

Special Issue

Cutting-Edge Innovations in Molecular and Nanoscale Engineering for Energy Applications

Message from the Guest Editors

We invite contributions covering, but not limited to, the following areas:

- Molecular-level design and advanced nanostructuring of energy materials for batteries and supercapacitors.
- Nanoscale engineering strategies for improving energy storage and conversion efficiency.
- Computational and experimental studies on molecular interactions and charge transport mechanisms.
- Advanced characterization techniques for probing molecular and nanoscale structures.
- Electrochemical and catalytic performance of molecularly engineered materials
- Sustainable and green synthesis approaches energy materials.
- Advanced high-energy-density and high-power supercapacitors with superior cycling stability and rapid charge–discharge
- Electrocatalysts for sustainable energy conversion including hydrogen evolution, oxygen evolution, and oxygen reduction
- MXene and other emerging 2D materials for multifunctional electrochemical
- Mechanistic insights and in situ/operando characterizations of charge storage and transport
- Scalability, sustainability, and recyclability of nanomaterials for energy

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