



Electrode Design: Structure, Decoration and Applications

Guest Editor:

Dr. Luis Fernando Arenas

1. Institute for Chemical and Electrochemical Engineering, Clausthal University of Technology, 38678 Clausthal-Zellerfeld, Germany

2. Faculty of Engineering and Physical Sciences, University of Southampton, Southampton SO17 1BJ, UK

Deadline for manuscript submissions:

closed (15 October 2021)

Message from the Guest Editor

Topics of interest include, but are not limited to, the following areas:

- Novel electrode architectures for sustainable electrochemical applications and electrochemical energy conversion and storage.
- Porous electrodes based on cellular, periodic or open-foam structures.
- 3D-printing of digitally tailored electrode architectures and materials.
- Advanced imaging and metrology of porous electrodes (e.g. X-ray computed tomography).
- Electrodes decorated with novel electrocatalysts (e.g. nanoparticles).
- Hierarchical micro- and nanostructures at electrode surfaces.
- Metal- and oxide-based electrocatalysts, including composites and alloy coatings.
- Application of electrocatalysts using thermal and hydrothermal methods as well as anodization, galvanic replacement, plasma discharge and vapor deposition techniques.
- Porous electrodes based on perforated plates, foams, meshes, cloths, felts and 'paper'. Templated porous scaffolds.
- Analytical and numerical models of current and potential distribution and hydrodynamics at such electrodes.





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), Inspec, CAPlus / SciFinder, and other databases.

Journal Rank: JCR - Q1 (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](#)