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Enhanced performance of lithium-sulfur batteries with high sulfur loading utilizing ion selective MWCNT/SPANI modified separator

Lu Shi,^{ab} Fanglei Zeng,^c Xing Cheng,^d Kwok Ho Lam,^b Weikun Wang,^{*c} Anbang Wang,^c Zhaoqing Jin,^e Feng Wu^{cf} and Yusheng Yang^e

^a College of Chemistry and Chemical Engineering, Xinxiang University, Henan Xinxiang 453003, China. E-mail: lulus1987@163.com

^b Department of Electrical Engineering, The Hong Kong Polytechnic University, Hung Hom, Kowloon, Hong Kong

^c Beijing Key Laboratory of Environmental Science and Engineering, School of Materials Science & Engineering, Beijing Institute of Technology, Beijing 100081, China

^d Department of Material Science and Engineering, Beijing University of Chemical Technology, Beijing 100029, China

^e Military Power Sources Research and Development Center, Research Institute of Chemical Defense, Beijing 100191, China. E-mail: wangweikun2002@163.com;

Fax: +86-10-66748499; Tel: +86-10-66705840

^f Collaborative Innovation Center of Electric Vehicles in Beijing, Beijing 100081, China

Abstract

Lithium-sulfur (Li-S) battery has attracted remarkable attention owing to its high theoretical energy density. However, its commercialization is still hampered by the rapid capacity degradation which mainly originates from the polysulfides shuttle between the anode and cathode. In this paper, a functional multiwall carbon nanotube/sulfonated polyaniline (MWCNT/SPANI) modified separator is designed to

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