ADITYA BORAH

Assistant Professor
Department of Chemistry
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Education

2014-16 **M.Sc. in Chemistry**
Tezpur University, Tezpur, Assam

2011-14 **B.Sc. in Chemistry**
Jorhat Institute of Science and Technology (JIST), Jorhat, Assam

2014-16 **Higher Secondary Leaving Certificate**
Cotton College, Guwahati, Assam

2016- **Ph.D. in Inorganic Chemistry (Pursuing)**
Indian Institute of Technology, Bombay, Mumbai

Other Qualifications

* **National Eligibility Test (NET)**
  Cleared Joint CSIR-UGC NET for both JRF and Lectureship in Chemical Sciences, 2016, Rank: 48

* **Graduate Aptitude Test (GATE)**
  Cleared GATE 2016 in Chemistry, Rank: 990

* **Award of INSPIRE Scholarship**
  From Department of Science & Technology, Government of India

Teaching Experience

Assistant professor, Department of Chemistry, Jengraimukh College from 24-12-2020.

List of Research Publications

1. Enhancing the barrier height for Yb(III) single-ion magnets by modulating axial ligand fields, **A. Borah**, S. Dey, S. K. Gupta, M. G. Walawalkar, G. Rajaraman and R. Murugavel, *Chem. Commun.*, 2020, **56**, 11879. (IF: 6.22)
2. Magnetic relaxation in single-ion magnets formed by less-studied lanthanide ions Ce(III), Nd(III), Gd(III), Ho(III), Tm(II/III) and Yb(III), A. Borah, R. Murugavel, *Coord. Chem. Rev.*, 2022, **453,** 214288. (IF: 22.32)
3. Arylene Diimide Phosphors: Aggregation Modulated Twin Room Temperature Phosphorescence from Pyromellitic Diimides, S. Garain, S. Kuila, B. C. Garain, M. Kataria, **A. Borah**, S. K. Pati, and S. J. George, *Angew. Chem. Int. Ed.*, 2021, **133**, 12431-12435. (IF: 15.34)
4. Hitherto unknown eight-connected frameworks formed from $A_4B_4O_{12}$ metal organophosphate heterocubanes, K. Sharma, S. K. Gupta, **A. Borah** and R. Murugavel, *Chem. Commun.*, 2019, **55**, 7994. (IF: 6.22)
5. High-Pressure Crystallographic and Magnetic Studies of Pseudo-D_{5h} Symmetric Dy(III) and Ho(III) Single-Molecule Magnets, M. S. Norre, C. Gao, S. Dey, S. K. Gupta, **A. Borah**, R. Murugavel, G. Rajaraman, and J. Overgaard, *Inorg. Chem.* 2020, **59**, 717–729. (IF: 5.165)
6. Nanoporous Covalent Organic Framework Embedded with Fe/Fe_3O_4 Nanoparticles as Air-Stable Low-Density Nanomagnets, R. Kushwaha, D. Kaleeswaran, S. Haldar, D. Chakraborty, D. Mullangi, **A. Borah**, C. P. Vinod, R. Murugavel and R. Vaidhyanathan, *ACS Appl. Nano Mater.*, 2020, **3**, 9088–9096. (IF: 5.097)
7. A single-ion single-electron cerrous magnet, S. K. Gupta, S. Shanmugan, T. Rajeshkumar, **A. Borah**, M. Damjanović, M. Schulze, W. Wernsdorfer, G. Rajaraman and R. Murugavel, *Dalton Trans.*, 2019, **48**, 15928. (IF: 4.39)
8. Enhanced catalytic activity and near room temperature gas sensing properties of SnO_2 nanoclusters@mesoporous Sn(IV) organophosphonate composite, S. Borah, B. Bhattacharyya, J. Deka, A. Borah, A. Devi, D. Deka, S. Mishra, K. Raidongia, and N. Gogoi, *Dalton Trans.*, 2017, **46**, 8664. (IF: 4.39)

Membership in Professional Body

Life Member of Chemical Research Society of India (CRSI) since 2019.

Edited Books

- Recent Trends in Chemical Sciences; first edition: September 2020; ISBN: 978-81-948732-2-8, Publisher: Purbayon Publication.

Book Chapters

- **Recent Developments in High-Performance Lanthanide based Single Ion Magnet,** Recent Trends in Chemical Sciences, first edition: September 2020; ISBN: 978-81-948732-2-8, Publisher: Purbayon Publication.

Poster Presented at National and International Conferences

- Presented poster entitled "**Synthesis And Structure of 18-Crown-6 Encapsulated Single-Ion Lanthanide Phosphates and Their Magnetic Behavior**", in *18th Modern Trends In Inorganic Chemistry (MTIC)*, held at Indian Institute of Technology-Guwahati, India on 11th December 2019.
- Presented poster entitled "**An Air-Stable Single-Electron Single-Ion-Magnet**" in *24th CRSI-National Symposium in Chemistry*, held at CSIR-Central Leather Research Institute and Indian Institute of Technology-Madras, India, on 7th February 2019.
- Presented poster entitled "**An Air-Stable Single-Electron Single-Ion Cerrous Magnet**" in *Modern Trends in Molecular Magnetism (MTMM 2019)*, Indian Institute of Science Education and Research-Bhopal, India, on 27th November 2019.
- Presented poster entitled "**Lanthanide Hexaphosphates with perfect Octahedral Geometry**" in *8th Chemical Frontiers-Goa*, India, on 18th August 2017.

Participated in National and International Workshop /Training

- *Orientation Programme* for "**Faculty in Universities/colleges/Institutes of Higher Education"** in *Teaching Learning Centre, Ramanujan College University of Delhi* under the aegis of *Ministry of Education Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching* from May 18-17 June, 2021 and obtained Grade A+.
- *International one-week Faculty Development Programme* on "**Research Methodology**", from 2nd May to 7th May, 2022, organized by *Amar Sewa Mandal's Kamla Nehru Mahavidyalaya*, Nagpur-440027, Maharashtra.

- *National Level Faculty Development Programme* on "**Methods of Materials Synthesis**" organized by *Department of Physics and Electronics, Bhavan's Vivekananda College of Science, Humanities and Commerce*, Sainikpuri, Secunderbad-500094, under DBT-Star College Scheme from 18th-22nd January 2022.

Declaration

I hereby declare that the above-mentioned particulars are true to the best of my knowledge. I do hereby declare that if, at any stage, I am found guilty of producing wrong information, necessary actions, deemed fit, may be taken against me.

Date: 28-05-2022

Place: Majuli (Aditya Borah)