



Dr. Sanjay Kumar Verma
Assistant Professor, Chemistry, SOS

Education Qualification:

PDF (Organometallic Chemistry), Indian Institute of Technology Indore, M.P.
Ph.D. (Inorganic Chemistry), Maharaja Sayajirao University, Vadodara, Gujarat
M.Phil. (Chemistry), UIET, CSJM University Kanpur, U.P.
M.Sc. (Organic Chemistry), CSJM University Kanpur, U.P.
B.Sc. (Chemistry), CSJM University Kanpur, U.P.

Research Interest:

Organometallic Chemistry, Mesoionic Carbene, Click Chemistry, Metal Organic Frameworks, Dithiocarbamates and Single Crystal X-ray Diffraction Studies.

Publications:

1. Click Reaction Driven, Highly Fluorescent Dinuclear Organogold(I) Complex Exhibits a Dual Role: A Rare Au...H Interaction and an Antiproliferative Agent; **Sanjay K. Verma**, Shagufi Naz Ansari, Pratibha Kumari, and Shaikh M. Mobin, **Organometallics**, **2019**, 38(13), 2591-2596. [Impact Factor – 4.10]
2. Synthesis, Photophysical, Thermal and Crystallographic Studies of 3-Aminocoumarin Based Monobasic k3 -O,N,Otridentate/ k2 -N,O-bidentate Schiff Base Divalent Complexes; **Sanjay K Verma**, Chirag Savani, and Vinay K. Singh, **ChemistrySelect**, **2019**, 4, 1–10. [Impact Factor – 1.81]
3. A facile two-photon fluorescent probe: an endoplasmic reticulum tracker monitoring ER stress and vesicular transport to lysosomes; Pratibha Kumari, **Sanjay K. Verma** and Shaikh M. Mobin, **Chem. Commun.**, **2019**, 55, 294-297. [Impact Factor – 6.164]
4. A novel mesoionic carbene based highly fluorescent Pd(II) complex as an endoplasmic reticulum tracker in live cells; **Sanjay K. Verma**, Pratibha Kumari, Shagufi Naz Ansari, Mohd

Ovais Ansari, Dondinath Deoria and Shaikh M. Mobin, *Dalton Trans.*, **2018**, 47, 15646-15650. [Impact Factor – 4.052]

5. Dy(III)-Based Metal–Organic Framework as a Fluorescent Probe for Highly Selective Detection of Picric Acid in Aqueous Medium; Richa Rajak, Mohit Saraf, **Sanjay K. Verma**, Ravinder Kumar, and Shaikh M. Mobin, *Inorg. Chem.*, **2019**, 58, 16065–16074. [Impact Factor – 4.85]
6. Design and Synthesis of a New Facile Ligand in a Dual Role: Mechanically Elastic Crystal and Selective Mitochondria Target; Pratibha Kumari, **Sanjay K. Verma**, Kaushik Natarajan, Shagufi Naz Ansari, Anoop Kumar Saini and Shaikh M. Mobin, *Cryst. Growth Des.*, **2019**, 19(10), 5483-5490. [Impact Factor – 4.17]
7. Vacuum Mediated Single-Crystal-to-Single-Crystal (SCSC) Transformation in Na-MOFs: Rare to Novel Topology and Activation of Nitrogen in Triazole Moieties; Shagufi Naz Ansari, **Sanjay K. Verma**, Aleksandr A. Garin and Shaikh M. Mobin, *Cryst. Growth Des.*, **2018**, 18(3), 1287-1292. [Impact Factor – 4.17]
8. Water soluble two-photon fluorescent organic probes for long-term imaging of lysosomes in live cells and tumor spheroids; Pratibha Kumari, **Sanjay K. Verma** and Shaikh M. Mobin *Chem. Commun.*, **2018**, 54, 539-542. [Impact Factor – 6.164]
9. Identification of unusual C–Cl... π contacts in 2-(alkylamino)-3-chloro-1,4-naphthoquinones: Effect of *N*-substituents on crystal packings, fluorescence, redox and anti-microbial properties; Vinay K Singh, **Sanjay K Verma**, Rahul Kadu and Shaikh M. Mobin, *RSC Advances* **2015**, 5, 43669–43686. [Impact Factor – 3.07]
10. Synthesis and characterization of ferrocene functionalized transition metal dithiocarbamate complexes: Investigations of antimicrobial, electrochemical properties and a new polymorphic form of $[\text{Cu}\{\kappa^2\text{S,S-S}_2\text{CN}(\text{CH}_2\text{C}_4\text{H}_3\text{O})\text{CH}_2\text{Fc}\}_2]$; **Sanjay K. Verma** and Vinay K. Singh, *J. Organomet. Chem.* **2015**, 791, 214–224. [Impact Factor – 2.173]
11. Synthesis, electrochemical, fluorescence and antimicrobial studies of 2-chloro-3-amino-1,4-naphthoquinone bearing mononuclear transition metal dithiocarbamate complexes $[\text{M}\{\kappa^2\text{S,S-S}_2\text{C-piperazine-C}_2\text{H}_4\text{N}(\text{H})\text{CINQ}\}_n]$; **Sanjay K. Verma** and Vinay K. Singh, *RSC Advances*, **2015**, 5, 53036-53046. [Impact Factor – 3.07]
12. $[\text{M}\{\kappa^2\text{S,S-S}_2\text{C-piperazine-C}_2\text{H}_4\text{N}=\text{C}(\text{R})\}_n]$ {Co(III), Ni(II), Cu(II) or Zn(II)} complexes bearing pendant Schiff base moieties: spectral characterization, fluorescence, cyclic voltammetric and TGA/DTA study; **Sanjay K. Verma** and Vinay K. Singh, *J. Coord. Chem.*, **2015**, 68, 1072-1087. [Impact Factor – 1.68]
13. A Facile Synthesis, Crystallographic, Spectral, Thermal and Electrochemical Investigations of Neutral $[\text{Cu}_2(\text{Et}_2\text{dtc})_4]$ Dimer; **Sanjay K. Verma**, Rahul Kadu and Vinay K. Singh, *Synth. React. Inorg. Met.-Org. Nano-Metal Chem.*, **2014**, 44, 441–448. [Impact Factor – 0.685]
14. One pot three component synthesis of mononuclear $[\text{M}(1,1\text{-dithiolato})_2]$ {Mn(II), Co(II), Zn(II) and Cd(II)} complexes, spectral characterization, fluorescence, optical and thermogravimetric study; **Sanjay K. Verma** and Vinay K. Singh, *Polyhedron*, **2014**, 76, 1-9. [Impact Factor – 2.067]

