, 567-74 | 9.3 | 31 |
| 57 | Anchoring Mechanism of ZnO Nanoparticles on Graphitic Carbon Nanofiber Surfaces through a Modified Co-Precipitation Method to Improve Interfacial Contact and Photocatalytic Performance. <i>ChemPhysChem</i> , 2015 , 16, 3214-32 | 3.2 | 30 |
| 56 | Synthesis of amorphous manganese oxide nanoparticles Ito Itrystalline nanorods through a simple wet-chemical technique using K+ ions as a growth directorIand their morphology-controlled high performance supercapacitor applications. <i>RSC Advances</i> , 2016 , 6, 78887-78 | <i>3.</i> 7 908 | 30 |
| 55 | Determination of strain, site occupancy, photoluminescent, and thermoluminescent-trapping parameters of Sm3+-doped NaSrB5O9 microstructures. <i>Ceramics International</i> , 2016 , 42, 1234-1245 | 5.1 | 28 |
| 54 | Improved electrochemical properties of highly porous amorphous manganese oxide nanoparticles with crystalline edges for superior supercapacitors. <i>Journal of Industrial and Engineering Chemistry</i> , 2017 , 56, 212-224 | 6.3 | 25 |
| 53 | Biowaste-derived carbon black applied to polyaniline-based high-performance supercapacitor microelectrodes: Sustainable materials for renewable energy applications. <i>Electrochimica Acta</i> , 2019 , 316, 202-218 | 6.7 | 24 |
| 52 | Quantum size effect in the photoluminescence properties of p-type semiconducting transparent CuAlO2 nanoparticles. <i>Journal of Applied Physics</i> , 2012 , 112, 114329 | 2.5 | 20 |

| 51 | Nonstoichiometry-Induced Enhancement of Electrochemical Capacitance in Anodic TiO2 Nanotubes with Controlled Pore Diameter. <i>Journal of Physical Chemistry C</i> , 2016 , 120, 9569-9580 | 3.8 | 20 |
|----------------------------------|--|--------------------------|----------------------|
| 50 | Barrier-oxide layer engineering of TiO2 nanotube arrays to get single- and multi-stage Y-branched nanotubes: Effect of voltage ramping and electrolyte conductivity. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2015 , 195, 1-11 | 3.1 | 18 |
| 49 | Morphology-dependent low macroscopic field emission properties of titania/titanate nanorods synthesized by alkali-controlled hydrothermal treatment of a metallic Ti surface. <i>Nanotechnology</i> , 2015 , 26, 355705 | 3.4 | 17 |
| 48 | Synthesis of Amourphous and Crystalline Hollow Manganese Oxide Nanotubes with Highly Porous Walls Using Carbon Nanotube Templates and Enhanced Catalytic Activity. <i>Industrial & Engineering Chemistry Research</i> , 2014 , 53, 9743-9753 | 3.9 | 17 |
| 47 | Enhanced electrochemical performance of morphology-controlled titania-reduced graphene oxide nanostructures fabricated via a combined anodization-hydrothermal process. <i>RSC Advances</i> , 2016 , 6, 12571-12583 | 3.7 | 16 |
| 46 | Field emission characterization of vertically oriented uniformly grown nickel nanorod arrays on metal-coated silicon substrate. <i>Journal of Applied Physics</i> , 2010 , 107, 114317 | 2.5 | 15 |
| 45 | Low-macroscopic field emission from fibrous ZnO thin film prepared by catalyst-free solution route. <i>Applied Surface Science</i> , 2004 , 236, 231-235 | 6.7 | 15 |
| 44 | Synthesis and optical characterization of amorphous carbon nitride thin films by hot filament assisted RF plasma CVD. <i>Vacuum</i> , 2003 , 69, 495-500 | 3.7 | 15 |
| 43 | Poole-Frenkel effect in sputter-deposited CuAlO(2+x) nanocrystals. <i>Nanotechnology</i> , 2013 , 24, 165705 | 3.4 | 14 |
| | | | |
