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

Supplementary Information

Facile Growth of Aligned WO_3 Nanorods on FTO Substrate for Enhanced Photoanodic Water Oxidation Activity

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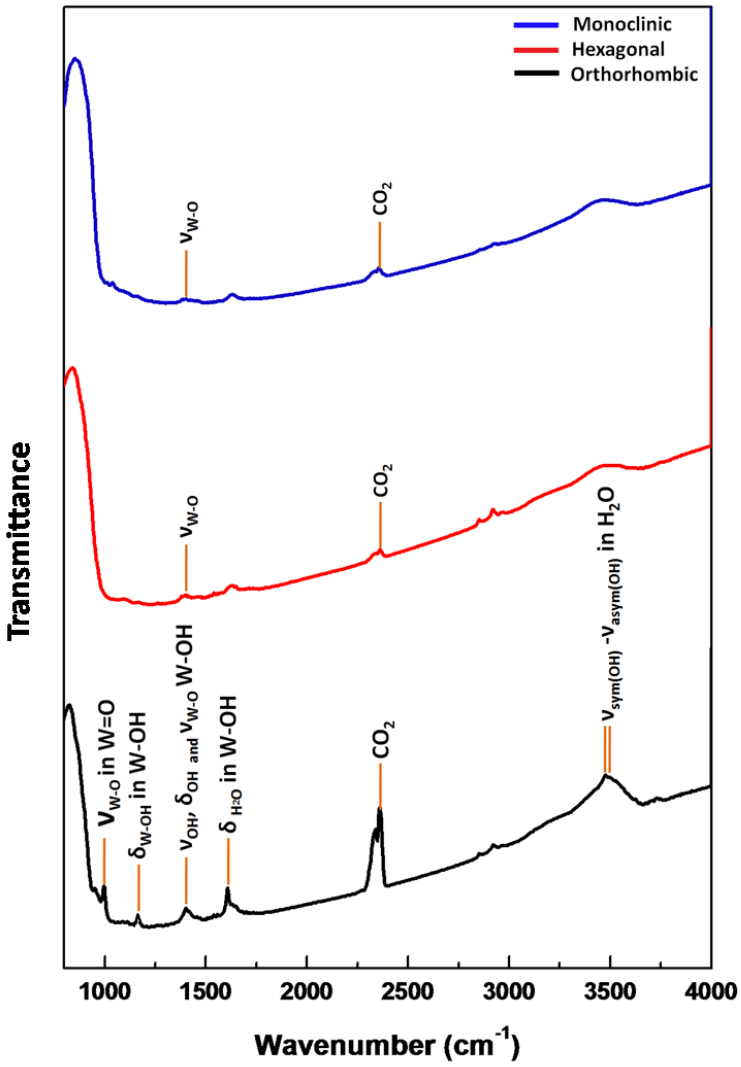

Fig. S1. FTIR spectra of hydrated and anhydrous WO_3.

