



Dr. Pabitra Chattopadhyay

Professor
Department of Chemistry
The University of Burdwan
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Academic: M.Sc. Ph.D.

Research interest

- Development of new chemosensors for biologically active ions and molecules
- Synthesis and characterization of transition metal ions' complexes of newly designed chelating ligands to explore biological activity including interaction study of complexes with CT-DNA and serum albumin, analytical application; and biodistribution study of new complexes for new radiopharmaceuticals
- Synthesis and characterization of new functional nanomaterials for exploring analytical and biological applications
- Design of solid phase extractors to achieve new materials to be used in analytical and radioanalytical fields

Research experience

- As a *Visiting Associate Professor* in the National Cheng Kung University (NCKU) under the research project sponsored by the *Ministry of Education of Taiwan* from Feb.14, 2007 to Aug.16, 2007.
- As a *Visiting Research Fellow* in the structural chemistry laboratory under *Prof. Ling-Kang Liu*, Institute of Chemistry, *Academia Sinica, Taipei, Taiwan – R.O.C.* for a period from Jan.24, 2002 to Jan. 31, 2003.
- As a *Visiting Teacher Fellow* under *Prof. A.R. Chakravarty*, Department of Inorganic and Physical Chemistry, *Indian Institute of Science, Bangalore, INDIA* on 'study of the bioinorganic aspects of copper(II) complexes having N_3SO donor coordination' getting

a fellowship from Indian Academy of Sciences for the period from 7th May, 2001 to 2nd July, 2001.

- As a *Post Doctoral Fellow* under the project '*development of new Tc-99m and Cu-62,67 radiopharmaceuticals*' in the school of Prof. C.S. Chung, Prof. J.M. Lo and Dr. S.J.. Wang, Department of Nuclear Science, National Tsing Hua University, Hsinchu, Taiwan, from 12th May, 1998 to 26th September, 1999.

Special Chair held

The Head, Department of Chemistry, The University of Burdwan, W.B.
(01-09-2010 to 31-08-2012)

Life Membership

- Chemical Research Society of India (CRSI);
- Indian Association for the Cultivation of Science (IACS)
- Association of Separation Scientists & Technologists (ASSET)
- Indian Association of Nuclear Chemists and Allied Scientists (IANCAS)
- Indian Chemical Society

Award

- Professor R. D. Desai 80th Birthday Commemoration Award, 2016: Endowment Lecture at the 54th Annual Convention of Chemists of the Indian Chemical Society

Research Students



Mr. Somenath Lohar

M.Sc.: The University of Burdwan
Ph.D. Student (since June, 2013)
Email: loharchemistry@gmail.com
Senior Research Fellow



Mr. Abhishek Maji

M.Sc.: The University of Burdwan
Ph.D. Student (since August, 2014)
Email: abhishekmaji12@gmail.com
Asstt. Professor, Dept of Chemistry, Balurghat College, Malda



Mr. Uday Chandra Saha
Asstt. Professor,
Dept of Chemistry, Indas Mahavidyalaya,
Indas, Bankura, 722205



Ms. Hena Paul
Asstt. Professor,
Dept of Chemistry, K.C. Mahabidyalaya,
Hetampur Rajbati, West Bengal 731124
Email: hena_paul84@rediffmail.com
(Thesis submitted)



Ms. Sujaya Chakraborty
M.Sc.: Vidyasagar University
Ph.D. Student (since July, 2017)
Email: mailofsujaya@gmail.com
Junior Research Fellow



Mr. Asit Mondal
M.Sc.: The University of Burdwan
Ph.D. Student (since July, 2017)
Email: asitasit79@gmail.com
Junior Research Fellow



Ejaj Ahmmed
M.Sc.: The University of Burdwan
Ph.D. Student (since August, 2017)
Email: ahmmedchembu@gmail.com
Junior Research Fellow



Mr. Arnab Sarkar
M.Sc.: The University of Burdwan
Ph.D. Student (since October, 2017)
Email: asarkarchem15@gmail.com
Junior Research Fellow



