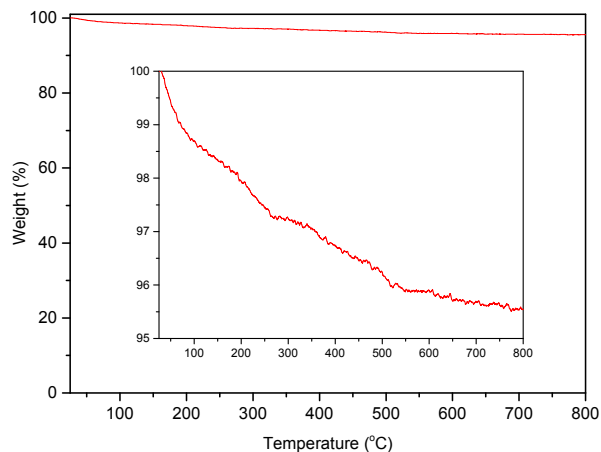
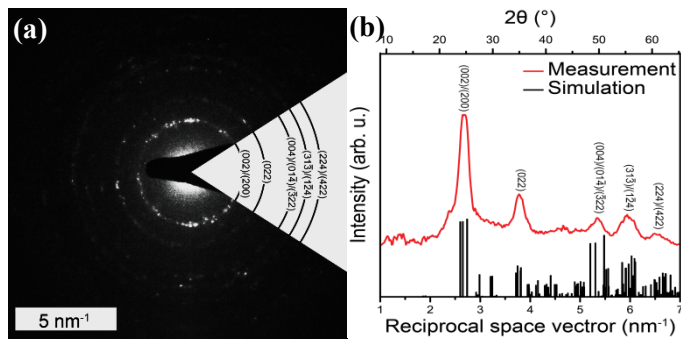


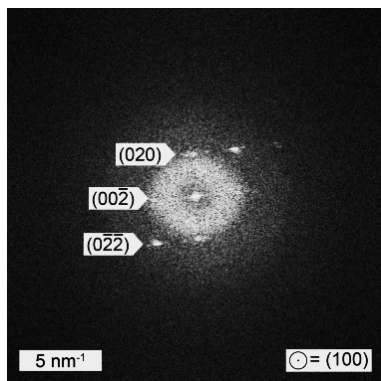
Electronic Supporting Information (ESI)



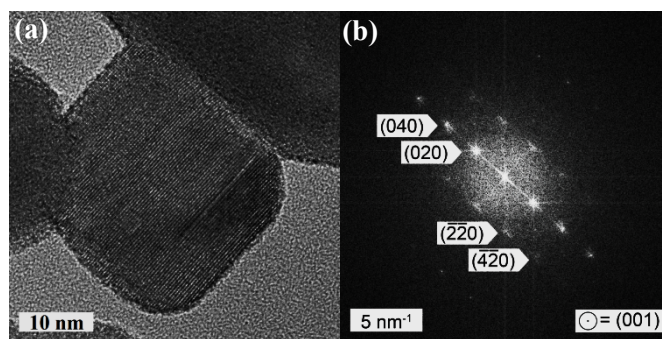
**Fig. S1** TGA analysis of the as-prepared  $\text{WO}_3$  powder. Inset: zoom-in from 95 to 100%.



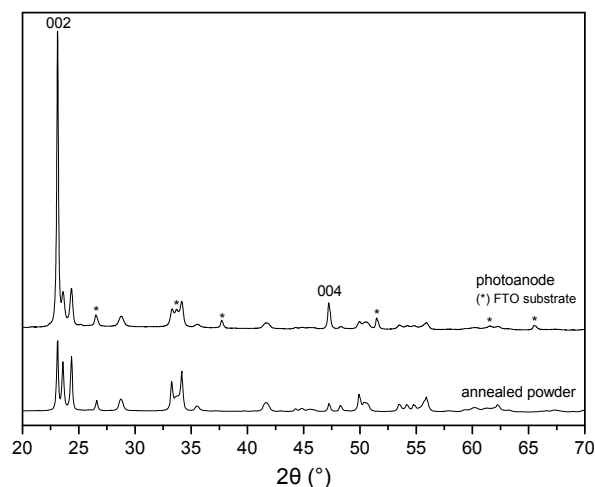
**Fig. S2** Electron diffraction of  $\text{WO}_3$  powder: (a) indexed ring pattern and (b) extracted pattern and simulation from P21/n monoclinic  $\text{WO}_3$  structure.



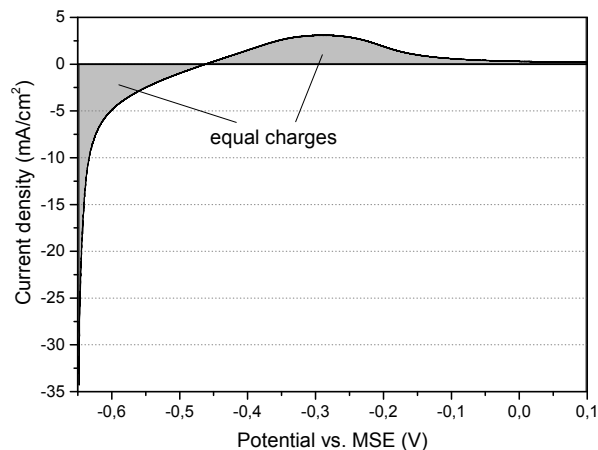
**Fig. S3** FFT corresponding to Fig. 3c.



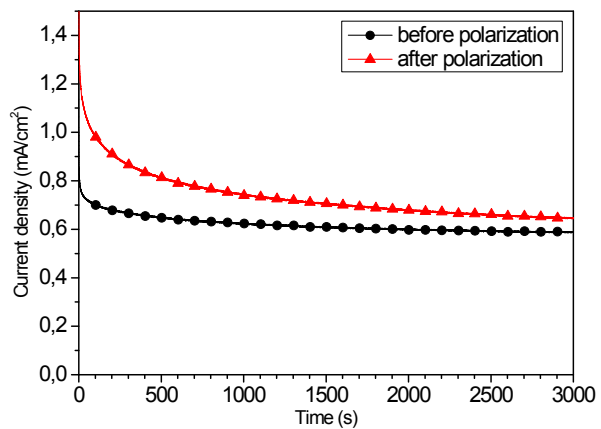
**Fig. S4** (a) HR-TEM image and (b) corresponding FFT of annealed  $\text{WO}_3$  powder.



**Fig. S5** XRD pattern measured on as-prepared  $\text{WO}_3$  photoanodes and annealed  $\text{WO}_3$  powder.



**Fig. S6** Polarization curve of a  $\text{WO}_3$  photoanode recorded in the dark by sweeping the potential between -0.65 V to 0.1 V vs MSE (ca. 0 to 0.75 V vs. RHE).



**Fig. S7** Photocurrents measured during the O<sub>2</sub> evolution measurements