

Accepted Manuscript

Title: Nitrogen-doped Biomass-based ultra-thin carbon nanosheets with interconnected framework for High-Performance Lithium-Ion Batteries

Authors: Shasha Guo, Yaxin Chen, Liluo Shi, Yue Dong, Jing Ma, Xiaohong Chen, Huaihe Song



PII: S0169-4332(17)33732-7
 DOI: <https://doi.org/10.1016/j.apsusc.2017.12.144>
 Reference: APSUSC 38014

To appear in: *APSUSC*

Received date: 22-8-2017
Revised date: 23-11-2017
Accepted date: 17-12-2017

Please cite this article as: Shasha Guo, Yaxin Chen, Liluo Shi, Yue Dong, Jing Ma, Xiaohong Chen, Huaihe Song, Nitrogen-doped Biomass-based ultra-thin carbon nanosheets with interconnected framework for High-Performance Lithium-Ion Batteries, *Applied Surface Science* <https://doi.org/10.1016/j.apsusc.2017.12.144>

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.

Nitrogen-doped Biomass-Based ultra-thin carbon nanosheets with interconnected framework for High-Performance Lithium-Ion Batteries

Shasha Guo, Yaxin Chen, Liluo Shi, Yue Dong, Jing Ma, Xiaohong Chen, Huaihe

Song*

State Key Laboratory of Chemical Resource Engineering, Beijing Key Laboratory of Electrochemical Process and Technology for Materials, Beijing University of Chemical Technology, Beijing, 100029, PR China

*Corresponding author: songhh@mail.buct.edu.cn;

Highlights:

- (a) A new carbon nanosheets with interconnectional framework were prepared using soybean milk as carbon precursor and NaCl particles as template;
- (b) The synthetic method is green, for NaCl is rich in reserves and can be easily removed with water and recycled.
- (c) The carbon electrode showed a high capacity and excellent cycle stability when used in lithium-ion battery;
- (d) The excellent performance is ascribed to the existence of Nitrogen and its interconnected structure formed by ultra-thin nanosheets stacking.

Download English Version:

<https://daneshyari.com/en/article/7835576>

Download Persian Version:

<https://daneshyari.com/article/7835576>

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