Accepted Manuscript

Title: Process Integration of Material Flows of Copper Chlorides in the Thermochemical Cu-Cl Cycle

Author: Kevin Pope Zhaolin Wang Greg F. Naterer

PII: S0263-8762(15)00521-3

DOI: http://dx.doi.org/doi:10.1016/j.cherd.2015.12.024

Reference: CHERD 2133

To appear in:

Received date: 1-2-2014 Revised date: 30-10-2015 Accepted date: 23-12-2015

Please cite this article as: Pope, K., Wang, Z., Naterer, G.F., Process Integration of Material Flows of Copper Chlorides in the Thermochemical Cu-Cl Cycle, *Chemical Engineering Research and Design* (2015), http://dx.doi.org/10.1016/j.cherd.2015.12.024

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

Research Highlights:

- Process integration of CuCl₂ and CuCl flows was examined for the Cu-Cl cycle.
- Heat requirements and reduction of auxiliary operations were compared among options of unit operation integrations.
- Effects of CuCl₂ crystallization composition on heat requirements were studied.
- CuCl₂ crystallization is an energy efficient linkage requiring fewer processes.
- High conversion to CuCl₂ in the electrolyzer is preferred for an efficient linkage.

Download English Version:

https://daneshyari.com/en/article/7006792

Download Persian Version:

https://daneshyari.com/article/7006792

<u>Daneshyari.com</u>