## **Supplementary Information For**

## Enhanced electrocatalytic oxygen evolution of $\alpha\text{-}\mathrm{Co}(OH)_2$ nanosheets on carbon nanotube/polyimide film

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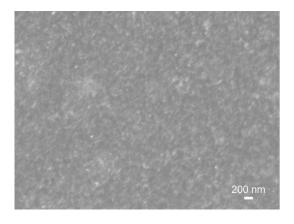


Figure S1 SEM image of pristine PI/CNT film.

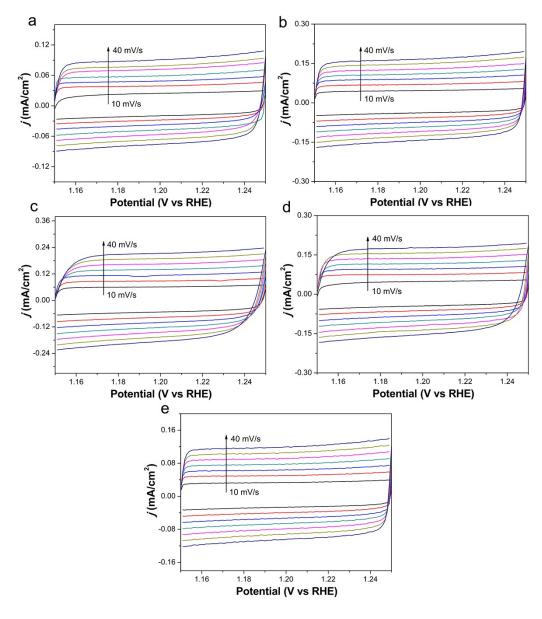


Figure S2 CVs of the  $Co(OH)_2$  products at (a) 0.5, (b) 1, (c) 3, (d) 4 and (e) 5 min in 1 M KOH with different scan rates from 10 to 40 mV/s.

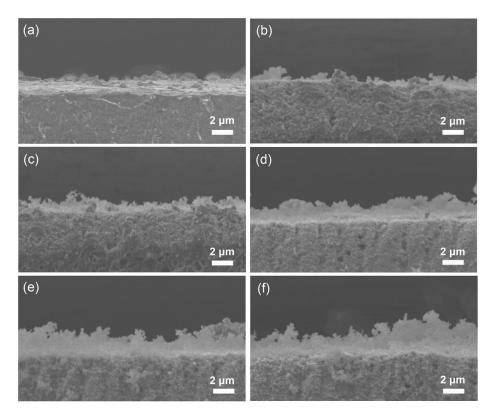


Figure S3 SEM cross-sectional images of the Co(OH)<sub>2</sub> films at different deposition times (min): (a) 0.5, (b) 1, (c) 2, (d) 3, (e) 4, (f) 5.

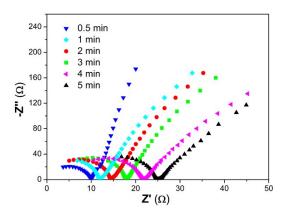


Figure S4 EIS of the PI/CNT-Co(OH)<sub>2</sub> films at an overpotential of 0.2 V in 1 M KOH.

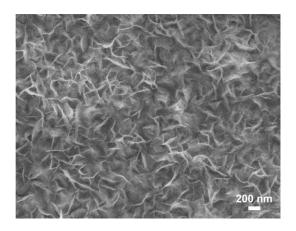


Figure S5 SEM image of the Co(OH)<sub>2</sub> nanosheets after 10 h OER test.