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Advances in Metal Rolling Processes

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Message from the Guest Editor

Dear Colleagues,

Rolling is considered to be one of the most efficient formation processes. It plays an important role in the automated production of many metal foils or strips. The shape and properties of material are important criteria used in the rolling process to evaluate strip quality. Therefore, many factors, such as the metal flow characteristics, the shape detection and control, the work hardening, as well as the size effect, must be researched in detail. According to these mechanisms, there may be opportunities for some better rolling methods. For example, asynchronous rolling, electro-plastic rolling, extrusion rolling, and warm rolling are often used to produce the foils of difficult-to-deform metals.

This Special Issue provides an excellent opportunity to publish theoretical and experimental studies on metal rolling, especially on alloy steel, magnesium alloys, amorphous alloys, high-entropy alloys, etc. Any new findings on this topic are welcome, such as metal flow rules in asynchronous warm/hot/cold rolling processes, microstructural evolution in special rolling processes, shape detection and shape control, etc.

Specialsue



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Message from the Editorial Board

Metallic materials play a vital role in the economic life of modern societies; contributions are sought on fresh developments that enhance our understanding of the fundamental aspects related to the relationships between processing, properties and microstructure - disciplines in metallurgical field the ranging from processing. mechanical behavior. phase transitions and microstructural evolution, nanostructures, as well as unique metallic properties – inspire general and scholarly interest among the scientific community.

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