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## **Advanced Materials for Energy Applications: From Fuels to Batteries and Beyond**

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This Special Issue explores frontier advances in energy-related materials science, highlighting state-of-the-art research in functional materials for energy storage, environmental remediation, process optimization, and theoretical modeling. Contributions span from bio-derived battery separators and smart electrochemical sensors to atomic-level simulations of interfacial behavior. Integrating experimental breakthroughs with computational insights, the Special Issue showcases the strategic role of innovative materials in enabling sustainable energy technologies and circular economy principles. It is ideal for researchers and professionals in materials science, energy technology, and environmental engineering.



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