

## Electronic Supporting Information (ESI)

### **A facile growth process of highly single crystalline $\text{Ir}_{1-x}\text{V}_x\text{O}_2$ mixed metal oxide nanorods and their electrochemical properties**

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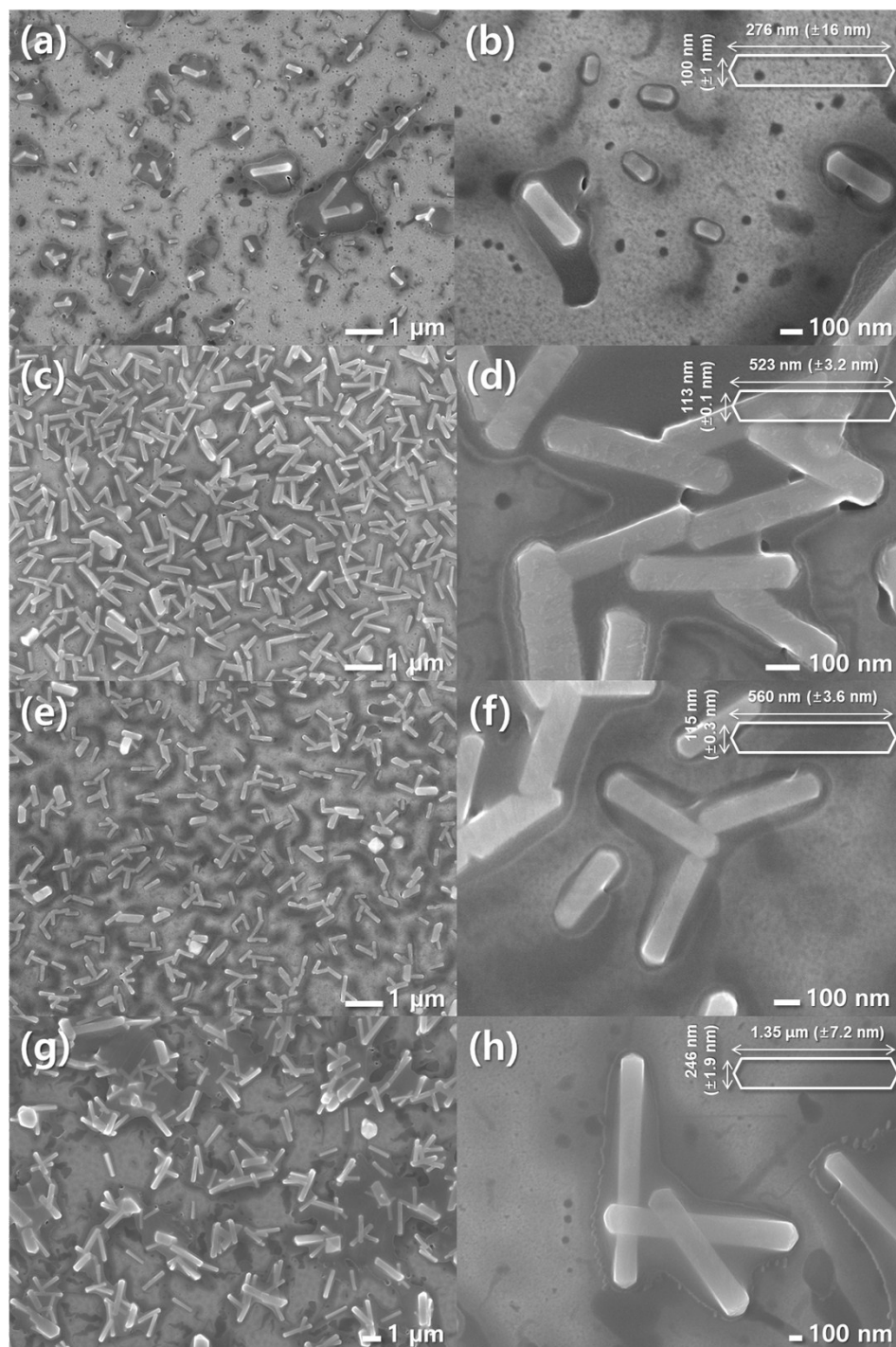
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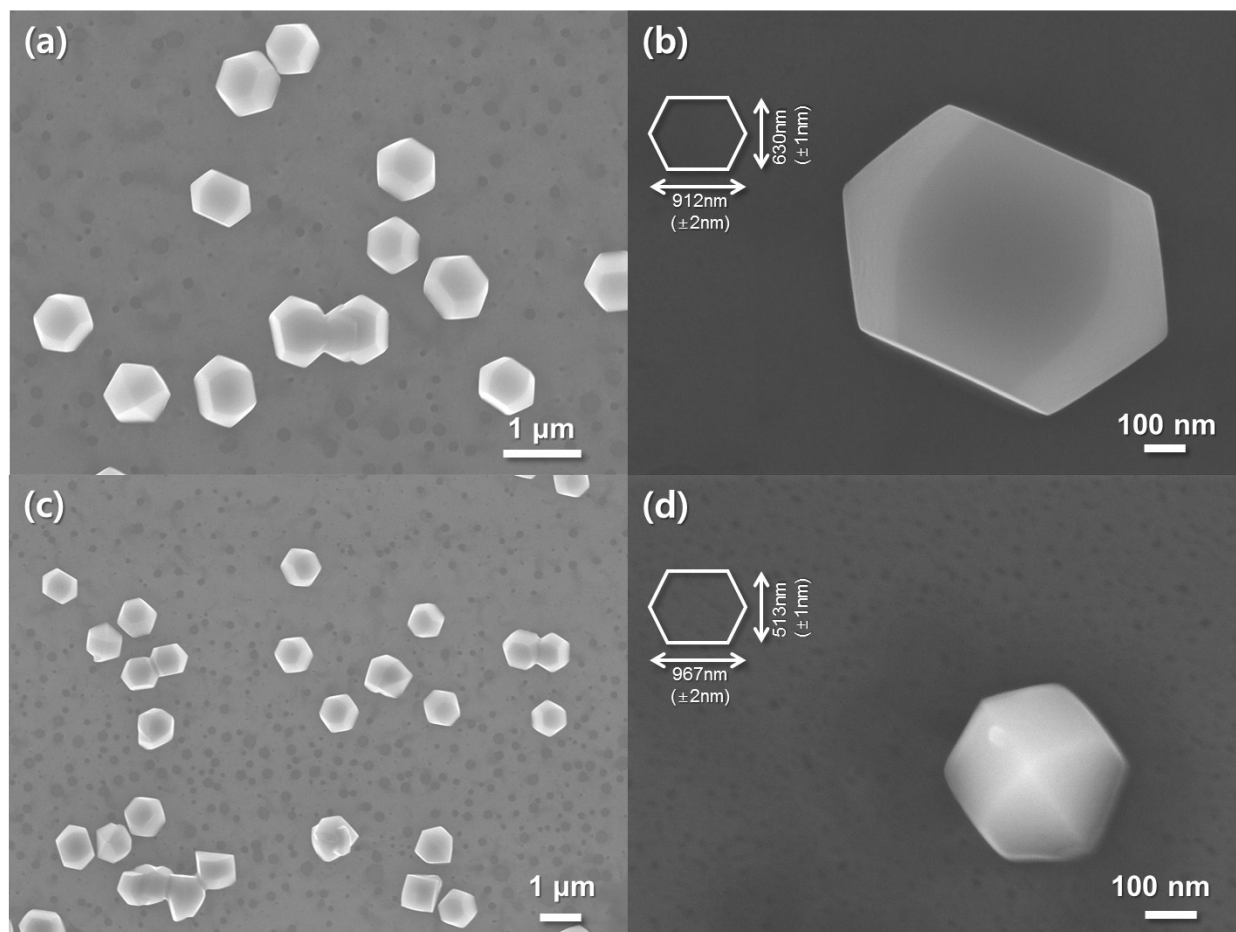
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**Fig S1**



