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**MARCH 14-18, 2021 • ORLANDO WORLD CENTER MARRIOTT
ORLANDO, FLORIDA, USA
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SUBMIT AN ABSTRACT TO:

NANOSTRUCTURED MATERIALS

FUNCTIONAL NANOMATERIALS: FUNCTIONAL LOW-DIMENSIONAL MATERIALS (0D, 1D, 2D) DRIVING INNOVATIONS IN ELECTRONICS, ENERGY, SENSORS, AND ENVIRONMENTAL ENGINEERING AND SCIENCE 2021

Low-dimensional materials are a class of material systems with material properties and performance originating from reduced physical dimensions and nanoscale structures & morphologies. These materials promise exciting new opportunities for innovation in the technological frontiers critical for the sustainable advancement of society, such as nanoelectronics, energy applications, high-performance sensors, and advanced environmental and healthcare technologies.

The 2021 Functional Nanomaterials Symposium will address the synthesis, integration, and application of low-dimensional nanomaterials, which include: two-dimensional (2D) materials, nanowires and nanotubes (1D), functional nanofibers (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/(characterization?) strategies for nanomaterials, 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)
- Near-field electrospinning and its integration with 2D materials (e.g., graphene, MoS₂)
- Functional nanowires and nanofibers (e.g., energy harvesting)
- Nanomaterials for high-performance sensors (e.g., gas sensors, strain sensors)
- 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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SYMPOSIUM SPONSORS

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**Abstract Deadline is July 1, 2020. Submit online at
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Questions?
Contact programming@tms.org