Dr. Ayan Patra

M.Sc.: Indian Institute of Engineering Science and Technology, Shibpur

Ph.D.: University of Kalyani

Email: ayanpatra83@yahoo.com

National Post-doctoral Research Fellow



Dr. Sumanata Ghatak

M.Sc.: Calcutta University

Ph.D.: Calcutta University

Email: skghatak2011@gmail.com

National Post-doctoral Research Fellow

Alumni

Ph. D. Awarded



Dr. Pulak Dhara

Asstt. Teacher in Chemistry, Burdwan Town School, Burdwan

Ph.D. Awarded: 2006



Dr. Sadhan Pramanik

Asstt. Professor, Dept of Chemistry, Hooghly Women's College

Ph.D. Awarded: 2008



Dr. Sanjay Dhara

Assistant Professor, Dept. of Chemistry, Santipur College, Nadia

Ph.D. Awarded: 2009



Dr. Sandipan Sarkar

*Assistant Professor in Chemistry, Dept. of Applied Science & Humanities
Durgapur Institute of Advanced Technology & Management (DIATM),
Durgapur-12*

Ph.D. Awarded: 2010



Dr. Biswajit Das

Asst. Professor, Dept of Chemistry, S.G. College, Bagatai, Hooghly

Ph.D. Awarded: 2010



Dr. Sourav Dey

Teacher in Charge, Bantika High School, Hooghly

Ph.D. Awarded: 2012



Dr. Animesh Patra

Asstt. Professor, Dept of Chemistry, Midnapore College

Ph.D. Awarded: 2013



Dr. Supriti Sen

Asstt. Teacher in Chemistry, Arambag Boys High School, Hooghly

Ph.D. Awarded: 2014



Dr. Madhumita Bag
Works at Income Tax Officer
Ph.D. Awarded: 2014



Dr. Rajesh Chakraborty
Asstt. Teacher in Chemistry, Asansole School
Ph.D. Awarded: 2014



Dr. Titas Mukherjee
Asstt. Teacher in Chemistry, Hatgobindapur High School
Ph.D. Awarded: 2015



Dr. Biplab Mondal
Asstt. Professor, Dept of Chemistry, Hooghly Women's College
Ph.D. Awarded: 2015



Dr. Buddhadeb Sen
Gr. B officer at ordnance factory bhandara, Nagpur, Maharashtra
Ph.D. Awarded: 2016



Dr. Manjira Mukherjee
M.Sc.: Calcutta University
National Post-doctoral Research Fellow in Kalyani University
Email: manj_mukherjee@rediffmail.com
Ph.D. Awarded: 2017



Dr. Siddhartha Pal

National Post-doctoral Research Fellow in IIT, Kharagpur

Email: siddharthapal7@gmail.com

Ph.D. Awarded: 2017

Post Doctoral Fellow



Dr. Prithwiraj Byabartta

Asstt. Professor, Dept of Chemistry, Jogesh Chandra Chaudhuri College, Kolkata

Ph.D. Awarded: 2004 under Prof. C. Sinha, Burdwan University

Research Associate (CSIR): March, 2005 to June, 2006



Dr. Sucheta Joy

Asstt. Professor, Dept of Chemistry, Rabindra Mahavidyalaya, Hooghly

Ph.D. Awarded: 2012 under Prof. S. Goswami, IACS, Jadavpur University

Research Associate (CSIR): Oct., 2014 - March, 2015



Dr. Swadhin Kumar Saha

Asstt. Professor, Dept of Chemistry, Kazi Nazrul University

Ph.D. Awarded: 2014 under Prof. Pranesh Chaudhuri, Visva Bharati

National Post-doctoral Research Fellow

Email: swadhin.chem@gmail.com

Research Projects

Completed

Sl. No.	Funding agency	Project Period	Title of the project	Amount (in Rs.)
1	DST (SERC) New Delhi	08-05-2003 to 31-05-2006	Rhenium complexes of new tetradentate nitrogen-sulphur chelators as models for ideal radiopharmaceutical [No. SR/FTP/CS-82/2001 dated 08-05-2003]	8.04 lakh [Project graded excellent by DST, New Delhi]

