

## Special Issue

# Materials and Devices for Electrochemical Energy Storage and Conversion

### Message from the Guest Editor

EU energy policies indicate the achievement of neutrality in greenhouse gas emissions by 2050 as a long-term strategy. The production of electricity from renewable energy sources is, therefore, a key factor when it comes to heating, transport, and industry; therefore, one has to imagine either the direct use of electricity or the indirect use through the production of e-fuels by electrolysis (e.g., e-hydrogen, methane). Power-to-X technologies make it possible to transform electricity into synthetic gases (hydrogen, methane, or other gases) and liquids. Hydrogen produced with carbon-free electricity, combined with carbon dioxide (CO<sub>2</sub>) from sustainable biomass or direct air capture, can be a zero-carbon alternative to natural gas or oil. This Special Issue deals with the development of materials and devices for electrochemical energy storage and conversion (electrolysis cells, co-electrolysis cells, photoelectrolysis cells, fuel cells, batteries, etc.).

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### Guest Editor

Dr. Stefano Trocino

Italian National Research Council, Advanced Energy Technology Institute "Nicola Giordano", CNR-ITAE, Messina, Italy

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### Deadline for manuscript submissions

closed (15 August 2023)



## Catalysts

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*Catalysts*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[catalysts@mdpi.com](mailto:catalysts@mdpi.com)

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