Accepted Manuscript

Title: An optimized process for treating sodium acetate waste residue: Coupling of diffusion dialysis or electrodialysis with bipolar membrane electrodialysis

Authors: Shuai Xue, Cuiming Wu, Yonghui Wu, Chuanyang

Zhang

PII: S0263-8762(17)30616-0

DOI: https://doi.org/10.1016/j.cherd.2017.11.013

Reference: CHERD 2892

To appear in:

Received date: 31-5-2017 Revised date: 18-10-2017 Accepted date: 6-11-2017

Please cite this article as: Xue, Shuai, Wu, Cuiming, Wu, Yonghui, Zhang, Chuanyang, An optimized process for treating sodium acetate waste residue: Coupling of diffusion dialysis or electrodialysis with bipolar membrane electrodialysis. Chemical Engineering Research and Design https://doi.org/10.1016/j.cherd.2017.11.013

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.



An optimized process for treating sodium acetate waste residue: Coupling of diffusion dialysis or electrodialysis with bipolar membrane electrodialysis

Shuai Xue¹, Cuiming Wu^{1,*}, Yonghui Wu^{2,**}, Chuanyang Zhang¹

¹ Anhui Key Lab of Controllable Chemical Reaction & Material Chemical Engineering, School of Chemistry and Chemical Engineering, Hefei University of Technology, Hefei 230009, P.R. China;

² School of Chemistry and Environmental Engineering, Yancheng Teachers University, Yancheng 224002, P.R. China.

Graphical abstract

A waste residue containing \sim 76.6 wt% CH₃COONa and other organic impurities is firstly purified by diffusion dialysis (DD) or electrodialysis (ED), which has the advantage of low energy consumption or high capacity. Then the purified solution is taken bipolar membrane electrodialysis (BMED) to produce CH₃COOH and NaOH, which shows the advantages of improved product purities and reduced energy consumption.

Download English Version:

https://daneshyari.com/en/article/7006328

Download Persian Version:

https://daneshyari.com/article/7006328

<u>Daneshyari.com</u>