

Supplementary Information

**Voltammetric determination of 4-chlorophenol using multiwall
carbon nanotube/gold nanoparticles nanocomposites modified
glassy carbon electrodes**

Ling Wang,^{a†} Qi Sun,^{a,b†} Yang Liu^{b*} and Zhisong Lu^{a*}

^a Institute for Clean Energy & Advanced Materials, Faculty of Materials & Energy, Southwest University, No.1 Tiansheng Road, Chongqing 400715, P. R. China. Email: zslu@swu.edu.cn

^b Institute of Food Science and Technology, Chinese Academy of Agricultural Sciences, No.1 Nongda South Road, Xibeiwang Town, Haidian District, Beijing 100193, P. R. China. Email: liuyang01@caas.cn

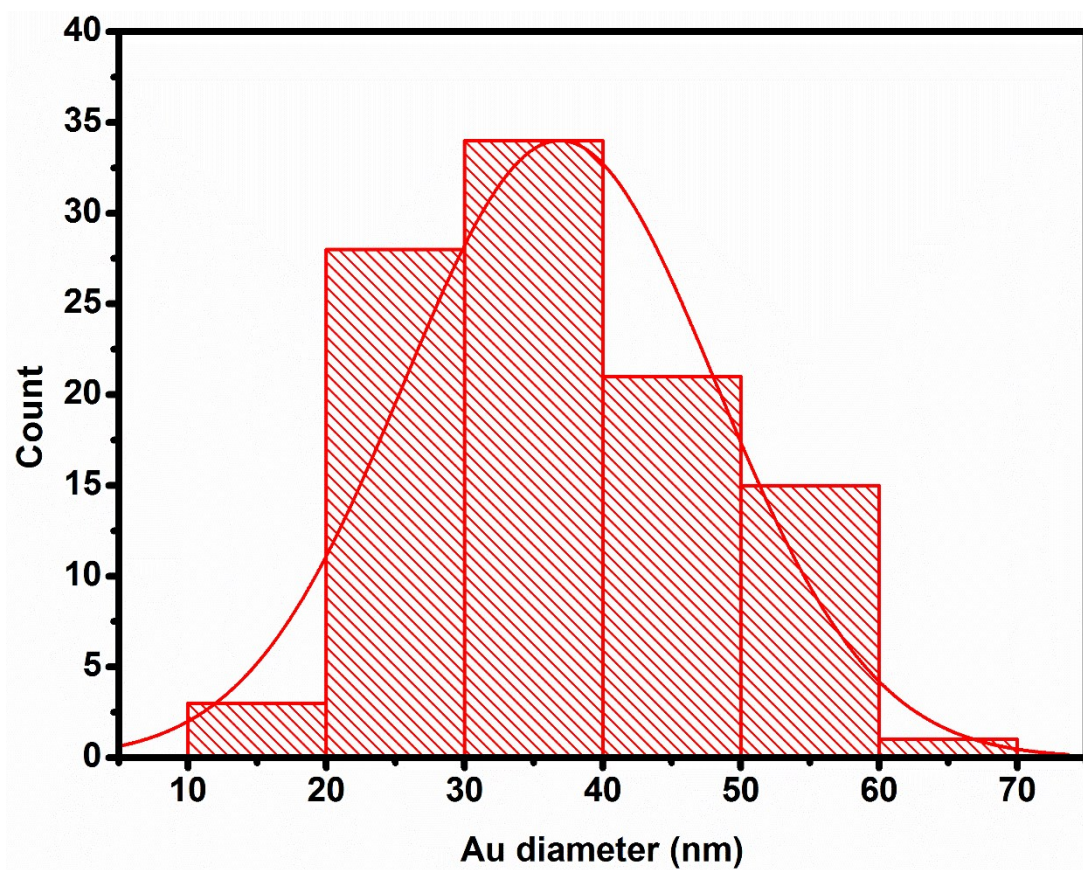


Figure S1. Size distribution of the as-prepared AuNPs on cMWCNTs

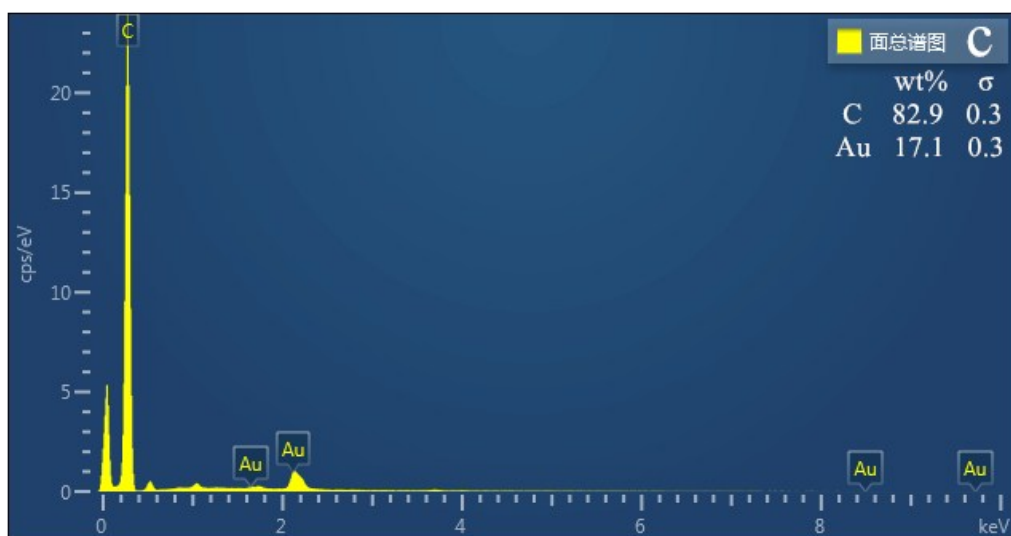


Figure S2. EDS spectrum of the AuNPs-cMWCNT nanocomposites

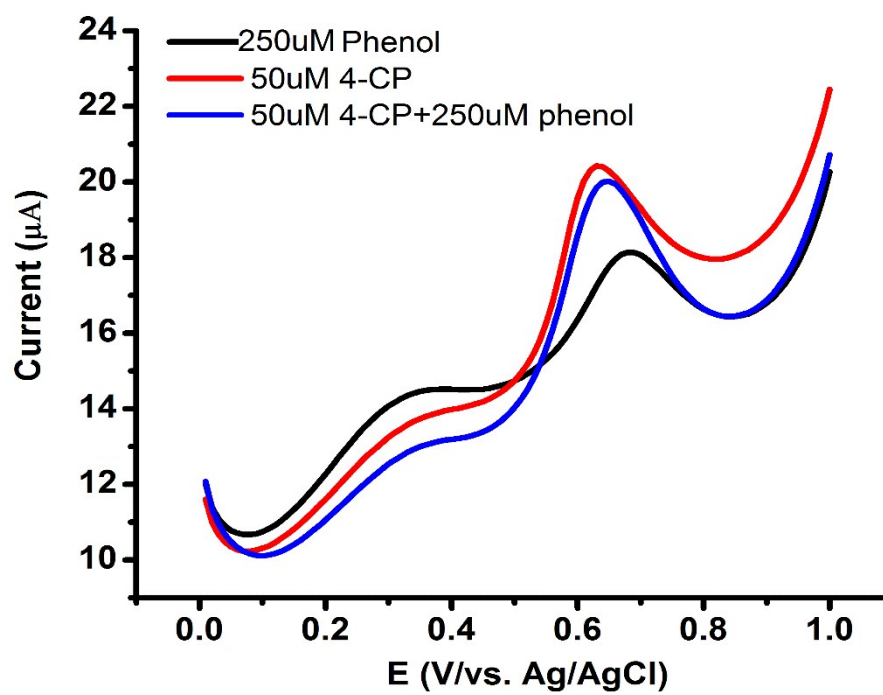


Figure S3. Size distribution of the as-prepared AuNPs on cMWCNTs

Supplementary Information

Table S1 Comparison of the as-prepared 4-CP sensor with the ones reported in literatures

Electrodes	LOD $\mu\text{mol L}^{-1}$	Linear range $\mu\text{mol L}^{-1}$	Reference
MWCNTs-Ni(OH) ₂ modified GCE	0.5	1-750	1
