Special Issue

Advanced Electronic Materials: Processing, Modeling, Failure Mechanisms, and Reliability

Message from the Guest Editors

The rapid advancement of micro- and nano-electronic technologies has imposed increasingly stringent requirements on the performance, reliability, and integration of electronic materials. This Special Issue aims to provide a platform for reporting recent advances in electronic materials and micro/nano structures, with an emphasis on the intrinsic links between processing-induced microstructures, constitutive behavior, damage evolution, and reliability. Topics of interest include advanced electronic and interconnect materials, novel processing techniques, high-fidelity constitutive and multi-scale modeling, multi-physics coupled behavior, failure and degradation mechanisms, lifetime prediction, and reliability assessment. Both experimental and computational studies are welcome, as are review articles addressing emerging challenges and opportunities. Contributions that bridge fundamental understanding and engineering application, or those that integrate experiments with physics-based and data-driven modeling approaches, are particularly encouraged.

Guest Editors

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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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