

Curriculum Vitae

Name: R. N. Mukherjee
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Phone: +91-512-2598547

Date of Birth: April 19, 1953

Academic Qualifications:

BSc (Honors in Chemistry) University of Burdwan, Burdwan,
West Bengal (1973)
(Result declared in 1974)

MSc (Specialization: Inorganic Chemistry) University of Burdwan, Burdwan,
West Bengal (1976)
(Result declared in 1978)

PhD [Supervisor: Professor Animesh Chakravorty, Department of Inorganic
Chemistry, Indian Association for the Cultivation of Science, Calcutta:
1978-1982]

University of Calcutta, Calcutta
(now Kolkata) (1983)

Positions Held:

Post-doctoral Research Associate, Indian Association for the Cultivation of
Science ((in the laboratory of Professor Animesh Chakravorty), IACS, Calcutta
(1983 – 1985)

Post-doctoral Research Associate (in the laboratory of Professor Richard H. Holm),
Harvard University, USA
(1985 – 1987)

Assistant Professor, Department of Chemistry IIT Kanpur (1987 – 1993)

Associate Professor, Department of Chemistry, IIT Kanpur (1993 – 1995)

Professor, Department of Chemistry, IIT Kanpur (1995 –)

Head, Department of Chemistry, IIT Kanpur (2010 –)

Chair Professor, IIT Kanpur (Poonam and Prabhu Goel Chair) (2011 – 2014)

Awards & Honors:

Fellow, Indian Academy of Sciences, Bangalore (1999)
Bronze Medal, Chemical Research Society of India, Bangalore (2001)
The Royal Society of Chemistry Journals Grants for International Authors Award,
UK (May 02 – June 02, 2001)
Fellow, Royal Society of Chemistry, UK (2003)
J. C. Bose Fellow, Department of Science & Technology, New Delhi (2008 – 2013)
Fellow, Indian National Science Academy, New Delhi (2008)
Vice President, Chemical Research Society of India, Bangalore (2008 –)
Short-Term Research Scholarship, Georg-August-Universität, Göttingen,
Germany (May 31 – June 30, 2011)
Silver Medal, Chemical Research Society of India, Bangalore (2011)
Professor Priyadarajan Ray Memorial Award for the Year 2010, Indian Chemical
Society, Kolkata (2011)

Editorial Board:

Member, Advisory Board, *Dalton Transactions* (RSC) (2008 – 2011)
Member, International Editorial Board, *International Journal of Inorganic
Chemistry* (Web-based journal; Hindawi Publishing Corporation) (2008 –)
Member, Editorial Board of *Inorganica Chimica Acta* (Elsevier) (2011 – 2013)

Visiting Appointments:

Visiting Professor, Departament de Química, Universitat de Girona, Spain
(September – October, 2004)
Visiting Professor, Department of Chemistry, Stanford University, USA
(May 2005 – May 2006)
Visiting Professor, Institut für Anorganische Chemie, Georg-August-Universität,
Göttingen, Germany (July 01-14, 2007)

National/International Committee Work:

Member, National Scientific Committee, 33rd International Chemistry Olympiad,
Mumbai, India (July 06-15, 2001)
Member, Sectional Committee in Chemistry, Indian Academy of
Sciences, Bangalore (2004 – 2006)
Planning Committee Member, International Conference on Coordination Chemistry
(2004 –)
International Committee Member, Asian Coordination Chemistry Conference
(2007 –)
Member, Research Advisory Committee, IISER, Mohali (2008 –)
Member, S. P. Mukherjee Fellowship Committee, Council of Scientific &
Industrial Research, New Delhi (2008 and 2011)

Member, Selection Committee for Nobel Laureates Meeting, Department of
Science & Technology, New Delhi (2009)
Member, School Board, School of Chemistry, University of Hyderabad,
Hyderabad (2009 –)
Member, Swarna Jayanti Fellowship Committee, DST (2010 –)
Member, Sectional Committee in Chemistry, Indian National Science Academy,
New Delhi (2009 – 2011)
Member, Chemical Sciences Research Committee, Council of Scientific &
Industrial Research, New Delhi (2009 – 2011)
Member, Inorganic & Physical Chemistry Research Committee, Council of
Scientific & Industrial Research, New Delhi (2011 – 2014)

Research Interest:

Synthetic coordination chemistry of transition metal ions with designed organic ligands is central to his research work. His research covers extensive synthesis, molecular (X-ray structure) and electronic structural (magnetic and spectroscopic) characterization, investigation of reactivity (chemical and redox), and understanding of metal-ligand bonding characteristics in which the main focus is the correct description of the electronic structure (based on Density Functional Theory calculations) of compounds containing open-shell organic ligands and paramagnetic metal ions.

