Special Issue

Advances in Electrocatalysts: Synthesis and Applications

Message from the Guest Editor

As climate change continues to challenge our lives, reducing carbon emissions to net-zero by the middle of this century became a global agreement for the sustainable development of human society. Unfortunately, present-day energy and industries heavily rely on fossil fuels and feedstocks, averaging about 60% of the world's annual carbon emissions per year. Carbon-neutral energy and industries are therefore paramount for limiting the global temperature rise to well below 2° Celcius. Electrocatalysis features great potential in terms of carbon-neutral fuel and chemical syntheses and high-energy-density storage of intermittent renewables. The design of electrocatalysts typically plays a key role in determining reaction activity and product selectivity. As a guest editor of *Materials*, I am pleased to announce that a new Special Issue is kicked off. The Special Issue welcomes original submissions in the form of reviews and articles. The topics include but are not limited to: computational electrocatalysis; electrocatalyst synthesis; water electrolysis; CO2 electroreduction; NH3 electrosynthesis; fuel cell catalysts; design of electrocatalytic reactors.

Guest Editor

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Deadline for manuscript submissions

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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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