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TMS2025
154th Annual Meeting & Exhibition



March 23–27, 2025
MGM Grand Las Vegas
Hotel & Casino
Las Vegas, Nevada, USA
#TMSAnnualMeeting



SUBMIT AN ABSTRACT FOR THE FOLLOWING TMS2025 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 enable 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; Sintering, Synthesis
- 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; **Kathy Lu**, University of Alabama at Birmingham; **Eugene Olevsky**, San Diego State University; **Diletta Giuntini**, Eindhoven University of Technology; **Paul Prichard**, Kennametal Inc.; **Wenwu Xu**, San Diego State University; **Ma Qian**, Royal Melbourne Institute of Technology; **Charles Maniere**, CNRS - Laboratoire Crismat

SYMPOSIUM SPONSORS

TMS Materials Processing & Manufacturing Division, TMS Powder Materials Committee

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QUESTIONS?

Contact programming@tms.org