

分离工程

多元间歇精馏拟夹紧区的变化规律

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摘要

拟夹紧区是精馏塔内出现的浓度变化很小的区域, 对于精馏塔的操作和设计具有重要意义。本文通过恒摩尔持液模型进行模拟计算, 讨论了理想多元物系间歇精馏过程中回流比和相对挥发度对拟夹紧区的影响及拟夹紧区的更替过程。在多元物系间歇精馏过程中, 拟夹紧区的宽度随回流比和相对挥发度的大小而改变; 拟夹紧区在塔内出现的位置是不断变化的, 存在上拟夹紧区和中拟夹紧区的相互演化过程。

关键词

[多元分批精馏](#) [拟夹紧区](#) [回流比](#) [模拟](#)

分类号

Evolution of pseudo-pinch point zone in multi-component batch distillation

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Abstract

The pseudo-pinch point zone in a distillation column is the stages where the liquid or vapor composition varies very little, and it is very useful for the operation and design of the distillation column. In this paper, the evolution of the pseudo-pinch point zone and effects of reflux ratio and relative volatility to pseudo-pinch point zone in multi-component batch distillation were studied by simulation, based on a constant molar hold-up batch distillation model. The width of the pseudo-pinch point zone was affected by reflux ratio and relative volatility. The pseudo-pinch point zone in multi-component batch distillation changed continually and it always alternated between the upper pseudo-pinch point zone and the middle pseudo-pinch point zone.

Key words

[multi-component batch distillation](#) [pseudo-pinch point zone](#) [reflux ratio](#) [simulation](#)

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