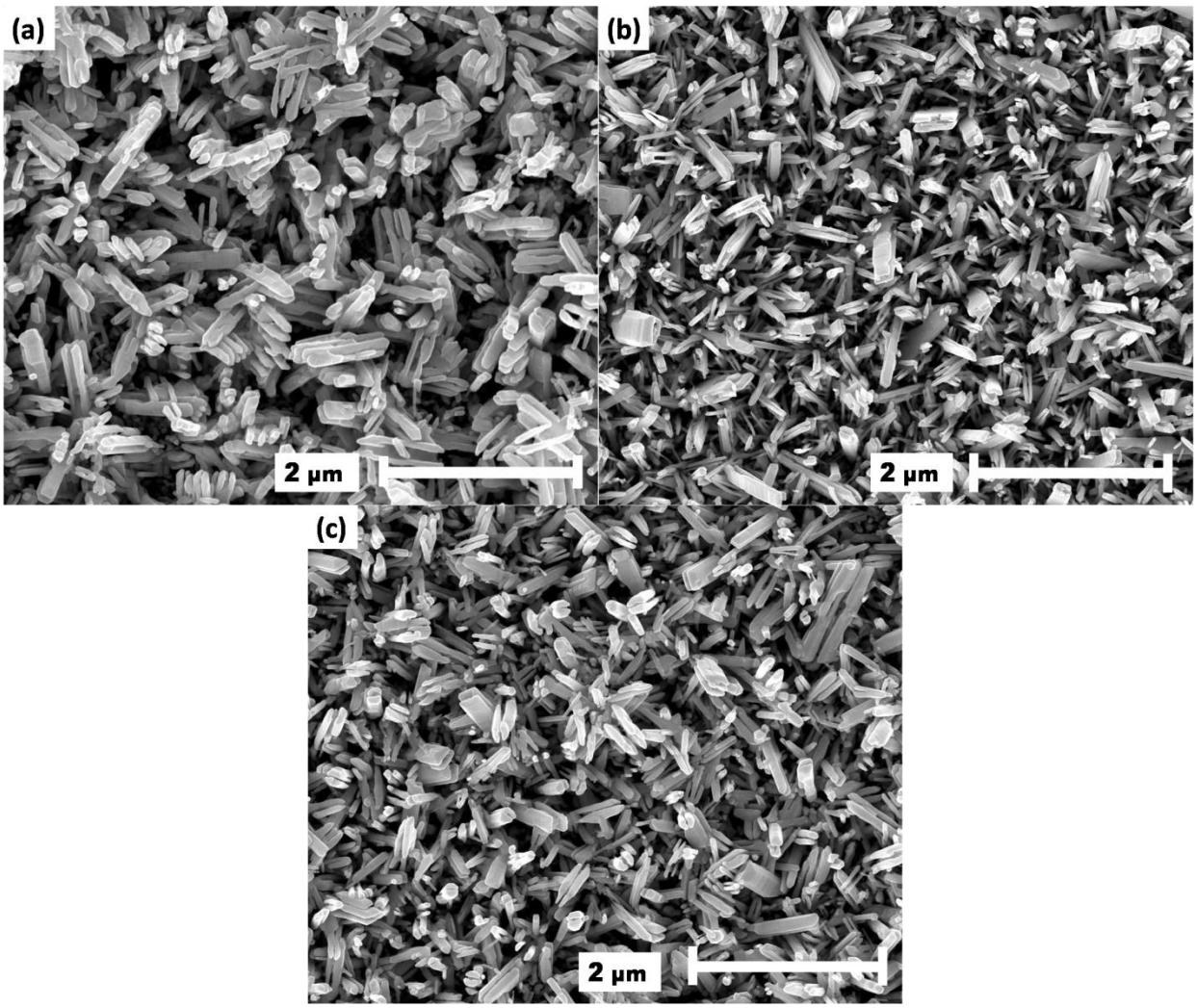

Fig. S2. SEM image of WO_3nanorod arrays grown on FTO at (a) 120 ºC for 14 hours, (b) 160 ºC for 4 hours and (c) 200 ºC for 2 hours.

