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Last five years publication list

2020 year publications

1. Electrochemical performance of ANiO_3 (A= La, Ce) perovskite oxide material and its device performance for supercapattery application, MP Harikrishnan, AJC Mary, AC Bose. *Electrochimica Acta* 362, 137095
2. Hydrothermally synthesized Bi_2S_3 nanorod for supercapacitor electrode application, N Joseph, C Raj, AC Bose, *AIP Conference Proceedings* 2265 (1), 030607
3. Co-precipitation route for synthesizing CeNiO_3 and its application as excellent pseudocapacitor. MP Harikrishnan, AC Bose, *AIP Conference Proceedings* 2265 (1), 030631
4. Tuning the Properties of the $\text{CuAl}_{(1-x)}\text{Fe}_x\text{S}_2$ Thin Film as a Potential Absorber for Solar Cell Application, D Naveena, L Thirumalaisamy, R Dhanabal, K Sethuraman, AC Bose, *ACS Applied Energy Materials*
5. Diethylenetriaminepentaacetic acid-functionalized multi-walled carbon nanotubes/titanium oxide-PVDF nanofiber membrane for effective separation of oil/water emulsion, K Venkatesh, G Arthanareeswaran, AC Bose, PS Kumar, J Kweon, *Separation and Purification Technology*, 117926
6. Construction of few layered metallic MoS_2 microspheres using glucose induced carbon spheres and its application in symmetric supercapacitor device, N Joseph, *Journal of Electroanalytical Chemistry* 874, 114461
7. Morphology-dependent electrochemical energy storage property of metallic molybdenum sulfide nanosheets, N Joseph, JS Sethulakshmi, AC Bose, *Journal of Materials Science: Materials in Electronics* 31 (15), 12684-12695

8. Electrochemical Performance of rGO/NiCo₂O₄@ZnCo₂O₄ Ternary Composite Material and the Fabrication of an all-Solid-State Supercapacitor Device. AJC Mary, CI Sathish, A Vinu, AC Bose, Energy & Fuels 34 (8), 10131-10141
9. Reduced Graphene Oxide Supported Molybdenum Oxide Hybrid Nanocomposites: High Performance Electrode Material for Supercapacitor and Photocatalytic Applications, R Dhanabal, D Naveena, S Velmathi, AC Bose, Journal of Nanoscience and Nanotechnology 20 (7), 4035-4046
10. Hydrophilic hierarchical carbon with TiO₂ nanofiber membrane for high separation efficiency of dye and oil-water emulsion, K Venkatesh, G Arthanareeswaran, AC Bose, PS Kumar, Separation and Purification Technology 241, 116709
11. Recent Advances in 2D-MoS₂ and its Composite Nanostructures for Supercapacitor Electrode Application, N Joseph, PM Shafi, AC Bose, Energy & Fuels
12. Tailoring the morphology and size of perovskite BiFeO₃ nanostructures for enhanced magnetic and electrical properties, KP Remya, D Prabhu, RJ Joseyphus, AC Bose, C Viswanathan, Materials & Design, 108694
13. Fabrication of hybrid supercapacitor device based on NiCo₂O₄@ ZnCo₂O₄ and the biomass-derived N-doped activated carbon with a honeycomb structure, AJC Mary, CI Sathish, PSM Kumar, A Vinu, AC Bose, Electrochimica Acta, 136062
14. Supercapacitor and non-enzymatic biosensor application of the Mn₂O₃/NiCo₂ O₄ composite material, AJC Mary, SS Shalini, R Balamurugan, MP Harikrishnan, AC Bose, New Journal of Chemistry

2019 year publications

15. Hierarchical porous structured N-doped activated carbon derived from Helianthus Annuus seed as a cathode material for hybrid supercapacitor device, AJC Mary, C Nandhini, AC Bose, Materials Letters 256, 126617
16. Tuning of Mg content to enhance the thermoelectric properties in binary Mg₂+ δ Si (δ = 0, 0.1, 0.15, 0.2), P Balasubramanian, M Battabyal, D Das, AC Bose, R Gopalan, Materials Research Express 6 (12), 125519
17. Carbon nanoparticles synthesized by laser ablation of coconut shell charcoal in liquids for glucose sensing applications EP Shuaib, PM Shafi, GK Yogesh, AC Bose, D Sastikumar. Materials Research Express 6 (11), 115610

