

Department of Physics

Journal Publications

2025-26							
Author(s) Name	Title of the Paper	Title of the Journal	Publications Details			Online link/DOI	Indexing
			Vol/Issue	Page No.	Year		
Jyothi Gupta, V.K. Gupta	Progress in WO ₃ -Based Hybrid Photodetector-Hydrogen Sensors for Multifunctional Sensing Applications: A Review	Journal of Electronic Materials		1-32	2026	https://doi.org/10.1007/s11664-026-12954-3	Scopus Q2
BR Rajanna, Venkatesh Sadhana, T Veda, Nageswara Reddy Gosu, GV Ashok Reddy, Kilari Naveen Kumar, Harisha G	Anti-Corrosive Behavior of Nitro-Engineered 1, 3, 4-Thiadiazoles for Mild Steel C-1030: A Comprehensive Potentiodynamic Study	Materials and Corrosion			2026	https://doi.org/10.1002/maco.70217 Digital Object Identifier (DOI)	Scopus Q2

BN Shiva Kumar, C Devaraja, GV Ashok Reddy, RS Gedam	Implications of Pr ³⁺ ions on structural, opto-thermal features of alkali zinc boro-tellurite glass systems for optical and laser technology applications	Scientific Reports	16	17429	2026	https://doi.org/10.1038/s41598-026-48568-2	Scopus Q1
Vijay kumar TG, K Munirathnam, V Vadhana Sharon, Ashok Reddy GV, Kilari Naveen Kumar, V Manjunath	Tuning of Photoluminescence in SrCeO ₃ Perovskites Through Doping of Mn Ions to Achieve Suitable Emission: Plant Growth Lighting Application	Crystal Research and Technology	61/7	e70129	2026	https://doi.org/10.1002/crat.70129	Scopus Q2
HC Madhusudhana, C Manjunath, N Nallamuthu, R Lavanya, SR Yashodha, HS Yogananda, BC Manjunatha, GV Ashok Reddy	Enhanced dielectric and supercapacitor capacitor performance of 7 mol% Zn-doped ZrO ₂ nanoparticles: A comparative correlation based on experimental observations	Next Materials	12	102412		https://doi.org/10.1016/j.nxmat.2026.102412	Scopus Q1
Ashith V K, Sahana Nagappa Moger, Antony Prakash Monteiro	Structural, Optical, and Electrical Properties of ZnS Thin Films: Role of	Applied Research	5/4	e70132	2026	https://doi.org/10.1002/appl.70132	Scopus Q2

	Cobalt Doping						
Pallavi S, Ashith VK, Sahana Nagappa Moger	Tailoring the optoelectronic properties of MgO thin films by chemical bath deposition technique	Applied Physics A	132/8	749	2026	https://doi.org/10.1007/s00339-026-09942-z	Scopus Q2
Basanti Mohanty, D. Alagarasan, Gobalakrishnan S, R. Ganesane and R. Naik	Enhanced photo-responsivity and detectivity by Ag ₁₀ Se ₄₀ S ₃₅ Sb ₁₅ thin films for visible light photodetectors	RSC Advances			2026	https://doi.org/10.1039/d6ra06227j	Scopus Q1
N Pawan Nayak, MJ Nagesh Khadri, Pawan Kumar, Raghavendra Bairy, H Vijeth, Kilari Naveen Kumar, P Kiran Kumar, U Ajaikrishnan, Swapna S Nai	Engineering surface architecture and structure in Ni-and Mn-doped Co ₃ O ₄ thin films for high-performance pseudocapacitive energy storage	International Journal of Hydrogen Energy	235	155227	2026	https://doi.org/10.1016/j.ijhydne.2026.155227	Scopus Q1
Prashantha Murahari, Devarajan Alagarasan, S. S. Hegde, Ramakanta Naik, Mohamed Benghanem, Mohd. Shkir & Shiva Prasad Kollur	Influence of Sb-doping on structural, optical and UV photodetector properties of CdS thin films	Scientific Reports	16	1	2026	https://doi.org/10.1038/s41598-026-58741-2	Scopus Q1
T. K. Ganeshprasad, Y. Srilatha, S. Suresh, G. V. Ashok Reddy, C. G. Poojitha & C. S. Kaliprasad	Seasonal Variations of Radon in Borewell and Pond Water	Radiochemistry	68	62-68	2026	DOI: 10.1134/S1066362226010078	Scopus Q3

