

Supporting Information

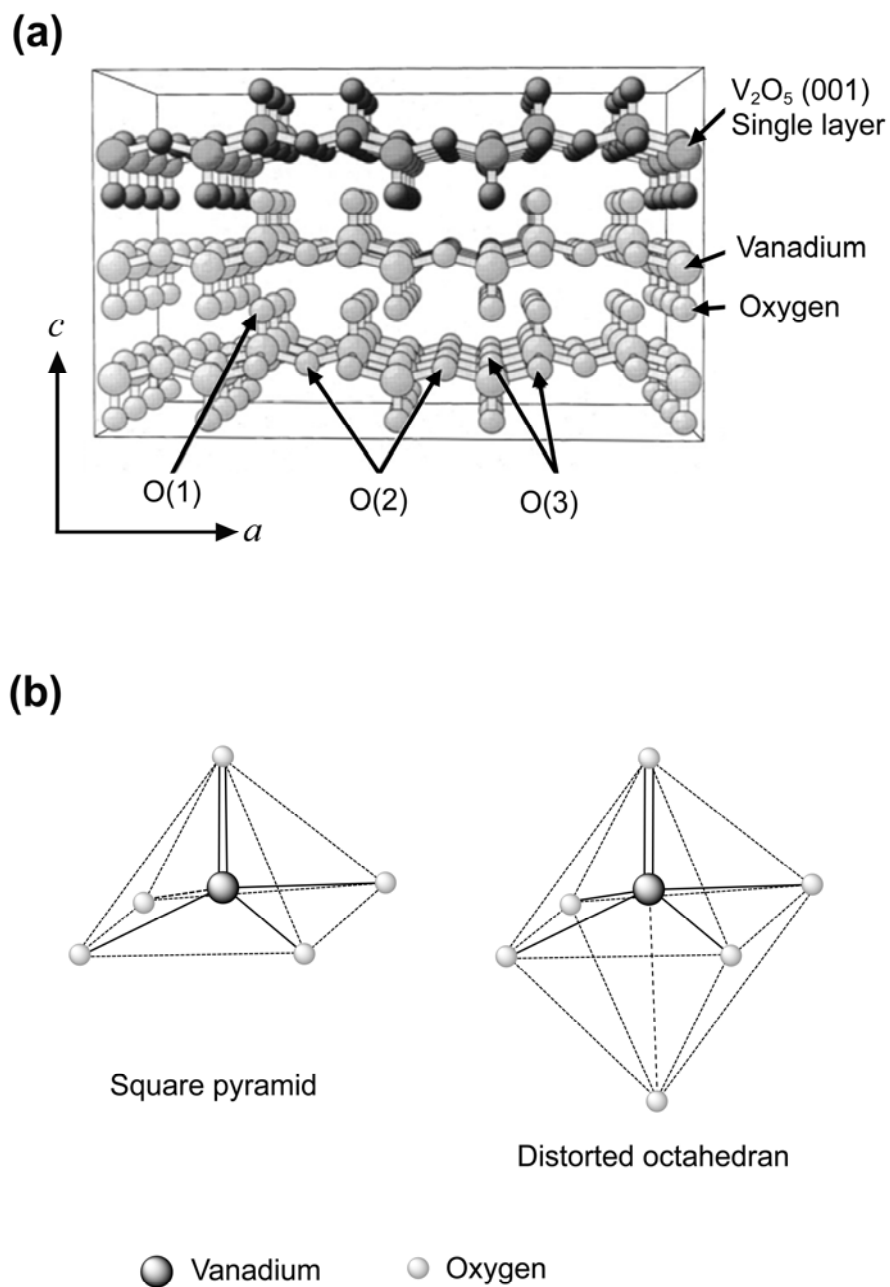


Fig. S1 Representation of V_2O_5 structure: (a) The layered orthorhombic structure and (b) square pyramid of VO_5 and distorted octahedran of VO_6 unit.