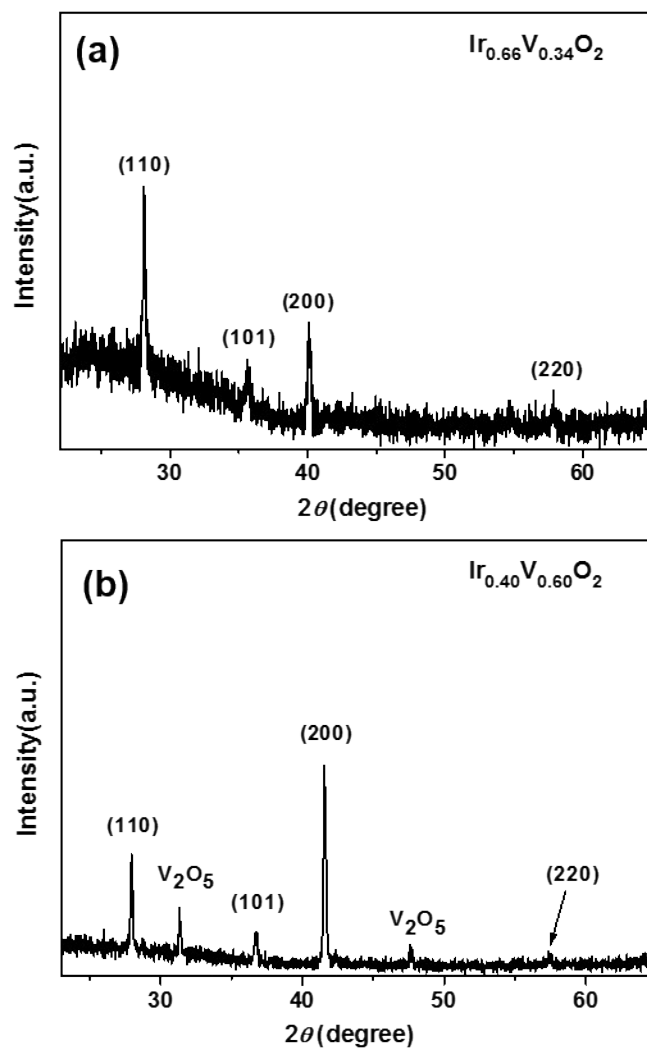
**Fig. S1** SEM images for the time dependence of the growth process of  $\text{Ir}_{0.34}\text{V}_{0.66}\text{O}_2$  mixed oxide nanorods. (a) and (b) for 10 min, (c) and (d) for 30 min, (e) and (f) for 1 hour, (g) and (h) for 1.5 hour, respectively.

