St. Xavier's College

Dr. Camil Bulcke Path, Ranchi

Faculty Profile

Name of Faculty Member	**:**	**Dr. Sumita Hazra**
Gender	:	Female
Email ID	:	sumitanaskarhazra@gmail.com
Name of Department	:	Department of Chemistry
Designation	:	Assistant Professor
Level of Teaching	:	Undergraduate and Postgraduate
Academic Qualification	:	M.Sc., Ph.D.
Total Teaching Experience	:	07 Years and 03 Months
UGC NET/SET Qualified	:	Yes

Research Papers Published:

1) **Square planar Ni (II) thiosemicarbazone complexes as functional models for carbon monoxide dehydrogenase**; Shyamal Kumar Chattopadhyay, **Sumita Naskar**, Subhendu Naskar, Heike Mayer Figge, William S. Sheldrick; Journal of the Indian Chemical Society, 2022, 99(5), 100422; Pub.- Elsevier; Impact Factor: 0.284

2) ***Ci*-symmetry, [2 × 2] grid, square copper complex with the *N*4, *N*5-bis(4fluorophenyl)-1*H*-imidazole-4,5-dicarboxamide ligand: structure, catecholase activity, magnetic properties and DFT calculations**; Arfa Parween, **Sumita Naskar**, Antonio J. Mota, Arturo Espinosa Ferao, Shyamal Kumar Chattopadhyay, Eric Riviere, William Lewis, Subhendu Naskar; *New Journal of Chemistry*, 2017, 41, 11750-11758; Pub. - Royal Society of Chemistry; Impact Factor - 3.591

3) **Ruthenium complexes of substituted terpyridine and pyridyl-quinoline based ligands with ancillary ligands: Synthesis, characterization, electrochemical study and DFT calculation**; Binitendra N. Mongal, **Sumita Naskar**, Arunava Pal,

Sayantani Bhattacharya, Tarun K. Mandal, Jayati Datta, Subhendu Naskar; *Chemistry Select*, 2016, **1**, 3276 – 3287; Pub. - Wiley; Impact Factor: 2.109

4) **Synthesis, characterization and theoretical studies of the heteroleptic Ruthenium (II) complexes of 2,6-bis (benzimidazolyl) pyridine**; **Sumita Naskar**, Bholanath Pakhira , Dipankar Mishra, Partha Mitra, Shyamal Kumar Chattopadhyay, Subhendu Naskar; *Polyhedron* 2015, **100,** 170–179; Pub.- Elsevier; Impact Factor: 3.052

5) **Synthesis, X-ray crystal structures, spectroscopic and electrochemical studies of Zn(II), Cd(II), Ni(II) and Mn(II) complexes of N1,N4-bis (pyridoxylidene) triethylenetetramine**; Satyajit Mondal, Piyali Adak , Chandrima Das , **Sumita Naskar** , Bholanath Pakhira, Arnold L. Rheingold, Ekkehard Sinn, Carla Sue Eribal and Shyamal Kumar Chattopadhyay; *Polyhedron* 2014, **81,** 428–435; Pub.- Elsevier; Impact Factor: 3.052

6) **Heteroleptic Ru(II) complexes containing aroyl hydrazone and 2,2'-bipyridyl: Synthesis, X-ray crystal structures, electrochemical and DFT studies**; Bipinbihari Ghosh, **Sumita Naskar**, Subhendu Naskar, Arturo Espinosa, Sam C.K. Hau, Thomas C.W. Mak, Ryo Sekiya, Reiko Kuroda and Shyamal Kumar Chattopadhyay; *Polyhedron* 2014, **72**, 115–121; Pub.- Elsevier; Impact Factor: 3.052

7) **Mononuclear and binuclear Cu (II) complexes of some tridentate aroyl hydrazones. X-ray crystal structures of a mononuclear and a binuclear complex**; Satyajit Mondal, **Sumita Naskar**, Ayan Kumar Dey, Ekkehard Sinn, Carla Eribal, Steven R. Herron, Shyamal Kumar Chattopadhyay; *Inorganica Chimica Acta*, 2013, **398**, 98–105; Pub.- Elsevier; Impact Factor: 2.545

8) **Synthesis, X-ray Crystal Structures, and Spectroscopic, Electrochemical, and Theoretical Studies of Mn^{III} Complexes of Pyridoxal Schiff Bases with Two Diamines**; **Sumita Naskar**, Subhendu Naskar, Ray J. Butcher, Montserrat Corbella, Arturo Espinosa Ferao and Shyamal Kumar Chattopadhyay; *Eur. J. Inorg. Chem.* 2013, 3249–3260; Pub. - Wiley; Impact Factor - 2.524

