

Publications:

Research Articles:

- 1) Saikia, R. A.; Talukdar, K.; Pathak, D.; Sarma, B.; Thakur, A. J. Utilization of Aryl(TMP)iodonium Salts for Copper-catalyzed *N*-Arylation of Isatoic Anhydrides: An Avenue to fenamic acid derivatives and *N,N'*-diaryllindazol-3-ones. *J. Org. Chem.* **2023**, *88*, 3567-3581. (<https://doi.org/10.1021/acs.joc.2c02762>)
- 2) Saikia, R. A.; Dutta, A.; Sarma, B.; Thakur, A. J. Metal-Free Regioselective *N*²-Arylation of 1*H*-Tetrazoles with Diaryliodonium Salts. *J. Org. Chem.* **2022**, *87* (15), 9782–9796. (<https://doi.org/10.1021/acs.joc.2c00848>)
- 3) Saikia, R. A.; Hazarika, N.; Biswakarma, N.; Deka, R. C.; Thakur, A. J. Metal-Free *S*-Arylation of 5-Mercaptotetrazoles and 2-Mercaptopyridine with Unsymmetrical Diaryliodonium Salts. *Org. Biomol. Chem.* **2022**, *20* (19), 3890–3896. (<https://doi.org/10.1039/D2OB00406B>)
- 4) Saikia, R. A.; Barman, D.; Dutta, A.; Thakur, A. J. *N*¹- and *N*³-Arylations of Hydantoins Employing Diaryliodonium Salts *via* Copper(I) Catalysis at Room Temperature. *Eur. J. Org. Chem.* **2020**, *2021* (3), 400–410. (<https://doi.org/10.1002/ejoc.202001353>)
- 5) Dutta, A.; Saikia, R. A.; Thakur, A. J. A Mechanistic Approach to Liquid-Assisted Mechanochemical Synthesis of 5-Aryl/Spiro-[1,2,4]-Triazolidine-3-Thiones. *Eur. J. Org. Chem.* **2022**, *2022* (34). (<https://doi.org/10.1002/ejoc.202101472>)
- 6) Borah, M. J.; Devi, A.; Saikia, R. A.; Deka, D. Biodiesel Production from Waste Cooking Oil Catalyzed by *in-situ* Decorated TiO₂ on Reduced Graphene Oxide Nanocomposite. *Energy* **2018**, *158*, 881–889. (<https://doi.org/10.1016/j.energy.2018.06.079>)

Book Chapters:

- 1) Saikia, R. A. Diaryliodonium Salts: An Emerging Reagent for Metal-Free Arylation. In Taylor, J. C., editor, *Advances in Chemistry Research*, Vol. 82, pages 253-268, ISBN: **979-8-89113-236-8**. Nova Publication, **2023**.
- 2) Saikia, R. A. and Saikia, R. A study on organic solvents: Its necessity, its impact on the environment and sustainable alternatives. In Narzary, A., Begum, P. and Bhagawati, C., editors, *Environment: Climate Change and Natural Challenges*, pages 22-41, ISBN: **978-93-90919-60-4**. Gargaon College Publication Cell & Purbayon Publication, **2021**.
- 3) Saikia, R. A. 2-iodoxybenzoic Acid (IBX): An Organohypervalent Iodine Compound as Mainstream Oxidant in Organic Synthesis. In Mahanta, S. M. and Kalita, D., editors, *Aspects of Sustainable Chemical Sciences*, pages 98-117, ISBN: **978-93-89940-82-4**. Purbayon Publication, **2020**.