Special Issue

Atomic Layer Deposition: From Fundamentals to Applications

Message from the Guest Editors

This Special Issue of *Materials* "High-k Atomic Layer Deposition" will publish original research articles on the recent advances in high-k materials obtained by the ALD method, which include various chemical precursors, surface and interface characterization techniques, ALD film growth and, finally, applications of high-k ALD resulting from the development of faster silicon chips, leading to increased solar panel efficiency and the improved safety of medical implants. Potential topics include the following:

- Novel applications of high-k ALD
- Dielectric thin film characterizations
- Properties film types depending on substrate and growth parameters
- Multilayer coatings, heterostructures, nanolaminates, mixed films, and doping
- Depositing high-quality films to challenging substrates such as heterostructures, nanotubes, organic semiconductors, etc.
- New reaction mechanisms, precursors, and applications
- Modeling of reaction mechanisms
- Barrier layers and protective coatings
- Advanced characterizations
- Applications of high-k ALD as electronics, spintronics, photovoltaics, or medical components

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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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