

Paper Publications in the reputed Journals

2024-2025

1. J. Roselin Jeyaseeli , P. Jaikumar , T.C. Sabari Girisun , A. Philominal, Third order nonlinear optical properties of undoped and Bi-doped ZnO-ZrO₂ nanocomposites, Journal of Molecular Structure, **4.0**, 1321 (2024) 139918.
2. S. Arockia Anushya, A. Philominal, Efficient photocatalytic degradation of crystal violet using quaternized reduced graphene oxide nanocomposite, Diamond and Related Materials, **4.1**, 149 (2024) 111592.
3. J. Roselin Jeyaseeli , A. Philominal, P. Jaikumar , Varuna Kumarave , Senthil Kumar Sadasivam, Band Gap Tuning of Ce – Doping in Zn:Zr System for Enhanced Visible Light Driven Photocatalysis , Band gap tuning of Ce doping in Zn:Zr system for enhanced visible light-driven photocatalysis. J Mater Sci: Mater Electron 35, (2024) 2016, 2.8, SCI indexed journal.

2023-2024

1. J. Hingies Monisha, **V. Vasumathi**, Prabal K Maiti, Gold Nanoparticles Aggregation on Graphene Using Reactive Force Field: A Molecular Dynamic Study, *Journal of Chemical Physics*, 159, 15, 154702, October 2023, 0021-9606, **4.304**, SCI indexed journal.
2. D. Mary Deena, A. Dhanusha, T.C. Sabari Girisun, **A. Philominal**, Optical limiting behavior of metal (Mn, W) oxides decorated nitrogen-doped reduced graphene oxide nanocomposites stimulated by two-photon absorption, *Optical Materials*, 139 (2023) 113776, **3.754**, SCI indexed journal.
3. D. Mary Deena, Prabhu Subramani, Vilwanathan Ravikumar, **A. Philominal** Anticancer activity of manganese dioxide/reduced graphene oxide nanocomposites against A549 human lung adenocarcinoma cell line, *Nano-Structures & Nano-Objects*, 35 (2023) 101032, **5.914**, SCI indexed journal.
4. D. Mary Deena, S. Arockia Anushya, A. Dhanusha, T. C. Sabari Girisun, **A. Philominal**, Peculiar nonlinear optical absorption and optical limiting behaviors of bismuth-based binary and ternary nanostructures, *Diamond and Related Materials*, 141 (2024) 110656, **4.1**, SCI indexed journal.
5. D. Reshmi Agnes Preethi, T. C. Sabari Girisun, **A. Philominal**, Excited state absorption induced optical limiting behavior of pure, single, and co-doped copper oxide nanoparticles, *Optical Materials*, 148 (2024) 114884, **3.754**, SCI indexed journal.
6. **J. Emima Jeronsia**, Impact of Different Weight Fractions of Zinc Oxide Nanoparticles on Polyaniline/Zinc Oxide Nanocomposites for Thermoelectric Applications *Russian Physics Journal*, Volume 67, pages 41–46, (2024), **0.6**, SCI Indexed Journal.

7. **S. Babiyana**, Spectroscopic characterizations, RDG and Docking study of 2-[3-(4-chlorophenyl)-5-(4-(propane-2-yl) phenyl)-4, 5-dihydro-1H pyrozol-1-yl]-4-(4-fluorophenyl)-1, 3-thiazole, *Zeitschrift für Physikalische Chemie*, **2.408**, **Scopus** March 25, 2024

2022-2023

1. **K Bansura Banu**, Fabrication, Characterization, DFT interpretations, and biological applications of 1-morpholin-4-ylmethyl-pyrrole-2, 5-dione European Chemical Bulletin, 12, 13803 – 13812, 2023, **3.71**, Scopus.
2. Tarun Maity, Abhishek Aggarwal, Subhadeep Dasgupta, **V. Vasumathi**, Ashish Kumar, Singha Deb, Sk Musharaf Ali, and Prabal K. Maiti, Efficient Removal of Uranyl Ions Using PAMAM Dendrimer: Simulation and Experiment Langmuir, 39, 6794-6802, 2023, **4.331**, Scopus.
3. D. Reshmi Agnes Preethi, and **A. Philominal**, Antimicrobial and antitumor activities of pure and silver doped copper oxide nanoparticles using *Moringa Oleifera* leaf extract on struvite urinary stones, Applied Surface Science Advances 12 (2022) 100351, **6.2**, Scopus.
4. S. Arockia Anushya, S. Prabhu, Vilwanathan Ravikumar, **A. Philominal**, A. Screening of Anti-Cancer Activity of rGO-Bi₂O₃ Nanocomposite on Apoptosis in A549 and NCI-H460 Lung Cancer Cell Lines, Journal of Inorganic and Organometallic Polymers and Materials, Springer Nature, 2023, **3.518**, Scopus.

