

Email (P): sakshi2696gupta@gmail.com

Mob: +917505565909



Sakshi Gupta

Professional brief

Research driven **Assistant Professor of Chemistry** with over 5 years of experience in the design, synthesis, formulation, biological activity evaluation and characterization of organic and inorganic compounds, including metal-organic frameworks (MOFs). Currently teaching at B.S.N.V.P.G. College (KKV) Station Road, Lucknow, Uttar Pradesh- 226001, Lucknow. Committed to quality teaching, academic mentoring, and collaborative research, with an interest in expanding into interdisciplinary areas to address emerging challenges in Sciences.

ACADEMICS

| Examination | Discipline | School/College | Board/ University | Year of Graduation | C.P.I/% |
|-------------------------------|------------|--|--|-----------------------|---------|
| Ph.D. | Chemistry | Isabella Thoburn College, Lucknow | University of Lucknow | 2024 | - |
| Master of Science (M.Sc.) | Chemistry | SBSPGI of Bio-medical Sciences & Research | Hemvati Nandan Bahuguna Garhwal University, Srinagar | 2019 | 8.8/10 |
| Bachelor of Science(B.Sc.) | ZBC | B.S.N.V.P.G. College (KKV) | University of Lucknow, Lucknow | 2017 | 67.88% |
| 12 th | PCB | LPS ANAND NAGAR | Indian School Certificate | 2014 | 76.8% |
| 10 th | | LPS ANAND NAGAR | Indian Council for School Certificate | 2012 | 81.28% |

HIGHLIGHTS OF Ph.D. THESIS

- Thesis Topic: Synthesis, Characterisation, In-Silico Studies and Biological activity evaluation of Some Thiosemicarbazone Mixed-ligand and Mixed-metal complexes.
- Planned, wrote, and developed high-quality research papers with findings, publishing in reputed journals for public viewing.
- Designed and made presentations summarizing research findings at national and international conferences.
- Met with faculty supervisor regularly to maintain ongoing communication regarding performance quality.

CAREER HIGHLIGHTS

- **IIT-JAM** Qualified.
- **Gold Medalist** in M.Sc. Chemistry.
- Participated in **ORAL presentation** entitled ((E)-4-((2-Carbamothioylhydrazineylidene) Methyl) Benzoic Acid): A Versatile Class of Compound for Multifaceted Therapies in 7th ICTR, 16-18th October, 2023, JL Auditorium, **AIIMS, New Delhi**.
- Participated and bagged **SECOND** prize in International Workshop on Science Communication and Film Making Jointly Organized by CSIR-Indian Institute of Toxicology Research (CSIR-IITR) And Vigyan Prasar (VP) dated July 18-24, 2022 at **CSIR-IITR, Lucknow**.
- Participated and presented a paper on the topic “Green Eco Tips for Sustainable Living” securing **FIRST** position in the National Seminar on "Environment Challenges and Sustainability" organized by Academic Development Committee, B.S.N.V.P.G. College, **University of Lucknow**, Lucknow, on 15th September, 2021.
- **Runner up** Girls Cricket Team, Dr. Edward Mellanby Cricket Trophy on 70th Annual Sports 2021 at **CSIR-CDRI, Lucknow**.
- Stood **FIRST** position and got **Gold Medal** in **Inter-College Chess Competition** organized by Sports Club of SBSPG College.

- **“Branch Topper” (XI PCB)** of LPS Genius Search 2012 Conducted By Judimac Consultants And Services(P) Limited.
- Stood **FIRST** in **Inter-House Singing Competition** on 25th Sep 2011 at LPS.

WORK EXPERIENCE

May 2025- Till date **Assistant Professor, B.S.N.V.P.G. College(KKV) Lucknow**

- Teaching and mentoring students.

July 2024- December 2024 Research Officer, Krish Biotech Research Pvt. Ltd., Kalyani, Kolkata

- **Analytical Method Development and Validation.**

October 2022- June 2024 **Research Assistant (RA), UPCST**

- Research Assistant in the project entitled “The role of molecular recognition in enhancement of sensitivity of electron rich metal organic frameworks”. sponsored by **Council of Science and Technology (CST), Uttar Pradesh.** (31-10-22 cont.)

