Special Issue

Advances in Electrochemical Oxygen Evolution and Photocatalytic Reaction

Message from the Guest Editor

Oxygen evolution reactions (OERs) are very crucial for energy conversion in the realm of renewable energy technologies. Expensive metals such as Ir, Ru, and their oxides are currently considered standard materials for good OER performance. However, due to their high cost, low abundance, and low durability, exploration of other inexpensive alternatives with good OER capability has become a priority. Materials which are stable under OER conditions must be targeted for this particular case. Similarly, another branch which comes under renewable and clean energy is photocatalysis. It can be applied in various applications, such as water purification, ammonia synthesis, water splitting, CO2 reduction, electrochemical, etc. These electrochemical and photocatalytic applications are very promising but far from commercialization and need more research. Therefore, in this Special Issue, the synthesis, in-depth characterizations, and applications of nano- or micromaterials/hybrids into the domain of photo and electrochemical domains will be explored. New materials and techniques with enhanced performance, which add crucial knowledge to the existing science, will be considered.

Guest Editor

Prof. Dr. Yen-Pei Fu

Department of Materials Science and Engineering, National Dong Hwa University, Hualien, Taiwan

Deadline for manuscript submissions

closed (10 July 2023)

Materials

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 7.0
Indexed in PubMed

mdpi.com/si/122823

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

mdpi.com/journal/materials

Materials

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 7.0
Indexed in PubMed

mdpi.com/journal/materials

About the Journal

Message from the Editorial Board

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.

Editors-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

Prof. Dr. Yuguang Ma
State Key Laboratory of Luminescent Materials and Devices, South China University of Technology, Guangzhou 510640, China

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, SCIE (Web of Science), PubMed, PMC, Ei Compendex, CaPlus / SciFinder, Inspec, Astrophysics Data System, and other databases.

Journal Rank:

JCR - Q2 (Metallurgy and Metallurgical Engineering) / CiteScore - Q1 (Condensed Matter Physics)