Special Issue

Latest Research in Joining and Welding Processes

Message from the Guest Editor

To utilize the advantages of different materials, they are usually used in combination; thus, welding and joining technologies are required. Welding is also an “additive manufacture” method that combines simple parts into complex components. The principles of welding and joining are fusion and diffusion between atoms. In different applications, the welding size ranges from nanoscale to meter scale, the metallurgical reaction time ranges from milliseconds to seconds, and the service environment of the welding structure also varies greatly. Research on welding and joining not only involves the nonequilibrium metallurgical reaction mechanisms of various materials, but also involves precise control. The service reliability of welding structures in complex environments should be evaluated. Therefore, welding and joining is still a broad and fast-growing research field with promising potential in modern industry. In this Special Issue of *Materials* dedicated to the latest research in welding and joining processes, you are invited to contribute original research, short communications, and review articles

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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