Fig. S1

Fig S2

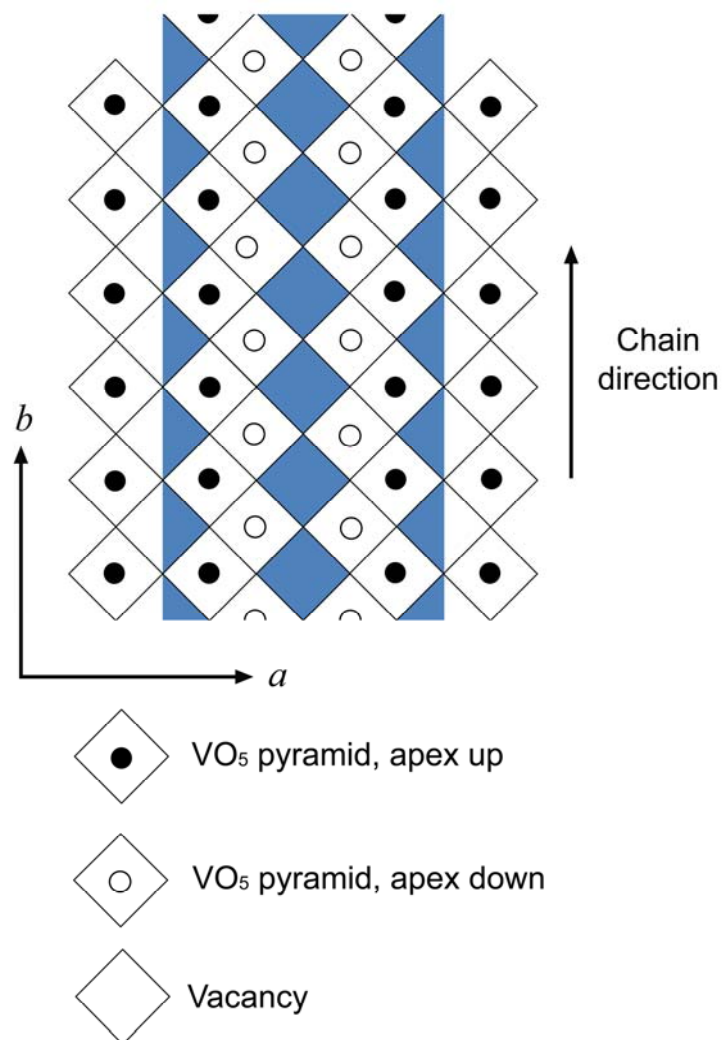


Fig. S2 Single layer slab of V_2O_5 nanofiber.

Fig. S3

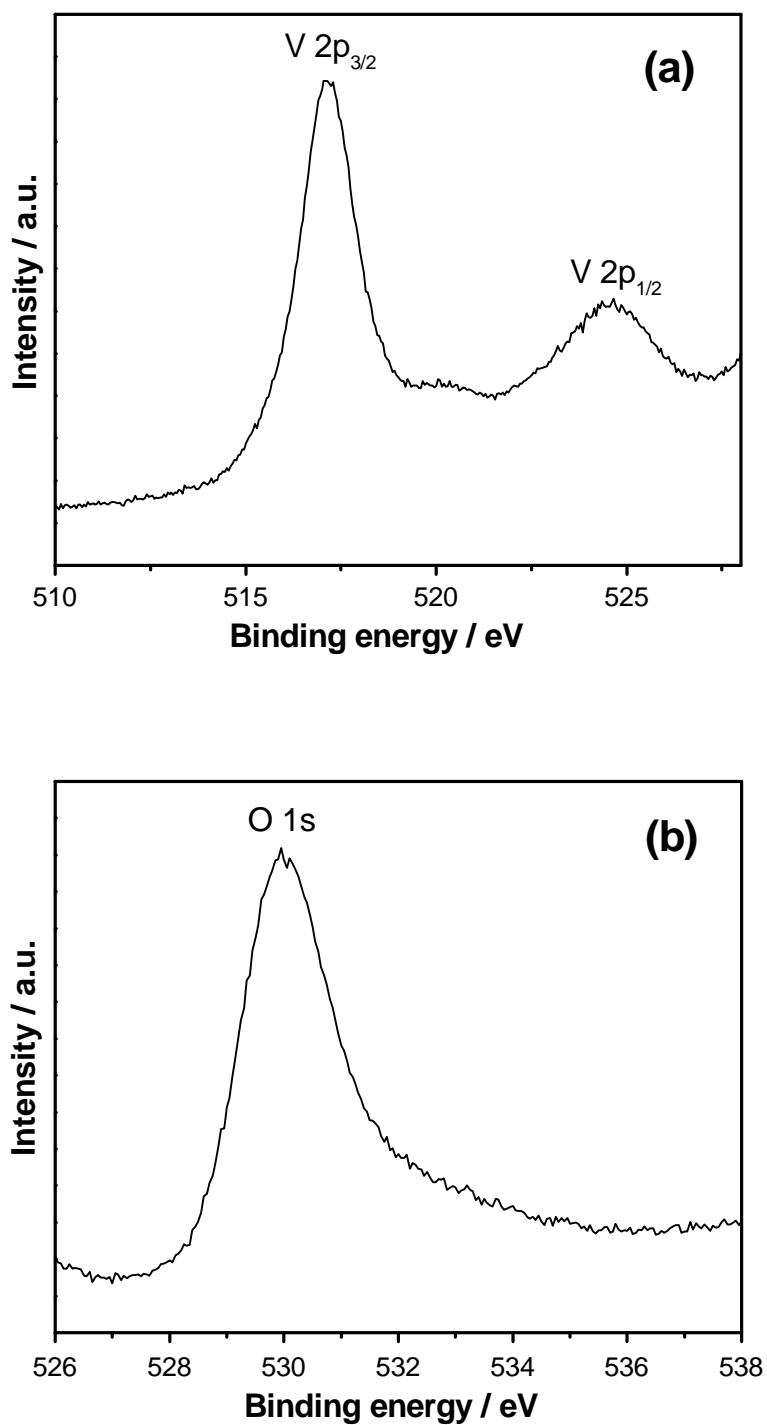


Fig. S3 High resolution XPS spectra of the as prepared V₂O₅ NBs: (a) V 2p and (b) O 1s.

