Special Issue

Advances in Additive Manufacturing Using Laser, Electron Beam, and Arc Directed Energy Deposition

Message from the Guest Editor

In recent times, there has been rapid growth in laser-, electron beam- and arc-directed energy deposition-based additive manufacturing. More often than before, the amalgamation of more than one vertical in research shows the development of a comprehensive understanding of the complete process chain, including post-processing. Therefore, the production of industrial components using DED is expected to shortly register tremendous growth. With an aim to assist this growth, the Special Issue is planned to report some of the fundamental and applied research outcomes and case studies on the component-level implementation of the DED. The potential topics include, but are not limited to:

- DED processes;
- Laser and electron beam and wire-arc additive manufacturing;
- New process variants and hybrid additive manufacturing;
- DED of new materials, bimetallic and functionally graded materials;
- Residual stress and distortion;
- Design for additive manufacturing;
- Numerical modeling and simulation;
- Mechanical and metallurgical characterization.

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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