

### **Research Publication: 2023-24:**

1. Co-pyrolysis of Diaper Cellulose and Sugarcane Bagasse: Investigating Kinetics, Thermodynamics, and Possible Synergies

P Dwivedi, AK Rathore, D Srivastava, RK Mishra, K Srivastava

Journal of Hazardous, Toxic, and Radioactive Waste 28 (4), 04024016

2. Recent trends in microwave-assisted pyrolysis of agricultural residues: kinetic and thermodynamic studies

P Dwivedi, RK Mishra, K Srivastava, D Srivastava, AK Rathore

Emerging Biofuels, 77-103

### **Book Chapter Published: 2022-2023**

1. Polymer Nanocomposites for Food Packaging Applications

Soma Banerjee, Ashish Kapoor, Anjali Awasthi and P. Rajasulochana

In: Mallakpour, S., Hussain, C.M. (eds) Handbook of Nanofillers. Springer, Singapore.

[https://doi.org/10.1007/978-981-99-3516-1\\_110-1](https://doi.org/10.1007/978-981-99-3516-1_110-1) Chapter 110-1,

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2. Title of the Book: Advances in Material Technology

Editor: Dr. Abhishek Dwivedi

Chapter 1: Composite Materials based on high performance polymer for high-tech applications

By: Mohd Rashid Khan, Pradeep Kumar, Abrar Ahmad

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3. Title of the Book: Emerging Biofuels

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Authors: Parul Dwivedi, Rajendra Kumar Mishra, Kavita Srivastava, Deepak Srivastava, Ashwani Kumar Rathore

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### **Papers presented in National and International Conferences: 2023-2024**

1. Rohit Nishad (Presenter) and Soma Banerjee\* Carbon Reinforced Epoxy based Composites for Structural Application in International Conference IChE - CHEMCON 2023 Organized by Indian Institute of Chemical Engineers from December 27-30, 2023 at Heritage Institute of Technology, Kolkata

2. Oral Presentation by Soma Banerjee (Presenter), Sachin Chauhan and Kamal K. Kar on Fabrication of Open and Closed Cell Porous Sulfonated Poly ether ether ketone Membranes by Phase Inversion Technique in International Conference IChE - CHEMCON 2023 Organized by Indian Institute of Chemical Engineers from December 27-30, 2023 at Heritage Institute of Technology, Kolkata

3. Oral Presentation by Shreya Srivastava, Anjali Awasthi, Soma Banerjee\* on 'Development of Biowaste Derived Polymer Nanocomposites for Waste Water Treatment' in International Conference IChE - CHEMCON 2023 Organized by Indian Institute of Chemical Engineers from December 27-30, 2023 at Heritage Institute of Technology, Kolkata
4. Oral Presentation by Akanksha Verma, Mata Mani Tripathi, Bablu Mordina, Kingsuk Mukhopadhyay, Mayank Dwivedi, Soma Banerjee\* on 'NiCo<sub>2</sub>O<sub>4</sub>/NiCoSnS<sub>4</sub> Nanocomposite based Asymmetric Supercapacitor Device for Energy Storage Application' in International Conference IChE - CHEMCON 2023 Organized by Indian Institute of Chemical Engineers from December 27-30, 2023 at Heritage Institute of Technology, Kolkata
5. Oral Presentation on "Fabrication of rGO/PVA Composites by Layer Approach" by Babar Mirza, Aman Chandra Gupta, Anshu Alok, Akanksha Verma, Soma Banerjee in CHEM-TECHNOVA 2024 from 21-23 March, 2024 organized by IICHe student Chapter and HBTU Kanpur.
6. Oral Presentation on 'Synthesis and Characterization of Bio waste derived Carbon by Carbonization in a Tubular Furnace' by Rohit Nishad, Soma Banerjee\* in CHEM-TECHNOVA 2024 from 21-23 March, 2024, organized by IICHe student Chapter and HBTU Kanpur.
7. Oral Presentation on 'Nanostructured NiCoSnO<sub>4</sub> embedded with Pisum sativum Skin derived Activated Carbon for High Supercapacitor Device' by Akanksha Verma (Presenter), Bablu Mordina, Kingsuk Mukhopadhyay, Mayank Dwivedi, Soma Banerjee\* (Presenter) in CHEM-TECHNOVA 2024 from 21-23 March, 2024 organized by IICHe student Chapter and HBTU Kanpur.