



*energies*



an Open Access Journal by MDPI

## Advances in Low-Temperature Solar Organic Rankine Cycle System

Guest Editor:

**Dr. Dimitris S. Manolakos**

Department of Natural Resources  
Management & Agricultural  
Engineering, Agricultural  
University of Athens, Iera Odos  
75, 11855 Athens, Greece

Deadline for manuscript  
submissions:

**closed (20 August 2020)**

### Message from the Guest Editor

Solar energy is a **renewable energy** of high importance and is capable to satisfy effectively both electricity and thermal energy needs while a wide range of technologies is available covering different temperature ranges and systems' sizes, to collect and convert heat to power. The use of low temperature solar heat to power generation is however a challenging and hot research issue, since it incorporates low heat to power conversion efficiency and a questionable cost-effectiveness.

Organic Rankine Cycle (ORC) technology is almost exclusively used to convert low grade solar heat to electricity due to its higher conversion efficiency and maturity. Several promising ideas towards improving thermal efficiency further are under investigation such as expander liquid-flooding, new organic fluids or TFC. Thermal efficiency improvement is a key challenge to enhance technical and economic attractiveness of low-grade solar heat-to-power conversion.

This Special Issue aims to contribute in the efficient conversion of low temperature solar heat to electricity through the well-known technology of ORC. All advanced design and control techniques or solutions are welcomed.



[mdpi.com/si/37069](https://mdpi.com/si/37069)

# Special Issue



# energies



an Open Access Journal by MDPI

## Editor-in-Chief

### **Prof. Dr. Enrico Sciubba**

Department of Mechanical and  
Aerospace Engineering,  
University of Roma Sapienza, Via  
Eudossiana 18, 00184 Roma, Italy

## Message from the Editor-in-Chief

*Energies* is an international, open access journal in energy engineering and research. The journal publishes original papers, review articles, technical notes, and letters. Authors are encouraged to submit manuscripts which bridge the gaps between research, development and implementation. The journal provides a forum for information on research, innovation, and demonstration in the areas of energy conversion and conservation, the optimal use of energy resources, optimization of energy processes, mitigation of environmental pollutants, and sustainable energy systems.

## 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, RePEc, Inspec, CAPlus / SciFinder, and other databases.

**Journal Rank:** CiteScore - Q1 (*Engineering (miscellaneous)*)

## Contact Us

---

*Energies* Editorial Office  
MDPI, St. Alban-Anlage 66  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/energies](http://mdpi.com/journal/energies)  
[energies@mdpi.com](mailto:energies@mdpi.com)  
[X@energies\\_mdpi](https://x.com/energies_mdpi)