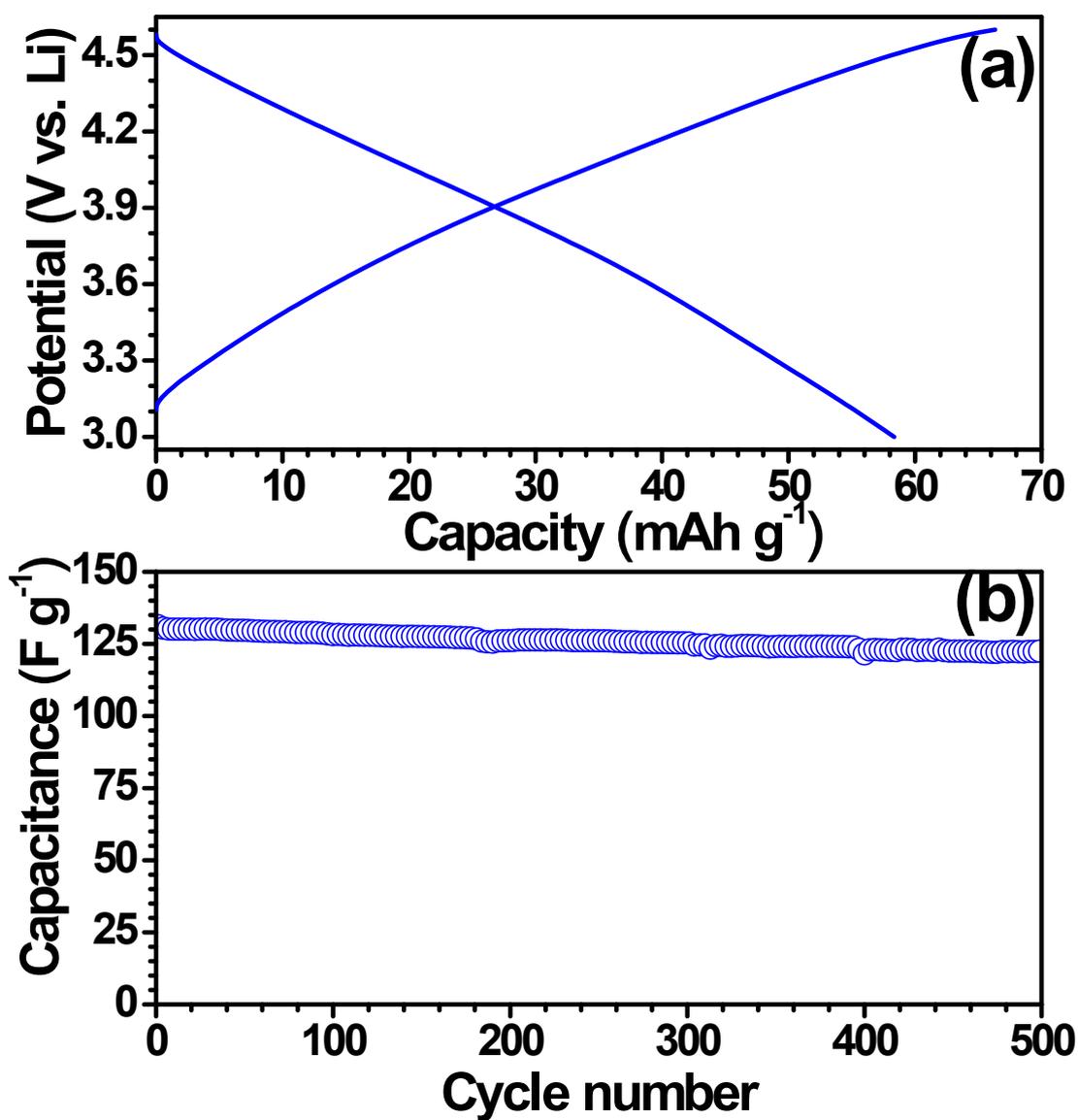
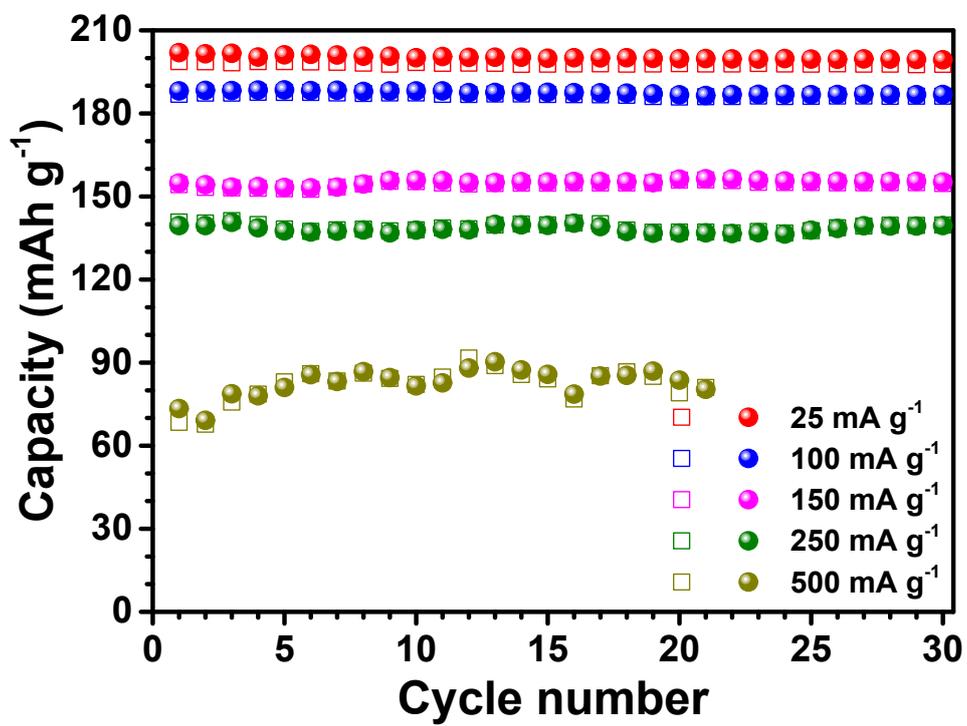


