Special Issue

Future Battery Concepts

Message from the Guest Editor

It is well recognized that electrochemical energy storage systems could do much to significantly reduce global carbon dioxide emissions by simplifying the integration of intermittent wind and solar renewables into the electrical grid. Over the past two decades, conventional lithium based batteries as the most attractive electrical energy storage system have been significantly improved in terms of energy density, lifetime and cost. However, their relatively low gravimetric energy density, the flammability of the electrolytes together with the depletion of global lithium resources have limited the performance of these batteries. This has motivated researchers to develop safer, more efficient and durable alternative (both the chemistry and the configuration) batteries that have the potential to address the electrical energy storage demand in the future. Many of these new potential batteries are still under development and they deserve special attention. Therefore, this Special Issue, “Future Battery Concepts”, will gather researchers who are developing alternative batteries together to pave the way for future research...

Guest Editor

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