Special Issue

Mechanical Properties and Combustion Behavior of Alloy

Message from the Guest Editor

The dynamic industry development is demanding increasingly high requirements for current constructions and aspects related to the expected working conditions and existing needs of workers, thus supporting and directing advancements in the field of material engineering and favoring the production, testing, and analysis of new materials. The modern and advanced engineering of materials allows for the design of more advanced, high-strength, safe-to-use, energy-saving constructions, characterized by significantly better corrosion resistance, flame resistance, and higher mechanical strength compared to previous materials that were used until recently. Contemporary trends in material engineering regarding metallic materials are mainly characterized by a reduction in their grain size, structure modifications using thermal, chemical, and mechanical treatments, as well as a decrease in the specific weight of finished elements using light metal alloys, such as those containing aluminum, magnesium, and titanium. This Special Issue will focus on the influence of special treatment processes on the evolution of the microstructures, precipitations of metallic alloys.

Guest Editor

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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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