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Advanced Casting of Materials

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Message from the Guest Editor

Dear Colleagues,

Casting technology has a long history, irreplaceable not only in the past, but also in the future, playing very important roles in critical equipment and products such as aeroengines, nuclear power plants, rockets, vehicles, etc. Casting technology is driven by strong requirements from various areas, for example, hypersonic aircraft, heavy duty rockets, electric vehicles and high speed trains; on the other hand, it is being reshaped by new technologies such as information technology, additive manufacturing, virtual technology, artificial intelligence, etc. The aims of castings and their production are a higher quality, faster production, stronger mechanical properties and being more environmentally friendly.

This Special Issue aims to provide a platform for the latest advances in casting technologies. This issue will include the following topics:

- Advanced casting alloys;
- Solidification and microstructure control;
- Residual stress and deformation control;
- Advanced casting technologies;
- Additive manufacturing vs. casting;
- Modelling and simulation;
- Casting materials aimed at environmental protection.

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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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