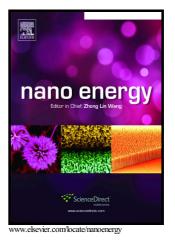
## Author's Accepted Manuscript

In-situ electron microscopy observation of electrochemical sodium plating and stripping dynamics on carbon nanofiber current collectors

Xuke Li, Longze Zhao, Pei Li, Qiaobao Zhang, Ming-Sheng Wang



 PII:
 S2211-2855(17)30654-7

 DOI:
 https://doi.org/10.1016/j.nanoen.2017.10.050

 Reference:
 NANOEN2284

To appear in: Nano Energy

Received date: 3 September 2017 Revised date: 18 October 2017 Accepted date: 22 October 2017

Cite this article as: Xuke Li, Longze Zhao, Pei Li, Qiaobao Zhang and Ming-Sheng Wang, In-situ electron microscopy observation of electrochemical sodium plating and stripping dynamics on carbon nanofiber current collectors, *Nano Energy*, https://doi.org/10.1016/j.nanoen.2017.10.050

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.

## In-situ electron microscopy observation of electrochemical sodium plating and stripping dynamics on carbon nanofiber current collectors

Xuke Li<sup>1</sup>, Longze Zhao<sup>1</sup>, Pei Li, Qiaobao Zhang, Ming-Sheng Wang\*

Department of Materials Science and Engineering, College of Materials, and Pen-Tung Sah Institute of Micro-Nano Science and Technology, Xiamen University, Xiamen, Fujian manus 361005, China

\*Correspondence to: mswang@xmu.edu.cn

## ABSTRACT

Sodium metal holds promise as the ultimate anode for high-energy-density Na battery systems. Recent progress has been made in terms of rational design of nanostructured 3D current collectors for dendrite-free Na deposition with limited dimensional changes during cycling. However, critical information such as Na nucleation and growth behavior on these hosts remains elusive. Herein, by using amorphous carbon nanofibers (CNF) as a current collector, we present the first nanoscale-resolution observation of electrochemical Na plating/stripping dynamics via in situ electron microscopies. With the use of solid electrolyte,

<sup>&</sup>lt;sup>1</sup> These authors contributed equally.

## دريافت فورى 🛶 متن كامل مقاله

- امکان دانلود نسخه تمام متن مقالات انگلیسی
   امکان دانلود نسخه ترجمه شده مقالات
   پذیرش سفارش ترجمه تخصصی
   امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
   امکان دانلود رایگان ۲ صفحه اول هر مقاله
   امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
   دانلود فوری مقاله پس از پرداخت آنلاین
   پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات
- ISIArticles مرجع مقالات تخصصی ایران