

Special Issue

Advanced Materials Solutions and Architectures for a New Generation of High-Efficiency CSP Plants

Message from the Guest Editors

The development of advanced materials solutions and innovative architectures are two of the main research priorities for the advancement of the concentrating solar power (CSP) technology, and the key to improving the performance of the current systems and fostering the development of a new generation of high-efficiency CSP plants. Novel functional materials; material combinations; advanced architectures; their development, processing, simulation and analysis, and synergies with other advanced technologies can enhance the performance and reliability of key components of CSP plants such as mirrors, receivers, thermal energy storage systems, etc., thus boosting conversion efficiencies beyond the state-of-the-art, taking into account the preservation of the lifetime and the materials resource efficiencies. In this way, it will be possible to increase the efficiency and durability of the CSP facilities and make this renewable energy technology cost-competitive under suitable electricity market conditions.

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Message from the Editorial Board

Materials (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

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