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POSITIONS

- Assistant Professor in Chemistry, North Bengal University, Darjeeling (From June 2018 till date)
- Assistant Professor in Chemistry, Sripat Singh College, Jiaganj, Murshidabad (From March 2015 to June 2018)

RESEARCH PROJECTS

Sl. No.	Title of the Project	Sanctioned Authority	Duration	Amount Sanctioned (In Rs.)	Status
1	Sensing of metal ion(s) with quinoline based fluorescent ligands.	University of North Bengal	2019-20	1,50,000/-	Completed
2	Design, synthesis, biological activity and sensing performance of coumarin/quinoline based electron donor-accepter systems	UGC, New Delhi	2020-22	10,00,000/-	Ongoing

RESEARCH EXPERIENCE

NRF & URC Post Doctoral Research Fellow: March 2013 – February 2015, School of Chemistry, University of the Witwatersrand, South Africa (Research Advisor: Professor Charles B De Koning).

ACADEMIC PROFILE

- **Ph. D** (Organic Chemistry): December **2012**, Department of Chemistry, Indian Association for the Cultivation of Science, Jadavpur University, Kolkata, India.
- **M. Sc.** (Chemistry, Major in Organic Chemistry): **2006**, Department of Chemistry, University of Kalyani, Kalyani, India.
- **B. Sc.** (Chemistry): **2004**, Department of Chemistry, University of Kalyani, Kalyani, India.

AWARDS AND FELLOWSHIPS

1. **National Eligibility Test** (National Eligibility Test-December' 2006, Scored in Top 20%), CSIR, New Delhi, India.
2. **Graduate Aptitude Test (GATE-2007)**: All India Rank: 244
3. **Junior Research Fellowship** (CSIR): August, 2007.
4. **Senior Research Fellowship** (CSIR): August, 2010.
5. **Senior Research Fellowship** (IACS): September, 2012.
6. **Extended Senior Research Fellowship** (CSIR): December, 2012.
7. **Research Associate I** (IACS): December 2012.

DETAILS OF Ph.D.

Institute : Department of Organic Chemistry, Indian Association for the Cultivation of Science, Jadavpur, Kolkata - 700032, India.

Supervisor : *Professor Subrata Ghosh*

Thesis Title : "Synthetic Studies on Condensed Cyclic Systems"

RESEARCH INTERESTS

- Catalysis
- Molecular Recognition
- Development of methodologies and Asymmetric Total Synthesis of Bioactive Natural Products

RESEARCH GUIDANCE

- Mr. Arindam Das
- Mr. Sovan Dey
- Mr. Sandip Ghosh

TEACHING INTEREST

- Stereochemistry
- Radical Reaction
- Chemistry of non-metals
- Natural Product Chemistry

