Special Issue

Materials Innovation Through Atomic Layer Deposition: Process Optimization, Material Properties, and Applications

Message from the Guest Editor

We invite submissions to our Special Issue focusing on the latest advancements in **Atomic Layer Deposition (ALD)**—a transformative technique in thin-film fabrication that enables atomic-level precision and uniformity. This issue aims to highlight cutting-edge research in ALD process optimization, material innovations, and emerging applications across microelectronics, energy storage, protective coatings, and biomedical devices. Join us in shaping the future of atomic-scale materials engineering. We welcome original research articles, reviews, and perspectives. Topics of interest include, but are not limited to:

- ALD process design and optimization
- Plasma-enhanced and spatial ALD
- Data-driven process control (e.g., machine learning, modeling)
- Advanced material characterization (XRD, TEM, ellipsometry)
- Applications in semiconductors, flexible electronics, and energy systems

Guest Editor

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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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