Ionic liquid-Pd-graphene nanocomposite modified GCE	1.5	4-800	2
CTAB-montmorillonite modified carbon paste electrode	0.02	0.05-10	3
Ag-phosphotungstic acid composite nanoparticles modified ITO	0.34	1-400	4
horseradish peroxidase-AuNPs modified GCE	0.39	2.5-117.5	5
Lac/PVA/F108/AuNPs modified GCE	12.09	1-25	6
Expanded graphite-Ag-zeolite-epoxy electrode	10	100-500	7
AuNPs-cMWCNT nanocomposite modified GCE	0.11	0.3-400	This work

References:

1. J. Zolgharnein, T. Shariatmanesh and A. Babaei, *Sensors and Actuators B: Chemical*, 2013, **186**, 536-544.
2. J.-J. Shi and J.-J. Zhu, *Electrochimica Acta*, 2011, **56**, 6008-6013.
3. H. Yang, X. Zheng, W. Huang and K. Wu, *Colloids and surfaces. B, Biointerfaces*, 2008, **65**, 281-284.
4. Y. Zhu, M. Wu and S. Liu, *Journal of Applied Electrochemistry*, 2013, **43**, 1035-1041.
5. C. Qiu, T. Chen, X. Wang, Y. Li and H. Ma, *Colloids and Surfaces B: Biointerfaces*, 2013, **103**, 129-135.
6. J. Liu, J. Niu, L. Yin and F. Jiang, *The Analyst*, 2011, **136**, 4802-4808.
7. A. Pop, F. Manea, C. Radovan, P. Malchev, A. Bebeselea, C. Proca, G. Burtica, S. Picken and J. Schoonman, *Electroanalysis*, 2008, **20**, 2460-2466.