Short Communication

Advanced Co₃O₄ interlayer as an efficient polysulfide barrier for high-performance Li-S batteries

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In this paper, Co₃O₄ powders were firstly prepared via hydrothermal reaction. Then, Co₃O₄ powder was used as interlayer and applied into Li-S battery. Compared with that without interlayer, the Li-S battery assembled with the Co₃O₄ interlayer has a discharge capacity of 1201 mAh g⁻¹ at the current density of 0.1C. After 100 cycles at a current density of 0.1 C the discharge capacity is 706 mAh g⁻¹, which showing an excellent cycle performance.

Keywords: Li-S battery; Co₃O₄ interlayer; shuttle effect; electrochemical performance.

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