

RESEARCH PAPERS

基于数学规划和知识工程的换热网络合成及其控制性能集成的研究

李志红

Institute of Chemical Engineering, South China University of Technology, Guangzhou 510640, China

收稿日期 修回日期 网络版发布日期 接受日期

摘要 A method for incorporation of controlling the heat exchanger networks with or without splits is proposed by integrating mathematical programming and knowledge engineering. The simultaneous optimal mathematical model is established. This method can be practically used in the integration of large-scale heat exchanger networks, not only to synthesize automatically but also to satisfy the requirement of structural controllability with more objective human intervention.

关键词 [heat exchanger network](#) [control](#) [integration](#) [synthesis](#)

分类号

Method for Incorporation of Controllability in Heat Exchanger Network Synthesis by Integrating Mathematical Programming and Knowledge Engineering

LI Zhihong

Institute of Chemical Engineering, South China University of Technology, Guangzhou 510640, China

Abstract

A method for incorporation of controlling the heat exchanger networks with or without splits is proposed by integrating mathematical programming and knowledge engineering. The simultaneous optimal mathematical model is established. This method can be practically used in the integration of large-scale heat exchanger networks, not only to synthesize automatically but also to satisfy the requirement of structural controllability with more objective human intervention.

Key words [heat exchanger network](#) [control](#) [integration](#) [synthesis](#)

DOI:

通讯作者 李志红

扩展功能

本文信息

- ▶ [Supporting info](#)
- ▶ [PDF\(1777KB\)](#)
- ▶ [\[HTML全文\]\(0KB\)](#)
- ▶ [参考文献](#)

服务与反馈

- ▶ [把本文推荐给朋友](#)
- ▶ [加入我的书架](#)
- ▶ [加入引用管理器](#)
- ▶ [复制索引](#)
- ▶ [Email Alert](#)
- ▶ [文章反馈](#)
- ▶ [浏览反馈信息](#)

相关信息

- ▶ [本刊中 包含“\[heat exchanger network\]\(#\)”的 相关文章](#)
- ▶ [本文作者相关文章](#)
- [李志红](#)