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Recent Advancement of Thermal Fluid Engineering in the Supercritical CO_2 Power Cycle

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Message from the Guest Editors

Dear Colleagues,

This Special Issue is a compilation of the recent advancements in thermal fluid engineering related to supercritical CO_2 power cycle development. The supercritical CO_2 power cycle is considered to be one of the promising power cycles for distributed power generation; waste heat recovery; and a topping cycle of coal, nuclear, and solar thermal heat sources. While the cycle benefits from dramatic changes in CO_2thermodynamic properties near the critical point, the design and analysis of the power cycle and its major components also face certain challenges due to the strong real gas effect. This Special Issue will present a series of recent research results in heat transfer and fluid flow analyses and experimentation so that the accumulated knowledge can accelerate the development of this exciting future power cycle technology.

Prof. Dr. Jeong Ik Lee
Prof. David Sánchez
Guest Editors

- Supercritical CO_2
- Real gas effect
- Compact heat exchanger
- Turbomachinery

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