

**Supporting Information for**

**Controllable Synthesis of In<sub>2</sub>O<sub>3</sub> Octodecahedra Exposing {110} Facets**

**with Enhanced Gas Sensing Performance**

Jijiang Liu,<sup>ab</sup> Gang Chen,<sup>\*a</sup>, Yaoguang Yu,<sup>\*a</sup>, Yalin Wu,<sup>b</sup> Mingjun Zhou,<sup>b</sup> Hongquan Zhang,<sup>c</sup>

Chade Lv,<sup>a</sup> Yi Zheng,<sup>a</sup> Fang He<sup>a</sup>

<sup>a</sup>Department of Chemistry, Harbin Institute of Technology, Harbin 150001, *P. R. China*

<sup>b</sup>The 49th Research Institute, China Electronic Technology Group Corporation, Harbin 150001, *P. R. China*

<sup>c</sup>School of Automation, Harbin Engineering of University, Harbin 150001, *P. R. China*

E-mail: gchen@hit.edu.cn; (G. Chen); ygyu@hit.edu.cn (Y. G. Yu) Fax: +86-451-86403117; Tel: +86-451-86403117.

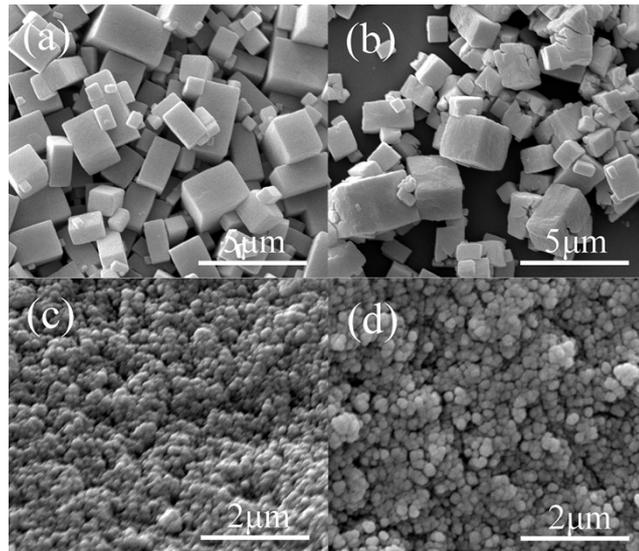


Fig. S1 SEM images of  $\text{In}(\text{OH})_3$  and  $\text{In}_2\text{O}_3$ : (a, b) cubes and (c, d) particles.

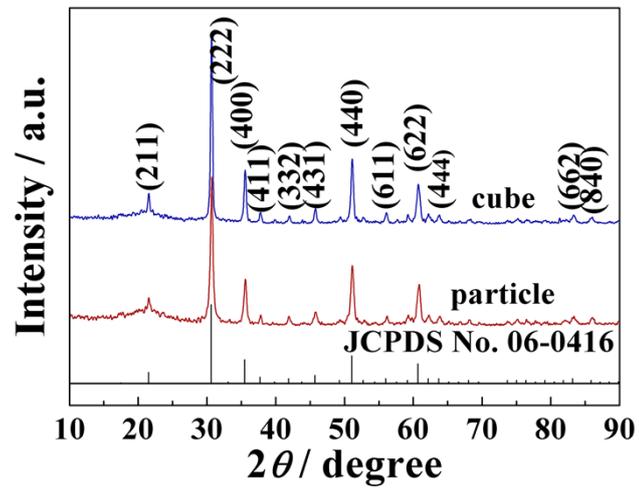


Fig. S2 XRD patterns of  $\text{In}_2\text{O}_3$  cubes and particles.