

Electronic Supporting Information

Triangular radial Nb₂O₅ nanorod growth on c-plane sapphire for ultraviolet-radiation detection

Kwan-Woo Kim^{1,#}, Bum Jun Kim^{2,#}, Sang Hoon Lee¹, Tuqeer Nasir², Hyung-Kyu Lim¹, Ik Jun Choi¹, Byung Joo Jeong¹, Jaeyeong Lee³, Hak Ki Yu³, and Jae-Young Choi^{1,2,}*

¹ School of Advanced Materials Science & Engineering, Sungkyunkwan University, Suwon 16419, Korea

² SKKU of Advanced Institute of Nanotechnology (SAINT), Sungkyunkwan University, Suwon, 16419, Korea

³ Dept. of Materials Science and Engineering, Dept. of Energy Systems Research, Ajou University, Suwon, 16499, Korea

*Tel: +82(0)31-290-7353, FAX: +82(0)31-290-7410

#These authors contributed equally to this work.

Table of contents:

1. Fig. S1.....	3
2. Fig. S2.....	4
3. Fig. S3.....	5

1. Fig. S1

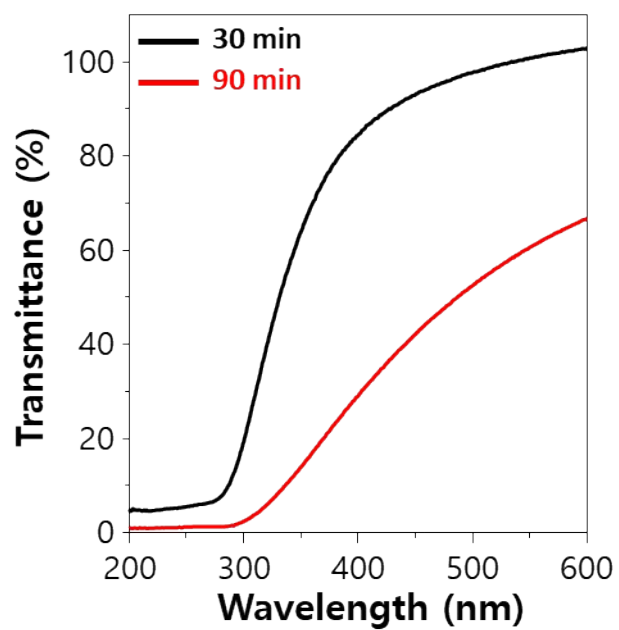


Fig. S1 Comparison of UV-visible transmittance spectra for the Nb₂O₅/c-plane sapphire samples with different synthesis times.

2. Fig. S2

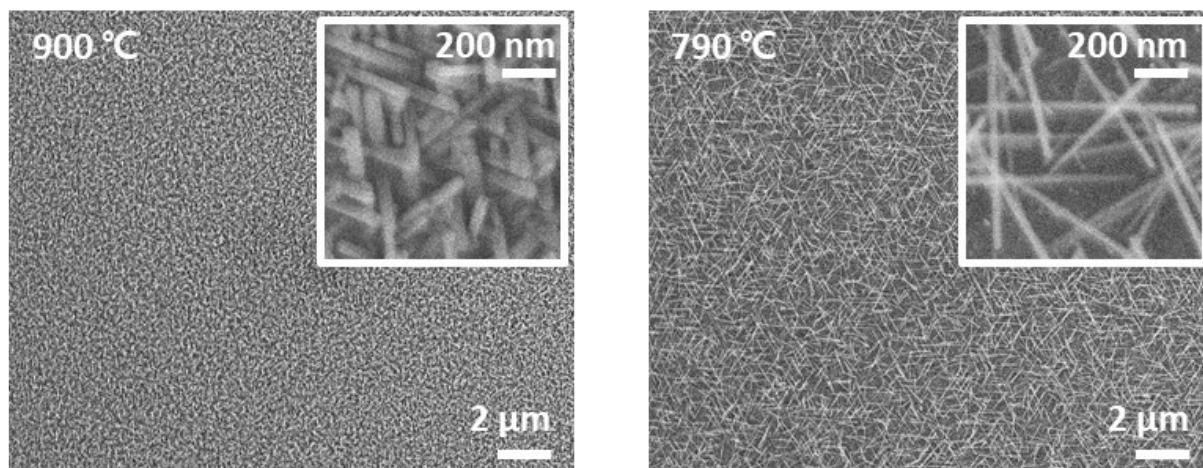


Fig. S2 Scanning electron microscopy (SEM) images of Nb_2O_5 nanorods grown at 900 °C (left) and 790 °C (right) on c-plane sapphire.

3. Fig. S3

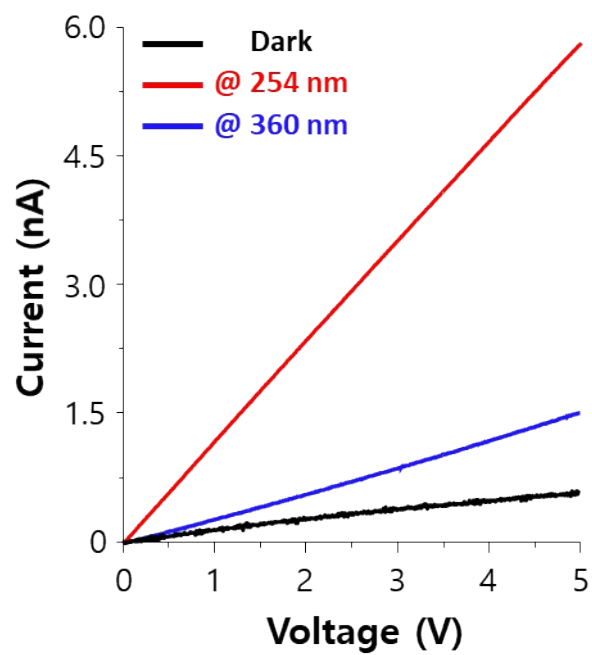


Fig. S3 I–V characteristics of Nb₂O₅ grown on c-plane sapphire illuminated with different-wavelength lights of 254 nm, and 360 nm as well as under dark atmosphere.