Special Issue

Hot Deformation Behavior of Magnesium Alloys

Message from the Guest Editors

Hot deformation is fundamental for magnesium and its alloys. Due to the hexagonal lattice structure and the related limited formability at room temperature, elevated temperatures are required for forming and associated microstructure-changing processes. Factors with significant influence on hot deformation behavior are, for example, the deformation conditions, alloy composition, precipitation state and manufacturing history. A good understanding of hot deformation behavior provides the groundwork for the configuration of hot deformation processes, such as extrusion, rolling and forging. Dynamic recrystallisation processes occur easily in magnesium alloys due to the low stacking fault energy. Knowledge of them and their characteristics enables the control of microstructure and texture developments, as well as the resulting property profile. This Special Issue is aimed at scientists and researchers wishing to contribute to the hot deformation behavior of magnesium alloys, microstructure development and processing at elevated temperatures.

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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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