JOM Call for papers

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The Role of Microstructure on the Mechanical Behavior of Materials: By Invitation Only

This invited topic will cover the role of microstructure on the mechanical behavior of materials, ranging from the continuum description of properties to the atomistic and molecular mechanisms that connect those properties to material behavior. This will include elastic and plastic deformation, damage, and fracture of materials in crystalline metals, ceramics, and polymers. Both experimentation and modeling of material behavior from the atomic to the macroscale at intermediate-to-high strain rates will be explored for developing a fundamental understanding of mechanical behavior.

Original research papers should be 3,000-9,000 words with up to 12 figures maximum; review papers should be 6,000-11,000 words with up to 20 figures maximum.

Detailed author instructions are available at: http://www.tms.org/AuthorTools/

Keywords for this topic: Advanced Materials; Ceramics; Computational Materials Science & Engineering; Modeling and Simulation; Nanotechnology; Shock; Dislocations; Deformation Twins; Extreme Conditions; Low and High Temperature; Phase Transformation

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Committee Sponsor(s): Other-Invited

If you are interested in submitting a paper, upload your manuscript at https://www.editorialmanager.com/jomj/

Please note that all submissions will be subject to peer review. Submission does not guarantee acceptance.

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