Special Issue

Multifunctional Materials: Design, Synthesis and Properties

Message from the Guest Editor

There is currently a need to integrate multiple functions into one material in order to meet the increasing demands of our technological society. For example, in the healthcare sector, the combination of antimicrobial activity, biocompatibility, wear resistance, wettability, and other surface properties is important. Multiple functions can be realized either in the bulk or on the surface. In the bulk, multiple functions can be tailored by combining different materials to make composites. To create multifunctional surfaces, different technologies for surface modification/treatment can be used, including mechanical or/and chemical methods, such as shot-peening, laser-texturing, and chemical functionalization. Multifunctional materials (MMs) have a diverse range of applications in such areas as medicine, aerospace, energy, and defense. This Special Issue will cover fundamental concepts in MMs, the manufacture of MMs, the application of MMs, including for sensors, catalysis, energy storage, and biological and antimicrobial surfaces, and future research directions.

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.

Editor-in-Chief

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