

**Flower-like Bi₂S₃ nanostructures as highly efficient anode for all solid state
lithium ion battery**

(Electronic Supplementary Information)

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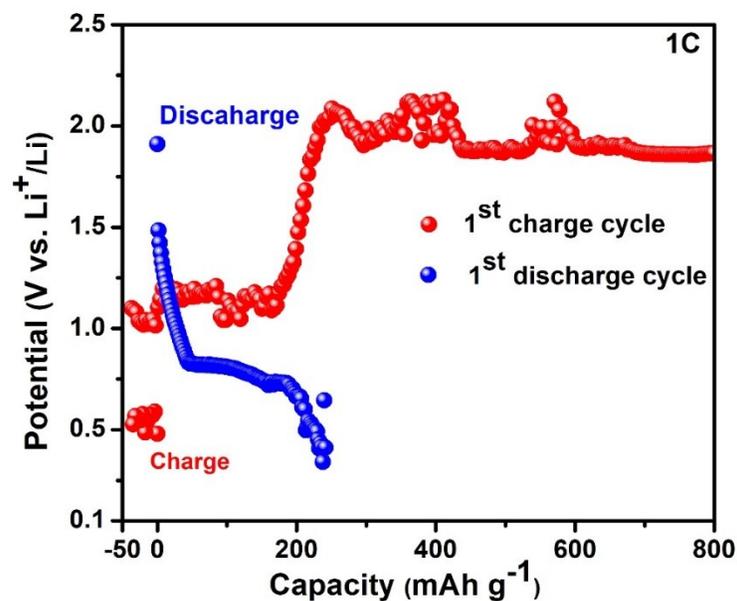


Figure S1: First galvanostatic discharge-charge profile of bulk $\text{Bi}_2\text{S}_3 - \text{LiBH}_4$ composite anode material at 1C.

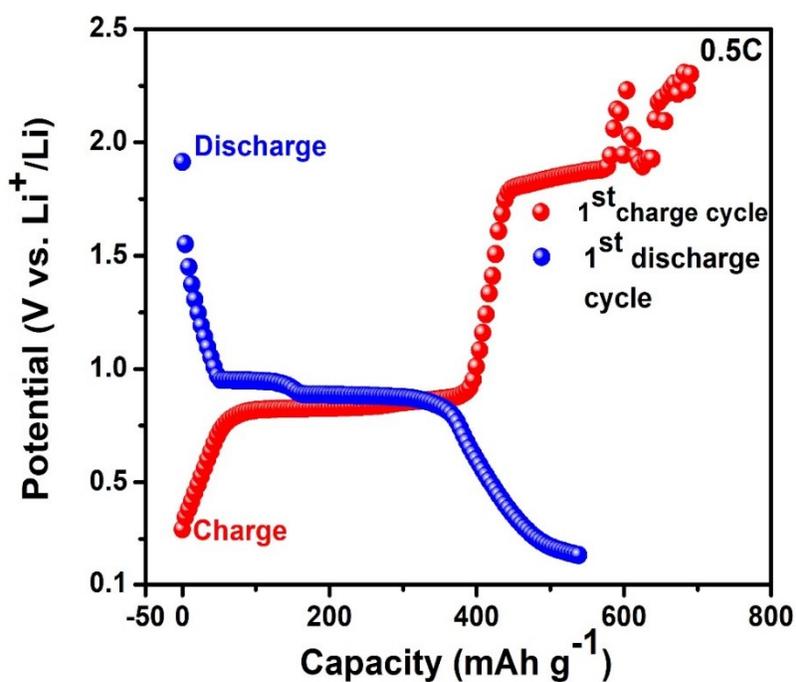


Figure S2: First galvanostatic discharge-charge profile of bulk $\text{Bi}_2\text{S}_3 - \text{LiBH}_4$ composite anode material at 0.5C.