Notably, his group focuses on diversified problems. The research themes include:

(i) Bioinorganic synthetic model work: chemical modeling of tyrosinase and catechol oxidase [dioxygen activation and aromatic ring hydroxylation, phenoxo-/hydroxo-bridged dicopper(II) systems]; bio-inspired synthesis of binuclear oxo-/acetate-bridged dimanganese(III,III; III,IV; IV,IV) systems and reactivity studies of dimanganese(IV) complex with phenols of relevance to photosystem II; demonstration of hydrolysis of biologically-relevant substrates by phenoxo-bridged Mn^{II}_2 , Co^{II}_2 , Ni^{II}_2 , Cu^{II}_2 , and Zn^{II}_2 complexes (detailed kinetic investigations to throw light on the mechanistic aspects); stability and properties of metal-coordinated phenoxyl radical of relevance to galactose oxidase.

(ii) Stabilization of nickel(III) and nickel(IV) states; Cobalt-coordinated C-S(thioether) bond cleavage and Co-C bond formation; Stabilization of iron(III)/ruthenium(III)-coordinated *o*-benzosemiquinodiiminato radical by deprotonated pyridine amide ligands; Synthesis and properties of ligand-bridged six-coordinate cobalt(III) and four-coordinate cobalt(II) complexes and also a series of hetero-bimetallic complexes; Anion (bisulfate) recognition using ferrocene-appended amide groups; Assembly and properties of a discrete tetrairon(III) cluster and coordination polymers by pyridine amide ligands in their neutral form.

(iii) Metal-coordinated ligand radicals: molecular and electronic structural investigation of metal-coordinated *o*-iminobenzosemiquinonato anion radical using non-innocent (redox active) ligands and formation of radical-based benzo-triazole ring formation.

(iv) Discovery of a new class of Fe^{II}N₆ spin-equilibria systems, exhibiting interesting cooperativity phenomena.

(v) Co-C bond formation [cobalt(III)-alkyl and cobalt(III)-dialkyl complexes] and investigation of their properties and stabilization of ligand-bridged dinickel(II), dicopper(II), nickel(II)-nickel(I) systems, supported by pyrazole-based chelating ligands.

(vi) Magneto-structural studies of discrete binuclear, trinuclear and oligonuclear transition metal complexes and coordination polymers.

(vii) Organometallic work: Synthesis of half-sandwich organometallic molecules and nucleophilic addition reactions onto the ruthenium(II)-coordinated benzene.

(viii) Identification of non-covalent interactions with emphasis on C–H^{δ+}Cl hydrogen-bonding.

Teaching:

Has taught a variety of under-graduate and post-graduate core/elective courses at the Department of Chemistry, Indian Institute of Technology Kanpur, India.

Core Courses: CHM101, CHM 201, CHM 341, CHM 343, CHM 441, CHM 442, CHM 443

Elective Courses: CHM 646, CHM 691/SE 343 (introduced this course, now a Science Elective, “Frontiers in Inorganic Chemistry”)

Received Commendation from Director for teaching excellence several times

Students Trained:

PhD

1. K. Ramesh (1987 – 1991);
2. Manabendra Ray (1988 – 1992);
3. Samiran Mahapatra (1989 – 1992);
4. Tapan K. Lal (1991 – 1996);
5. Debalina Ghosh (1993 – 1997);
6. Apurba K. Patra (1993 – 1999);
7. Rajeev Gupta (1995 – 2000);
8. V. Balamurugan (1999 – 2004);
9. Jhumpa Mukherjee (1999 – 2004);
10. Akhilesh K. Singh (2002 – 2007);
11. Vibha Mishra (2002 – 2007);
12. Wilson Jacob (2003 – 2007)
13. Haritosh Mishra (2003 – 2008);
14. Sukanta Mandal (2003 – 2009);
15. Himanshu Arora (2004 – 2009);
16. Atasi Mukherjee (2004 – 2009);
17. Anuj K. Sharma (2005 – 2009);
18. Anindita De (2005 – 2009);
19. Sharmila Pandey (2006 – 2010)

