

## Research Publications:

### Journals:

1. B. Ghosh, P. Adak, S. Naskar, B. Pakhira, P. Mitra, **S. K. Chattopadhyay**, *Polyhedron*, 131, 74-85 (2017).
2. P. Adak, B. Ghosh, B. Pakhira, R. Sekiya, R. Kuroda, **S. K. Chattopadhyay**, *Polyhedron*, 127, 135-145 (2017).
3. B. Ghosh, P. Adak, S. Naskar, B. Pakhira, P. Mitra, R. Dinda, **S. K. Chattopadhyay**, *Inorg. Chim. Acta*, 459, 1-14(2017).
4. S. Sagar, S. Sengupta, A. J. Mota, **S. K. Chattopadhyay**, A. E. Ferao, E. Riviere, W. Lewis, S. Naskar, Cubane-like tetranuclear Cu(II) complexes bearing a Cu<sub>4</sub>O<sub>4</sub> core: crystal structure, magnetic properties, DFT calculations and phenoxazinone synthase like activity, *Dalton Trans.*, 46, 1249-1259(2017).
5. P. Adak, B. Ghosh, A. Bauzá, A. Frontera, A. J. Blake, M. Corbella, C. Das Mukhopadhyay, **S. K. Chattopadhyay**, Catecholase activity, DNA binding and Cytotoxicity studies of a Cu(II) complex of a pyridoxal Schiff base: Synthesis, X-ray crystal structure, spectroscopic, electrochemical and theoretical studies, *RSC Adv.*, 6, 86851-86861 (2016).
6. P. Adak, C. Das, B. Ghosh, S. Mondal, B. Pakhira, E. Sinn, A. J. Blake, A. E. O'Connor, **S. K. Chattopadhyay**, Two pseudohalide-bridged Cu(II) complexes bearing the anthracene moiety: Synthesis, crystal structures and catecholase-like activity, *Polyhedron*, 119,39-48(2016).
7. S. Mondal, B. Pakhira, A. J. Blake, M. G. B. Drew, **S. K. Chattopadhyay**, Co(III) and Ni(II) complexes of an anthracene appended aroyl hydrazone: synthesis, crystal structures, DNA binding and catecholase activity, *Polyhedron*, 117,327-337(2016).
8. J. Adhikary, A. Chakraborty, S. Dasgupta, **S. K. Chattopadhyay**, R. Kruszynski, A. Trzesowska-Kruszynska, S. Stepanović, M. Gruden-Pavlović, M. Swart, D. Das, Unique mononuclear Mn<sup>II</sup> complexes of an end-off compartmental Schiff base ligand: experimental and theoretical studies on their bio-relevant catalytic promiscuity, *Dalton Trans.* 45, 12409-12422 (2016).
9. R. Sanyal, X. Zhang, P. Chakraborty, S. Giri, **S. K. Chattopadhyay**, C. Zhao, 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 J. Chem.*, 40, 7388-7398 (2016).
10. R. Sanyal, P. Kundu, E. Rychagova, G. Zhigulin, S. Ketkov, B. Ghosh, S. K. Chattopadhyay, E. Zangrando, D. Das, Catecholase activity of Mannich-based dinuclear Cu<sup>II</sup> complexes with theoretical modeling: new insight into the solvent role in the catalytic cycle *New J. Chem.*, 40, 6623-6635 (2016).
11. S. Naskar, B. Pakhira, D. Mishra, P. Mitra, **S. K. Chattopadhyay**, S. Naskar, Synthesis, Characterization and theoretical studies of the heteroleptic Ruthenium (II) complexes of 2, 6 bis-(benzimidazolyl) pyridine, *Polyhedron*, 100,170-179(2015).

12. P. Chakraborty, I. Majumder, H. Kara, **S. K. Chattopadhyay**, E. Zangrando, D. Das, Azido bridge mediated catecholase activity, electrochemistry and magnetic behavior of a dinuclear copper (II) complex of a phenol based “end-off” compartmental ligand, *Inorg. Chim. Acta* 436, 139-145(2015) .
13. G. Roymahapatra, T. Samanta, S. K. Seth, A. Mahapatra, **S. K. Chattopadhyay**, J. Dinda, N, N'-Olefin Functionalized Bis-Imidazolium Pd(II) Chloride N-Heterocyclic Carbene Complex builds a supramolecular framework and shows catalytic efficacy for 'C-C' coupling reactions, *J. Chem. Sci.* 127, 1057-1065(2015).
14. E. Zangrando D. Das, I. Majumder, P. Chakraborty, S. Das, H. Kara, **S. K. Chattopadhyay**, Solvent dependent ligand transformation in a dinuclear copper (II) complex of a compartmental Mannich-base ligand: synthesis, characterization, bio-relevant catalytic promiscuity and magnetic study, *RSC Advances* 5, 51290-51301(2015)
15. C. Das, P. Adak, S. Mondal, R. Sekiya, R. Kuroda, S. I. Gorelsky, **S. K. Chattopadhyay**, Synthesis, characterization, X-ray crystal structure, DFT calculations and catalytic properties of a dioxidovanadium(V) complex derived from oxamohydrazide and pyridoxal: a model complex of vanadium dependent bromoperoxidase, *Inorg. Chem.* 53, 11426-11437 (2014).
16. P. Chakraborty, J. Adhikary, B. Ghosh, R. Sanyal, **S. K. Chattopadhyay**, A. Bauzá, A. Frontera, E. Zangrando, D. Das, Relation between the catalytic efficiency of the synthetic analogues of catechol oxidase with their electrochemical property in the State and substrate-bound state, *Inorg. Chem.* 53, 8257-8269 (2014).
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18. S. Mondal, C. Das, B. Ghosh, B. Pakhira, A. J. Blake, M. G. B. Drew, **S. K. Chattopadhyay**, Synthesis, spectroscopic studies, X-ray crystal structures, electrochemical properties and DFT calculations of three Ni (II) complexes of aroyl hydrazone ligands bearing anthracene moiety, *Polyhedron*, 80, 272-281 (2014) (*invited publication for Prof. V. M. Leovac special issue*).
19. T. Samanta, L. Dey, J. Dinda, **S. K. Chattopadhyay**, S. Seth, Cooperativity of anion... $\pi$  and  $\pi$ ... $\pi$  interactions regulates the self-assembly of a series of carbene proligands: Towards quantitative analysis of intermolecular interactions with Hirshfeld surface, *J. Mol. Str.* 1068, 58-70 (2014).
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26. S. Naskar, S. Naskar, H. M. Figgie, W. S. Sheldrick, M. Corbella, J. Tercero, **S. K. Chattopadhyay**, Study of Copper (II) complexes of two diacetyl monooxime thiosemicarbazones; X-ray crystal structure and magneto-structural correlation of [Cu(dmoTSCH)Cl]<sub>2</sub>. H<sub>2</sub>O (dmoTSCH = mono anion of diacetyl monooxime thiosemicarbazone), *Polyhedron*, 35, 77-86 (2012).
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