

## Supporting Information

### **Bi-functional 2D-on-2D MoO<sub>3</sub> nanobelt/Ni(OH)<sub>2</sub> Nanosheets for Supercapacitor-Driven Electrochromic Energy Storage**

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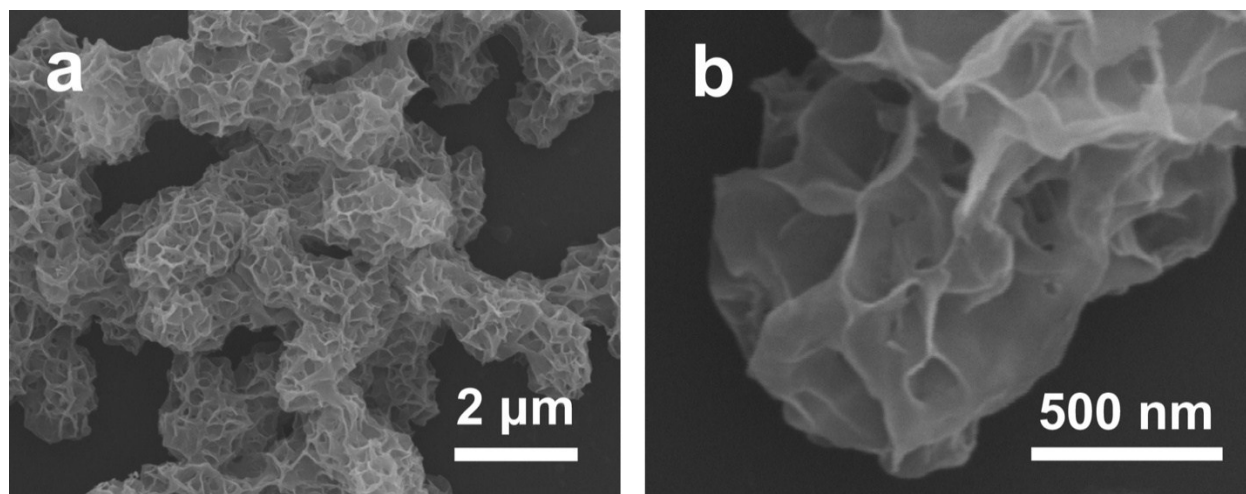


Fig. S1 SEM images of pure Ni(OH)<sub>2</sub> nanosheets.

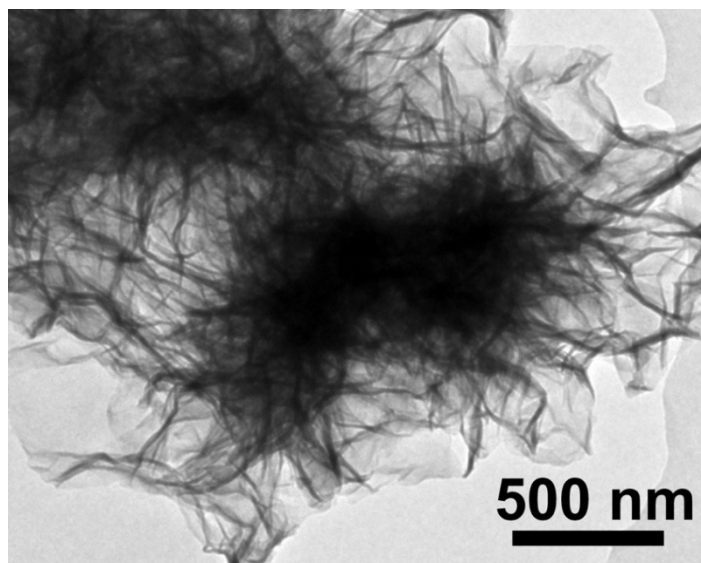


Fig. S2 TEM image of pure  $\text{Ni}(\text{OH})_2$  nanosheets.