18. Significant enhancement of photo-physicochemical properties of Yb doped copper oxide thin films for efficient solid-state solar cell, D Naveena, T Logu, K Sethuraman, AC Bose, Journal of Alloys and Compounds 795, 187-196
19. Controllable Synthesis of V_2O_5/Mn_3O_4 Nanoflakes and rGO Nanosheets: To Investigate the Performance of All Solid-State Asymmetric Supercapacitor Device, AJC Mary, AC Bose. ChemistrySelect 4 (27), 7874-7882
20. Pseudocapacitive performance of $NiCo_2O_4$ nanostructures, AJC Mary, AC Bose, AIP Conference Proceedings 2115 (1), 030552
21. Comparative study of $CuAlS_2$ thin film by chemical spray pyrolysis and hydrothermal method, D Naveena, AC Bose, AIP Conference Proceedings 2115 (1), 030283
22. One pot synthesis of MoO_3/MoS_2 composite and investigation on its electrochemical charge storage properties, N Joseph, AC Bose, AIP Conference Proceedings 2115 (1), 030551
23. $LaNiO_3$ perovskite oxides by co-precipitation method as electrode for high performance supercapacitor, MP Harikrishnan, AC Bose, AIP Conference Proceedings 2115 (1), 030129
24. Metallic MoS_2 grown on porous g-C $_3$ N $_4$ as an efficient electrode material for supercapattery application, N Joseph, AC Bose, Electrochimica Acta 301, 401-410
25. Perovskite oxide $LaCoO_3$ electrode as high performance pseudocapacitor, MP Harikrishnan, AC Bose, AIP Conference Proceedings 2082 (1), 060001
26. Comparative study of effective photoabsorber CuO thin films prepared via different precursors using chemical spray pyrolysis for solar cell application, D Naveena, T Logu, R Dhanabal, K Sethuraman, AC Bose, Journal of Materials Science: Materials in Electronics 30 (1), 561-572
27. Incorporating $Mn^{2+}/Ni^{2+}/Cu^{2+}/Zn^{2+}$ in the Co_3O_4 Nanorod: To Investigate the Effect of Structural Modification in the Co_3O_4 Nanorod and Its electrochemical performance, AJC Mary, AC Bose, ChemistrySelect 4 (1), 160-170

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28. Electrochemical Material Processing via Continuous Charge-Discharge Cycling: Enhanced Performance upon Cycling for Porous $LaMnO_3$ Perovskite supercapacitor electrodes, PM Shafi, AC Bose, A Vinu, ChemElectroChem 5 (23), 3723-3730

29. Metallic MoS₂ Anchored on Reduced Graphene Oxide Sheets with Edge Orientation, and Its Electrochemical Investigation on Energy Storage Application, N Joseph, PM Shafi, AC Bose, ChemistrySelect 3 (42), 11993-12000
30. Investigations of Interfacial Electric Field on Reduced-Graphene-Oxide-Supported Molybdenum Oxide@ Silver Phosphate Ternary Hybrid Composite: Highly Efficient Visible-Light - Driven photocatalyst, DR Dhanabal, PM Shafi, T Arun, S Velmathi, S Hussain, AC Bose, Chemistry Select 3 (34), 9920-9932
31. Surfactant assisted ZnCo₂O₄ nanomaterial for supercapacitor application, AJC Mary, AC Bose, Applied Surface Science 449, 105-112
32. A novel method for generating tricolor emission for white LED application, P Priyanka, B Nalini, D Lakshmi, AC Bose, Journal of Materials Science: Materials in Electronics 29 (14), 12288-12299
33. One-Pot synthesis of LaMnO₃/Mn₃O₄ Nanocomposite: Impact of Calcination Temperature on the Synergetic Effect Towards High Energy Supercapacitor Performance, PM Shafi, N Nisar, AC Bose, ChemistrySelect 3 (23), 6459-6467
34. Synthesis and characterizations of Ag-doped CdO nanoparticles for PN junction diode application, K Mohanraj, D Balasubramanian, J Chandrasekaran, AC Bose, Materials Science in Semiconductor Processing 79, 74-91
35. LaMnO₃/RGO/PANI Ternary Nanocomposites for Supercapacitor Electrode Application and Their Outstanding Performance in All-Solid-State Asymmetrical Device Design, PM Shafi, V Ganesh, AC Bose, ACS Applied Energy Materials 1 (6), 2802-2812
36. Enhanced electrochemical performances of agglomeration-free LaMnO₃ perovskite nanoparticles and achieving high energy and power densities with symmetric supercapacitor design, PM Shafi, N Joseph, A Thirumurugan, AC Bose, Chemical Engineering Journal 338, 147-156
37. Influence of different synthesis approach on ZnCo₂O₄ nanomaterial and its supercapacitor behavior, AJC Mary, S Thilagavathi, AC Bose, AIP Conference Proceedings 1942 (1), 140042
38. High crystalline CuAlS₂ thin films via chemical spray pyrolysis route, D Naveena, T Logu, K Sethuraman, AC Bose, AIP Conference Proceedings 1942 (1), 080028
39. A comparative investigation of electrochemical charge storage properties on β , γ , δ and λ -MnO₂ nanoparticles, PM Shafi, C Johnson, AC Bose, AIP Conference Proceedings 1942 (1), 050069
40. Fabrication of RuO₂-Ag₃PO₄ heterostructure nanocomposites: Investigations of band alignment on the enhanced visible light photocatalytic activity, R Dhanabal, S Velmathi, AC Bose, Journal of hazardous materials 344, 865-874

