

Electronic Supplementary Information (ESI) for
Simple preparation of Cu₆Sn₅/Sn composites as anode materials for
lithium-ion batteries

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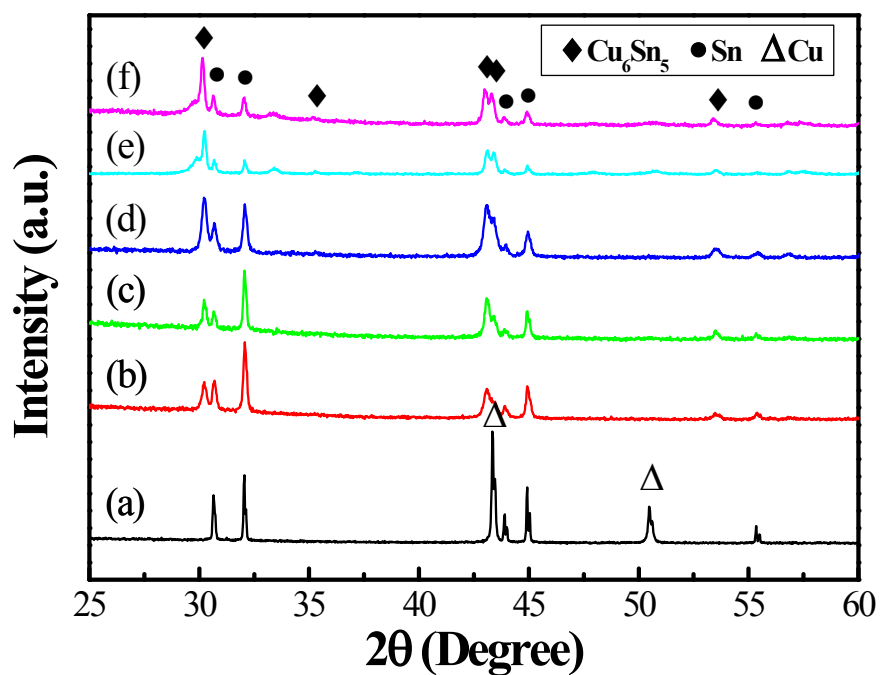


Fig. S1. XRD patterns of the sample with $y = 7$ prepared in different ball-milling times (a) before ball milling, (b) 50 min, (c) 100 min, (d) 200 min, (e) 400 min and (f) 600 min.

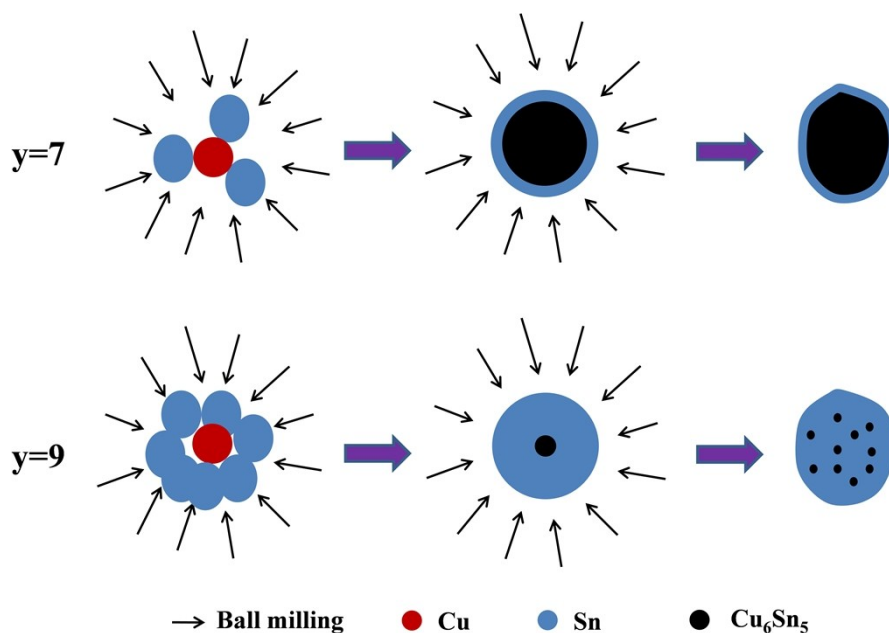


Fig. S2. The formation process of the core-shell structure of the samples with $y=7$ and $y=9$.

