

## Recent Advances in Functional Transparent Semiconductor Films and Coatings

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Deadline for manuscript  
submissions:

**closed (15 February 2024)**

### Message from the Guest Editor

Dear Colleagues,

There are many areas of application in everyday life where a thin film of transparent semiconductor significantly modifies the optical, electrical, catalytic, and surface properties of the substrate it covers. Several deposition techniques allow depositing this type of material in thin layers on substrates of different types and different shapes. Different parameters allow modulating their properties so that they can fulfill a variety of important functions. All of these elements have paved the way for their extensive use, especially in electronic or optoelectronic device applications for a consumer market.

This Special Issue is dedicated to recent developments and advances in the field of conductive and semiconducting oxides in terms of elaboration methods, functionalization, and application fields. Without being restrictive, this Special Issue will focus on:

- The new generation of transparent conducting oxides such as perovskite oxides;
- The latest developments in applications involving wide band gap semiconducting oxides;
- The latest innovations in the methods of elaboration of classical transparent conductive oxides, in particular to reduce their cost.



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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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