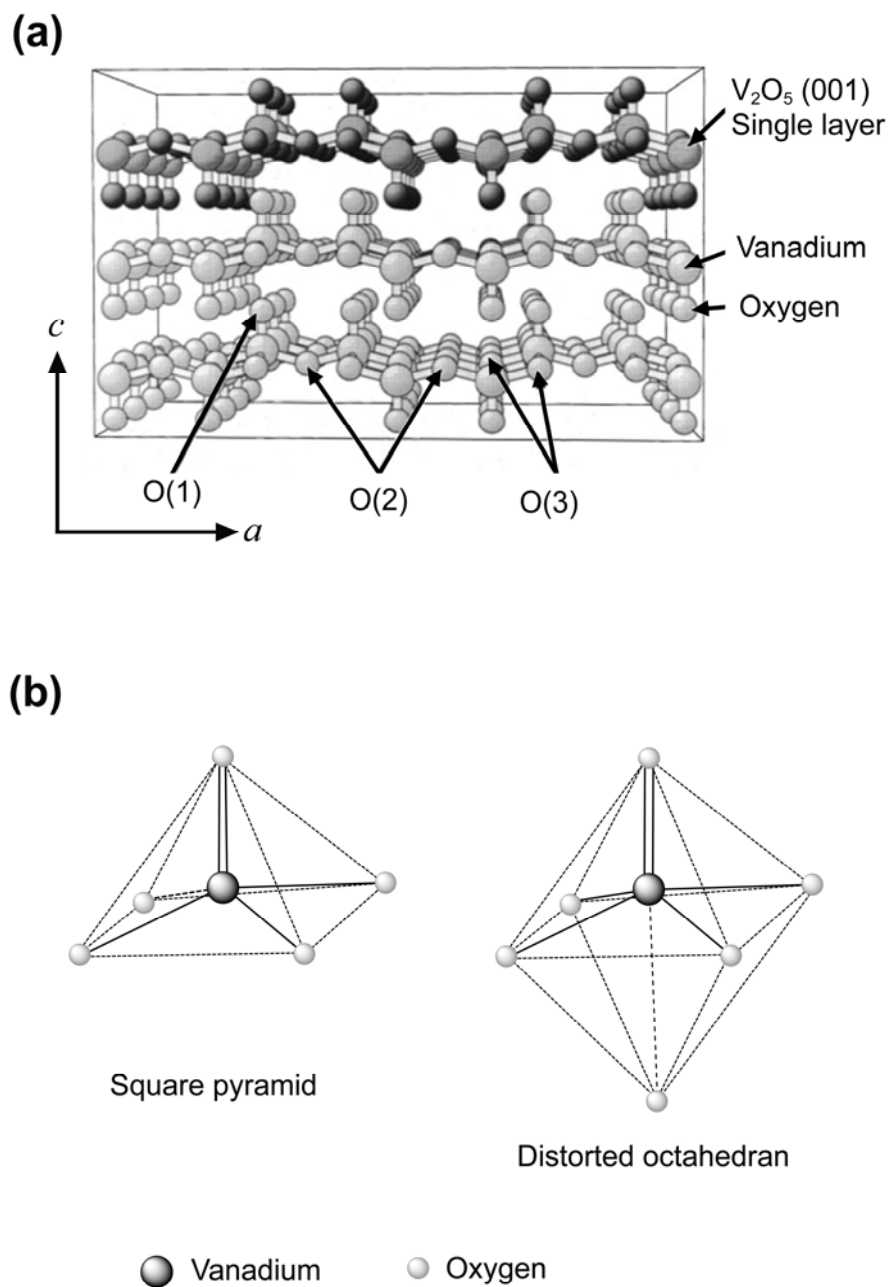


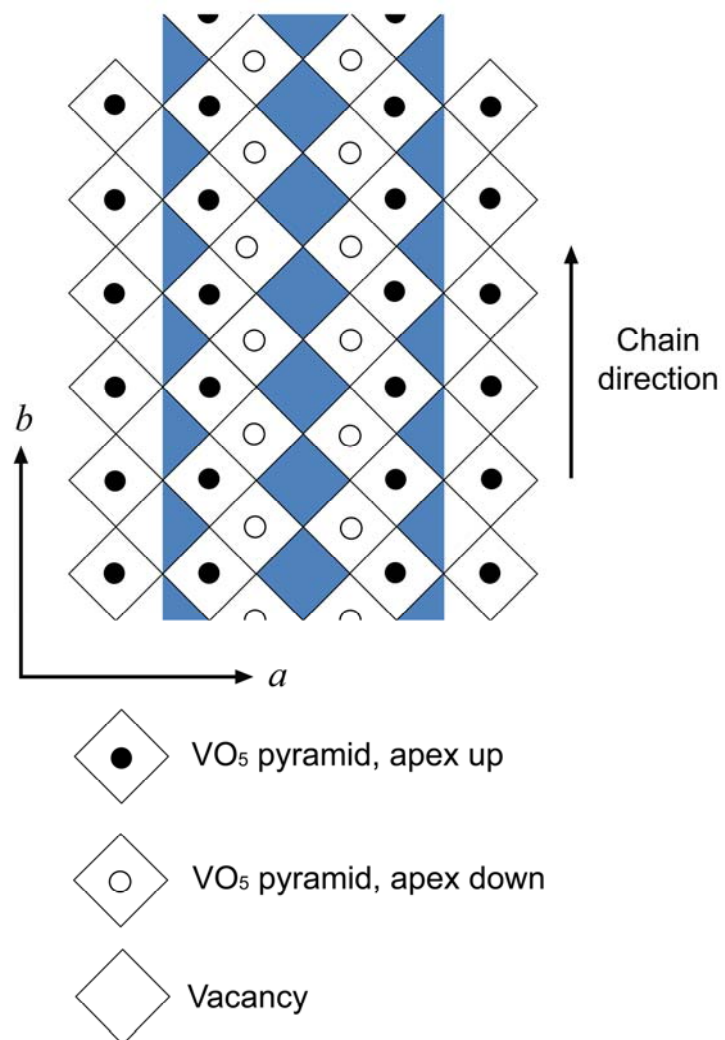
### Supporting Information



**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.

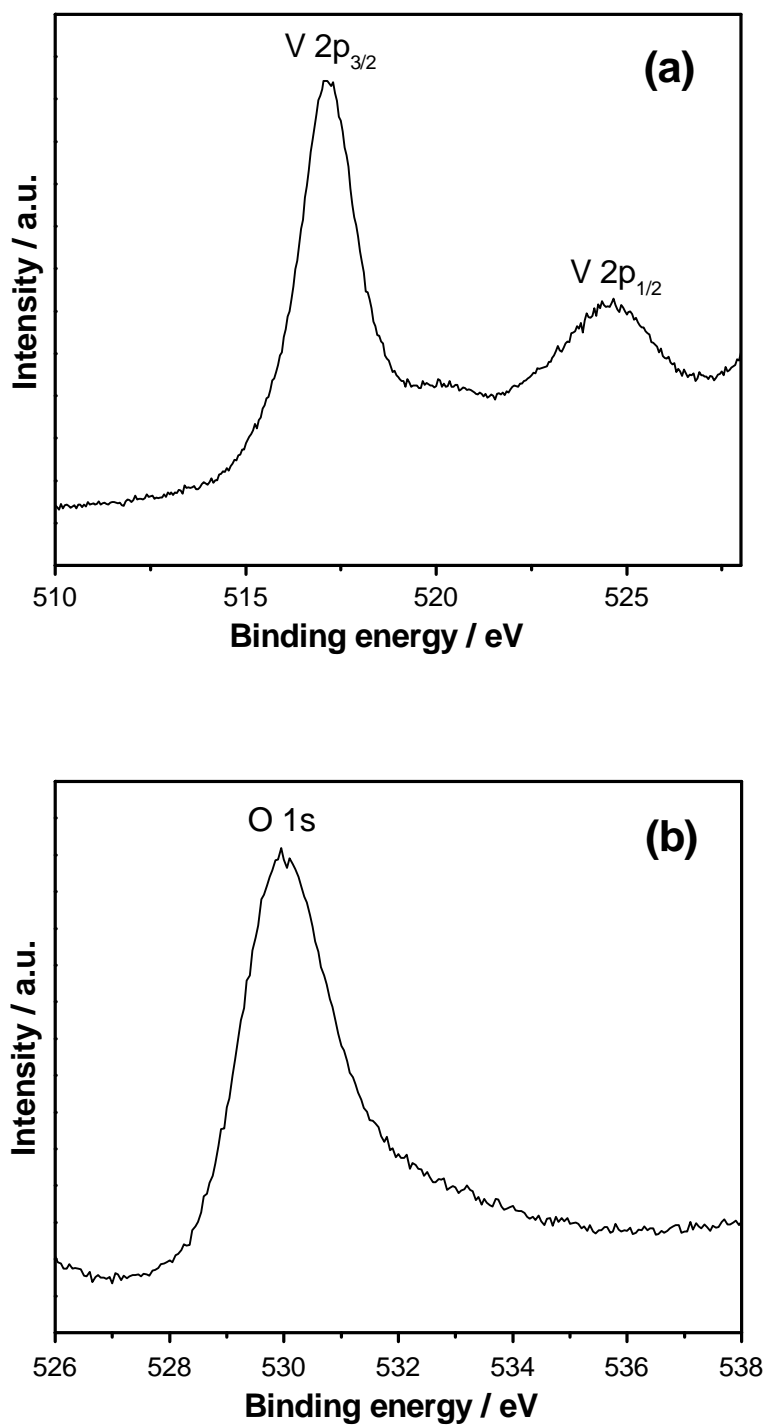
