

ADVANCED ENERGY MATERIALS & DEVICES ENGINEERING AND APPLICATIONS

GUEST EDITOR

Prof. Dr Zuoqin Wang, Universidad Tecnológica de Santiago, Dominican Republic
Email: zuoqin_wang@utesa.university / zuoqin_wang@utesa.edu

DESCRIPTION

Global demand for portable electronics and electric vehicles stimulates the development of energy storage devices (batteries, capacitors, etc.) toward higher power and energy density that significantly rely on the advancement of materials used in these devices. Additionally, energy storage materials significantly contribute to clean and renewable energy and have drawn intensive attention from research and development to industrialization. To realize the potential of energy technologies, radical advances in materials and devices are required.

This Special Issue will focus on experimental advances, developments and applications in the field of energy storage materials, devices, and systems. Topics of interest for publication include but are not limited to:

- ▶ New generation photovoltaics: dye-sensitized solar cells, organic solar cells, perovskite solar cells, and silicon heterojunction solar cells, etc.
- ▶ Advanced energy materials (semiconductors, superconductors, ceramics, etc.);
- ▶ Carrier transport and computational;
- ▶ Advanced characterization of energy materials;
- ▶ Data science integration for advancing materials for energy application.
- ▶ Solar fuels: solar-driven water-splitting/carbon dioxide reduction reactions
- ▶ Hydrogen fuel production via electro-catalysis and photo-catalysis
- ▶ Nano-generators
- ▶ Self-powered nanodevices/nanosystems
- ▶ 2D-layered energy materials

PUBLICATION SCHEDULE / HOW TO SUBMIT

- ▶ Full paper submission deadline: **31st January 2022**
- ▶ Initial decisions on revisions or rejection: **30th April 2022**
- ▶ Final manuscripts submissions: **31st July 2022**
- ▶ Expected publication date: **30th November 2022**

When entering your submission please choose the option type of an article: "**Energy Materials & Devices**" Submissions for the special issue are now open. In case of any technical problems, please contact the Managing Editor of Open Physics: Juliusz Skoryna, Ph.D., Juliusz.Skoryna@degruyter.com