

Sarita Gond

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Summary of Scientific Contributions (10-15 lines):-

Sarita Gond mainly deals with the development of the techniques for the synthesis of various Schiff base N, O donor chelating and bridging co-ligands are used to design such complexes aiming to increase the dimensionality of the complexes by utilizing the covalent, as well as weak interactions, for example, hydrogen bonding and pi-pi stacking etc. to produce supra-molecular assemblies. The characterizations are done by various physico-chemical techniques, like UV-Vis, Fluorescence, IR, NMR, Mass, EPR spectroscopy, magnetic susceptibility measurements, electrochemical and thermo gravimetric analyses. The structures of the synthesized ligands and their complexes are established by the single-crystal X-ray diffraction studies. The DFT calculations are carried out to optimize the probable structures of the synthesized compounds. Schiff base ligands and their transition metal complexes have covered a large field in chemistry that is being noticed. Schiff base ligands are viewed as special ligands since they are easily prepared by condensation reaction between aldehyde derivatives and amines. However, they have simple preparation method; but their versatile applications make it unique compound in coordination chemistry, analytical chemistry, catalysis, pharmaceutical chemistry etc. The biological activities of Schiff bases and their complexes have been widely investigated.

Academic Profile (B.Sc. onwards):-

• B.Sc.	Banaras Hindu University, Varanasi	2014
• M.Sc.	Banaras Hindu University, Varanasi	2016
• Ph.D	Banaras Hindu University, Varanasi	Pursuing

Research Field(s) of Specialization:-

1.	Chemo Sensors
2.	Bio-inorganic Chemistry
3.	Catalysis
4.	Coordination Chemistry

List of Publications:- 6. Publications in International Journals

1.	Pranjalee Yadav , Sarita Gond , Ashish Kumar Singh , Vinod P. Singh, A pyrene-thiophene based probe for aggregation induced emission enhancement (AIEE) and naked-eye detection of fluoride ions, Journal of Luminescence , 215 (2019) 116704
2.	Pranjalee Yadav, Sarita Gond , Aayoosh Singh, Vinod P. Singh, Development of a reversible chromogenic sensor for Cu ²⁺ in aqueous ethanol, Materials Letters , 295 (2021) 129869 .
3.	Sarita Gond , Pranjalee Yadav , Brijesh Singh Chauhan , S. Srikrishna , Vinod P. Singh, Development of an 'OFF-ON-OFF' colorimetric and fluorometric pH sensor for the study of physiological pH and its bioimaging application, Journal of Molecular Structure , 1252 (2022) 132147 .
4.	Pranjalee Yadav, Sarita Gond , Anusmita Shekher, Subash Chandra Gupta, Udai P. Singh and Vinod P. Singh A multifunctional basic pH indicator probe for distinguishable detection of Co ²⁺ , Cu ²⁺ and Zn ²⁺ with its utility in mitotracking and monitoring cytoplasmic viscosity in apoptotic cells, Dalton Trans. , 51 (2022) 6927–6935 .
5.	Sarita Gond , Pranjalee Yadav, Avanish Kumar Singh, Vinod P. Singh, A novel 3-acetyl coumarin based AIE luminophore for colorimetric recognition of Cu ²⁺ and F ⁻ ions, Journal of Molecular Structure 1273 (2023) 134317 .
6.	Gautam Kumar, Ananya Srivastava, Sarita Gond , Pranjalee Yadav, Aayoosh Singh, Vinod P. Singh, A selective chromogenic thiazole tagged Schiff base chemosensor for Hg ²⁺ and cascade sensing of CN ⁻ in aqueous medium with real sample analysis, Journal of Molecular Structure , (2023) .

Conferences participated:-

1. National Symposium on Emerging Trends in Chemical Science (NSETCS-2018). NOVEMBER 17-18, 2018 Department of chemistry, Banaras Hindu University, Varanasi-221005.
2. National Symposium on Contemporary Trends and Future prospects of functional Materials (CTFM 2019). NOVEMBER 29-30, 2019 Banaras Hindu University, Varanasi-221005.
3. National e-Workshop on Instrumentation Techniques in Chemical Sciences June 25-29, 2021 Veer Bahadur Singh Purvanchal University Jaunpur, 222003, Uttar Pradesh, India.
4. Indira Gandhi Institute of Paramedical Sciences, Munshiganj, Amethi, Uttar Pradesh. (A Unit of Sanjay Gandhi Memorial Trust), webinar TOPIC "Impact of Covid -19 on Dialysis Patients" Held on 01 July 2021.
5. ChemSci2021: Leaders in the Field Symposium: 15 Dec 2021 RSC publishing webinar.
6. International Conference on modern trends in inorganic chemistry MTIC-(2022). Dec., 15-17, 2022 Department of chemistry, Banaras Hindu University, Varanasi-221005.
7. National Symposium on Brainstorming meeting on chemistry at the interface (BSCI-2022). Dec., 26 & 27, 2022 Department of chemistry, Banaras Hindu University, Varanasi-221005.

Assistant Professor Eligibility Test Qualifications:-

CSIR- NET	JUNE-2017	QUALIFIED	CHEMICAL SCIENCE
CSIR- NET+JRF	DEC.-2017	QUALIFIED	CHEMICAL SCIENCE
GATE	2018	QUALIFIED	CHEMICAL SCIENCE

Membership of Academic Societies:-

- Member/Life member...Chemical Research Society of India (Life Member)
- Member..... Royal Society of Chemistry