Supporting Information

Synergistically electrocatalytic activity of nanocomposite polyoxometalate/carbon nanotube/gold nanoparticle towards reduction of H$_2$O$_2$

Shuyue Guo, Lin Xu*, Lihao Wang, Bingbing Xu

Key Laboratory of Polyoxometalates Science of Ministry of Education, College of Chemistry, Northeast Normal University, No. 5268 Renmin Street, Changchun 130024, PR China

*Corresponding author. Tel.: +86-431-85098760; Fax: +86-431-85099765.
E-mail address: linxu@nenu.edu.cn (L. Xu).
Fig. S1. TEM image of AuNPs (scale bar: 50 nm).

Fig. S2. Schematics of the self-assembly of a (P$_2$W$_{18}$/CNTs/P$_2$W$_{18}$/Au)$_2$ film.
Fig. S3 CVs of the (P₂W₁₈/CNTs/P₂W₁₈/Au)₄ modified electrode in blank solution at initial test (solid line) and tested after 50 continuous cycle scans (dashed line).

Fig. S4 CVs of the (P₂W₁₈/CNTs/P₂W₁₈/Au)₄ modified electrode in blank solution at initial test (solid line) and tested after 20 days (dashed line).
Fig. S5 EIS responses of (P$_2$W$_{18}$/CNTs/P$_2$W$_{18}$/Au)$_n$ on ITO-coated glass surface n = 1, 2, 3, 4.