September 2020- March 2021 Project Associate-I: CSIR-CDRI, Lucknow

- Project Associate under CSIR(HCPO029) project "**Development of Processes for Active Pharmaceutical Ingredients towards COVID-19**" in Medicinal and Process Chemistry (MPC) Division in guidance of **Dr. Sanjay Batra** at CSIR– Central Drug Research Institute, Lucknow for 6 months (18-09-2020 to 31-03-2021).

July 2019- December 2020 Trainee Research Associate, Jubilant Chemsys Ltd. Noida

- Worked in Synthesis R&D dept.
- Handling of Inert atmosphere/dry/microwave/purging/name (Suzuki) reactions etc.
- Separation techniques like Column (Manual and Flash) Chromatography, separating funnel, Silica plates, TLC etc.
- Handling of Rota vapor, gas cylinders, solvents like Bromine etc.

December 2020- June 2021 Professional Ad-on Course

- Certification in Computational Chemistry (Offline & Online Mode), Dr. Bhimrao Ambedkar University, Agra.

AREAS OF RESEARCH

Established

Organic/Inorganic Chemistry

Targeted

Analytical/Material Chemistry/Multidisciplinary/Transdisciplinary/Interdisciplinary

RESEARCH OUTPUT

Journal publications

1. Satya; Hashmi, K.; **Gupta, S.**; Mishra, P.; Veg, E.; Khan, T.; Joshi, S.,(2025) Recent Advancements in Bismuth Complexes: Computational Strategies for Biological Activities. Eng. Proc., 87, 48.
2. Satya, Khan, T., Hashmi, K., Raza, S., **Gupta, S.**, & Joshi, S. (2024). Plant Response to Gold Nanoparticles in Terms of Growth, Development, Production, and Protection: An Overview. Plant Response to Gold Nanoparticles: Plant Growth, Development, Production, and Protection, 1-35
3. **Gupta, S.**, Prakash, A., Savita, S., Hashmi, K., Mishra, P., Veg, E., Khan, T., Patel, D.K. and Joshi, S., (2024). Studies of some Mixed Ligand-Metal complexes of 4-((2-(phenylcarbamothioyl) hydrazinylidene) methyl) benzoic acid in search of potential antimicrobial activity. Journal of Molecular Structure, 1318, p.139319.
4. Satya, Hashmi, K., **Gupta, S.**, Mishra, P., Khan, T. and Joshi, S., (2024). The Vital Role of Nanoparticles in Enhancing Plant Growth and Development. Engineering Proceedings, 67(1), p.48.
5. Hashmi, K., Rai, S., Sharma, S., **Gupta, S.**, Mishra, P., Veg, E., Khan, T., Gupta, A. and Joshi, S., (2025). Spectroscopic and Quantum Chemical Studies of some Novel Mixed-ligand complexes of Vanadium and Comparative Evaluation of their Antimicrobial and Antioxidant activities. Inorganic Chemistry Communications, 174, p.113967.
6. Satya, Hashmi, K., **Gupta, S.**, Singh, N., Khan, T., & Joshi, S. (2023). Nanofabrication of Metals and Their Compounds for Effective Medicinal and Environmental Applications (A Review). Russian Journal of General Chemistry, 93(3), 635-665.
7. Satya, Hashmi, K., **Gupta, S.**, Siddique, A., & Joshi, S. (2023). Vanadium Complexes as Potential Anticancer Agents. Engineering Proceedings, 56(1), 91.
8. Singh, N., Satya, Hashmi, K., **Gupta, S.**, & Joshi, S. (2023). Cytotoxic Activity of Metal Nanoparticle Complexes. Engineering Proceedings, 56(1), 27.
9. Hashmi, K., Satya, **Gupta, S.**, Siddique, A., Khan, T., & Joshi, S. (2023). Medicinal Applications of Vanadium Complexes with Schiff Bases. Journal of Trace Elements in Medicine and Biology, 127245.
10. **Gupta, S.**, Savita, S., Prakash, A., Khan, T., Satya, Hashmi, K., & Joshi, S. (2023). Synthesis, DFT and Molecular docking studies in search of antimicrobial activity of (E)-4-((2-carbamothioylhydrazineylidene) methyl) benzoic acid. Journal of Molecular Structure, 1293, 136276.
11. **Gupta, S.**, Tanveer, S., Singh N., Joshi, S.,(2021) Bio-materials and Bio-active Nano- particles in Immunotherapy, Indian Journal of Advances in Chemical Science 9(4),346-351, DOI: 10.22607/IJACS.2021.904017
12. Kumar, D., **Gupta, S.**, Ram, R. 2022. Bioactivity of Antioxidant substances (Natural and synthetic)– a review. Anusandhaan - Vigyaan Shodh Patrika. 10, 01 (Oct. 2022), 88-92.
13. Ram, R., Gond, A., Verma, M., **Gupta, S.**, 2022. Reversal of Hair Loss: A Novel Discovery of

