Name: Dr. Mahmuda Khannam
Department: Chemistry

Personal information:

Designation	Assistant Professor
Date of Birth	30/06/1989
Gender	Female
Nationality	Indian
e-mail ID	mahmuda22@gmail.com, mahmuda@alumni.iitg.ac.in
Contact no	8721916223, 7002954764
Date of joining present service	23/12/2019

Academic:

2013–2019	PhD in Chemistry, Indian Institute of Technology Guwahati, India. Title of the Thesis: "**Synthesis, Characterization and Investigation on Water-Soluble, Aquated Gd(III) and Mn(II) complexes as MRI Contrast Agents**". Supervisor: Prof. Chandan Mukherjee.
2010–2012	M.Sc. (Chemistry), Inorganic Chemistry (Specialization) Gauhati University, Assam, India. (**92.8%, 1st Class 3rd position**)
2007–2010	B.Sc. (Chemistry), Cotton College, Gauhati University, Assam, India. (**76.7%, 1st Class 1st position**)

Research Interest:

- MRI contrast agents.
- Bioinorganic chemistry.

Awards &Achievements:

- Qualified '**JAM 2010**' examination.
- Qualified '**GATE–2013**' examination.
- Qualified '**SLET-2015**' (N-E region) in Chemical Science.
- "**Jadulal Mukherjee Memorial Award**" of the year 2010 for securing highest mark in Chemistry (Major) in T.D.C. (Science) Final Examination under Guahati University.

- Awarded "**Post Graduate Merit Scholarship for University Rank Holder (2010-2012)**" by UGC.
- Awarded AFMI "**Gold Medal**" in 2007.

Teaching Experiences:

- Teaching experience in Department of Chemistry, Cotton College, Guwahati, Assam (2012).
- Teaching assistance for 'Inorganic Chemistry Practical Course' (B.Tech. and M.Sc. at IIT Guwahati)(2013-2018).
- Teaching experience in B.Tech. Classes at IIT Guwahati(2013-2018).
- Teaching experience in Department of Chemistry, Sibsagar Girls' Collge, Sivasagar (2019).

Publications:

Research Papers:

(1) "A highly stable L-alanine-based mono(aquated) Mn(II) complexes as a T_1-weighted MRI contrast agent", **Mahmuda Khannam**, Thomas Weyhermüller, Upashi Goswami, and Chandan Mukherjee*, *Dalton Trans.*, **2017**, 46, 10426.

(2) "Effect of Ligand Chirality and Hyperconjugation on Thermodynamic Stability of a Tris(aquated) Gd(III) Complex: Synthesis, Characterization and T_1-Weighted Phantom MR Image Study", **Mahmuda Khannam,** Suban K. Sahoo and Chandan Mukherjee*; *Eur. J. Inorg. Chem.*, **2019**, 2518-2523.

(3) "Synthesis, characterization and study on the dissimilar reactivity of a Ni (II)-bis (iminosemiquinone) complex core to ligand-appended hemilabile–CH_2OH and–CH_2NH_2 units", Prasenjit Sarkar, Samir Ghorai, Ganesh Chandra Paul, **Mahmuda Khannam**, Surajit Barman, Chandan Mukherjee*, Inorganica Chim. Acta 502, 119340

(4)"Synthesis and Evaluation of a Gd (III) Complex as T_1-Weighted MRI Contrast Agent", **Mahmuda Khannam**, *International Journal of Science & Healthcare Research*. **2019**; 4(3): 93-101.

(5) "The electrostatic confinement of aquated monocationic Gd(III) complex-molecules within the inner core of porous silica nanoparticles creates a highly efficient T1 contrast agent for magnetic resonance imaging", **Mahmuda Khannam**, ‡ Riya Mallik, ‡ Muktashree Saha, Shivani Marandi, Sachin Kumar and Chandan Mukherjee, *Dalton Trans*., **2022**, 51, 14138–14149.

Patents:

(1) Indian Patent filed on 30th May, 2018, under **Application No. 201831020332** entitled

"HEXADENTATE CHELATE-BASED CONTRAST AGENT AND A METHOD FOR PRODUCING THE SAME".

(2) Indian Patent filed on 30th May, 2018, under **Application No. 201831020333** entitled "PENTADENTATE CHELATE-BASED CONTRAST AGENT AND A METHOD FOR PRODUCING THE SAME".

Book Chapters:

(1) **Khannam, M**. Paramagnetic Metal Complexes as T1-contrast Agents, 67, **2019**, Purbayon Publication, ISBN 978-93-88593-73-1.

(2) **Khannam, M**. and Mandal, M**.** Industrial Water Treatment Program-Importance and Management of Water Systems, Environment, Climate Change and Natural Challenges, 154, **2021**; Publisher Gargaon College Publication Cell & Purbayon Publication. ISBN: 978-93-90919-60-4.

(3) **Khannam, M**. and Mandal, M. Sanitary Practices and Waste Management Among Adolescent Girls and Women in Rural Area of Dalgaon Constituency Under Darrang District, Assam: A Case Study, 174, **2022**, Thanuj International Publisher. ISBN: 978-93-94638-19-8.