Call for papers

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Advancements in Powder-based Functional Materials for Extreme Environments

In response to growing demands, this special topic delves into the intricate domain of powder-based functional materials tailored for extreme environments. Contributions are invited to explore the behavior and performance of powder materials under diverse extreme conditions, encompassing mechanical, thermal, chemical, radiation, magnetic, and electric fields. Areas of interest include pioneering research on (i) innovative powder synthesis methods, (ii) advancements in powder consolidation techniques such as spark plasma sintering, powder forging, extrusion, cold spray forming, and additive manufacturing, (iii) development of novel processes with enhanced robustness and monitoring capabilities, and (iv) modeling and simulation studies elucidating these phenomena and their interconnected facets.

Original research papers should be 3,000-9,000 words with up to 12 figures maximum; review papers should be 6,000-11,000 words with up to 20 figures maximum.

Detailed author instructions are available at: http://www.tms.org/AuthorTools/

Keywords for this topic: Additive Manufacturing; Powder Metallurgy; Functional Materials; Materials Processing and Characterization

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Committee Sponsor(s): Powder Materials

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