



Guest Editors:

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## New Materials for Solid Oxide Fuel Cells/Electrolysers

### Message from the Guest Editors

Fuel cells offer tremendous potential for improving energy efficiency and reducing CO<sub>2</sub>/NO<sub>x</sub> emissions, with potential applications ranging from transport to stationary power generation. Some recent advances in these areas include the development of new layered perovskite cathodes, and the production of anode cermets through exsolution approaches.

In addition to the large interest in solid oxide fuel cells, there is also growing interest in devices that reverse the fuel cell process, namely solid oxide electrolyser cells. Such systems are attracting particular interest for the generation of hydrogen utilising renewable energy sources. An ultimate goal is to develop materials and resulting cells that are truly reversible in order to allow either fuel cell or electrolyser operation, dependant on need. In the electrolyser area there is also considerable interest in co-electrolysis (e.g., CO<sub>2</sub> and steam to Syn Gas and O<sub>2</sub>), which is an important electrochemical challenge for new materials research.

This Special Issue of the journal Applied Sciences “New Materials for Solid Oxide Fuel Cells/Electrolysers” aims to cover recent advances in the development of new materials (anodes, cathodes, electrolytes, interconnects) for use in solid oxide fuel cells/electrolysers (both systems based on oxide ion conducting or proton conducting electrolytes).

***Welcome to submit !!!***

**Submission Deadline:** <https://susy.mdpi.com>

**30 September 2018**

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**Fair peer-review process** (rejection rate: 70% in 2017)

# Special Issue