

Department of Physics

Journal and conference publications for the Academic Year 2024-25							
Author(s) Name	Title of the Paper	Title of the Journal	Publications Details			Online link/DOI	Indexing
			Vol/Issue	Page No.	Year		
Prabhukrupa Chinmay Kumar, S. Mohanty, J. Panda, S. Das, D. Alagarasan and R. Naik	Enhanced Photoresponse in Ag ₂ S/In ₂ Se ₃ Heterojunction Based Visible Light Photodetector	RSC Advances	15	14518-14531	2025	10.1039/d5ra00917 k	Scopus
Laxmikanta Mahapatra, Prabhukrupa C. Kumar, Swikruti Supriya, D. Alagarasan C. Sripan, R. Naik	Increase in Photo Sensitivity and Detectivity of Bi/Sb ₃₅ S ₃₅ Se ₃₀ Heterostructure Films upon Time-Dependent Laser Irradiation for Photodetection	Surfaces and Interfaces	72	107091	2025	https://doi.org/10.1016/j.surfin.2025.107091	Scopus
Smitha G Prabhu,	<u>Tuning WO₃ Film</u>	Optik	-	172439	2025	https://doi.org/10.1016/j.optoelec.2025.107091	Scopus

Kilari Naveen Kumar, Kavitha Kamath, N Veera Pandi, S Nithyashree, R Imran Jafri	<u>Properties for Electrochromic Applications via Annealing and Oxygen Pressure</u>					16/j.ijleo.2025.172439	
Prashantha Murahari, Devarajan Alagarasan, S.S. Hegde, Hitha D. Shetty, Shiva Prasad Kollur, Meenakshi Verma, Nasir A. Siddiquie, Aslam Khan	High-Performance Photodetector Applications of Antimony doped Indium Sulfide Thin Films: Preparation, Characterization and Optical Studies	Optical Materials	162	116903	2025	https://doi.org/10.1016/j.optmat.2025.116903	WOS and Scopus
Dayakrishn Purohit, Devarajan Alagarasan, R.Ganesan	Thermal Annealing Induced Changes in Structural and Optical Properties of Sb ₂ Se ₃ Thin Films	Journal of Materials Science: Materials in Electronics	36/11	642	2025	https://doi.org/10.1007/s10854-025-14678-2	WOS and Scopus
Kuri Manjunatha, Devarajan Alagarasan, Shreyasi Das, R. Ganesan, R. Naik, M. Ramudu	SnSe ₂ /TiO ₂ Heterostructures for broadband Photodetection	Optical Materials	164	117060	2025	https://doi.org/10.1016/j.optmat.2025.117060	WOS and Scopus
Laxmikanta Mahapatra, D.	Temperature-depend ent annealing effect	Ceramics International			2025	https://doi.org/10.1016/j.ceramint.2025.0	WOS and Scopus

Alagarasan, C. Sripan, R. Naik	on Ag ₂ S/Sb ₂ S ₂ O ₅ Se ₅ heterostructure films for optoelectronic applications					4.219	
Kuri Manjunatha, Devarajan Alagarasan, Shreyasi Das, R. Ganesan, R. Naik, M. Ramudu,	Influence of Substrate Temperature on SnSe ₂ /TiO ₂ Heterostructure for Photodetector Applications	Sensors and Actuators: A. Physical	391	116641	2025	https://doi.org/10.1016/j.sna.2025.116641	WOS and Scopus
S. Supriya Prabhukrupa C. Kumar, S. Mohanty, J. Panda, S. Das, D. Alagarasan and R. Naik	Enhanced Photoresponse in Ag ₂ S/In ₂ Se ₃ Heterojunction Based Visible Light Photodetector	RSC Advances	15	14518-14531	2025	DOI: 10.1039/d5ra00917k	WOS and Scopus
Kilari Naveen Kumar · Nithya · Ashok Reddy G. V · Sheik Abdul Sattar · Sthuthi A. · Dhanalakshmi Radhalayam4 · M. Anantha Sunil · P. Rosaiah · Nunna Guru Prakash · Musarat Amina	An Impact of Thickness on Structural, Optical, and Electrochromic Properties of WO ₃ Films Deposited by Sputtering for Smart Window Applications	Brazilian Journal of Physics	55	1-13	2025	https://doi.org/10.1007/s13538-025-01765-2	WOS and Scopus