Currently working for PhD

1. Saleem Javed Ansari (2007 –);
2. Ravindra Singh (2007 –);
3. Suman Kumar Barman (2008 –);
4. Amit Rajput (2009 –);
5. Partha Pratim Das (2009 –);
6. Akram Ali (2010 –);
7. Arunava Sengupta (2011 –);
8. Rahul Prajapati (2011 –);

Post-doctoral Research Associate

1. Dr. Nishi Gupta (1990 – 1992);
2. Dr. Zahida Shirin (1992 – 1995);
3. Dr. Shubha Singh (2001 – 2003)

Under-graduate (Master of Science) Projects): ~40

Sponsored Research (National and International):

Received funding from the following agencies:

Department of Science & Technology (DST), Council of Scientific & Industrial Research (CSIR), Volkswagen Foundation, Germany, Indo-French Centre, Swedish Research Links (during 2005 – present: funding of about Rs. 1.5 Crores)

- a) DST Project (No. SR/S1/IC-30/2009)
Metal-Coordinated Radicals. Bioinorganic and Inorganic Perspectives
Rs. 28,46,000/- (2009 – 2012)
- b) DST J. C. Bose (No. SR/S2/JCB-79/2007) (2008 – 2013)
Rs. 56,90,000/-
- c) DST Project (No. SR/S1/IC-29/2004)
Hydrolysis of Esters by Metal Complexes of Designed Ligands: Inorganic and Bioinorganic Perspectives (2005 – 2008)
Rs. 23,05,200/-
- d) DFG-DST (INT/FRG/DFG/P-33/2010) with Prof. F. Meyer (Institut für Anorganische Chemie, Georg-August-Universität, Göttingen, Germany) (2010–2012)
Combining Bimetallic Scaffolds and Metal-Coordinated Phenoxy-Radicals for Multi-Electron Transformations: A Step Beyond Nature
Rs. 14,39,600
- e) India and Ukraine Joint Science & Technology Project (DST: INT/UKRAINE/UKR-16/2006) with Prof. I. Fritsky (University of Kiev, Ukraine) (2008 – 2011)
Novel Biomimetic Catalysts Based on Copper(III) Complexes
Rs. 4,11,000 (travel and per-diem)

- f) Swedish Research Links Project with Prof. Ebbe Nordlander (University of Lund, Sweden) (2008 – 2011)
 Modeling of Dinuclear Active Sites in Metalloproteins (Planning Grants) and Synthesis and Reactivity Studies of Model Complexes for Dinuclear Active Sites in Metalloenzymes
 Rs. 15,39,104 (excluding expenditures on travel to Lund two times and living expenses)
- g) Indo-French Centre for the Promotion of Advanced Research (IFCPAR), New Delhi sponsored Project with Prof. Francois Varret (Laboratoire de Magnétisme et d'Optique CNRS-Université de Versailles, France) (2006 – 2009)
 Spin Transition in Fe(II) & Cyano-Bridged Molecular Magnets
 Rs. 6,56,390 (excluding expenditures on travel to France two times and living expenses)
- h) DST Project (2001 – 2004)
 Activation of Molecular Oxygen by Manganese(II), Iron(II), and Copper(I) Complexes of Designed Dinucleating Ligands. Inorganic and Bioinorganic Perspectives
- i) DST Project (1996 – 2000)
 Magnetostructural Correlations in Novel Ligand-Bridged Dimetal Systems. Dicopper(II) Complexes of Biological Relevance
- j) DST Project (1992 – 1996)
 Synthesis and Characterization of Novel Transition Metal Complexes. Relevance to Metallobiomolecules with Intrinsic Active Sites
- k) DST Project (1989 – 1992)
 Binuclear Iron Centers in Biology: Model Compound Studies
- l) DST Project (1989 – 1991)
 Probe into the Structure of the Active Site of Binuclear Iron Centers in Hemerythrin: A Synthetic Analogue Approach
- m) Council of Scientific & Industrial Research (CSIR), India Project (2004 – 2007)
 Recognition and Sensing of Anionic Guest Species by Transition Metal Receptors

- n) CSIR Project (1999 – 2002)
Dicopper(II) Complexes: Synthesis, Characterization and Catecholase Activity
- o) CSIR Project (1993 – 1997)
Synthesis and Characterization of Half-Sandwich Complexes having Ru(η^6 -C₆H₆)²⁺ Moiety: A Conceptual Link between Classical Werner Complexes and Organometallic Molecules
- p) CSIR Project (1988 – 1992)
Stabilization of the Fe^{IV}=O Moiety Present in Horseradish Peroxidase: A Synthetic Analogue Approach”

