



BRIEF BIO-DATA

Chittaranjan Sinha

Dr. Chittaranjan Sinha, Professor of Chemistry, Jadavpur University is serving as Head, Department of Chemistry since February, 2019. His teaching career has started in 1992 when he joined in the Department of Chemistry, Burdwan University following a brief period in Vidyasagar University in 1994 and returned to Burdwan University in 1995. He joined in Jadavpur University in 2004 and became Professor in 2005. He is passionately involved in teaching and different parts of chemistry like Chemical bonding; Group theory and its application in Chemistry; d & f-block transition metals, Electrochemistry; Organometallics; Chemical Toxicology, Luminescence spectroscopy, Radiochemistry and its analytical application, Environmental chemistry, Group chemistry, Analytical Chemistry are the area of his class room activity. His teaching is appreciated by Association of Chemistry Teachers awarding the Best Chemistry Teacher Award (2012). His research work is appreciated by publishing more than 350 original research articles in ACS, RSC, Elsevier, Wiley, Springer, CSIR-NISCAIR, Indian Chemical Society, Bentham Publishers etc. His field of research broadly belongs to Coordination Chemistry and Applications; Design of multidentate ligands; and their coordination compounds; spectral and electrochemical studies. Design of Sensor and their ion sensing activity; photophysical studies, Design of sulfonamides, metal complexes and their antibacterial properties; structure-activity relation; DFT and docking; Coordination Polymers & Metal Organic Framework. Research is supported by different Govt financial bodies like UGC, CSIR, DST-New Delhi, DST-Kolkata, AICTE etc. and he has received 24 Govt. Projects. Out of 51 registered scholars 44 students awarded Ph. D. degree under his supervision. The Scopus h-index is 40 and citation 6000 (approx.) (December, 2019). He has attended more than 150 Seminars/Symposia/Conference by presenting Poster/Speech. His teaching and research is awarded by Fellowship of West Bengal Academy of Science and Technology in 2018. He was invited as Visiting Scientists by the University of Singapore, Singapore; Nihon University, Japan; Research Scientist, National Dong Hua University, Taiwan and National Tsing Hua University, Taiwan and International Lectureship Award by Erasmus Mundus Fellowship, Padova University, Italy. He has delivered invited

talk, Chairs session in many WORKSHOPS / SYMPOSIA / SEMINARS . He is serving as Editor, the Journal of Indian Chemical Society; Associate Editor, Chemistry – An Indian Journal (TCS, Gujrat); Editorial Board Member : World Science Echo, 2014 –; Associate Editor of Current Microwave Chemistry (Bentham Science Publishers), 2019-; Associate Editor of Current Organocatalysis (Bentham Science Publishers), 2019__.

Under his convenership 12 National and 5 International Conferences were organized. He also served as Chair in an International Conference (AsCA 2019) in Singapore. Besides, he delivered in many Refresher Courses, Orientation Programs, Science popularization program etc. Under the ages of National Service Scheme he has organized about 20 Programs related to health consciousness, environmental awareness, drug addiction etc. for students and local masses. He is mentoring a School (Upper Primary) in his own village, Alipur-Chhatri Ramakrishna Siksha Mandir, Egra, Purba Medinipur in association with ‘Bhava-Prachar’ mission of Ramakrishna Mission, Belur Math. He is also organizing financial support and moral help to financially weak meritorious students under the banner of ‘Raksha Bandhan for Education’. For more than a decade he is associated with Indian Chemical Society, a 96 years old first Chemical Society in the country, Acarya Prafulla Chandra Ray was the Founder President in 1924. At present Prof. Sinha is serving as Honorary Secretary of the Society.

Current list of Publications (2019)

- (i) Studies on Magnetic and Dielectric Properties of Antiferromagnetically Coupled Dinuclear Cu(II) in a One-Dimensional Cu(II) Coordination Polymer. S. Jana, A. Ray, A. Chandra, M. Salah El Fallah, S. Das, C. Sinha, *ACS Omega* 2019, <https://doi.org/10.1021/acsomega.9b02650>
- (ii) Chromogenic hydrazide Schiff base reagent: Spectrophotometric determination of CN^- ion. S. Dey, C. Sen, **C. Sinha**, *Spectrochim. Acta A*, 2020, 225, 117471.
<https://doi.org/10.1016/j.saa.2019.117471>
- (iii) Two acetylenedicarboxylato-bridged 4-styrylpyridine appended 1D coordination polymers: synthesis, structural characterization and variable temperature magnetism. B. Duttaa, Akhtaruzzamana, H. Sato, T. Akitsu, A. M. Z. Slawin, U. Kar, **C. Sinha** and M. H. Mir, *J. Chem. Sci.*, 2020, 132, 9.
(<https://doi.org/10.1007/s12039-019-1698-2>)
- (iv) Designing of Pb (II)-Based Novel Coordination Polymers (CPs): Structural Elucidation and Optoelectronic Application. S Dey, S Sil, B Dutta, K Naskar, S Maity, P P Ray, **C. Sinha** 2019, *ACS Omega* 2019, **4**, 19959.

