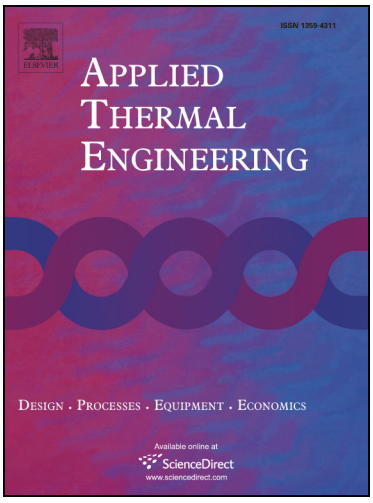

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Theoretical investigation on Performance improvement of a low-temperature transcritical carbon dioxide compression refrigeration system by means of an absorption chiller after-cooler

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Highlights

- A modified low temperature transcritical CO_2 compression refrigeration system is proposed for higher performance.
- The proposed system uses the cooling of an absorption chiller for after-cooling.
- The absorption chiller does not need an external heat source as it runs by the waste heat of the compression refrigeration system.
- Liquid-Suction Heat exchanger and two-stage compression are also embedded into the system configuration.

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