

Special Issue

Solidification Processing and Welding of Different Materials System

Message from the Guest Editor

Hybrid material systems have gained much interest in various industries in the recent past, including aerospace and automotive. Weldment behavior and vehicle weight have been major concerns in the automotive and aerospace sectors. Incorporating metal-polymer/ceramic/composite hybrid structures reduces weight without compromising structural performance. High energy density and solid-state welding techniques are beneficial for joining various dissimilar materials systems. The major problem associated with the welding of different materials systems is the formation of secondary phases, which leads to premature weldment failures. Unfortunately, there have been very few studies covering these challenges yet. This Special Issue aims to present the major challenges in the field of joining technologies for various grades of materials systems, such as metal-polymer/metal-ceramic/ metal-composite, etc.

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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