Development of New Efficient Precursors for Atomic Layer Deposition (ALD) Processes

Guest Editors:

Dr. Nathanaelle Schneider
CNRS, UMR-IPVF 9006, 18 boulevard Thomas Gobert, 91120 Palaiseau, France

Prof. Dr. Stephane Daniele
Catalysis and Polymerization Processes (LC2P2), Laboratory of Chemistry, CPE Lyon, University of Lyon, Villeurbanne, CEDEX, France

Dr. Christian Dussarrat
Air Liquide, Innovation Campus Tokyo, 2-2 Hikarinooka, Yokosuka, Kanagawa 239-0847, Japan

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Message from the Guest Editors

Dear Colleagues,

Atomic layer deposition (ALD) is a booming technology in academia and industry that has become a powerful tool for the synthesis and functionalization of nanomaterials. It is capable of depositing a wide range of materials under soft conditions, with subnanometer precision and fine-tuning of their properties. To date, more than 1000 ALD processes have been developed to produce a large variety of materials.

A key parameter in a ALD growth process is the nature of the precursors, as they may enable not only the stringent requirements in deposition conditions but also specific surface-reaction and targeted-film properties. In addition to commercial and safety constraints, ALD precursors must have appropriate thermogravimetric properties and well-adapted reactivity to grow the desired film without contamination, potentially on different supports. Therefore, the development of ALD precursors is an extensive research area that includes several aspects.

The Special Issue aims to provide a research forum to exchange the latest results with ALD precursors, and explore their potential to generate functional materials for future applications.

Special Issue

Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo
Dipartimento di Fisica,
Politecnico di Milano, Piazza L.
da Vinci 32, 20133 Milano, Italy

Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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