**Fig. S1**

**Fig S2**



**Fig. S2** Single layer slab of  $V_2O_5$  nanofiber.

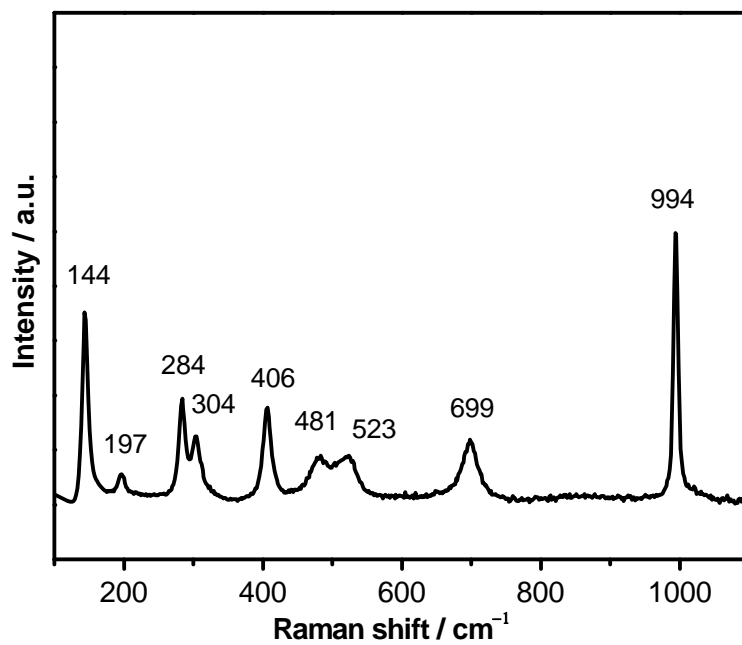
**Fig. S3**



**Fig. S3** High resolution XPS spectra of the as prepared