Fig. S4

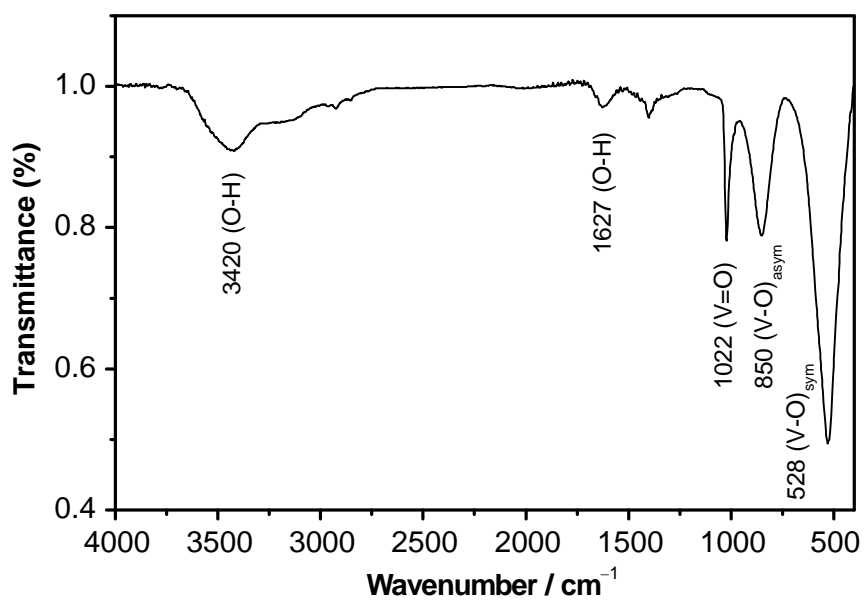


Fig. S4 FTIR spectrum of the as-prepared V₂O₅ NBs.

Fig. S5

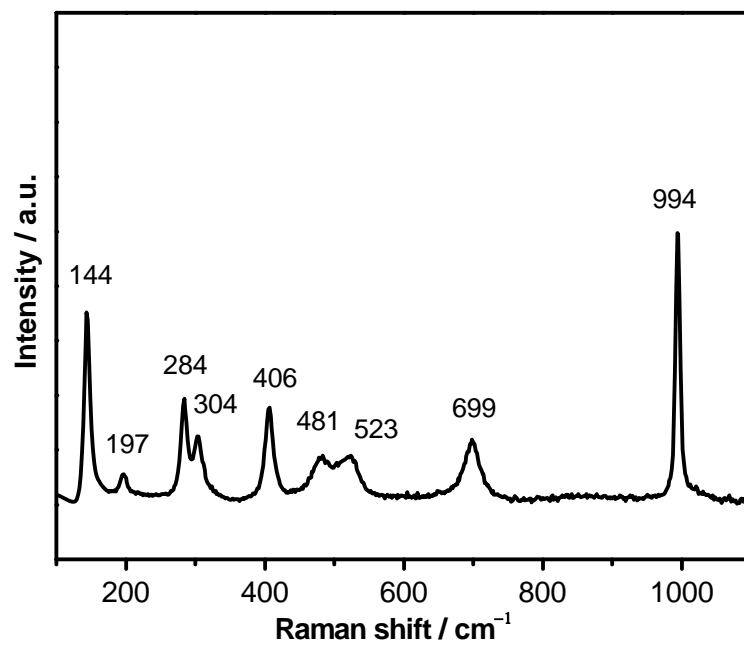


Fig. S5 Raman spectrum of the as-prepared V₂O₅ NBs.

