

ADDITIVE TECHNOLOGIES

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 include powder synthesis, forming (including additive manufacturing), sintering, and property evaluation. Powder materials that can deliver outstanding harsh environment properties are especially of high interest. This symposium covers advances in theory, modeling, computation, and 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-propertiesperformance 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

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