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Advanced and Multifunctional Materials for Energy Storage Systems

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Deadline for manuscript submissions:

closed (31 March 2023)

Message from the Guest Editors

Dear Colleagues,

Taking into consideration the requirement for the reduction of the environmental impact of current technologies and the increasing mobility of people, it has become necessary to improve energy storage systems for portable applications and/or electric vehicles. The most widely used energy storage systems are lithium-ion batteries that include lithium polymer, Li-sulfur, Li-air, and Li-silicon batteries. There are also other battery systems such as sodium-ion batteries and magnesium-ion batteries that could potentially be alternatives to lithium-ion batteries in specific areas but need to increase their performance. To improve battery performance, it is essential to develop a new generation of advanced and (multi)functional materials for electrodes (anode and cathode) and separators/solid polymer electrolytes, allowing the tailoring and optimization of the main physical-chemical processes that affect battery performance.

Contributions may discuss the fundamental properties of materials, their processing and characterization, or innovations in processing technologies, geometries, or battery applications.



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Special Issue



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Message from the Editor-in-Chief

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