Electronic Supplementary Material (ESI) for Journal of Materials Chemistry A
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Supplementary Information:

Enhanced photoelectrochemical water splitting on novel nanoflake WO_3 electrodes by dealloying of amorphous Fe-W alloys

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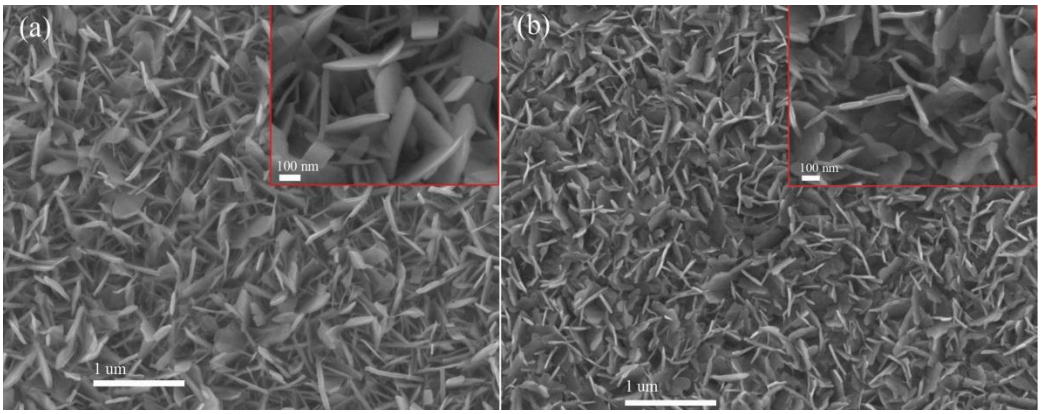

Fig. S1 FESEM images of nanoflake before (a) and after (b) annealing treatment at 500℃ in air for 3 h. The nanoflake WO_3 was obtained by dealloying the as-deposited amorphous Fe-W film in a dilute HNO_3 solution (3.5 wt %) for 20 h at room temperature.