- (v) Rhodamine-Appended Benzophenone Probe for Trace Quantity Detection of Pd²⁺ in Living Cells. A. K. Adak, B. Dutta, S. K. Manna, C. Sinha *ACS Omega* 2019, **4**, 18987.
- (vi) Three-Dimensional-Coordination Polymer of Zn(II)-Carboxylate: Structural Elucidation, Photoelectrical Conductivity, and Biological Activity. A. Chandra, M. Das, K. Pal, S. Jana, B. Dutta, P. P. Ray, K. Jana, C. Sinha, *ACS Omega* 2019, **4**, 17649.
- (vii) Influence of Axial Linkers on Polymerization in Paddle Wheel Cu (II) Coordination Polymers for the Application of Optoelectronics Devices. S. Jana, R. Jana, S. Sil, B. Dutta, H. Sato, P.P. Ray, A. Datta, T. Akitsu, **C. Sinha**, *Cryst. Growth Des.* 2019, **19**, 6283.
- (viii) Novel Porous Polycatenated Iodo-Cadmium Coordination Polymer for Iodine Sorption and Electrical Conductivity Measurement. K. Naskar, A. Dey, S. Maity, M. K. Bhunia, P. P. Ray, C. Sinha, *Cryst. Growth Des.* 2019, **19**, 2206.
- (ix) Supramolecular assembly of Cu (II)-based 1D coordination polymer: Synthesis, characterization and correlation of band gap. B. Dutta, **C. Sinha**, M. H. Mir, *J. Mol. Str.*, 2019, **1197**, 430.
- (x) Rhodium (III) supported amination reaction of a pendant naphthyl group: Structure, electrochemistry and theoretical interpretation. D. Sardar, P. Datta, R. Saha, R. Pallepogu, **C. Sinha**, *Polyhedron*, 2019, **171**, 542.
- (xi) Fabrication of a Zn (II)-Based 2D Pillar Bilayer Metal-Organic Framework for Antimicrobial Activity. *ChemistrySelect*, 2019, **4**, 9947.
- (xii) Effect of -OMe Substituent on Salicylaldehyde Schiff Base to Influence the Zn²⁺ Sensitivity and the Cancer Cell Line Imaging, S. Dey, K. Pal, K. Jana, **C. Sinha**, *ChemistrySelect*, 2019, **4**, 7932.
- (xiii) Solvent tuned discriminant sensing of Al³⁺, Mg²⁺ and HF₂ by vaniliny-picoliny hydrazide Schiff base. R. Purkait and C. Sinha, *New J Chem.*, 2019, 43, 9815.
- (xiv) Enhancement of Electrical Conductivity due to Structural Distortion from Linear to Nonlinear Dicarboxylato Bridged Zn(II) 1D-Coordination Polymers. K. Naskar, S. Sil, N. Sahu, B. Dutta, A. M. Z. Slawin, P. P. Ray and C. Sinha, *Crys. Grow. Desgn*, 2019, **19**, 2632.
- (xv) Supramolecular Aggregate of Cadmium(II)-Based One-Dimensional Coordination Polymer for Device Fabrication and Sensor Application. B. Dutta, R. Jana, A. K. Bhanja, P. P. Ray, C. Sinha and M. H. Mir, *Inorg. Chem.*, 2019, **58**, 2686.
- (xvi) Synthesis of a Zn (II)-based 1D zigzag coordination polymer for the fabrication of optoelectronic device with remarkably high photosensitivity. B. Dutta, D. Das, J. Datta, A. Chandra, S. Jana, C. Sinha, P. P. Ray and M. H. Mir, *Inorg. Chem. Front.*, 2019, **6**, 1245.
- (xvii) Acetylenedicarboxylato bridged Mn(II)-based 1D coordination polymer: electrochemical CO₂ reduction and magnetic properties. B. Dutta, S Maity, S Ghosh, C. Sinha and M. H. Mir, *New J. Chem.*, 2019, 43, 5167.

