TMS2021
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SINCE 1871

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ORLANDO, FLORIDA, USA
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SUBMIT AN ABSTRACT TO:

PHYSICAL METALLURGY

FRONTIERS IN SOLIDIFICATION SCIENCE VIII

The eighth "Frontiers in Solidification" symposium will provide a forum to present and discuss the latest advances in the field of Solidification Science. The main focus will be on the fundamental aspects of solidification, with the aim of advancing our understanding of how microstructures develop and evolve during solidification experiments or processes. Beyond solidification, contributions that investigate melting phenomena are also encouraged. The widest range of investigation methods are considered, including theory, experiments, characterization, modeling across all relevant length and time scales, as well as data-driven approaches. Contributions will put forward original interpretations, observations of novel phenomena, and/or outstanding challenges from both fundamental and applied perspectives, as well as transfer of fundamental knowledge to practical applications. Contributions that combine novel characterization techniques, challenging property measurements, and computational simulations across scales are especially encouraged.

Topics of interest include:

- Nucleation
- Growth · Melting
- Interfaces and boundaries (solid-liquid, solid-solid, stability, anisotropy, kinetics,...)
- Pattern formation (cellular, dendritic, eutectic, peritectic,...)
- Fluid flow and gravity effect on microstructure formation and evolution
- Segregation and defects
- In-situ and time-resolved imaging of microstructures
- Theory and modeling across all relevant length scales
- Emerging processing techniques (e.g. additive manufacturing)
- Data-driven methods in solidification science

ORGANIZERS
Damien Tourret, IMDEA Materials, Spain
Amy Clarke, Colorado School of Mines, USA
Ulrike Hecht, Access e.V., Germany
Nana Ofori-Opoku, Canadian Nuclear Laboratories, Canada

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

Questions?
Contact programming@tms.org