Special Issue

Theoretical Model and Experimental Validation of PEM Fuel Cell

Message from the Guest Editor

Greeting! Proton exchange membrane fuel cells (PEMFCs), as one of the most efficient conversion devices for hydrogen energy utilization, have been applied in automobiles, trains, ships, aircraft, CHP, and energy storage industries, and are entering the commercialization stage of large-scale applications. The PEMFC model is the basis for the study of system control, fault diagnosis, and optimization, which is of great significance for improving its economy and reliability. With the promotion of new materials, components, system configuration, control technology, and other changes, the performance and TRL of PEMFCs is greatly improved, which lays a good foundation for the arrival of the hydrogen economy era. This Special Issue aims to present and disseminate the most recent advances in PEMFC modelling related to the material, components, BOPs, heat and mass transfer, system integration, control algorithm, fault diagnosis, performance prediction, and its application. All aspects of PEMFCs, BOPs, and PEMFC submissions are welcome.

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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