Tae Jo Ko8							
P. Rosaiah · Radhalayam Dhanalakshmi · Kilari Naveen Kumar · Masoom Raza Siddiqui · G. V. Lokeswara Reddy · N. Nanda Kumar Reddy · Liwen Zhang · Guru Prakash Nunna · Tae Jo Ko	Eco-Innovation in Bi-Metallic Oxides: Pioneering Solutions for Dye Contamination and Bacterial Challenges	Journal of Cluster Science	36/3	86	2025	https://doi.org/10.1007/s10876-025-02794-2	WOS and Scopus
M Anantha Sunil, R Sabina, KB Jagannatha, Kilari Naveen Kumar	Chalcogenide p-type absorber layer studies of spray pyrolyzed CuZnS thin films for heterojunction solar cell applications	Optical Materials	164	117036	2025	https://doi.org/10.1016/j.optmat.2025.117036	WOS and Scopus
Sunitha K, R D Pruthvi Raj, M T Swamy, Ranjitha K	ELECTROCHEMICAL AND SURFACE ANALYSIS OF MILD STEEL BY USING NOVEL INHIBITOR OF ACALYPHA WILKESIANA IN HYDROCHLORIC ACID	Rasayan Journal of Chemistry	18(2)	905-912	2025	http://doi.org/10.31788/RJC.2025.1829204	WOS and Scopus

RS Gedam, GV Jagadeesha Gowda, Ashok Reddy G V, Utpal Deka	Investigation of physical, structural, optical, and luminescence properties of nickel oxide doped alkali zinco-borate glasses	Scientific Reports	15/1	7148	2025	https://doi.org/10.1038/s41598-025-91852-w	WOS and Scopus
D Jagadeesh, R Ranjith, Mohamed A Ghanem, K Munirathnam, S Naresh Kumar, Ashok Reddy GV, Gutturu Rajasekhara Reddy, Sang Woo Joo	Enhancing electron transport in copper-based perovskite solar cells using cerium-doped TiO ₂ nanoparticles	Ceramics International	0272-8842		2025	https://doi.org/10.1016/j.ceramint.2025.03.335	WOS and Scopus
D Vinay, Shiva Kumar BN, BP Siddalingeshwara, DR Rangaswamy, Ashok Reddy GV, C Devaraja	Silver oxide embedded alkali zinc boro tellurite glasses: Physical, structural and optical properties for possible optical switching applications	Journal of Molecular Structure	1339	142388	2025	https://doi.org/10.1016/j.molstruc.2025.142388	WOS and Scopus
Jyothi Gupta and V. K Gupta	Versatility of various tungsten oxide nanostructures towards fostering	Transition Metal Chemistry		1-33	2025	https://doi.org/10.1007/s11243-024-00628-0	WOS and Scopus

	electrochromic state of the art: a review						
Shiva Kumar, C Devaraja, RS Gedam, B Eraiah, G Harisha, Ashok Reddy	<u>Implications of silver nitrate doping on the physical, structural, and optical attributes of Na₂O– ZnO– Borate glasses</u>	Journal of Molecular Structure	1325	140985	2025	https://doi.org/10.1016/j.molstruc.2024.140985	WOS and Scopus
P Rosaiah, Charan Kuchi, Radhalayam Dhanalakshmi, Kilari Naveen Kumar, Masoom Raza Siddiqui, Guru Prakash Nunna, Tae Jo Ko	Oleic Acid-Ligated Co _{0.7} doped Ca _{0.3} Fe ₂ O ₄ Nanoparticles: A Synergistic Approach for Enhanced Wastewater Purification and Magnetic Hyperthermia Applications	Physica B: Condensed Matter	705	417079	2025	https://doi.org/10.1016/j.physb.2025.417079	WOS and Scopus
Kilari Naveen Kumar, GV Ashok Reddy, Sheik Abdul	Impact of substrate rotation on optical, and electrochromic	Physica B: Condensed Matter	700	416902	January 2025	https://doi.org/10.1016/j.physb.2025.416902	WOS and Scopus

