Special Issue

Advances in Corrosion and Anticorrosion of Materials in Thermal Energy Storage Systems

Message from the Guest Editor

At present, concentrated solar power (CSP) technologies and thermal energy storage (TES) systems are gaining increasing attention as reliable and sustainable solutions for large-scale energy generation. This Special Issue aims to showcase recent advances in material development, characterization, and innovative strategies to improve the thermal efficiency, stability, and reliability of CSP and TES systems. The focus will be on novel nanomaterials, molten salt formulations, corrosion mitigation strategies, and advanced analytical techniques for understanding material behavior in extreme conditions. Suitable topics for this Special Issue include, but are not limited to, the following:

- Development and characterization of advanced molten salts and HTFs;
- Nanofluids and additive-enhanced thermal storage materials:
- Corrosion resistance strategies for CSP and TES components;
- Computational modeling of heat transfer and degradation processes;
- Novel coatings and protective barriers for hightemperature applications.

Guest Editor

Dr. Fabiola Pineda

Centro de Nanotecnología Aplicada, Facultad de Ciencias, Ingeniería y Tecnología, Universidad Mayor, Camino la Pirámide 5750, Santiago 8580745, Chile

Deadline for manuscript submissions

30 April 2026



Processes

an Open Access Journal by MDPI

Impact Factor 2.8 CiteScore 5.5



mdpi.com/si/232626

Processes
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
processes@mdpi.com

mdpi.com/journal/ processes





Processes

an Open Access Journal by MDPI

Impact Factor 2.8 CiteScore 5.5



About the Journal

Message from the Editor-in-Chief

You are invited to contribute either a research article or a comprehensive review for consideration and publication in *Processes* (ISSN 2227-9717). *Processes* is published in open access format – research articles, reviews, and other content are released on the internet immediately after acceptance. The scientific community and the general public have unlimited, free access to the content. As an open access journal, *Processes* is supported by the authors and their institutes through the payment of article processing charges (APCs) for accepted papers. We would be pleased to welcome you as one of our authors.

Editor-in-Chief

Prof. Dr. Giancarlo Cravotto

Department of Drug Science and Technology, University of Turin, Via P. Giuria 9, 10125 Turin, Italy

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, SCIE (Web of Science), Ei Compendex, Inspec, AGRIS, and other databases.

Journal Rank:

CiteScore - Q2 (Chemical Engineering (miscellaneous))