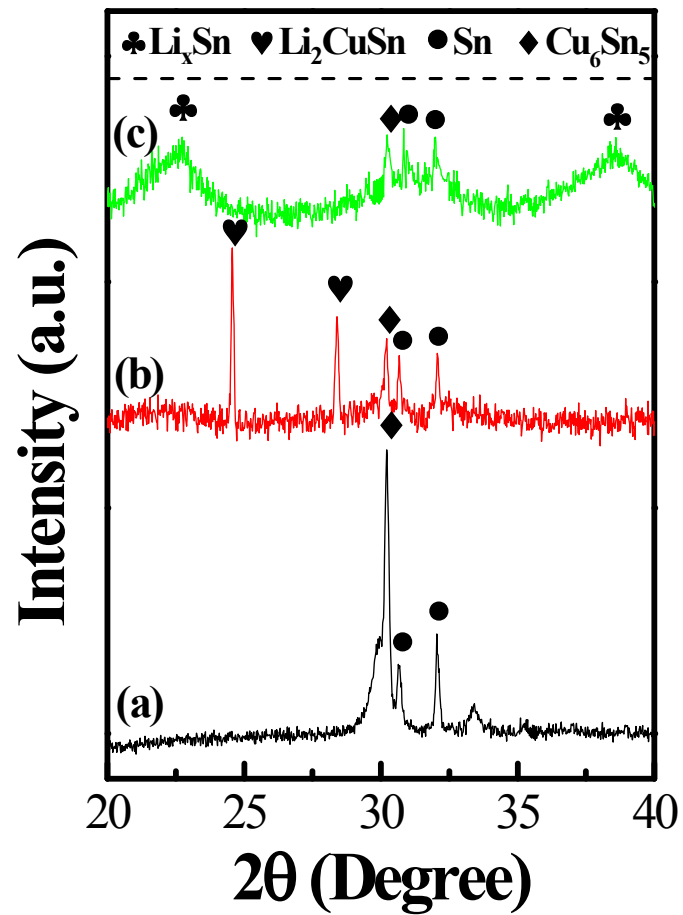


Fig. S3. XRD patterns of the sample with $y=7$ anode before and after discharge to different voltage vs. Li^+/Li , (a) before discharge, (b) after discharge to 0.4 V, and (c) after discharge to 0.01 V.

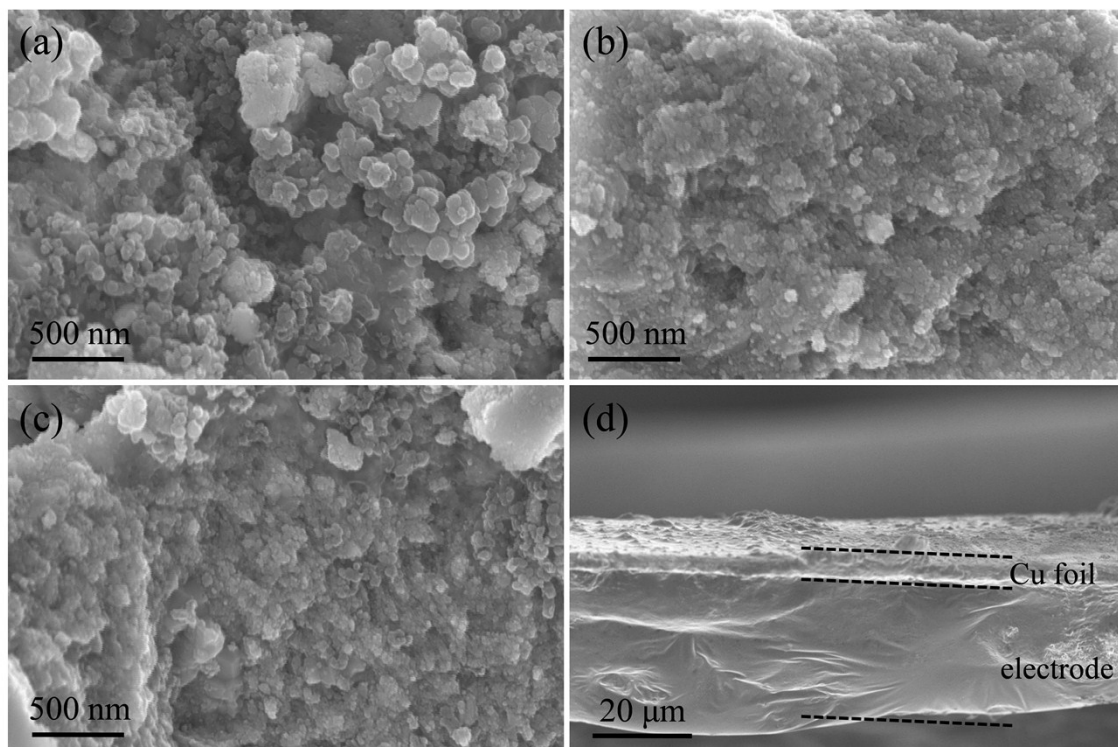


Fig. S4. SEM images of the Cu_xSn_y anodes, (a) $y=9$, (b) $y=7$, and (c) $y=4.5$; (d) SEM image of the cross profile of the anode with $y=7$.