Organization of Courses:

- * Indian Academy of Sciences, Bangalore – Sponsored Refresher Course on *Frontiers in Inorganic Chemistry*, Department of Chemistry, Indian Institute of Technology Kanpur, Kanpur (December 18-31, 2003)
- * Institute of Research Development & Training (Technical Education Department) U.P. Kanpur – Sponsored Short Term Training Course on *Latest Developments in Chemistry* for Diploma in Engineering Courses: Applied Chemistry (February 25-28, 2004)
- * Organized ‘Department Day’ on October 25, 2010, as a part of Golden Jubilee Celebration of Indian Institute of Technology Kanpur (along with students, staff and faculty members of chemistry department)

Editorial Work:

1. Guest Editor along with Prof. C. P. Rao, Department of Chemistry, Indian Institute of Technology Bombay, Powai and Prof. S. Mazumdar, Department of Chemical Sciences, Tata Institute of Fundamental Research, Mumbai: Special Issue on Bioinorganic Chemistry Dedicated to Professor Samaresh Mitra on the occasion of his 70th birthday, *Indian J. Chem.* **2011**, 50A, 339-547.
2. Guest Editor along with Prof. Akhil R. Chakravarty, Department of Inorganic & Physical Chemistry, Indian Institute of Science, Bangalore: Special Issue Dedicated to Professor Animesh Chakravorty on the occasion of his 75th birthday, *Inorg. Chim. Acta* **2010**, 363, 2693-3138.
3. Guest Editor, Special Thematic Issue on Bioinorganic Chemistry, *Proc. Indian Natl. Sci. Acad., Part A, Physical Sciences* **2004**, 70, 267-398.

Reviewing/Refereeing Work for the Journals:

Inorganic Chemistry, Chemical Communications, Dalton Transactions, New Journal of Chemistry, Physical Chemistry Chemical Physics, CrystEngComm, Catalysis Letters, Energy & Environmental Science, Angewandte Chemie International Edition, Chemistry – A European Journal, European Journal of Inorganic Chemistry, Inorganica Chimica Acta, Inorganic Chemistry Communications, Journal of Molecular Structure, Journal of Hazardous Materials, Catalysis Communications, Solid State Sciences, Journal of Coordination Chemistry, Australian Journal of Chemistry, Indian Journal of Chemistry–Section A, Indian Journal of Chemical Technology, Journal of Chemical Sciences, Current Science, Journal of Indian Chemical Society

Membership in Professional Society:

- * Member, Royal Society of Chemistry (2003 –)
- * Member, American Chemical Society (1999 –)
- * Life Member, Chemical Research Society of India (1999 –)
- * Life Member, Indian Association of Chemistry Teachers (2007 –)

Invited Lectures:

In India

(i) College/University/Institute:

- * Department of Chemistry, Indian Institute of Technology Kharagpur, Kharagpur (December 15, 2010)
- * “University Golden Jubilee National Seminar on Chemistry Today (UGJ-NSCT)” March 18-20, 2010, Department of Chemistry, University of Burdwan, Burdwan (March 19, 2010)
- * School of Chemistry, University of Hyderabad, Hyderabad (July 24, 2009)
- * Department of Chemistry, Jadavpur University, Kolkata (June 11, 2009)
- * Department of Chemistry, Indian Institute of Technology Guwahati, Guwahati (November 28, 2008)
- * Department of Chemistry, Indian Institute of Technology Bombay, Mumbai (October 23, 2008)
- * Department of Chemistry, Guru Nanak Dev University, Amritsar (September 05, 2008)

- * National Institute of Technology, Durgapur, West Bengal
(February 28, 2008)
- * Regional Research Laboratory, Trivandrum (September 06, 2002)
- * Offered a Series of Lectures on Bioinorganic Chemistry, Guru Nanak Dev University, Amritsar (April 02 – 07, 2001)
- * Department of Chemistry, Pondicherry University, Pondicherry
(February 2000)
- * School of Chemistry, University of Hyderabad, Hyderabad
(January 17, 2000)
- * Department of Chemistry, University of Pune, Pune (June 22, 1999)
- * Department of Chemistry, Banaras Hindu University, Varanasi
(March 19, 1996)
- * Regional Research Laboratory, Trivandrum (December 05, 1994)
- * Department of Chemistry, Presidency College, Calcutta now Kolkata
(December 21, 1990)
- * School of Chemistry, University of Hyderabad (September 3, 1988)

