

一步法生产乙醛的动态实时模拟

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摘要: 对一步法乙醛生产流程进行了动态模拟,对重点设备氧化反应器和成品塔进行了研究。为了处理好动态模型中多个快速反应间的相互联系,从总体角度对各反应的最快速率进行了限制。针对精馏塔实时动态模型中活度系数求解困难的问题,充分利用 Wilson 活度系数模型和 Unifac 活度系数模型各自的优势,采用双层法计算活度系数。并成功地将它们应用于实践中,效果良好。

关键词: 动态模拟; 乙醛

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Dynamic simulation of acetaldehyde production with one-step process

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Abstract: The situation of reactor with many reactions is studied in this paper. A new method is put forward, and is successfully used to resolve the relationship of reactions. On the other hand, a new way to compute the active coefficient, taking advantage of Wilson model and Unifac model, is proposed by using two-layer concept. The techniques above are successfully applied.

Keywords: dynamic simulation; acetaldehyde