9) **Study of copper (II) complexes of two diacetyl monooxime thiosemicarbazones: X-ray crystal structure and magneto-structural correlation of $Cu(dmoTSCH)Cl]_2.H_2O$ (dmoTSCH = monoanion of diacetyl monooxime thiosemicarbazone)**; **Sumita Naskar**, Subhendu Naskar, Heike Mayer-Figge, William S. Sheldrick, Montserrat Corbella, Javier Tercero, Shyamal Kumar Chattopadhyay; *Polyhedron,* 2012, **35**, 77–86; Pub.- Elsevier; Impact Factor: 3.052

10) **Synthesis, X-ray crystal structures, spectroscopic and cyclic voltammetric studies of Cu (II) Schiff base complexes of pyridoxal**; **Sumita Naskar**, Subhendu

Naskar, Hake M. Figgie , William S. Sheldrick , Shyamal Kumar Chattopadhyay*; Polyhedron*, 2011, **30**, *3*, 529-534; Pub.- Elsevier; Impact Factor: 3.052

11) **Synthesis and spectroscopic properties of cobalt (III) complexes of some aroyl hydrazones. X-ray crystal structures of one cobalt (III) complex and two aroyl hydrazone ligands**; S**umita Naskar,** Subhendu Naskar**, Satyajit Mondal, Paresh Kumar Majhi, Mike G.B. Drew and Shyamal Kumar Chattopadhyay;** *Inorganica Chimica Acta*, 2011, **371**, *1,*100-106; Pub.- Elsevier; Impact Factor: 2.545

12) **Synthesis, X-Ray Crystal Structure and Spectroscopic Properties of 1,2,3,4-Tetrahydro 2 (thenyl) 3-(*N*-thenylidine)-4-oxoquinazoline**; S**umita Naskar**, Subhendu Naskar, Alexander J. Blake, Haregewine Tadesse and Shyamal Kumar Chattopadhyay; Journal of *Chemical Crystallography*, 2011, **41**, 986-990*,* 2011; Pub. - Springer; Impact Factor - 0.603

13) **Synthesis, X-ray crystal structure and spectroscopic properties of two Ni (II) complexes of pyridoxal Schiff's basis of diamines. Importance of steric factors in stabilization of water helices in the lattices of metal complex**; **Sumita Naskar**, Subhendu Naskar, Ray J. Butcher and Shyamal Kumar Chattopadhyay; *Inorganica Chimica Acta*, 2010, *363*, 404–411; Pub.- Elsevier; Impact Factor: 2.545

14) **Synthesis, crystal structures and spectroscopic properties of two Zn (II) Schiff's base complexes of pyridoxal**; Subhendu Naskar, **Sumita Naskar**, Hake M. Figgie, William S. Sheldrick and Shyamal Kumar Chattopadhyay; *Polyhedron*, 2010, **29***, 1*, 493-499; Pub.- Elsevier; Impact Factor: 3.052

15) **Synthesis and spectroscopic properties of Ni (II) complexes of some aroyl hydrazone ligands with 2,6-diacetyl pyridine monooxime. X-ray crystal structure of the salicyloylhydrazone Ni (II) complex**; Subhendu Naskar, **Sumita Naskar**, Ray J. Butcher and Shyamal Kumar Chattopadhyay; I*norganica Chimica Acta*, 2010, 363, 14, *3641-3646*; Pub.- Elsevier; Impact Factor: 2.545

16) **Structural and spectroscopic properties of Ru (II) complexes of 4-(aryl)thiosemicarbazones of thiophen-2-carbaldehyde**; S**umita Naskar**, Subhendu Naskar, M. G. B. Drew, S. I. Gorelsky, Lassalle Benedikt, Ally Aukauloo, S. K. Chattopadhyay; *Polyhedron*, 2009, **28**, *18*, 4101 - 4109; Pub.- Elsevier; Impact Factor: 3.052

17) **Synthesis, X-ray Crystal Structure and DFT Calculations of bis(N-(2-picolyl) picolinamido) Mn (III) Hexafluorophosphate**; **Sumita Hazra**, Subhendu Naskar, Dipankar Mishra, Serge I. Gorelsky, Heike M. Figgie, William S. Sheldrick, S. K. Chattopadhyay; *Dalton Trans.*, 2007, 4143 – 4148; Publisher – Royal Society of Chemistry; Impact Factor: 4.569