Sattar, Dhanalakshmi Radhalayam, BH Doreswamy, M Anantha Sunil, P Rosaiah, Nunna Guru Prakash, Musarat Amina, Tae Jo Ko	properties of WO ₃ films prepared magnetron sputtering for electrochromic applications						
S Udachan, SB Kolavekar, NH Ayachit, LA Udachan, S Siddanna, SS Kolkundi, K Naveen Kumar	Influence of deposition pressure on electrical properties of silver nanofilms	Low Temperature Physics	51/1	72-74	January 2025	https://doi.org/10.1063/10.0034648	WOS and Scopus
Kumar Haunsbhavi , Swapnil Barthwal , N.J. Shivaramu , Hitha Shetty , Devarajan Alagarasan, S. AlFaify e , Mohd. Shkir , Prashantha Murahari , Basavaraj Angadi,	Effect of doping (Sn and In) on CdS thin films for ammonia sensing at room temperature,	Sensors and Actuators: A. Physical	376	115567	2024	https://doi.org/10.1016/j.sna.2024.115567	Scopus
P. Priyadarshini, S. Senapati, Prabhukrupa . Kumar, D. Alagarasan,	2D hexagonal CuGaSe ₂ nanosheets by a microwave assisted synthesis method: photoresponse	CrystEngComm	26	3217–3231	2024	https://doi.org/10.1039/d4ce00376d	Scopus

Rojalin Sahu and R. Naik	and optical study for optoelectronic applications						
Devarajan Alagarasan , S.S. Hegde , R. Naik , Prashantha Murahari , Hitha D. Shetty , Fatemah H. Alkallas , Amira Ben Gouider Trabelsi , Farhat S. Khan , S. AlFaify , Mohd. Shkir	Fabrication of Bi-doped In ₂ S ₃ thin films for highly sensitive UV photodetector applications	Journal of Photochemistry & Photobiology, A: Chemistry	454	115697	2024	https://doi.org/10.1016/j.jphotochem.2024.115697	Scopus
Guru Prakash Nunna, Lokeswara Reddy GV, Naveen Kumar, Saikh Mohammad Wabaidur, Munirah D Albaqami, Dadamiah PMD Shaikh, Rosaiah	Comprehensive characterization of binder-free ZnMoO ₄ nanorod arrays on Ni-foam for supercapacitor applications and correlation with electrolyte variation	Journal of Energy Storage	97	112744	2024	https://doi.org/10.1016/j.est.2024.112744	Scopus

Pitcheri, Tae Jo Ko							
K Naveen Kumar, R Naina Karkal, Habibuddin Shaik, R Imran Jafri, Anantha Sunil Maligi, S Darshan Salimath, Omkar Singh, HG Ramya	Deposition and characterization of ZnO thin films on corning glass substrate using Magnetron sputtering	AIP Conference Proceedings	3122		2024	https://doi.org/10.1063/5.0215977	Scopus
Venkatesh Ramasamy, Prashantha Murahari, NR Banapurmath, NH Ayachit, K Ramesh, KS Nivedhitha, Hitha D Shetty, Chandramouli Vadlamudi, Sanjay Krishnappa	<u>Structural,</u> <u>morphological,</u> <u>and</u> <u>photoluminescen</u> <u>ce properties of</u> <u>nitrogen-doped</u> <u>CNTs and</u> <u>graphitic carbon</u> <u>nanostructures</u>	Journal of Materials Science	59	13532-13540	2024	10.1007/s10853-024-09978-7	Scopus

Subhashree Das, Swikruti Supriya, Devarajan Alagarasan, Rajamanickam Ganesan, and Ramakanta Naik	Investigating the temperature-depe ndent Raman spectroscopy of Se/Bi ₂ Te ₃ thin films and its enhanced photoresponse for optoelectronic applications	Journal of Applied Physics	136	65302	2024	10.1063/5.02167 95	Scopus
S. Das, D. Alagarasan, R. Ganesan, R. Naik	Time-Dependent 532 nm Laser Irradiation for Tuning in Optical, Structural, and Surface Wettability Changes of Te/In ₂ Se ₃ Thin Films for Optoelectronic Applications	Surfaces and Interfaces		105029	2024	https://doi.org/10 .1016/j.surfin.20 24.105029	
Kilari Naveen Kumar, G Nithya, G Srinivas Reddy, Dhanalakshmi	<u>Simulation and experimental studies of FTO/WO₃ and FTO/WO₃/Ag</u>	Journal of Materials Science:	35/24	1-14	2024	https://doi.org/10 .1007/s10854-02 4-13396-5	Scopus