(ii) Special Lectures:

- * Bimala Churn Law Memorial Lecture, Indian Association for the Cultivation of Science, Kolkata (February 29, 2008)
- * A. V. Rama Rao Foundation Prize Lecture in Chemistry, Jawaharlal Nehru Centre for Advanced Scientific Research (JNCASR), Bangalore
(March 23, 2005)
- * Ajit Memorial Lecture at the Indian Association for the Cultivation of Science, Kolkata (December 06, 1999)

(iii) University Grants Commission-Sponsored Seminars/Refresher Courses:

- * Two-day Seminar on “Frontier Areas of Chemistry – A Modern Perspective”, Department of Chemistry, Ramakrishna Mission Vidyamandir, Belur Math, Howrah (February 25, 2010)
- * Refresher Course in Chemistry, UGC-Academic Staff College, School of Chemistry, University of Hyderabad, Hyderabad (July 25, 2009)

- * “8th Refresher Course in Chemistry”, UGC-Academic Staff College, Banaras Hindu University, Varanasi (January 22, 2008)
- * Refresher Courses on “Instrumental and Analytical Techniques in Chemistry”, Department of Chemistry, University of Allahabad, Allahabad (December 17, 2004)
- * Refresher Courses on “Organometallic Chemistry” for University and College Teachers, Department of Chemistry and the Academic Staff College, Lucknow University, Lucknow (July 23 – 24, 1996)
- * Refresher Courses on “Advances in Inorganic Chemistry” for University and College Teachers, Department of Chemistry and the Academic Staff College, Bharathidasan University, Tiruchirapalli (December 01 – 02, 1994)

(iv) University Grants Commission-Sponsored DSA/DRS (SAP) Program:

- * Department of Chemistry, Burdwan University, Burdwan (February 16, 2000)
- * National Seminar on Coordination Chemistry, Department of Chemistry, Utkal University, Bhubaneswar (March 30 – 31, 1998)

(v) Indian Academy of Sciences, Bangalore/Jawaharlal Nehru for Advanced Scientific Research, Bangalore-Sponsored:

- * Guru Nanak Dev University, Amritsar (October 24-26, 2007)
- * Government Model Science College, Jabalpur (September 15 – 16, 2006)
- * Guru Nanak Dev University, Amritsar (October 29 – 30, 2001)
- * Miranda House, University of Delhi (November 03, 2000)
- * St. Stephens College, University of Delhi (February 03 – 05, 2000)

(vi) INSPIRE Internship Program-Sponsored by DST:

- * Pandit Ravishankar Shukla University, Raipur (December 04, 2010)

Abroad

(i) University/Institute

- * Institut für Anorganische Chemie, Universität zu Köln, Köln, Germany (June 29, 2011)

- * Institute of Inorganic and Analytical Chemistry, Johann Wolfgang Goethe Universität, Frankfurt am Main, Germany (June 28, 2011)
- * Lehrstuhl für Anorganische Chemie I, Fakultät für Chemie, Universität Bielefeld, Bielefeld, Germany (June 21, 2011)
- * Technische Universität Kaiserslautern, Institut für Chemi, Kaiserslautern, Germany (June 14, 2011)
- * Institut für Anorganische Chemie, Georg-August-Universität, Göttingen (June 09, 2011)
- * Institut für Anorganische Chemie Universität Stuttgart, Stuttgart, Germany (June 06, 2011)
- * Institute of Inorganic and Analytical Chemistry, Johann Wolfgang Goethe Universität, Frankfurt am Main, Germany (July 08, 2010)
- * Chemical Center, Lund University, Sweden (July 01 and 02, 2010)
- * Université J. Fourier Grenoble, France (May 27, 2008)
- * Technische Universität-Kaiserslautern, Fachbereich Chemie, Germany (July 13, 2007)
- * Technische Universität-Berlin, Institut für Chemie, Germany (July 12, 2007)
- * Technische Universität-Braunschweig, Institut für Anorganische und Analytische Chemie, Germany (July 11, 2007)
- * Georg-August-Universität Göttingen, Institut für Anorganische Chemie, Germany (July 10, 2007)
- * Universität Paderborn, Department Chemie, Anorganische und Analytische Chemie, Germany (July 09, 2007)
- * Freie Universität-Berlin, Institut für Chemie und Biochemie, (July 05, 2007)
- * Philipps-Universität Marburg, Anorganische Chemie, Germany (July 04, 2007)
- * Justus-Liebig-Universität Gießen, Institut für Anorganische und Analytische Chemie, Germany (July 03, 2007)
- * Max-Planck Institute für Bioanorganische Chemie, Mülheim an der Ruhr, Germany (July 02, 2007)

