

RESUME



Dr. Sumitra Bhattarai

Email:sumitrabhattarai@gmail.com

Bokolajan, Bosabari,

Mobile: +91 8638585539

PS Titabar, Jorhat, Assam-785630, India.

Current Position:

1st June 2023- Present

Assistant Professor, Department of Chemistry, Bhawanipur Anchalik College, Barpeta, Assam-781352, India

Research Interest

- Non-covalent interactions
- Reaction mechanistic pathway
- Supramolecular Chemistry
- Crystal design

Research Techniques

LINUX, Gaussian 09/16 Software Package, Atom-in-Molecule (AIM) Analysis, Symmetry Adapted Perturbation Theory (SAPT) Analysis by SAPT2008 and Psi4 Code, FORTRAN Language, Multiwfn, Molecular Docking, Wavefunction surface suite analysis.

Educational Qualification:

2018-2022

Ph.D (*Quantum Mechanical Studies on Nature, Strength and Tunability on Various Non-Covalent Interactions*), Department of Chemistry, North Eastern Hill University, Meghalaya, India (*Supervisor: Prof. Asit K. Chandra*)

2015

M.Sc (Chemistry), Manipur University, Manipur, India

2011

B.Sc (Chemistry), Don Bosco College, Maram, India

2008

AISSCE (Science), Jawahar Navodaya Vidyalaya Mao, India

2006

AISSE, Jwalamukhi Public School, Assam Rifles Manipur, India

Exams Cleared:

- CSIR-NET (LS) (2019)
- NE-SLET (2019)
- GATE (2019)

M.Sc Projects work:

- Synthesis of nanoparticles (ZnO) doped with manganese and its characterization using IR, NMR and XRD analysis.

Achievements:

- Gold Medal in M.Sc. (Honours: Physical Chemistry) exam conducted by Manipur University in the year 2015.
- Gold Medal in B.Sc. (Honours: Chemistry) exam conducted by Manipur University in the year 2011.

Professional Qualification:

- Post Graduate Diploma in Banking Operation from IFBI (NIIT) Hyderabad, India 2011- 2012.

Technical Qualification:

- Certified in Computer Application from IGNOU.
- Certified ITES-BPO Training from DOEACC Society.

Professional Experience:

- 12th September 2022- 31st May 2023 worked as a Guest Faculty in the Department of Chemical Sciences, Tezpur University, Tezpur, Assam, India.
- 22nd March 2017-22nd March 2018 worked as PGT (Chemistry) in the North Town Hr. Sec. School, Chumukedima, Nagaland, India.
- Worked with **ICICI BANK LTD** at Duliajan, Assam, India as Customer Service Officer in Retail Banking from 4th April 2012 to till October 2012.

Publications

1. Unusual Fluorine Substitution Effect on S...Cl Bonding Between Sulfides and Atomic Chlorine. D. Sutradhar, **S. Bhattarai**, T. Zeegers-Huyskens and A. K. Chandra, *J. Phys. Chem. A*, **2018**, 122, 7142.
2. A Theoretical Investigation of the Interaction between Substituted Pyridines and CS₂. Versatility of the CS₂ Molecule. **S. Bhattarai**, D. Sutradhar, A. K. Chandra, T. Zeegers-Huyskens, *J. Mol. Struct.* **2020**, 1202, 127309.
3. Nature of the Interaction of Pyridines with OCS. A Theoretical Investigation. **S. Bhattarai**, D. Sutradhar, A. K. Chandra and T. Zeegers-Huyskens, *Molecules*, **2020**, 25, 416.
4. Tuning of Halogen-Bond Strength: Comparative Role of Basicity and Strength of σ -Hole. **S. Bhattarai**, D. Sutradhar and A. K. Chandra. *J. Mol. Struct.*, **2021**, 1223, 129239.
5. Comparison between Chlorine-Shared and π - Halogen Bonds Involving Substituted Phosphabenzene and ClF Molecule. D. Sutradhar, **S. Bhattarai**, S. Parveen, and A. K. Chandra. *ACS Omega*, **2020**, 5, 24095.
6. Nature and Strength of the π -Hole Chalcogen Bonded Complexes between Substituted Pyridines and SO₃ Molecule. **S. Bhattarai**, D. Sutradhar, Th. Zeegers-Huyskens and A. K. Chandra. *ChemistrySelect*, **2021**, 6, 7514.
7. Strongly Bound π -Hole Tetrel Bonded Complexes between H₂SiO and Substituted Pyridines. Influence of Substituents. **S. Bhattarai**, D. Sutradhar and Asit K. Chandra, *ChemPhysChem*. **2022**, e202200146(1-9).
8. **S. Bhattarai**, *Advances in Academic Research and Development (Volume-9)*, ISBN: 978-93-95118-20-0, DOI: <https://doi.org/10.22271/int.book.211>, Chapter 8 and Chapter 9.

Conferences/Workshops

1. Participated in course on Density Functional Theory and Its Applications, 15-23 May 2018, Organized by Department of Chemistry, North Eastern Hill University, Shillong.
2. Participated in Lecture workshop on Computational Chemistry with special emphasis on electronic structure methods, 19-21 Nov 2018, at Dibrugarh University.
3. Participated and presented Poster at International Conference on Frontiers in Chemical Sciences (FICS-2018), 6-8 Dec 2018 at IIT Guwahati.
4. Participated on Author Workshop on Scholarly Writing and Intellectual Ethics jointly organized by North Eastern Hill University and Elsevier, 20th August 2019 at NEHU, Shillong.
5. Participated and received best Poster Award at National Symposium on Recent Trends in Chemistry (RTC-2019), 31st October – 1st November 2019 at Department of Chemistry, NEHU, Shillong.
6. Participated on International E-Workshop on Electronic Structure Theory and Application to Chemical System Organized by NIT, Tiruchirappalli, 2nd – 6th Nov 2020.
7. Participated and presented a Poster at International Conference on Progress and Challenges in Modern Day Science (PCMDS-2021) Organized by Department of Chemistry, B. Borooah College. 17-18 June 2021.
8. Participated and presented a **Poster** at the 3rd Research Conclave 2022, NIT Meghalaya, 28th Feb – 1st Mar 2022.
9. Participated and presented a **Poster** at National Conference on Molecular Modelling and Simulations (NCMMS) 2022, VIT Bhopal University, Feb 28th - 2nd Mar, 2022.
10. Attended the full Agenda of the DST & ACS Workshop: NEHU, Meghalaya, 30th May, 2022

Personal Profile:

Father's Name : Dhan Bahadur Bhattarai

Gender : Female

Nationality : Indian

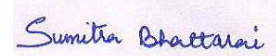
Marital Status : Married

Date of Birth : 25/05/1991

I do hereby solemnly affirm and declare that all the information and particulars furnished here by me are true and correct to best of my knowledge.

Date: 07-06-2023

Place: Bhawanipur



Sumitra Bhattarai