Special Issue

Novel Approaches to Photoelectrochemical and Electrochemical Nanomaterials

Message from the Guest Editors

Carbon nanomaterials (carbon nanotubes, graphene oxide, graphene, carbon dots, etc.), transition metal dichalcogenides, MXenes, earth-abundant non-noble-metal nanostructures, metal oxides from metal–organic frameworks (MOFs), and other types of nanostructures are gaining profound attention due to their remarkable activity in various electrochemical processes and reactions. Advancements in the preparation of new nanomaterials and nanotechnology can improve various photoelectrochemical and electrochemical applications such as water splitting, CO2 conversion, water treatment, photovoltaics, electrochemical sensing, optoelectronic devices, metal–air batteries, fuel cells, electrochemical flow batteries, and other critical processes. Currently, it is widely accepted that the poor energy conversion efficiency of nanomaterials is the predominant constraint of photo-electrochemical catalysts. This Special Issue, entitled "Novel Approaches to Photoelectrochemical and Electrochemical Nanomaterials", aims to provide a comprehensive account of the recent developments in innovative nanomaterials that have a major impact on the photo and/or electrochemical performance of catalysts.

Guest Editors

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Deadline for manuscript submissions

closed (20 September 2023)

Materials

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed

mdpi.com/si/156846

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Message from the Editor-in-Chief

Materials (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

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