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THE WORLD COMES HERE TMS 2020 149<sup>th</sup> Annual Meeting & Exhibition

February 23-27, 2020 · San Diego, California, USA

## Submit an abstract to:



## **Advanced Materials**

# **Advanced Solid Phase Processing Symposium**

This symposium is intended to cover a broad scope of solid phase processing (SPP) fundamental studies up to potential applications. It will provide a forum to discuss fundamental physics and deformation mechanisms during SPP and microstructural evolution under SPP conditions. Abstracts are solicited that cover emerging processing approaches, characterization and theory/modeling of SPP methods and novel experimental approaches that reveal the deformation physics, analysis of defects, and their role of the resulting microstructural evolution and properties.

Topics of interest include, but are not limited to:

- Novel process condition probing methods for microstructural evolution correlation
- Advanced characterization techniques (e.g. in-situ electron microscopy, light source studies, nano/ micromechanical testing, tribological approaches, etc.)
- Micro-, meso- and nanoscale theory and modeling of deformation (e.g. ab-initio, MD simulations, phase field simulations, etc.)
- Explorations of the deformation or rapid thermal processing conditions promoting persistent metastable phases
- Characterization of SPP material performance in extreme environments (mechanical, irradiation, corrosion, etc.)

To avoid overlap with traditional friction stir welding/processing, preference will be given to papers highlighting fundamental insights, novel in-situ studies, broadly applicable computational tools in emerging SPP platforms, technologies and advancements.

### ORGANIZERS

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#### SYMPOSIUM SPONSORS

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Abstract Deadline is July 1, 2019. Submit online at www.programmaster.org/TMS2020.

Questions? Contact programming@tms.org