

List of publications

In journals

- [1] **Bora, A.** and Karak, N. Starch and itaconic acid-based superabsorbent hydrogels for agricultural application. *European Polymer Journal*, 176:111430, 2022.
- [2] **Bora, A.**, Sarmah, D., and Karak, N. Cellulosic wastepaper modified starch/ itaconic acid/ acrylic acid-based biodegradable hydrogel as a sustain release of NPK fertilizer vehicle for agricultural applications. *International Journal of Biological Macromolecules*, 253(1):126555, 2023.
- [3] **Bora, A.** and Karak, N. Biobased hydrogel reinforced with wastepaper-derived modified cellulose nanofiber as an efficient dye remover from wastewater. *Journal of Polymer Research*, 30(12):452, 2023.
- [4] **Bora, A.**, Sarmah, D., and Karak, N. Bio-based biodegradable hydrogels containing modified cellulosic nanofiber-ZnO nanohybrid as efficient metal ions removers with recyclable capacity. *Journal of Cleaner Production*, 430:139748, 2023.
- [5] **Bora, A.**, Sarmah, D., Rather, M.A., Mandal, M., and Karak, N. Starch, gelatin and itaconic acid-based biodegradable hydrogel nanocomposites with ZnO/cellulose nanofiber as a pH-sensitive sustained drug delivery vehicle. *International Journal of Biological Macromolecules*, 256(1):128253, 2023.

Book Chapter

- [1] Sarmah, D., **Bora, A.**, and Karak, N. Hydrogel Nanocomposites Derived from Renewable Resources. In Pathania, D. and Singh, L., editors, *Bio renewable nanocomposite materials: For electrocatalyst, energy storage, and wastewater remediation*, Pages 269-285. American Chemical Society, 2022.
- [2] Sarmah, D., **Bora, A.**, and Karak, N. Current challenges, and perspective of hydrogels. In Gupta, R. editor, *Hydrogels: Fundamentals to advanced energy applications*, Pages 335-351. CRC Press, 2023.
- [3] **Bora, A.**, Sarmah, D., and Karak, N. Hydrogels for environmental applications. In Aleman, C., Gupta, R., Garcia, J.M., editors, *Multifunctional hydrogels: From basic concepts to advanced applications*, CRC Press, 2023. (Accepted)

List of publications

In conferences

(Published as Abstract)

[1] **Bora, A.** and Karak, N., Cellulose nanofiber reinforced starch-based hydrogel nanocomposite for dye removal. International Conference on “Recent Advances in Materials Chemistry and Catalysis,” 1-3rd March, 2023.