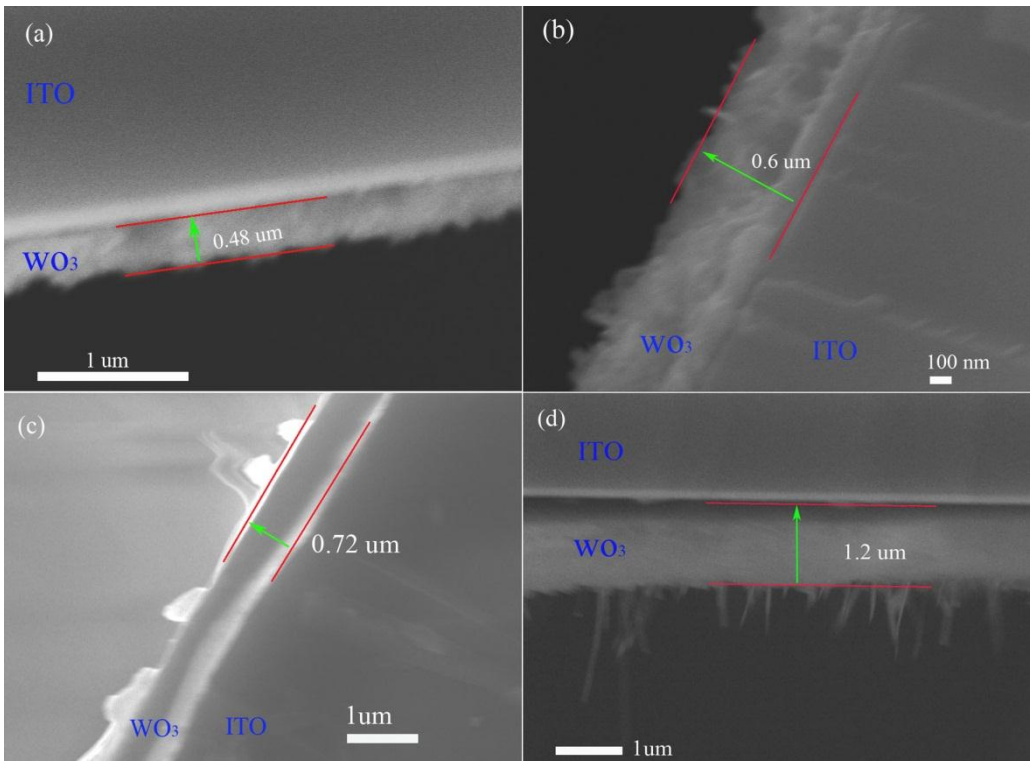

Fig. S2 FESEM images of WO_3 film prepared on ITO substrate. Images (a), (b), (c) and (d) correspond to sample 1, 2, 3 and 4, with electro-deposition duration of 75 s, 2 min, 4 min and 5 min, respectively.

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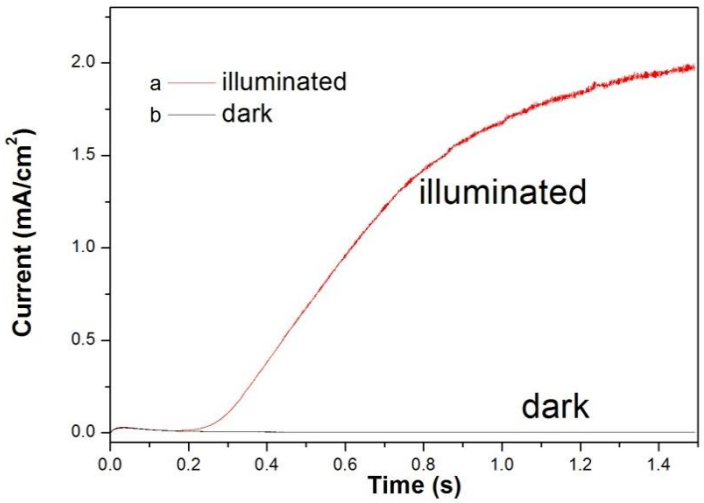

Fig. S3 Photoelectrochemical current-potential curves for the sample which underwent the potentiostatic polarization measurement under dark and AM 1.5 solar light (100 mW/cm^2) in H_2SO_4 (0.5 M) on tungsten substrate.

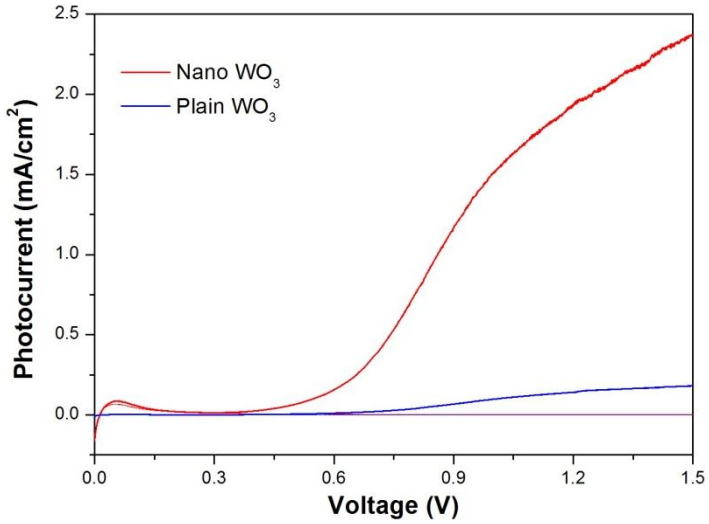

Fig. S4 Photoelectrochemical current-potential curves for nanoflake and plain WO_3 electrodes under dark and AM 1.5 solar light (100 mW/cm^2) in $HClO_4$ (1 M) on tungsten substrate.