2	CSIR, New Delhi	02-01-2006 to 01-01-2009	<i>Synthesis, structure and reactivity of transition metal complexes of multidentate N and S donor ligands</i> [No. 01(1987)/05/EMR-II dated 08-12-2005]	7,65,414/-
3	DST (SERC) New Delhi	02-05-2009 to 31-05-2012	<i>Synthesis, structural characterization, spectroscopic properties and reactivity of transition metal ion complexes of new heterocyclic nitrogenous ligands derived from 2-(2-aminophenyl)benzimidazol</i> [No. SR/S1/IC-37/2008 dated 04-03-2009]	29.76 lakh
4	DAE-UGC-CSR, Kolkata	01-09-2009 to 31-08-2012	<i>Study of the effects of radiation dose and ion beam on the structure and ion-exchange property of polyoxometalates</i> [No: UGC-DAE-CSR-C/CRS/09/RC05/1465 dated 31-07-2009]	4,06,200/-
5	CSIR, New Delhi	01-11-2012 to 31-10-2015	<i>Synthesis, structure and reactivity of platinum metal complexes of carboxamide-based multidentate nitrogen donor ligands</i> [No. 01(2685)/12/EMR-II dated 03-10-2012]	17.0 lakh

Ongoing

Sl. No.	Funding agency	Duration	Title of the project	Amount (in Rs.)
1	DST, Govt of West Bengal	24-05-2016 to 23-05-2019	<i>Design and synthesis of new chromone based chemosensors for trace level determination of toxic ions</i> [698(Sanc.)/ST/P/S & T/15-G/2015 dated 03-12-2015]	11.76 lakh

Publications : 130 (One hundred thirty)

Selected Publications

1. Development of a highly sensitive cell permeable ratiometric chemosensor and biomarker for cyanide ions in aqueous solution, S. Lohar, K. Dhara, P. Roy, S.P. Sinha Babu and P. Chattopadhyay*; *ACS Omega*, 2018, DOI: 10.1021/acsomega.8b01035
2. Naphthalimide-based fluorescence "turn-on" chemosensor for highly selective detection of carbon monoxide: imaging applications in live cell, B. Das, S. Lohar, A. Patra, E. Ahmmed, S. Mondal, J.N. Bhakta, K. Dhara and P. Chattopadhyay*; *New J. Chemistry*, 2018, DOI: 10.1039/c8nj02552e
3. A new lysosome targetable turn-on fluorogenic probe for carbon monoxide imaging in living cells, K. Dhara*, S. Lohar, A. Patra, P. Roy, S.K. Saha, G.C. Sadhukhan and P. Chattopadhyay,* *Anal. Chem.*, 2018, 90, 2933-2938.

4. Highly selective turn-on sensing and bioimaging of hypochlorite anion in aqueous buffer; S. Lohar, A. Patra, P. Roy, S.P. Sinha Babu and P. Chattopadhyay*; *Chem. Select*, 2018, 3, 6707 – 6713.
5. Understanding the difference in photophysical properties of cyclometalated iridium(III) and rhodium(III) complexes by detailed time-dependent density functional theory and frontier molecular orbital supports, S. Pal, S. Joy, H. Paul, S. Banerjee, A. Maji, E. Zangrando and P. Chattopadhyay*, *J. Phys. Chem. C*, 2017, 121, 11632–11642.
6. A new turn-on benzimidazole based greenish-yellow fluorescent sensor for Zn²⁺ ion at biological pH applicable in cell imaging, A. Maji, S. Pal, S. Lohar, S. K. Mukhopadhyay and P. Chattopadhyay*, *New J. Chemistry*, 2017, 41, 7583--7590.
7. Naphthalimide based turn on fluorosensor for aqueous sulfide ions applicable in living cell staining: a new pathway for fluorescence enhancement; S. Lohar, A. Maji, S. Pal, S. K. Mukhopadhyay, D. Nag, N. Demitri and P. Chattopadhyay*, *Chem. Select*, 2017, 2, 9977 – 9983.
8. A new rhodamine based 'turn-on' Cu²⁺ ion selective chemosensor in aqueous system applicable in bioimaging, A. Maji, S. Lohar, S. Pal and P. Chattopadhyay*, *J. Chem. Sci.*, 2017, 129, 1423-1430
9. A turn-on 'green channel' Zn²⁺ sensor and the resulting zinc(II) complex as a 'red channel' HPO₄²⁻ ion sensor, S. Lohar, S. Pal, M. Mukherjee, A. Maji, N. Demitri and P. Chattopadhyay*, *RSC Advances*, 2017, 7, 25528 - 25534.
10. Fluorescence probe for the selective detection of creatinine in aqueous buffer applicable to human blood serum; S. Pal, S. Lohar, M. Mukherjee, P. Chattopadhyay* and K. Dhara*, *Chem. Commun.*, 2016, 52, 13706-13709.
11. Synthesis, structural characterization and ion-exchange behavior of a newly designed polyoxometalate, [Me₂NH₂]₃[Mo₁₂O₄₀S]; R. Chakraborty, S. Sarkar, S. Pal and P. Chattopadhyay*, *Appl. Radiat. Isot.*, 2016, 118, 297-301.
12. Synthesis, characterization, crystal structures and DNA-binding study of four cadmium(II) pyridine-carboxamide complexes; B. Mondal, B. Sen, E. Zangrando and P. Chattopadhyay*, *J. Chem. Sci.*, 2017, 129, 45–55.
13. Development of a cell permeable red-shifted CHEF-based chemosensor for Al³⁺ ion by controlling PET, M. Mukherjee, B. Sen, S. Pal, A. Maji, D. Budhadev and P. Chattopadhyay*, *Spectrochim. Acta Part A*; 2016, 157, 11.

