



## Optical Thin Films and Coatings: Synthesis, Characterisation and Applications

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### Message from the Guest Editors

Thin-film technology revolutionized modern life by enabling compact optoelectronic devices and smart coatings. Current applications include understanding the substrate conformation and crystal structure of thin films during synthesis processes and their correlation to physical and chemical properties, particularly to optical-related phenomena. The control and use of light emission and/or absorption and light guiding provide interesting insights that are suitable for photonics, sensing, or detecting applications. In addition, optical materials present new fundamental issues and functional properties under extreme conditions, such as low/high temperatures, electric and magnetic fields, or by controlling dimensionality.

This Special Issue focuses on the advances in the synthesis, characterization, and application of optical thin films and coatings.

- Novel thin-film and coating fabrication methods;
- Rare-earth-doped thin films and coatings;
- Organic, inorganic, smart, and 2D luminescent materials;
- Light-assisted electronic transport;
- Electric transport in 2D electron/hole gases at interfaces;
- .....





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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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