Special Issue

Radial-Shear and Screw Rolling Process

Message from the Guest Editors

Screw (helical) rolling of solid and hollow products is one of the most difficult methods of metal forming. The Mannesmann brothers' invention served as the beginning of the widespread use of screw rolling in the production of seamless pipes. Radial shear rolling (RSR) is a special case of screw rolling characterized by a large value of roll feed angle (more than 18 degrees). This rolling method was developed at NUST MISIS in the 1970s, and since then, it has been widely developed all over the world. RSR allows us to obtain long bars from almost any deformable metal and alloy. In this case, it is possible to obtain a unique combination of properties and functional gradient structure over the cross section of bars. Currently, research is being actively carried out in the field of screw and radial shear rolling technology of various ferrous and non-ferrous metals. Our aim is for this Special Issue of Materials to help to bring together the latest and most relevant research in this area. Full papers, communications, and reviews are all welcome.

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Deadline for manuscript submissions

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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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