

Optical and Electrical Properties and Applications of Semiconductors

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Deadline for manuscript
submissions:

closed (31 December 2023)

Message from the Guest Editors

Dear Colleagues,

Amorphous semiconductor materials are emerging materials for optoelectronic applications. They have attracted considerable research interest because of the reduction in the physical thickness and the low embodied energy achievable in amorphous semiconductor devices. Popular amorphous semiconductor materials include amorphous Si, organic polymers and hybrid organic-inorganic perovskites.

In order to achieve high-performance thin-film semiconductor devices, the optical and electrical properties and applications of semiconductor thin films have attracted considerable research interest.

We would like to invite you to submit your original research to this Special Issue of Coatings, entitled “Optical and Electrical Properties and Applications of Semiconductors”. In particular, the topics of interest include, but are not limited to, the following:

- Organic conjugated thin film;
- Inorganic thin film;
- Perovskite thin film;
- Thin-film light-emitting diodes;
- Thin-film solar cells;
- Thin-film optical sensors;
- Nanostructured thin film in semiconductor devices;
- Plasmonic effect in thin film.



mdpi.com/si/122111

Special Issue

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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.

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