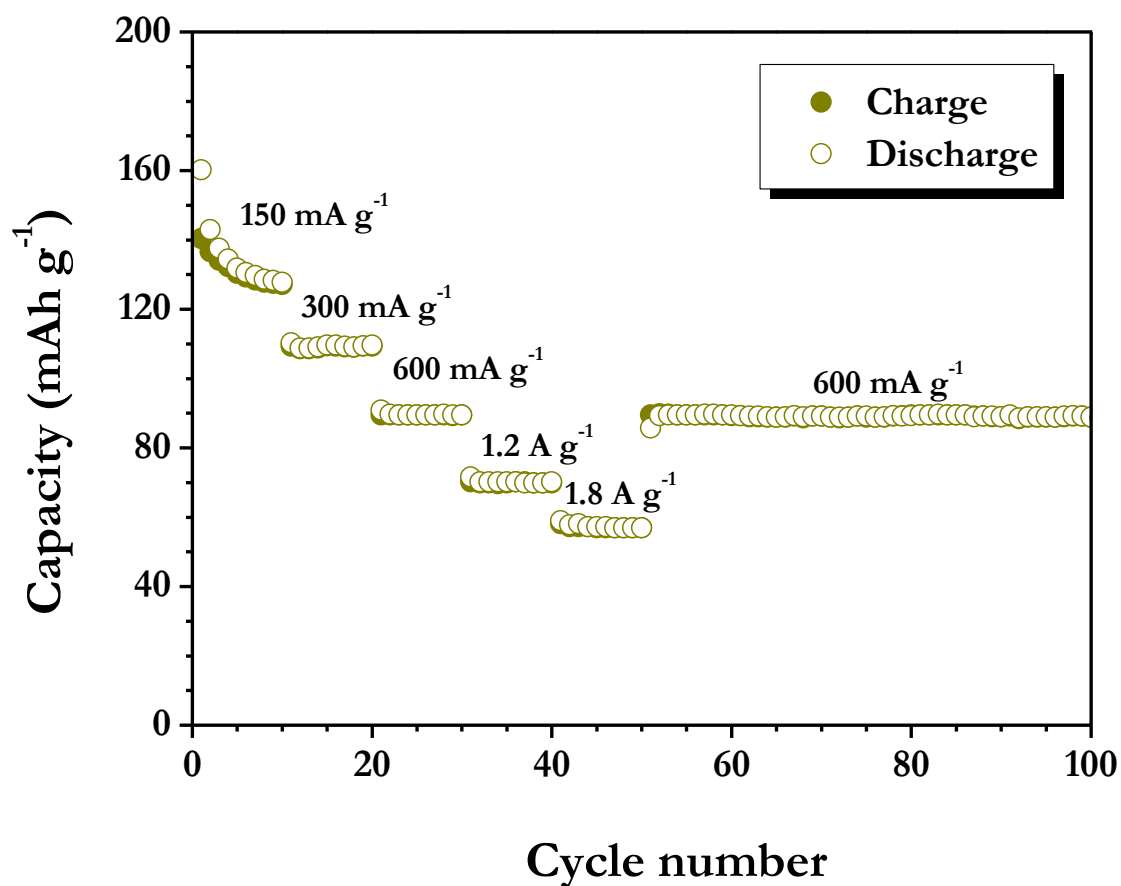
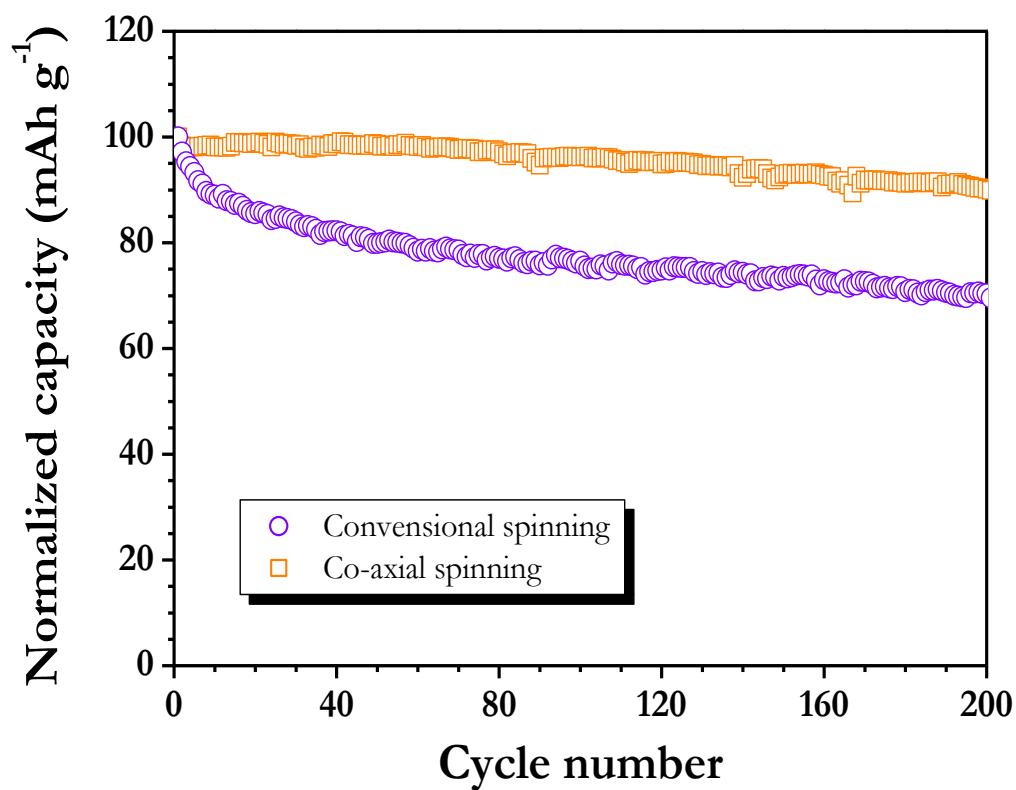


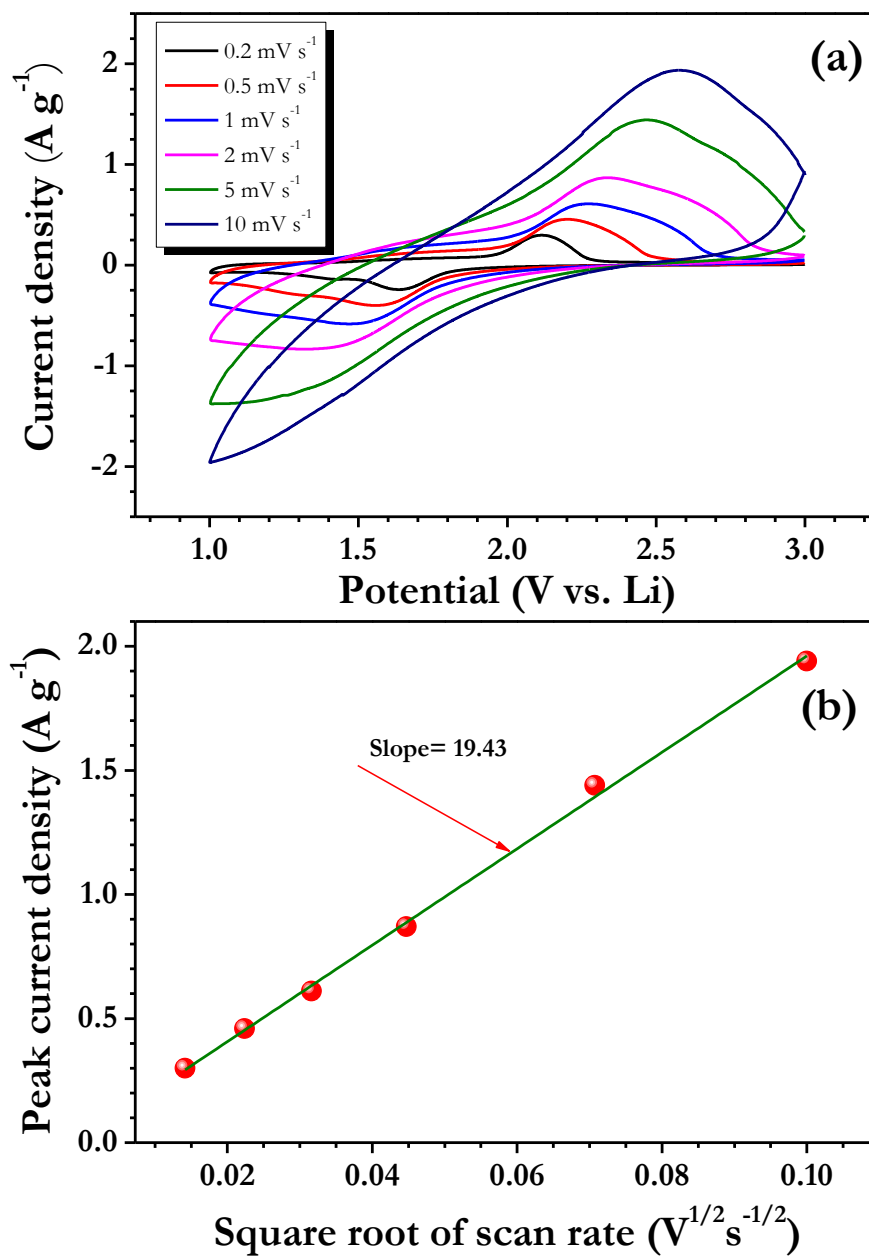
