

DR. JYOTI KATARIA
Assistant Professor
Department of Chemistry
GGSDS COLLEGE Chandigarh
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DOB: 19th January 1975



Educational Qualifications

- ❖ **Ph.D. in Faculty of Science**
Department of Chemistry, Panjab University Chandigarh, India (2006)
PhD Thesis: *Chemistry of Silyl Stabilized Azanes*
Ph.D. Supervisor: Prof. S.K. Vasisht and Prof. P. Venugopalan
- ❖ Qualified U. G. C. NET in Chemical Sciences
- ❖ **M. Sc Hons. (Chemistry)**- Department of Chemistry, Panjab University Chandigarh, India (1997-1999)
- ❖ **B. Sc Hons. (Chemistry)**- Department of Chemistry, Panjab University Chandigarh, India (1994-1997)

Teaching/Research Experience

- ❖ 2 January 2006- 11 July 2013
Ad-hoc Lecturer in Department of Chemistry, GGSDS College, Chandigarh
- ❖ 12 July- till date
Assistant Professor in Department of Chemistry, GGSDS College, Chandigarh

Areas of Interest

- ❖ Organometallics
- ❖ Green synthesis of nanocomposites and their application

Research Projects

‘Cationic chloropentaammine cobalt (III) chloride as anion receptor: Synthesis, Characterization and X-ray crystallographic studies.’ *Funding Agency : UGC, New Delhi; Rs. 8,25,000/- (2009 – 2012)*

Publications (Journal/Book Chapters)

Citations:415
h-index: 7

Journal Publications:

- ❖ Sunny Garg, Jyoti Kataria, Shweta Sharma, Manoj Kumar Choudhary, “Kinetic investigation of invigorated photocatalytic performance of phylogenically prepared Ag@TiO₂ composites”, *Materials Chemistry and Physics*, Vol. 294, pp 127005, Elsevier 2023
- ❖ Choudhary, Manoj Kumar and Garg, Sunny and Kaur, Arshdeep, Kataria, Jyoti and Sharma, Shweta, “Green biomimetic silver nanoparticles as invigorated colorimetric probe for Hg²⁺ ions: A cleaner approach towards recognition of heavy metal ions in aqueous media”, *Materials Chemistry and Physics*, Vol. 240, pp 122164, Elsevier 2020
- ❖ Choudhary M.K.; Kataria J.; Bhardwaj V.K.; Sharma S. “Green biomimetic preparation of efficient Ag-ZnO heterojunctions with excellent photocatalytic performance under solar light irradiation: A novel biogenic-deposition-precipitation approach”, *Nanoscale Advances*, Vol 1, pp 1035-1044, Royal Society of Chemistry (RSC) 2019

- ❖ Manoj Kumar Choudhary, Jyoti Kataria, Shweta Sharma, “Evaluation of the kinetic and catalytic properties of biogenically synthesized silver nanoparticles”, *Journal of Cleaner Production*, Vol 198, pp 882-890, Elsevier 2018
- ❖ Manoj Kumar Choudhary, Jyoti Kataria, Shweta Sharma, “Novel Green Biomimetic Approach for Preparation of Highly Stable Au-ZnO Heterojunctions with Enhanced Photocatalytic Activity”, *ACS Applied Nano Materials*, Vol 1, pp 1870-1878, ACS Publications 2018
- ❖ Manoj Kumar Choudhary, Jyoti Kataria, Shweta Sharma, “A biomimetic synthesis of stable gold nanoparticles derived from aqueous extract of *Foeniculum vulgare* seeds and evaluation of their catalytic activity”, *Applied Nanoscience (Switzerland)*, Vol 7, pp 439-447, Springer 2017
- ❖ Choudhary, Manoj Kumar and Kataria, Jyoti and Cameotra, Swaranjit Singh and Singh, Jagdish, “A facile biomimetic preparation of highly stabilized silver nanoparticles derived from seed extract of *Vigna radiata* and evaluation of their antibacterial activity”, *Applied Nanoscience*, Vol 6, pp 105-111, Springer 2016
- ❖ Kataria, J and Vasisht, SK and Sharma, A and Venugopalan, P, “Silyl stabilized azanes: Reactions of mono-and dilithium bis (trimethylsilyl) hydrazide with dichloro- and tetrachlorostannane”, *Journal of Organometallic Chemistry*, Vol 694, pp 2252--2257, Elsevier 2009
- ❖ Kataria, J and Vasisht, SK and Sharma, A and Venugopalan, P, “Silyl stabilized azanes: reactions of lithiumbis (trimethylsilyl) hydrazine with trialkyltin halides”, *Journal of Organometallic Chemistry*, Vol 690, pp 1507—1510, Elsevier 2005
- ❖ S. K. Vasisht, P. Venugopalan, J. Kataria and A. Sharma, “Silyl-nitrogen compounds: Part XIII-Reactions of metal halides with silylated tosylhydrazines” *Ind. J. Chem.*, Vol 41A pp 2054, CSIR 2002

