

Special Issue

Porous Materials for Electrochemical Energy Conversion and Storage

Message from the Guest Editor

Dear colleagues, To alleviate energy crises and global environmental pollution, a range of electrochemical energy storage and conversion devices, such as fuel cells, rechargeable batteries, supercapacitors, and electrolyzers, has been extensively explored in recent years. In particular, electrode materials, as the heart components of these devices, play especially crucial roles in determining the performances. A significant proportion of electrode materials is constructed into porous structures for loading more active sites and enhancing mass transport. Additionally, the porous characteristics, such as mesoscale geometries and structures, specific surface areas, pore volumes, and surface/interface properties, greatly affect the dispersion and anchoring strength of the active sites as well as the mass transfer in the catalyst layer, which then greatly affect the electrode kinetics, power output, and lifetime of the devices. The objective of this Special Issue is to collect original and review articles on the porous electrode materials for electrochemical energy conversion and storage.

Guest Editor

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