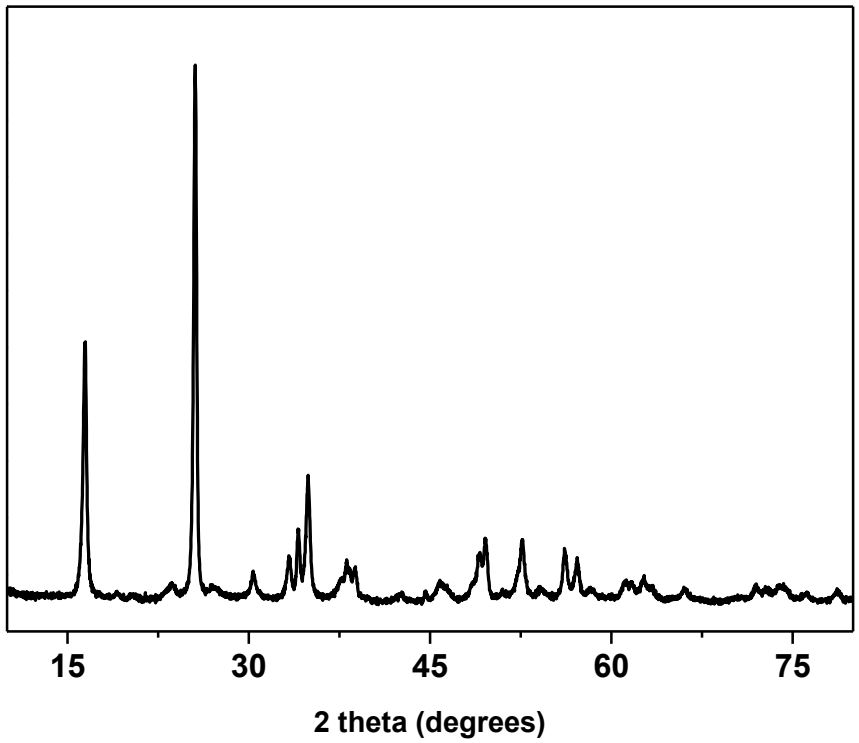

Fig. S3. XRD pattern of $WO_3 \cdot H_2O$ synthesized from tungstic acid.

