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# Photo(electro)catalytic Water Splitting for H2 Production

Guest Editors:

**Dr. Habib Ullah**
Renewable Energy, Environment and Sustainability Institute, College of Engineering, Mathematics and Physical Science, University of Exeter, Penryn Campus, Penryn TR10 9FE, UK

**Dr. Asif Ali Tahir**
Environment and Sustainability Institute,College of Engineering, Mathematics and Physical Science,University of Exeter, Penryn Campus, Penryn TR10 9FE, UK

Deadline for manuscript submissions:
**closed (20 December 2021)**

## Message from the Guest Editors

Hydrogen is a promising alternative to unsustainable fossil fuels due to its vital role in ammonia and clean-burning fuel production. About 96% of the world's hydrogen comes from the reformation of fossil fuels, which utilize high energy, followed by $CO_2$ emissions. Efficient and sustainable hydrogen can be produced with the help of the advanced photocatalysis and Electrocatalysis, from water splitting, where electrolysis of water can be achieved at room temperature, the only required inputs are water and energy. The main challenge is efficiency, stability, cheap earth-abundant catalyst, and the separation of $H_2$ and $O_2$ during the reaction.

The vision of this Special Issue is to report novel catalysts for (photo) electrochemical conversion processes which can convert water into $H_2$. We invite contributions which cover the following topics.

1. Computational Modelling of Catalysts for Water Splitting
2. Reaction Mechanism of Oxygen Evolution Reaction & Hydrogen Evolution Reaction Catalysts
3. 2D materials for Water Electrolysis
4. Perovskites-based Photo or Electrocatalysts
5. Metal oxides for Photoelectrochemical process
6. Z-Scheme Heterojunctions-based Photo(electro)catalysts

mdpi.com/si/63028

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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

*Energies* is an international, open access journal in energy engineering and research. The journal publishes original papers, review articles, technical notes, and letters. Authors are encouraged to submit manuscripts which bridge the gaps between research, development and implementation. The journal provides a forum for information on research, innovation, and demonstration in the areas of energy conversion and conservation, the optimal use of energy resources, optimization of energy processes, mitigation of environmental pollutants, and sustainable energy systems.

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**Journal Rank:** CiteScore - Q1 (*Engineering (miscellaneous)*)

## Contact Us

*Energies* Editorial Office
MDPI, St. Alban-Anlage 66
4052 Basel, Switzerland

Tel: +41 61 683 77 34
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mdpi.com/journal/energies
energies@mdpi.com
𝕏@energies_mdpi