Accepted Manuscript

Recent progress in 2D materials for flexible supercapacitors#

Yan Han, Yu Ge, Yunfeng Chao, Caiyun Wang, Gordon G. Wallace

PII: S2095-4956(17)30863-X DOI: 10.1016/j.jechem.2017.10.033

Reference: JECHEM 458

To appear in: Journal of Energy Chemistry

Received date: 29 September 2017 Revised date: 31 October 2017 Accepted date: 31 October 2017



Please cite this article as: Yan Han, Yu Ge, Yunfeng Chao, Caiyun Wang, Gordon G. Wallace, Recent progress in 2D materials for flexible supercapacitors[#], *Journal of Energy Chemistry* (2017), doi: 10.1016/j.jechem.2017.10.033

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.

ACCEPTED MANUSCRIPT

Review

Recent progress in 2D materials for flexible supercapacitors[†]

Yan Han a,b , Yu Ge b , Yunfeng Chao b , Caiyun Wang b,* caiyun@uow.edu.au, Gordon G. Wallace b,* gwallace@uow.edu.au

^aEnergy & Materials Engineering Centre, College of Physics and Materials Science, Tianjin Normal University, Tianjin 300387, China

^bARC Centre of Excellence for Electromaterials Science, Intelligent Polymer Research Institute, University of Wollongong, NSW 2500, Australia

*Corresponding authors: Fax: +61-2-4221-3114

[†]Dedicated to Professor Jin-Pei Cheng on the Occasion of His 70th Birthday.

Abstract

High performance supercapacitors coupled with mechanical flexibility are needed to drive flexible and wearable electronics that have anesthetic appeal and multi-functionality. Two dimensional (2D) materials have attracted attention owing to their unique physicochemical and electrochemical properties, in addition to their ability to form hetero-structures with other nanomaterials further improving mechanical and electrochemical properties. After a brief introduction of supercapacitors and 2D materials, recent progress on flexible supercapacitors using 2D materials is reviewed. Here we provide insights into the structure-property

Download English Version:

https://daneshyari.com/en/article/6529817

Download Persian Version:

https://daneshyari.com/article/6529817

<u>Daneshyari.com</u>