2021-2022

1. D. Reshmi Agnes Preethi, and **A. Philominal**, Green Synthesis of Pure and Silver Doped Copper Oxide Nanoparticles using *Moringa Oleifera Leaf Extract*, *Materials Letters: X* 13 (2022) 100122, 1.78, Scopus.
2. D. Reshmi Agnes Preethi, S. Prabhu, Vilwanathan Ravikumar, and **A. Philominal**, Anticancer activity of pure and silver doped copper oxide nanoparticles against A549 cell line, *Materials Today Communications* 33 (2022) 104462. 3.662, Scopus.
3. **J. Emima Jeronsia**, Elucidating the structural, anticancer, and antibacterial traits of Punica granatum peel extracts-mediated Ag and Ag/GO nanocomposites, *Microscopy Research and Technique* 85, 44-55, 2021 Impact factor: 2.893, Scopus.
4. **I. Arockia Mary**, Lithium ion conducting biopolymer membrane based on Kappa carrageenan with LiCl and its application to electrochemical devices. *Materials today, Proceedings*, 2021, ISSN: 2214-7853, Web of Science.
5. **I. Arockia Mary**, Lithium ion conducting biopolymer membrane based on K-carrageenan with LiNO₃ Ionics, 26, 4311-4326, 2021, **2.961**, Web of Science.
6. S. Kunalan, Kalyan Dey, Projesh Kumar Roy, **V. Vasumathi**, Prabal K. Maiti, K.Palanivelu, N. Jayaraman, Efficient Facilitated Transport PETIM Dendrimer-PmeyVA-PEG/PTFE Composite Flat-Bed Membranes for Selective Removal of CO₂, *Journal of Membrane Science*, 622, 119007, 2021, **10.53**, Web of Science.
7. Mounika Gosika, **V. Vasumathi**, M. Natália D. S. Cordeiro, and Prabal K. Maiti, Covalent functionalization of graphene with PAMAM dendrimer and its implications on

graphene's dispersion and cytotoxicity ACS Applied Polymer Materials, 2, 3587, 2021
4.855, Web of Science.

8. **K Bansura Banu**, Photocatalytic application of graphene oxide–ZnO nanocomposite for the reduction of methylene blue dye, Functional composites, 3, 045006, **2.81**, Web of Science.

2020-2021

1. **K. Bansura Banu**, l-Alanine adsorbed aluminum doped ZnO structures for nanocomposites with tailored photovoltaic properties: a DFT study Functional Composites and Structures 2, 035006, 2021 ISSN 2631-6331, 2.81, Scopus Indexed Journal.
2. **K. Bansura Banu**, Theoretical studies on photocatalytic application of GO-ZnO nanocomposite for the reduction of methylene blue dye, Materials today proceedings, Volume 44, Part 6, 2021, Pages 4451-4456, 2.59, Scopus Indexed Journal.
3. **K. Bansura Banu**, A Combined Experimental and first principle studies on (ZnO)₁₂ nanocluster, Indian Journal of Pure & Applied Physics, 59, 01, 2021, 0.7, Scopus Indexed Journal.
4. **S. Babiyana**, Analysis of spectroscopic, quantum chemical calculations, molecular docking, RDG, ELF, anticancer and antimicrobial activity studies on bioactive molecule 2-[3-(4-Chlorophenyl)-5-(4-(propane-2-yl) phenyl)-4,5-dihydro-1H-pyrazol-1-yl]-4-(4-methoxyphenyl)-1,3-thiazol Chemical Data Collections, 30, 100585, 2021, 0.217, Web of Science.
5. **S. Babiyana**, FT-IR and FT-Raman investigation, quantum chemical studies, molecular docking study and antimicrobial activity studies on novel bioactive drug of 1-(2,4-Dichlorobenzyl)-3-[2-(3-(4-chlorophenyl)-5-(4-(propan-2-yl)phenyl)-4,5-dihydro-1H-pyrazol-1-yl)-4-oxo-4,5-dihydro-1,3-thiazol-5(4H)-ylidene]-2,3-dihydro-1H-indol-2-one, **Journal of Molecular Structure**, 1215(2020) 128244, **3.196**, Elsevier.

