Special Issue

Development of Electrode and Electrolyte Materials for Next-Generation Batteries

Message from the Guest Editors

The development of electrode and electrolyte materials for next-generation batteries is critical due to increasing energy demand, especially for electric vehicles and renewable energy storage. This requires batteries with higher energy density and cycle life. Current lithium-ion batteries rely on unsustainable cobalt cathodes. New materials could enable more sustainable, safer batteries with lower thermal runaway risk. Battery costs also limit adoption of electric vehicles and renewables. New materials may reduce costs. Current batteries also underperform in extreme temperatures. New electrode and electrolyte materials could address limitations of current batteries, making this research vital.

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Welcome to *Crystals*, the journal dedicated to the fascinating world of crystallographic research! Crystals are more than mere decorative elements; they hold the key to understanding the fundamental structure of matter. Our mission is to explore the crucial significance of this research across various fields. From medicine to technology, chemistry to geology, crystals play a vital role. Their structure provides insights into new advanced materials, innovative drugs, and groundbreaking technologies. Through *Crystals*, we delve into the microscopic world to discover solutions that will shape the future. Join us on a journey through the *Crystals*, where science merges with beauty and innovation.

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