Accepted Manuscript

Design aspect of a novel L-shaped pulsed column for liquid–liquid extraction applications: Energy consumption and the characteristics velocity concept

Pouria Amani, Elham Mohammadi, Sahar Akhgar

PII:	\$1004-9541(17)30361-0
DOI:	doi:10.1016/j.cjche.2017.08.004
Reference:	CJCHE 901

Notes 23 Notes 23 Notes 23 Notes 24 Notes

To appear in:

Received date:23 March 2017Revised date:17 May 2017Accepted date:6 August 2017

Please cite this article as: Pouria Amani, Elham Mohammadi, Sahar Akhgar, Design aspect of a novel L-shaped pulsed column for liquid–liquid extraction applications: Energy consumption and the characteristics velocity concept, (2017), doi:10.1016/j.cjche.2017.08.004

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

Separation Science and Engineering

Design Aspect of a Novel L-Shaped Pulsed Column for Liquid-Liquid Extraction

Applications: Energy Consumption and The Characteristics Velocity Concept

Pouria Amani^{1*}, Elham Mohammadi², Sahar Akhgar²

¹ School of Chemical Engineering, College of Engineering, University of Tehran, P.O. Box:

11155-4563, Tehran, Iran

² Chemical Engineering Department, Tarbiat Modares University, P.O. Box: 14115-143,

Tehran, Iran

Corresponding author: pouria.amani@ut.ac.ir

Highlights:

- Feasibility of a novel L-shaped pulsed column for solvent extraction is investigated.
- Energy consumption of the column due the two-phase pressure drop is evaluated.
- Applicability of two different characteristic velocity models is evaluated.
- Obtained results are helpful for optimizing the column geometry targeted to lower energy consumption.

Download English Version:

https://daneshyari.com/en/article/6592977

Download Persian Version:

https://daneshyari.com/article/6592977

Daneshyari.com