Dr. Sanjib Giri

Assistant Professor

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Current Position

Assistant Professor in Chemistry at Sri Ramkrishna Sarada Vidya Mahapitha (A Govt. approved general degree college affiliated to The University of Burdwan), Hooghly, West Bengal (June, 2017 to till date)

Academic information

- Doctoral Degree: Ph.D. (2014) in Science from Department of Material Science, Indian Association for the Cultivation of Science, Jadavpur University, India.
- Post Graduate Education: M. Sc. (2008) in Chemistry with specialization in Inorganic Chemistry, Department of Chemistry, University of Calcutta, India.
- Undergraduate Education: B. Sc. (2006) in Chemistry (Hons.), Department of Chemistry, Bankura Christian College, University of Burdwan, India.

Postdoctoral Research Experience

March 2014 – March 2017: Department of Chemistry, University of Calcutta, India; funded by UGC through Dr. D.
S. Kothari Postdoctoral Fellowship. Title: "Investigation on structure and magnetic properties of hetereometallic 3d-4f coordination frameworks."

Research Awards

- Qualified National Eligibility Test (NET) and Junior Research Fellowship (CSIR JRF) 2008 in Chemical Science, conducted jointly by University Grant Commission and Council of Scientific and Industrial Research, Govt. of India.
- Senior Research Fellowship (SRF) 2011 by Council of Scientific and Industrial Research, Govt. of India.
- Awarded by University Grants Commission, Govt. of India through Dr. D. S. Kothari postdoctoral Fellowship 2014.

List of Publications

- (1) S. Giri and S. Saha, "Superparamagnetic-to-Diamagnetic Transition in Hydroxo-Bridged Trinuclear Copper (II) Complex Nanorods" *The Journal of Physical Chemistry C*, 2010, 114, 11723-11729. IF= 4.309
- (2) S. Giri, S. Biswas, M. G. Drew, A. Ghosh and S. K. Saha, "Structure and magnetic properties of a tetranuclear Cu(II) complex containing the 2-(pyridine-2-yliminomethyl)-phenol ligand" *Inorganica Chimica Acta*, 2011, 368, 152-156. IF= 2.433
- (3) S. Giri, D. Maity, J. F. Godsell, S. Roy, M. G. Drew, A. Ghosh, G. Mukhopadhyay and S. K. Saha, "A new tetranuclear copper(II) complex with oximate bridges: Structure, magnetic properties and DFT study" *Inorganica Chimica Acta*, 2011, 377, 99-104. IF= 2.433
- (4) S. Giri and S. K. Saha, "Room Temperature Spontaneous Magnetization in a Coordination Framework." *The Journal of Physical Chemistry Letters*, 2011. IF= 8.709

- (5) S. Giri, R. Biswas, A. Ghosh and S. K. Saha, "Magnetic property of a triply bridged linear trinuclear nickel complex" *Polyhedron*, 2011, 30, 2717-2722. IF= 2.284
- (6) R. Biswas, S. Giri, S. K. Saha and A. Ghosh, "One Ferromagnetic and Two Antiferromagnetic Dinuclear Nickel (II) Complexes Derived from a Tridentate N,N,O-Donor Schiff Base Ligand: A Density Functional Study of Magnetic Coupling." *European Journal of Inorganic Chemistry*, 2012, 2916-2927. IF= 2.578
- (7) S. Naiya, S. Giri, S. Biswas, M. G. Drew and A. Ghosh, "Structural and theoretical investigation on two dinuclear Fe (III) complexes of tridentate N, N, O-donor Schiff base ligands." *Polyhedron*, **2014**, 73, 139-145. IF= 2.284
- (8) P. P. Chakrabarty, S. Giri, D. Schollmeyer, H. Sakiyama, M. Mikuriya, A. Sarkar and S. Saha, "Double azido-bridged and mixed-bridged binuclear copper (II) and nickel (II) compounds with N,N,O-donor Schiff bases: Synthesis, structure, magnetic and DFT study" *Polyhedron*, 2015, 89, 49-54. IF=2.284
- (9) S. Ghosh, S. Giri and A. Ghosh, "An adaptable heterometallic trinuclear coordination cluster in the synthesis of tailored one-dimensional architecture: Structural characterization, magnetic analysis and theoretical calculations" *Polyhedron*, 2015, 102, 366-374. IF=2.284
- (10) P. Seth, S. Giri and A. Ghosh, "Tuning of exchange coupling by the Mn–O distance and phenoxido bridging angle: an experimental and theoretical study of the family of Mn(III) dimers with salen type ligands." *Dalton Transactions*, 2015, 44, 12863-12870. IF=4.052
- (11) P. P. Chakrabarty, S. Giri, K. Sen, S. Saha, A. D. Jana, S. G. Granda, S. Haldar and M. Bera, "A phenoxo-azido assorted Schiff base copper (II) bridged dimer in trace level fluorescence sensing of a pesticide: A DFT supported phenomenon" *Journal of Coordination Chemistry*, 2016, 1-28. IF=1.685
- (12) A. Hazari, S. Giri, C. Diaz and A. Ghosh, "Unusual site selection of NCS⁻ in trinuclear complexes of Cu(II) and Ni(II) with a reduced N₂O₂ donor Schiff base: Structural, theoretical and magnetic studies." *Polyhedron*, 2016, 118, 70-80. IF=2.284
- (13) P. Mahapatra, S. Ghosh, S. Giri and A. Ghosh, "The unusual intermediate species in the formation of Ni(II) complexes of unsymmetrical Schiff bases by Elder's method: Structural, electrochemical and magnetic characterizations." *Polyhedron*, 2016, 117, 427-436. IF=2.284
- (14) M. Mondal, P. M. Guha, S. Giri and A. Ghosh, "Deactivation of catecholase-like activity of a dinuclear Ni(II) complex by incorporation of an additional Ni(II)." *Journal of Molecular Catalysis A: Chemical*, 2016, 424, 54-64. IF= 4.397
- (15) R. Sanyal, X. Zhang, P. Chakraborty, S. Giri, S. K. Chattopadhyay, C. Zhao and D. Das, "Role of solvent in the phosphatase activity of a dinuclear nickel (II) complex of a Schiff base ligand: mechanistic interpretation by DFT studies." *New Journal of Chemistry*, 2016, 40, 7388-7398. IF= 3.069

