



materials



an Open Access Journal by MDPI

Advanced Materials for Solar Energy Utilization

Guest Editors:

Dr. Xingwang Zhu

College of Environmental Science and Engineering, Yangzhou University, Yangzhou 225009, China

Dr. Tongming Su

School of Chemistry and Chemical Engineering, Guangxi University, Nanning 530004, China

Deadline for manuscript submissions:

closed (20 July 2025)

Message from the Guest Editors

Photochemical technology can directly convert solar energy into electricity and chemicals, and it can degrade a wide range of organic pollutants into easily degradable intermediates or less toxic small molecular substances. It is regarded as one of the most important ways to solve the global energy shortage and environmental pollution problem. In addition, photochemistry may play a key role in fields such as green chemistry, energy production, or nanomedicine. Therefore, our aim in this Special Issue focuses on advanced solar-energy-utilization materials, including but not limited to photochemical materials for water splitting, CO₂ reduction, ammonia synthesis, photovoltaic, H₂O₂ synthesis, pollutant degradation, organic synthesis, etc. We look forward to receiving your contributions (both original research papers and reviews) soon, so we can present your excellent findings to a broad audience via open-access publication and provide the research community with new perspectives on advanced photochemical materials and their solar energy utilization.



mdpi.com/si/190935

Special Issue



an Open Access Journal by MDPI

Editor-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

Message from the Editor-in-Chief

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.

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)

Contact Us

Materials Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/materials
materials@mdpi.com
[X@Materials_Mdpi](https://twitter.com/Materials_Mdpi)