Participation in UGC-HRDC Course/FDP/OC/RC:

1) UGC Guru Dakshta 18th Faculty Induction Program (02.09.2023 to 29.09.2023) organized by UGC HRDC, Ranchi University, Ranchi

Seminar/Conference attended/Paper Presented (National/International):

1) Participated in **27th ISCB International Conference (ISCBC 2022) on "Research and Innovation in Chemical, Pharmaceutical and Biological Sciences", jointly organized by** *Department of Chemistry, Birla Institute of Technology, Mesra, Ranchi and Indian Society of Chemists and Biologists.* **16-19th Nov.'2022**
2) Participated in One Week Hands-on Training Workshop on "**Preparation and Characterization of Oral Solid Dosage Form under DST-STUTI**" Program of IIT(ISM) Dhanbad organized by Department of Pharmaceutical Sciences and Technology, *Birla Institute of Technology, Mesra, Ranchi, 10-16 June'2022*.
3) Participated in a One Day Workshop on **Instrumentation and Computation for Experimental Pedagogy in Chemical Education** organized by *Department of Chemistry, Birla Institute of Technology, Mesra, Ranchi, 9th June'2022*
4) Participated in *two day national webinar on "**Current Challenges in Experimental Physical Chemistry**", 31st Jul - 1st Aug' 2021, jointly organized by Department of Chemistry, IIT (ISM) Dhanbad and Royal Society of Chemistry*
5) **Participated in *the Cloud-based Hands-on Workshop on "Computational chemistry, Molecular Modeling, Drug Design and Biologics",*** *Department of Chemistry, Birla Institute of Technology, Mesra, Ranchi, 21-23 rd Dec.'2021*
6) Participated in *TEQIP sponsored workshop on "**Software in Chemical Science Education and Research**", (SCR 2013), Department of Applied Chemistry, Birla Institute of Technology, Mesra, Ranchi, October 3, 2013*
7) **Oral Presentation in** *National Seminar on Inorganic Chemistry-2011, 8-9 July, 2011, Jadavpur University, Kolkata*
8) **Participated in** *CRSI (Kolkata Chapter) National Symposium(VIII) in* ***Advances in Chemical Research****, Bengal Engineering and Science University, Shibpur August 6, 2010.*
9) Poster presentation in ***International Symposium on Frontiers in Inorganic chemistry (FIC-2010)***, *Department of Inorganic chemistry, Indian Association for*

the Cultivation of science, Jadavpur, Kolkata, December 11-13, 2010; Title: Pyridoxal schiff base complexes o Mn(III), Ni(II) and Zn(II), P-93, ***S. Naskar****, S. Naskar, R. J. Butcher, S. K. Chattopadhyay*

10) *Poster presentation in* ***Modern Trends in Inorganic Chemistry****, MTIC-XIII, IISC-Bangalore, December 07-10, 2009; Title: Ruthenium(II) Complexes of some thiosemicarbazones: Structural and DFT Study*, P214 - **S. Naskar**, D. Mishra, S. Naskar, S. I. Gorelsky & S. K. Chattopadhyay

11) *Oral Presentation in 45th Annual Convention of Chemists & International conference on* ***Recent Advances in Chemistry****, Karnatak University, Dharwad, November 23-27, 2008; Title: Complexes of Mn(III) and Ni(II) with some tetradentate schiff base ligands, ING(AP)-17, S. Naskar,* ***S. Naskar****, R. J. Butcher, S. K. Chattopadhyay*

<u>Any Special Award/Achievement</u>:

1) 2018, Recipient of **Certificate of Excellence in Faculty Development Programes on Foundation Program in ICT for Education: FDP101x (08/03/2018-12/04/2018) and Pedagogy for Online and Blended Teaching-Learning Process**: FDP201x (03/05/2018 - 30/05/2018) conducted by IIT Bombay.
2) 2018, Awarded **Certificate of Appreciation for the mentorship** of the NPTEL online Certificate Course: Ecology and Environment (Jul - Oct' 2018).
3) 2013, Recipient of **UGC Dr. D. S. Kothari Post-doctoral fellowship**.
4) 2008, Recipient of **Professor A. K. Dey memorial award for young scientist** award at the 45th national convention of chemist

[Dr. Sumita Hazra]