

#### List of Publications in journals (included in the thesis):

- [1]. **Baruah, K**., Ahmed, A., Dutta, R., Ahmed, S., Lahkar, S., and Dolui, S.K. Removal of organic solvents from contaminated water surface through a fatty acid grafted polyvinyl alcohol based organogel. *Journal of Applied Polymer Science*, 139 (45), 2022
- [2]. **Baruah, K**., Dutta, R., Doley, S., and Dolui, S.K. Grafted polymeric organogel using low molecular weight gelator as an effective medium for expulsion and purification of cationic dyes and organic pollutants from contaminated surface water. *European Polymer Journal*, 195, 112213, 2023
- [3]. **Baruah**, **K**., Dutta, R., Doley, S., Sarma, B., and Dolui, S.K. Polymeric organogel as an effective approach for eradication of heavy metal ions As, Pb, Cd, and Cr from the surface of groundwater through adsorption stratagem. *Journal of Applied Polymer Science*, 141 (2), 2024
- [4]. **Baruah**, **K**., Sarma, B., and Dolui, S.K. Aluminum montmorillonite/polyaniline hybrid composite-based organogel for expurgation of carcinogenic Chlorophenols and Congo red dye from defiled water sources. *Langmuir*, 40 (1): 450-461, 2024

#### Other publications in journals:

- [1]. Dutta, R., **Baruah, K**., Doley, S., Dolui, S.K., Ray, B.C., and Karmakar, B. Facile synthesis of Poly(ethylene-co-vinyl acetate)/nanoclay-based porous hydrophobic adsorbent surface for removing oils and various organic solvents from contaminated water. *New Journal of Chemistry*, (Advance Article) 2024
- [2]. Dutta, R., **Baruah, K**., Dhar, S., Ahmed, A., Dutta, N., Doley, S., Sedai, P., Dolui, S.K., Ray, B.C., and Karmakar, B.C. Removal of oils and organic solvents from wastewater through swelling of porous crosslinked poly(ethylene-co-vinyl acetate): Preparation of adsorbent and their oil removal efficiency. *Marine Pollution Bulletin*, 186, 114488, 2023
- [3]. Lahkar, S., **Baruah, K**., Puzari, P., and Dolui, S.K. Hierarchically porous N, P codoped graphitic carbon as a symmetric supercapacitor material and a hydrogen evolution reaction electrocatalyst. *Journal of Energy Storage*, Communicated
- [4]. Dutta, R., Dhar, S., **Baruah, K**., Dutta, N., Doley, S., Sedai, P., Dolui, S.K., Ray, B.C., and Karmakar, B. Removal of organic solvents and oils from wastewater by

- absorption with crosslinked poly(ethylene-co-vinyl acetate) modified by cetyl alcohol. *Journal of Water Process Engineering*, 49, 103073, 2022
- [5]. Ahmed, A., Nath, J., Baruah, K., Rather, M.A., Mandal, M., and Dolui, S.K. Development of mussel mimetic gelatin based adhesive hydrogel for wet surfaces with self-healing and reversible properties. *International Journal of Biological Macromolecules*, 228: 68-77, 2023
- [6]. Ahmed, S., Mohanta, D., **Baruah, K**., and Dolui, S.K. CsPbBr3 perovskite quantum dots decorated ZIF-8 MOF: A selective dual recognition fluorometric visual probe for 4-nitroaniline and rhodamine blue. *Analytical Methods*, 46 (15): 6394-6403, 2023

#### Papers presented in academic conferences:

- [1]. **Baruah, K**. and Dolui, S.K. **Poster presentation** entitled 'Separation of cationic dyes from polluted water resources using an effective polymeric organogel' Frontiers in Chemical Sciences (FICS 2022), December, 2-4, 2022, IIT Guwahati, India.
- [2]. **Baruah, K**. and Dolui, S.K. **Poster presentation** entitled 'Efficacious usage of a polymeric organogel for sustainable environment by extrusion of cationic dyes from contaminated water resources' International Symposium on Emerging Trends in Chemical Sciences (ETCS-2023), March 2-4, 2023, North-Eastern Hill University, Shillong, India. (awarded Best Poster Prize)
- [3]. **Baruah**, **K**., Sarma, B. and Dolui, S.K. **Poster presentation** entitled 'Eradication of heavy metal ions by polymeric organogel through surface assimilation' International Conference on Current Trends of Research in Chemistry Towards Sustainability, Health Care and Forensic Analysis (SusChemHeca-2024), March 14-15, 2024, Tezpur University, Tezpur, India.

#### **Workshops and Seminars participated:**

- [1]. Participated in UGS-SAP (DRS-II) and Tezpur University sponsored one week workshop on "Analytical Techniques in Chemical Sciences" January, 20-25, 2020.
- [2]. Attended National level Seminar titled "Sustainability, Medicine and Clean Energy" organized by the Department of Chemical Sciences, Tezpur University in association with inSCIgnis'22 on 1st March 2022.
- [3]. Attended mini-symposium on "Recent Trends in Applied Chemistry" organized by the Department of Applied Sciences, Tezpur University on 12th February 2024.
- [4]. Participated in SERB sponsored National Workshop on "Frontiers in Material Sciences: Challenges and Opportunities" organised by the Department of Chemical Sciences, Tezpur University, 7-8 March, 2024.



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### **Submission Information**

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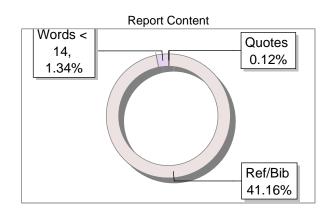
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