nanomaterials

IMPACT FACTOR 4.4

Indexed in: PubMed

CITESCORE 8.5

an Open Access Journal by MDPI

Pd-Based Nanoalloys for Electrochemical Reactions

Guest Editor:

Prof. Dr. César Augusto Correia de Sequeira
Materials Electrochemistry Group, Instituto Superior Técnico, University of Lisbon, 1049-001 Lisbon, Portugal

Deadline for manuscript submissions:
closed (31 August 2020)

Message from the Guest Editor

Pd-based nanomaterials have the potential to provide superior and cost-effective solutions to meet the requirements of present and evolving electrochemical applications. There have been some reports about decreasing the loading amount of Pd in the catalysts with enhanced performance by alloying Pd with transition metals and other elements. The main important factors that influence the catalytic activity of these bimetallic and trimetallic nanoalloys are the electronic and geometric effect and a combination of other effects, including defects, a synergistic effect, change of d-band center of palladium, and surface strain. The fields of direct alcohol fuel cells, electrochemical oxidation of formic acid, electrochemical reduction of oxygen and hydrogen peroxide offer key application opportunities for novel Pd-based nanoalloys developed by new synthesis techniques and presenting unique properties. This Special Issue will attempt to cover the most recent advances in Pd-based nanoalloys, concerning, not only the synthesis and characterization, but especially reports of their activity, functionality, durability and low-cost for electrochemical applications

Guest Editor

nanomaterials

IMPACT FACTOR 4.4 | Indexed in: PubMed | CITESCORE 8.5

an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Shirley Chiang
Department of Physics, University of California Davis, One Shields Avenue, Davis, CA 95616-5270, USA

Message from the Editor-in-Chief

Nanoscience and nanotechnology are exciting fields of research and development, with wide applications to electronic, optical, and magnetic devices, biology, medicine, energy, and defense. At the heart of these fields are the synthesis, characterization, modeling, and applications of new materials with lower nanometer-scale dimensions, which we call "nanomaterials". These materials can exhibit unusual mesoscopic properties and include nanoparticles, coatings and thin films, metal–organic frameworks, membranes, nano-alloys, quantum dots, self-assemblies, 2D materials such as graphene, and nanotubes. Our journal, *Nanomaterials*, has the goal of publishing the highest quality papers on all aspects of nanomaterial science to an interdisciplinary scientific audience. All of our articles are published with rigorous refereeing and open access.

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), PubMed, PMC, CAPlus / SciFinder, Inspec, and other databases.
Journal Rank: JCR - Q2 (*Chemistry, Multidisciplinary*) / CiteScore - Q1 (General Chemical Engineering)

Contact Us

Nanomaterials Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

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

mdpi.com/journal/nanomaterials
nanomaterials@mdpi.com
𝕏@nano_mdpi