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TMS 2019
148th Annual Meeting & Exhibition

CALL FOR ABSTRACTS

March 10–14, 2019
San Antonio, Texas, USA

SUBMIT AN ABSTRACT TO:

NANOSTRUCTURED MATERIALS

2019 Symposium on Functional Nanomaterials: Synthesis, Integration, and Application of Emerging Nanomaterials

Nanomaterials are a class of material systems with unique material properties and performances originating from reduced physical dimensions and nanoscale structures & morphologies. These materials promise exciting new opportunities for innovating the technological frontiers critical for the sustainable advancement of society, such as nanoelectronics, exascale computing, artificial intelligence, sustainable energy production, and advanced environmental and healthcare technologies.

The 2019 Functional Nanomaterials Symposium will address the synthesis, integration, and application of both emerging and conventional nanomaterials, which include: two-dimensional (2D) materials, nanowires and nanotubes (1D), nanoparticles and quantum dots (0D), organic-inorganic hybrids, and their hierarchical assemblies.

Along with sessions for conventional nanomaterials, focused sessions will be dedicated to unique synthesis/ fabrication strategies for nanomaterials (e.g., 1D and 2D materials), novel integration routes for new and enhanced functionalities, and advanced device applications. Examples of session topics include, but are not limited to:

- Large-area synthesis and device integration/application of 2D materials (e.g., graphene, TMDC)
- Ultrathin films and nanomaterials for neuromorphic computing (e.g., artificial synapse, memristors, ferroelectrics, phase change materials)
- Nanomaterials for quantum computing (e.g., strongly correlated materials, diamond NV centers)
- Integration of nanomaterials into functional devices by additive manufacturing (e.g., 3D printing, direct-write two-photon lithography)
- Solar energy harvesting by organic and hybrid materials (e.g., hybrid perovskites, organic semiconductors)
- Hierarchical nanostructures for catalytic energy conversion, environment, and sensing (e.g., oxidation catalysts, fuel cells, gas/chemical sensor)
- Interrogation of nanomaterials' fundamental properties (e.g., electronic, optoelectronic, magnetic, mechanical, structural, chemical, thermal)

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Abstract Deadline is July 1, 2018.
Submit online at www.programmaster.org/TMS2019

Questions?
Contact programming@tms.org