Special Issue

Advances in Friction Stir Processing and Surfacing

Message from the Guest Editors

Friction stir processing (FSP) and friction surfacing (FS) techniques have revolutionized material processing and surface engineering, sparking widespread interest across industries. This Special Issue aims to bring together cutting-edge research, innovative methodologies, and practical applications, fostering a comprehensive understanding of the capabilities and limitations within this field. Within this Special Issue, an emphasis is placed on showcasing the innovations of new experimental techniques and configurations for tools and workpieces within FSP and FS techniques. By providing a platform for researchers, this Special Issue seeks to advance the knowledge frontier, stimulate interdisciplinary collaboration, and address critical challenges in the realm of FSP and FS. **Topics of Interest:**

- Novel Approaches and Advanced Techniques
- Microstructural Transformations, Phase Evolution, and Property Enhancements
- Material Compatibility and Application Specificities
- Surface Modification and Property Development
- Developments in Process Monitoring, Control, and Optimization
- Advances in Numerical Modeling and Simulation
- Real-world Applications and Case Studies

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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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