



materials



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High-Performance Light Materials for Automobile and Aerospace Applications

Guest Editor:

Prof. Dr. Zhili Hu

Hubei Key Laboratory of
Advanced Technology of
Automobile Components, Hubei
Collaborative Innovation Center
for Automotive Components
Technology, Wuhan University of
Technology, Wuhan 430070,
China

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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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Special Issue



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Editor-in-Chief

Prof. Dr. Maryam Tabrizian

1. Department of Biomedical Engineering, Faculty of Medicine and Health Sciences, McGill University, Montreal, QC H3A 2B6, Canada

2. Faculty of Dentistry and Oral Health Sciences, McGill University, 3640 Rue University, Montreal, QC H3A 0C7, Canada

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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Contact Us

Materials Editorial Office
MDPI, St. Alban-Anlage 66
4052 Basel, Switzerland

Tel: +41 61 683 77 34
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