Special Issue

Particle Design and Processing for Battery Production

Message from the Guest Editors

With the very fast-growing markets of electrical vehicles (EVs), it is absolutely necessary to improve battery design and the long process chain of battery production. For the future battery generations, the design and production of solid electrolyte particles for all solid-state batteries are of special interest. Improvements in active and passive material particles and their processing should result in batteries with a high level of safety, increased environmental friendliness, and lower cost. This Special Issue (SI) aims to present the latest studies on all aspects related to the design, synthesis, and fabrication of anode and cathode active material particles from primary and secondary material resources as well as electronic and ionic conductive particles (carbon additives and solid electrolyte particles). Moreover, particles' behavior during the processing of anode and cathode slurries, electrodes, and cells of different battery generations as well as safety concerns are in the focus of this SI. Additionally, studies about lifecycle analysis and cost of battery material particles and their production and processing are welcome.

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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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