

Special Issue on
**Corrosion of Materials after Advanced Surface
Processing, Joining, and Welding**

CALL FOR PAPERS

Corrosion affects us in everyday life: in manufacturing of products (i.e., industrial production), energy generation/distribution (e.g., power plants, oil, and gas), in transportation (e.g., automotive and aerospace sectors), in biomedical engineering (e.g., implants), in defense applications (e.g., artillery systems), in infrastructure (e.g., buildings, water supply, and waste treatment), and so forth.

With the increasing demand for materials with multiple performance capability, advanced surface processing, joining, and welding techniques are being employed. These new materials and methods offer exceptional properties that otherwise would have been unattainable in conventional methodologies. As these materials/methods will be utilized in technologies of high-end applications, such as in aerospace/nuclear engineering, corrosion studies on advanced surfaced materials after become essential.

The aim of this special issue is to present the state-of-the-art research trends that highlight the advancement in understanding of corrosion behavior of advanced materials and the effect of processing and joining/welding operations on corrosion characteristics and methods by which corrosion can be prevented/combated. Contributions related to new materials/methods that can provide better corrosion resistance than conventional materials or processing are encouraged. This would form an important link between research done in areas of corrosion, surface processing technologies, metallurgy, and material science.

Potential topics include but are not limited to the following:

- ▶ Corrosion after joining processes: arc welding, laser welding, friction stir welding, E-beam welding, adhesive bonding, additive manufacturing, and so forth
- ▶ Corrosion of advanced materials made by novel processes: materials, nanocrystalline/amorphous and bulk metallic glasses/nanocomposites/high entropy alloys; process: friction stir process, electron beam processes/treatments, accumulative roll bonding, equichannel angular processing, microwave sintering, spark plasma sintering, high frequency sintering, and so forth
- ▶ Corrosion characteristics after surface Modification by laser cladding, ultrasonic surface modification, and topography modified surfaces (e.g., lithography, electrical discharge machining, etching, and surface roughening)

Authors can submit their manuscripts through the Manuscript Tracking System at <https://mts.hindawi.com/submit/journals/ijc/cmasp/>.

Papers are published upon acceptance, regardless of the Special Issue publication date.

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