Electronic Supplementary Material (ESI) for Journal of Materials Chemistry A

Hierarchical porous Cu_2ZnSnS_4 film for high-capacity reversible lithium storage application

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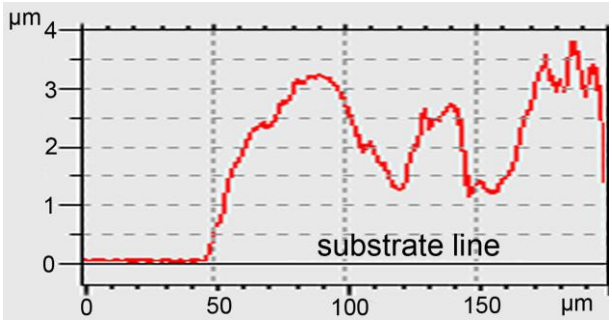

Figure S1. Step profiling of the porous CZTS film.

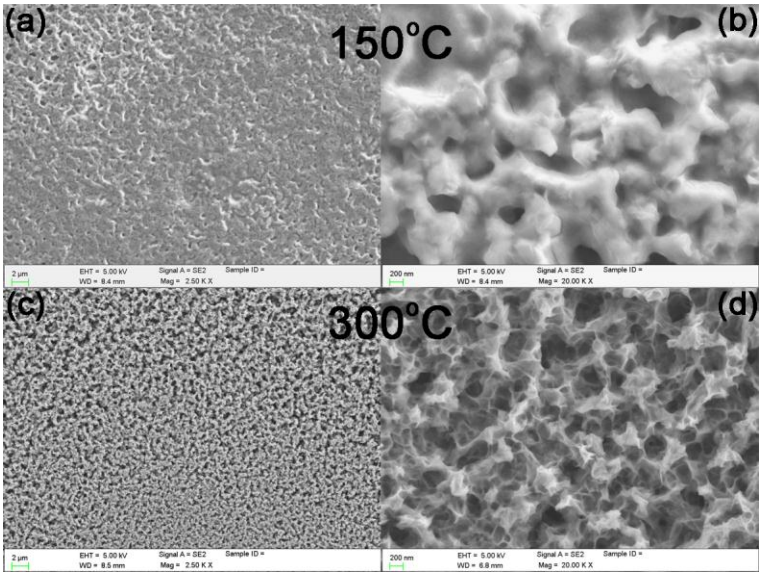

Figure S2. (a) Low magnification and (b) high magnification SEM images of CZTS thin film prepared at 150℃, and (c) Low magnification and (d) high magnification SEM images of CZTS thin film annealed at 300℃.

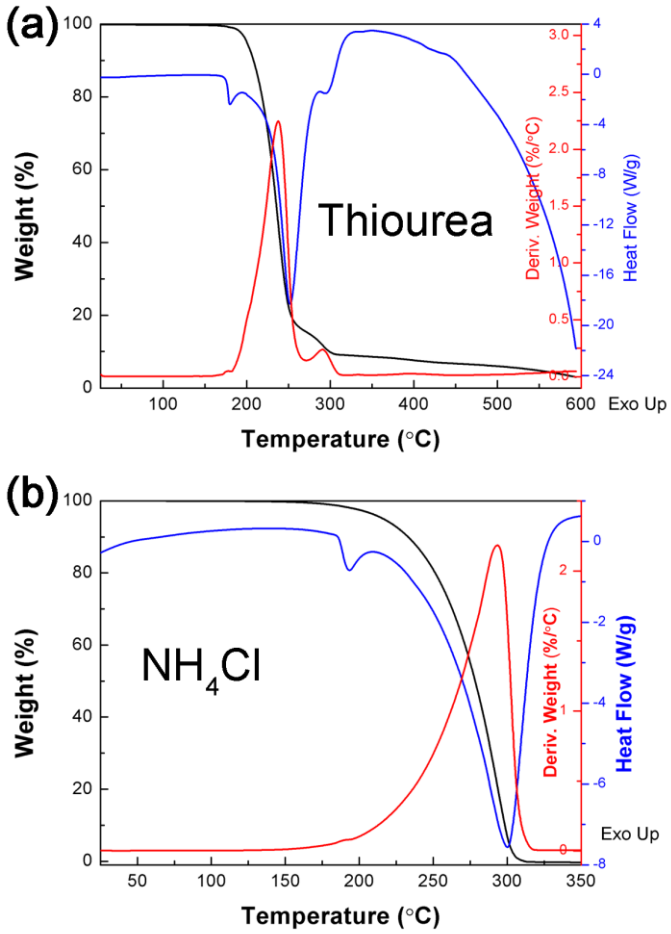

Figure S3. TGA and DSC analysis of (a) thiourea, (b) NH_4Cl, (c) precursor annealed at 200℃ and (d) precursor annealed at 300℃ in N_2 flow with a heating rate of 10℃/min.

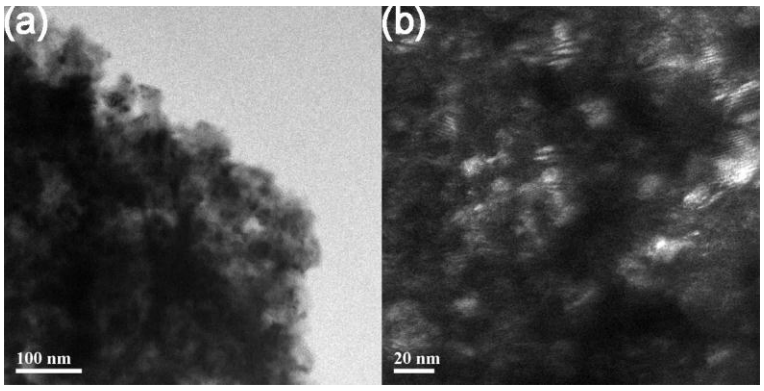

Figure S4. (a) Bright field and (b) dark field TEM images of porous CZTS layer