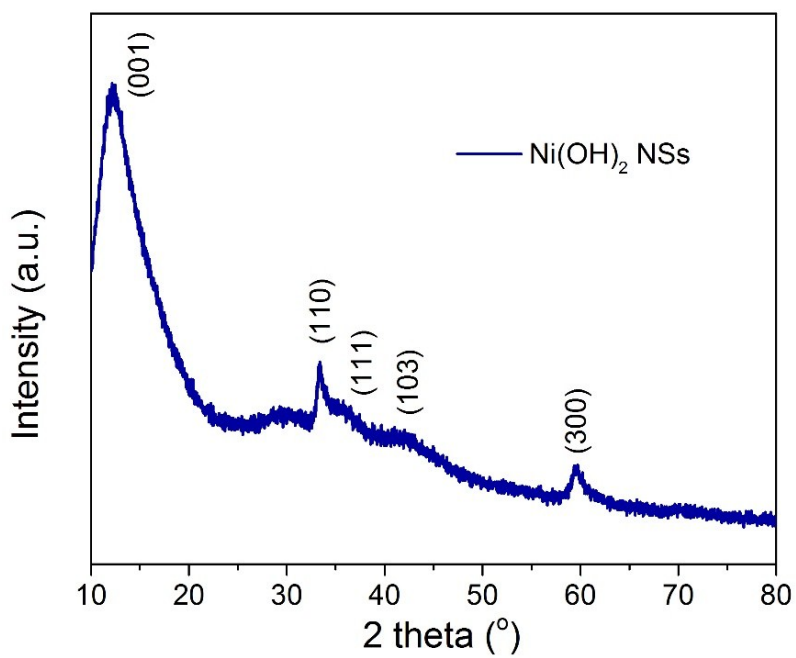


Fig. S3 XRD spectrum of pure  $\text{Ni}(\text{OH})_2$  nanosheets.

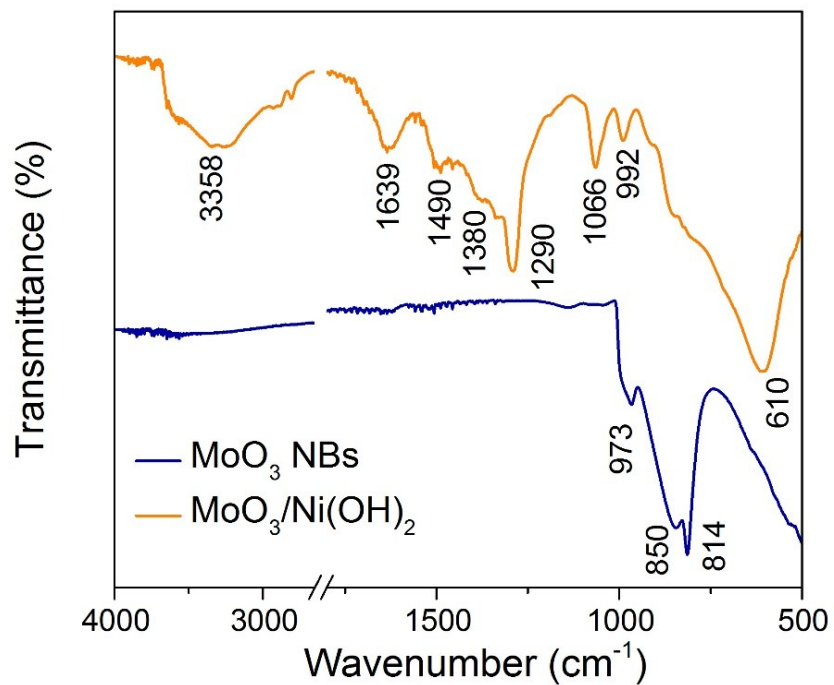


Fig. S4 FTIR spectra of  $\text{MoO}_3$  nanobelts and  $\text{MoO}_3/\text{Ni}(\text{OH})_2$ .

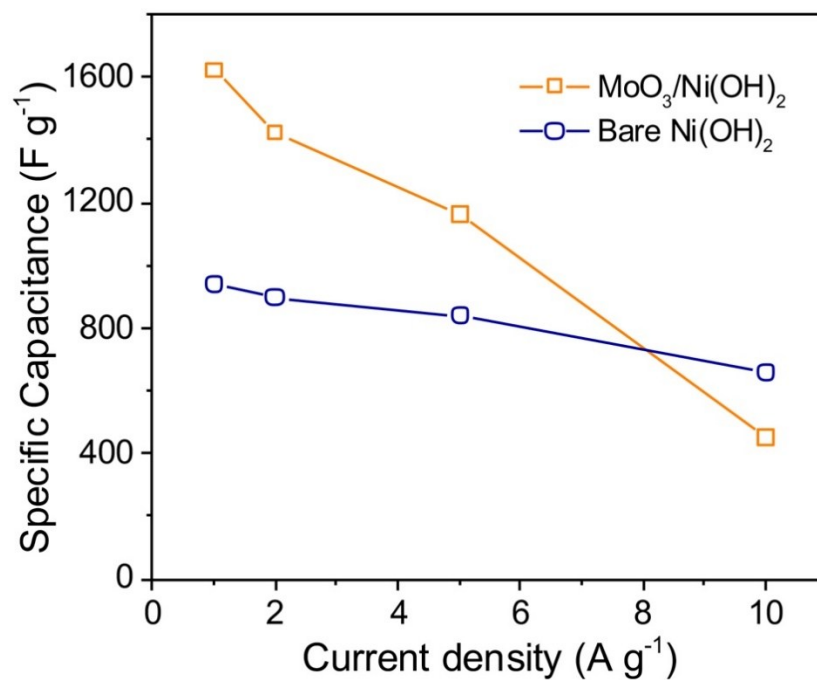


Fig. S5 Specific capacitances calculated from the corresponding different current densities.