14. Al³⁺ ion-triggered conformational isomerization of a rhodamine B derivative evidenced by a fluorescence signal-A crystallographic proof, B. Sen, S. Pal, S. Banerjee, S. Lohar and P. Chattopadhyay*, *Eur. J. Inorg. Chem.*, 2015, 8, 1383
15. Selective and sensitive turn-on chemosensor for Al(III) ion at the nanomolar level in aqueous media and living organism, S. Pal, B. Sen, M. Mukherjee, M. Patra, S. Lahiri (Ganguly) and P. Chattopadhyay*, *RSC Adv*, 2015, 5, 72508.
16. A water soluble copper (II) complex as a HSO₄-ion selective turn-on fluorescent sensor applicable in living cell imaging, B. Sen, M. Mukherjee, S. Pal, S. Sen and P. Chattopadhyay*, *RSC Adv.*, 2015, 5, 50532.
17. A rhodamine-based 'turn-on' Al³⁺ ion-selective reporter and the resultant complex as a secondary sensor for F⁻ ion are applicable to living cell staining, B. Sen, M. Mukherjee, S. Banerjee, S. Pal and P. Chattopadhyay*, *Dalton Trans.*, 2015, 44, 8708.
18. A new fluorogenic probe for the selective detection of carbon monoxide in aqueous medium based on Pd (0) mediated reaction, S. Pal, M Mukherjee, B. Sen, S. K. Mandal, S. Lohar, P. Chattopadhyay* and K. Dhara*, *Chem. Commun.*, 2015, 51, 4410.
19. A bio-attuned ratiometric hydrogen sulphate ion selective receptor in aqueous solvent: structural proof of the H-bonded adduct, M. Mukherjee, B. Sen, S. Pal, S. Banerjee S. Lohar, E. Zangrando and P. Chattopadhyay*, *RSC Adv.*, 2015, 5, 4468.
20. Effect of metal oxidation state on FRET: A Cu(I) silent but selectively Cu(II) responsive fluorescent reporter and its bioimaging applications, S. Pal, B. Sen, S. Lohar, M. Mukherjee, S. Banerjee, and P. Chattopadhyay*, *Dalton Trans.*, 2015, 44, 1761.
21. Selective and sensitive turn-on chemosensor for arsenite ion at ppb level in aqueous media applicable in cell staining, S. Lohar, S. Pal, B. Sen, M. Mukherjee, S. Banerjee and P. Chattopadhyay*, *Anal. Chem.*, 2014, 86, 11357.
22. A quinazoline derivative as quick-response red-shifted reporter for nanomolar Al³⁺ ions and applicable to living cell staining, M. Mukherjee, B. Sen, S. Pal, S. Banerjee, S. Lohar and P. Chattopadhyay*, *RSC Adv.*, 2014, 4, 64014.
23. A naphthelene-pyrazol conjugate: Al(III) ion selective blue shifting chemosensor applicable as biomarker in aqueous solution, M. Mukherjee, S. Pal, S. Lohar, B. Sen, S. Banerjee, S. Banerjee and P. Chattopadhyay*, *Analyst*, 2014, 139, 4828.

