Faculty Profile

Dr. G. Kavitha, M.Sc., Ph.D.
Assistant Professor, Department of Chemistry

HIGHLIGHTS:

- Number of Journal Publications: **17**
- H-Index: **08**
- Patents Published: **01**

PROFESSIONAL LINKS:

- Scopus ID: **57222599303**
- Scopus Link: **https://www.scopus.com/authid/detail.uri?authorId=57222599303**
- Google Scholar ID: **https://scholar.google.com/citations?user=tWaasT0AAAAJ&hl=en**
- AICTE Faculty ID: **1-43379833937**

PROFESSIONAL BACKGROUND:

- Teaching Experience till date: 2 years 6 months

AREA OF SPECIALIZATION:

- Photocatalysis
- Nanocomposites
- Green Synthesis
- Drug Delivery

SELECTED PUBLICATIONS

- **G. Kavitha**, A. Manikandan, Premkumar S, G. Manikanda Raja, R.L Krupakaran, Dhinesh Balasubramanian, Van Quy Nguyen, Anh Tuan Hoang, J.S. Femilda Josephin, Sulaiman Ali Alharbi, Edwin Geo Varuvel."Thermodynamic and emission analysis of waste plastic oil fuelled diesel engine with Ce-Al catalyst-based catalytic converters – An experimental study." Process Safety and Environmental Protection.2025 **[Impact factor = 6.9]**.

- **G. Kavitha**, N. Abiramia, M. Komala, S. Pavithraa, A. Hosseini-Bandegharaei, J. Wuf, E.V. Pometung, J. Bayuoh, M. Mushtaqi, D.C. Onwudiwe. "Designing a novel valuable photocatalyst (La2(MoO4)3/Mn0.5Fe0.5WO4/ N-GO) for removal of cationic dyes from waters and textile effluents under visible light". Journal of Water Process Engineering 2024. **[Impact factor = 6.4]**.

- Priya S, C. Feenita, Balaji Subramanian, Uday Goel, Manoranjitham T, **Kavitha Ganeshan**, Boopathi Duraisamy, Femilda Josephin JS, Mohammed F. Albeshr, Arivalagan Pugazhendhi, Edwin Geo Varuvel. "Comparative analysis of regression models to predict the performance of the dual fuel engine operating on diesel and hydrogen gas", International Journal of Hydrogen Energy, 2024 **[Impact Factor=8.0]**.

- Subramanian.P., Jeganathan, R., **Kavitha G**. et al. Study on the effect of wet scrubbing technique on emissions in a dual fuel engine operating with diesel and hydrogen. Environ Sci Pollut Res (2024). **[Impact factor=5.8]**.

- **Kavitha G**, Vinoth Kumar J, Pavithra S, Komal M, Abirami N. "Biogenic synthesis of argentum nanocomposites for visible light photo catalyst of dye degradation." Chemical Physics Letters.2022. **[Impact factor = 2.3]**.

- **Kavitha G**, Vinoth Kumar J, Arulmozhi R, Abirami N. "Apoptotic efficacy of biogenic argentum nanoparticles embedded by activated carbon on MCF-7 human breast cancer cell lines". Inorganic Chemistry Communications. 2022. 109869 **[Impact Factor= 3.4]**.

- **Kavitha G**, kumar Jothi V, Devanesan S, Asemi NN, Manikandan V, Arulmozhi R, Abirami N. "Ceria nanoparticles anchored on graphitic oxide sheets (CeO2-GOS) as an efficient catalyst for degradation of dyes and textile effluents". Environmental Research. 2022 Jan 26:112750. **[Impact Factor= 8.4]**.

- **Kavitha G**, Arulmozhi R, Kamath SM, Priya AK, Rao KS, Abirami N. "2D graphene supported nickel oxide nano-composite for fiber optic ethanol gas sensing, removal of azo dye, and biological activity". Journal of Materials Science: Materials in Electronics. 2022 Jan 4:1-4. **[Impact Factor= 2.7]**.

