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## 精馏过程实时动态模型

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摘要: 根据工业装置的实际控制要求, 提出了一种新的精馏过程实时动态模型。与传统模型相比, 该模型在计算速度及精度方面作了一些改进。引入定容闪蒸, 逐板进行汽液平衡及水力学计算。基于该模型的软件能非常逼真地实时再现工业装置的正常及异常操作状况, 为灵敏板选取及高级控制系统的开发设计提供了依据。

关键词: 精馏过程; 实时; 动态模型; 控制系统

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### A New Real Time Dynamic Distillation Model for Control System Design

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Abstract: A new real time dynamic distillation model was developed for the requirement of real production process. Compared with traditional one, both computation velocity and computation accuracy was improved. The consideration of Constant Volume Flash was used, rigorous phase equilibrium and hydraulics was adopted in the calculation of every plate. The software based on the model can simulate the process of real equipment very well, no matter the situation is normal or abnormal. It can be used to select sensitive plate or to develop Advanced Control System for distillation process.

Key words: control system design; distillation process; dynamic model