



SUBMIT AN ABSTRACT BY JULY 1

**MARCH 14-18, 2021 • ORLANDO WORLD CENTER MARRIOTT
ORLANDO, FLORIDA, USA**
www.tms.org/TMS2021 • #TMSAnnualMeeting

SUBMIT AN ABSTRACT TO:

MATERIALS PROCESSING

DEFORMATION INDUCED MICROSTRUCTURAL MODIFICATION

Mechanical deformation without an external heating can be used to modify the microstructure of metallic alloys to achieve supersaturation of solutes, nanoscale precipitate morphology, high density of defect structures, achieve novel phase equilibria and obtain non-equilibrium grain boundaries and interfaces. In the recent development of metallic alloy processing methods such as solid phase processing, understanding how deformation modifies the microstructure of metallic alloys in solid state is crucial.

This symposium will bring together researchers specifically studying the microstructural engineering using deformation processing. This can include traditional severe plastic deformation methods, friction stir processing/welding methods and other deformation processing methods. The emphasis of this session will also include using deformation to either accelerate equilibrium phase transformations or to arrive at microstructural states not achievable by conventional thermomechanical processing methods.

ORGANIZERS

Arun Devaraj, Pacific Northwest National Laboratory, USA
Suveen Mathaudhu, University of California, Riverside
Kester Clarke, Colorado School of Mines, USA
Bharat Gwalani, Pacific Northwest National Laboratory

SYMPOSIUM SPONSORS

TMS Materials Processing & Manufacturing Division
TMS Shaping and Forming Committee

Abstract Deadline is July 1, 2020. Submit online at
www.programmaster.org/TMS2021.

Questions?
Contact programming@tms.org