Special Issue

Advances in Solid Oxide Cells (SOCs): Performance and Reliability

Message from the Guest Editors

This Special Issue aims to capture the recent advancements in Solid Oxide Cells (SOCs) with a specific focus on their performance and reliability. Authors are encouraged to contribute their findings on various aspects, including innovative materials, fabrication techniques, performance optimization strategies, durability enhancements, and long-term reliability assessments. Relevant topics for manuscript submission include, but are not limited to:

- Electrochemical processes and mechanisms within SOCs:
- Modeling and simulation of SOC performance and behavior;
- Experimental investigations on SOCs under different operating conditions;
- Advances in materials science for SOCs, including novel electrode, electrolyte, and interconnect materials;
- Manufacturing techniques and process optimization for SOCs:
- Characterization and testing methods for evaluating SOC performance and durability;
- Novel approaches for improving the reliability and lifetime of SOCs:
- Techno-economic analyses and market perspectives for SOC applications.

Guest Editors

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Deadline for manuscript submissions

closed (31 October 2025)



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Message from the Editor-in-Chief

You are invited to contribute either a research article or a comprehensive review for consideration and publication in *Processes* (ISSN 2227-9717). *Processes* is published in open access format – research articles, reviews, and other content are released on the internet immediately after acceptance. The scientific community and the general public have unlimited, free access to the content. As an open access journal, *Processes* is supported by the authors and their institutes through the payment of article processing charges (APCs) for accepted papers. We would be pleased to welcome you as one of our authors.

Editor-in-Chief

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