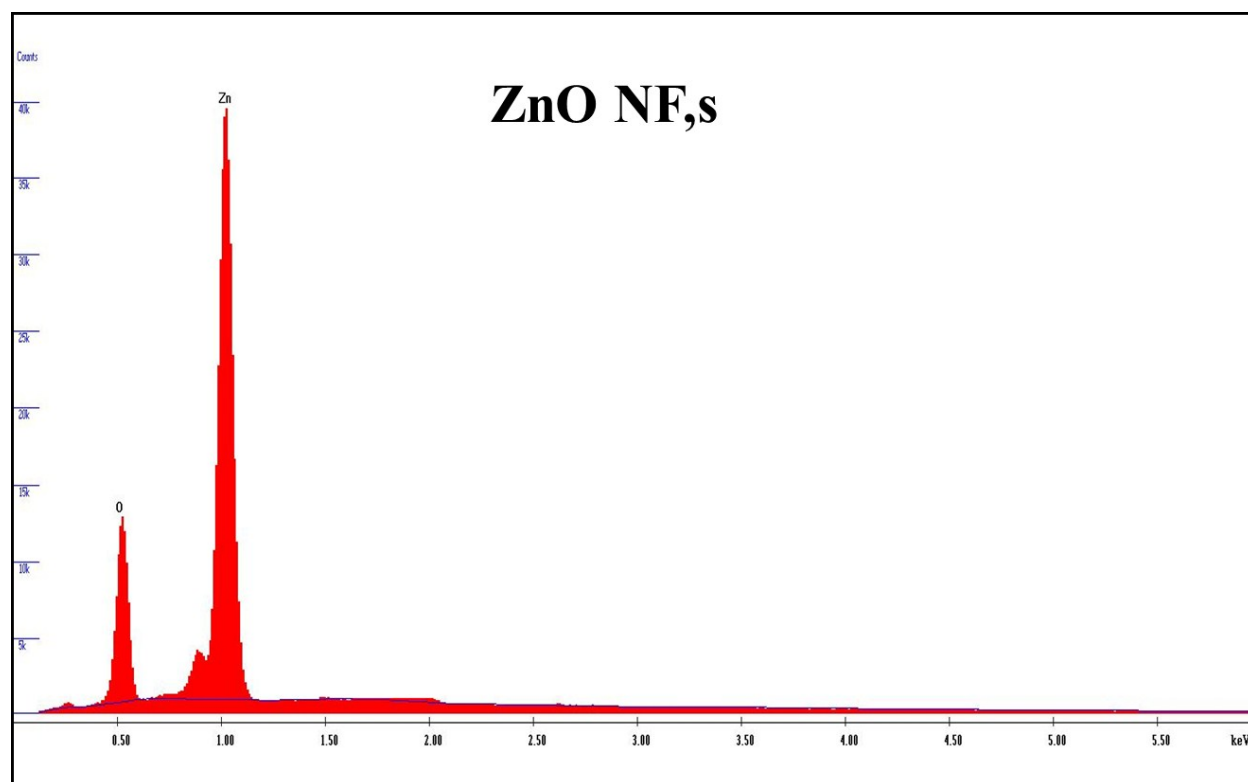


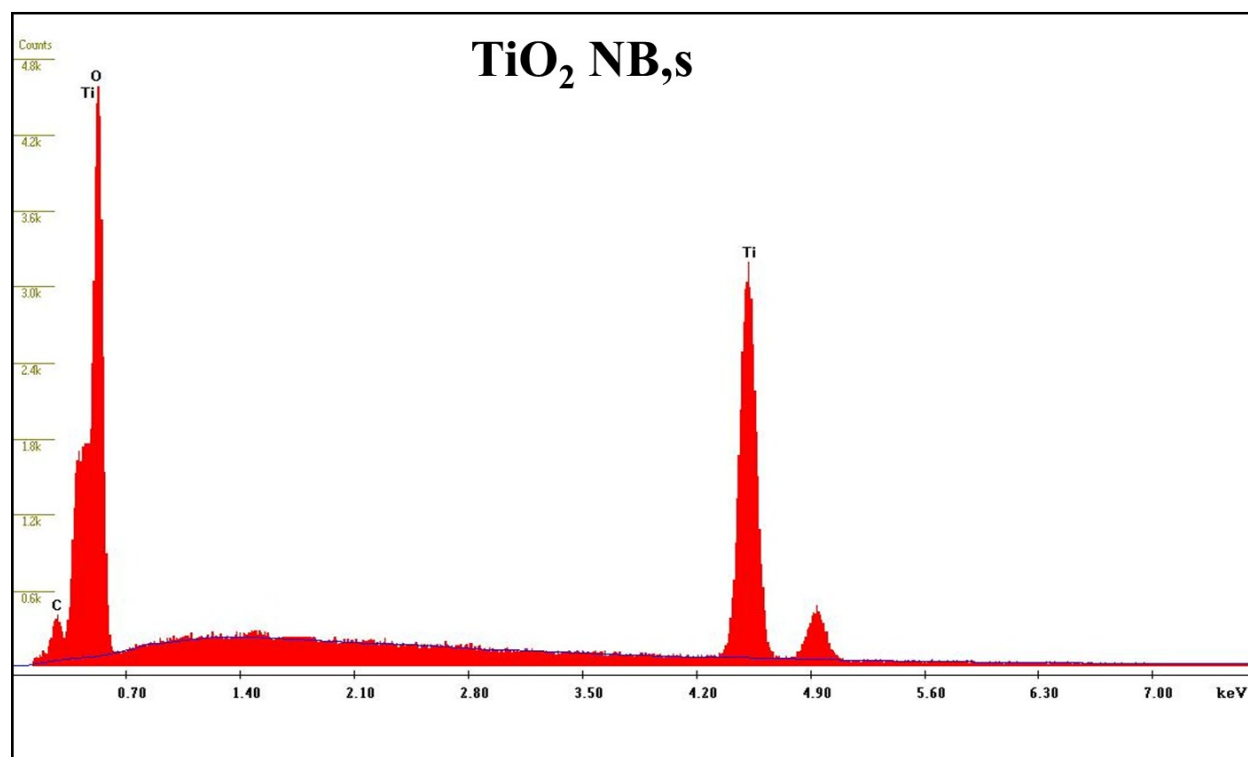
## **Supporting Information**

**for**

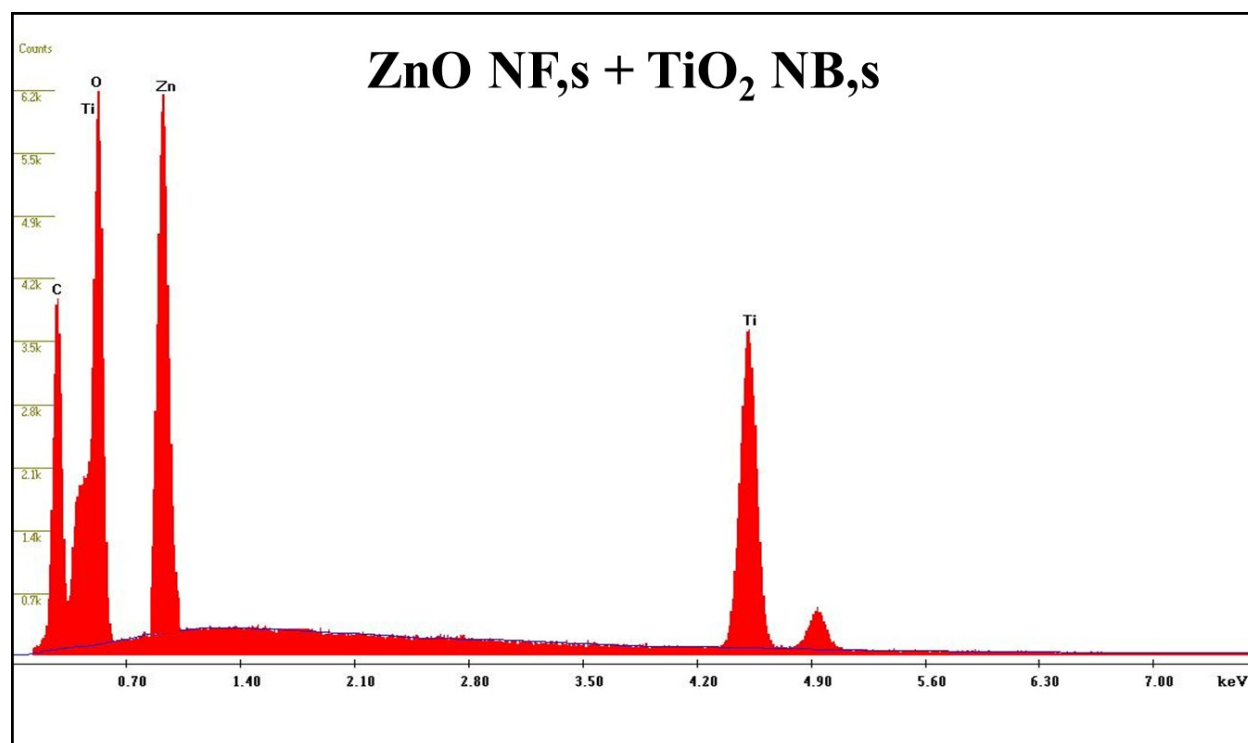
