Special Issue

Molybdenum-, Vanadium-, and Tungsten-Containing Materials for Catalytic Applications

Message from the Guest Editors

Molybdenum, vanadium, and tungsten compounds are very interesting and efficient catalysts that are used for a wide range of chemical reactions. The accomplishment of a quite high catalytic activity with relatively low metal loading is a great advantage, generating low-cost and environmentally friendlier processes. Catalysts are used as molecular objects or as supported objects. Catalytic processes containing those elements are of growing interest, notably heterogeneous ones in terms of reuse and recycling. The Special Issue aims to highlight the recent advances in the development of Mo-, V-, and W-containing catalysts, including coordination complexes, polyoxoanions, metal clusters, or nanoparticles and bulk materials (e.g., mesoporous materials, surfaces, etc.), with the involvement of those elements in the catalytic materials. The emphasis is on the recent trends, including materials processing (synthesis and characterization) with their catalytic applications, from simple reactions with model substrates, to more complex and challenging ones. A mechanistic approach linking the structure with the activity is appreciated.

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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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