Special Issue

Battery Modelling, Applications, and Technology

Message from the Guest Editor

Batteries, among the various energy storage systems, are electrochemical storage devices that have always been attractive for both stationary and mobile applications. Different kinds of technology(lead–acid, nickel–cadmium, nickel–metal, etc.) have been developed over the years, and there are other novel technologies (metal-air, quasi-solid-state battery, all-solid-state battery, etc.) still under study. The most important features that these devices aim to have high power, energy density, and efficiency in addition to a long lifecycle. To achieve this, the modeling of batteries and the estimation of their parameters becomes a very important challenge. In the light of above, the aim of this Special Issue is to collect both original research works as well as review articles on battery chemical, electric, thermal, and aging models, integrated battery models and their composition, battery parameter estimation methods, and novel applications and technologies of batteries. **Keywords** energy storage systems; battery technologies; battery applications; battery modelling; parameter estimation techniques

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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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