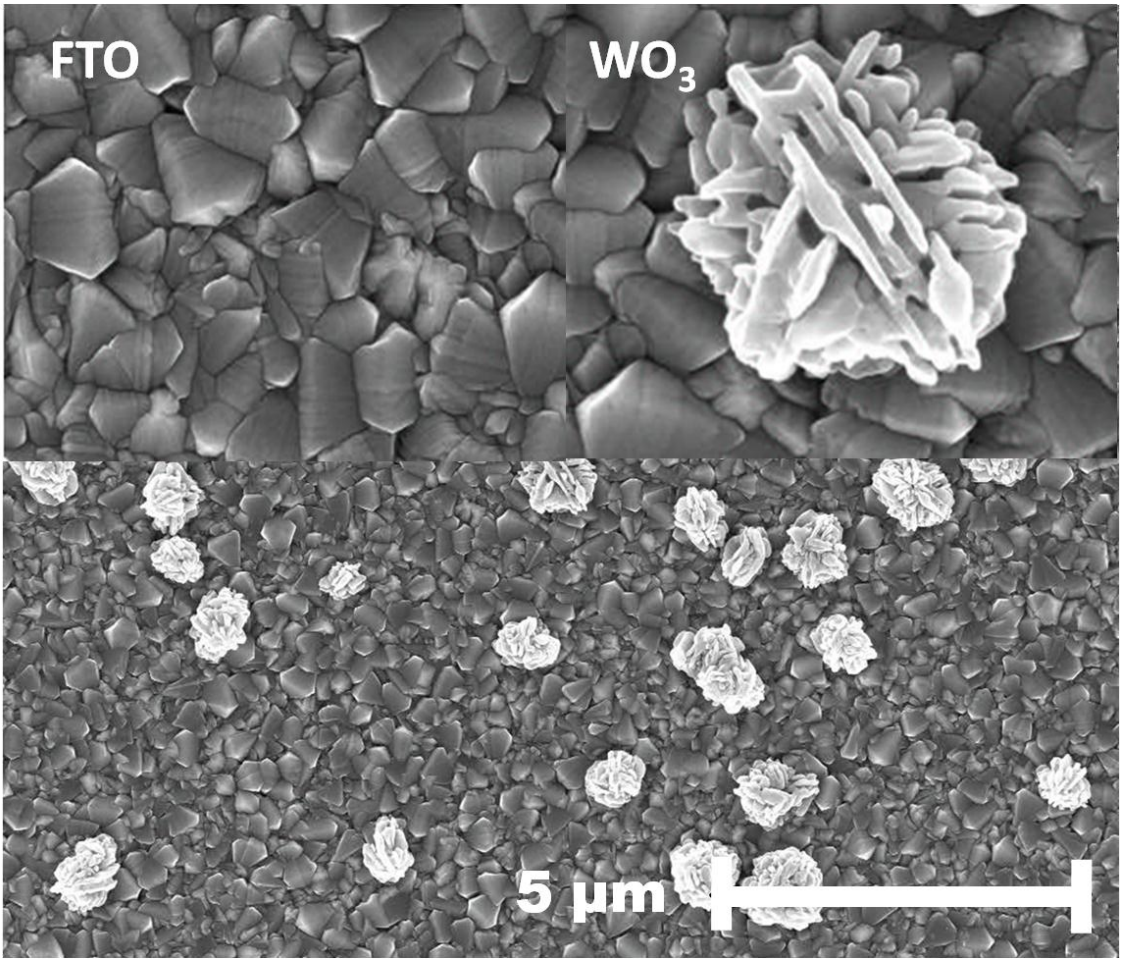

Fig. S4. SEM images of hydrothermally synthesized WO_3 from tungstic acid in presence of FTO. Inset shows bare FTO surface (top left) and high resolution image of WO_3 on FTO (top right).

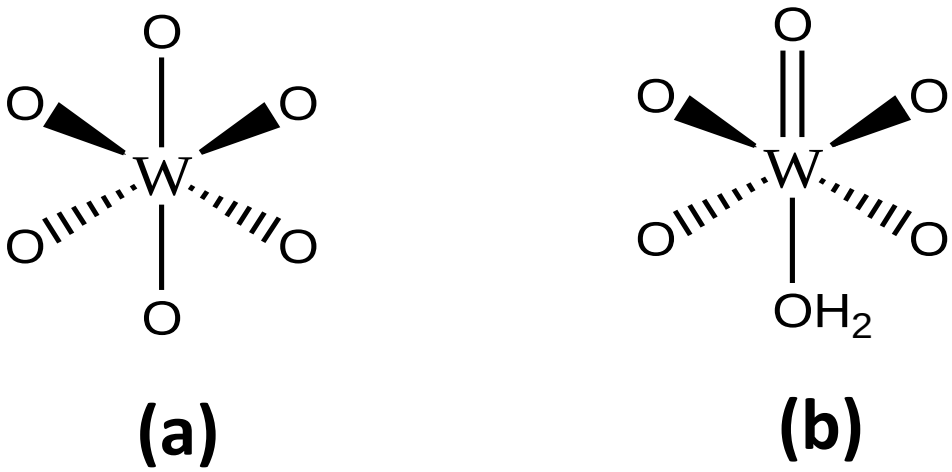

Fig. S5. Structure of Type I (a) and Type II (b) [WO_6] octahedra.

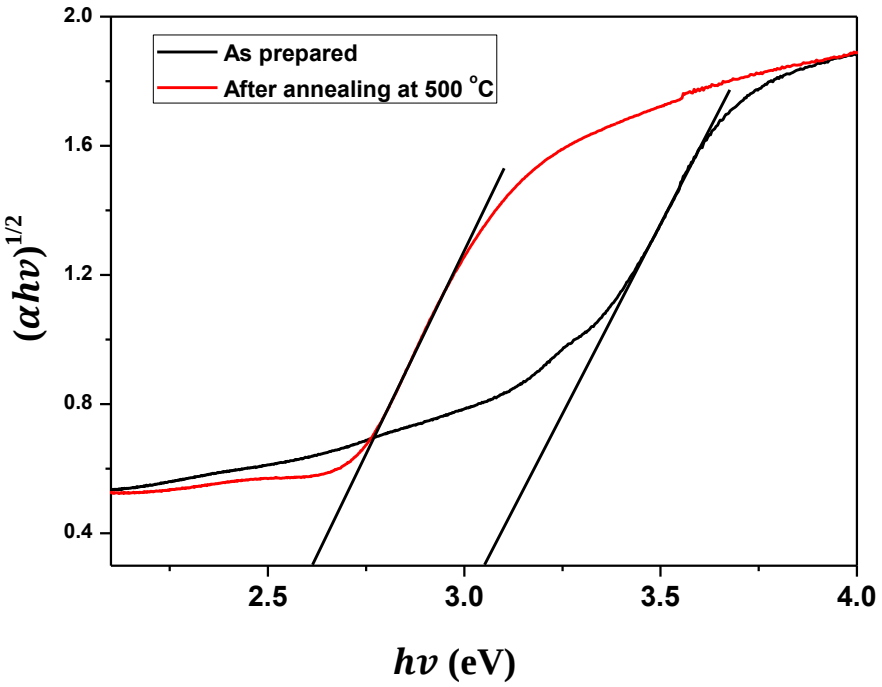

Fig. S6. Plot of $(\alpha h\nu)^{1/2}$ versus $h\nu$.