	Samples of Chikkaballapura District, Karnataka, India						
D Vinay, C Devaraja, Utpal Deka, GV Ashok Reddy	Elucidation of physical, structural, optical and luminescence properties of Cr2O3-doped B2O3-TeO2-Li2O-SrO glasses for deep red-light and NIR luminescence applications	<i>Scientific Reports</i>			2026	https://doi.org/10.1038/s41598-026-58438-6	Scopus Q1
B. Mohanty, P.C. Kumar, D. Alagarasan, C. Sripan ,P. Pradhan, R. Naik	Unveiling Se/Ag2S Heterostructure thin films under annealing for Photoresponse and optoelectronic applications	Materials Science and Engineering B	330	119538	2026	https://doi.org/10.1016/j.mseb.2026.119538	Scopus
D. Kavyashreea, Savitha B. Hosurb, H. J. Yashwanthc,*, N.N. Anushac, M. Madhukara Naikd, RAnjukumarie, D. V. Sunithaf, Hitha D. Shettyc	Eco-friendly synthesis of NiMoO ₄ nanoparticles for efficient photocatalytic dye degradation	polyhydron			2026	https://doi.org/10.1016/j.poly.2026.118225	scopus
HJ Yashwanth, M Madhukara Naik, MS Dileep, KV Brungesh, Sana Ben Moussa, Abdullah Yahya Abdullah Alzahrani, KN Narasimha Murthy	<u>Synergistic Effect of Borophene Quantum Dots scaffolded ZnO Nanorods for Efficient Photoelectrochemical water splitting</u>	Surfaces and Interfaces		109343	2026	https://doi.org/10.1016/j.surfin.2026.109343	Q1

BC Manjunatha, Ashok Reddy GV, HS Yoganand, Habibuddin Shaik, SR Yashoda, Naveen Kumar, Abdul Sattar Sheik, A Prabhavathi	Investigation of Structural and Electrical properties of cobalt-doped calcium nano ferrites suitable for chemical and gas sensor applications	<u>Journal of Materials Science: Materials in Electronics</u>	37	732	2026	Published	Q2
Prashantha Murahari, Devarajan Alagarasan, S.S. Hegde, Ramakanta Naik, K. Deva Arun Kumar, Mohamed Benghanem, Mohd. Shkir, Shiva Prasad Kollur	Tailoring the Structural, Morphological and Optical Properties of Lead Sulfide Thin Films Through Antimony Doping for Enhanced UV Photodetector Performance	Vacuum	251	115415	2026	https://doi.org/10.1016/j.vacuum.2026.115415	Q2
S. Mohanty, P.C. Kumar, D. Alagarasan, C. Sripan, R. Naik,	Time-Dependent Laser Irradiation-Induced Enhanced Photo detectivity, Responsivity and Optoelectronic Properties in Ag ₂ S/In ₂ Se ₃ Heterostructure for Visible Light Photodetector	Optics and Laser Technology	202	115409	2026	https://doi.org/10.1016/j.optlastec.2026.115409	Q1
L. Mahapatra, D. Kar, B. Mohanty, P.		RSC Advances	16	21925	2026	DOI: 10.1039/D6RA01732K	Q2

C. Kumar, D. Alagarasan, C.Sripan, R. Swain, J.Kumar, S. Brahma and R. Naik,							
BN Shiva Kumar, C Devaraja, GV Ashok Reddy, RS Gedam	Implications of Pr ³⁺ ions on structural, opto-thermal features of alkali zinc boro-tellurite glass systems for optical and laser technology applications	Scientific Reports			2026	https://doi.org/10.1038/s41598-026-48568-2	Q1
Karri Aswini, Chander Amgoth Pawar, Narbayev Azamat Baxramovich, V Madhu Mohan, K Munirathnam, V Manjunath, GV Ashok Reddy, Venkata Krishna Reddy Bommireddy, Koppala Siva Kumar, Vasudeva Reddy Minnam Reddy, Jagadeesh Kumar Alagarasan	Enhanced Ni/Cu/n-GaN Schottky junctions via Fe ₂ O ₃ :Bi ₂ O ₃ nanocomposite interfacial engineering	Journal of Materials Science: Materials in Electronics	37/12	960	2026	https://doi.org/10.1007/s10854-026-17204-0	Q2
N. Padmavathy, M. Vinuth, M. Madhukara Naik, H.J. Yashwanth, K.H. Hemakumar	Microwave-Engineered TiO ₂ /NiTiO ₃ Heterojunctions for Superior Solar Photocatalytic Remediation of Azo Dyes	Chemical Papers	3		2026	accepted	Q2
H J Yashwanth	Nonlinear optical performance of Sr ²⁺ -doped bithiourea-urea crystals via	Journal of Materials Science: Materials in Electronics	37	432	2026	doi.org/10.1007/s10854-026-16831-x	Scopus (Q2)