| 42 | Effect of Potassium Ions on the Formation of Crystalline Manganese Oxide Nanorods via Acidic Reduction of Potassium Permanganate. <i>Industrial & Engineering Chemistry Research</i> , 2013 , 52, 1415 | 54-941 | 5 § 4 |
| 42 41 | | 3.2 | 5 9 4 |
| | Reduction of Potassium Permanganate. <i>Industrial & Description of Potassium Permanganate</i> . <i>Industrial & Description of Potassium Permanganate</i> . <i>Industrial & Description of Permanganate</i> . <i>Industri</i> | | |
| 41 | Reduction of Potassium Permanganate. <i>Industrial & Distribution of Potassium Permanganate</i> . <i>Industrial & Distribution of Potassium Permanganate</i> . <i>Industrial & Distribution of Permanganate</i> . <i>Industri</i> | 3.2 | 14 |
| 41 40 | Reduction of Potassium Permanganate. <i>Industrial & Distribution of Potassium Permanganate</i> . <i>Industrial & Distribution of Potassium Permanganate</i> . <i>Industrial & Distribution of Potassium Permanganate</i> . <i>Industrial & Distribution of Permanganate</i> . <i>Industrial & Distribution Permanga</i> | 3.2 | 14 |
| 4 ¹ 4 ⁰ 39 | Synthesis and Characterization of Birnessite and Cryptomelane Nanostructures in Presence of Hoffmeister Anions. <i>Journal of Nanomaterials</i> , 2009 , 2009, 1-8 Enhanced thermo-mechanical performance and strain-induced band gap reduction of TiO2@PVC nanocomposite films. <i>Bulletin of Materials Science</i> , 2015 , 38, 283-290 Wet-chemical dip-coating preparation of highly oriented copperBluminum oxide thin film and its opto-electrical characterization. <i>Physica B: Condensed Matter</i> , 2011 , 406, 220-224 Low-macroscopic field emission properties of wide bandgap copper aluminium oxide nanoparticles | 3.2 1.7 2.8 | 14 13 |
| 41 40 39 38 | Reduction of Potassium Permanganate. <i>Industrial & Discourse in Presence of Hoffmeister Anions. Journal of Nanomaterials</i> , 2009 , 2009, 1-8 Enhanced thermo-mechanical performance and strain-induced band gap reduction of TiO2@PVC nanocomposite films. <i>Bulletin of Materials Science</i> , 2015 , 38, 283-290 Wet-chemical dip-coating preparation of highly oriented copperBluminum oxide thin film and its opto-electrical characterization. <i>Physica B: Condensed Matter</i> , 2011 , 406, 220-224 Low-macroscopic field emission properties of wide bandgap copper aluminium oxide nanoparticles for low-power panel applications. <i>Nanotechnology</i> , 2011 , 22, 365705 An ultrahigh vacuum complementary metal oxide silicon compatible nonlithographic system to | 3.2 1.7 2.8 | 14 13 13 |
| 41 40 39 38 37 | Reduction of Potassium Permanganate. <i>Industrial & Engineering Chemistry Research</i> , 2013 , 52, 1415 Synthesis and Characterization of Birnessite and Cryptomelane Nanostructures in Presence of Hoffmeister Anions. <i>Journal of Nanomaterials</i> , 2009 , 2009, 1-8 Enhanced thermo-mechanical performance and strain-induced band gap reduction of TiO2@PVC nanocomposite films. <i>Bulletin of Materials Science</i> , 2015 , 38, 283-290 Wet-chemical dip-coating preparation of highly oriented copperBluminum oxide thin film and its opto-electrical characterization. <i>Physica B: Condensed Matter</i> , 2011 , 406, 220-224 Low-macroscopic field emission properties of wide bandgap copper aluminium oxide nanoparticles for low-power panel applications. <i>Nanotechnology</i> , 2011 , 22, 365705 An ultrahigh vacuum complementary metal oxide silicon compatible nonlithographic system to fabricate nanoparticle-based devices. <i>Review of Scientific Instruments</i> , 2008 , 79, 033910 Electro-optical properties of all-oxide p-CuAlO2/n-ZnO: Al transparent heterojunction thin film | 3.2 1.7 2.8 3.4 | 14 13 13 13 |

