

Advanced Semiconductor Materials and Films: Properties and Applications

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Message from the Guest Editors

Dear Colleagues,

One-dimensional (1D) semiconductor nanostructures, 2D materials, and thin films are of particular interest with respect to their potential applications in highly integrated devices and systems. Especially, on-nanostructure bandgap modulation, thin film heterostructures, artificial optical systems (fabricated via CVD, MOCVD, MBE, and ALD), solution-based process, and sputtering, etc., may provide material platforms for potential applications in photovoltaics, solid-state lighting, as well as highly integrated photonic and optoelectronic devices.

Authors are invited to submit original research articles, critical review articles, or short communications focused on, but not limited to, these topics:

1. On-structure synthesis of 1D or 2D materials with radially or axially modulated compositions along a single structure;
2. Innovative technical for the realize the bandgap engineering on a single nanowire or 2D materials;
3. Recent advances in thin films and optoelectronic applications;
4. Fabrication and physical properties of semiconductor materials;
5. Semiconductor-metal interactions or light-mater interactions.



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Message from the Editorial Board

Now more than ever, research is called for to produce technologies and improve knowledge to solve the major challenges faced by our society. The development of new materials and devices for (without the ambition to be exhaustive) energy, health and food technology, together with the need for establishing processes that reduce the impact on critical resources and the environment, is indeed at the center of most contemporary research. Surface science and engineering play a key role in this regard. Refining surfaces and their modifications provides new materials, architectures and processes with a huge potential to aid most societal challenges. *Coatings* is a well-established, peer-reviewed, online journal that focuses on the dissemination of publications in the field of surface science and engineering. *Coatings* publishes original research articles that report cutting-edge results and review papers on the hottest topics.

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