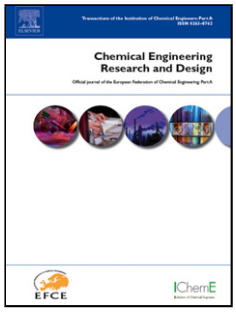

Title: Process Integration of Material Flows of Copper Chlorides in the Thermochemical Cu-Cl Cycle

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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

Research Highlights:

- Process integration of $CuCl_2$ 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 $CuCl_2$ crystallization composition on heat requirements were studied.

- $CuCl_2$ crystallization is an energy efficient linkage requiring fewer processes.

- High conversion to $CuCl_2$ in the electrolyzer is preferred for an efficient linkage.