

## Special Issue

# Advances in Supercapacitors with Symmetry/Asymmetry

### Message from the Guest Editors

Research on new, reliable, renewable, and sustainable sources of energy has paved the way for the design and development of novel energy conversion and storage devices... Hence, symmetric and asymmetric supercapacitors are one of the most advanced area of research in case super capacitors. This Special Issue invites original research articles from advanced area of symmetric and asymmetric supercapacitors. Potential topics include, but are not limited to, the following:

- Symmetric/asymmetric supercapacitor system design considerations
- Carbon-based electrode materials used for supercapacitors
- Different electrode material synthesis methods for symmetric/asymmetric supercapacitors
- Metal oxide electrode materials used for symmetric/asymmetric supercapacitors
- Functionalization of electrodes used for symmetric/asymmetric supercapacitors
- Applications of symmetric/asymmetric supercapacitors in various fields
- Asymmetric hybrid supercapacitors
- Composite hybrid supercapacitors rechargeable battery-type hybrid supercapacitors

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### Guest Editors

Dr. Baiju Vijayan  
Dr. Anjali Paravanoor  
Dr. Shajesh Palantavida

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### Deadline for manuscript submissions

closed (30 June 2023)



## Symmetry

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## About the Journal

### Message from the Editor-in-Chief

Symmetry is ultimately the most important concept in natural sciences. It is not surprising then that very basic and fundamental research achievements are related to symmetry. For instance, the Nobel Prize in Physics 1979 (Glashow, Salam, Weinberg) was received for a unified symmetry description of electromagnetic and weak interactions, while the Nobel Prize in Physics 2008 (Nambu, Kobayashi, Maskawa) was received for the discovery of the mechanism of spontaneous breaking of symmetry, including CP symmetry. Our journal is named *Symmetry* and it manifests its fundamental role in nature.

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### Editor-in-Chief

Prof. Dr. Sergei Odintsov  
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