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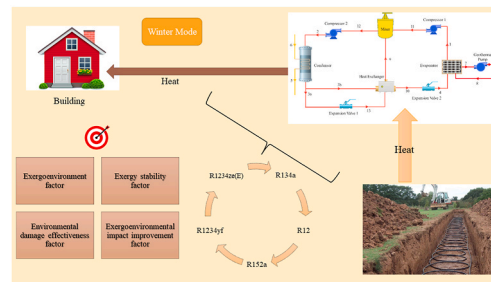
Competitive study of a geothermal heat pump equipped with an intermediate economizer for various ORC working fluids

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HIGHLIGHTS

- Simulation of a heat pump with a geothermal heat source equipped with an economizer for the winter operating mode.
- Exergoenvironmental analysis of the system for five working fluids, including R134a, R12, R152a, R1234yf and R1234ze(E).
- Investigation of the effect of changing different parameters, on the environmental parameters for five working fluids.

GRAPHICAL ABSTRACT



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ABSTRACT

Exergoenvironmental analysis is used to assess system performance from an environmental point of view. The analyses' guiding principles are formed based on evaluations of the thermodynamic and ambient conditions. The ground source heat pump is one of the most suitable technologies for

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