Special Issue

Preparation and Optimization of Solid Oxide Fuel Cell Electrode and Electrolyte Materials

Message from the Guest Editor

Solid Oxide Fuel Cells (SOFCs) represent one of the most efficient technologies for directly converting chemical energy into electrical energy. The performance, durability, and operational flexibility of SOFCs are critically dependent on the materials used, the macro and microstructure of SOFCs, and the methods employed in preparations. Therefore, advances in material and structure optimization and innovations in the preparation and manufacturing processes are vital to overcoming existing challenges in SOFC and enhancing overall efficiency. This Special Issue, titled "Preparation and Optimization of Solid Oxide Fuel Cells", highlights the latest research in optimizing SOFC materials, structure, and the innovative preparation techniques driving the field forward. We invite original research papers, reviews, and commentaries that explore advancements in the preparation and optimization of SOFCs, as well as the impact of these methods on the performance, lifetime, and cost of SOFCs.

Guest Editor

Dr. Yexin Zhou

School of Science, Harbin Institute of Technology, Shenzhen 518055, China

Deadline for manuscript submissions

20 September 2025

Materials

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed

mdpi.com/si/214803

Materials
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
materials@mdpi.com

mdpi.com/journal/materials

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Materials (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

Editor-in-Chief

Prof. Dr. Maryam Tabrizian
1. Department of Biomedical Engineering, Faculty of Medicine and Health Sciences, McGill University, Montreal, QC H3A 2B6, Canada
2. Faculty of Dentistry and Oral Health Sciences, McGill University, 3640 Rue University, Montreal, QC H3A 0C7, Canada

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