24. Substituent effect on fluorescence signaling of the cell permeable HSO_4^- receptors through single point to ratiometric response in green solvent, M. Mukherjee, S. Pal, B. Sen, S. Lohar, S. Banerjee, S. Banerjee and P. Chattopadhyay*, *RSC Adv.*, 2014, 4, 27665.
25. A FRET based 'off-on' molecular switch: an effective design strategy for selective detection of nanomolar Al^{3+} ions in aqueous media, B. Sen, S. Pal, S. Lohar, M. Mukherjee, S.K. Mandal, A. R. Khuda-Bukhsh and P. Chattopadhyay*, *RSC Adv.*, 2014, 4, 21471.
26. Development of a rhodamine-benzimidazol hybrid derivative as a novel FRET based chemosensor selective for trace level water, S. Pal, M. Mukherjee, B. Sen, S. Lohar, and P. Chattopadhyay*, *RSC Adv.*, 2014, 4, 21608.
27. A water soluble FRET-based ratiometric chemosensor for Hg(II) and S^{2-} applicable in living cell staining, B. Sen, M. Mukherjee, S. Pal, K. Dhara, S. K. Mandal, A. R. Khuda-Bukhsh and P. Chattopadhyay*, *RSC Adv.*, 2014, 4, 14919.
28. Development of a cell permeable ratiometric chemosensor and biomarker for hydrogen sulphate ions in aqueous solution, B. Sen, M. Mukherjee, S. Pal, S.K. Mondal, M.S. Hundal, A.R. Khuda-Bukhsh and P. Chattopadhyay*, *RSC Adv.*, 2014, 4, 15356.
29. Effect of substituents on FRET in rhodamine based chemosensors selective for Hg^{2+} ions, S. Pal, B. Sen, M. Mukherjee, K. Dhara, S.K. Mandal, E. Zangrando, A.R. Khuda-Bukhsh and P. Chattopadhyay*, *Analyst*, 2014, 139, 1628.
30. Radioanalytical separation and size-dependent ion exchange property of micelle-directed titanium phosphate nanocomposites, R. Chakraborty, S. Chatterjee and P. Chattopadhyay*, *J. Radioanal. Nucl. Chem.*, 2014, 299, 1565.
31. Zirconium-titanium-phosphate nanoparticles: Triton X-100 based size modification, characterisation and application, R. Chakraborty, B. Sen and P. Chattopadhyay*, *Radiochim. Acta*, 2014, 102, 363.
32. Nanostructured zirconium phosphate as ion exchanger: synthesis, size dependent property and analytical application in radiochemical separation, R. Chakraborty, K. Bhattacharaya and P. Chattopadhyay*, *Appl. Radiat. Isot.*, 2014, 85, 34.
33. Cyclometalated rhodium(III) complexes bearing dithiocarbamate derivative: synthesis, characterization, interaction with DNA and biological study, T. Mukherjee, B. Sen, A. Patra, S. Banerjee, G. Hundal and P. Chattopadhyay*, *Polyhedron*, 2014, 69, 127.

34. Efficient and convenient methods for synthesis of some phthalazine derivatives and their evaluation of cytotoxicity; S. Sen, S. Banerjee, S. S. Adhikari, A. Moirangthem, A. Basu and P. Chattopadhyay*, *Synth. Commun.*, 2014, 44, 84.
35. A cell permeable Cr³⁺ selective chemosensor and its application in living cell imaging, M. Mukherjee, B. Sen, S. Pal, M. S. Hundal, S.K. Mandal, A.R. Khuda-Bukhsh and P. Chattopadhyay*, *RSC Adv.*, 2013, 3, 19978.
36. Palladium(II) and platinum(II) complexes of deprotonated N,N'-bis(2-pyridine-carboxamide)-1,2-benzene: synthesis, structural characterization and binding interactions with DNA and BSA, T. Mukherjee, B. Sen, E. Zangrando, G. Hundal, B. Chattopadhyay and P. Chattopadhyay*; *Inorg. Chim. Acta*, 2013, 406, 176.
37. Cell permeable fluorescent receptor for detection of H₂PO₄⁻ in aqueous solvent; S. Sen, M. Mukherjee, K. Chakrabarty, I. Hauli, S.K. Mukhopadhyay and P. Chattopadhyay*; *Org. Biomol. Chem.*, 2013, 11, 1537.
38. Nickel(II) complexes with 2-(pyridin-3-ylmethylsulfanyl)phenylamine and halide/pseudohalides: synthesis, structural characterisation, interaction with CT-DNA and bovine serum albumin, and antibacterial activity; A. Patra, B. Sen, S. Sarkar, A. Pandey, E. Zangrando and P. Chattopadhyay*; *Polyhedron*, 2013, 31, 156.
39. One-dimensional Ti–O based nanotubes as ion exchanger: synthesis, characterization and application in radiochemical separation of carrier-free ^{137m}Ba from ¹³⁷Cs; R. Chakraborty, B. Sen, S. Chatterjee and P. Chattopadhyay*; *Radiochim. Acta*, 2013, 101, 33.
40. Synthesis, characterization, crystal structure and DNA binding study of ruthenium(II) complexes of heterocyclic nitrogen ligands resulting from a benzimidazole based quinazoline derivative; H. Paul, T. Mukherjee, M.G.B. Drew and P. Chattopadhyay*; *J. Coord. Chem.*, 2012, 65, 1289.
41. A ratiometric fluorescent chemosensor for iron: discrimination of Fe²⁺ and Fe³⁺ and living cell application; S. Sen, S. Sarkar, B. Chattopadhyay, A. Moirangthem, A. Basu, K. Dhara and P. Chattopadhyay*; *Analyst*, 2012, 137, 3335.
42. A water soluble Al³⁺ selective colorimetric and fluorescent turn-on chemosensor and its application in living cell imaging; S. Sen, T. Mukherjee, B. Chattopadhyay, A. Moirangthem, A. Basu, J. Marek and P. Chattopadhyay*; *Analyst*, 2012, 137, 3975.

