



Synthesis and Characterization of Superionic Conductive Glass and Ceramics

Guest Editor:

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Deadline for manuscript
submissions:

closed (20 November 2022)

Message from the Guest Editor

Dear Colleagues,

Rechargeable Li-ion batteries have developed from being the power source for mobile phones and notebook computers to being a large-scale power source for electric vehicles and electric power storage due to the growing interest in energy and environmental problems. However, there is a strong concern about the cost and possible exhaustion of Li resources. Therefore, a significant shift in attention has been taking place towards new types of rechargeable batteries, such as low cost Na-based systems. Another important aspect is their potential compatibility with the all-solid-state design, where a solid electrolyte is used to replace the liquid one, leading to a simple battery design, a long lifespan, and excellent safety. The key to the success of the all-solid-state battery design is the challenge of finding solid electrolytes possessing acceptably high ionic conductivities at room temperature.

This Special Issue will focus on and highlight the state of the art of research in superionic conductive glass and ceramics. This Special Issue will also provide comprehensive reviews of excellence in materials and processing.

Prof. Dr. Toshinori Okura

Guest Editor





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Message from the Editor-in-Chief

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