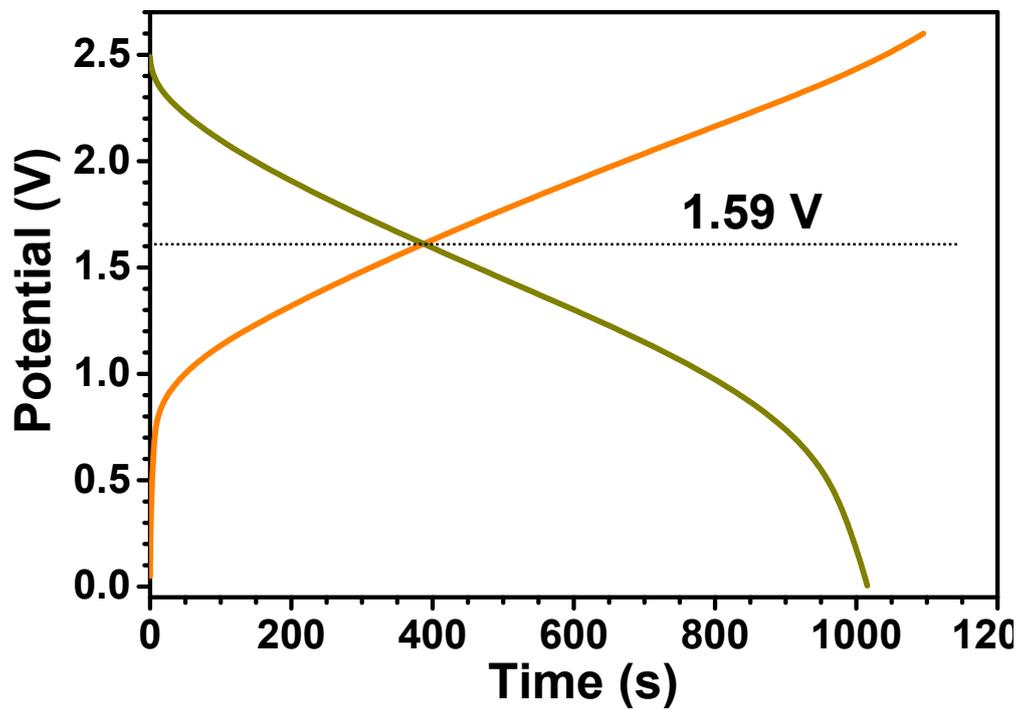
Supplementary information



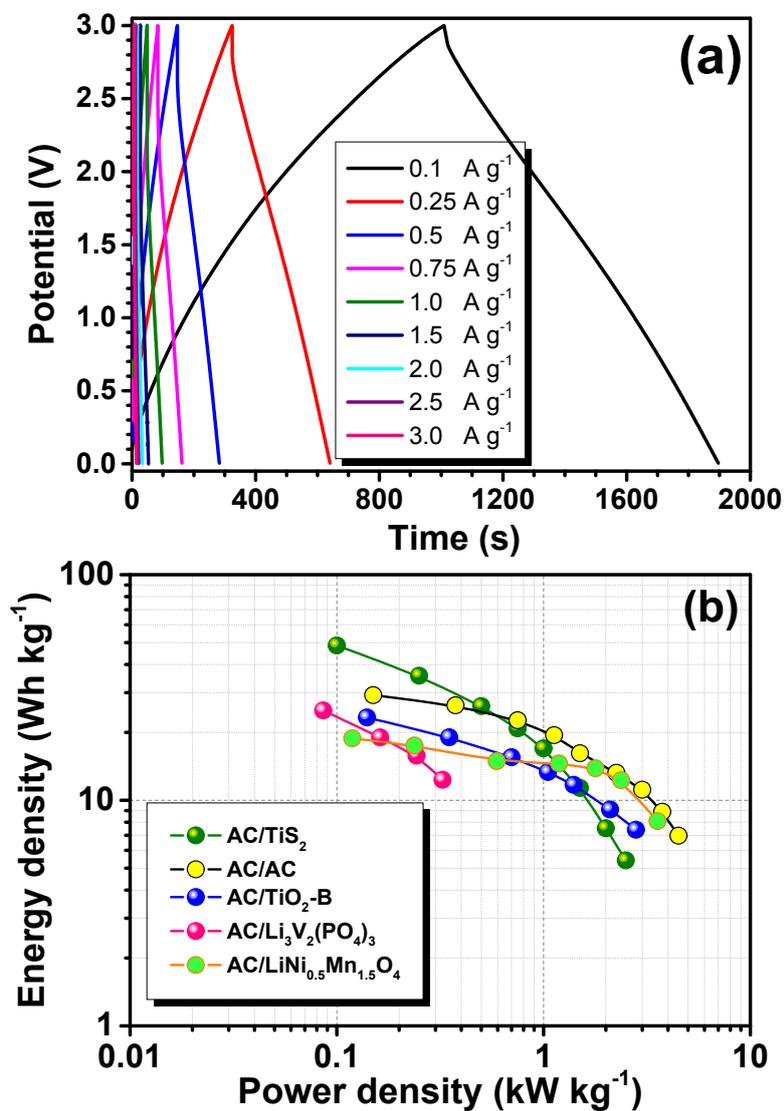
**Figure S1.** Electrochemical performance of AC in half-cell configuration (Li/AC): (a) typical charge-discharge curves recorded between 3-4.6 V vs. Li at a current density of 100 mA g<sup>-1</sup>, and (b) cycling profiles.



**Figure S2.** Rate capability studies of CVT grown  $\text{TiS}_2$  in half-cell assembly at different current densities. Active materials loading 10 mg.



**Figure S3.** Typical charge-discharge curves of AC/TiS<sub>2</sub> based LIC recorded at current density of 100 mA g<sup>-1</sup>



**Figure S4.** (a) Typical charge-discharge curves of the symmetric supercapacitor fabricated with commercial activated carbon (AC/AC, surface area: 2100 m<sup>2</sup> g<sup>-1</sup> with pore volume of 0.94 mg<sup>-1</sup>, Active material loading: 10 mg in each electrode), and (b) Ragone plot of symmetric (AC/AC) and various asymmetric configurations including AC/TiS<sub>2</sub>.