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LISTS OF PUBLICATIONS AND PATENTS

Publications

1. **Pandey, A.,** Kalamdhad, A. and Sharma, Y.C. Deciphering adsorption behaviour and mechanisms of enhanced phosphate removal via optimized cetyltrimethylammonium bromide-modified nanofibrillated cellulose. International journal of biological macromolecules, 288, 2025, 138743, https://doi.org/10.1016/j.Ijbiomac.2024.138743 (Q1 I.F. 8.5)

2. **Pandey, A.,** Kalamdhad, A. and Sharma, Y.C Sustainable upcycling of sugarcane bagasse into nanofibrillated cellulose utilizing novel green solvents and high intensity ultrasonication, sustainable chemistry and pharmacy, 37, 2024, 101373 https://doi.org/10.1016/j.Scp.2023.101373 (Q1 I.F. 5.8)

3. **Pandey, A.** and Sharma, Y.C. Advancements in biomass valorization in integrated biorefinery systems, biofuels, bioproducts and biorefining, 18, 2024, 2078-2090 https://doi.org/10.1002/bbb.2670 (Q1 I.F. 3.2)

4. **Pandey, A.,** Kalamdhad, A. and Sharma, Y.C. Recent advances of nanocellulose as biobased adsorbent for heavy metal ions removal: a sustainable approach integrating with waste management, environmental nanotechnology, monitoring & management, 20, 2023, p.100791. https://doi.org/10.1016/j.Enmm.2023.100791 (Q1 Citescore 16.0)

5. Kumar, N., **Pandey, A.,** Rosy and Sharma, Y.C. A review on sustainable mesoporous activated carbon as adsorbent for efficient removal of hazardous dyes from industrial wastewater, journal of water process engineering, 54, 2023, 104054 https://doi.org/10.1016/j.Jwpe.2023.104054 (Q1 I.F. 6.7)

6. Sharma, A., Kumar, N., **Pandey, A.,** P, Subrata., K, Sudesh., Sharma, Y.C., Eco-friendly Facile Fabrication of CaO Nanoparticles from Waste Marble Dust: Adsorption Studies on Treatment of Colored Effluents (Journal- Surface and Interfaces, Q1, I.F. 6, Revision submitted)

7. **Pandey, A.,** Kalamdhad, A. and Sharma, Y.C. Optimized Mg-doped nanofibrillated/bentonite composites for enhanced phosphate removal; Adsorption performance and insight studies (Peer review)

Patents Filed

1. Development of a Novel Green Process for High Yield Production of Nanofibrillated Cellulose from agrowaste residues for Industrial applications

LISTS OF SEMINARS ATTENDED

- Presented paper entitled "Enhanced phosphate removal via optimized CTAB-modified nanofibrillated cellulose; Adsorption performance and insights" at Recycle 2023, 5th International Conference on Waste Management at IIT Guwahati, Assam held on 5th – 6th June, 2025.

- Presented paper entitled "Optimized CTAB-Modified Nanofibrillated Cellulose for Phosphate Recovery: Adsorption Mechanisms and Performance Insights" at EGU General Assembly, Vienna, Austria, 27th April to 2nd May 2025.

- Presented paper entitled "Upcycling sugarcane bagasse into nanofibrillated cellulose using sustainable and green technique" at International Conference on Waste Recycling & Environmental Technology (WRET-2024) organized by BBAU, Lucknow, Feb 8th and 9th, 2024.

- Presented paper entitled "Natural deep eutectic solvents (NADES) as sustainable pre-treatment agent for lignocellulosic biomass" at Recycle 2023, 4th International Conference on Waste Management at IIT Guwahati, Assam held on18th – 19th May 2023.

- Presented paper entitled "Recent advances in the use of nanocelluloses as bio-based adsorbent for heavy metal ions removal" at IIT-Roorkee on Emergent Materials for Energy and Environment (EMEE-2023), held on4th – 5th March, 2023.