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# **Research and Application of Hydrogen Energy Materials**

Guest Editor:

### Dr. Kailing Zhou

Key Laboratory for New Functional Materials of Ministry of Education, Faculty of Materials and Manufacturing, Beijing University of Technology, Beijing 100124, China

Deadline for manuscript submissions:

closed (5 July 2024)

# **Message from the Guest Editor**

Dear Colleagues,

Hydrogen is emerging as a new energy source beyond its traditional role and is gaining global recognition as a potential fuel pathway due to its advantages over synthetic carbon-based fuels. Unlike these fuels, hydrogen can be truly carbon neutral or even negative on a life cycle basis, making it an appealing option for reducing environmental impact. Hydrogen can be generated from various sources, including fossil fuels, biomass, and renewable energy such as solar and wind power through methods such as water electrolysis and steam reforming.

We invite original research articles and review articles related to the design, preparation, application, and analysis of materials for hydrogen energy. Specifically addressing electrolyte materials, catalyst materials, hydrogen storage materials, membrane materials, structural materials, semiconductor materials, etc., research on these materials aims to improve their efficiency, durability, cost-effectiveness, and safety for the widespread adoption of hydrogen as a clean energy source











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#### Prof. Dr. Enrico Sciubba

Department of Mechanical and Aerospace Engineering, University of Roma Sapienza, Via Eudossiana 18, 00184 Roma, Italy

## Message from the Editor-in-Chief

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