

## Thermal Phase Transformation of In<sub>2</sub>Se<sub>3</sub> Nanowires studied by in-situ Synchrotron Radiation X-ray Diffraction

Yang Li,<sup>a</sup> Jing Gao,<sup>a</sup> Qingliang Li,<sup>a</sup> Mingfa Peng,<sup>a</sup> Xuhui Sun,<sup>a,\*</sup> Youyong Li,<sup>a,\*</sup> Gang Yuan,<sup>b</sup> Wen Wen,<sup>b</sup> and M. Meyyappan<sup>c</sup>

<sup>a</sup> Institute of Functional Nano & Soft Materials (FUNSOM) and Jiangsu Key Laboratory for Carbon Based Materials and Devices, Soochow University, Suzhou, Jiangsu, 215123, People's Republic of China. E-mail:

xhsun@suda.edu.cn, yyli@suda.edu.cn

<sup>b</sup> Shanghai Synchrotron Radiation Facility, Shanghai Institute of Applied Physics, Chinese Academy of Sciences, Shanghai, P. R. China, 201204

<sup>c</sup> NASA Ames Research Center, Moffett Field, CA 94035, USA, and Division of IT Convergence Engineering, Pohang University of Science and Technology, Pohang, S. Korea.

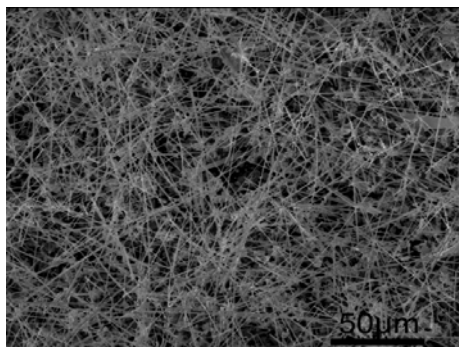


Figure S1. A representative SEM image of In<sub>2</sub>Se<sub>3</sub> nanowires after *in-situ* SR-XRD measurement cooling down from 800°C.