Poly Herbal Oil Formulaton. Anusandhaan - Vigyaan Shodh Patrika. 10, 01 (Oct. 2022), 122-130.

14. Kumar, D. and **Gupta, S.** 2021. J. J. Berzelius – a brief review over his contribution. Anusandhaan Vigyaan Shodh Patrika. 9, 1 (Oct. 2021), 103-105. DOI: <https://doi.org/10.22445/avsp.v9i1.19>.
15. Kumar, D. and **Gupta, S.**, Medicinal Plant Extract Used in the treatment of Tumor- A Review, Applied Research Development in Physical & Chemical Sciences and Engineering (105-108). MKSES Publication. <https://doi.org/10.5281/zenodo.5789386>
16. Kumar, D. and **Gupta, S.** 2020. Chemistry of hand sanitizer amid COVID-19: importance, formulation and adverse effects. Anusandhaan - Vigyaan Shodh Patrika. 8, 1 (Dec. 2020), 191-193. DOI: <https://doi.org/10.22445/avsp.v8i1.31>.
17. Kumar, D. and **Gupta, S.** 2019. Vitamin-E: Antioxidant Vitamin. Anusandhaan - Vigyaan Shodh Patrika. 7, 01 (Oct. 2019), 61-63. DOI: <https://doi.org/10.22445/avsp.v7i1>.
18. Kumar, D. and **Gupta, S.** 2017. Glutamic Acid and its Sodium salt Glutamate (Aji-no-moto). Anusandhaan - Vigyaan Shodh Patrika. 6, 1, (September 2018) 32
19. Kumar, D. and **Gupta, S.** 2017. Synthesis of Technical Protective Textile. Anusandhaan - Vigyaan Shodh Patrika. 5, 1, (August 2017) 106

Book Chapters

1. **Gupta, S.**; Joshi, S.; Toxicology Studies of Anisole and Glyoxylic Acid Derivatives by Computational Methods, Computational Toxicology for Drug Safety and a Sustainable Environment (2023) BenthamSciencePublisher1: 125. <https://doi.org/10.2174/9789815196986123010010>.

Conference presentations

1. Participated in **ORAL presentation** entitled ((E)-4-((2-Carbamothioylhydrazineylidene) Methyl) Benzoic Acid): A Versatile Class of Compound for Multifaceted Therapies in 7th ICTR, 16-18th October, 2023, JL Auditorium, **AIIMS, New Delhi**.
2. Participated and bagged **second prize** in International Workshop on Science Communication and Film Making Jointly Organized by CSIR-Indian Institute of Toxicology Research (CSIR-IITR) And Vigyan Prasar (VP) dated July 18-24, 2022 at **CSIR-IITR, Lucknow**.
3. Participated and **presented a paper** on the topic “Green Eco Tips for Sustainable Living” securing **FIRST position** in the National Seminar on "Environment Challenges and Sustainability" organized by Academic Development Committee, B.S.N.V.P.G. College, Lucknow, on 15", September, 2021.
4. Participated in five-day online faculty development program on “Recent Trends in Chemistry” organized by the Department of Chemistry, School of Advanced Sciences (SAS), VIT-AP University, Amaravati - 522237 in association with American Chemical Society held during 19 - 23 June 2023.
5. Participated in Bioinformatics Workshop on Quantitative Structure-Activity Relationship (QSAR)

Modeling: A Recent Trend in Drug Design conducted by Nano Science and Technology Consortium from 03' November 2023 to 05th November 2023