## Supporting Information



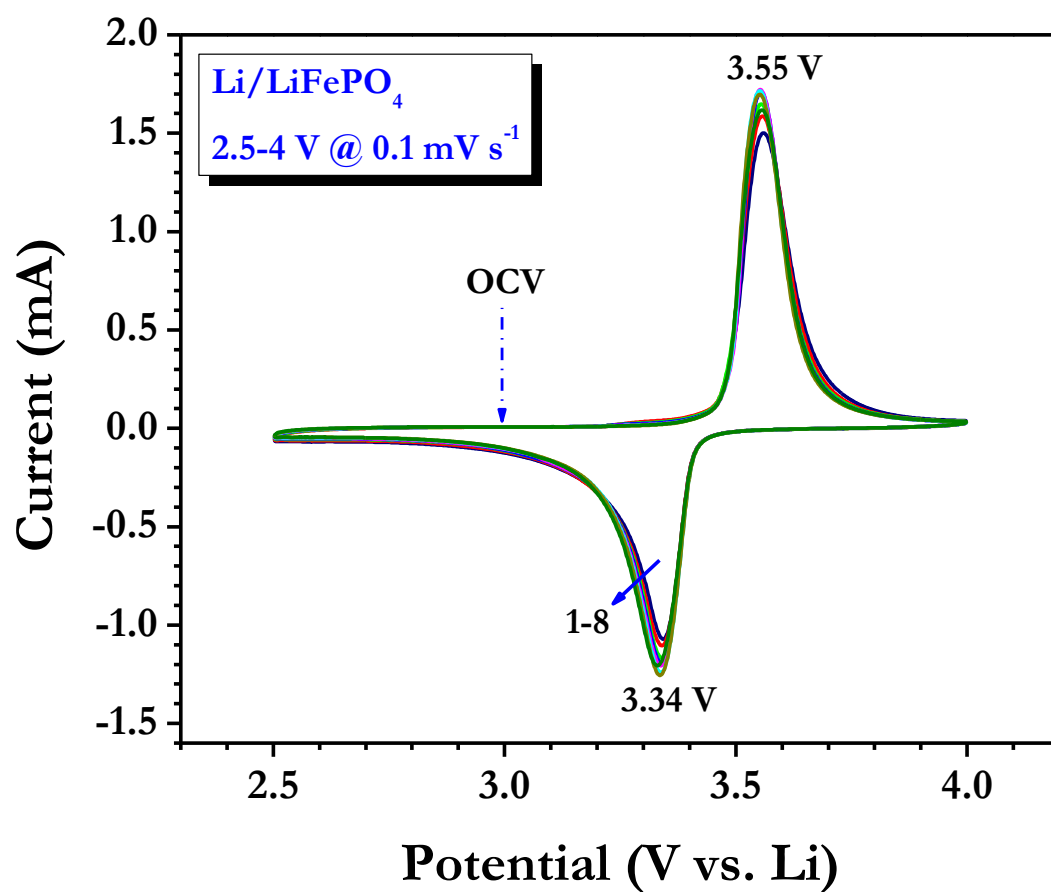
**Figure S1.** Galvanostatic cycling profiles of TiO<sub>2</sub> hollow nanofibers in half-cell configuration between 1-3 V vs. Li at various current densities in ambient temperature conditions. Plot of capacity vs. cycle number.



