

## Special Issue

# Emerging Nanoarchitectures and Catalytic Interfaces for Carbon Chemistry and Sustainable Energy Carriers

### Message from the Guest Editor

This Special Issue aims to highlight the latest advances in nanoengineered catalytic interfaces and functional materials tailored for C1 chemistry, including CO<sub>2</sub> hydrogenation, syngas conversion, CH<sub>4</sub> reforming, and biomass-derived platform molecules via thermal, photochemical, electrochemical, and photoelectrochemical reaction pathways. Studies on MXenes, doped carbons, metal oxide composites, and hybrid nanostructures with high selectivity and stability under realistic conditions are highly encouraged. Multiscale modeling, operando characterization, and techno-economic insights are also welcome. This Special Issue seeks to provide a unified platform for interdisciplinary approaches to carbon-nitrogen conversion and clean fuel production.

### Guest Editor

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### Deadline for manuscript submissions

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## Materials

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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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