

# Supporting Information

## **Flexible and Highly Sensitive Nitrite Sensor Enabled by Interconnected**

## **3D Porous Polyaniline/ Carbon Nanotubes Conductive Hydrogels**

Fengxian Gao<sup>a</sup>, He Teng<sup>a</sup>, Jingyao Song<sup>a</sup>, Guiyun Xu<sup>a</sup>, Xiliang Luo<sup>a\*</sup>

<sup>a</sup>Key Laboratory of Optic-electric Sensing and Analytical Chemistry for Life Science, MOE; Shandong Key Laboratory of Biochemical Analysis; Key Laboratory of Analytical Chemistry for Life Science in Universities of Shandong; College of Chemistry and Molecular Engineering, Qingdao University of Science and Technology, Qingdao 266042, China.

E-mail: [xiliangluo@qust.edu.cn](mailto:xiliangluo@qust.edu.cn)

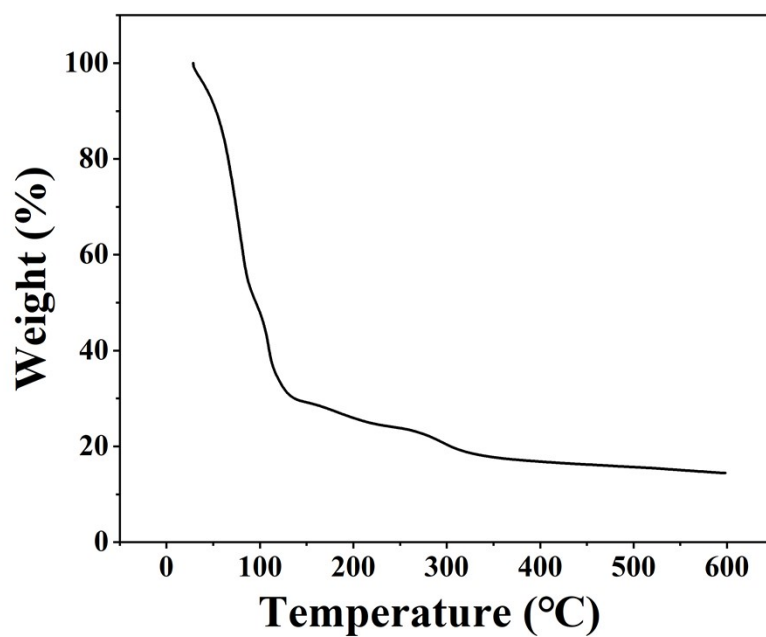


Fig. S1 TGA of PANI-CNTs hydrogels.

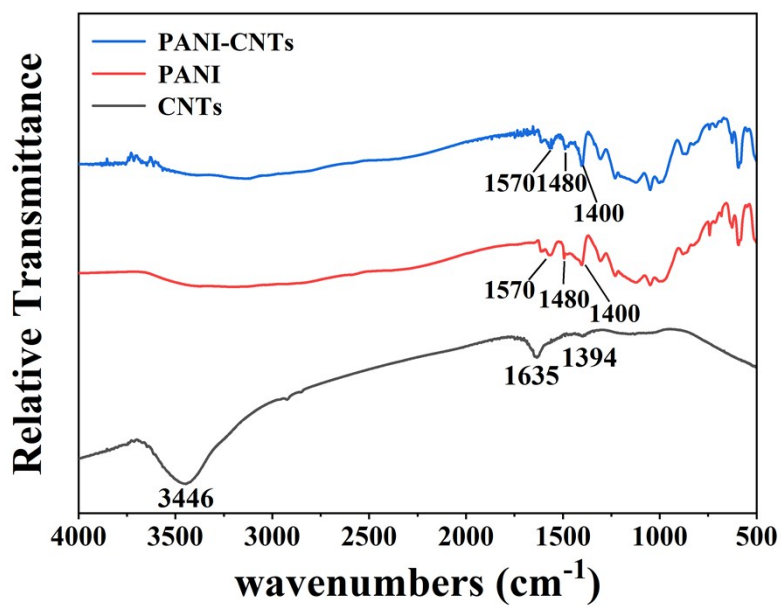
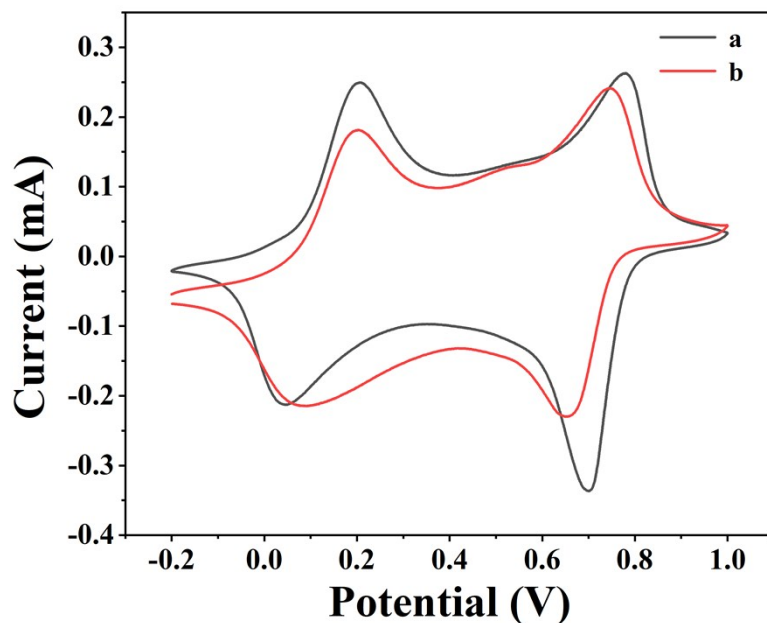


Fig. S2 FT-IR spectra of CNTs, PANI hydrogels and PANI-CNTs hydrogels.



**Fig. S3** CV curves of PANI-CNTs/GCE measured at a scan rate of 100 mV/s in 0.6 M HClO<sub>4</sub> solution in the absence (a) and presence (b) of NaNO<sub>2</sub> (0.2 mM).

**Table S1** A comparison of the analytical performance for different nitrite electrochemical sensors

Electrode modification	Technology	Linear range	Detection limit	Reference
PdNCs-PPy/GCE	DPV	0.1-1.4 mM	0.74 μM	1
PANI-CNTs/GCE	i-t	-	6.1 μM	2
PANI/PS/GCE	i-t	0.5- 1400 μM	0.24 μM	3
GNPs/graphene/MCE paper	DPV	0.3-720 μM	0.1 μM	4
PANI-MoS <sub>2</sub> /GCE	i-t	4.0-4834 μM	1.5 μM	5
CQD-PEDOT/GCE	i-t	0.5-1110 μM	88 nM	6
PANI-CNTs/GCE	i-t	20- 1800 μM	7.8 μM	This work

PdNCs: palladium nanoclusters; PPy: polypyrrole; GCE: glassy carbon electrodes; PANI: polyaniline; CQD: carbon quantum dots

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