Electronic Supplementary Information

A Novel Electrochemiluminescence Immunosensor Based on CdS-Coated ZnO Nanorods array for HepG2Cell Detection

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Figure S1 EDX spectrum of pure ZnO nanorod array (upper) and CdS-coated ZnO nanorod array (bottom).
Figure S2 ECL-potential curve of CdS QD modified electrode in 0.1 M PBS (pH 7.4) containing 0.1 M KCl and 0.05 M K$_2$S$_2$O$_8$. Scan rate is 100 mV s$^{-1}$ and the photomultiplier tube (PMT) voltage is set to be -800 V.
Figure S3 ECL spectrum of Au/APTES/CdS-coated-ZnO modified electrode in 0.1 M PBS (pH 7.4) containing 0.1 M KCl and 0.05 M K$_2$S$_2$O$_8$. 
Figure S4 XPS spectra of N 1s before (A) and after (B) the ECL process for 20 min.
Figure S5 The band levels of ZnO, CdS, APTES and $S_2O_8^{2-}$. 
**Figure S6** SEM of gold nanoparticles. All the SEM images are taken using a field-emission scanning electron microscopy (FESEM, FEI Quanta 200F). The scale bar is 100 nm.
**Figure S7** Effect of incubation time on the ECL response of the immunosensor.