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Simulation of benzene extraction with n-hexane as solvent by Aspen Plus

Mohaddeseh Yousefi Nasab [1], Hosein Ghanad zade Giani [2]
Chemical Engineering Department ofGuilan University, Rasht, Iran
m.yousefinasab@gmail.com

Abstract
Benzene is used mainly as an intermediate to make other chemicals. In this study, benzene extraction from binary mixture of benzene and acetonitrile with n-hexane as solvent were simulated at T = 298.15K under atmospheric pressure, respectively. The NRTL modelewas used and suitability of hexane as a solvent were evaluated and selectivity and distribution coefficient were calculated.
The high value of selectivity factors, is reason for be suitable of the solvent for extraction of benzene.

Keywords: Benzene Separation, Acetonitrile, n-hexane, selectivity, NRTL.

1- Post graduate student (Ms) if Guilan University.
2- Professor of Chemical Engineering Department of Guilan University