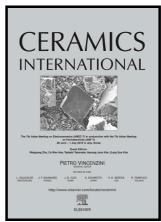
Author's Accepted Manuscript

Effect of Ti₃AlC₂ precursor on the electrochemical properties of the resulting MXene Ti₃C₂ for Li-ion batteries

Fanyu Kong, Xiaodong He, Qianqian Liu, Xinxin Qi, Yongting Zheng, Rongguo Wang, Yuelei Bai



www.elsevier.com/locate/ceri

PII: S0272-8842(18)30798-3

DOI: https://doi.org/10.1016/j.ceramint.2018.03.223

Reference: CERI17860

To appear in: Ceramics International

Received date: 13 January 2018 Revised date: 6 March 2018 Accepted date: 25 March 2018

Cite this article as: Fanyu Kong, Xiaodong He, Qianqian Liu, Xinxin Qi, Yongting Zheng, Rongguo Wang and Yuelei Bai, Effect of Ti₃AlC₂ precursor on the electrochemical properties of the resulting MXene Ti₃C₂ for Li-ion batteries, *Ceramics International*, https://doi.org/10.1016/j.ceramint.2018.03.223

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 galley proof before it is published in its final citable 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

Effect of Ti₃AlC₂ precursor on the electrochemical properties of the

resulting MXene Ti₃C₂ for Li-ion batteries

Fanyu Kong, Xiaodong He, Qianqian Liu, Xinxin Qi, Yongting Zheng, Rongguo

Wang, Yuelei Bai*

National Key Laboratory of Science and Technology on Advanced Composites in

Special Environments and Center for Composite Materials and Structures, Harbin

Institute of Technology, Harbin 150080, P. R. China

baiyl@hit.edu.cn

baiyl.hit@gmail.com

Corresponding author. Tel./fax: +86-45186403956

Abstract

The presented work compared the etching behavior between combustion synthesized

Ti₃AlC₂ (SHS-Ti₃AlC₂) and pressureless synthesized Ti₃AlC₂ (PLS-Ti₃AlC₂).

Because the former had a more compact structure, it was harder to be etched than

 $PLS\text{-}Ti_3AlC_2$ under the same conditions. When served as anode material for Li-ion

batteries, SHS-Ti₃C₂ showed much lower capacity than PLS-Ti₃C₂ at 1C (52.7 and

1

Download English Version:

https://daneshyari.com/en/article/7887162

Download Persian Version:

https://daneshyari.com/article/7887162

Daneshyari.com