

Supporting Information

Millimeter-Sized PbI_2 Flakes and $\text{Pb}_5\text{S}_2\text{I}_6$ Nanowires for Flexible Photodetectors

Lin Sun,^a Chunrui Wang,^{*a} Liu Xu,^a Jiale Wang,^a Xiaoshuang Chen,^{ab} and Gyu-Chul Yi^c

^a Department of Applied Physics and State Key Laboratory for Modification of Chemical Fibers and Polymer Materials, Donghua University, 2999 Renmin Rd North, Songjiang District, Shanghai 201620, P. R. China. E-mail: crwang@dhu.edu.cn.

^b National Laboratory for Infrared Physics, Shanghai Institute of Technical Physics, Chinese Academy of Science, Shanghai 200083, P. R. China. E-mail: xschen@mail.istp.ac.cn.

^c Department of Physics and Research Institute of Advanced Materials, Seoul National University, 1 Gwanak-ro, Seoul, Korea. E-mail: gcyi@snu.ac.kr.

Corresponding Author

* E-mail: crwang@dhu.edu.cn (C. R. Wang).

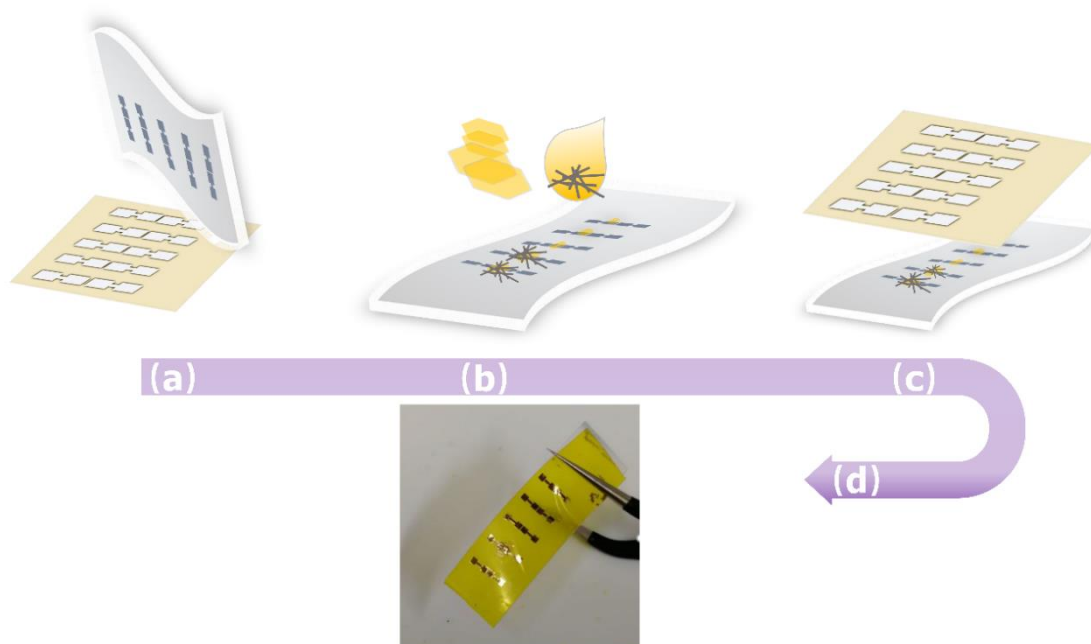


Fig. S1 Preparation process of PbI_2 flakes and $\text{Pb}_5\text{S}_2\text{I}_6$ NWs flexible device. (a) Flexible PI substrate tape pasted on metal mask and leave a pattern; (b) Free-standing flake or NWs (contains ethanol liquid drop) placed to flexible PI tape according to the previous pattern; (c) Metal shadow mask was covered on the surface of flexible PI substrate, then 10 nm Cr and 50 nm Au were sputtered, respectively; (d) The resulting flake-based flexible device.