41. Metallic 1T-MoS₂ with defect induced additional active edges for high performance supercapacitor application, N Joseph, PM Shafi, AC Bose, New Journal of Chemistry 42 (14), 12082-12090

2017 year publications

42. Hydrothermal synthesis of Mn-doped ZnCo₂O₄ electrode material for high-performance supercapacitor, AJC Mary, AC Bose, Applied Surface Science 425, 201-211
43. Automated nebulizer sprayed tin doped titanium dioxide (Sn_xTi_{1-x}O₂) anatase nanofilms properties, gas sensing performance, VG Krishnan, P Elango, A Purushothaman, AC Bose, Materials Chemistry and Physics 199, 113-121
44. Enhanced Optical and Electrical Properties of P25 Titanium Dioxide Incorporated Polycaprolactone Nanocomposites, S Saravanamoorthy, AC Bose, S Velmathi, Journal of Nanoscience and Nanotechnology 17 (7), 4677-4686
45. α -MnO₂/h-MoO₃ Hybrid Material for High Performance Supercapacitor Electrode and Photocatalyst, PM Shafi, R Dhanabal, A Chithambararaj, S Velmathi, AC Bose, ACS Sustainable Chemistry & Engineering 5 (6), 4757-4770
46. Structural evolution and electrical properties of the biphasic compound α -Al₂O₃: MgAl₂O₄, K Chitrarasu, JU Bhanu, R Dhanabal, A Chandrabose, P Thangadurai, Materials Research Bulletin 90, 244-252
47. Facile synthesis of ZnCo₂O₄/rGO nanocomposite for effective supercapacitor application, AJC Mary, AC Bose, AIP Conference Proceedings 1832 (1), 050093
48. Synthesis and investigation on electrochemical property of ϵ -MnO₂ nanoparticle, PM Shafi, AC Bose, AIP Conference Proceedings 1832 (1), 050098
49. Structural, morphological and electrochemical studies of MoS₂ prepared by hydrothermal method, N Joseph, AC Bose, AIP Conference Proceedings 1832 (1), 050118
50. Gd₂O₃:RE³⁺ and GdAlO₃: RE₃⁺ (RE= Eu, Dy) phosphor: Synthesis, characterization and bioimaging application, T Selvalakshmi, P Venkatesan, SP Wu, S Velmathi, AC Bose, Journal of nanoscience and nanotechnology 17 (2), 1178-1184
51. \hat{I}^{\pm} -MnO₂/h-MoO₃ Hybrid Material for High Performance Supercapacitor Electrode and Photocatalyst, PM Shafi, R Dhanabal, A Chithambararaj, S Velmathi, AC Bose, ACS sustainable chemistry

