

## Special Issue

# Metal-Based Catalytic Materials and Green Chemistry

### Message from the Guest Editor

Green chemistry is the design of chemical products and processes that reduce or eliminate the use or generation of hazardous substances. Catalysis is among the 12 principles of green chemistry, since the use of catalytic materials allows us to carry out a huge variety of chemical reactions from many different fields of chemistry with lower energy requirements and higher conversion and selectivity, and at the same time generates fewer wastes and makes better use of the raw materials. Catalytic materials must be active for a specific reaction to catalyze under the appropriate conditions. They must be stable and thus be able to operate for the longest possible time. They must also be economic in order to justify their implementation. In this sense, catalysts based on metals and metal oxides offer several advantages, including high activity and selectivity. These catalysts can also be recycled and reused, contributing to sustainability. This Special Issue aims to review advances in the development of efficient catalytic materials based on metals and metal oxides for green chemical reactions.

### Guest Editor

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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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