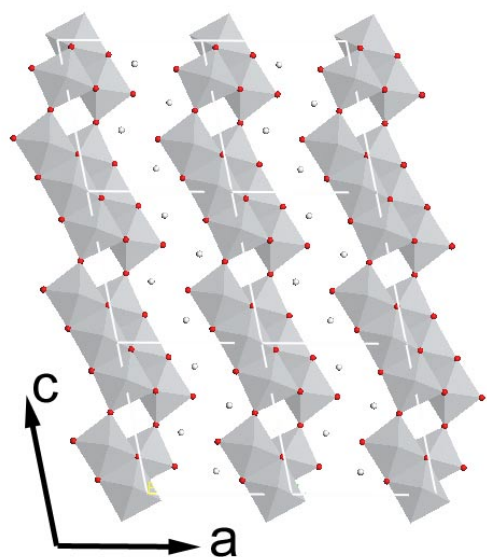
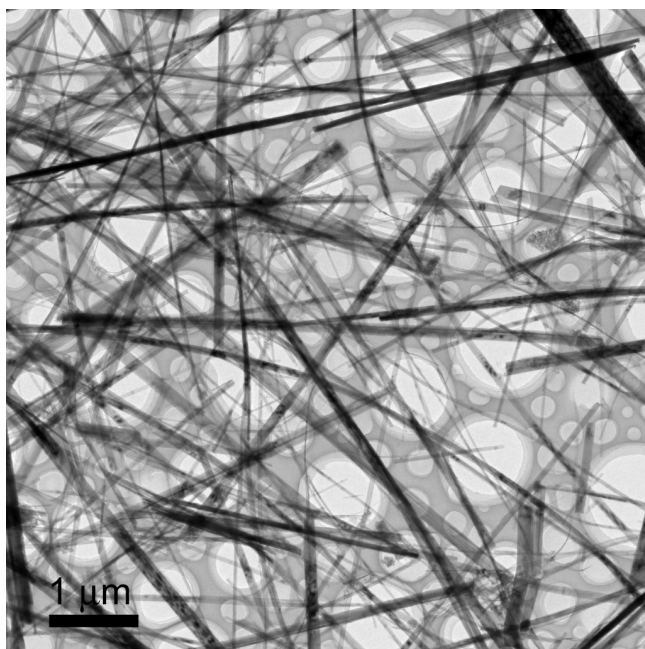


## Supporting Information



**SI-I.** Structure model of a  $2 \times 3$  unit cells of  $\text{Na}_2\text{Ti}_3\text{O}_7$  on the  $[010]$  projection. The structure of  $\text{Na}_2\text{Ti}_3\text{O}_7$  differs from that of  $\text{H}_2\text{Ti}_3\text{O}_7$  by a relative displacement of the layers by  $b/2$ . On the  $[010]$  projection, two unit cells of  $\text{Na}_2\text{Ti}_3\text{O}_7$  along  $c$  axis comprise one unit cell of  $\text{H}_2\text{Ti}_3\text{O}_7$ .



**SI-II.** Complete conversion of 20 mg  $\text{TiO}_2$  powders into  $\text{H}_2\text{Ti}_3\text{O}_7$  nanowires by  $180^\circ\text{C}$  hydrothermal reaction for 40 hours. If self-folding of nanosheets does not happen, large areas of thin nanosheets will be kept since the nutrient source is not enough for the growth of  $\text{Na}_2\text{Ti}_3\text{O}_7$  into thick layers, from which the nanowires split off.