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Advanced and Smart Materials for Next Generation Batteries, Supercapacitors and Energy Harvesting

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Message from the Guest Editors

Dear Colleagues,

Energy storage and conversion devices are attracting rapidly growing interest due to their key role in future electronics such as wearable devices, space satellites, healthcare devices, artificial intelligence, smart households, electric vehicles, etc . These devices should have a responsive ability to change in response to any kind of internal or external effect such as mechanical deformation, configurational integrity, self-healability, thermal responsivity and light. Multifunctional advanced materials are crucial for the development of future energy storage and conversion devices.

The aim of this Special Issue is to focus on different areas of development of multifunctional advanced materials for electrochemical energy storage and conversion applications, in particular batteries, supercapacitors, solar cells and hydrogen production and storage. Furthermore, current challenges and potential solutions from materials synthesis to device performances will be discussed depending on the application of the multifunctional material. This section will provide researchers with new ideas and new challenges for future energy storage systems.

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Message from the Editor-in-Chief

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