43. Development of a highly selective cell-permeable ratiometric fluorescent chemosensor for oxorhenium(V) ion, S. Sen, T. Mukherjee, S. Sarkar, S. Mukherjee and P. Chattopadhyay^{*}; *Analyst*, 2011, 136, 4839
44. Zinc(II) complexes of 1,3-bis(2-pyridylmethylthio)propane: anion dependent coordination behavior, characterization, crystal structure and DNA binding study, A. Patra, T. Mukherjee, S. Sarkar, E. Zangrando and P. Chattopadhyay^{*}; *Polyhedron*, 2011, 30, 2783.
45. A highly selective pH-responsive fluorescent probe for imaging application in living cells, U.C. Saha, K. Dhara, B. Chattopadhyay, S.K. Mandal, S. Mondal, S. Sen, M. Mukherjee, S. van Smaalen and P. Chattopadhyay^{*}; *Org. Lett.*, 2011, 13, 4510.
46. An oxamato bridged trinuclear copper(II) complex: Synthesis, crystal structure, reactivity, DNA binding study and magnetic properties, S. Dey, S. Sarkar, T. Mukherjee, B. Mondal, E. Zangrando, J.P. Sutter and P. Chattopadhyay^{*}; *Inorg. Chim. Acta*, 2011, 376, 129.
47. A Highly Selective Fluorescent Chemosensor for Zinc Ion and Imaging Application in Living Cells, U.C. Saha, B. Chattopadhyay, K. Dhara, S.K. Mandal, S. Sarkar, A.R. Khuda-Bukhsh, M. Mukherjee, M. Helliwell and P. Chattopadhyay^{*}; *Inorg. Chem.* 2011, 50, 1213.
48. 2-Benzoylpyridine and copper(II) ion in basic medium: Hydroxide nucleophilic addition stabilized by metal complexation, reactivity, crystal structure, DNA binding study and magnetic behavior, S. Dey, S. Sarkar, E. Zangrando, H.S. Evans, J.-P. Sutter and P. Chattopadhyay^{*}; *Inorg. Chim. Acta*, 2011, 367, 1.
49. A new water-soluble copper(II) complex as a selective fluorescent sensor for azide ion, K. Dhara, U.C. Saha, A. Dan, M. Manassero, S. Sarkar and P. Chattopadhyay^{*}; *Chem. Commun.*, 2010, 1754.
50. A new functionalized mesoporous matrix supported Pd(II)-Schiff base complex: an efficient catalyst for the Suzuki-Miyaura coupling reaction, K. Dhara, K. Sarkar, D. Srimani, S.K. Saha, P. Chattopadhyay and A. Bhaumik; *Dalton Trans.*, 2010, 6395.
51. C-S bond cleavage in pyridylmethylthioether systems promoted by oxorhenium(V) ion, B. Das, S. Sarkar, E. Zangrando and P. Chattopadhyay^{*}; *Inorg. Chem. Commun.* 2009, 12, 1112.
52. Synthesis, crystal structure and reactivity of copper(II) complexes of tetradentate N2S2 donor ligands, S. Sarkar, H. Paul, M.G.B. Drew, E. Zangrando and P. Chattopadhyay^{*}; *J. Mol. Struct.*, 2009, 933, 126.

