Special Issue

Bio‐Derived Materials for Electrochemical Energy and Environmental Systems

Message from the Guest Editor

The transition toward a sustainable society calls for the replacement of critical and fossil‐derived components in electrochemical devices by abundant, renewable, and low‐impact alternatives. Bio‐sourced materials—ranging from biomass‐derived carbons and biochars to lignin, chitosan, cellulose nanofibres, and other biopolymers—are emerging as high‐performance candidates for electrodes, membranes, binders, and catalysts in next‐generation electrochemical systems. This Special Issue aims to gather cutting‐edge research and critical reviews on the design, characterization, and integration of bio‐derived materials in devices such as microbial fuel cells, supercapacitors, metal‐ion batteries, redox‐flow batteries, electrolyzers, and electro‐synthesis reactors. Contributions that link molecular‐scale understanding to device‐level performance, address scalability and life‐cycle assessment, or showcase advanced characterization techniques are particularly welcome.

Guest Editor

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Editor-in-Chief

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