Electronic Supporting Information

**Titanium nitride nanotube array for potentiometric sensing of pH**

*Mengyang Liu*, *Yanling Ma*, *Lei Su*, *Kuo-Chih Chou*, *Xinmei Hou*<sup>a</sup>

<sup>a</sup> State Key Laboratory of Advanced Metallurgy, University of Science and Technology Beijing, Beijing 100083, China

Email: houxinmei@ustb.edu.cn

<sup>b</sup> Research Center for Bioengineering and Sensing Technology, School of Chemistry and Biological Engineering, University of Science and Technology Beijing, Beijing 100083, China.
Fig. S1 XRD patterns of TiO$_2$ NTA and TiN NTA on the Ti sheet

Fig. S2 Raman spectra of TiO$_2$ NTA and TiN NTA
Fig. S3 EIS plots of TiN NTA electrode in 1mol/L H$_2$SO$_4$, KOH and Na$_2$SO$_4$