**Co-axial electrospray: A versatile tool to fabricate the hybrid  
electron transporting materials for high efficiency and stable  
perovskite photovoltaics**



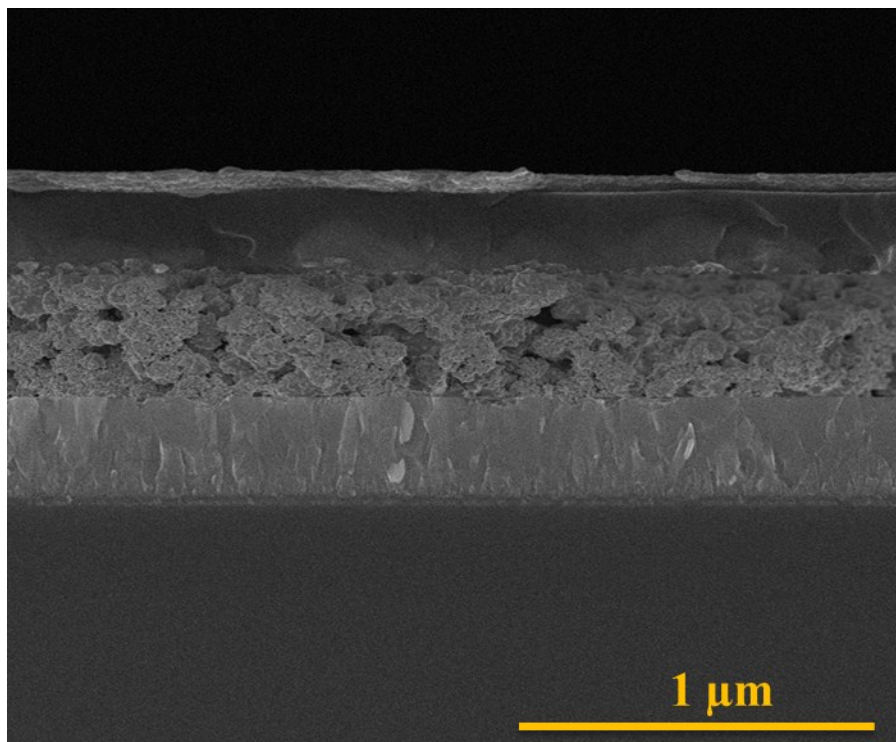
**Figure S1.** Typical EDX spectrum of ZnO NFs as shown in figure 2a.