15. Effect of substituents on crystal packing of functionalized 4,4'-bis(benzylideneamino)diphenyl ether(s) and their reduced benzyl forms: Synthesis, characterization, optical and thermal properties; Rahul Kadu, Vinay K Singh, **Sanjay K Verma**, Pallepogu Raghavaiah and Mobin M Shaikh, *J. Mol. Struct.*, **2013**, 1033, 298–311. [Impact Factor – 2.01]

Industry Experience:

Worked as Officer at the Gujarat Fluorochemicals, Limited (GFL), Ranjitnagar, Panchmahal, Gujarat: **September 2015 to December 2015.**

Courses Taught:

Guest Faculty: Department of Chemistry, University of Delhi: Experimental Procedures, Synthesis, Spectroscopic techniques and data interpretation:

November 7, 2019 to April 27, 2020.

Lecturer of Chemistry: New Light Coaching Institute, Kakadeo, Kanpur: Basic Concepts of Chemistry: **May 2004 to April 2007.**

Conference & Seminar:

- ❖ Poster presented in the “RSC-IIT Indore Symposium in Chemical Science” Indian Institute of Technology Indore, India, January 30, 2018.
- ❖ Poster presented in the “21st CRSI National Symposium in Chemistry (CRSI NSC-21)” in CSIR-Indian Institute of Chemical Technology Hyderabad, India, July 14-16, 2017.
- ❖ Poster presented in the “Frontiers in Inorganic and Organometallics” in Indian Institute of Technology Indore, India, April 14-15, 2016.
- ❖ Poster presented in the ‘International Conference on Science and Engineering of Materials (ICSEM-2014) School of Engineering and Technology, Sharda University Greater Noida-201306, India (6-8 January 2014).
- ❖ Poster presented in the ‘International Conference on Chemistry and Materials: prospects and Perspectives-2012, Babasaheb Bhimrao Ambedkar University (A Central University) Vidya Vihar, Raibareli Road Lucknow- 226 025, (India) December 14-16, 2012.
- ❖ Poster presented in the ‘International Conference on Innovations in Chemistry For Sustainable Development (ICSD-2011)’ Panjab University, Chandigarh, December 01-03, 2011.
- ❖ Oral presentation in the ‘Western India Research Scholars’s Meet 2011 (WIRSM-2011)’ Department of Chemistry, M. S. U, Baroda, September 17, 2011.
- ❖ Oral presentation in the ‘Regional Science Congress on Science for Shaping the Future of India’ Department of Chemistry, M. S. U, Baroda and Indian Science Congress Association (Baroda chapter) September 15-16, 2012.
- ❖ Oral presentation in the ‘National Symposium on Modern Trends in Chemistry (MTC-2013)’ Department of Chemistry, faculty of Science, M. S. U, Baroda, March 21-23, 2013.
- ❖ Poster presented in the ‘Modern Trends in Inorganic Chemistry (MTIC-XIV)’ School of Chemistry, University of Hyderabad, December 10-13, 2011.

Workshop/Symposium:

- ❖ National Symposium on “Emerging Horizons in Catalysis” by Department of Chemistry, Faculty of Science, The M. S. University of Baroda, Vadodara (September 25-26, 2009).
- ❖ National Seminar on “Recent Trends in Chemistry” at Department of Chemistry D. A. V. College Kanpur (October 5-6, 2001).
- ❖ National Workshop on “Radiochemistry and Applications of Radioisotopes” Indian Association of Nuclear Chemists and Allied Scientists (IANCAS), by Department of Chemistry, Faculty of Science, The M. S. University of Baroda, Vadodara (January 4-12, 2010).
- ❖ GIAN Course attended on Inorganic Chemistry of Imaging: Magnetic Resonance and Optical Imaging with Coordination Complexes at Discipline of Chemistry, Indian Institute of Technology Indore January 08–12, 2018 by **Prof. Janet R Morrow**.
- ❖ GIAN Course attended on Metal-Ligand Interplay in Advanced Coordination Chemistry at Discipline of Chemistry, Indian Institute of Technology Indore on February 5–9, 2018 by **Prof. Pierre Braunstein** and **Prof. Pradeep Mathur**.

Awards& Honors:

- ❖ CSIR-JRF position at Department of Chemistry, Faculty of Science, The M. S. University of Baroda, Vadodara: May 2009.
- ❖ CSIR-NET Qualified: 2008, 2009, 2010.
- ❖ GATE Qualified: March 2009: 94.04 Percentile.
- ❖ UGC-BSR (RFSMS): March 2012.
- ❖ National Post-Doctoral Fellow (NPDF), Discipline of Chemistry, IIT Indore, Funded by DST SERB (New Delhi) India: July 2016

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