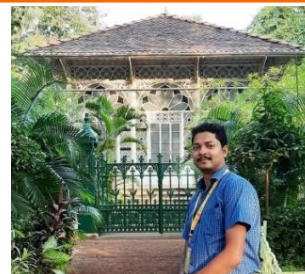


DR. AJOY KUMAR PRAMANIK

Assistant Professor	Mobile: (+91) 9775594664
Department of Chemistry	(+91)6297117369
New Alipore College	E-mail: ajoy.chem2@gmail.com
Kolkata-700 053	Skype id: ajoypramanik86
West Bengal, India	Passport: L5330011



Personal Details:

Date of Birth	: 18 th February, 1986
Religion	: Hinduism
Sex	: Male
Nationality	: Indian
Marital Status	: Unmarried
Category	: OBC-B
Languages Known	: Bengali, English and Hindi (Speak and write)
Permanent address	: Vill-Chistipur, P.O-Manglamaro, Dist-Purba Medinipur, Pin-721434, West Bengal, India
Unique Identification No.	: 5450 0734 2239 by Govt. of India

Academic Information:

- **National Post-Doctoral Fellow (N-PDF)** funded by the Science and Engineering Research Board (SERB) DST, New Delhi, Govt. of India at Indian Institute of Engineering Science and Technology, Shibpur, Howrah for two years from July- 2016 to March-2018.
- **Ph.D. (Science)** from the Department of Chemistry Jadavpur University, Kolkata, India in July, 2015
- **M.Sc. (Master of Science)** in Chemistry (Inorganic Chemistry as Specialization) from Vidyasagar University, West Bengal, India in 2009.
- **B. Sc. (Honors)** in Chemistry from Midnapore College Vidyasagar University, West Bengal, India in 2007.

Awards:

- **National Post-Doctoral Fellowship (SERB-NPDF)** by the Science and Engineering Research Board (SERB), DST, New Delhi, Govt. of India for a period of two years in July- 2016.
- **Junior Research Fellowship** in Chemical Sciences, Council of Scientific and Industrial Research (CSIR), New Delhi. Govt. of India in December-2009.
- **Senior Research Fellowship**, CSIR, New Delhi. Govt. of India in 2012-2015.
- GATE -2009, Indian Institute of Technology, Kanpur.
- Recipient of merit cum means scholarship during M.Sc.

Teaching Experience:

He has nearly 2 years of teaching experience and he mentored five Postgraduate project students and responsible for designing and execution of their individual project proposals.

Research Experience:

Title of the Thesis: “Transition metal complexes with new ONS-donor azo ligands: synthesis, crystal structure, electrochemistry and DFT computation”

Broad Subject Area: Coordination chemistry of some transition metals with special reference to synthesis, characterization, magnetic properties, other physiochemical properties and correlation of the structure with the observed properties.

The main objectives of the work are:

- To design and to synthesize of new ONS-donor functionalized ligands of a series of tetradentate (N_2SO and NSO_2) and hexadentate $(ONS)_2$ showing hydrazoketo and azoenol tautomerisation and studies of transition metal complexes of copper, nickel, ruthenium.
- The equilibrium between the hydrazoketo and azoenol forms of organic molecules containing the $HN-N=C-C=O$ group has been studied in detail.
- The characterization of new complexes is carried out by elemental analysis, spectroscopic techniques (UV-VIS-NIR, Fluorescence Spectroscopy, FT-IR, NMR, EPR, ESI-Mass, GC-Mass analysis and Cyclic Voltammetry).
- Structure determination of some complexes by single crystal X-ray diffraction study.
- Investigation of redox centers of the new complexes using electrochemical techniques.
- DFT and TD-DFT study: To probe the electronic structure of the complexes and to correlate the spectral and electrochemical properties.
- Catalytic Study: Oxidation of organic substrate (primary and secondary alcohols to the

respective aldehyde and ketones) are tested to explore the catalytic activity.

- Study of photophysical properties of some selected complexes.

Research Skills:

- Design and synthesis of ligands and Metal-ligand Co-ordination complexes its characterization by solution ^1H and ^{13}C NMR spectroscopy.
- Isolation and separation of organic and inorganic compounds by TLC and column chromatography.
- Synthesis of the transition metal complexes using different process including slow diffusion, and hydrothermal technique.
- Structural characterization by single crystal data.
- Characterization by powder X-ray diffraction studies.
- Chemical and Hydrogen Bonding interactions.
- Studies of UV/Vis and EPR spectroscopic properties.
- Luminescent Spectroscopy.
- Electrochemical properties.
- DFT-TDDFT computational analysis

Research Statistics:

