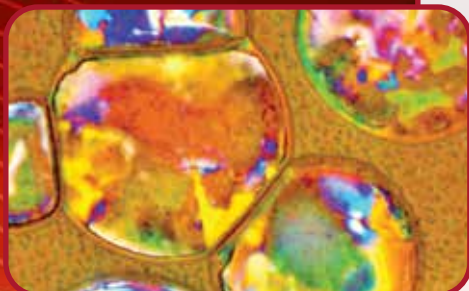


JOM Call for papers

An official publication of The Minerals, Metals & Materials Society



Publication Date: *February 2022*

Manuscript Deadline: *September 1, 2021*

Exploring the Relationships Between Plastic Deformation and Heat

This topic will explore experimental, computational and theoretical methods to understand heat generation and heat transfer in materials, through the interactions between phonons, electrons, and dislocations. Manuscripts are invited that examine factors (composition, microstructure, etc.) that determine the fraction of work converted into heat, mechanisms of converting deformation to heat, role of “phonon radiation” of dislocations as they move at high velocities, etc. Novel experimental and computational approaches that enable determination of temperature/heat-generation in the plastic deformation zone are also of interest.

Original research papers should be 3,000-6,000 words with up to 8 figures maximum; review papers should be 6,000-10,000 words with up to 15 figures maximum.

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

Keywords for this topic: *Characterization; Experimental Methods; Fundamentals; Modeling and Simulation; Shaping and Forming; Phonons; Dislocations;*

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Committee Sponsor(s): *Shaping and Forming*

If you are interested in submitting a paper, upload your manuscript at
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Please note that all submissions will be subject to peer review. Submission does not guarantee acceptance.

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