

## Electronic Supplementary Information

### **Lithium Niobate Nanowires for Photocatalytic Water Splitting**

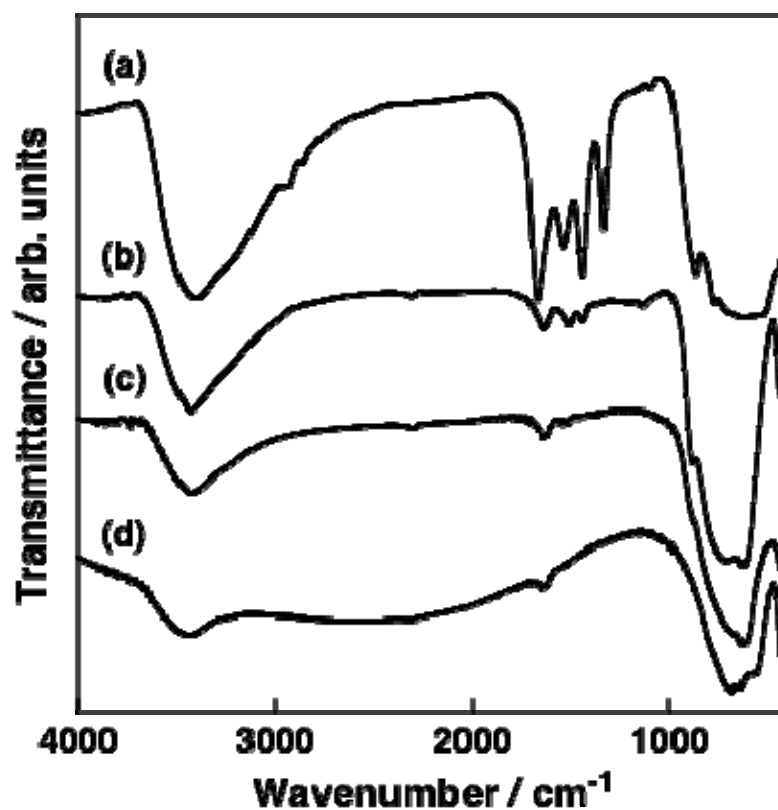
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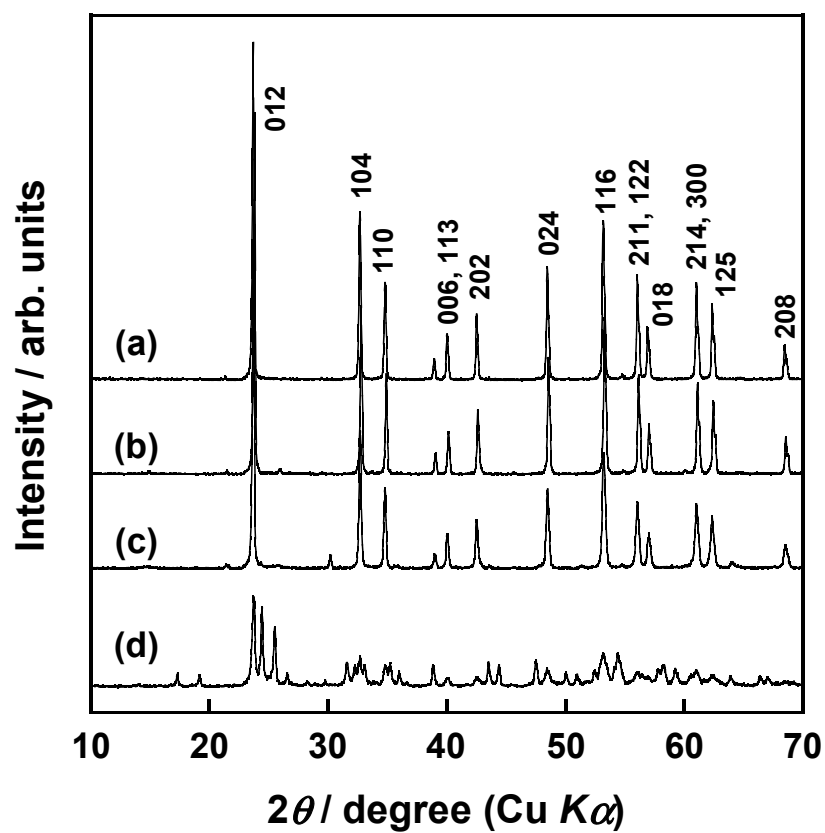
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**Fig. S1** FT-IR spectra of (a) amorphous LiNbO<sub>3</sub>-NW obtained after thermal reaction of (NH<sub>4</sub>)<sub>3</sub>[NbO(Ox)<sub>3</sub>]•H<sub>2</sub>O, LiOH and TOA at 613 K for 2.5 h, crystallized LiNbO<sub>3</sub>-NW obtained after calcination of amorphous LiNbO<sub>3</sub>-NW at (b) 773 K for 5 h and (c) 773 K for 10 h, respectively, and (d) LiNbO<sub>3</sub>-B.



**Fig. S2** X-ray diffraction patterns of LiNbO<sub>3</sub>-B obtained by calcination for 10 h at (a) 1273 K, (b) 1173 K, (c) 973 K, and (d) 773 K.