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**TMS 2020**

**149<sup>th</sup> Annual Meeting & Exhibition**

February 23-27, 2020 • San Diego, California, USA



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## Energy & Environment

### Powder Materials for Energy Applications

In the complex web of energy resource, production, storage, use, and efficiency, materials play a critical role as diverse and far-reaching as energy itself. Powder materials are part of the fundamental science and technology underlying the production of energy, including both conventional and renewable energy sources. Increasing demand for energy and the public's desire to enhance environmental quality all point to the need for better and newer powder materials. This symposium will cover powder material issues related to energy. It will consider all aspects of powder material processing and property studies with energy applications as the main objective. It 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, and computation while in parallel developing cutting-edge experimental techniques and approaches to understand and characterize powder materials in demanding conditions. Both theory and modeling and experimental efforts in powder materials synthesis, processing, characterization, and performance evaluation will be covered.

Topics include:

- Powder material processing-structure-properties-performance relations for energy uses
- Additive powder material manufacturing related to energy
- Advanced powder material analysis and in-situ characterization
- Powder materials under thermal extremes at high temperatures and during thermal cycling
- Powder materials in chemical-reactive extremes related to energy
- Powder materials under irradiation extremes in high-energy flux conditions

#### ORGANIZERS

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TMS Materials Processing & Manufacturing Division

TMS Powder Materials Committee

Abstract Deadline is July 1, 2019. Submit online at  
[www.programmaster.org/TMS2020](http://www.programmaster.org/TMS2020).

Questions?  
Contact [programming@tms.org](mailto:programming@tms.org)