## **Supplementary Information**

Cobalt-Phosphate Complexes Catalyze the Photoelectrochemical Water Oxidation of BiVO<sub>4</sub> Electrodes

Tae Hwa Jeon,<sup>1</sup> Wonyong Choi,<sup>2</sup> and Hyunwong Park<sup>1,\*</sup>

<sup>1</sup>School of Energy Engineering, Kyungpook National University, Daegu 702-701, Korea <sup>2</sup>School of Environmental Science & Engineering, POSTECH, Pohang 790-784, Korea

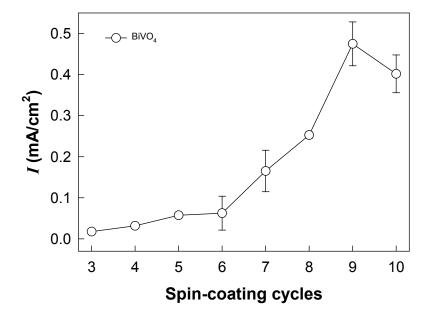
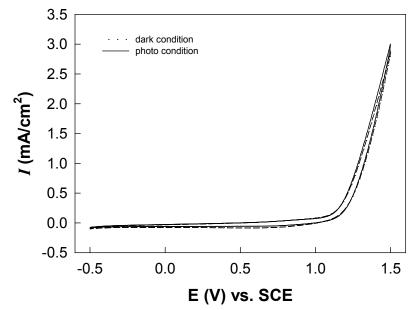


Fig. S1. Photocurrents of BiVO<sub>4</sub> electrodes with different coat cycles in 0.1 M potassium phosphate under  $\lambda > 400$  nm. E = 1.0 V vs. SCE



**Fig. S2**. Cyclic voltammograms of FTO/CoPi in 0.1M potassium phosphate (pH 7) electrolyte under AM 1.5-irradiation.

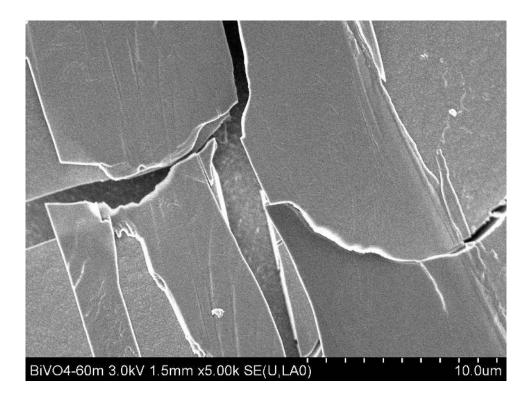


Fig. S3. SEM image of BiVO<sub>4</sub>/CoPi (S-ED 60 min)

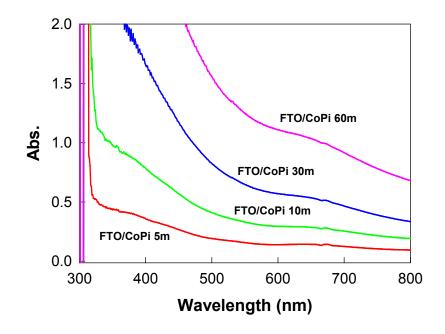


Fig. S4. Absorption spectra of CoPi electrodeposited on FTO for different periods of time.

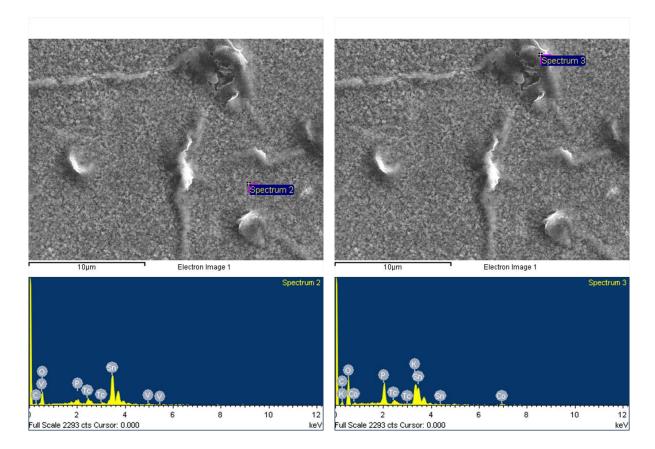


Fig. S5. EDX analysis of BiVO<sub>4</sub>/CoPi (S-PD 30 min).

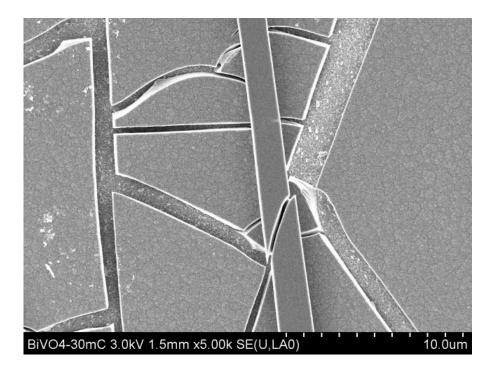


Fig. S6. SEM images of  $BiVO_4/CoPi$  (continuous ED 30 min). CoPi was continuously electrodeposited for 30 min.