Fig. S6

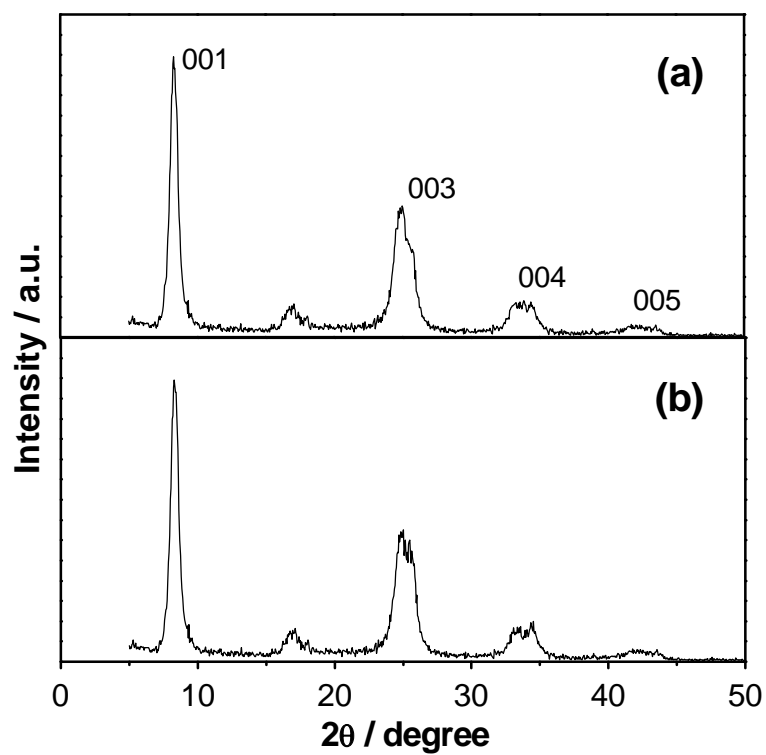


Fig. S6 XRD pattern of V_2O_5 prepared at (a) 220 °C in the 3 h reaction time and (b) 200 °C in the 24 h reaction time.

Fig. S7

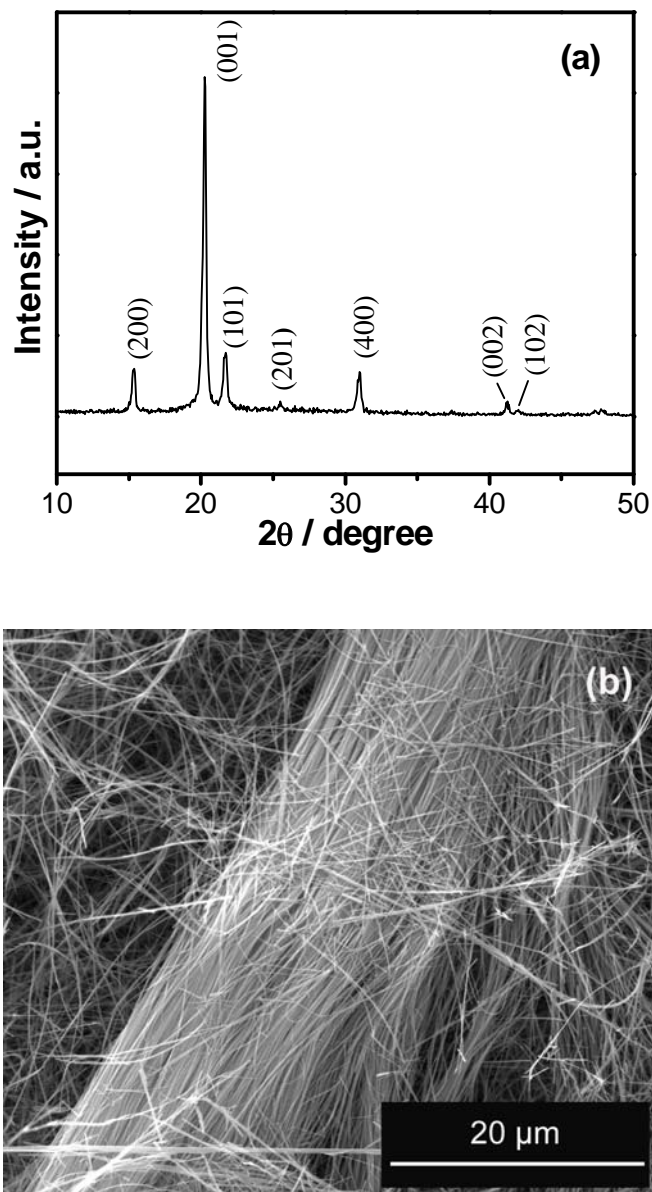


Fig. S7 (a) XRD pattern and (b) SEM image of V_2O_5 NBs prepared at 220 °C in the 24 h reaction time.

Table S1

Table S1: V₂O₅ formation at different temperatures and reaction times.

reaction temperature (± 5 °C)	reaction time (h)	products
220	3	layered V ₂ O ₅ ·nH ₂ O
220	7	V ₂ O ₅ NBs
220	24	V ₂ O ₅ NBs
200	7 and 24	layered V ₂ O ₅ ·nH ₂ O
< 200	7 and 24	no product