53. Separation of ^{90}Sr - ^{90}Y pair over cerium(IV) iodotungstate cation exchanger, S. Dhara, S. Sarkar, S. Basu and P. Chattopadhyay^{*}; *Appl. Radiat. Isot.*, 2009, 67, 530.
54. Copper(II) complexes of tetradentate N2S2 donor sets: synthesis, characterization crystal structure and reactivity, S. Sarkar, A. Patra, M.G.B. Drew, E. Zangrando and P. Chattopadhyay^{*}; *Polyhedron*, 2009, 28, 1.
55. Trichloro-mono- β -diketonato oxorhenium(V) complexes: synthesis, characterizataion and crystal structure, B. Das, S. Sarkar, A. Patra, M.G.B. Drew and P. Chattopadhyay^{*}; *J. Coord. Chem.*, 2008, 61, 1689.
56. Effect of inorganic nutrients on biodegradation of benzene, toluene and xylene (BTX) by *Pseudomonas* spp. in a laboratory porous media sand aquifer model, J.-S. Jean, M.-K. Lee, S.-M. Wang, P. Chattopadhyay and J.P. Maity; *Bioresour. Technol.*, 2008, 99, 7807.
57. A new chelating resin containing 2-aminothiophenol : synthesis, characterization and determination of mercury in waste water using ^{203}Hg radiotracer, S. Pramanik, S.S. Bhattacharyya and P. Chattopadhyay^{*}; *J Radioanal. Nucl. Chem.*, 2007, 274, 237.
58. A new polyoxometalate having Anderson type anion: synthesis, structure and application as ion exchanger for radiochemical separation, S. Dhara, S. Dey, S. Basu, M G.B. Drew and P. Chattopadhyay^{*}; *Radiochim. Acta*, 2007, 95, 297.
59. A new chelating resin containing azophenolcarboxylate function: synthesis, characterization and chromium speciation in wastewater, S. Pramanik, S. Dey and P. Chattopadhyay^{*}; *Anal. Chim Acta*, 2007, 584, 469.
60. New oxorhenium(V) complexes with tetradentate NSNO pyridylthioazophenolates, synthesis, spectroscopic and electrochemical studies, P.K. Dhara, M.G.B. Drew and P. Chattopadhyay^{*}; *Trans. Met. Chem.*, 2006, 31, 740.
61. Ruthenium(III) complexes of tetradentate NSNO pyridylthioazophenolates: synthesis, spectral studies, crystal structure and redox properties, P.K. Dhara, Mike.G.B. Drew and P. Chattopadhyay^{*}; *Polyhedron*, 2006, 25, 1939.
62. Separation and determination of some metal ions on new chelating resins containing N, N donor sets, S. Pramanik, S. Dhara, S.S. Bhattacharyya and P. Chattopadhyay^{*}; *Anal. Chim. Acta*, 2006, 556, 430.

63. New oxorhenium(V) complexes with 2N2S donor sets and radiochemical behavior of their technetium analogs, P.K. Dhara, B. Das, J.M. Lo and P. Chattopadhyay^{*}; *Appl. Radiat. Isot.*, 2005, 62, 729.
64. Copper(II) complexes of new tetradentate NSNO pyridylthioazophenol ligands: synthesis, spectral characterization, crystal structure; P.K. Dhara, S. Pramanik, T.H. Lu, M.G.B. Drew and P. Chattopadhyay^{*}; *Polyhedron*, 2004, 23, 2457.
65. A chelating resin containing bis(2-benzimidazolylmethyl)amine : synthesis and metal-ion uptake properties suitable for analytical application; S. Pramanik, P.K. Dhara and P. Chattopadhyay^{*}; *Talanta*, 2004, 63, 485.
66. Ternary copper complexes for photocleavage of DNA by red light: direct evidence for sulfur-to-copper charge transfer and d-d band involvement; S. Dhar, D. Senapati, P.K. Das, P. Chattopadhyay, M. Nethaji and A.R. Chakravarty; *J. Am. Chem. Soc.*, 2003, 125, 12118.
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