

Additionally, the morphology, specific surface area, and particle size of MOF-derived carbon materials can also be tuned through designed synthetic control, making them as a competitive ...

Nanoporous materials, where the pore-size distribution can be tuned according to growth conditions, can be engineered for specific applications, such as ionic and molecular transport, biosensors, air and water purification, ...

To date, a wide variety of porous carbon materials based upon molecular design, pore control, and compositional tailoring have been proposed for energy-storage applications. This focus review summarizes recent ...

The controlled synthesis of precise carbon nanostructures with high electron conductivity, high reaction activity, and structural stability plays a significant role in practical ...

Climate change and the energy crisis have promoted the rapid development of electrochemical energy-storage devices. Owing to many intriguing physicochemical properties, ...

Energy storage materials such as batteries, supercapacitor, solar cells, and fuel cell are heavily investigated as primary energy storage devices [3] ... The graphene acted as a ...

Biomass-derived porous carbon materials: synthesis, designing, and applications for supercapacitors . Li Sun, + a Youning Gong,+ b Delong ... and prompted people to explore advanced and green energy storage and ...

This review summarizes progress in the use of porous carbons in different energy storage devices, such as lithium-ion, lithium-oxygen, lithium-sulfur, and lithium-metal batteries ...

Biomass-derived porous carbon materials: synthesis, designing, and applications for supercapacitors . Li Sun, + a Youning Gong,+ b Delong ... and prompted people to explore ...

Hierarchical porous carbon-based biomass is considered the most promising functional carbon-based electrode material for energy conversion and storage as a result of its abundant natural resources ...

Porous carbon materials are solving these issues; incorporating porous carbon with PCMs avoids leakage and enhances their thermal stability and thermal conductivity. 72 ...

Deep insight into the pore size distribution of N-doped porous carbon materials on electrochemical energy

storage and CO₂ sorption. Author links open overlay panel Jiaxin Li a, ...

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