6. Participated in National Symposium On 'Women in Science and Technology' 'Navchetna' Held on September 21, 2023 In Online Mode Organized by Shri Vaishnav Vidyapeeth Vishwavidyalaya, Indore Centre For Women's Studies.
7. Participated in IP Awareness/Training program under National Intellectual Property Awareness Mission on March 02,2023 organized by Intellectual Property Office, India.
8. Presented a poster titled “Indian Women Scientists: Their role and contribution in field of Science” in National Seminar on "Breaking Gender Biases: A Step towards Sustainable Development" jointly organized by Department of Chemistry, Navyug Kanya Mahavidyalaya Lucknow, Association of Chemistry Teachers & Prof. Sharda Prasad Tiwari Memorial Trust on Feb 14th, 2023.
9. Attended the National workshop on Virtual Labs under the National Mission on Education through ICT (MoE, Govt. of India) dated 5th & 6th December, 2022, conducted by Team Virtual Labs, IIT Roorkee at Department of Chemistry, Isabella Thoburn College, Lucknow.
10. Attended the National workshop on Virtual Labs under the National Mission on Education through ICT (MoE, Govt. of India) dated 5th & 6th October, 2023, conducted by Team Virtual Labs, IIT Roorkee at Department of Chemistry, Isabella Thoburn College, Lucknow.
11. Presented a paper titled "Role of metal in enhancing the biological activity of the compound." in "International Conference on Chemistry for Health, Hygiene and Environment (ICCHHE-2022)" organized by Department of Chemistry, Navyug Kanya Mahavidyalaya on 01 & 02 March, 2022.
12. Participated in AICTE Sponsored (Atal) (Offline + Online) 2022 Organized At **Indian Institute Of Information Technology Allahabad, Prayagraj** dated Oct 10-15, 2022 (Online)Oct 17-21, 2022 (Offline) On Computational Biology In Therapeutics And Theranostics.
13. Participated in IP Awareness/Training program under National Intellectual Property Awareness Mission on March 02,2023 organized by Intellectual Property Office, India.
14. Presented a paper titled “Bio-materials and Bio-active Nanoparticles in Immunotherapy” in Online International Conference on Applied Chemistry: Exploring Futuristic Applications for Sustainable Development organized by Internal Quality Assurance and Department of Chemistry, Isabella Thoburn College, Lucknow on 26-28th October, 2021
15. Participated in 4th Computational Chemistry Workshop-2021(CCW2021) organized by Dr. Nikhil Aggarwal, AIMS Institute, Delhi under professional training program category, held from 26th April 2021- 30th April 2021 (Five days) via online mode.
16. Participated in one day National-e-conference on “Recent Advances in Chemical Sciences” organized by the Department of Chemistry, University of Lucknow 15 June 2021.
17. "National Seminar on Consumerism, Social Equity and Environmental Sustainability" organized

by Academic Development Committee, B.S.N.V.P.G. College, Lucknow.

18. Participated in Value Added Course entitled “Palynology and Biostatistics, Cash crops, Biomolecules test and Soil and Water test” organized by BSNVPG College.
19. National webinar on "Pedagogy of teaching and learning amidst COVID-19 pandemic” organized by B.S.N.V.P.G. College, Lucknow.
20. Participated in the International e-Workshop on “Computational Approaches in Drug Design & Therapeutics” held on February 20, 2021 organized by Drug Discovery & Development Cluster Jointly with Amity Institute of Biotechnology, Amity University, Chhattisgarh.
21. Participated in National Webinar on 29th August, 2020 on "Organismic interrelationship: recent frontiers in Biological Sciences”.
22. Participated in e-quiz competition on “COVID-19 Pandemic General Awareness” organized by Department of Science and Department of CS and IT under the aegis of IQAC, Modern Institute of Technology, Dhal Wala, Rishikesh.

SOCIETY MEMBERSHIPS

- Indian Science Congress-Since 2023
- American Chemical Society -Since 2024

NATIONAL EXAMS QUALIFIED

- Qualified **IIT-Joint Admission Test** 2017 in Chemistry (CY).

PERSONAL DETAILS

- | | |
|---|---------------------------------------|
| • Date of Birth (DD-MM-YYYY): 26-06-1996 | • Languages Known: English, Hindi |
| • Designation: Assistant Professor | • Permanent address: B.S.N.V.P.G. |
| • Father’s Name: Dr. Devendra Kumar Gupta | College (KKV) Station Road, |
| • Mother’s Name: Smt. Chanda Devi | Lucknow, Uttar Pradesh- 226001, India |
| • Marital status: Unmarried | |
| • Nationality: Indian | |
-