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TMS2019
148th Annual Meeting & Exhibition

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March 10–14, 2019
San Antonio, Texas, USA

JOIN US FOR THIS TMS2019 SYMPOSIUM:

ADDITIVE TECHNOLOGIES

Additive Manufacturing and Welding: Physical and Mechanical Metallurgy of Rapidly Solidified Metals

This symposium will provide a forum to discuss process-structure-property-performance relationships for metal materials fabricated via additive manufacturing (AM) and welding. The intent is to derive these relationships through experiments and computational modeling with an eye towards providing methodology for qualification of currently used and newly developed alloys in AM for use in performance critical environments.

Of particular interest are topics related to:
- Interconnections among residual stress, defects, dislocation content, texture, disparate feature size, and metastable phases on the properties of metal fabricated using AM or welding
- Process monitoring
- Advanced characterization techniques
- Quantification of microstructural features
- Post-AM processing (e.g., heat treatment, forging, hot isostatic pressing, finish machining)
- Residual stress measurement, evolution, and control

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