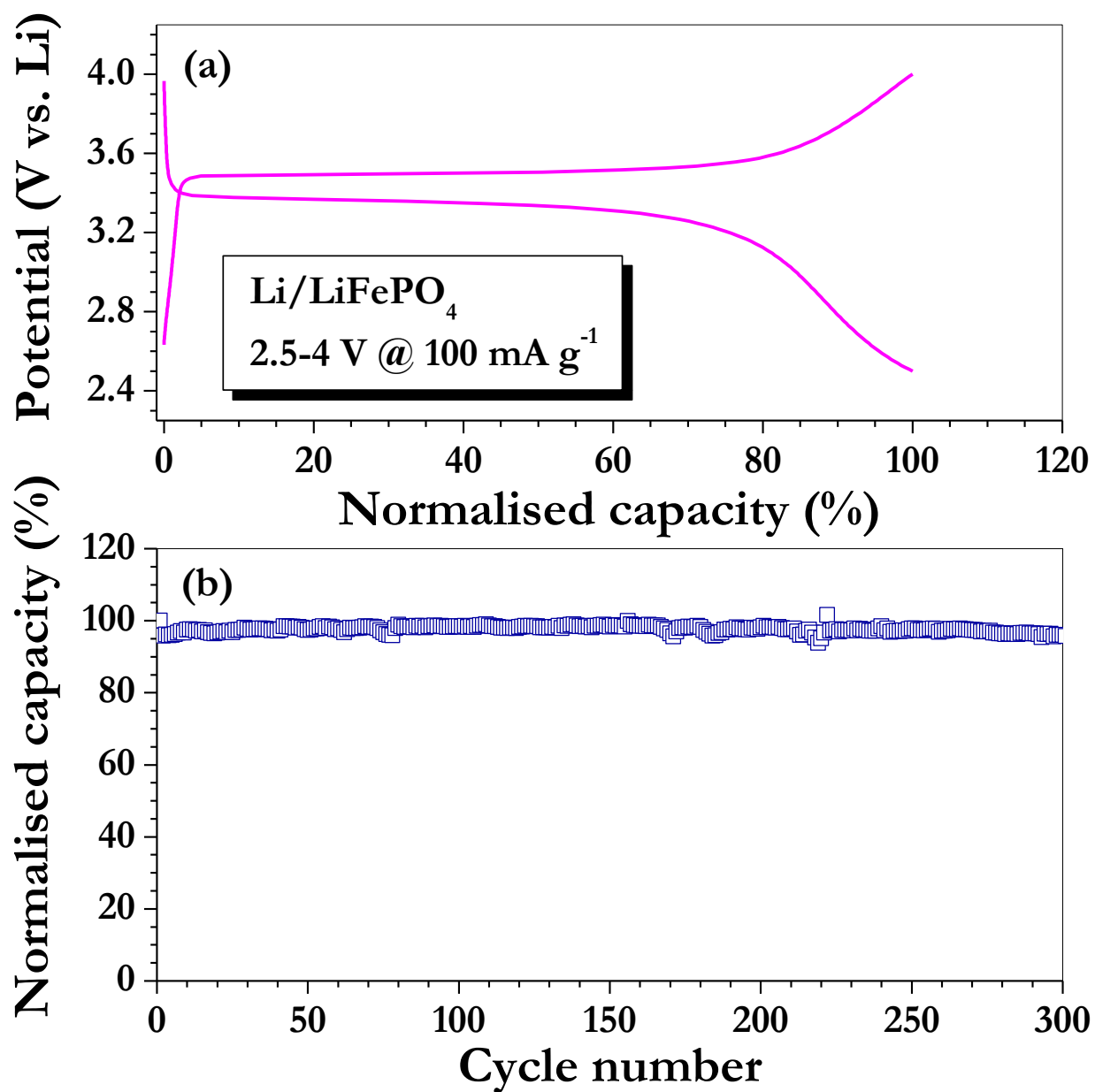
**Figure S2.** Galvanostatic cycling profiles of electrospun anatase nanofibers prepared through two different electrospinning techniques such as conventional single needle procedure and co-axial electrospinning technique.



**Figure S3.** (a) CV traces of Li/electrospun TiO<sub>2</sub> hollow fibers cells recorded at various scan rates between 1-3 V vs. Li in ambient temperature conditions and (b) Relationship between the peak current density and the square root of scan rate in anodic processes.



**Figure S4.** Cyclic voltammogram of Li/LiFePO<sub>4</sub> cells cycled between 2.5-4 V at scan rate of 0.1 mV s<sup>-1</sup>.



**Figure S5:** (a) Normalized charge-discharge curves of Li/LiFePO<sub>4</sub> cells cycled between 2.5-4 V at current density of 100 mA g<sup>-1</sup> in room temperature, and (b) cycling performance of charge/discharge capacity vs. cycle number.