Supplementary information

Electrochemical sensor based on the Mn$_3$O$_4$/CeO$_2$ nanocomposite with abundant oxygen vacancies for highly sensitive detection of hydrogen peroxide released from living cells

Yalin Wu$^1$, Liping Lu$^{1*}$, Zhihui Yu$^1$, Xiayan Wang$^{2*}$

$^1$Key Laboratory of Beijing on Regional Air Pollution Control, Beijing University of Technology, Beijing 100124, China; $^2$Center of Excellence for Environmental Safety and Biological Effects, Department of Chemistry and Biology, Beijing University of Technology, Beijing 100124, China
Fig. S1. The (A-C) HR-TEM images and (D) EDS of the Mn₃O₄/CeO₂ nanocomposites.
Fig. S2. XRD pattern of the CeO$_2$ and Mn$_3$O$_4$/CeO$_2$. 
**Fig. S3.** (A) The current response of five different Mn$_3$O$_4$/CeO$_2$/GCE prepared under the same conditions in 0.1 M PBS (pH = 7.4) containing 1 mM H$_2$O$_2$. (B) The current response of 10 repeated amperometric measurements using the same Mn$_3$O$_4$/CeO$_2$/GCE in 0.1 M PBS (pH = 7.4) containing 1 mM H$_2$O$_2$. (C) Stability test of Mn$_3$O$_4$/CeO$_2$ modified electrode.