

Electronic Supplementary Information (ESI)

Plasma-Assisted Synthesis and Pressure-Induced Structural Transition of Single-Crystalline SnSe Nanosheets

Jian zhang,^a Hongyang Zhu,^a Xiaoxin Wu,^a Hang Cui,^c Dongmei Li,^a Junru Jiang,^a Chunxiao Gao,^a Qiushi Wang^{*b} and Qiliang Cui^{a}**

^a State Key Laboratory of Superhard Materials, Jilin University, Changchun 130012, Jilin, China

^b College of New Energy, Bohai University, JinZhou 121013, Liaoning, China

^c College of Physics, Jilin University, Changchun 130012, Jilin, China

^{*a}E-mail: cql@jlu.edu.cn Tel: 86-431-85168346. Fax: 86-431-85168346.

^{*b}E-mail: wang_jiu_jiu@foxmail.com

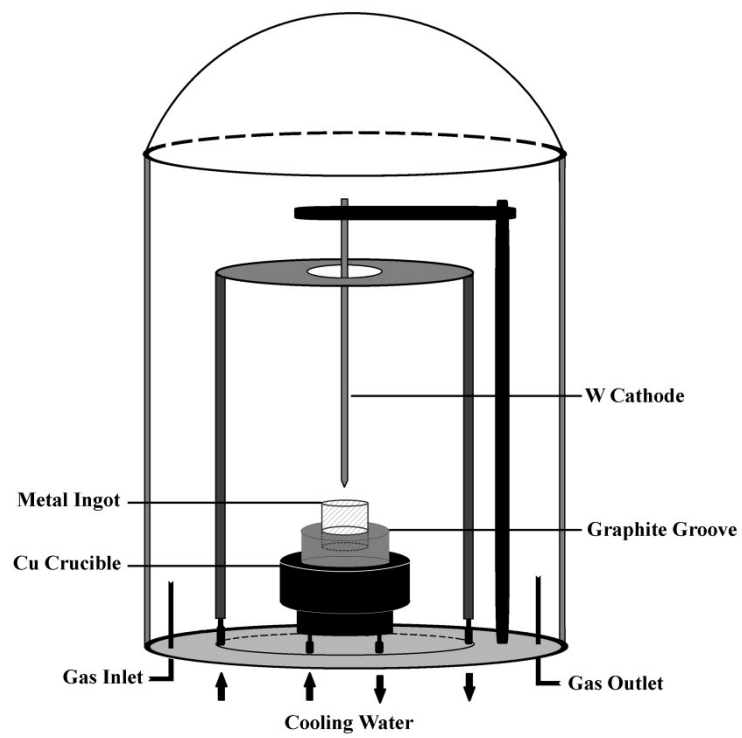


Fig. S1 Experimental set-up diagram.

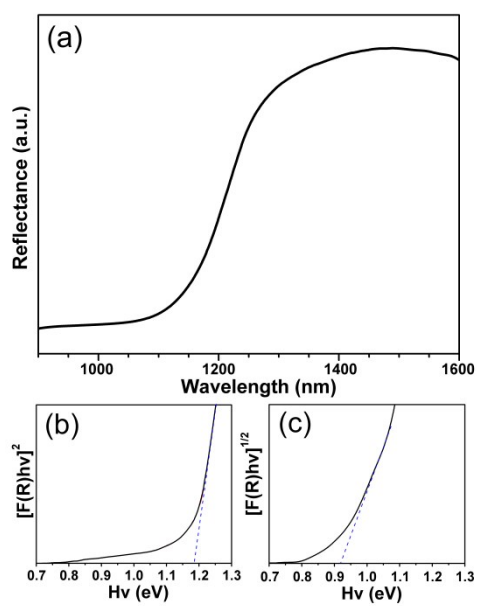


Fig. S2 UV-vis diffuse reflectance spectrum of SnSe NSs (a). Direct (b) and indirect (c) band gaps were determined from plots of $[F(R)hv]^2$ and $[F(R)hv]^{1/2}$ vs photon energy ($h\nu$), respectively.

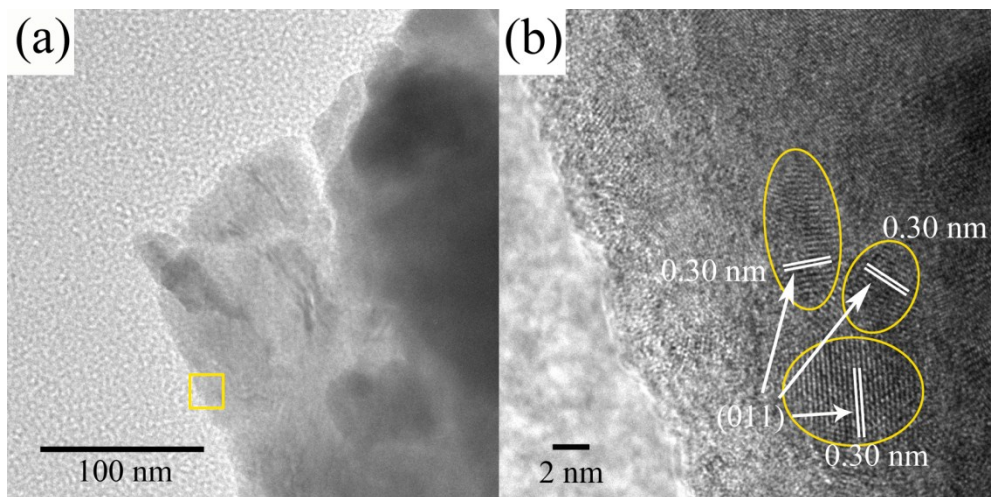


Fig. S3 TEM (a) and HRTEM (b) images of SnSe NSs after being released to ambient pressure.