


FACULTY PROFILE

Name	:	Ms. R. Shalini	
Designation	:	Assistant Professor	
Department	:	Physics	
Educational Qualification	:	M.Sc., <u>Ph.D</u>	
Experience	:	NIL	
Subject of Interest	:	Materials Science	
Publications	:	<p style="text-align: center;">10</p> <ol style="list-style-type: none"> 1. Krishnasamy Ravichandran, Rajagopal Shalini, Muniappan Ayyanar, Pazhanisamy Kavitha, Mazabalo Baneto, Marimuthu Karunakaran, Prabhakaran Kala Praseetha, Katheresan Catherine Siriya Pushpa, Narayanamoorthi Anuradha, Effect of pH of the precursor solution on the photocatalytic and biomedical applications of enzyme coupled ZnO and SnO₂ nanomaterials: A comparative study, <i>J. of Wat. Proc. Engi.</i>, 53 (2023) 103817. https://doi.org/10.1016/j.jwpe.2023.103817. 2. R. Shalini, K. Thirumurugan, K. Ravichandran, P. Kavitha, M. Ayyanar “Morphological modification and charge carrier separation in tin oxide nanomaterials towards improved photocatalytic dye degradation: Enzyme coupling - an effective way”, <i>Mat. Lett.</i>, 318 (2022) 132142. https://doi.org/10.1016/j.matlet.2022.132142. 3. R. Shalini, K. Ravichandran*, P. Kavitha, P. K. Praseetha, R. Mohan, P. Ravikumar “Biocatalyst coupling with Mo doped SnO₂ nanoparticles for efficient photocatalytic dye degradation: An eco-friendly approach for environmental remediation”, <i>Biocata. & Biotransf.</i>, (2023) https://doi.org/10.1080/10242422.2023.2289337. 4. K. Ravichandran*, R. Shalini, P. Kavitha, P. K. Praseetha, S. Sriram, A. Viji, “Earthworm excrete derived-enzyme enriched SnO₂/g-C₃N₄ nanocomposite for near complete decomposition of toxic dye molecules”, <i>Mater. Chem. and Phys.</i> 320 (2024) 129445 https://doi.org/10.1016/j.matchemphys.2024.129445 5. K. Ravichandran, N Siva Jyothi, K. Thirumurugan, N Chidamabaram, N Dineshbabu, R. Shalini, P. K. Praseetha “Synergistic effect of La+Mo addition and optimum pH on the photocatalytic dye decomposition efficiency of spray pyrolyzed ZnO thin films”, <i>Cera. Int.</i>, (2022) https://doi.org/10.1016/j.ceramint.2022.04.022. 6. K. Ravichandran, D S Vasanthi, P. Kavitha, R. Shalini, S. Suvathi, P. K. Praseetha “Cost-Effective and eco-friendly dye degradation by enzyme-powered ZnO nanomaterial: Effect of process temperature”, <i>Bulletin of Mater. Sci.</i>, 45, 40 (2022). https://doi.org/10.1007/s12034-021-02619-8. 7. K. Ravichandran, N. Siva Jyothi, R. Rathi, N. Dineshbabu, R. Shalini, A. Viji & K. Neethidevan, “Intermediate electron trap levels generation and enhanced carrier concentration in ZnO by strontium and molybdenum co-doping: an effective approach for dye degradation”, <i>J. of Mat. Sci.</i>, 34, 5 (2023). https://doi.org/10.1007/s10854-022-09404-1. 	

		<p>8. A. Vasuhi, K. Dhanabalan, A. T. Ravichandran, R. Chandramohan, K. Ravichandran, R. Shalini, and Srinivas Mantha, “Influence of Effective Surface Area on Gas Sensing Properties and Surface Morphology of Ag Doped Cu₂O Thin Films by Cost Effective Method of M-SILAR Technique”, <i>Int. J. Thin. Fil. Sci. Tec.</i>, 12(3), 181-189 (2023) http://dx.doi.org/10.18576/ijfst/120304.</p> <p>9. D. S. Vasanthi, K. Thirumurugan, K. Ravichandran, P. Kavitha, M. Ayyanar, J. Balavijayalakshmi, S. Suvathi, R. Shalini, “Effective approach to improve photocatalytic dye degradation ability of ZnO based nanopowder: Simultaneous cationic and anionic doping, and enzyme coupling”, <i>Appl. Phys. A.</i>, 130(1), 1-15 (2024) https://doi.org/10.1007/s00339-023-07213-9.</p> <p>10. A Sudha, I Manimehan, R Shalini, M Varshini, K Ravichandran, M Ayyanar, PK Praseetha, D Saravanakkumar, “Assessment of de-toxicity of treated dye solution via seed germination test: Photocatalytic treatment by Morinda citrifolia leaf extract mediated ZnO: Mo/g-C₃N₄ nanocomposite” 178 (2024) 108437 https://doi.org/10.1016/j.mssp.2024.108437.</p> <p><u>Book Chapter</u></p> <p>1. K. Ravichandran*, N. Chidhambaram, M. Ayyanar, P. Kavitha, T. Arun, S. Sriram, R. Shalini, Dyes: Sources, Method of Analysis and Treatment</p> <p style="padding-left: 40px;">Book Title : Handbook of water pollution</p> <p style="padding-left: 40px;">Publisher : Wiley-Scrivener</p> <p style="padding-left: 40px;">ISBN-10 : 1119904803; ISBN-13 : 978-1119904809</p>
Awards and Achievements	:	<p>➤ Best oral Presentation award in the International conference on “Functional Materials for Energy, Environment and Biomedical Applications (ICFMEEBA 2022)”, 04-06th May 2022, Organised by PG & Research Department of Physics, Bishop Heber College, Tiruchirappalli.</p> <p>➤ Best Poster Presentation award in the State Level Seminar on “Emerging Trends in Physics - 2023 (ETP23)”, 29th Sep. 2023, Organised by Department of Physics, Auxilium College of Arts and Science For Women, Regunathapuram, Pudukkottai.</p>
GoogleScholar Link	:	https://scholar.google.co.in/citations?view_op=list_works&hl=en&hl=en&user=Fbf7o1IAAAAJ
Conferences/FDP/Seminars/Workshops attended	:	40
ContactAddress	:	No. 9, Velayudham Kudil, Cholan Nagar 4 th Street, Thanjavur – 613001.