Short Communication

Hierarchical MoO₂/rGO Composite as a High-Performance Anode Material for Lithium-Ion Batteries

Shi Li¹, Zhigao Luo^{1,*}, Xinxin Cao¹, Guozhao Fang¹, Shuquan Liang^{1,2,*}

¹ School of Materials Science and Engineering, Central South University, Changsha 410083, Hunan, China

² Key Laboratory of Nonferrous Metal Materials Science and Engineering, Ministry of Education, Central South University, Changsha 410083, Hunan, China

*E-mail: zhigao820@csu.edu.cn, lsq@csu.edu.cn

doi: 10.20964/2018.01.41

Received: 1 September 2017 / Accepted: 31 October 2017 / Online Published: 1 December 2017

The rational design of composites containing transition metal oxides and graphene has received great attention because of the excellent electrochemical performance and potential applications of these materials in the energy storage field. The introduction of graphene promotes the electronic conductivity and lithium or sodium storage capacity of the hybrid electrode. We report the synthesis of a hierarchical MoO₂/rGO composite. As a proof-of-concept application, the as-synthesized MoO₂/rGO exhibits good electrochemical performance including a high specific capacity and a high rate stability.

Keywords: MoO₂; Graphene; Lithium-ion battery; Anode material

[FULL TEXT](#)

© 2018 The Authors. Published by ESG (www.electrochemsci.org). This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/4.0/>).