Special Issue

Next Generation Batteries with Advanced Electrolytes and Interlayers

Message from the Guest Editors

The next-generation battery chemistries demand modification in electrolyte design from “conventional” to “novel”, in order to overcome the challenges (e.g., Li-S battery chemistry is accompanied by polysulfide cross-over, for which functional trappers are necessary). In this view, research on new classes of high-voltage, highly stable, safer electrolytes, interlayers, and separators is need of the hour. Importantly, they should enhance ionic conductivity and interfacial compatibility, minimize electrode dissolution and the crossover of discharge products, and of course should provide safe operational characteristics. The purpose of this Special Issue is to promote important research developments and contribute to the sustainable growth of a green future with next-generation “batteries”. We cordially invite potential authors/research groups to submit experimental and theoretical works (articles, communications) or reviews related to all types of electrodes, electrolytes, separators, and interlayers dedicated towards alkali metal/metal-ion, metal–sulphur, metal–air, and all-solid-state batteries and beyond.

Guest Editors

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Deadline for manuscript submissions

closed (15 January 2024)

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Take the opportunity to publish your original scientific work or a review paper concerning battery materials, battery technology or battery application within this new open access journal. Along with material science, the journal also addresses engineering and multidisciplinary research topics, such as cell and system design or storage system integration. Publishing proffers visibility for the benefit of other experts and facilitates discussion of the research results within the field. You are invited to publish your work, read published papers and to participate in topical discussions.

Editor-in-Chief

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