

Accepted Manuscript

Optimized synthesis of nano-scale high quality HKUST-1 under mild conditions and its application in CO₂ capture

Xueliang Mu, Yipei Chen, Edward Lester, Tao Wu



PII: S1387-1811(18)30279-8

DOI: [10.1016/j.micromeso.2018.05.027](https://doi.org/10.1016/j.micromeso.2018.05.027)

Reference: MICMAT 8929

To appear in: *Microporous and Mesoporous Materials*

Received Date: 27 January 2018

Revised Date: 1 May 2018

Accepted Date: 17 May 2018

Please cite this article as: X. Mu, Y. Chen, E. Lester, T. Wu, Optimized synthesis of nano-scale high quality HKUST-1 under mild conditions and its application in CO₂ capture, *Microporous and Mesoporous Materials* (2018), doi: 10.1016/j.micromeso.2018.05.027.

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.

1 **Optimized synthesis of nano-scale high quality HKUST-1 under mild conditions**
 2 **and its application in CO₂ capture**

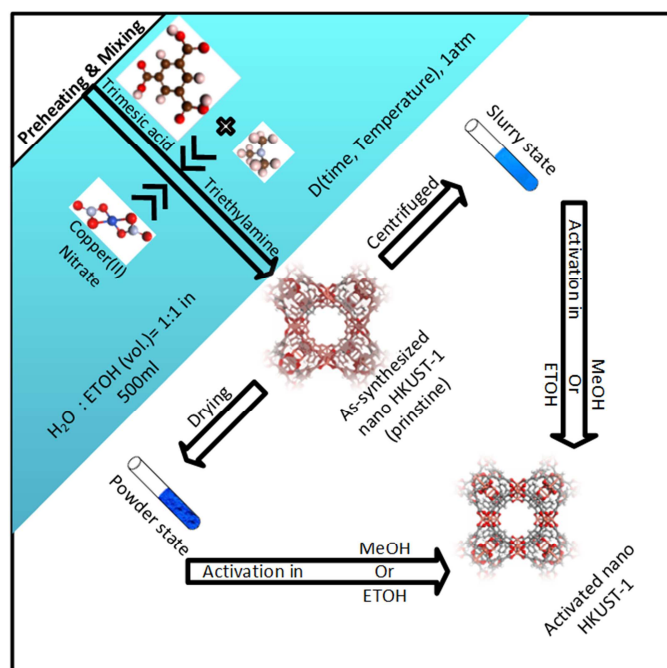
3 Xueliang Mu^{1,2}, Yipei Chen^{1,3}, Edward Lester³, Tao Wu^{1,2,*}

4 ¹New Materials Institute, The University of Nottingham Ningbo China, Ningbo 315100, P. R.
 5 China

6 ²Municipal Key Laboratory of Clean Energy Conversion Technologies, The University of
 7 Nottingham Ningbo China, Ningbo 315100, P. R. China

8 ³Department of Chemical and Environmental Engineering, The University of Nottingham,
 9 Nottingham NG7 2RD, P. R. China

10 * Corresponding author: Tao.Wu@nottingham.edu.cn



11

12

13 **Highlights**

- 14
- A fast and efficient method was developed for the synthesis of HKUST-1
 - 15 • Synthesis was conducted under low temperature and atmospheric pressure
 - 16 • The MOFs was synthesized in nano-scale with high BET surface area and high yield
 - 17 • Activation agent has shown significant influence on BET surface area of the MOFs

Download English Version:

<https://daneshyari.com/en/article/6531722>

Download Persian Version:

<https://daneshyari.com/article/6531722>

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