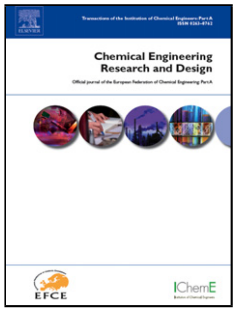

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A Systematic Decision Analysis Approach to Design Biomass Combined Heat and Power Systems

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Highlights of research

- Systematic design analysis framework to design combined heat and power systems is proposed
- This framework considers optimistic, pessimistic and cautious risk decision-making
- This framework combines Maximax, Maximin and Minimax Regret Criterion

Abstract

Designing a biomass combined heat and power (CHP) system that fulfils uncertain energy demands is a challenging task. This task becomes increasingly complex when historical data and probability distributions are not well defined. This work presents a newly developed decision analysis design framework for biomass CHP system which considers three types of decision-makers, namely optimistic, pessimistic and cautious decision-makers. To illustrate the proposed