Cooperation on Corrosion-Resistant Solar Containers

Herein, the cement-based aqueous Ni-Zn structural batteries (CNZSBs), solar panels, and LEDs are successfully assembled together to realize a fully solar-powered ...

In this study, it is demonstrated that encapsulating LiCl-loaded carbon felt in a superhydrophobic polytetrafluoroethylene membrane effectively preserves its high absorptivity while preventing the ...

This paper outlines the superior salt corrosion behavior of a novel low-cost, Al2O3-forming, ferritic, Laves phase-strengthened (i.e., structural) steel in NaNO3/KNO3 solar salt at 600 C.

We discuss the adverse efects of corrosion on the materials commonly used in solar cells, such as silicon, metals, and transparent conductive oxides.

The superior corrosion resistance of Haynes230 can be attributed to its higher Ni and W content. These results are significant for optimizing the usage of novel molten salts and alloys to ...

"Concentrated solar power" (CSP) and thermal energy storage (TES) are promising renewable energy technologies, which have gained increasing interest and practical application in ...

The investigation of the corrosion behavior of alloy materials in molten salt is crucial for the correct selection of alloy materials and the design of TES systems.

The MSCA-funded CoMeTES project aims to address these limitations by developing low-cost, corrosion and mechanically resistant slurry aluminide coatings which will enable the use of ...

A corrosion test under dynamic conditions on common container materials used in TES systems for CSP Plants, CSA516 and SS347, was successfully performed with molten solar salt ...

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This review aims to enhance our understanding of the corrosion issues faced by solar cells and to provide insights into the development of corrosion-resistant materials and robust ...

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