

Special Issue

High Capacity Electrode Materials for Advanced Lithium Ion Batteries

Message from the Guest Editor

High energy density LIBs need both anode and cathode materials with high capacities for hosting Li-ions. In response to this demand, considerable research efforts have been directed toward improving the energy density of batteries by developing high-capacity electrode materials such as Li-rich (or Li-excess) cathodes, Ni-rich cathodes, and Si anodes, and other high-capacity anode and cathode materials. High-capacity anode research, in particular, has been active, and materials such as silicon (Si), tin (Sn), germanium (Ge) and tin oxides (SnOx) have received significant attention. To address the most state-of-the-art in the research and development of high capacity electrodes (both anode and cathode) for lithium-ion batteries. The contents of the manuscripts will include, but are not limited to, the following topics:

- High capacity cathode materials for lithium-ion batteries
- High capacity anode materials for lithium-ion batteries
- Alloying anode (e.g., Si, Sn, Ge, etc.)
- New design and concept for high capacity electrodes
- Methods for performance analysis and material characterization
- Various cell design with different combination of anode and cathode.

Guest Editor

Dr. Gaiind P. Pandey

Giner Inc., Newton, MA 02466, USA

Deadline for manuscript submissions

closed (31 July 2019)



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Applied Sciences
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
applsci@mdpi.com

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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo
Dipartimento di Fisica, Politecnico di Milano, Piazza L. da Vinci 32,
20133 Milano, Italy

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