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TMS2024
153rd Annual Meeting & Exhibition

MARCH 3–7, 2024
HYATT REGENCY ORLANDO
ORLANDO, FLORIDA, USA
#TMSAnnualMeeting



SUBMIT AN ABSTRACT FOR THE FOLLOWING TMS2024 SYMPOSIUM:

MATERIALS SYNTHESIS AND PROCESSING

Powder Materials Processing and Fundamental Understanding

Powder materials synthesis, processing, properties, characterization, and fundamental understanding are part of the science and technology underlying numerous important areas. With new advances in experimental techniques, computation methods, and data sciences, powder materials are making fast advances that enables applications in both structural and functional applications.

This symposium will cover powder material issues related to fundamental and applied sciences in synthesis, processing, properties, and characterization from experimental, computation, and data science approaches. It will consider all aspects of powder material processing and property studies, which includes powder synthesis, forming (including additive manufacturing), sintering, and property evaluation. Powder materials that can deliver outstanding harsh environment properties are especially of high interest. The symposium covers advances in theory, modeling, computation, data informatics while in parallel welcoming cutting-edge experimental techniques and approaches to understand and characterize powder materials in demanding conditions.

Topics include:

- Powder material processing-structure-properties-performance relations
- Additive powder material manufacturing
- Advanced powder material analysis and characterization
- Powder materials under extreme conditions
- Computation and modelling in powder materials
- Data science and informatics in powder materials

ORGANIZERS

Elisa Torresani, San Diego State University, USA

Kathy Lu, Virginia Polytechnic Institute and State University, USA

Eugene Olevsky, San Diego State University, USA

Diletta Giuntini, Eindhoven University of Technology, Netherlands

Paul Prichard, Kennametal Inc., USA

Wenwu Xu, San Diego State University, United Kingdom

Ma Qian, Royal Melbourne Institute of Technology, Australia

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