

## Special Issue

# Organic and Hybrid Thin Films for Solar Cells

### Message from the Guest Editor

Recent research in the photovoltaic field has been dominated by hybrid perovskite-based solar cells. The heart of a hybrid solar cell is the perovskite semiconductor, which can either work as a sensitizer for a large bandgap semiconductor, such as TiO<sub>2</sub>, or can function as a semiconductor by itself in planar devices. The dominant behaviour in a solar cell can result exclusively from the composition and morphology of the perovskite. The purpose of this Special Issue, "Organic and hybrid thin films for solar cells", is focused on exploring the latest advances in the materials, performance, and efficiency of photovoltaic devices based on thin organic, hybrid, and oxide films, representing all of the component layers in a solar cell.

#### Potential Topics:

- Functional thin films for solar cells;
- Interface dynamics—charge transfer, ion migration;
- Thin film and interface characterization, defects, and energy levels;
- Advances in perovskite solar cells, materials, and processing;
- Upscaling—challenges and advances, and deposition methods.

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#### Guest Editor

Dr. Lucia Nicoleta Leonat  
The National Institute of Materials Physics, Măgurele, Romania

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#### Deadline for manuscript submissions

closed (31 October 2021)



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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.

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.

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