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Solid-State High-Temperature Electrochemical Devices: Fabrication, Characterization, Operation

Guest Editor:

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Deadline for manuscript submissions: **31 March 2025**

Message from the Guest Editor

Dear Colleagues,

This Special Issue of *Energies* will focus on novel approaches to cell and stack designs of the various solid oxide cell, including both oxygen and high-temperature protonic conducting. Additionally, it will cover the characterization of the electrochemical units and issues, including those elements related to degradation.

- 1. Design of the cells, single repeating units and stacks.
- 2. Characterization of the electrochemical performance of the cells.
- 3. Electrochemical degradation of the cells in SOFC, PCFC, SOEC, PCEC, and SOFEC modes.
- 4. Characterization and degradation of the interfaces in single repeating unit, including anode and cathode electric contacts as well as possible impact of the sealing.
- 5. Novel and unusual application of solid oxide cells like electrocatalytic reactors, etc.

This Special Issue aims to publish the results, obtained on macro cells (with active surfaces of 10 cm² or higher) in conditions approaching those expected in electrochemical devices.





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Message from the Editor-in-Chief

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