

Special Issue

Corrosion and Oxidation of Metals

Message from the Guest Editor

The microstructural changes induced by welding, spraying, and surface cladding techniques can drastically modify the metal's mechanical behavior. For that reason, it is necessary to correlate the corrosion and oxidation behavior of process parameters, microstructure, and mechanical responses in welding, spraying, and surface cladding. Finally, the simulation and modeling of the thermomechanical behavior during the processing for corrosion and oxidation resistance and the predictions of existing phases due to the thermal cycle are critical to optimizing processing (e.g., welding, spraying, surface cladding, and joining) parameters. For this Special Issue, papers related to advanced welding, spraying, and surface cladding in metal joining for corrosion and oxidation behavior for various material spraying, surface cladding, 3D printing, laser welding, friction stir welding, electron beam welding, arc welding, and hybrid welding are welcome. Papers that combine both experimental and theoretical approaches are especially welcomed.

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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