Research Gate Score	27.95
Publications	31
<i>h</i>-index	10
<i>i 10</i>-index	11
Citations	311
Total impact factor	64.78

Software Skills:

Separation Techniques:	Thin Layer Chromatography, Column Chromatography, Gas Chromatography
Spectroscopic Techniques:	UV-VIS-NIR, FT-IR, NMR, Fluorescence, EPR. ESI-MS, EPR
Analytical Techniques:	Gas Chromatography, Cyclic Voltammetry, Conductometry
Softwares:	Chem Draw, Origin-8.0, MS office, Adobe, MERCURY-3.0, PLATON, ORTEP-3v2, DIAMOND-3.2, WINGX and APEX-III,

Operating System: Gaussian 09W
Windows-XP/7,8,10, ChemOffice, SciFinder, SCOPOUS

Conference /Seminar / Workshop/Short-Term Course Attended:

Paper Presentation:

- ♦ Presented paper in 2nd International Conference on “Innovative Business Practices in a VUCA” organized by the Department of Commerce & Management Studies, ST. Xavier’s College (Autonomous), Kolkata during January 03-04, 2020.
- ♦ Presented paper in International Conference on “Road Map for the Development of Rural Tourism in and around Birbhum” organized by the Visva-Bharati University, Shantiniketan-731235 during November 16-18, 2019.

Poster Presentation:

- ♦ Three Day National Symposium on “ Chemistry and the Environment (CE-2016) & National Convention of Chemistry Teachers (NCCT-2016) ” organized by Raja N.K. Khan Women’s College, Midnapore in collaboration with Association of Chemistry Teachers, TIFR, Mumbai during October 21-23, 2016 (**secured 3rd position**).
- ♦ Presented poster in National Seminar on Social Function of Science-2013 and The Celebration of 150th Birth Anniversary of Swami Vivekananda organized by Faculty of Science, Jadavpur University, Kolkata-700032 (**Secured 2nd position**) on June-2014
- ♦ Presented poster in The 50th Annual Convention of Chemists 2013 held at Department of Chemistry & Centre for Advanced Studies in Chemistry, Panjab University, Chandigarh-160014 during December 04-07, 2013
- ♦ Presented poster in UGC sponsored and CSIR aided International Symposium on “Recent Trends of Research in Chemistry (RTRC-2011) ” organized by the Department of Chemistry, Midnapore College during 31st Oct-1st Nov, 2011.
- ♦ Presented poster in International Symposium on “Frontiers in Inorganic Chemistry (FIC-2010)” held in the Department of Inorganic Chemistry, Indian Association for the Cultivation of Science (IACS), Jadavpur, Kolkata-700032 during December 11-13, 2010.

Participation:

Attended more than 15 (fifteen) seminar, conference etc.

Workshop & Short term course Attended:

- ♦ Attended Seven-Day Workshop on “Research Methodology” organized by Department of Humanities and Social Sciences, Sikkim Manipal University during 16th-22nd September-2019.
- ♦ Participated in One Week Workshop on “Management of Stress of Adolescents” organized by Ramakrishna Sarada Mission Vivekananda Vidyabhavan during 04th-11th May-2018.

References:

1. Prof. Chittaranjan Sinha

Department of Chemistry
Jadavpur University, Kolkata-700032
West Bengal, India
E mail: csinha@chemistry.jdvu.ac.in

2. Prof. Debasis Das

Department of Chemistry
University of Calcutta, 92, Acharya
Prafulla Chandra Road
Kolkata – 700009, West Bengal, India
E-mail: dasdebasis2001@yahoo.com

Research Publications:

1. *Ratiometric sensing of nerve agent mimic DCP through in situ benzisoxazole formation*
S. S. Ali, A. Gangopadhyaya, **Ajoy Kumar Pramanik**, U. N. Guria, S. K. Samanta, A. K. Mahapatra, *Dyes and Pigments*, 2019 (170) 107585
2. *Solvent Dependent Nanostructures Based on Active π - Aggregation Induced Emission Enhancement of New Carbazole Derivatives of Triphenylacrylonitrile*
S. Maity, K. Aich, C. Prodhan, K. Chaudhuri, **Ajoy Kumar Pramanik**, S. Das, J. Ganguly, *Chemistry - A European Journal*, 2019 (25) 4856
3. *A highly selective ratiometric fluorescent probe for H₂S based on new heterocyclic ring formation and detection in live cells*
S. K. Samanta, S. S. Ali, A. Gangopadhyaya, K. Maiti, **Ajoy Kumar Pramanik**, U. N. Guria, A. Ghosh, P. Datta, A. K. Mahapatra, *Supramolecular Chemistry*, 2019 (31) 349
4. *Real time detection of the nerve agent stimulant diethylchlorophosphate by nonfluorophoric small molecules generating a cyclization-induced fluorogenic response*
S. S. Ali, A. Gangopadhyaya, **Ajoy Kumar Pramanik**, S. K. Samanta, U. N. Guria, S. Manna, A. K. Mahapatra, *Analyst (RSC)*, 2018 (143) 4171
5. *A PET based fluorescent chemosensor with real time application in monitoring formaldehyde emissions from plywood*

