Special Issue

Advances in Nanomaterials and Coatings for Solar Cells

Message from the Guest Editors

Research on solar cells is developing towards increasing their efficiency and reducing production costs. Progress is possible by improving the connectors, contacts and geometric features of cells, methods of treating their surfaces and the use of new engineering materials with unique properties. The subject of the conducted research focuses on determining the impact of nanomaterials (including nanolayers, nanoparticles and nanowires) on the photovoltaic properties of solar cells. This Special Issue will serve as a forum for papers covering the following concepts:

- Theoretical and experimental research, knowledge and new ideas in the synthesis of nanomaterials with special optical and electrical properties;
- Recent developments in multi-functional inorganic thin films;
- Thin films produced by different processes, including chemical vapour deposition (CVD), physical vapour deposition (PVD), atomic layer deposition method (ALD) and the sol-gel method;
- The used of thin films, nanoparticles and nanowires in silicon, dye sensitized and polymer solar cells.

Guest Editors

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Deadline for manuscript submissions

closed (28 February 2025)



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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.

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