## Supplementary Information

## A high-performance composite ORR catalyst based on the synergy between binary transition metal nitride and nitrogen-doped reduced graphene oxide

Yuanyuan Dong, Yijie Deng, Jianhuang Zeng, Huiyu Song, Shijun Liao<sup>1</sup>

The Key Laboratory of Fuel Cell Technology of Guangdong Province & The Key Laboratory of New Energy of Guangdong Universities, School of Chemistry and Chemical Engineering, South China University of Technology, Guangzhou 510641, China

<sup>&</sup>lt;sup>1</sup> Corresponding author, E-mail: chsjliao@scut.edu.cn; Fax:+86 020 87113586

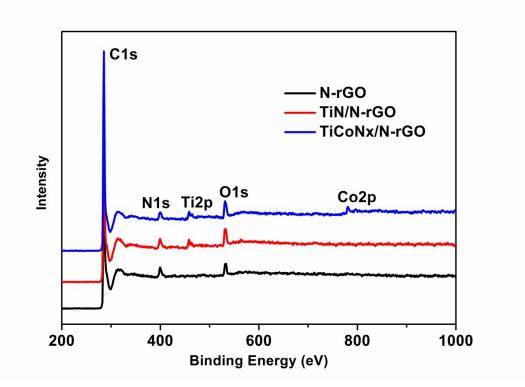


Fig.S1 The survey XPS spectra for three samples of N-rGO, TiN/N-rGO and TiCoNx/N-rGO.

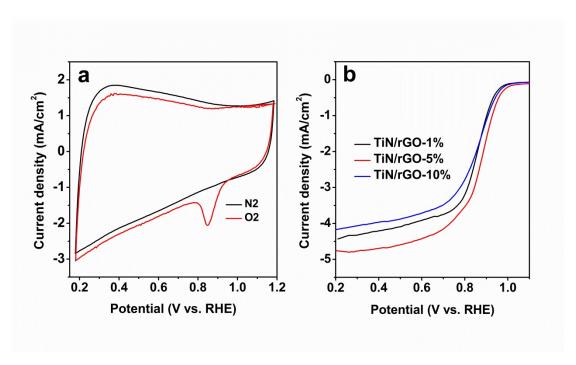


Fig.2 (a) CV curves of TiN/N-rGO-5% in  $N_2$  and  $O_2$ -saturated 0.1 M KOH solution. (b) LSV curves of TiN/N-rGO-1%, TiN/N-rGO-5% and TiN/N-rGO-10% towards ORR in 0.1 M KOH solution.