- **Kavitha Ganesan**, Vinoth Kumar Jothi, Abirami Natarajan, Arulmozhi Rajaram, Siranjeevi Ravichandran, and Satish Ramalingam. "Green synthesis of Copper oxide nanoparticles decorated with graphene oxide for anticancer activity and catalytic applications." Arabian Journal of Chemistry 13, no. 8 (2020): 6802-6814 **[Impact Factor=6.4]**.

- Rao KS, Kamath SM, Kumar RR, **Kavitha G**, MeherAbhinav E, Shri SS, Induja S, Gopalakrishnan C. "Delineating the photocatalytic properties of doped mullite Bi2Fe4O9 by virtue of Gd3+ ions". Materials Letters. 2021 Aug 15; 297:129960. **[Impact Factor=3.1]**.

- Vinoth kumar Jothi, **Kavitha G**, Albasher, M Sajjad, R Arulmozhi, M Komal, M Sherlin Nivetha, N Abirami. "Multiplex heteroatoms doped carbon nano dots with enhanced catalytic reduction of ionic dyes and QR code security label for anti-spurious applications."

Chemosphere.2022. 136003.**[Impact factor – 7.0]**.

- Vinoth kumar Jothi, **Kavitha Ganesan**, Arulmozhi Rajaram, Velusamy Arul, Subramanian Singaravadivel, Abirami Natarajan. "Green sources derived carbon dots for multifaceted applications". Journal of fluorescence **[Impact Factor=2.5]**.

- Vinoth kumar Jothi, **Kavitha Ganesan**, Arulmozhi Rajaram, Abirami Natarajan. "Green synthesis of self- Passivated Fluorescent Carbon dots Derived from Rice Bran for degradation of methylene blue and fluorescent applications". Journal of fluorescence, https://doi.org/10.1007/s10895-020-02652-6 **[Impact Factor=2.5]**.

- Kumar JV, **Kavitha G**, Arulmozhi R, Arul V, Abirami N. "Cyan color-emitting nitrogen-functionalized carbon nanodots (NFCNDs) from Indigofera tinctoria and their catalytic reduction of organic dyes and fluorescent ink applications". RSC Advances. 2021; 11(44):27745-56. **[Impact Factor=4.0]**.

- Subramanian, Premkumar, **Kavitha Ganeshan**, Jibitesh Kumar Panda, Rajesh Kodbal, Malinee Sriariyanun, Arunkumar Thirugnanasambandam, and Babu Dharmalingam. 2025. "Comparative Emission Analysis of Diesel Engine Integrated with Mn and Ce-Si Synthesis Catalyst-Based Molds Using Base Fuel and B50 Plastic Oil" *Energies* 18, no. 14: 3625. https://doi.org/10.3390/en18143625 **Impact Factor: 3.2**.

- Premkumar S, **Kavitha G** and Jibitesh Kumar Panda, Rajesh K and Arunkumar T, "Performance study of SCR on Fe_2O_3-SiO_2/Al_2O_3 synthesis catalyst for diesel engine emission reduction", Journal of Fuel (Under Review). **Impact Factor: 6.7.**

PATENTS PUBLISHED/GRANTED:

- A Nano-Composite and a Process of its Preparation, 202041052752 (Published)

BOOK CHAPTERS PUBLISHED

- **G. Kavitha**, J. Vinoth Kumar, R.Arulmozhi and N. Abirami Green synthesis of Copper oxide nanoparticles decorated with graphene oxide for anticancer activity and catalytic applications: An advanced study approach" "New innovations in Chemistry and Biochemistry Vol.6" Print ISBN: 978-93-5547-091-1, eBook ISBN: 978-93-5547-143-7. DOI: 10.9734/bpi/nicb/v6/1660B

- **Kavitha Ganesan**, and Natarajan Abirami. "Innovative Perspectives of Biogenic Synthesis of Metal Nano Composites and Its Biological Studies-An Overview." Recent Progress in Science and Technology Vol. 6 (2023): 58-83

SPECIAL SESSIONS DELIVERED:

- **G. Kavitha,** N.Abirami, R.Arulmozhi, J.Vinoth Kumar "Green synthesis of MnO_2/GO nanocomposite and its catalytic applications", in ICFCS-2021, BISHOP HEBER COLLEGE, Trichy