

List of Publications: Thesis Work

- [1] Das, S., Dutta, T., and Borah, R. Comparative study of the physical and electrochemical behavior of direct N-SO₃H functionalized 1,3-disulfo-2-alkyl-imidazolium trifluoroacetate ionic liquids in molecular solvents. *Journal of Molecular Liquids*, 289:111099, 2019.
- [2] Das, S., Porashar, B., Saikia, S., and Borah, R. Brønsted Acidic Ionic Liquids Catalysed Sequential Michael-like Addition of Indole with Chalcones via Claisen-Schmidt Condensation. *ChemistrySelect*, 5:3041-3047, 2020.
- [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] Das, S., Paul, S., Kashyap, N., Saikia, P., and Borah, R. N-SO₃H Functionalised Brønsted Acidic Ionic Liquid Catalysed Sequential One-Pot Synthesis of 2-Amino-3-Cyanopyridines via Claisen-Schmidt Condensation Under Solvent-free Condition. *ChemistrySelect*, 9:e202304103, 2024.

List of Publications: Other Publications

- [1] Kashyap, N., Das, S., and Borah, R. Solvent responsive self-separation behaviour of Brønsted acidic ionic liquid-polyoxometalate hybrid catalysts on H₂O₂ mediated oxidation of alcohols. *Polyhedron*, 196:114993, 2021.
- [2] 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:e202204533, 2023.
- [3] Boruah, K., Rohman, S., Guha, A. K., Das, S., and Borah, R. Investigation of physical and electrochemical behaviour of N-sulfonic acid functionalized cyclic-ammonium based Brønsted acidic ionic liquids in molecular solvents. *Journal of Ionic Liquids*, 3:100062, 2023.
- [4] Das, S. and Borah, R. Ionic Liquids: An Ever-evolving Discipline. *Journal of Intellectuals*, 1:51-67, 2021.

- [5] 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.
- [6] Kashyap, N., Das, S., Paul, S., Purkayastha, S.K., Guha, A.K., and Borah, R. Study of the catalytic activity of methylene-bridged dicationic-SO₃H-functionalized imidazolium phosphomolybdate hybrids for the one-pot sequential synthesis of 3-substituted indoles. *New Journal of Chemistry*, 2024

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] Kashyap, N., Das, S., and Borah, R. A brief insight into the polyoxometalate based organic-inorganic hybrid systems and their catalytic uses in oxidation and acid catalyzed organic reactions. In *Research Trends in Chemical Sciences*, volume 10, pages 167-192. ISBN: 978-93-90420-17-9. AkiNik Publications, 2020.

List of Conferences and Symposiums Attended

Title of Conference	Year	Institution	Mode of Presentation (Oral/Poster)
Recent Trends in Environment Responsive Chemical Processes (RTERCP-2017)	2017	Debraj Roy College, Golaghat	Oral (National)
International Conference on “Recent Trends in Material Science and Technology” (ICMST-2018)	2018	Jointly by ISRO & Material Research Society of India, Thiruvananthapuram	Poster (International)
ORGANIX-2018: An International Conference in Chemistry	2018	Tezpur University, Tezpur	Poster (International)
International Conference on “Emerging Trends in Chemical Sciences” (ETCS-2020)	2020	Guwahati University, Guwahati	Oral (International)
National Seminar on “Research at the Interface of Chemical, Biological and Material Sciences”	2023	Tezpur University, Tezpur	Poster (National)

Studies on the Physicochemical Properties of Acidic Ionic Liquids and their Applications

by Sukanya Das

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Mengting Meng, Guofang Wang, Liangfeng Yang, Kai Cheng, Chenze Qi. "Silver-catalyzed Double Decarboxylative Radical Alkynylation/Annulation of Arylpropionic Acids with α -keto Acids: Access to Yrones and Flavones under Mild Conditions", *Advanced Synthesis & Catalysis*, 2018

Publication

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10

Jin-Heng Li, Chen-Liang Deng, Ye-Xiang Xie. "Solvent-Free, Palladium-Catalyzed Suzuki-Miyaura Cross-Couplings of Aryl Chlorides with Arylboronic Acids", *Synthetic Communications*, 2007

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11

Yoshizawa, K.. "Siloxyallenes revisited. A useful functional intermediate for the synthesis of (Z)- β -branched Morita-Baylis-Hillman type adducts and (Z)-chalcones", *Tetrahedron*, 20070702

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Xian-Liang Zhao. "Three-Component Barbier Allylation-Friedel-Crafts Alkylation Promoted by BuPyCl/SnCl₂·2H₂O: Application to the

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Synthesis of 4-(Substituted phenyl)chromans",
Chinese Journal of Chemistry, 09/2007

Publication

13

Radu-George Bulai, Sofie Heylen, Maria Cremonini, Eveline Lescrinier, Jef Rozenski, Joleen Masschelein, Peter Verwilst. "Exploring the Structure-Activity-Relationship of the 'B'-ring in Diaryl Ether-Based paFabV Inhibitors", American Chemical Society (ACS), 2023

Publication

14

Yeonguk Cho, Miso Kang, Su Hyun Ji, Hee Jin Jeong et al. "Discovery of Orally Bioavailable Phthalazinone Analogues as an ENPP1 Inhibitor for STING-Mediated Cancer Immunotherapy", Journal of Medicinal Chemistry, 2023

Publication

15

Marija Ciba, Bethany Dibnah, Brian D. Hudson, Elisabeth Rexen Ulven. "Development and Characterization of Potent Succinate Receptor Fluorescent Tracers", Journal of Medicinal Chemistry, 2023

Publication

16

Mezhubeinuo Mezhubeinuo, Rahul Mohanta, Hemanta Bordoloi, Akalesh Kumar Verma, Ghanashyam Bez. "L-proline.H₂SO₄ catalyzed synthesis of novel coumarin-based spiroindolino-3,4-dihydropyrimidin-2(1H)-

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ones: In-vitro cytotoxic assays and molecular docking study", Research Square Platform LLC, 2023

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