Special Issue

Recent Development of Quantum Characterization Techniques for Advanced Materials

Message from the Guest Editor

Advanced materials encompass a wide-ranging spectrum from quantum materials to engineered materials, all of which demonstrate novel or enhanced physical properties. It has proven challenging to measure some properties with conventional characterization tools, giving rise to numerous controversial debates in understanding material properties. Often, the challenge lies in distinguishing new phenomena from well-established experimental results. This Special Issue will cover innovative, emerging, or enhanced quantum characterization techniques that could unveil the unique physical properties of advanced materials or address ongoing debates surrounding these properties. The topics of interest include, but are not limited to, the following areas:

- Novel or enhanced transport or optical characterization of advanced materials.
- Specially designed nano-engineered or nano-structured materials intended for the characterization of physical properties.
- Quantum characterization techniques for use in extreme physical conditions.
- Innovative approaches to overcome conventional material characterization techniques.

Guest Editor

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Message from the Editorial Board

Materials (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

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