- A. Gangopadhyay, K. Maiti, S. S. Ali, **Ajoy Kumar Pramanik**, U.N. Guria, S. K. Samanta, R. Sarkar, P. Datta. A. K. Mahapatra, *Analytical Methods*, 2018 (10) 2888
6. *Palladium(II) complexes with thioether containing azophenol ligands: Synthesis, characterization, X-ray structure and DNA binding study*
S. Jana, **Ajoy Kumar Pramanik**, C. K. Manna, T. K. Mondal, *Polyhedron*, 2018 (150) 118
 7. *Synthesis of ruthenium(II) complex with a hexadentate N₂O₂S₂ donor azothioether ligand : X-Ray structure, electrochemistry and DFT calculation*
S. Jana, **Ajoy Kumar Pramanik**, C. K. Manna, T. K. Mondal, *J. Indian Chem. Soc.*, 2017 (94)1363
 8. *A chromogenic and ratiometricfluorogenic probe for rapid detection of a nerve agent simulant DCP based on a hybrid hydroxynaphthalene– hemicyanine dye*
S. S. Ali, A. Gangopadhyay, K. Maiti, S. Mondal, **Ajoy Kumar Pramanik**, U. N. Guria, M. R. Uddin, S. Mandal, D. Mandal, A. K. Mahapatra, *Organic & Biomolecular Chemistry*, 2017 (15) 5959
 9. *Athienyl-pyridine-based Hantzsch ester fluorescent probe for the selective detection of nitric oxide and its bio-imaging applications*
S. S. Ali, **Ajoy Kumar Pramanik**, S. K. Samanta, U. N. Guria, A. K. Mahapatra, *J. Indian Chem. Soc.*, 2017 (94) 01
 10. *Synthesis and characterization of a new zinc(II) complex withtetradentate azo-thioether ligand: X-ray structure, DNA binding studyand DFT calculation*
A.S. Mondal, **Ajoy Kumar Pramanik**, L. Patra, C. K. Manna, T. K. Mondal, *Journal of Molecular Structure*, 2017 (1146) 146
 11. *Ruthenium carbonyl complex of a redox non-innocent ONS donor azophenol ligand: Electrochemistry, photophysical property, electronic structure and catalytic activity towards oxidation of alcohols*
P. Roy, A.S. Mondal, **Ajoy Kumar Pramanik**, T.K. Mondal, *Journal of Organometallic Chemistry*, 2017 (828) 1
 12. *An octahedral nickel(II) complex of a hexadentate N₂O₂S₂ thioether ligand: synthesis, characterization, X-ray and electronic structure*
Ajoy Kumar Pramanik , D. Sarkar,S. Biswas, T.K.Mondal, *Transition Metal Chemistry*, 2016 (41) 849
 13. *Benzimidazole based ratiometric and colourimetric chemosensor for Ni(II)*
D. Sarkar, **Ajoy Kumar Pramanik**, T.K.Mondal, *SpectrochimicaActa Part A: Molecular and Biomolecular Spectroscopy*, 2016 (153) 397
 14. *Ni(II) and Pd(II) complexes with new N,O donor thiophene appended Schiff base ligand: Synthesis, electrochemistry, X-ray structure and DFT calculation*
S.Kundu, **Ajoy Kumar Pramanik**, A. S.Mondal, T.K.Mondal, *Journal of Molecular Structure*, 2016 (1116) 1
 15. *Copper(II) complex with thioether and ether containing azophenol ligand: Synthesis,*

