Special Issue

Advanced Materials and Technologies for Aviation and Automotive Applications

Message from the Guest Editor

Currently, the development of technologies and materials used in the construction of internal combustion engines for aviation and vehicles is of great importance in terms of the correct overall efficiency of these engines. Increasing thermal loads of engines in order to increase their operational performance causes problems with their durability and accelerated wear. The aim of this Special Issue is to present the latest research results in the field of the construction and design of internal combustion engines. There is a great need to modernize the current state of knowledge in the field of operation, wear processes, technologies, base materials, and coatings used in the construction of internal combustion engine components. Materials, coatings, and physical phenomena occurring in aircraft and car engines constitute a very wide range of knowledge. Therefore, I encourage you to publish materials from simulation and experimental research in the field of new material technologies, tribology, thermodynamics, fluid mechanics, and dynamics of internal combustion engines. I also encourage you to publish materials related to the exhaust gas cleaning systems of aircraft and car engines.

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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