

Special Issue

Supercapacitors and Their Applications: Advances and Challenges

Message from the Guest Editors

We invite submissions to this Special Issue of *Energies* related to the latest developments and applications in this field. Topics of interest include, but are not limited to:

- Experimental techniques for testing, characterization, monitoring, and diagnosis of SCs and SC modules or banks.
- Simulation and modeling of SC behaviour, SCs banks/modules.
- Methods for determining the SoC and SoH of SCs, including the predictive maintenance of SCs and related systems.
- Measurement and modeling of SC aging.
- SC diagnostics and prognostics.
- Li-ion hybrid supercapacitors.
- Sizing algorithms for SCs in applications.
- Charge management control of mixed systems including batteries and SCs.
- Application and integration of SCs in e-mobility applications.
- Integration of SCs in energy and renewable energy applications.
- Peak shaving, load management and back-up energy applications and/or issues.
- Power electronics for SCs.
- SC behaviour in operation with power converters.
- Application of SCs for grid forming (grid stability).
- SC implementation for energy harvesting or sensor networks.
- Economical and technical assessment for SC markets.
- Special devices and applications.

Guest Editors

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About the Journal

Message from the Editor-in-Chief

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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