applied sciences

IMPACT FACTOR 2.5

CITESCORE 5.5

an Open Access Journal by MDPI

Laser Processing and Advanced Manufacturing of Microscale Energy Storage Devices

Guest Editors:

Dr. Anming Hu

Prof. Dr. Wilhelm Pfleging

Prof. Dr. Yuefei Zhang

Dr. Ruzhi Wang

Deadline for manuscript submissions:
closed (31 August 2019)

Message from the Guest Editors

With portable and miniaturized electronic devices becoming increasingly pervasive in our daily live, there is a growing demand for lightweight, flexible, and highly-efficient microscale energy storage devices. Nowadays, in-plane ultrathin microscale devices usually demonstrate a higher power density, but sacrifices energy density, owing to the fast 2D ion diffusion but a low mass utilization; additionally, the thicker pattern inversely improves energy density but limits power density. In a recent concept, 3D micro-battery designs based on micro- and nanostructured architectures could potentially double energy density by fully utilizing the limited available space.

This special issue is dedicated, but not limited to, the following aspects of electrode materials:

- laser processing including laser nanostructuring, laser cutting and laser 3D printing
- microstructure, spectroscopic, 3D and in-situ characterization
- electrochemical characterization
- modeling
- flexible Li-ion batteries, Na-ion batteries and metal-air batteries
- supercapacitors
- 2D materials

Dr. Anming Hu
Dr. Wilhelm Pfleging
Dr. Yuefei Zhang
Dr. Ruzhi Wang

mdpi.com/si/14349

Special Issue

applied sciences

IMPACT FACTOR 2.5

CITESCORE 5.5

an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo
Dipartimento di Fisica, Politecnico di Milano, Piazza L. da Vinci 32, 20133 Milano, Italy

Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal *Applied Sciences* has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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), Ei Compendex, Inspec, Embase, CAPlus / SciFinder, and other databases.
Journal Rank: JCR - Q2 (Engineering, Multidisciplinary) / CiteScore - Q1 (General Engineering)

Contact Us

Applied Sciences Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

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

mdpi.com/journal/applsci
applsci@mdpi.com
𝕏@Applsci