| 33 | Efficient production of ultrapure manganese oxides via electrodeposition. <i>Journal of Colloid and Interface Science</i> , 2012 , 379, 141-3 | 9.3 | 10 |
|----|---|-----|----|
| 32 | Rapid Classification of COVID-19 Severity by ATR-FTIR Spectroscopy of Plasma Samples. <i>Analytical Chemistry</i> , 2021 , 93, 10391-10396 | 7.8 | 10 |
| 31 | "Electro-Typing" on a Carbon-Nanoparticles-Filled Polymeric Film using Conducting Atomic Force Microscopy. <i>Advanced Materials</i> , 2017 , 29, 1703079 | 24 | 9 |
| 30 | Large field enhancement at electrochemically grown quasi-1D Ni nanostructures with low-threshold cold-field electron emission. <i>Nanotechnology</i> , 2011 , 22, 035702 | 3.4 | 9 |
| 29 | Fabrication of hierarchical porous anodized titania nano-network with enhanced active surface area: Ruthenium-based dye adsorption studies for dye-sensitized solar cell (DSSC) application. <i>Journal of Industrial and Engineering Chemistry</i> , 2015 , 29, 227-237 | 6.3 | 8 |
| 28 | Electrochemical growth of ordered nickel nano-rods within a composite structure of anodic-alumina-membrane/metal/silicon substrate. <i>Journal of Nanoscience and Nanotechnology</i> , 2010 , 10, 4252-8 | 1.3 | 8 |
| 27 | In-situ design of porous vanadium nitride@carbon nanobelts: a promising material for high-performance asymmetric supercapacitors. <i>Applied Surface Science</i> , 2021 , 151734 | 6.7 | 8 |
| 26 | In vitro cytotoxicity of in-situ synthesized zinc oxide anchored graphitic carbon nanofiber on HeLa cells. <i>Materials Science in Semiconductor Processing</i> , 2017 , 59, 87-92 | 4.3 | 7 |
| 25 | Implementation of complex nanosystems using a versatile ultrahigh vacuum nonlithographic technique. <i>Nanotechnology</i> , 2007 , 18, 445202 | 3.4 | 7 |
| 24 | Bioinspired tailoring of nanoarchitectured nickel sulfide@nickel permeated carbon composite as highly durable and redox chemistry enabled battery-type electrode for hybrid supercapacitors. <i>Journal of Materials Chemistry A</i> , | 13 | 7 |
| 23 | Urea-assisted hydrothermal synthesis of MnMoO4/MnCO3 hybrid electrochemical electrode and fabrication of high-performance asymmetric supercapacitor. <i>Journal of Materials Science and Technology</i> , 2022 , 96, 332-344 | 9.1 | 7 |
| 22 | Conductivity inversion of ZnO nanoparticles in ZnO-carbon nanofiber hybrid thin film devices by surfactant-assisted C-doping and non-rectifying, non-linear electrical properties via interfacial trap-induced tunneling for stress-grading applications. <i>Journal of Applied Physics</i> , 2019 , 125, 175106 | 2.5 | 6 |
| 21 | Synthesis of metal-incorporated graphitic microporous carbon terminated with highly-ordered graphene wallsControlling the number of graphene layers by ambient-temperature metal sputtering. <i>Applied Surface Science</i> , 2013 , 268, 588-600 | 6.7 | 6 |
| 20 | Ambient-temperature fabrication of microporous carbon terminated with graphene walls by sputtering process for hydrogen storage applications. <i>Thin Solid Films</i> , 2013 , 537, 49-57 | 2.2 | 6 |
| 19 | FESEM studies of densely packed aligned nickel nanopillars on silicon substrate by electrochemical deposition through porous alumina membrane. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2010 , 175, 36-40 | 3.1 | 6 |
| 18 | Synthesis of boron-doped diamond films by DC plasma CVD using a CH4+CO2+H2 gas mixture at lower substrate temperature and formation of an n-Si/p-diamond heterojunction. <i>Vacuum</i> , 2003 , 72, 129-134 | 3.7 | 6 |