LIST OF PUBLICATIONS

1. "Organocatalysis: A Recent Development on Stereoselective Synthesis of O-Glycosides", Ram Naresh Yadav, **Md. Firoj Hossain**, Aparna Das, Ashok Kumar Srivastava, and Bimal Krishna Banik. *Catalysis Reviews-Science and Engineering*, **2022**, DOI: 10.1080/01614940.2022.2041303.
2. "A Novel Synthesis of Densely Functionalized 3,4- β -Lactam Fused 1,4-Oxazepane via Tandem-7-Exo- Trig Intramolecular Oxa-Michael Reaction", Armando Paniagua, Ram N Yadav, **Md. Firoj Hossain**, Ashok Kumar Srivastava and Bimal K. Banik. *Moscow University Chemistry Bulletin*, **2022**, 77, 117-124.
3. "Intramolecular Diels-Alder Approach to the Construction of Fused Bicyclic 8/6 Ring System of Variocolin", **Md. Firoj Hossain** and Subrata Ghosh. *ChemistrySelect*, **2021**, 6, 12209–12211 [[https://doi.org/ 10.1002/slct.202103501](https://doi.org/10.1002/slct.202103501)].
4. "Metal-Free One-Pot Synthesis of 2-(2-Hydrazinyl) Thiazole Derivatives Using Graphene Oxide in a Green Solvent and Molecular Docking Studies", Arindam Das, Sovan Dey, Sumit Chakraborty, Anup Barman, Ram Naresh Yadav, Rabiul Gazi, Madhurima Jana and **Md. Firoj Hossain**. *ChemistrySelect*, **2021**, 6, 9552–9558 [[https://doi.org/ 10.1002/slct.202102642](https://doi.org/10.1002/slct.202102642)].
5. "A Mononuclear Nickel (II) Complex: Synthesis, X-ray Structure, Spectroscopic Characterization and Anti-tumor Activity", Sangharaj Diyali, Ayon Kanti Mohanty, Subhajit Sarkar, **Md. Firoj Hossain**, Biplab Bhowmik and Bhaskar Biswas, *Advanced Chemicobiology Research*, **2021**, 1, 22-30 [<http://ojs.wiserpub.com/index.php/ACBR/>].
6. "Recognition of monocarboxylic acids by imidazole based fluorescent receptors", **Md. Firoj Hossain**, Arindam Das, Sovan Dey, Sumit Chakraborty, Anup Barman, Ashim Sen, and Rinku Chakrabarty. *J. Indian Chem. Soc.*, 97(11a), **2020**, 2291-2299 [ISSN:0019-4522].
7. "Synthetic Strategies for Hydrazinyl Thiazole Derivatives", Sovan Dey, Arindam Das and **Md. Firoj Hossain**. *ChemistrySelect*, **2020**, 5, 15153– 15166 [<https://doi.org/10.1002/slct.202003993>].
8. "The synthesis of 7,9-dimethoxy-3-propyl-3,4-dihydro-1H-benzo[g]isochromene 1,5,10-trione: A potential monomer for the synthesis of the natural product xylindein", **Md. Firoj Hossain**, Andreas Lemmerer and Charles B. de Koning, *Arkivoc*, **2020**, part v, 17-27; DOI : <https://doi.org/10.24820/ark.5550190.p011.313>
9. "An Expeditious route for the synthesis of oxazepine triazolo- β -lactams through intramolecular metal-free [3+2] azide-alkyne cycloaddition", Ram N. Yadav, Sunena Chandra, Armando Paniagua, **Md. Firoj Hossain** and Bimal Krishna Banik, *Aust. J. Chem.* <https://doi.org/10.1071/CH19670>

10. "Bismuth nitrate-catalyzed Michael reaction of indoles and sequential reactions in a one-pot method", Indrani Banik, Ram Naresh Yadav, **Md. Firoj Hossain**, Neeta Srivastava, and Bimal Krishna Banik, *Heterocyclic Letters*, Vol. 10| No.1|29-37|Nov–Jan|**2020**, [ISSN : (print) 2231–3087 / (online) 2230-9632].
11. "POCl₃-PCl₅ mixture: A Robust Chlorinating agent", **Md. Firoj Hossain**, *J. Indian Chem. Soc.*, **97**, **2020**, 47-53 [ISSN:0019-4522].
12. "Ammonium acetate in acetic acid: A versatile chemical mixture in organic synthesis", **Md. Firoj Hossain**, *J. Indian Chem. Soc.*, **96**, **2019**, 1419-1427 [ISSN:0019-4522].
13. "Some Emerging Fields of Chemistry", Rinku Chakrabarty and **Md. Firoj Hossain** *Review of Research*, **2018**, 8(1) [ISSN:2249 894X] [Available online at www.lbp.world, <http://oldror.lbp.world/UploadedData/6127.pdf>]
14. "Intramolecular Diels-Alder route to angularly oxygenated hydrindanes. Synthesis of the functionalized bicyclic skeleton present in galiellalactone", **Md. Firoj Hossain**, Ram Naresh Yadav, Sujit Mondal, Anupam Jana, and Subrata Ghosh *Tetrahedron* **2013**, **69**, 7956-7963.
15. "Stereocontrolled approach to the highly functionalized bicyclo[3.2.0]heptane core of bielschowskysin through intramolecular Cu(I)-catalyzed [2+2] photocycloaddition", Anupam Jana, Sujit Mondal, **Md. Firoj Hossain** and Subrata Ghosh *Tetrahedron Lett.***2012**, **53**, 6830-6833.
16. "Synthetic studies towards nortriterpenoids of *Schisandraceae* family. Approach to the Construction of functionalized C/D and A/B ring units of Micrandilactone C and Rubrifloradilactone B." **Md. Firoj Hossain**, Kiran Matcha and Subrata Ghosh. *Tetrahedron Lett.***2011**, **52**, 6473-6476.
17. "Effect of ring fusion stereochemistry on double bond geometry. Unexpected formation of nine-membered cyclic ether with E-configured double bond through RCM", Subrata Ghosh, **Md. Firoj Hossain**, Chanchal K. Malik, Soumitra Maity. *Tetrahedron* **2010**, **66**, 9159-9164.
18. "A new approach to A/B ring analogue of eleutherobin and sarcodictyins through a sequence of highly diastereofaceselective Diels-Alder reaction and ring opening-ring closing metathesis (RO-RCM)", Chanchal K. Malik, **Md. Firoj Hossain** and Subrata Ghosh. *Tetrahedron Lett.***2009**, **50**, 3063-3066.