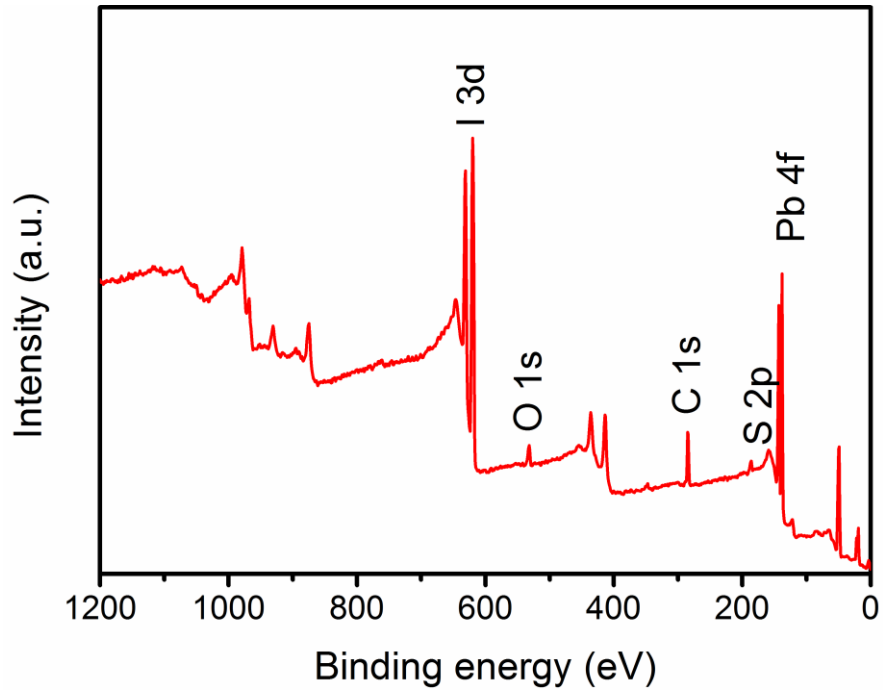


Fig. S2 XPS analysis of $\text{Pb}_5\text{S}_2\text{I}_6$ NWs.

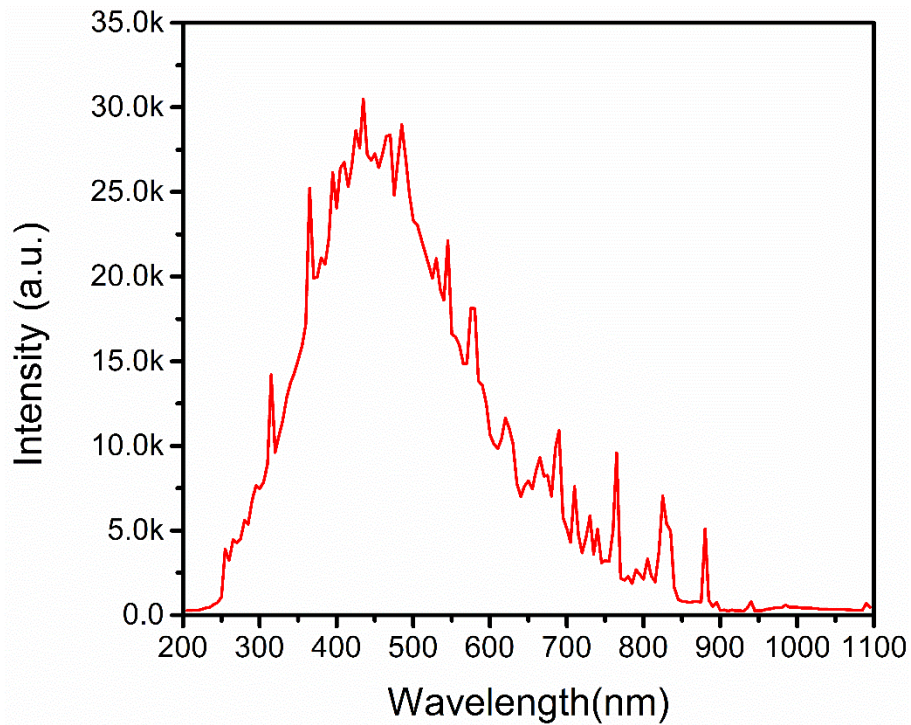


Fig. S3 Spectral output intensity distribution of Xenon lamp.