

Electronic Supplementary Information

for

Large-Scale Synthesis of In₂S₃ Nanosheets and Their Rechargeable Lithium-ion Battery

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Electrochemical measurements:

The electrochemical measurements were carried out using home-made button cells with lithium metal as the counter and reference electrodes at room temperature. The electrode consisted of active material (In₂S₃ nanosheets), conductivity agent (acetylene black), and polymer binder (polyvinylidene difluoride, PVDF, Aldrich) by a weight ratio of approximately 8:1:1. The active material loading in each electrode (about 12 mm in diameter) was typically ca. 1 mg. The electrolyte was 1 M LiPF₆ in a 1:1 w/w mixture of ethylene carbonate and diethyl carbonate. Cell assembly was carried out in an Ar-filled glove box. The working electrode was measured at room temperature in the whole process. The cell was charged and discharged at a constant current of ca. 1C (700mA/g) and a fixed voltage window between 10 mV and 2 V. Cyclic voltammogram was carried out to investigate the electrode reaction processes. The scan range of 0-2 V (vs. Li/Li⁺) was swept at the rate of 0.1 mV/s.

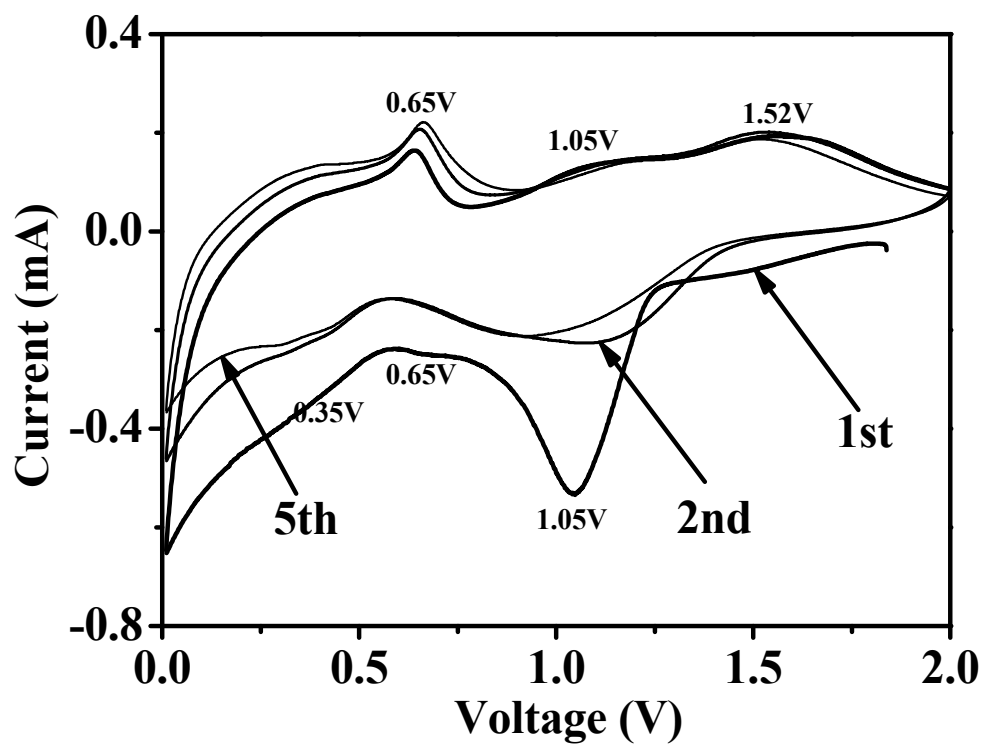


Figure S1. Cyclic voltammogram of the In_2S_3 electrode

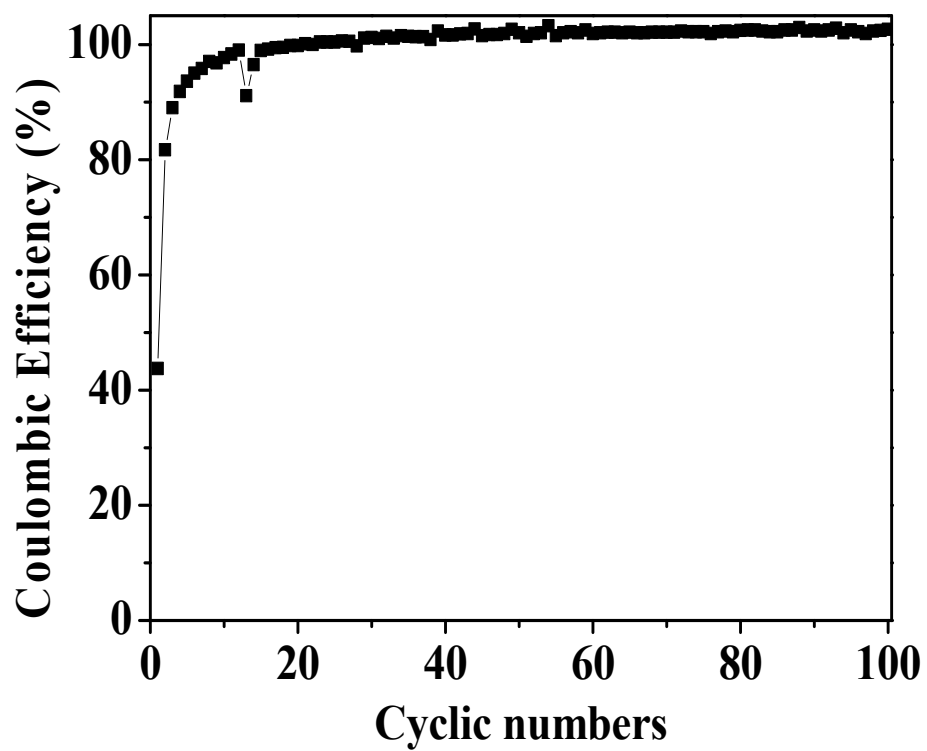


Figure S2 the curve of the coulombic efficiency vs cyclic numbers