

Velammal College of Engineering and Technology, Madurai – 625 009

(Autonomous)

Journal/Conference Publication Details

Department of Physics

Academic Year 2024-2025

S. No	Name of the Journal/Conference	Title of the Paper	Name of the Author	SCI/SCOPUS/WoS/Google Scholar	Date of Publication
1	Optical and Quantum Electronics	Crystallographic, structural, and electrical characteristics of a new molybdate crystalline phase within the NaNbO_3 - BaNb_2O_6 - MoO_3 system	Dr. R. Rajesh	Scopus	20/07/2024
2	European Journal of Inorganic Chemistry	Magnetocaloric Analysis of Novel Polycrystalline $\text{Sm}_{0.5}\text{Sr}_{0.4}\text{Nd}_{0.1}\text{Mn}_{1-x}\text{Ti}_x\text{O}_3$ ($0 \leq x \leq 0.2$) that Correlates Structural and Magnetic Properties	Dr. R. Rajesh	Scopus	11/09/2024
3	Journal of Materials Science: Materials in Electronics	Effect of Ca and Nb co-doping on optical and magnetoelectric properties of polycrystalline BiFeO_3	Dr. R. Rajesh	Scopus	20/09/2024
4	Discover Applied Sciences	Electron density analysis of $\text{Bi}_{0.95}\text{Ca}_{0.05}\text{Fe}_{1-x}\text{Nb}_x\text{O}_3$ ($x=0.02, 0.04, 0.06$) samples that correlate microstructural, optical and magnetic properties	Dr. R. Rajesh	Scopus	12/04/2025
5	African Journal of Biological Sciences	Synthesis and characterization of WO_3 -few layer graphene nanocomposite for	Mr. V. Prasanna Venkatesh	Scopus	25/08/2024

		antibacterial and anticancer applications			
6	Solid State Sciences	Synthesis and characterization of WO ₃ -GO nanocomposite for hydrogen storage, electrochemical, antibacterial and anticancer applications	Mr. V. Prasanna Venkatesh	Scopus	19/11/2024
7	Next Materials	Investigation of MnO ₂ /MWCNTs nanocomposite for various applications	Mr. V. Prasanna Venkatesh	Scopus	04/01/2025
8	Chemical Physics Letters	Hydrothermal synthesis of NiCo ₂ O ₄ Nanorods: A promising electrode material for supercapacitors with enhanced capacitance and stability	Mr. V. Prasanna Venkatesh	Scopus	13/03/2025
9	Solid State Communications	Investigation of antibacterial and anticancer activities of WO ₃ nanostructures	Mr. V. Prasanna Venkatesh	Scopus	23/04/2025
10	Inorganic Chemistry Communications	Phytofabrication of MgO NPs wrapped on exfoliated g-C ₃ N ₄ for anti-oxidant, antimicrobial degradation of toxic contaminants in water bodies	Dr. D. Madhan	Scopus	29/10/2024
11	Ionics	CoAl-LDH incorporated g-C ₃ N ₄ nanosheets: a dual-function photocatalyst for hydrogen production and dye degradation	Dr. D. Madhan	Scopus	10/05/2025
12	Applied Physics A	Boosting of bio bacterial inactivation and properties of	Dr. B.K. Balachandar	Scopus	

		morphology tuned carbon anchored ZnO films			22/05/2025
13	Inorganic Chemistry Communications	Photochemical synthesis of gold nanoprisms decorated reduced graphene oxide for electrochemical sensing of bovine serum albumin	Dr. R. Jothilakshmi	Scopus	12/12/2024
14	Eksplorium-Buletin Pusat Teknologi Bahan Galian Nuklir	Development of Smart Materials with Tunable Mechanical Properties for Wearable Devices	Dr. R. Jothilakshmi	WoS	01/05/2025
15	Results in Engineering	Green synthesis of ultrafine zinc oxide nanoparticles for photocatalytic degradation of methylene blue dye: Optimization and kinetic studies	Dr. R. Jothilakshmi	Scopus	17/03/2025
16	International Journal of Quantum Chemistry	DFT Computation, Spectroscopic, Hirshfeld Surface, Docking and Topological Analysis on 2,2,5-Trimethyl-1,3-Dioxane-5-carboxylic Acid as Potent Anti-Cancer Agent	Dr. S. Saranya	Scopus	29/10/2024

Academic Year 2023-2024

S. No	Name of the Journal/ Conference	Title of the Paper	Name of the Author	SCI/SCOPUS/ WoS/Google Scholar	Date of Publication
1	Phase Transitions	Octahedra tilt influencing physical properties of	Dr. R. Rajesh	Scopus	06/06/2023

		polycrystalline $\text{Bi}_{0.9}\text{Co}_{0.1}\text{FeO}_3$ ceramics			
2	Applied Physics A	Molecular design of BiFeO_3 via novel substitution by zirconium and erbium for tuning the multifunctional properties and band structure calculations	Dr. R. Rajesh	Scopus	12/07/2023
3	Journal of Superconductivity and Novel Magnetism	Tuning the Multiferroism and Magnetoelectric coupling of Bismuth Ferrite via Substitutional Defects by Er and Transition Metals (Nb/Zr/Y)	Dr. R. Rajesh	Scopus	29/08/2023
4	Physica B: Condensed Matter	Facile dip-coating assisted preparation of reduced graphene oxide-copper oxide nanocomposite thin films on aluminum substrate for solar selective absorber	Mr. V. Prasanna Venkatesh, Dr. B.K.Balachandar	Scopus	15/11/2023
5	Macromolecular theory and Simulations	A Theoretical Investigation of the Electrical and Dielectric Properties of	Mr. V. Prasanna Venkatesh	Scopus	08/02/2024

