عنوان مقاله:

Stage Efficiency of a Pulsed Disc and Doughnut Extraction Column

محل انتشار:

هفتمین کنگره ملی مهندسی شیمی (سال: 1390)

تعداد صفحات اصل مقاله: 10

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خلاصه مقاله:

Stage efficiency has been measured in a 76 mm pulsed disc and doughnut column for toluene-acetone-water system. The experiments have been carried out for both mass transfer directions. The effects of operational variables including pulsation intensity and dispersed and continuous phase flow rate on stage efficiency have been investigated. The comparison between the performance of this column with some other types of extractors shows that this column has high stage efficiency. An empirical correlation is proposed for prediction of stage efficiency in terms of Reynolds number and dispersed phase holdup. Good agreement between prediction and experiments has been found for all operating conditions that were investigated.

کلمات کلیدی:

Pulsed Disc and Doughnut Column, Stage Efficiency, Dispersed Phase Holdup, Mass Transfer Direction, Throughput