V<sub>2</sub>O<sub>5</sub> NBs: (a) V 2p and (b) O 1s.

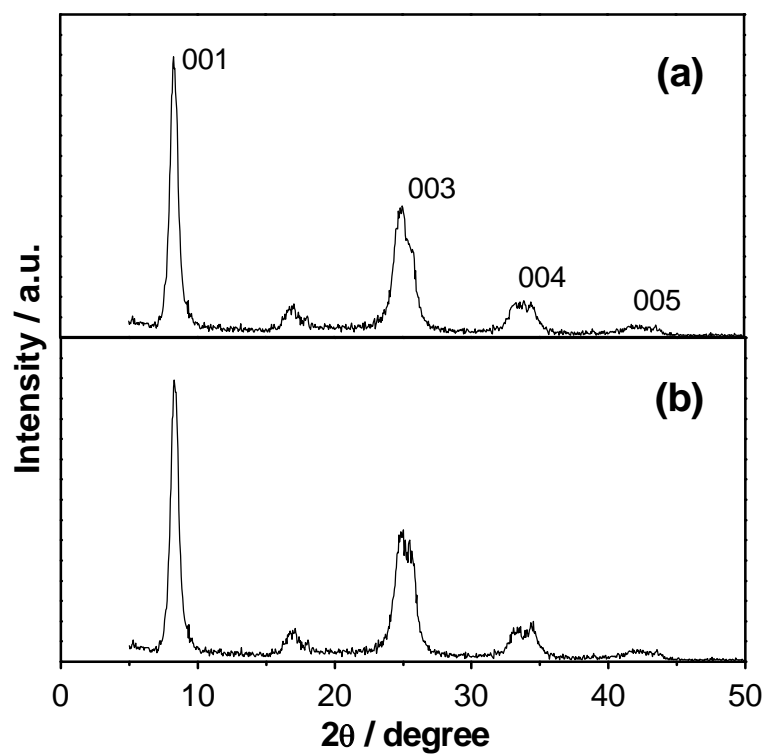


**Fig. S5**



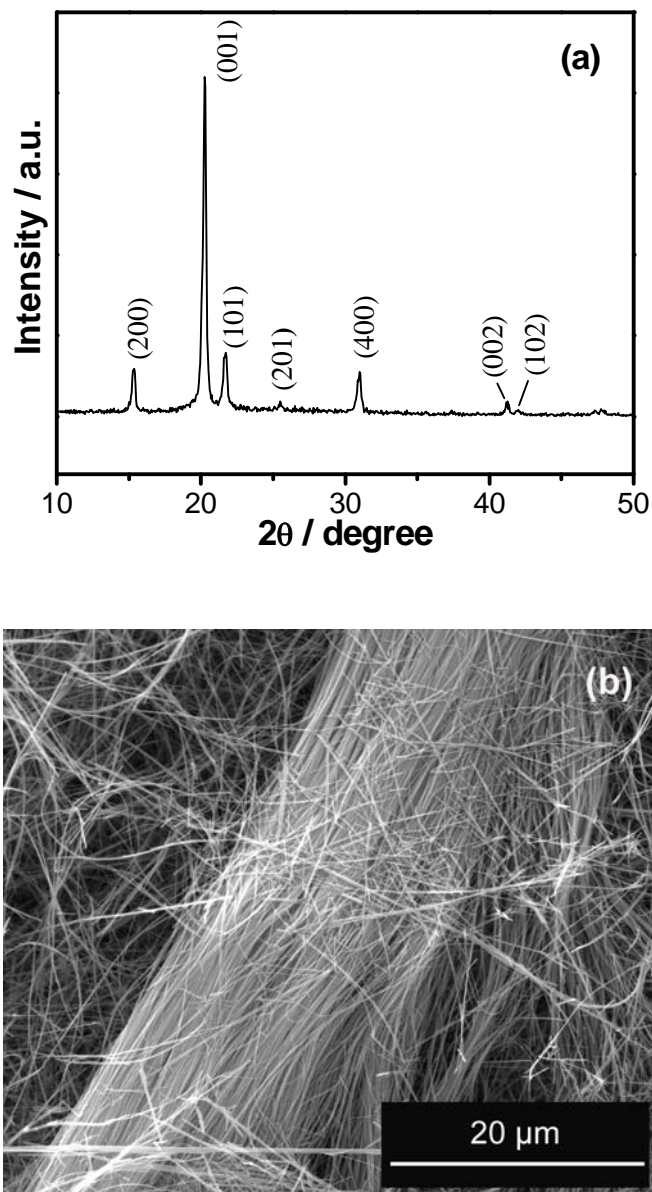
**Fig. S5** Raman spectrum of the as-prepared V<sub>2</sub>O<sub>5</sub> NBs.

**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:** V<sub>2</sub>O<sub>5</sub> formation at different temperatures and reaction times.

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