Special Issue

High-Performance Light Materials for Automobile and Aerospace Applications

Message from the Guest Editor

Currently, the automobile industry is facing great challenges regarding the reduction in fuel consumption and CO2 emissions. These issues can be solved by reducing the weight of cars, which would further improve their driving dynamics and auto safety, and a range of new materials have been developed to achieve these demanding goals.

The main purpose of this Special Issue is to find solutions to the difficulties and challenges encountered in lightweight materials and manufacturing technologies for automobile applications. The main content includes, but is not limited to: the preparation and manufacture of lightweight materials; the use of ultra-high-strength materials, such as ultra-high-strength steel and Al alloys, for designing and manufacturing lightweight components and structures; additive manufacturing of high-performance light materials; joining techniques for lightweight structures composed of similar and dissimilar materials; tool design and manufacture for producing lightweight materials and components.

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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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