MEMBERSHIP OF LEARNED SOCIETY

- Life member of Indian Chemical Society, Kolkata, India.
- Life member of Chemical Research Society of India (CRSI), India.

PAPER PRESENTED IN CONFERENCES/SEMINAR

- Presented a paper in the International seminar on “**International Year of the Periodic Table of Chemical Elements-2019**” on November 22-23, **2019** at University of North Bengal organized by Department of Chemistry, University of North Bengal.
- Chaired a session in the National Seminar on “**Frontiers in Chemistry 2019**” held on 22nd May 2019 at Department of Chemistry, NBU jointly organized by Department of Chemistry, NBU and CRSI North Bengal Local Chapter.
- Presented a paper in the International seminar on “**The History of Science and Technology-A Journey from Metal age to E-age**” on March 12, **2019** at Alipurduar College organized by Department of Chemistry and IQAC, Alipurduar College in Collaboration with College of Science and Technology, Royal University of Bhutan, Rinchending, Bhutan.
- Presented a paper in the International seminar on “**Frontiers in Chemistry 2018**” on August 27, **2018** at University of North Bengal organized by Department of Chemistry, University of North Bengal and CRSI North Bengal Local chapter.
- Presented a paper in the International Conference on “**Environmentalism, Globalism and Morality**” on January 10-12, **2018** at Alipurduar College organized by The Institute of Cross-Cultural Studies and Academic Exchange, Elon, NC, USA.
- Presented paper on “**Chemistry Colors the World**” at “International conference on Sustainable Development” on 25th Aug **2017** at Galle Face Hotel, Colombo, Sri Lanka, organized by Global Academic Research Institute (GARI), Colombo, Sri Lanka.
- Presented paper in “**International symposium on facets of chemistry in biology (FOCB-II)**”- January 12, **2017**, organized by The department of chemistry, St. Xavier’s college (Autonomous), Kolkata
- Presented a paper in One Day seminar on “**Role of IQAC in Fostering Environmental Consciousness**” on September 09, **2015** organized by Krishnath College, Berhampore.
- Presented paper in “**SACI-ACS Bi-national Organic Chemistry Conference 2014**”, 30th Nov-4th Dec, **2014**, Stellenbosch University, South Africa.
- Presented paper in “**15th CRSI National Symposium in Chemistry**”, February 1-3, **2013**, Banaras Hindu University, Varanasi, India.

- Presented paper in “**7th Junior National Organic Symposium Trust (J-NOST) Conference for research Scholars**”, December 15-18, **2011**, Indian Institute of Science Education and Research (IISER) Mohali, Punjab140306, India.

CONFERENCES/SEMINAR/WORKSHOP ORGANIZED

- Acted as Convener of the One Day National Seminar on “**Frontiers in Chemistry-2020**” organized by Department of Chemistry, NBU on 5th March, 2020.
- Acted as Joint Coordinator for the Refresher Course entitled “**RECENT TRENDS IN CHEMISTRY & BIOLOGY (ID)**” conducted by the Department of Chemistry, NBU during 20/08/2019 to 02/09/2019 at HRDC, NBU.
- Acted as Joint Programme Coordinator of the DST, GOWB, Sponsored two- day “**Science awareness camp**” in September 6-7, **2016** at Sripat Singh College, Jiaganj, Murshidabad.
- Acted as Convener of the “**UGC Sponsored One Day National Seminar on Recent Advances in Chemistry**” organized by department of Chemistry, Sripat Singh College, Jiaganj, Murshidabad on 21st Dec **2015**.

PARTICIPATED IN PROFESSIONAL COURSES

- Participated in the Refresher Course in Tea Science (ID) from 14th November **2018** to 4th December **2018** at North Bengal University.
- Participated in the 29th NBU Orientation Programme from 21st February to 20th March **2017** at North Bengal University.
- Participated in “Short term course on computer applications” from Feb 15th to 21st **2016** at Aligarh Muslim University Centre, Murshidabad (West Bengal).