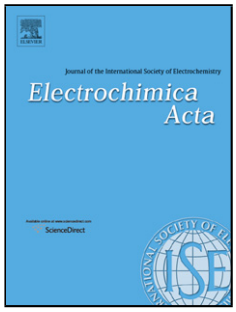

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Author: Juan Xu Taotao Ding Jin Wang Jun Zhang Shuai Wang Changqing Chen Yanyan Fang Zhihao Wu Kaifu Huo Jiangnan Dai

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Tungsten Oxide Nanofibers Self-assembled Mesoscopic Microspheres as High-performance Electrodes for Supercapacitor

Juan Xu, Taotao Ding, Jin Wang, Jun Zhang, Shuai Wang, Changqing Chen, Yanyan Fang, Zhihao Wu, Kaifu Huo, Jiangnan Dai*

Wuhan National Laboratory for Optoelectronics, Huazhong University of Science and Technology, Wuhan 430074, PR China

Corresponding author.

E-mail addresses: daijiangnan@hust.edu.cn

Highlights

► WO_3 mesoscopic microspheres self-assembled by nanofibers. ► Inorganic solvent H_2O_2 play an integral role in the process of self-assembly. ► WO_3 mesoscopic microspheres exhibit specific capacitance value of 797.05 F g^{-1} at a constant density of 0.5 A g^{-1} in 2 M H_2SO_4 aqueous solution. ► The WO_3 //AC asymmetric supercapacitor displays a maximum energy density of 97.61 Wh kg^{-1} and power density of 28.01 kW kg^{-1}.

Abstract

Mesoscopic WO_3 microspheres composed of self-assembly nanofibers were prepared by hydrothermal reaction of tungsten acid potassium and H_2O_2. The