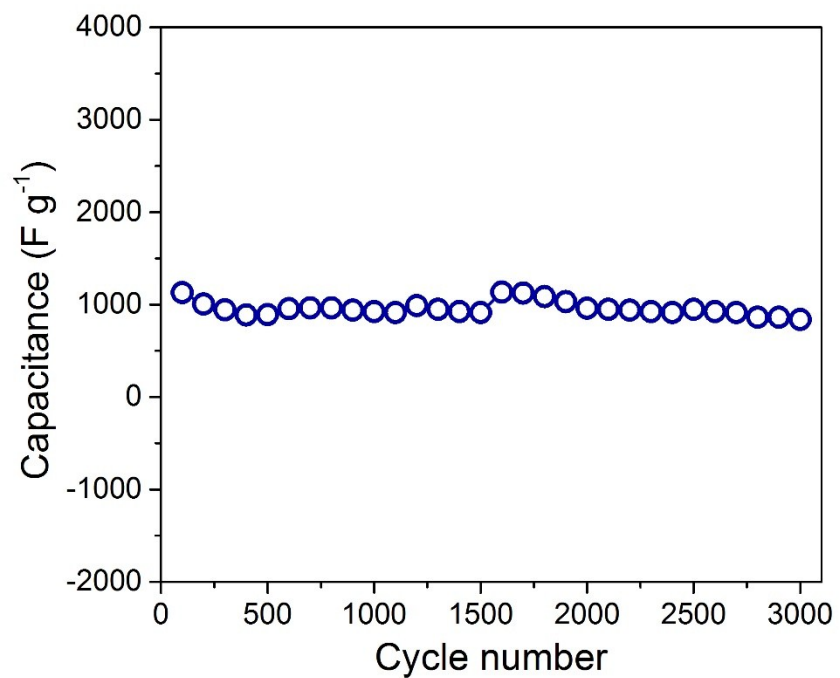


Fig. S6 Cycling performances up to 3000 cycles performed at 5 A g<sup>-1</sup>.



Fig. S7 Photograph of an asymmetric supercapacitor full cell.

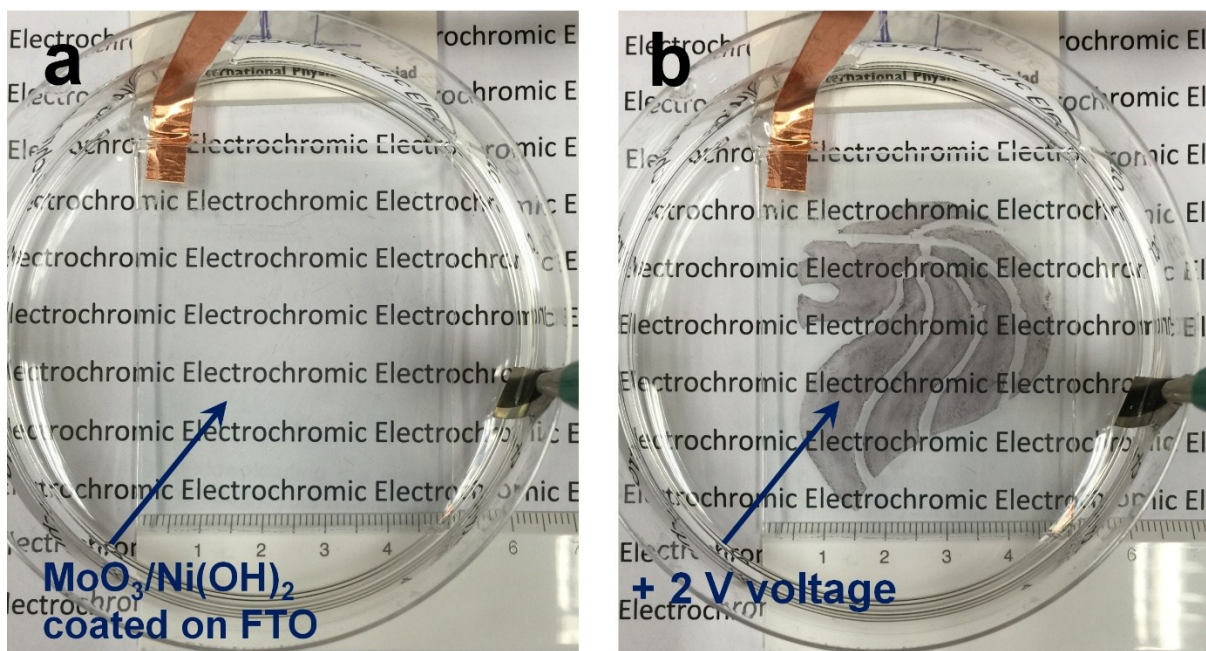


Fig. S8 Photographs of FTO glass with “Singapore Lion” pattern of MoO<sub>3</sub>/Ni(OH)<sub>2</sub> in (d) bleached and (e) colored states.