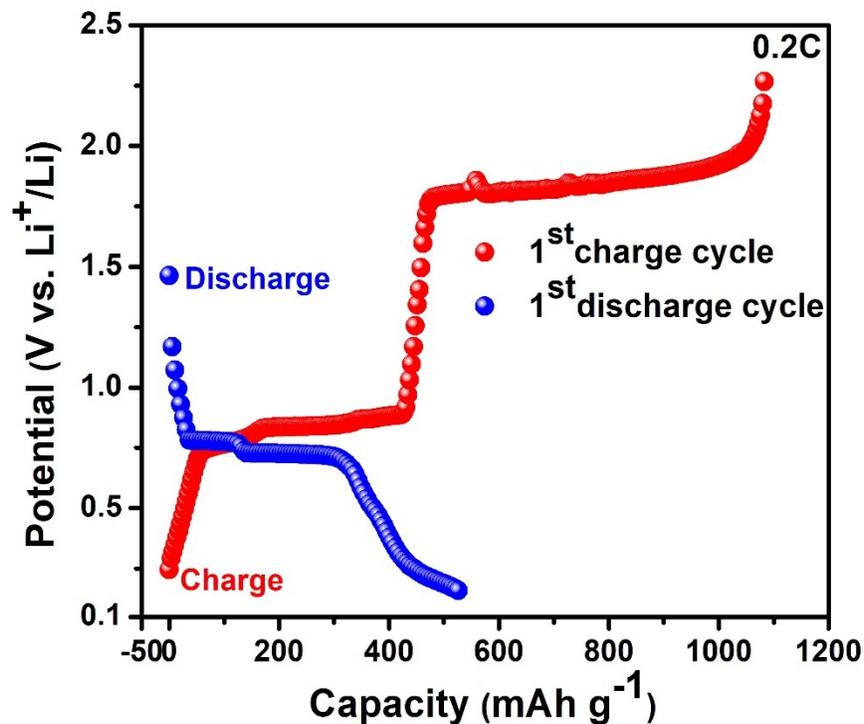


Figure S3: First galvanostatic discharge-charge profile of bulk $\text{Bi}_2\text{S}_3 - \text{LiBH}_4$ composite anode material at 0.2C.

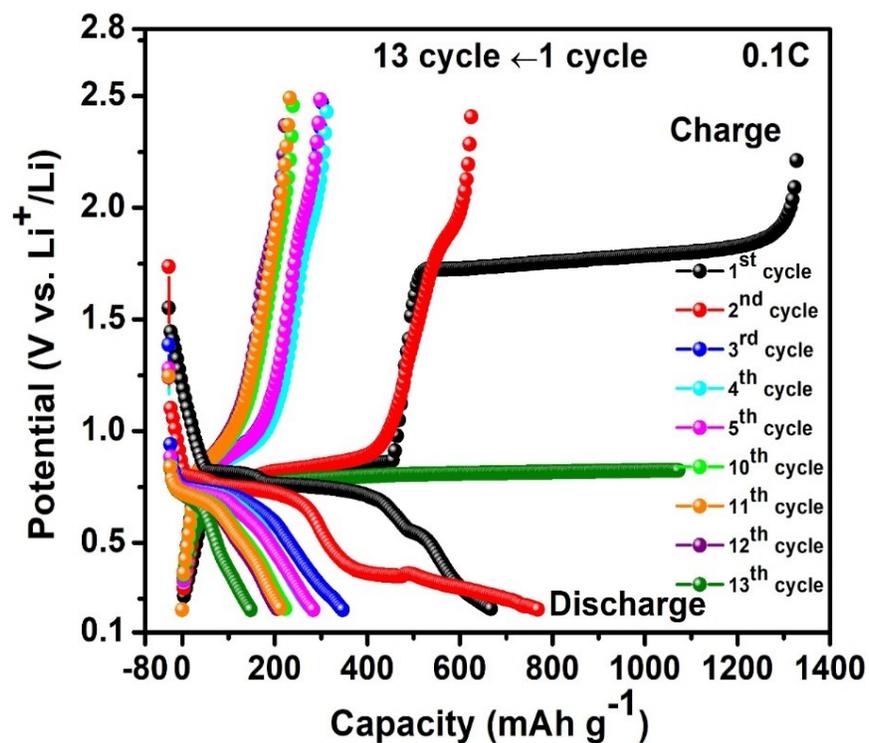


Figure S4: Cyclic performance of the nano $\text{Bi}_2\text{S}_3 - \text{LiBH}_4$ composite anode material in the voltage range of 0.2-2.5V at 120°C temperature with the rate of 0.1C.