Book Chapters

- ❖ ***Jyoti Kataria***
Management of Solid Waste
Environment, Road Safety and Violence against Women and Children, drug abuse, 83-91
Publisher: Mohindra Publishing House

Seminars/ Conferences/Symposiums (Paper Presented)

- ❖ Presented a poster entitled “*Exploring the Potential of Biogenic Ag@g-C3N4 for Sustainable Water Purification: A Study on Kinetics and Photocatalysis*” in 6th National Conference on ‘*Recent Advances in Materials Sciences*’ (RAMS-2024) organized by Department of Physics, GGSDS College, Sector 32, Chandigarh on October 16, 2024.
- ❖ Presented paper on “*Sustainable Development Goal 3-*

Good Health and Well-Being” in a national seminar organized by the Institute for Environment Conservation Advocacy, Hyderabad on (10 March 2024).

- ❖ Presented a poster entitled “*Kinetic investigation of invigorated photocatalytic performance of phytogenically prepared Ag@TiO₂ composites*” in 5th National Seminar on ‘Recent Advances in Materials Sciences’ organized by Department of Physics, GGSDS College, Sector 32, Chandigarh on September 30, 2022.
- ❖ Presented a poster entitled ‘*Biogenic Synthesis of highly stable Au-ZnO₂ Heterjunction with enhanced photocatalytic activity*’ in Professor Ram Chand Paul National Symposium (RCPNS-2020) held at Department of Chemistry and Centre of Advanced Studies in Chemistry, Panjab University, Chandigarh on 27-28 February 2020.
- ❖ Presented a poster entitled “*Green biomimetic preparation of efficient Ag-ZnO heterojunctions with excellent photocatalytic performance under solar light irradiation: A novel biogenic-deposition-precipitation approach*” in ‘National Symposium on Biotechnology: Trends and Innovations’ organized by Department of Biotechnology, GGSDS College, Sector 32, Chandigarh on February 07-08, 2020.
- ❖ Presented a poster entitled ‘*Biogenically Developed Ag-TiO₂ Heterocomposites with excellent photocatalytic performance under solar light irradiation*’ in 4th National Seminar on ‘Recent Advances in Materials Sciences’ organized by Department of Physics, GGSDS College, Sector 32, Chandigarh on February 01, 2020.
- ❖ Presented a poster entitled “*Surfactant Free biogenic formation of Au-ZnO Schottky contact for enhanced visible light photocatalysis*” in 12th Chandigarh Science Congress, CHASCON 2018 in association with CRIKC held at Panjab University, Chandigarh on 12- 14 February 2018.
- ❖ Presented a poster entitled “*Surfactant Free biogenic Preparation of Au-ZnO Nanocomposites for enhanced visible light photocatalysis*” in 11th Chandigarh Science Congress, CHASCON 2017 held at Panjab University, Chandigarh on 9-11 March 2017.
- ❖ Presented a poster entitled “*Biogenic Synthesis of highly stable Au-ZnO Heterjunction with enhanced antibacterial activity*” in Professor Ram Chand Paul National Symposium (RCPNS-2016) held at Department of Chemistry and Centre of Advanced Studies in Chemistry, Panjab University, Chandigarh on 23 January 2016.