- * Chemical Center, Lund University, Sweden (April 16, 2007)
- * Department of Chemistry, Stanford University, USA (April 18, 2006)
- * Departament de Química, Universitat de Barcelona, Spain (September 27, 2004)
- * Departament de Química, Universitat de Girona, Spain (September 17, 2004)
- * Anorganisch-chemisches Institut der Universität Heidelberg, Germany (June 14, 2002)
- * Anorganische und Analytische Chemie der Johannes Gutenberg – Universität Mainz, Germany (May 27, 2002)
- * Organisch-Chemisches Institut der Westfälischen Wilhelms-Universität Münster, Germany (May 16, 2002)
- * Institut für Anorganische Chemie, Universität Erlangen Nürnberg, Germany (May 07, 2002)
- * Laboratoire de Chimie Inorganique, Institut de Chimie Moléculaire d'Orsay, Université Paris-Sud, Orsay, France (June 29, 2001)
- * Laboratoire de Magnétisme et d'Optique, Université de Versailles Saint-Quentin-en-Yvelines, Versailles Cedex, France (June 27, 2001)
- * Unilever Research Center, Vlaardingse, The Netherlands (June 26, 2001)
Gorlaeus Laboratories, Leiden University, Leiden, The Netherlands (June 25, 2001)
- * Institut für Anorganische Chemie, Universität Erlangen Nürnberg, Germany (June 18, 2001)
- * Max-Planck Institut für Strahlenchemie, Mülheim, Germany (June 15, 2001)
- * Department of Chemistry, University of Manchester, UK (May 31, 2001)
- * Department of Chemistry, University College London, UK (May 25, 2001)
- * Department of Chemistry, Heriot-Watt University, Scotland (UK) (May 23, 2001)
- * Department of Chemistry, University of Bristol, UK (May 16, 2001)
- * Department of Chemistry, University of Durham, UK (May 09, 2001)

- * In the group of Prof. R. H. Holm, Department of Chemistry, Harvard University (August 28, 1998)
- * In the group of Prof. R. H. Holm, Department of Chemistry, Harvard University (April 07, 1993)
- * Department of Chemistry, University of North Carolina at Chapel Hill (April 06, 1993)
- * Department of Chemistry, Yale University (April 02, 1993)

Invited Lectures in Conferences/Symposia/Workshops/Winter Schools:

In India

- * National Seminar (International Year of Chemistry: Chemistry in our lives) under the thrust area “Design, Synthesis, Interaction, Chemical and Biochemical Activities of Different Functional Molecules” on the occasion of the 150th Birth Anniversary of Acharya Prafulla Chandra Ray, Department of Chemistry, The University of Burdwan (March 15 – 17, 2011) (March 15, 2011)
- * Celebration of the 150th Birth Anniversary of Acharya Prafulla Chandra Ray and the International Year of Chemistry, “Frontiers in Synthetic and Bioorganic Chemistry 2011, Indian Institute of Science Education and Research (IISER) Kolkata, Mohanpur Campus (March 13, 2011)
- * One-Day Seminar, Department of Chemistry, University of Delhi, Delhi (March 05, 2011)
- * “Emerging Trends in Chemical Sciences (ECTS-2011)” Department of Chemistry, Faculty of Science, Banaras Hindu University (February 19, 2011)
- * 13th CRSI National Symposium in Chemistry and 5th CRSI-RSC Symposium in Chemistry, National Institute of Science Education and Research (NISER), Bhubaneswar (February 04 – 06, 2011)
- * Workshop on “Frontiers in Bioinorganic Chemistry”, Centre for Bioinorganic Chemistry, School of Chemistry, Bharathidasan University, Tiruchirapalli, (February 25-27, 2010) (February 26, 2010)
- * National Seminar on “Contemporary Research in Material Science and Chemical Biology” (January 31-February 2, 2010), Department of Chemistry, University of Allahabad, Allahabad, (February 01, 2010)
- * Workshop for ‘College Chemistry Students and Teachers’, Jawaharlal Nehru Centre for Advanced Scientific Research, Bangalore and Foundation for Capacity Building in Science (FCBS), Trivandrum (October 29 – 31, 2009)