| 17 | Prospects and Challenges of Graphene-Based Nanomaterials in Nanomedicine 2016 , 1, | | 6 |
| 16 | Site-specific fabrication of graphitic microporous carbon terminated with ordered multilayer graphene walls. <i>Physica Status Solidi - Rapid Research Letters</i> , 2012 , 6, 315-317 | 2.5 | 5 |

| 15 | Isothermal titration calorimetry, transmission electron microscopy, and field emission scanning electron microscopy of a main-chain viologen polymer containing bromide as counterions. <i>Polymer</i> , 2009 , 50, 2393-2401 | 3.9 | 5 |
|----|--|-----------------------------------|-------------------|
| 14 | Status review on the Cu2SnSe3 (CTSe) thin films for photovoltaic applications. <i>Solar Energy</i> , 2020 , 208, 1001-1030 | 6.8 | 5 |
| 13 | Transition from mobility-activated small polaron to carrier density-activated conduction of sol-gel-derived highly-oriented CuAlO2 thin film and enhanced thermoelectric properties. <i>Ceramics International</i> , 2018 , 44, 5950-5960 | 5.1 | 4 |
| 12 | Nanostructured p-type semiconducting transparent oxides: promising materials for nano-active devices and the emerging field of "transparent nanoelectronics". <i>Recent Patents on Nanotechnology</i> , 2008 , 2, 41-68 | 1.2 | 4 |
| 11 | Facile construction and controllable design of CoTiO3@Co3O4/NCNO hybrid heterojunction nanocomposite electrode for high-performance supercapacitors. <i>Electrochimica Acta</i> , 2022 , 407, 13986 | 8 ^{6.7} | 4 |
| 10 | Superior energy-power performance of N-doped carbon nano-onions-based asymmetric and symmetric supercapacitor devices. <i>International Journal of Energy Research</i> , | 4.5 | 4 |
| 9 | Enhanced Field-Emission Properties of Sol©el-Derived Nanostructured (hbox {SnO}_{2}):F Thin Film for Vacuum Microelectronics. <i>Arabian Journal for Science and Engineering</i> , 2018 , 43, 3815-3821 | 2.5 | 2 |
| 8 | Synthesis of crystalline zinc hydroxystannate and its thermally driven amorphization and recrystallization into zinc orthostannate and their phase-dependent cytotoxicity evaluation. <i>Materials Chemistry and Physics</i> , 2020 , 248, 122946 | 4.4 | 1 |
| 7 | Effect of cerium doping on the structural, morphological, photoluminescent and thermoluminescent properties of sodium strontium pentaborate microstructures. <i>Applied Physics A: Materials Science and Processing</i> , 2016 , 122, 1 | 2.6 | 1 |
| 6 | Structural studies and optical properties of pearl nucleus irradiated by Fray. <i>Radiation Effects and Defects in Solids</i> , 2013 , 168, 696-704 | 0.9 | 1 |
| 5 | Auto-barrier-thinning effect under rapid anodization of nanoporous alumina membrane. <i>Physica Status Solidi - Rapid Research Letters</i> , 2011 , 5, 238-240 | 2.5 | 1 |
| 4 | Reduced bias synthesis of cubic boron nitride thin films by magnetically enhanced inductively coupled radio frequency plasma chemical vapor deposition. <i>Materials Letters</i> , 2003 , 57, 1459-1463 | 3.3 | 1 |
| 3 | Template-Based Synthesis of Hollow Nanotubular ZnO Structures and Nonlinear Electrical Properties under Field-Induced Trap-Assisted Tunneling. <i>Journal of Physical Chemistry C</i> , 2020 , 124, 283 | 7 ³ 1 ⁸ 28: | 38 ¹ 6 |
| 2 | High hydrogen uptake by a metal-graphene-microporous carbon network. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2021 , 271, 115275 | 3.1 | 1 |
| 1 | Functionalization of 0-D and 2-D carbon nitride nanostructures on bio-derived carbon spheres for sustainable electrochemical supercapacitors. <i>Journal of Electroanalytical Chemistry</i> , 2021 , 902, 115808 | 4.1 | |