- (16) M. Mondal, S. Giri, P. M. Guha and A. Ghosh, "Dependence of magnetic coupling on ligands at axial Positions of Ni^{II} in phenoxido bridged dimers: Experimental observations and DFT studies" *Dalton Transactions*, **2017**, 46, 697-708. IF=4.052
- (17) S. Dasgupta, J. Adhikary, S. Giri, A. Bauza, A. Frontera and D. Das, "Unveiling the effects of the in situ generated arene anion radical and imine radical on catecholase like activity: a DFT supported experimental investigation" *Dalton Transactions*, 2017, 46, 5888-5900. IF=4.052
- (18) A. Das, K. Bhattacharya, S. Giri, A. Ghosh "Synthesis, crystal structure and magnetic properties of a dinuclear and a trinuclear Ni(II) complexes derived from tetradentate ONNO donor Mannich base ligands" *Polyhedron*, 2017, 134, 295-301. IF=2.284
- (19) P. Mahapatra, S. Ghosh, S. Giri, V. Rane, R. Kadam, M. G. B. Drew, A. Ghosh "Subtle Structural Changes in (CuIIL)2MnII Complexes To Induce Heterometallic Cooperative Catalytic Oxidase Activities on Phenolic Substrates (H2L = Salen Type Unsymmetrical Schiff Base)" *Inorganic Chemistry*, 2017, 569, 5105-5121. IF= 4.850
- (20) P. Bhowmik, S. Jana, P. Mahapatra, S. Giri, S. Chattopadhyay, A. Ghosh, "Role of steric crowding of ligands in the formation of hydroxido bridged di-and trinuclear copper (II) complexes: Structures and magnetic properties" *Polyhedron*, 2018, 145, 43-52. IF=2.284
- (21) S. Hazra, L.K. Das, S. Giri, MGB Drew, A. Ghosh, "Structural variations in self-assembled coordination complexes of hexamethylenetetramine, zinc (II) and carboxylates (RCOO-, R=-CH3/- C6H5): Encapsulation of the water hexamer" *Inorganica Chimica Acta*, 2018, 471, 691-697. IF= 2.433
- (22) A. Das, K. Bhattacharya, L.K. Das, S. Giri, A. Ghosh, "Mixed azido/phenoxido bridged trinuclear Cu (II) complexes of Mannich bases: Synthesis, structures, magnetic properties and catalytic oxidase activities" *Dalton Transactions*, 2018, 47 (28), 9385-9399. IF=4.052
- (23) P. Mahapatra, S. Giri, MGB Drew, A. Ghosh, "Control of nuclearity in heterometallic Cu^{II}–Mn^{II} complexes derived from asymmetric Schiff bases: structures and magnetic properties" *Dalton Transactions*, **2018**, 47(10), 3568-3579. IF=4.052
- (24) M. Mondal, S. Ghosh, S. Maity, S. Giri and A. Ghosh "In situ transformation of a tridentate to a tetradentate unsymmetric Schiff base ligand via deaminative coupling in Ni(II) complexes: crystal structures, magnetic properties and catecholase activity study" *Inorg. Chem. Front.*, 2019, DOI: 10.1039/C9QI00975B, IF= 5.934

Google Scholar h-index=12

Google Scholar i10-index=15

Google Scholar profile link https://scholar.google.co.in/citations?hl=en&user=yFachXsAAAAJ

Posters/Oral/Papers presented in National / International seminars / conferences / workshop

- 1. Present a poster on 29th July 2010 on the occasion of the Foundation Day at Indian Association for the Cultivation of Science.
- Present a poster in the International Conference on Structural Chemistry of Molecules and Materials (SCOMM-2014) at Centre for Research in Nanoscience and Nanotechnology (CRNN), University of Calcutta, held on 30th November to 2nd December 2014.
- **3.** Present a poster in the National Symposium on "Celebrating International Year of Periodic Table -2019" sponsored by RSC-Eastern Indian Section & Indian Chemical Society, Kolkata from 18th to 19th March 2019 at Department of Chemistry, Bankura Sammilani College.

National / International seminars / conferences / Science outreach / workshop attended

- 1. "RSC –India Roadshow" held at Indian association for the Cultivation of Science on 5th February 2013.
- 2. Attended the full agenda of "ACS on Campus" events at Indian association for the Cultivation of Science on 12th October 2012.
- 3. Science Academics' Lecture workshop on "Basic Principles of Chemistry" sponsored by India Academy of Sciences, Bangaluru, Indian National Science Academy, New Delhi and National Academy of Sciences, Allahabad at Department of Chemistry, Tarakeswar Degree College (TDC) from 31st January to 1st February, 2019.