

JOM Call for papers

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Manuscript Deadline: *February 1, 2025*

Advances in As-Cast Superalloys: State-of-the-Art and Future Directions

As-cast superalloys play a pivotal role in high-temperature applications across various industries. This special topic aims to compile recent advancements in the field of as-cast superalloys, encompassing single crystals, directionally solidified alloys, thick and thin wall castings, etc. The issue will highlight manufacturing processes, compositions, microstructural characterization methods, mechanical properties, and performance. Contributions should address the challenges and opportunities in optimizing the as-cast microstructure for enhanced mechanical strength, creep resistance, fatigue life, oxidation, and corrosion resistance. Submissions addressing the integration of computational modeling, simulation, and experimental validation to accelerate the development of as-cast superalloys are also encouraged.

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 Processing; Characterization; High-Temperature Materials; Mechanical Properties; Phase Transformations*

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Committee Sponsor(s): *High Temperature Alloys*

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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