2016 year publications

52. Impedance spectroscopy and photocatalysis water splitting for hydrogen production with cerium modified $\text{SrBi}_2\text{Ta}_2\text{O}_9$ ferroelectrics, V Senthil, T Badapanda, A Chithambararaj, AC Bose, S Panigrahi, International Journal of Hydrogen Energy 41 (48), 22856-22865
53. Graphene oxide- MnO_2 nanocomposite for supercapacitor application, JK Vishal, AC Bose, Carbon Nanotubes, Graphene, and Emerging 2D Materials for Electronic and ...
54. Cost-effective nebulizer sprayed ZnO thin films for enhanced ammonia gas sensing—effect of deposition temperature, K Ravichandran, A Manivasaham, K Subha, A Chandrabose, R. Mariyappan, Surfaces and Interfaces 1, 13-20
55. Investigation on photoluminescence properties and defect chemistry of GdAlO_3 : Dy^{3+} Ba^{2+} phosphors, T Selvalakshmi, S Sellaiyan, A Uedono, T Semba, AC Bose, Optical Materials 58, 524-530
56. α - MnO_2 Nanoparticles with High Surface Area for Electrochemical Supercapacitor Application, PM Shafi, AC Bose, 229th ECS Meeting (May 29-June 2, 2016)
57. Structural, optical and impedance properties of SnO_2 nanoparticles, KG Dhinakar, T Selvalakshmi, SM Sundar, AC Bose, Journal of Materials Science: Materials in Electronics 27 (6), 5818-5824
58. Photoluminescence and energy transfer process in Gd_2O_3 : Eu^{3+} , Tb^{3+} , T Selvalakshmi, AC Bose, AIP Conference Proceedings 1731 (1)
59. Effect of reaction atmosphere on structural and optical properties of hexagonal molybdenum oxide (h-MoO_3), VA Doss, A Chithambararaj, AC Bose, AIP Conference Proceedings 1731 (1), 050049
60. Photoluminescence and energy transfer process in Gd_2O_3 : Eu^{3+} , Tb^{3+} , T Selvalakshmi, AC Bose, AIP Conference Proceedings 1731 (1), 050013
61. Structural evolution of tetragonal MnO_2 and its electrochemical behavior, PM Shafi, AC Bose, AIP Conference Proceedings 1731 (1), 050038
62. Relaxation and conduction mechanism of Dy^{3+} substituted $\text{SrBi}_2\text{Ta}_2\text{O}_9$ ceramics, V Senthil, T Badapanda, AC Bose, S Panigrahi, Journal of Materials Science: Materials in Electronics 27 (5), 4760-4770
63. Hydrothermally Synthesized h-MoO_3 and α - MoO_3 Nanocrystals: New Findings on Crystal-Structure-Dependent Charge Transport, A Chithambararaj, N Rajeswari Yogamalar, AC Bose, Crystal Growth & Design 16 (4), 1984-1995

64. Study of the temperature dependent transport properties in nanocrystalline lithium lanthanum titanate for lithium ion batteries. KP Abhilash, PC Selvin, B Nalini, K Somasundaram, P Sivaraj, AC Bose, Journal of Physics and Chemistry of Solids 91, 114-121
65. Enhancement of dielectric and ferroelectric properties of dysprosium substituted $\text{SrBi}_2\text{Ta}_2\text{O}_9$ ceramics, V Senthil, T Badapanda, AC Bose, S Panigrahi, Journal of Materials Science: Materials in Electronics 27 (2), 1602-1608
66. Band alignment and depletion zone at ZnO/CdS and ZnO/CdSe hetero-structures for temperature independent ammonia vapor sensing, NR Yogamalar, K Sadhanandham, AC Bose, R Jayavel, Physical Chemistry Chemical Physics 18 (47), 32057-32071
67. High-efficiency new visible light-driven $\text{Ag}_2\text{MoO}_4\text{-Ag}_3\text{PO}_4$ composite photocatalyst towards degradation of industrial dyes, R Dhanabal, S Velmathi, AC Bose, Catalysis Science & Technology 6 (24), 8449-8463
68. PVDF mixed matrix nano-filtration membranes integrated with 1D-PANI/ TiO_2 NFs for oil–water emulsion separation, K Venkatesh, G Arthanareeswaran, AC Bose, RSC advances 6 (23), 18899-18908