Special Issue

Evolution of the Working Performance of Special Materials during the Whole Life Cycle

Message from the Guest Editors

The main purpose of this Special Issue on “Evolution of the Working Performance of Special Materials during the Whole Life Cycle” is to find solutions to the difficulties and challenges encountered in the quantification, monitoring and evaluation of the working performance of special materials in the whole life cycle. The research field covers the reviews, principles, and methods of the overall performances of special materials, including formation and preparation processes, whole-life performance monitoring, quantification and evaluation, optimal working condition design, etc. The main contents areas of interest include but are not limited to the manufacturing and processing of composites, the quantitative characterization of micro-morphology and friction coefficient, the identification of material deformation and failure, the evaluation of noise and vibration, oil detection technology for worn materials, numerical simulation and experimental methods for the evaluation of friction-wear, dynamic response, and thermal load characteristics.

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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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