

Special Issue

Advanced Semiconductor Materials and Films: Properties and Applications

Message from the Guest Editors

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:

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

Guest Editors

Prof. Dr. Pengfei Guo

Prof. Dr. Shaoding Liu

Prof. Dr. Chaoping Liu

Deadline for manuscript submissions

closed (27 December 2024)



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Impact Factor 2.8
CiteScore 5.4



mdpi.com/si/105464

Coatings
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
coatings@mdpi.com

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About the Journal

Message from the Editorial Board

Now more than ever, research is asked to deliver knowledge and technologies 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 in the spotlight of most contemporary research. Surface science and engineering play a key role in this regard, with an incredible potential in delivering new and deep scientific understanding and technical solutions essential to solve most of the major societal challenges.

Coatings is a well-established, peerreviewed, online journal dedicated to the vibrant field of surface science and engineering. Coatings publishes original research articles that report cutting-edge results and review papers that make the point on the hottest research topics.

Editors-in-Chief

Prof. Dr. Wei Pan

State Key Laboratory of New Ceramics and Fine Processing, School of Materials Science & Engineering, Tsinghua University, Beijing 100084, China

Dr. Emerson Coy

NanoBioMedical Centre, Adam Mickiewicz University in Poznań, ul. Wszechnicy Piastowskiej 3, 61-614 Poznań, Poland

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