Short Communication

Synthesis of Novel CoS₂ Nanodendrites with High Performance Supercapacitors

Daojun Zhang¹, Huaixin Liu², Jingchao Zhang¹, Xiao Wang¹, Renchun Zhang¹, Jingyang Zhou¹,
Jing Zhong^{3,*}, Baiqing Yuan^{1,*}

¹ Henan Province Key Laboratory of New Optoelectronic Functional Materials, College of Chemistry and Chemical Engineering, Anyang Normal University, Anyang 455000, Henan, China

² College of Chemistry and Environmental Engineering, Shanxi Datong University, Datong 037009, Shanxi, China

³ School of Chemical Engineering, Taishan Medical University, Taian 271016, Shandong, China

*E-mail: baiqingyuan1981@126.com, jzhong2005@126.com

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Cobalt disulfide (CoS₂) nanodendrites were synthesized via a one-step solvothermal approach with high yield, the obtained nanoparticles present uniform size and 3D morphology assembled by nanosheets. The as-prepared CoS₂ nanodendrites deliver relatively high specific capacitance of 311.06 F g⁻¹ at 1 A g⁻¹ and good cycle stability, notably, CoS₂ nanodendrites exhibit excellent cycling durability after 3000 cycles with a total capacitance loss of about 19.78 % (80.22 %) at 4 A g⁻¹.

Keywords: Cobalt disulfide; Nanodendrites; Supercapacitors; Metal sulfides

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