Special Issue

Functionally Graded Materials for Engineering Applications—Future Challenges

Message from the Guest Editors

Functionally Graded Materials (FGMs) are a type of materials that are characterized as non-homogeneous composite materials that have gradual transitions in composition or microstructure, which leads to variations in materials' physical properties. The gradual transition equipped FGMs with the capability to effectively address the challenges such as alleviating residual stress. The tailored variation in mechanical, thermal, and other physical properties makes it possible to be widely applied in many industries such as defence, biology, and aerospace. Despite the wide application in many fields, there are still challenges that remain to be resolved, for example, optimizing fabrication methods, enhancing scaling production, improving functional performance, etc. Therefore, the continuous evolution and investigation in computational modelling and additive manufacturing will be fundamental to overcoming these challenges, paving the way for innovative engineering solutions. It is our pleasure to invite you to submit a manuscript to this Special Issue. Full papers, communications, and reviews are all welcome.

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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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