	controlled gamma irradiation						
H J Yashwanth	Borophene quantum dots as fluorescent nanosensors for toxic Hg ²⁺ metal ion detection	Microchemical Journal		117409	2026	https://doi.org/10.1016/j.microc.2026.117409	Scopus (Q1)
D. Alagarasan, S.S. Hegde, R. Naik, B. Shanmugavelu, Kumar Haunsbhavid, Hitha D. Shetty, K. Deva Arun Kumar, Anto Jefferyf, Mohamed Benghanem, I.M. Ashraf and Mohd Shkir	Tailoring Oxygen Vacancies and Morphology in La-Doped CeO ₂ Thin Films for Highly Responsive Gaseous NH ₃ Sensing at Room Temperature	Sensors and Actuators: A. Physical	400	117528	2026	https://doi.org/10.1016/j.sna.2026.117528	Scopus
S. Giri, Prabhukrupa C. Kumar, S. Supriya, D. Alagarasan and R. Naik	Enhanced photodetectivity and responsivity in In ₁₀ Se ₇₀ Te ₁₅ Bi ₅ film by time-dependent laser irradiation for photodetector applications,	RSC Advances	15	46821–46837	2025	DOI: 10.1039/d5ra06469d	Scopus/WoS
Jyothi Gupta, V. K. Gupta	Panorama of hydrothermal synthesis towards profound electrochromism of tungsten oxide	Transition Metal Chemistry	51	1-36	2025	https://doi.org/10.1007/s11243-025-00700-3	Scopus/WoS

	nanostructures: a review						
Sheik Abdul Sattar, Kilari Naveen Kumar, S K Vinay, Kotian Akshata Chandrakant, GV Ashok Reddy, R Imran Jafri, Dhanalakshmi Radhalayam, Nunna Guru Prakash, P Rosaiah, Atif Mossad Ali, Tae Jo Ko	Effect of Chelating Agent Concentration on the Pseudocapacitive Performance of V2O5 Flakes Prepared by the Hydrothermal Process for Supercapacitor Applications	Brazilian Journal of Physics	55/06	1-13	2025	https://doi.org/10.1007/s13538-025-01896-6	Scopus/WoS
Kilari Naveen Kumar, GV Ashok Reddy, M Anantha Sunil, Sheik Abdul Sattar, Dhanalakshmi Radhalayam, K Munirathnam, P Rosaiah, BH Doreswamy, Nunna Guru Prakash, Tae Jo Ko	Tailoring WO3 Thin Films for Smart Windows: Role of Ar/O2 Ratio in Reactive Sputtering on Film Quality and Electrochromism	Physica B: Condensed Matter		417785	2025	https://doi.org/10.1016/j.physb.2025.417785	Scopus/WoS
Laxmikanta, C. Sripan, D. Alagarasan, Prabhu Krupa, Prabhu Dutta, R. Naik	High Photo Detectivity, Responsivity under Time-Dependent Laser-Irradiation of Cu40Sb40S20 Thin Films for Photodetector	Materials Advances			2025	DOI: 10.1039/d5ma00505a	Scopus/WoS

HJ Yashwanth, M Madhukara Naik, Udayabhanu Udayabhanu, M Prathap Kumar, M Vinuth, MS Dileep	<u>Enhanced Photocatalytic Hydrogen Evolution via Nitrogen and Sulfur Co-functionalized Carbon Quantum Dot-Modified ZnO Nanocomposites: Experimental Insights and Mechanistic understanding</u>	Journal of Environmental Chemical Engineering	13/16	119249	2025	https://doi.org/10.1016/j.jece.2025.119249	Scopus/WoS
H.S. Yogananda a, S.R. Yashodha b, R.B. Basavaraj c, N.P. Bhagya d, H.S. Lalithamba e, T.M. Sharanakumar f, C.R. Ravi Kumar g, Hitha D. Shetty h	Fabrication of white light emitting SrMoO ₄ : Dy ³⁺ nanophosphors: Photoluminescence, ultrasensitive detection in electrochemical sensing, photocatalytic and advanced forensic applications		<u>Volume 322</u> , December 2025	118627	2025	https://doi.org/10.1016/j.jmse.2025.118627	Scopus/WoS
Kavitha Kamath, K Naveen Kumar, Smitha G Prabhu, D Alagarasan, Hitha D Shetty, R Naik, Manjunatha K B	Integration of sputtering and solvothermal techniques for the synthesis and assessment of WO ₃ nanostructure for enhanced electrochromic performance		Volume 31	4747-4763	2025	https://doi.org/10.1007/s11581-025-06185-5	Scopus/WoS
Basanti Mohanty, D. Alagarasan, R. Naik	Enhancement in electrical conductivity and hydrophobicity in Ag ₂₅ -xS ₃₅ Se ₄₀ Sb _x thin films by Sb doping for optoelectronic applications		141:08:00	1-19	2025	https://doi.org/10.1007/s00339-025-08736-z	Scopus/WoS
Varun Thottathil Sasi, Sochannao Machinao, Rasmi Thushara,	High-Performance Flexible Thermoelectric Generator via				2025	https://doi.org/10.1021/acs.aem.5c02289	Scopus/WoS

Anoop Anchara Veettil, Devarajan Alagarasan, Vijayeta Pal, Malini Kalappattil Aravindan, Bhuvanesh Srinivasan, Ramesh Karuppannan, and Subash Chandra Bose Rapaka	Rapid Evaporation of Nanocrystalline Bi ₂ Te ₃ Alloy Films					
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