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Trends and Prospects of New Lithium Batteries

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Deadline for manuscript submissions:
closed (30 April 2024)

Message from the Guest Editors

Dear Colleagues,

Li-S batteries have great potential to be high-energy-density devices due to their ultrahigh theoretical energy density of 2600 Wh kg^{-1}. However, there are still several significant technological challenges, including their low sulfur utilization; the “shuttle effect” of soluble polysulfides; and the irreversible, large volume expansion of the cathode structure during cycling, which hinders the commercialization of Li−S batteries. This Special Issue aims to publish a collection of papers on electrode/electrolyte design, binder/separator modification, and metallic Li protection for boosting the electrochemical performance of advanced Li-S batteries. Meanwhile, this collection is not limited to the above topics, and also can be extended to areas of computational chemistry or machine learning.

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Prof. Dr. Zhong Jin
Guest Editors

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Message from the Editor-in-Chief

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