Special Issue

Applied Energy Materials for Li-Ion Batteries

Message from the Guest Editor

Lithium ion batteries (LIBs) have the potential to improve energy efficiency and reduce green house gas emissions. All batteries provide a method of converting chemical energy into electrical energy efficiently. LIBs have a great advantage over other types of batteries as they exhibit higher energy density, voltage capacity, and lower self-discharge rate. The properties of the electrode and electrolyte materials have a major impact on battery performance. Materials with high density, low activation energy of Li-ion diffusion, low cost, low environmental impact and high abundance are needed to construct an efficient Li-ion battery. A variety of potential energy materials have been proposed and tested for building Li-ion batteries required for large scale applications such as electronic vehicles. The search for new class of cathode materials is still being continued in order to improve the output potential and energy density in Li-ion batteries. The Special Issue will focus on the experimental and theoretical examination of energy materials required for rechargeable Li-ion batteries.

Guest Editor

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Energies is an international, open access journal in energy engineering and research. The journal publishes original papers, review articles, technical notes, and letters. Authors are encouraged to submit manuscripts which bridge the gaps between research, development and implementation. The journal provides a forum for information on research, innovation, and demonstration in the areas of energy conversion and conservation, the optimal use of energy resources, optimization of energy processes, mitigation of environmental pollutants, and sustainable energy systems.

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