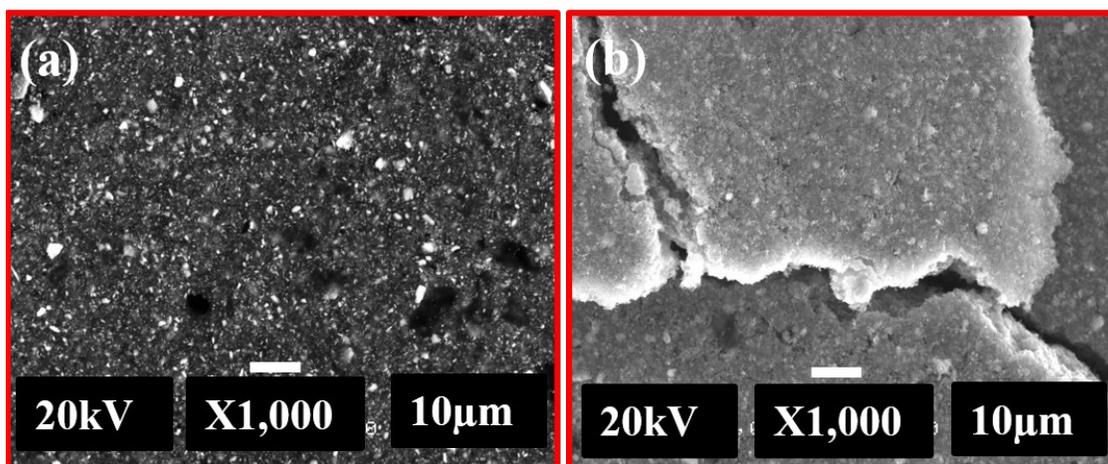


Figure S5: SEM images of nano $\text{Bi}_2\text{S}_3\text{-LiBH}_4$ composite anode material after galvanostatic electrochemical discharging- charging in the voltage range of 0.2-2.5V (a) 0 cycles and (b) 13 cycles.

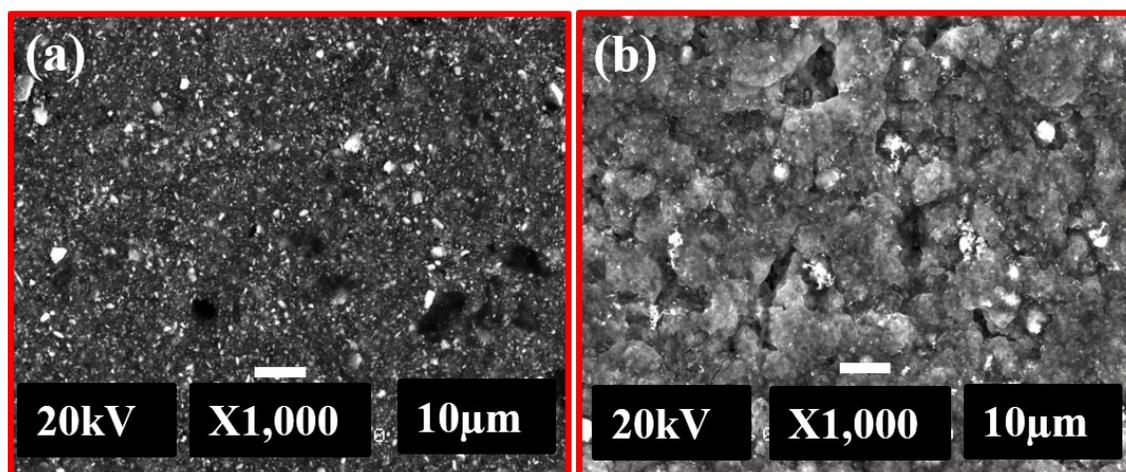


Figure S6: SEM images of nano $\text{Bi}_2\text{S}_3\text{-LiBH}_4$ composite anode material after galvanostatic electrochemical discharging-charging in the voltage range of 0.2-1.5V (a) 0 cycles and (b) 50 cycles.