- * Symposium – VII on ‘Current Trends of Chemical Research’, Chemical Research Society of India (Kolkata Chapter), Narendrapur Ramakrishna Mission, Kolkata (August 08, 2009)
- * Discussion Meeting on ‘Crystal Engineering and Noncovalent interactions: Contemporary Themes and Futuristic Developments’ Orange County, Coorg (February 22 – 25, 2009)
- * National Symposium on Modern Trends in Inorganic Chemistry (MTIC-XII), Indian Institute of Technology Madras, Madras (December 06 – 08, 2007)
- * Department of Science & Technology (DST) – Sponsored Winter School in Bioinorganic Chemistry, Department of Chemistry, Indian Institute of Technology Bombay, Mumbai (November 26, 2007)
- * National Convention of Chemistry Teachers and National Conference on *Chemistry Vision 2020*, Department of Chemistry, Hislop College, Nagpur (October 28, 2007)
- * Third Symposium on Advances in Bioinorganic Chemistry (SABIC-2004) in Conjunction with Second Asian Biological Inorganic Chemistry Conference (AsBIC-II), Goa; organized by Tata Institute of Fundamental Research, Mumbai (December 05 – 10, 2004)
- * Indo-French Seminar on Structure and Function of Metalloenzymes, Goa; organized by Indo French Centre for the Promotion of Advances Research, New Delhi (IFCPAR), Centre Franco-Indien Pour La Promotion de La Recherche Avanchee (CEFIPRA) and Tata Institute of Fundamental Research, Mumbai (December 03 –05, 2004)
- * One Day Colloquium on Inorganic Chemistry, Department of Inorganic Chemistry, Indian Association for the Cultivation of Science, Kolkata (November 04, 2003)
- * Mid-Year Meeting of Indian Academy of Sciences, Bangalore (July 05 – 06, 2002)
- * National Seminar on “Teaching Chemistry”, Department of Chemistry, Presidency College, Kolkata (December 14, 2002)
- * UGC Sponsored Seminar on “Emerging Trends in Chemistry in the New Millennium”, Department of Chemistry, University of North Bengal (September 06 – 07, 2001)
- * 3rd National Symposium in Chemistry, Panjab University, Chandigarh (February 02 – 04, 2001)

- * Indo-French Workshop on Current Trends in Molecular Magnetism, Jawaharlal Nehru Centre for Advanced Scientific Research, Indian Institute of Science, Bangalore (December 04 – 08, 2000)
- * International Symposium on Advances in Bioinorganic Chemistry, Tata Institute of Fundamental Research, Mumbai (November 20 – 24, 2000)
- * One Day Symposium in Chemistry, Department of Chemistry, Indian Institute of Technology Kharagpur (August 11, 2000)
- * Fifth IUPAC International Symposium on Bioorganic Chemistry, National Chemical Laboratory, Pune (January 30 – February 04, 2000)
- * National Symposium on Modern Trends in Inorganic Chemistry, Indian Institute of Science, Bangalore (January 18 – 20, 2000)
- * National Symposium in Chemistry, Indian Institute of Science, Bangalore (January 27 – 30, 1999)
- * Symposium on Advances in Bioinorganic Chemistry, Tata Institute of Fundamental Research, Mumbai (October 07 – 11, 1996)
- * National Symposium on Perspectives of Inorganic Chemistry, Indian Association for the Cultivation of Science, Calcutta (December 21 – 22, 1995)
- * National Symposium on Modern Trends in Inorganic Chemistry, School of Chemistry, University of Hyderabad, Hyderabad (August 17 – 19, 1995)
- * Fifth National Symposium Bioorganic Chemistry, Shivaji University, Kolhapur, Indian Society of Bio-organic Chemists (February 24 – 25, 1995)
- * Symposium to Commemorate the 150th Years of the Royal Society of Chemistry (East India Section) “Chemistry at the Turn of the Century”, Indian Association for the Cultivation of Science, Calcutta (December 05 – 07, 1991)
- * National Symposium on Modern Trends in Inorganic Chemistry, Central Salt & Marine Chemicals Research Institute, Bhavnagar (October 21 – 23, 1991)
- * Department of Science & Technology (DST) – Sponsored Workshop on Bioinorganic Chemistry, Indian Institute of Technology Madras, Madras (December 09 – 15, 1990)
- * National Symposium on Modern Trends in Inorganic Chemistry, Indian Institute of Technology Madras, Madras (January 04 – 06, 1988)

