



Preparation and Optimization of Solid Oxide Fuel/Electrolysis Cells (SOFCs/ SOECs)

Guest Editor:

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Message from the Guest Editor

Dear Colleagues,

The solid oxide fuel cell (SOFC) is considered one of the most promising alternative techniques for using hydrogen to produce electricity. Further, as the reverse process of the SOFC, the solid oxide electrolysis cell (SOEC) has been considered an effective technology for producing hydrogen at a low cost, with high efficiency and environmental friendliness. The SOEC can use waste heat from nuclear power plants and other industrial processes for high-temperature electrolysis of water, which can reduce the amount of electricity needed to produce hydrogen. The key topics covered by this Special Issue include but are not limited to the following:

- New SOFC/SOEC structures;
- Low-temperature SOFC/SOEC techniques;
- Synthesis and characteristics of the SOFC/SOEC anode, electrolyte, interconnects, and cathode materials;
- Microstructural improvement of the SOFC/SOEC supporting layers;
- Novel fabrication methods and stack design techniques;
- Numerical studies and diagnostic methods;
- Other methods to use or produce hydrogen.





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Message from the Editor-in-Chief

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