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List of patent and Publications

Patent

1. **Amit Bar**, R. S. Singh, Chandan Upadhyay "AN ADSORBENT FOR WASTE-WATER TREATMENT AND A METHOD OF PREPARATION THEREOF'' Indian patent application (202411055284).

International Journals:

1. **Bar, A**., Sarkar, S., Kumar, S., Singh, R.S. and Upadhyay, C., 2024. Synthesis of Ternary Layered Double Hydroxides and Application for Wastewater Treatment. Chemistry Select, 9(38), p.e202402980. https://doi.org/10.1002/slct.202402980.
2. **Bar A**, Sanjeev Kumar, Sudarshan Sarkar, R.S. Singh, Chandan Upadhyay, 2024. Efficient Removal of Congo Red from Aqueous Solutions Using Calcined and Uncalcined Ternary Layered Double Hydroxide (LDH). Surface and Interface 55 (2024) 105341. https://doi.org/10.1016/j.surfin.2024.105341.
3. **Bar, A**., Kupkar, O.J., Upadhyay, C. and Singh, R.S., 2024. Development of cost-effective proton exchange membrane using agro waste-based biochar for application in microbial fuel cell (MFC). Biomass Conversion and Biorefinery, pp.1-9. https://doi.org/10.1007/s13399-024-05818-5.
4. Sanjeev Kumar, **Amit Bar**, Sudarshan Sarkar, Jaspal Singh, Chandan Upadhyay. Efficient removal of Congo Red Dye using MoS2-modified Mg-Al LDH Nanocomposites for Efficient Wastewater Remediation. Surface and Interfaces. 64 (2025) 106351. https://doi.org/10.1016/j.surfin.2025.106351.
5. Methyl-orange disintegration by MgZnAl layered double hydroxide (LDH) and its derivatives (yet to be communicated).
6. Congo red disintegrating MgNiAl Layered double hydroxide (LDH) and its derivative having high recyclability (yet to be communicated).
7. Sada, P.K., **Bar, A**., Jassal, A.K., Singh, A.K., Singh, L. and Rai, A., 2023. A dual channel rhodamine appended smart probe for selective recognition of Cu^{2+} and Hg^{2+} via "turn on" optical readout. Analytica Chimica Acta, 1263, p.341299.
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10. Navneet Kumar, Pawan Kumar Sada, Amit Kumar Kundan, **Amit Bar**, Amanpreet Kaur Jassal, Surya Prakash Rai, Vipendra Kumar Singh, Neha Garg, Alok Kumar Singh, Ankit Kumar Singh, Sumit Kumar, Laxman Singh, Abhishek Rai. Exploring the recognition behavior of a fluorescein-based probe towards the significant detection of Cu2+ and Zn2+ ions: Experimental and computational studies.Journal of Photochemistry and Photobiology A: Chemistry. Volume 462, 1 May 2025, 116268. https://doi.org/10.1016/j.jphotochem.2025.116268.

International/National conference and workshop

1. Present poster in 'NBL 2023' held from 25-29 May 2023 at the National Institute of Technology Srinagar, India.
2. Present poster in international conference on 'Nano chemistry & Theragnostic (ICNT-2024) held from 29-30 July, 2024.