

## **Supplementary information**

### **A high-performance self-powered UV imaging photodetector based on the litchi-like WO<sub>3</sub> hollow spheres**

Qicheng Zhou,<sup>a</sup> Shiyong Gao, <sup>\*a, b, c</sup> Yu Sun,<sup>a</sup> Mingyi Zhang,<sup>c</sup> Qiong Gao,<sup>c</sup> Jinlong Bai,<sup>c</sup> Haitao Fang,<sup>a</sup> Shujie Jiao,<sup>a</sup> Yong Zhang <sup>a</sup> and Jinzhong Wang <sup>a</sup>

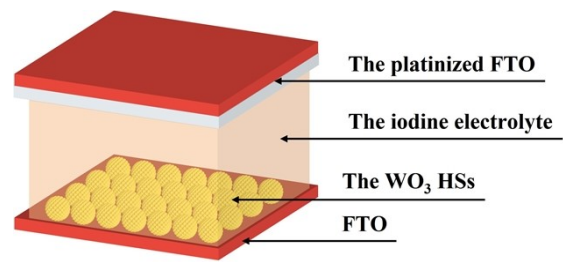
<sup>a</sup> School of Materials Science and Engineering, Harbin Institute of Technology, Harbin 150001, China.

<sup>b</sup> National Key Laboratory for Precision Hot Processing of Metals, Harbin Institute of Technology, Harbin 150001, China.

<sup>c</sup> Key Laboratory for Photonic and Electronic Bandgap Materials, Ministry of Education, School of Physics and Electronic Engineering, Harbin Normal University, Harbin, 150025, China.

#### **Corresponding Authors:**

**\*E-mail:** gaoshiyong@hit.edu.cn



**Fig.S1** The schematic diagram of the structure of the WO<sub>3</sub> HSs photodetector