Abstract

The present work is to simulate and analyze pressure-swing distillation process for azeotropic IBA-IBAc separation using CHEMCAD simulation software. The total number of feed plates, reflux ratio in first column and total number of plates, operating pressure and the feed stream concentration of IBA for the second column are varied to find the optimum feed plate location, to get the desired output i.e. 99.5 mol % IBAc and 98.5 mol % IBA as bottoms from the first and second column respectively, which gives the minimum total heat duty.

References


Index Terms

Computer Science

Applied Sciences

Keywords

Pressure-swing distillation Simulation azeotrope activity coefficient IBA (Isobutyl Alcohol)

IBAc (Isobutyl Acetate)