

Special Issue

Power Conversion Systems for Concentrating Solar Thermal and Waste Heat Recovery Applications at High Temperatures

Message from the Guest Editor

The field of thermal power generation at very high temperatures has suddenly become very important and exciting, due to the number of applications demanding solutions for efficient power conversion at temperatures well above 600 °C. Suddenly, new horizons have opened and new research goals are being set. A new cycle, the supercritical CO₂ cycle, has been put forward and is potentially applicable over applications ranging from carbon-captured coal-fired power to gas-cooled nuclear reactors, concentrating solar thermal power, and as a replacement for steam in combined cycle gas turbine applications. The common motivation in all these areas is the aspiration to convert heat to electricity at ever higher temperatures and consequently at higher efficiencies.

The quest for high-temperature thermal power generation has driven research and development in a number of areas that convert high-temperature heat to electricity in an effective and reliable way.

The purpose of this Special Issue is to present the current level of development and future challenges in this area, specifically in very-high temperature (VHT) power generation.

Guest Editor

Prof. Dr. Hal Gurgenci

School of Mechanical and Mining Engineering, The University of Queensland, Brisbane, Australia

Deadline for manuscript submissions

closed (31 December 2020)



Sustainability

an Open Access Journal
by MDPI

Impact Factor 4.1
CiteScore 8.9



mdpi.com/si/29814

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

[mdpi.com/journal/
sustainability](https://mdpi.com/journal/sustainability)





Sustainability

an Open Access Journal
by MDPI

Impact Factor 4.1
CiteScore 8.9



[mdpi.com/journal/
sustainability](https://mdpi.com/journal/sustainability)



About the Journal

Message from the Editor-in-Chief

I encourage you to contribute a research or comprehensive review article for consideration for publication in Sustainability, an international open access journal which provides an advanced forum for research findings in areas related to sustainability and sustainable development. The journal publishes original research articles, reviews, conference proceedings (peer reviewed full articles) and communications. I am confident you will find the journal contributes to enhancing understanding of sustainability and fostering initiatives and applications of sustainability-based measures and activities.

Editor-in-Chief

Prof. Dr. Steve W. Lyon

School of Environment and Natural Resources, Ohio State University,
Columbus, OH 43210, USA

Author Benefits

Open Access:

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

High Visibility:

indexed within Scopus, SCIE and SSCI (Web of Science), GEOBASE, GeoRef, Inspec, RePEc, CAPlus / SciFinder, and other databases.

Journal Rank:

JCR - Q2 (Environmental Studies) / CiteScore - Q1
(Geography, Planning and Development)