Special Issue

Concentrated Solar Power Plant Absorber Coatings

Message from the Guest Editors

Tower-technology-based concentrated solar power (CSP) promises to deliver electricity prices below 7.3 ¢ per kW h based on thermal energy storage and future renewable-energy harvesting technology. However, the energy price depends very much on the energy-transformation efficiency, where absorber coatings play a crucial role. This Special Issue of Coatings is intended to provide a forum for original research articles as well as critical reviews on current advances in the field of absorber coatings for CSP technologies.

Areas of interest include but are not limited to:

High solar absorptivity absorber coatigs for central tower technologies;

Understanding the degradation mechanisms of coatings reflected through optical properties, thermal conductivity, thermal load, etc.;

Latest development of test methods considering optical, mechanical, and thermal properties and the ability to test and predict properties by computer modeling or simulation after diferent loads equivalent to service environment;

Multilayered coatings, ceramic materials, diffusion, and protection layers.

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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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