Radhalayam, Nunna Guru Prakash, Mohammad Altaf, Tae Jo Ko	<u>thin film structures for electrochromic analysis deposited by DC & RF magnetron sputtering</u>	Materials in Electronics					
Devarajan Alagarasan, S. S. Hegde, B. Shanmugavelu, R. Aadhavan R. Naik, Hitha D Shetty, V. Ganesh, H. Algarni, R. Ganesan	Fabrication of SnSe Nanostructures Visible Light Photodetectors	Inorganic Chemistry and Communications	170	113276	2024	https://doi.org/10.1016/j.inoche.2024.113276	Scopus
Devarajan Alagarasan, S. S. Hegde , R. Naik, Hitha D. Shetty, H.B.Shiva Prasad, Thamraa Alshahrani, S. AlFaify, Mohd. Shkir	Remarkable NH3 gas sensing performance of spray deposited Tb doped WO3 thin films at room temperature	Journal of Photochemistry & Photobiology, A: Chemistry	459	116087	2024	https://doi.org/10.1016/j.jphotochem.2024.116087	Scopus

G Nithya, Kilari Naveen Kumar, Habibuddin Shaik, Sudheer Reddy, Prosenjit Sen, Nunna Guru Prakash, Mushtaq Ahmad Ansari	Simulation and deposition of Tungsten oxide (WO ₃) films using DC sputtering towards UV photodetector for high responsivity	Physica B: Condensed Matter	695	416555	2024	https://doi.org/10.1016/j.physb.2024.416555	Scopus
Alisha Das, Roopa Manjunatha, K Naveen Kumar, Debasis De, Rajib Bandyopadhyay	<u>Fabrication of Surface Functionalized QCM sensor for BTX Detection at Ambient Conditions</u>		-	127081	2024	https://doi.org/10.1016/j.talanta.2024.127081	Scopus
Shivakumar Siddanna, G B Devidas, B S Nischit, K Naveenkumar, S M Hanagodimath	Optical Studies of Silver Oxide Deposited Thin Films Using the RF Sputtering Technique		17/40	4138-4143	2024	https://doi.org/10.17485/IJST/v17i40.1079	WOS

	Book published in the Academic year 2024-25			
Name of the Author	Title of Book	Online Link/Doi	ISBN	Name of the publisher
Dr. Yashwanth H J, Dr. Dileep M S	Introduction to nanotechnology	https://isbn.gov.in/Home/SearchIsbnNew	978-81-19521-46-3	Infinite learning solution llp
Dr. Yashwanth H J, Dr. Dileep M S	Applied physics for Computer science and engineering stream (CSE Stream)	https://isbn.gov.in/Home/SearchIsbnNew	978-81-19521-83-8	Infinite learning solution llp
Dr. Yashwanth H J, Dr. Dileep M S	Applied physics for electrical and electronics engineering stream (EEE Stream)	https://isbn.gov.in/Home/SearchIsbnNew	978-81-19521-66-1	Infinite learning solution llp
Dr. Yashwanth H J, Dr. Dileep M S	Applied physics for Civil engineering stream	https://isbn.gov.in/Home/SearchIsbnNew	978-81-19521-91-3	Infinite learning solution llp
Dr. Yashwanth H J, Dr. Dileep M S	Applied physics for Mechanical engineering stream	https://isbn.gov.in/Home/SearchIsbnNew	978-81-19521-98-2	Infinite learning solution llp

Dr. T Senthilnathan, Dr. Lalrintluanga Sailo, Dr. C Esther eyanthi, Dr. Jyothi Gupta	Nuclear Physics	https://sipinternationalpublishers.com/product-detail.php?PID=MzM3MA==	978-93-6674-421- 6	Scientific International Publishing House
--	-----------------	---	-----------------------	--

Patent granted in the Academic year 2024-25				
Assignee/s Name	Patent Title	Application Number	Date of filing the Application	Status (Filed, published and granted) and its Date
Dr. Ashok Reddy G V	NANO-FERRITE IRON OXIDE BASED DEVICE FOR HYPERTHERMIA TREATMENT	430859-001	18/09/2024	Accepted
Dr. Hitha D Shetty	Composite Material Blended with Sawdust and textile Waste for Enhanced Mechanical and Physical Properties	202441096263	13/12/2024	Published
Dr. Jyothi Gupta	A Heat dissipating Power resistor	6430835	01/04/2025	Published