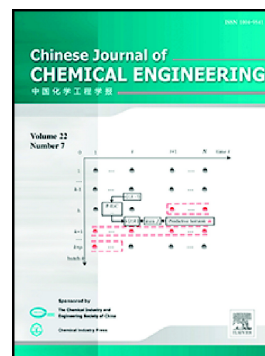


Accepted Manuscript

Understanding the influence of microwave on the relative volatility used in the pyrolysis of Indonesia oil sands

Hong Li, Peng Shi, Xin Gao



PII: S1004-9541(18)30083-1
DOI: doi:[10.1016/j.cjche.2018.02.035](https://doi.org/10.1016/j.cjche.2018.02.035)
Reference: CJCHE 1090

To appear in:

Received date: 11 January 2018
Revised date: 6 February 2018
Accepted date: 11 February 2018

Please cite this article as: Hong Li, Peng Shi, Xin Gao , Understanding the influence of microwave on the relative volatility used in the pyrolysis of Indonesia oil sands. The address for the corresponding author was captured as affiliation for all authors. Please check if appropriate. Cjche(2018), doi:[10.1016/j.cjche.2018.02.035](https://doi.org/10.1016/j.cjche.2018.02.035)

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.

Separation science and engineering

Understanding the influence of microwave on the relative volatility used in the pyrolysis of Indonesia oil sands[#]

Hong Li, Peng Shi, Xin Gao*

School of Chemical Engineering and Technology, National Engineering Research Center of Distillation

Technology, Collaborative Innovation Center of Chemical Science and Engineering(Tianjin), Tianjin University,

Tianjin 300072, China

[#] Supported by the National Key Research and Development Program of China (2016YFB0301800), and International S&T Cooperation Program of China, ISTCP (No. 2015DFR40910).

ABSTRACT

In this paper, pyrolysis of Indonesian oil sands (IOS) was investigated by two different heating methods to have a better understanding of the microwave pyrolysis process. Thermogravimetric analysis was conducted to study the thermal decomposition behaviors of IOS which determined 550 °C could be treated as the pyrolysis final temperature. A new understanding of the heat-mass transfer process was put forward to demonstrate the microwave induced pyrolysis process and its influence on liquid product. The heat-mass transfer model proposal can be utilized to explain the increase of liquid product yield and heavy components content at same heating rate by two different heating

* Corresponding author, Tel: +86-022-27404701(X.G.); Fax: +86-022-27404705(X.G.).

E-mail: gaoxin@tju.edu.cn (Xin Gao).

Download English Version:

<https://daneshyari.com/en/article/6592726>

Download Persian Version:

<https://daneshyari.com/article/6592726>

[Daneshyari.com](https://daneshyari.com)