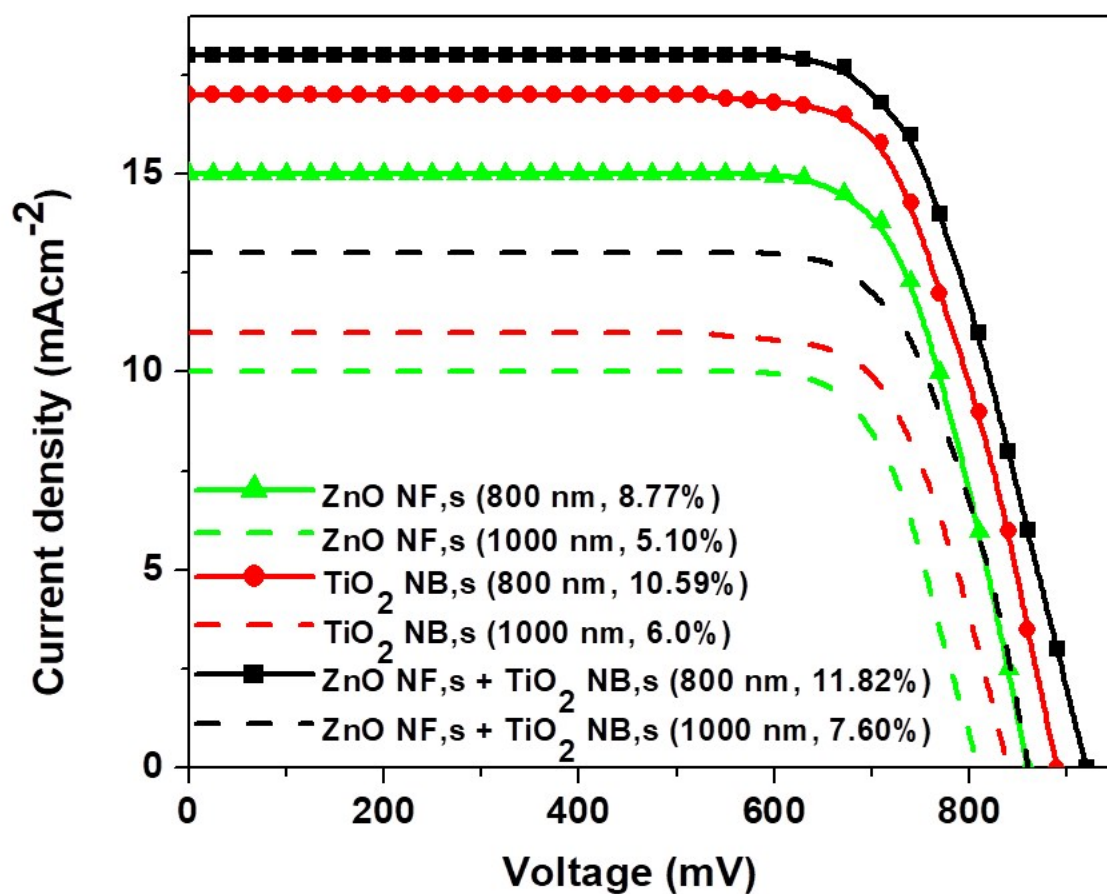
**Figure S2.** Typical EDX spectrum of TiO<sub>2</sub> NB,s as shown in figure 2b.



**Figure S3.** Typical EDX spectrum of ZnO NF<sub>s</sub> + TiO<sub>2</sub> NB<sub>s</sub> as shown in figure 2c.



**Figure S4.** Cross-sectional SEM image of complete perovskite solar cell based on hybrid ETM.



**Figure S5.**  $J$ - $V$  curves for three different ETMs as a function of film thickness.