

## Special Issue

# Advanced Carbon Nanomaterials from Biomass for Energy Storage and Environmental Applications

### Message from the Guest Editors

This Special Issue will gather high-quality contributions focused on the production, modification, and application of biomass-derived carbon nanomaterials for use in energy storage, environmental remediation, sensors, catalysts, and multifunctional systems.

- Production of advanced carbon materials from lignocellulosic biomass through pyrolysis, activation, hydrothermal carbonisation, or other thermochemical processes;
- Physicochemical, textural, and electrochemical characterisation of biomass-derived carbon nanomaterials;
- Surface modification and functionalisation of biochar or activated carbon for specific applications;
- Application of carbon nanomaterials in batteries, supercapacitors, and other energy storage devices;
- Environmental remediation uses: adsorption of heavy metals, emerging contaminants, volatile organic compounds (VOCs), and CO<sub>2</sub>;
- Modeling and simulation of transport properties, reactivity, or adsorption behavior;
- Life cycle assessment, sustainability analysis, and valorisation strategies within the circular economy framework.

### Guest Editors

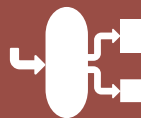
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### Deadline for manuscript submissions

10 December 2025



## Processes

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You are invited to contribute either a research article or a comprehensive review for consideration and publication in *Processes* (ISSN 2227-9717). *Processes* is published in open access format – research articles, reviews, and other content are released on the internet immediately after acceptance. The scientific community and the general public have unlimited, free access to the content. As an open access journal, *Processes* is supported by the authors and their institutes through the payment of article processing charges (APCs) for accepted papers. We would be pleased to welcome you as one of our authors.

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