

Accepted Manuscript

High Performance All-Solid-State Flexible Supercapacitor for Wearable Storage Device Application

Xu Liang, Guohui Long, Chengwei Fu, Mingjun Pang, Yunlong Xi, Junzhi Li, Wei Han, Guodong Wei, Yuan Ji

PII: S1385-8947(18)30462-5
DOI: <https://doi.org/10.1016/j.cej.2018.03.104>
Reference: CEJ 18711

To appear in: *Chemical Engineering Journal*

Received Date: 14 December 2017
Revised Date: 2 March 2018
Accepted Date: 20 March 2018

Please cite this article as: X. Liang, G. Long, C. Fu, M. Pang, Y. Xi, J. Li, W. Han, G. Wei, Y. Ji, High Performance All-Solid-State Flexible Supercapacitor for Wearable Storage Device Application, *Chemical Engineering Journal* (2018), doi: <https://doi.org/10.1016/j.cej.2018.03.104>



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.

High Performance All-Solid-State Flexible Supercapacitor for Wearable Storage Device Application

Xu Liang ^a, Guohui Long ^b, Chengwei Fu ^a, Mingjun Pang ^c, Yunlong Xi ^d, Junzhi Li ^a, Wei Han ^a,
Guodong Wei ^{a,*}, Yuan Ji ^{a,*}

^aKey Laboratory of Physics and Technology for Advanced Batteries, Ministry of Education,
College of Physics, Jilin University, Changchun 130012, P.R. China

^bCollege of Life Science, Jilin Agricultural University, Changchun 130118, P.R. China

^cInstitute of Carbon Materials Science, Shanxi Datong University, Datong 037009, P.R.
China

^dSchool of physic and electronic engineering, LinYi University, Lin Yi 276000, P.R. China

Abstract

Flexible power packs combining a flexible photovoltaic part with a wearable all-solid-state supercapacitor as the self-sustaining energy system to power wearable device have attracted great interest due to the increasing demands for green energy and the tendency for multi-functionalization in electronics industry. To meet this energy requirement, we report an asymmetric all-solid-state supercapacitor, then integrate with commercial flexible solar cells to develop a self-sustaining power pack. In view of comfort for wearable electronics, cotton-textile radiation-proof clothes

*Corresponding authors, Tel.: 86-431-8516-6112.

E-mail address: wgd588@163.com (G. Wei) and jiyuan@jlu.edu.cn (Y. Ji)

Download English Version:

<https://daneshyari.com/en/article/6579512>

Download Persian Version:

<https://daneshyari.com/article/6579512>

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