		PDMS-CNT			
6	Journal of Materials Science: Materials in Electronics	Photocatalytic activity of Ag doped CuFe ₂ O ₄ nanoparticles supported on reduced graphene oxide for the degradation of organic dyes under visible light irradiation	Dr. D. Mathan	Scopus	21/02/2024
7	Diamond and Related Materials	“Fabrication of NiFe ₂ O ₄ nanoparticles loaded on activated carbon as novel composites for high efficient ultra violet-light photocatalysis for degradation of aqueous organic pollutants	Dr. D. Mathan	Scopus	04/03/2024
8	Chemical Physics Letters	Vitexnegundo and Euphorbia milii leaf extracts aided green synthesis of copper oxide nanostructures for effective inactivation of pathogenic bacteria,	Dr. R. Jothilakshmi	Scopus	13/10/2023
9	Results in Chemistry	Cow dung extract as a low-cost and natural sensitizer for zinc oxide			

		nanoparticles photoanode based dye-sensitized solar cell: A novel initiative for waste to energy conversion	Dr. R. Jothilakshmi	Scopus	06/12/2023
10	Results in Chemistry	Sunlight assisted degradation of methylene blue dye by zinc oxide nanoparticles green synthesized using Vitexnegundo plant leaf extract	Dr. R. Jothilakshmi	Scopus	07/01/2024

Academic Year 2022-2023

S. No	Name of the Journal/Conference	Title of the Paper	Name of the Author	SCI/SCOPUS/WoS/Google Scholar	Date of Publication
1	Microscopy Research and Technique	Strain mediated electrical and optical properties of novel lead-free CuFe_2O_4 - KNbO_3 nanocomposite solid solutions: a combined experimental and DFT studies	Dr. R. Rajesh	Scopus	07/06/2022
2	Crystals	Rietveld Refinement, Structural Characterization, and Methylene Blue Adsorption	Dr. R. Rajesh	Scopus	23/11/2022

		of the New Compound $\text{Ba}_{0.54}\text{Na}_{0.46}\text{Nb}_{1.2}\text{W}_{0.37}\text{O}$			
3	International Journal of Applied Ceramic Technology	Oxygen octahedra distortion-induced multiferroic properties of Er and Zr co-doped BiFeO_3 nanoparticles	Dr. R. Rajesh	Scopus	17/12/2022
4	Crystals	Crystallographic, Structural, and Electrical Properties of W^{6+} Substituted with Mo^{6+} in Crystalline Phases such as TTB Structure	Dr. R. Rajesh	Scopus	11/03/2023
5	Portugaliae Electrochimica Acta.	Structure, Optics, Visible Light and Photocatalytic Activity of Pure and Pd Doped Tungsten Trioxide Nanoparticles Synthesized by the Microwave Irradiation Method	Dr. D. Mathan	Scopus	20/01/2023

Academic Year 2021-2022

S. No	Name of the Journal/ Conference	Title of the Paper	Name of the Author	SCI/SCOPUS/ WoS/Google Scholar	Date of Publication
1	Journal of the Australian Ceramic Society	Enhanced energy storage performance			

		and magnetocapacitance effect of polycrystalline BiFeO ₃ ceramics	Dr. R. Rajesh	Scopus	07/02/2022
2	International Journal of Materials Research (De Gruyter)	Electron density distribution influencing the electrical and magnetic properties of polycrystalline Bi _{0.9} Sm _{0.1} FeO ₃ ceramic	Dr. R. Rajesh	Scopus	01/03/2022
3	Emergent Materials	Enhanced magnetoelectric effect in heterogeneous multiferroic (x)CuFe ₂ O ₄ – (1-x)KNbO ₃ nanocomposite	Dr. R. Rajesh	Scopus	12/04/2022
4	Ferroelectrics	Energy storage performance of polycrystalline Bi _{0.85} Ho _{0.05} Sm _{0.1} FeO ₃ ceramics	Dr. R. Rajesh	Scopus	25/05/2022

Academic Year 2020-2021

S. No	Name of the Journal/Conference	Title of the Paper	Name of the Author	SCI/SCOPUS/WoS/Google Scholar	Date of Publication
1	Journal of Alloys and Compounds	Effect of Mn doping on magnetodielectric properties of polycrystalline BiFeO ₃ ceramics	Dr. R. Rajesh	Scopus	15/02/2021
2	Ferroelectrics	Electron density distribution and magnetic ordering of polycrystalline	Dr. R. Rajesh	Scopus	07/04/2021

		Bi _{0.6} Sr _{0.4} FeO ₃ cer amics			
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