- (xviii) An azine-based carbothioamide chemosensor for selective and sensitive turn-on-off sequential detection of Zn(II) and H_2PO_4^- , live cell imaging and INHIBIT logic gate. R. Purkait, A. D. Mahapatra, D. Chattopadhyay and C. Sinha, *Spectrochim Acta A*, 2019, **207**, 164.
- (xix) Synthesis, antimicrobial activity and molecular docking of di- and triorganotin (IV) complexes with thiosemicarbazide derivatives. C. Huedo, F. Zani, A. Mendiola, S. Pradhan, **C. Sinha** and E. L. -Torres, *Appl. Organomet. Chem.*, 2019, **33**, e4700.
- (xx) Computational Design of Azo-anthraquinone Schiff Base Mn Complexes as Mediators for Biofuel Cell Cathode. K. Kajiwara, S. Yamane, T. Haraguchi, S. Pradhan, **C. Sinha**, R. Parida, S. Giri, G. Roymahapatra, D. Moon, and T. Akitsu, *J. Chem. Chemical Engg.*, 2019, 13, 23.
- (xxi) Structural diversity, topology and luminescent properties of a two-dimensional Cd(II) coordination polymer incorporating 4,4'-dipyridyl and 4,4'-sulfonyldibenzoic acid. K. Das, A. Datta, C. Massera and C. Sinha, *J. Mol. Str.*, 2019, **1179**, 618.
- (xxii) Novel Porous Polycatenated Iodo-Cadmium Coordination Polymer for Iodine Sorption and Electrical Conductivity Measurement. K. Naskar, A. dey, S. Maity, M. K. Bhunia, P. P. Ray and C. Sinha, *Crys. Grow. Desgn*, 2019, **19**, 2206.
- (xxiii) Aggregation-Induced Emission-Active Hydrazide-Based Probe: Selective Sensing of Al^{3+} , HF_2^- , and Nitro Explosives. S. Dey, R. Purkait, K. Pal, K. Jana and **C. Sinha**. *ACS Omega*, 2019, **4**, 8451.
- (xxiv) Fluorescence sensing and intracellular imaging of Pd^{2+} ions by a novel coumarinyl-rhodamine Schiff base. A. K. Adak, R. Purkait, S. K. Manna, B. C. Ghosh, S. Pathak and C. Sinha, *New J Chem.*, 2019, **43**, 3899.
- (xxv) Sunlight-Induced Topochemical Photodimerization and Switching of the Conductivity of a Metal-Organic Compound. B. Dutta, A. Dey, C. Sinha, P. P. Ray and M. H. Mir, *Inorg. Chem.*, 2019, 58, 5419
- (xxvi) Surface Enhanced Raman Scattering Study of 1-H-2 (tolylazo) Imidazole (TaiH) Induced by Uncoupled Plasmon of Silver Nano Particles. W. Hossain, C. Sen, **C. Sinha** and U. K. Sarkar, *J. Nano Sc. Nanotech.*, 2019, **19**, 3583.
- (xxvii) $\{\mu\text{-Bis (diphenylphosphino) methane}\}$ (1-alkyl-2-(arylazo) imidazole) copper (I) perchlorate: Synthesis, structure and photochromism. B. Chowdhury, D Mallick, K. K. Sarkar, K. Naskar and **C. Sinha**, *Inorg. Chim Acta*, 2019, **488**, 125.
- (xxviii) A Phenyl Thioether-Based Probe: Zn^{2+} Ion Sensor, Structure Determination and Live Cell Imaging. S. Dey, S. Maity, A. Dasmahapatra, D. Chattopadhyay and **C. Sinha**. *ChemistrySelect*, 2019, **4**, 4472.

- (xxix) An ortho-hydroxy-arylimine based probe: Fluorescence sensitivity towards Zn²⁺ ion. S. Dey, P. Gayen and **C. Sinha**, *J. Indian Chem. Soc.*, 2019, **96**, 1279.
- (xxx) Azoimine chelated ruthenium(II)- and osmium(II)-carbonyl complex catalyzed alcohol oxidation reaction. **C. Sinha**, *Curr. Organocatal.*, 2019, **6**, 139.
- (xxxii) Selective detection of trinitrophenol by a Cd(ii)-based coordination compound. B. Dutta, R. Purkait, S. Bhunia, S. Khan, **C. Sinha**, M. H. Mir, *RSC Adv.*, 2019, **9**, 38718.
- (xxxiii) Tuning of the: Para -position of pyridyl ligands impacts the electrical properties of a series of Cd(ii) ladder polymers. B. Dutta, A. Dey, C. Sinha, P. P. Ray, M. H. Mir, *Dalton Trans.*, 2019, **48**, 11259.