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Radial-Shear and Screw Rolling Process

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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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Message from the Editor-in-Chief

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