Refresher Courses/Workshops/ Training Programmes

- ❖ One week Faculty Development Program from on "Subject-Specific Benchmarking of Learning Outcomes: Outcome-Based Education" from 26 October to 1 September 2023 organized by Goswami Ganesh Dutta Sanatan Dharma College, Chandigarh and Guru Angad Dev Malaviya Mission Teacher Training Centre, SGTB Khalsa College, University of Delhi.
- ❖ NEP Orientation & Sensitization Online Training Program from 16 – 26 January 2024 organized by UGC-Malaviya

Mission Teacher Training Centre (MMTTC) First Floor,
Block-III, Panjab

- ❖ 6 Days Faculty Development Programme (FDP) on “**Mentoring Skills and Facilitation Skills in Rural Higher Education Institutions**” from 29 August to 3 September 2022 conducted by Mahatma Gandhi National Council of Rural Education, (MGNCRE) Department of Higher Education, Ministry of Education, Government of India in collaboration with UGC- HRDC Panjab University Chandigarh.
- ❖ Online Refresher Course in “Environment Studies” from 24 December 2020 to 6 January 2021 by UGC-HRDC, Panjab University, Chandigarh.
- ❖ One-week online faculty development program (FDP) on “Effective Online Teaching and Learning” from 14-19 September 2020.
- ❖ Online short-term course on “Material Characterisation Techniques” from 24-28 August 2020 by Institute Instrumentation Centre, Dr B R Ambedkar National Institute of Technology, Jalandhar.
- ❖ One Week National Faculty Development Program on “Developing Multimedia enriched Powerful Presentations” from 11-16 August 2020 by Guru Angad Dev Teaching Learning Centre SGTB Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNTT) of MHRD.
- ❖ One week FDP on eSim- A Free and Open-Source EDA Tool from 15-19 June 2020 by Department of EEE in association with Spoken Tutorial IIT Bombay, Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNTT), MHRD, Govt. of India.

**PhD Thesis
Supervised**

Degree awarded:01

Currently Supervising:03

Administrative Experience

- ❖ NSS Programme Officer (female) from October 2023 till date
- ❖ Co-ordinator of Green Campus Committee from January 2019 to July 2023
- ❖ Co-ordinator of Resonance Club from August 2016 to July 2019
- ❖ Member IQAC
- ❖ Member of Chemical purchase Committee
- ❖ Admission Incharge BSc-I
- ❖ Member Time Table committee -Basic Sciences from July 2013 to March 2020

Awards and Recognition

- ❖ Award of Honor for Best Teacher for exemplary dedication and leadership in incorporating environmental education into

teaching methodologies by National EduTrust of India.

- ❖ Rashtriya Garima Award-2022 for tireless effort and valuable role in nation building by Bhagwati Foundations.
- ❖ Received letter of appreciation for the best work done in the areas of Sanitation, Hygiene, Waste Management, Wafer Management, Energy Management and Greenery Management from MGNCRE, Ministry of Education, Government of India, New Delhi.
- ❖ Received certificate in recognition of the outstanding work done as a Nodal officer for carrying out environment awareness activity 'Selfie with plant' on the occasion of World Environment Day from MGNCRE, Ministry of Education, Government of India, New Delhi.
- ❖ Participating as Environment Nodal Officer at National Environment Youth Parliament – 2022 held on 16 April 2022, at Sansad Bhawan, New Delhi.
- ❖ Received a certificate of Appreciation for organising National Conference on Mentoring Institutional Social Responsibility and Facilitating Community Engagement and District Green Champion Award 2021-2022 organized by MGNCRE, Ministry of Education Government of India at Goswami Ganesh Dutta Sanatan Dharma College Sector 32 C, Chandigarh.

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