Accepted Manuscript

Title: Low pressure design for reducing energy cost of extractive distillation for separating Diisopropyl ether and Isopropyl alcohol

Author: Xinqiang You Ivonne Rodriguez-Donis Vincent

Gerbaud

PII: S0263-8762(16)00040-X

DOI: http://dx.doi.org/doi:10.1016/j.cherd.2016.01.026

Reference: CHERD 2165

To appear in:

Received date: 30-9-2015 Revised date: 27-11-2015 Accepted date: 21-1-2016

Please cite this article as: YOU, X., RODRIGUEZ-DONIS, I., GERBAUD, V.,Low pressure design for reducing energy cost of extractive distillation for separating Diisopropyl ether and Isopropyl alcohol, *Chemical Engineering Research and Design* (2016), http://dx.doi.org/10.1016/j.cherd.2016.01.026

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.



ACCEPTED MANUSCRIPT

Low pressure design for reducing energy cost of extractive distillation for separating Diisopropyl ether and Isopropyl alcohol

Xinqiang YOU a,b,c, Ivonne RODRIGUEZ-DONIS b,c, Vincent GERBAUD b,c,*

^a Department of Chemistry and Laboratory for Advanced Material and Gemstone Testing Center of ECUST, East

China University of Science and Technology, Shanghai 200237, China

^b Université de Toulouse, INP, UPS, LGC (Laboratoire de Génie Chimique), 4 allée Emile Monso, F-31432

Toulouse Cedex 04, France

^cCNRS, LGC (Laboratoire de Génie Chimique), F-31432 Toulouse Cedex 04, France

HIGHLIGHTS

- Extractive distillation process of DIPE –IPA with 2-methoxyethanol is optimized
- Pressure reduction allows energy and cost reduction for extractive distillation.
- Pressure reduction benefit comes from the mixture thermodynamics.
- Pressure reduction benefit holds for all 1.0-1a-m1 extractive separation class
- We compare design with respect to an extractive efficiency indicator

^{*}corresponding author: Vincent.Gerbaud@ensiacet.fr

Download English Version:

https://daneshyari.com/en/article/7006656

Download Persian Version:

https://daneshyari.com/article/7006656

<u>Daneshyari.com</u>