**Fig. S2**



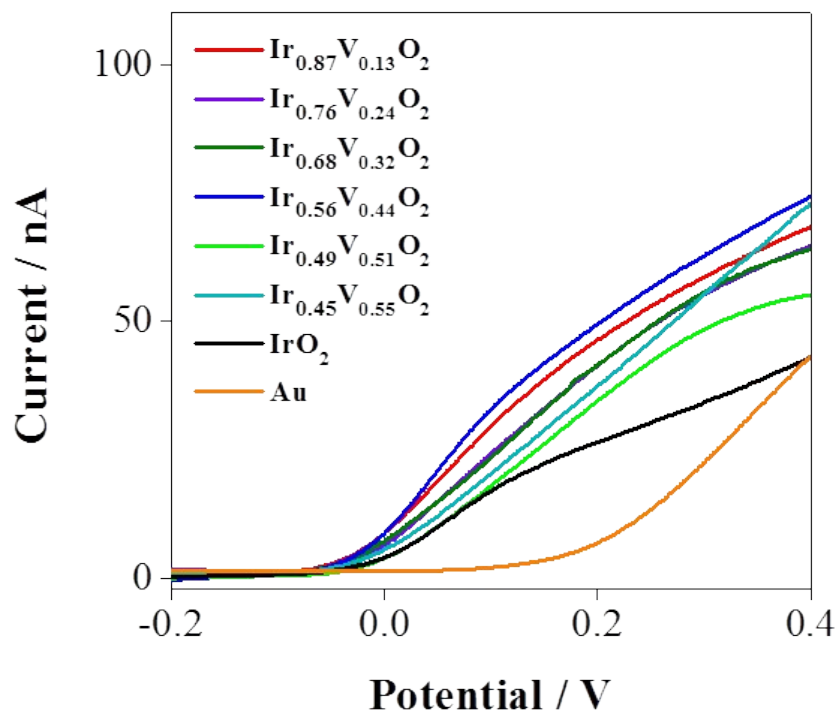
**Fig. S2** SEM images for the time dependence of the growth process of  $\text{Ir}_{0.87}\text{V}_{0.13}\text{O}_2$  mixed oxide nanorods. (a) and (b) for 1 h, (c) and (d) for 3hrs, respectively.

**Fig. S3**



**Fig. S3** X-ray diffraction patterns of  $\text{Ir}_{1-x}\text{V}_x\text{O}_2$  mixed metal oxide nanorods on a Si substrate for (a)  $\text{Ir}_{0.66}\text{V}_{0.34}\text{O}_2$  and (b)  $\text{Ir}_{0.40}\text{V}_{0.60}\text{O}_2$ , respectively.

**Fig. S4**



**Fig. S4** LSV waves at  $\text{Ir}_{1-x}\text{V}_x\text{O}_2$  nanorods on GC, iridium oxide (black) and Au microwire (orange) in 0.1 M  $\text{N}_2$ -purged PBS solution (pH 7.4) containing 0.5 mM AA with a scan rate of  $10 \text{ mV s}^{-1}$ .