



**Dr. Bidyut Kumar Santra**  
**Assistant Professor of**  
**Chemistry**

Academic Qualifications: **B.Sc. (Hons.) in Chemistry, Calcutta University**

**Bombay**

**M.Sc. Chemistry, I.I.T. Kharagpur**  
**Ph.D. Inorganic Chemistry, I.I.T.**

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Research Interest: Metal Pollution, Bio-inorganic Chemistry

Specialization: Inorganic Chemistry

Fellowships: GATE-1995, CSIR- Research Associateship-2000.

Award: Best Citizens of India Award -2014; International Publishing House, New Delhi.

Conference/Seminar/Organisation: Presented papers in National and International Seminar:- 20

Teaching Experience: Ten (10) years for UG and two (02) years for PG
Research Experience: Coordination Chemistry, Bio-inorganic Chemistry, Metal Clusters, Metal pollution
Research Guiding Experience: M.Sc. Project Students  Ph.D. Scholars: 01
Post-Doctoral – Research Associate: Nil Completed Research Projects: Nil
Ongoing Project : Nil
Previous & Present Employment: Raiganj College (UC): 26.02.2007 – 02.02.2015 Raiganj University: 03.02.2015 to till date
Administrative Experience: Controller of Examinations (Offg.) since July, 2015
Financial Assurances from following Organisations for attending International Conferences in abroad: Nil
Publications:  Books: Nil  Research Papers: 32  <b>Some Selected Publications.</b>  1. Application of information science and technology in chemical research, <b>B. K. Santra</b> , <i>Int. J. Info. Sc. &amp; Computing</i> , <b>2016</b> , 3, 91.  2. The coordination chemistry of selenophosphite ligands. Synthesis and characterization of heterometallic tetranuclear clusters $[M\{CpFe(CO)_2P(Se)(OR)_2\}_3](PF_6)$ (M = Cu, Ag; R = <sup>n</sup> Pr, <sup>i</sup> Pr) and $[Cu(\mu-X)\{CpFe(CO)_2P(Se)(O^iPr)_2\}]_2$ (X = Cl, Br), <b>B. K. Santra</b> , J.-L. Chen, B. Sarkar and C. W. Liu <i>J.Chem.Soc., Dalton Trans.</i> <b>2008</b> , 2270.  3. The first, discrete Zn <sub>4</sub> tetrahedron with a selenium atom in the center: X-ray structure and solution study of $[Zn_4(\mu_4-Se)\{Se_2P(OPr)_2\}_6]$ , <b>B. K. Santra</b> , C.-M. Hung, B.-J. Liaw, J.-C. Wang and C. W. Liu, <i>Inorg. Chem.</i> <b>2004</b> , 43, 7570.

4. New halide-centered discrete  $\text{Ag}_8^{\text{I}}$  cubic clusters containing diselenophosphate ligands,  $\{\text{Ag}_8(\text{X})[\text{Se}_2\text{P}(\text{OR})_2]_6\}(\text{PF}_6)$  ( $\text{X} = \text{Cl}, \text{Br}; \text{R} = \text{Et}, \text{Pr}, \text{}^i\text{Pr}$ ). Syntheses, structures and DFT calculations, C. W. Liu, H.-C. Haia, C.-M. Hung, **B. K. Santra**, B.-J. Liaw, J.-C. Wang and Z.-Y. Lin, *Inorg. Chem.* **2004**, 43, 4464.
5. Syntheses, solid-state structures, and solution studies by VT  $^{31}\text{P}$  NMR of  $[\text{Zn}\{\text{Se}_2\text{P}(\text{OEt})_2\}_2]_n$  and  $[\text{Zn}_2\{\text{Se}_2\text{P}(\text{O}^i\text{Pr})_2\}_4]$  **B. K. Santra**, B. -J. Liaw, C. -M. Hung, C. W. Liu and J. -C. Wang *Inorg. Chem.* **2003**, 42, 8866.
6. Novel chloride-centered discrete  $\text{Cu}_8^{\text{I}}$  cubic clusters containing diselenophosphate ligands. Syntheses and structures of  $\{\text{Cu}_8(\mu_8\text{-Cl})[\text{Se}_2\text{P}(\text{OR})_2]_6\}(\text{PF}_6)$  ( $\text{R} = \text{Et}, \text{Pr}, \text{}^i\text{Pr}$ ), C. W. Liu, C. -M. Hung, **B. K. Santra**, H. -C. Chen, H. -H. Hsueh and J. -C. Wang, *Inorg. Chem.* **2003**, 42, 3216.
7. Structural model for the  $\text{Cu}_B$  site of dopamine  $\beta$ -hydroxylase: Crystal structure of a copper(II) complex showing  $\text{N}_3\text{SO}$  coordination with an axial sulfur ligation, **B. K. Santra**, P. A. N. Reddy, M. Nethaji and A. R. Chakravarty, *Inorg. Chem.* **2002**, 41, 1328.
8. Oxidative cleavage of DNA by a dipyridoquinoxaline copper(II) complex in the presence of ascorbic acid **B. K. Santra**, P. A. N. Reddy, G. Neelakanta, S. Mahadevan, M. Nethaji and A. R. Chakravarty, *J. Inorg. Biochem.* **2002**, 89, 191.
9. Structural model for the  $\text{Cu}_B$  site of dopamine  $\beta$ -hydroxylase and peptidylglycine  $\alpha$ -hydroxylating monooxygenase: crystal structure of a copper(II) complex showing  $\text{N}_3\text{SO}$  coordination and axial sulfur ligation **B.K. Santra**, P. A. N. Reddy, M. Nethaji and A. R. Chakravarty, *J.Chem.Soc., Dalton Trans.* **2001**, 3553.
10. Ruthenium-, osmium- and cobalt-ion mediated selective activation of C-Cl bond. Direct and spontaneous aromatic thiolation reaction via C-S bond cleavage **B.K.Santra** and G.K.Lahiri, *J.Chem.Soc., Dalton Trans.* **1998**, 1613.

Technical Report: Nil

Advisory Editor: Nil

Special Lectures: Nil

Keynote Addresses: Nil

Country Visited: USA & Taiwan

Editorial Board Member: International Journal of Applied Science and Engineering, New Delhi.

REVIEWER of the following Books and Journals: Nil

Jury Member: Nil

LIST OF PUBLICATIONS:

RESEARCH PAPERS :

National:03

International: 29

Patent:Nil