2019-2020

1. **A. Maria Bernadette Leena**, Room temperature ferromagnetism in Cobalt doped CdS quantum dots, Adalya Journal, 9, 1153-1160, 2020, 5.3, UGC care group II journal
2. **A. Maria Bernadette Leena**, Room Temperature Ferromagnetism in Fe Doped CdS and Cobalt Doped CdS Nano Particles, Materials Today Proceedings, Volume 8, Part 1, 2019, Pages 362-370. Elsevier
3. **A. Maria Bernadette Leena**, Photocatalytic Activity of Pure and Nickel Doped Cadmium Sulphide Nanoparticles Synthesized via Co-Precipitation Method, Journal of Nanoscience and Technology, Volume 5, Issue 3, 2019 Pages 710-712.
4. **A. Maria Bernadette Leena**, Magnetic, structural and optical properties of Nickel doped Zinc sulphide nanoparticles, International Journal of Scientific Research in Physics and Applied Sciences , Vol.7, Issue.3, pp.17-21, June (2019)
5. **Mary Clementia. I**, Raji. K, Synthesis and characterization of pure zinc oxide semiconductor for the applications of optoelectronic devices, A Journal of Composition Theory, XII, 1024-1034, 2020, UGC.
6. **Mary Clementia. I**, Raji. K., Antimicrobial mechanism of zinc oxide semiconductor in presence of cationic surfactant against pathogenic bacteria for pharmaceutical applications, A Journal of Composition Theory, XII, 996-1001, 2020, UGC.
7. **A. Juliat Josephine**, Template-Free and Cost-Effective Nebulizer Spray Coated BiVO₄ Nanostructured Thin Films for Photocatalytic Applications, Applied Physics A, 126, 2, 1 – 13, 2020, **2.983**, Web of Science.

8. **A. Juliat Josephine**, Effect of pH on Visible-Light-Driven Photocatalytic Degradation of Facile Synthesized Bismuth Vanadate Nanoparticles Materials Research Express, 7, 1, 015036, 2020, **2.025**, Scopus.
9. **A. Juliat Josephine**, Influence of precursor aging time period on physical and photocatalytic properties of nebulizer spray coated BiVO₄ thin films, Solid State Sciences, 92, 36 – 45, 2019, **3.752**, Scopus.
10. **A. Jennifer Christy**, Effect of pH on Visible-Light-Driven Photocatalytic Degradation of Facile Synthesized Bismuth Vanadate Nanoparticles Materials Research Express, 7, 1, 015036, 2020, **2.025**, Scopus.
11. **K. Bansura Banu**, The adsorption mechanism, structural and electronic properties of Pyrrole adsorbed ZnO nanoclusters in the field of photovoltaic cells by density functional theory, Indian Journal of pure and applied physics, 57(10), 713-724, 2019, **0.846**, Web of Science.
12. **K. Bansura Banu**, A DFT Study on Functionalization of Acrolein on Ni-doped (ZnO)₆ nanocluster in dye-sensitized solar cells Heliyon, 5(12), e02903, 2019, **3.776**, Web of Science.
13. **I. Arockia Mary**, Lithium ion conducting membrane based on K-carrageenan complexed with lithium bromide and its electrochemical applications, Ionics, 25,5839–5855, 2019, **2.961**, Web of Science.
14. **S. Babiyana**, Molecular docking and quantum chemical calculations of 4-methoxy-{2-[3-(4-chlorophenyl)-5-(4-(propane-2-yl) phenyl)-4, 5-dihydro-1*h*-pyrazol-1-yl]- 1, 3-thiazol-4-yl} phenol, **Journal of Molecular Structure**, 1203 (2020) 127452, **3.196**, Elsevier.

2018-2019

1. **I. Arockia Mary, A. Inigomary Rita, K. Maria Eugenie Pia**, Study of acoustical and thermodynamical properties of aqueous Ammonium Dihydrogen Orthophosphate, *Materials Today: Proceedings*, 8, 379-385, 2019, ISSN: 2214-7853, Web of Science.
2. **I. Arockia Mary, A. Inigomary Rita, K. Maria Eugenie Pia**, Study of acoustical and thermodynamical properties of aqueous Ammonium Dihydrogen Orthophosphate, *Materials Today: Proceedings*, 8, 379-385, 2019, ISSN: 2214-7853, Web of Science.
3. **J. Emima Jeronsia**, Camellia Sinensis Leaf Extract Mediated Synthesis of Copper Oxide Nanostructures for Potential Biomedical Applications, *Materials Today: Proceedings*, 8, 214-222, 2019, ISSN: 2214-7853, Web of Science.
4. **K. Bansura Banu**, Enhancing the light harvesting efficiency, open circuit voltage and stability of Molybdenum doped (ZnO)₆ nanocluster in dye-sensitized solar cells: A DFT Study *Oriental Journal of Chemistry*, 34,5, 2018, **0.5**, Web of Science.
5. **A. Juliat Josephine**, Substrate Temperature Induced (020) Growth Facets of Nebulizer Sprayed BiVO₄ Thin Films for Effective Photo degradation of Rhodamine B, *Crystal Research and Technology*, 54, 1, 2018, **1.5**, Scopus.