

JOM Call for papers

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Manuscript Deadline: *June 1, 2022*

Advances in Reversible Solid Oxide Electrochemical Cells for Energy Conversion

Reversible solid oxide electrochemical cells (RSOECs) can play a key role in clean energy storage and conversion by utilizing the time varying difference in supply and demand of clean (solar and wind) energy. When supply exceeds demand, the RSOECs can be run in an electrolyzer mode using the excess energy to split steam and generate hydrogen. When demand exceeds supply, the hydrogen can be used to generate electricity by running the RSOECs in a fuel cell mode. The scope of this special topic includes electrochemical performance, microstructural and mechanical stability, new materials and modification techniques that reduce polarization in the electrodes and electrolyte, poisoning effects and mitigation, among others, when the RSOECs are run in the electrolyzer mode, fuel cell mode, as well as cycling between the two modes.

Original research papers should be 3,000-9,000 words with up to 12 figures maximum; review papers should be 6,000-11,000 words with up to 20 figures maximum.

Detailed author instructions are available at:
<http://www.tms.org/AuthorTools/>

Keywords for this topic: **Advanced Materials; Energy; Energy Conversion and Storage; Electrochemical Performance**

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Committee Sponsor(s): **Energy Conversion and Storage; Energy**

If you are interested in submitting a paper, upload your manuscript at
<https://www.editorialmanager.com/jomj/>

Please note that all submissions will be subject to peer review. Submission does not guarantee acceptance.

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