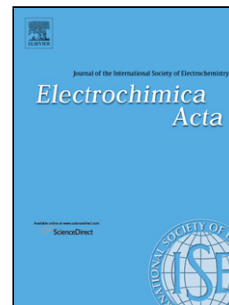


Accepted Manuscript

Title: A Facile Synthesis of Mesoporous TiO₂
Sub-Microsphere Host for Long Life Lithium-Sulfur Battery
Cathodes

Authors: Yan Sun, Yining Zhao, Yingxue Cui, Jing Zhang,
Guofeng Zhang, Wenhao Luo, Wenjun Zheng



PII: S0013-4686(17)30750-8
DOI: <http://dx.doi.org/doi:10.1016/j.electacta.2017.04.007>
Reference: EA 29262

To appear in: *Electrochimica Acta*

Received date: 24-2-2017
Revised date: 29-3-2017
Accepted date: 3-4-2017

Please cite this article as: Yan Sun, Yining Zhao, Yingxue Cui, Jing Zhang, Guofeng Zhang, Wenhao Luo, Wenjun Zheng, A Facile Synthesis of Mesoporous TiO₂ Sub-Microsphere Host for Long Life Lithium-Sulfur Battery Cathodes, *Electrochimica Acta* <http://dx.doi.org/10.1016/j.electacta.2017.04.007>

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.

A Facile Synthesis of Mesoporous TiO₂ Sub-Microsphere Host for Long Life Lithium-Sulfur Battery Cathodes

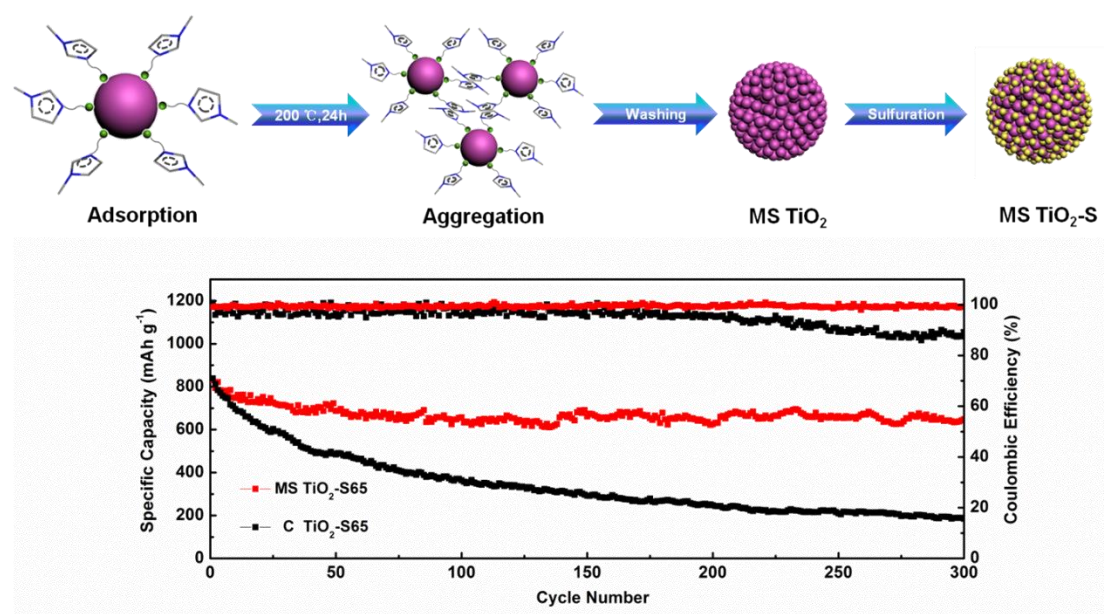
Yan Sun^a, Yining Zhao^b, Yingxue Cui^a, Jing Zhang^a, Guofeng Zhang^a, Wenhao Luo^a,
Wenjun Zheng^{a,c,*}

^a Department of Chemistry, Key Laboratory of Advanced Energy Materials Chemistry (MOE), and TKL of Metal and Molecule-Based Materials Chemistry, College of Chemistry, Nankai University, Tianjin 300071, P. R. China

^b Institute of New Energy Material Chemistry, School of Materials Science and Engineering, National Institute for Advanced Materials, Nankai University, Tianjin 300350, P. R. China

^c Collaborative Innovation Center of Chemical Science and Engineering (Tianjin), Nankai University, Tianjin 300071, P. R. China

Graphical Abstract



An ionic liquid assisted hydrothermal synthesis of mesoporous TiO₂ host for lithium-sulfur battery cathode is proposed, the unique highly porous structure of our product can realize a capacity retention of 78.1% and a decay rate of 0.07% per cycle over 300 cycles at a current rate of 0.1C.

Download English Version:

<https://daneshyari.com/en/article/4767094>

Download Persian Version:

<https://daneshyari.com/article/4767094>

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