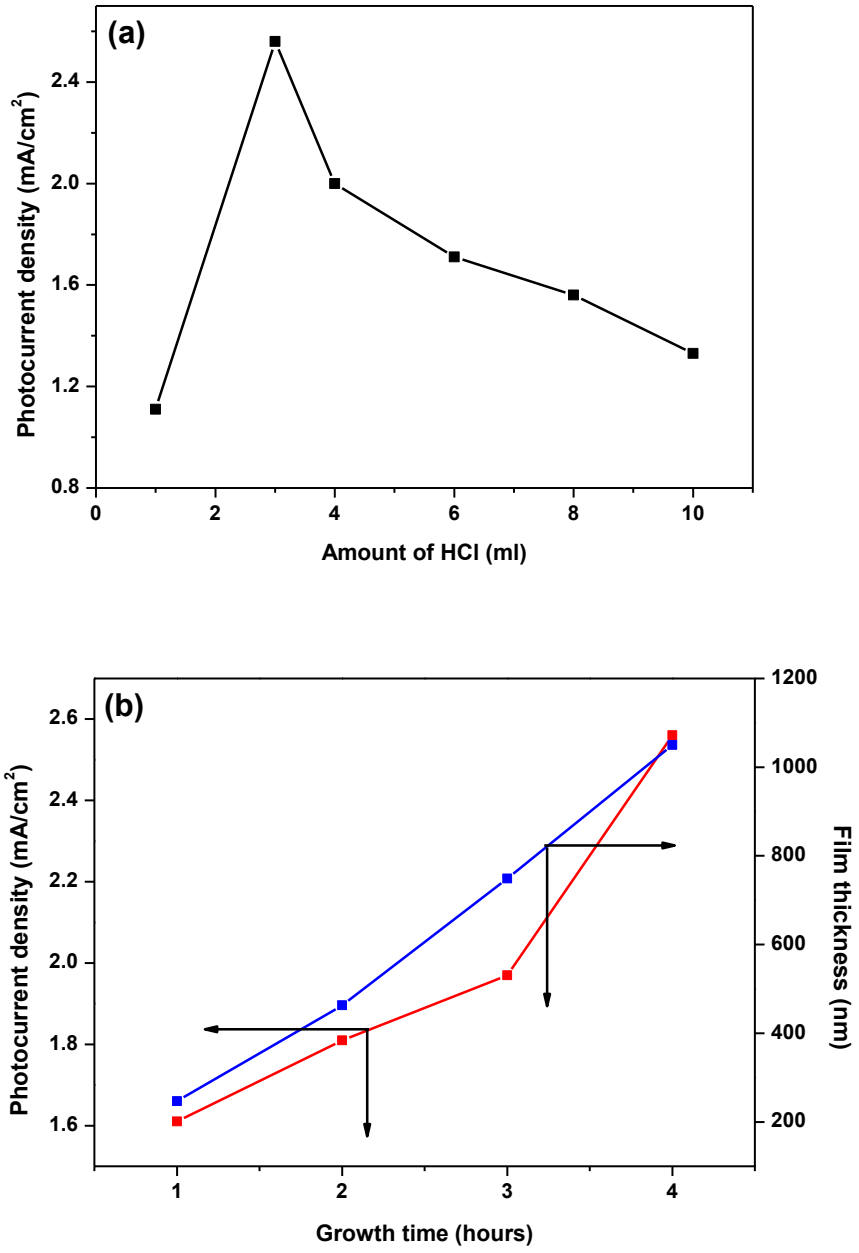

Fig. S7. (a) Plot of photocurrent density versus amount of HCl used in the preparation WO_3 nanorod arrays. (b) Plot of photocurrent density and film thickness of annealed WO_3 nanorod arrays versus hydrothermal reaction time.