



Advanced Semiconductor Materials for Energy, Electronics and Sensors

Guest Editors:

Prof. Dr. Qitao Zhou

Engineering Research Center of Nano-Geomaterials of the Ministry of Education, Faculty of Materials Science and Chemistry, China University of Geosciences, Wuhan 430074, China

Prof. Dr. Liang Li

Institutes of Physical Science and Information Technology, Anhui University, Hefei 230601, China

Dr. Wei Han

Department of Applied Physics, The Hong Kong Polytechnic University, Hong Kong 999077, China

Deadline for manuscript submissions:

closed (15 October 2022)

Message from the Guest Editors

With the development of the Internet of Things and electronic products, the number of sensors is growing explosively. At the same time, solving the energy problem caused by the growth of the number of these sensors has become one of the keys to sustainable development. In recent years, the development of advanced semiconductor materials is expected to solve related problems. For example, the development of two-dimensional (2D) semiconductor materials promotes the development of high-performance devices with low power consumption. On the other hand, since the semiconductor ZnO nanowires-based piezoelectric nanogenerator was proposed in 2006, the piezoelectric energy harvesting technologies have attracted remarkable attention due to their ability to directly convert small-scale mechanical vibrations into electricity. Then the development of the triboelectric nanogenerator and self-powered system is expected to become an effective means to solve the problem of power supplies in the Internet of Things. At the same time, semiconductor materials are also widely used in the field of new energy, such as photocatalysis, fuel cells and other fields.





an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Marc A. Rosen

Faculty of Engineering and
Applied Science, University of
Ontario Institute of Technology,
Oshawa, ON L1G 0C5, Canada

Message from the Editor-in-Chief

I encourage you to contribute a research or comprehensive review article for consideration for publication in *Sustainability*, an international Open Access journal which provides an advanced forum for research findings in areas related to sustainability and sustainable development. *Sustainability* publishes original research articles, review articles and communications. I am confident you will find the journal contributes to enhancing understanding of sustainability and fostering initiatives and applications of sustainability-based measures and activities.

Author Benefits

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

High Visibility: indexed within Scopus, SCIE and SSCI (Web of Science), GEOBASE, GeoRef, Inspec, AGRIS, RePEc, CAPlus / SciFinder, and other databases.

Journal Rank: JCR - Q2 (*Environmental Studies*) / CiteScore - Q1 (Geography, Planning and Development)

Contact Us

Sustainability Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

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

mdpi.com/journal/sustainability
sustainability@mdpi.com
[X@Sus_MDPI](https://twitter.com/Sus_MDPI)