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Advances in Low-Temperature Solar Organic Rankine Cycle System

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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.



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Special Issue



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Message from the Editor-in-Chief

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