Abroad

- * “International Conference on Coordination Chemistry (ICCC39)”, Adelaide, Australia (July 25 – 30, 2010)
- * “European Biological Inorganic Chemistry (EUROBIC10)” Conference, Thessaloniki, Greece (June 22 – 26, 2010)
- * “The 4th Asian Biological Inorganic Chemistry Conference (AsBIC-IV)”, Jeju, Korea (November 10 – 13, 2008)
- * “International Conference on Coordination Chemistry (ICCC38)”, Jerusalem, Israel (July 20 – 25, 2008)
- * “International Conference on Biological Inorganic Chemistry (ICBIC 13)”, Vienna, Austria (July 15 – 20, 2007)
- * “The 3rd Asian Biological Inorganic Chemistry Conference (AsBIC-III)”, Nanjing, China (October 31 – November 03, 2006)
- * “International Conference on Coordination Chemistry (ICCC37)”, Cape Town, South Africa (August 13 – 18, 2006)
- * “Crystal Engineering Discussion 2004: New Trends in Crystal Engineering”, University of Nottingham, UK; Invited to prepare a paper for publication in *CrystEngComm* (September 08 – 10, 2004)
- * “International Conference on Coordination Chemistry (ICCC36), Merida, Mexico (July 18 – 23, 2004)
- * 227th American Chemical Society National Meeting in Anaheim, CA, as part of the Symposium on ‘Non-Heme Iron Chemistry in Biology’ (March 28 – April 1, 2004)
- * Singapore International Chemical Conference II: Frontiers in Chemical Design and Synthesis”, Singapore (December 18 – 20, 2002)
- * 216th American Chemical Society National Meeting in Boston, Massachusetts, as part of the Symposium on “Multinuclear Enzymes in Oxygen Metabolism” (August 23 – 27, 1998)
- * Member of the Official Indian delegation of the Indo-Russian Symposium on Structural Inorganic Chemistry and Organometallic Chemistry, Moscow – Nizhny Novgorod, Russia (September 24 – October 5, 1993)
- * 205th American Chemical Society National Meeting in Denver, Colorado, as part of the Minisymposium: Advances in Bioinorganic-II (March 28 – April 2, 1993)

Conferences/Symposia/ Workshops Attended:

In India

- * International Symposium on Frontiers in Inorganic Chemistry (FIC-2010), Indian Association for the Cultivation of Science, Kolkata (December 11 – 13, 2010)
- * Chemical Research Society of India, Indian Institute of Chemical Technology, Hyderabad (February 05 – 07, 2010)
- * Modern Trends in Inorganic Chemistry, Indian Institute of Science, Bangalore (December 05 – 07, 2009)
- * Chemical Research Society of India, National Chemical Laboratory, Pune (February 05 – 07, 2009)
- * Singapore-India Collaborative and Co-operative Chemistry Symposium – III, Department of Chemistry, Indian Institute of Technology Kanpur, Kanpur (December 16 – 17, 2004)
- * Symposium on Recent Trends in Photochemical Sciences, Regional Research Laboratory, Trivandrum (January 08 – 10, 2001)
- * Discussion Meeting: From Homogeneous to Heterogeneous Catalysis, Jawaharlal Nehru Centre for Advanced Scientific Research, Bangalore (January 27 – 29, 1992).

Abroad

- * “International Conference on Biological Inorganic Chemistry-12”, University of Michigan, Ann Arbor, USA (July 31 – August 5, 2005)

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(119) A. K. Sharma, A. De, V. Balamurugan, and R. N. Mukherjee, “Conformational Flexibility of 2,6-Bis(pyrazol-1-ylmethyl)pyridine (L^5) in $[(L^5)Co^{II}(H_2O)_3]Cl_2$ and $[(L^5)Ni^{II}(H_2O)_2Cl]Cl \cdot H_2O$. Molecular Structures and Non-covalent Interactions”, *Inorg. Chim. Acta* **2011**, 372, 327-332. (Special Issue Dedicated to Professor S. S. Krishnamurthy on the occasion of his 70th birthday)

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