

List of publications:

- [1] Kalita, S., Kashyap, N., Bora, D. B., Das, S., and Borah, R. Investigation of N, N'-disulfopiperazinium chlorometallates of Fe (III), Ni (II) and Co (II) as hybrid catalysts for the synthesis of 1, 2-dihydroquinazoline derivatives. *ChemistrySelect*, 8(18):e202204533, 2023.
- [2] Kalita, S., Kashyap, N., Handique, P. P., Bora, D. B., and Borah, R. Investigation of a sulfonic acid functionalized ammonium-based permanganate hybrid as a sustainable oxidative catalyst for selective conversion of organic sulfides to sulfoxides. *RSC Sustainability*, 2025.
- [3] Das, S., Kashyap, N., Kalita, S., Bora, D. B., and Borah, R. Comparative study on the physicochemical properties of N-SO₃H functionalized ammonium and imidazolium ionic liquids. *Journal of Molecular Liquids*, 390:123041, 2023.
- [4] Kashyap, N., Paul, S., Bora, D. B., Kalita, S., and Borah, R. Dual functional behaviour of dicationic ionic liquid as extractant and hydrophobic biphasic solvent for extraction of Pb (II) in water. *Journal of Molecular Liquids*, 392:123521, 2023.
- [5] Baruah, K., Kalita, S., Kashyap, N., Bora, D. B., Paul, S., and Borah, R. Study of multicomponent synthesis of 7-alkyl or aryl-6 H, 7 H-benzo [f] chromeno [4, 3-b] chromen-6-ones involving N, N-disulfopiperidiniumbisulfate [DSPP][HSO₄] as efficient recyclable homogeneous Brönsted acidic catalyst. *Molecular Diversity*, 28(1):159-169, 2024.
- [6] Kashyap, N., Kalita, S., Bora, D. B., Das, S., Yashmin, F., Guha, A. K., and Borah, R. A mechanistic study on solar energized degradation of herbicide into value-added product using-SO₃H functionalized ionic liquid-polyoxometalate based heterogeneous catalyst in aqueous medium. *Journal of Molecular Structure*, 1311:138372, 2024.
- [7] Bora, D. B., Bora, B. R., Paul, S., Kalita, S., Kashyap, N., and Borah, R. Variation of micellization, thermodynamic, and surface properties of sodium dodecyl sulfate in aqueous media using 1, 3-disulfo-2-alkyl imidazolium chloride ionic liquids. *Colloid and Polymer Science*, 302(6):979-999, 2024.
- [8] Paul, S., Gogoi, A. J., Dev, K., Handique, P. P., Bora, D. B., Kalita, S., and Borah, R. Study of adsorption efficiencies of biopolymer-based composites of chitosan with a

sulfonic acid functionalized imidazolium ionic liquid for elimination of organic dyes in wastewater. *RSC Sustainability*, 2025.

- [9] Kalita, S., Dey, M., Gour, N. K., Bora, D. B., and Borah, R. Permanganate based functionalized organic-inorganic hybrid as internal oxidative catalyst for controlled oxidation of primary/secondary benzyl alcohols: A greener alternative (**under review**, 2025)

List of publications: Book Chapters

- [1] Das, S., Kashyap, N., Kalita, S., Bora, D. B., and Borah, R. A brief insight into the physicochemical properties of room-temperature acidic ionic liquids and their catalytic applications in CC bond formation reactions. In *Advances in Physical Organic Chemistry*, volume 54, pages 1-98. ISBN: 978-0-12-821820-4. Elsevier, 2020.
- [2] Kalita, S., Bora, D. B., Paul, S., and Borah, R. Exploration of Group IIIA halometallates for their distinctive applications. In *Research Trends in Chemical Sciences*, volume 14, pages 133-155, ISBN: 978-93-91538-58-3, AkiNik Publications, 2021.

Conferences Attended

Title of presentation	Year	Institution	Mode of presentation
International conference on 'Emerging Trends in Chemical Sciences' ETCS-2020	2020	Gauhati University	Poster
The Present and Future of Excellence in Organic Synthesis (PFEOS 2021)	2021	Tezpur University	Poster
Research at the Interface of Chemical, Biological and Material Sciences	2023	Tezpur University	Poster
National Conference on Materials Chemistry & Catalysis	2025	Tezpur University	Poster