- spectra, X-ray structure and DFT computation
Ajoy Kumar Pramanik, D. Sarkar, T.K. Mondal, *Polyhedron*, 2015 (102) 32
16. *Electronic structure of thioether containing NSNO donor azo-ligand and its copper(II) complex: Experimental and theoretical studies*
Ajoy Kumar Pramanik, D. Sarkar, T.K. Mondal, *Journal of Molecular Structure*, 2015 (1099) 92
 17. *A novel coumarin based molecular switch for dual sensing of Zn(II) and Cu(II)*
D. Sarkar, **Ajoy Kumar Pramanik**, T.K. Mondal, *RSC Advances*, 2015 (5) 7647
 18. *Palladium(II) complex with thiazole containing tridentate ONN donor ligand: Synthesis, X-ray structure and DFT computation*
S. Biswas, **Ajoy Kumar Pramanik**, T.K. Mondal, *Journal of Molecular Structure*, 2015 (1088) 28
 19. *Ruthenium(III) complexes with tetradentate NSNO donor ligand: Synthesis, electronic structure, catalytic activity and DFT calculation*
Ajoy Kumar Pramanik, T.K. Mondal, *Inorganica Chimica Acta*, 2014 (411) 106
 20. *Coumarin based dual switching fluorescent 'turn-on' chemosensor for selective detection of Zn²⁺ and HSO₄⁻: an experimental and theoretical study*
D. Sarkar, **Ajoy Kumar Pramanik**, T.K. Mondal, *RSC Advances*, 2014 (4) 25341
 21. *Coumarin based fluorescent 'turn-on' chemosensor for Zn²⁺: An experimental and theoretical study*
D. Sarkar, **Ajoy Kumar Pramanik**, T. K. Mondal, *Journal of Luminescence*, 2014 (146) 480
 22. *Octahedral Ni(II) and Cu(II) complexes with a new hexadentate (NSN)₂ donor ligand: Synthesis, characterization, X-ray structure and DFT calculations*
M. S. Jana, **Ajoy Kumar Pramanik**, T.K. Mondal, *Polyhedron*, 2014 (76) 29
 23. *Octahedral Mn(II) complex with new NNO donor Schiff base ligand: Synthesis, structure, photoluminescent behavior and computational studies*
M .S. Jana, **Ajoy Kumar Pramanik**, D. Sarkar, S. Biswas, T. K. Mondal, *Polyhedron*, 2014 (81) 66
 24. *Cu(II) complexes of a new tetradentate N₂SO – donor: Synthesis, structure, electrochemistry and DFT computation*
Ajoy Kumar Pramanik, M. S. Jana, T.K. Mondal, *Journal of Coordination Chemistry*, 2013 (66) 4067
 25. *Synthesis, crystal structure and spectral properties of 2-[(1-Methyl-2-benzimidazolyl) azo]-p-cresol: An experimental and theoretical study*
D. Sarkar, **Ajoy Kumar Pramanik**, T.K. Mondal, *Spectrochimica Acta Part A*, 2013 (115) 421
 26. *Synthesis, X-ray structure, spectroscopic and DFT study of cis-[Ru(PPh₃)(L)X₂] complexes (X = Cl⁻, Br⁻, I⁻ and NCS⁻) (L = 1-methyl-2-{(o-thiomethyl)phenylazo} imidazole)*
M.S. Jana, **Ajoy Kumar Pramanik**, S. Kundu, D. Sarkar, S. Jana, T. K. Mondal, *Inorg.*

- Chim. Acta*, 2013 (394) 583
27. *fac*-Tricarbonyl rhenium(I) complexes of 2-(alkylthio)-N-((pyridine-2-yl)methylene) benzenamine: Synthesis, spectroscopic characterization, X-ray structure and DFT calculation
M. S. Jana, **Ajoy Kumar Pramanik**, S. Kundu, D. Sarkar, T. K. Mondal, *Inorg. Chim. Acta*, 2013 (399) 138
 28. Synthesis, Characterization, Electronic Structure and Catalytic Activity of New Ruthenium Carbonyl Complexes of N-[(2-pyridyl)methylidene]-2-aminothiazole
S. Kundu, D. Sarkar, M. S. Jana, **Ajoy Kumar Pramanik**, S. Jana, T. K. Mondal, *Journal of Molecular Structure*, 2013 (1035) 277
 29. Rhenium(I) complexes with NNS donor thioaryazoimidazole ligands with the *cis*-{Re(CO)₂}⁺ core: Synthesis, characterization, electrochemical study and DFT calculation
M. S. Jana, **Ajoy Kumar Pramanik**, D. Sarkar, S. Biswas, T. K. Mondal, *Journal of Molecular Structure*, 2013(1047) 73
 30. Re (I) carbonyl complexes of N-[(2-pyridyl) methyliden]-(α or β)-aminonaphthalene: Synthesis, structure, electrochemistry and DFT analysis
Ajoy Kumar Pramanik, M. S. Jana, S. Kundu, T. K. Mondal, *Journal of Molecular Structure*, 2012 (1017) 19
 31. Rhenium(I) carbonyl complexes with redox non-innocent 1-alkyl-2-{(o-thioalkyl) phenylazo} imidazole ligands: An experimental and theoretical studies
M.S. Jana, **Ajoy Kumar Pramanik**, S. Kundu, T.K. Mondal, *Polyhedron*, 2012 (40) 46