

Special Issue

Two-Dimensional Semiconductors—Advancements in Material Growth and Characterization

Message from the Guest Editor

As we move toward more energy-efficient technologies, semiconductors are becoming the driving force behind innovations across diverse technological fields. Nano-semiconductors, in particular, are set to play a pivotal role in advancing the future of these technologies. This Special Issue will focus on cutting-edge developments in material growth and characterization. Topics of interest include, but are not limited to, the following: novel growth techniques (e.g., remote epitaxy, non-equilibrium synthesis) and understanding nucleation and growth mechanisms; 2D/3D heterostructures; interface and defect engineering; material transfer and integrations into various substrates; modelling; and experimental validation. Contributions studying how these materials enable advances in various technical fields, such as nanoelectronics, optoelectronics, quantum computing, and thermal management, are also welcomed. We look forward to your contributions to this exciting and forward-looking Special Issue.

Guest Editor

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About the Journal

Message from the Editor-in-Chief

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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