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All-Solid-State Batteries

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Message from the Guest Editors

All-solid-state battery has an advantage over the liquid or gel-type batteries because of better thermal stability, non-flammability, and higher electrochemical stability. Materials with new crystalline structure or successful modifications of the existing structures leading to good ionic conductivity are very important. The improvement of ionic intercalation in battery anode and cathode materials is also needed. The match between newly found electrolytes and electrodes should be tested. The research may include, but should not be limited to: synthesis description, cell preparation, crystal structure investigation, capacity measurements and theoretical calculations, charge–discharge cycling rate measurements, ionic/electronic conductivity measurements, etc.

In this Special Issue, publications about the new synthesis, structure and characterization of electrolytes, electrodes, half-cell and full battery assembly performance will be collected. Original research papers dealing with crystalline materials for Li⁺-ion battery and also for alternative Na⁺, Cu⁺, Ag⁺, and Mg²⁺ batteries are welcome.



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Special Issue



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Message from the Editor-in-Chief

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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