Special Issue

Nano Materials for Electrochemical Energy Storage

Message from the Guest Editors

Electrochemical energy storage devices (e.g., capacitors and secondary batteries) play very important roles in the efficient utilization of renewable and clean energy (e.g., solar and wind energy). The device performance is highly dependent on the electrode materials. Nano materials (e.g., nano carbon materials) are promising electrode materials for electrochemical energy storage due to their unique structural morphologies and specific chemical compositions. The nanostructures (e.g., OD nanodot, 1D nanofiber, 2D nanosheet, and 3D porous network) supply large electrolyte/electrode surfaces for fast ionic diffusion and provide numerous active sites for ion storage. Therefore, the nano materials show superior performance as electrode materials for energy storage, realizing the assembly of capacitors and secondary batteries with high energy, high power, and long lifetime. In this Special Issue, we invite the research community in the field to contribute original scientific articles exploring cutting-edge research and recent advances in Nano materials for Electrochemical Energy Storage.

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