

JOM Call for papers

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Manuscript Deadline: *June 1, 2025*

Microstructural Design and Optimization of Additively Manufactured Steels

Additive manufacturing has emerged as an important technology driving innovation in the efficient manufacture of complex, near-final components due to the allowed design freedom. The intrinsic nature of additive manufacturing introduces compositional and microstructural optimization challenges that are exclusive to it, owing to non-equilibrium process conditions and high residual stresses. The complex thermodynamics and phase-transformations in steels make these challenges further nuanced. This special topic aims to publish original, state-of-art research, review, and viewpoint papers related to all aspects of microstructural and process optimization strategies through computationally or experimentally based design for all classes of additively manufactured steels.

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: **Additive Manufacturing; Alloy Phases; Characterization; Iron and Steel; Phase Transformations**

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Committee Sponsor(s): **Steels**

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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