MECHANICAL BEHAVIOR OF METALLIC MATERIALS IN MANUFACTURING PROCESSES

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ABSTRACT

Manufacturing processes are present in a wide range of engineering fields, such as automotive, aerospace, aeronautical, naval industries, among others. Many of these processes rely on the elastoplastic behavior of metallic materials. Therefore, understanding the resistance and hardening characteristics of materials is crucial for optimizing these processes.

Therefore, this “Invited Minisymposia” welcomes contributions focused on the study of manufacturing processes involving the behavior of metallic alloys in the plastic regime, including metal cutting, sheet and bulk metal forming, characterization of materials from additive manufacturing, the use of AI for manufacturing process optimization, tube and sheet bending, among others. Contributions related to the analysis of repurposing natural gas pipelines for the transportation and distribution of hydrogen will also be considered.

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