

Special Issue

New Alloys, Materials and Processes for Components Working in Energy Equipment

Message from the Guest Editors

Energy equipment presents a challenge both for design, materials, and manufacturing. The critical aspects of these types of equipment and high added value require daily research efforts. Turbines, combustion engines, compressors, cogeneration equipment, and oil and gas facilities are critical systems. New materials and alloys with improved characteristics (structure, properties, and applications) are of interest in this field. The evolution of the energy sector is constant, so efficient machining of difficult-to-cut materials and complex geometries is key to performing the final operations to achieving the precision required. Machining technology is assisting with improving quality and productivity in the manufacturing industry. Cutting tool substrate grades and new coatings to improve quality and productivity are being launched on the market on a daily basis. New superalloys and composites pose new challenges for the manufacturing industry. Additionally, sustainability is a concern, and green approaches have been proposed, such as reduction of coolant, energy consumption reduction, and recycling of chips and even recycling of cutting tool substrates.

Guest Editors

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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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