Supplementary Material (ESI) for Analyst
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Supporting Information for

Nanoscale Enhanced Ru(bpy)$_3^{2+}$ Electrochemiluminescence Labels and Its Aptamer Based Biosensing System

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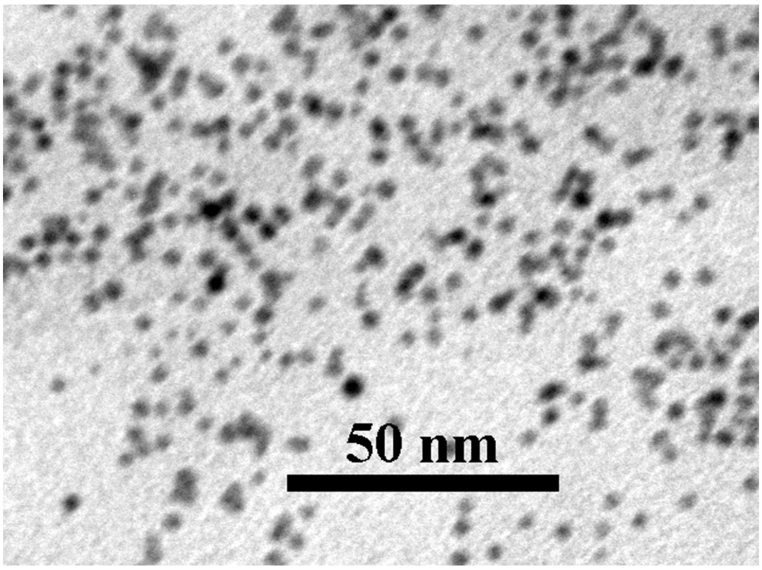

Fig. S1 TEM image of DMAET capped gold NPs with a mean size of 3.6 (± 0.4) nm by calculating 50 particles.

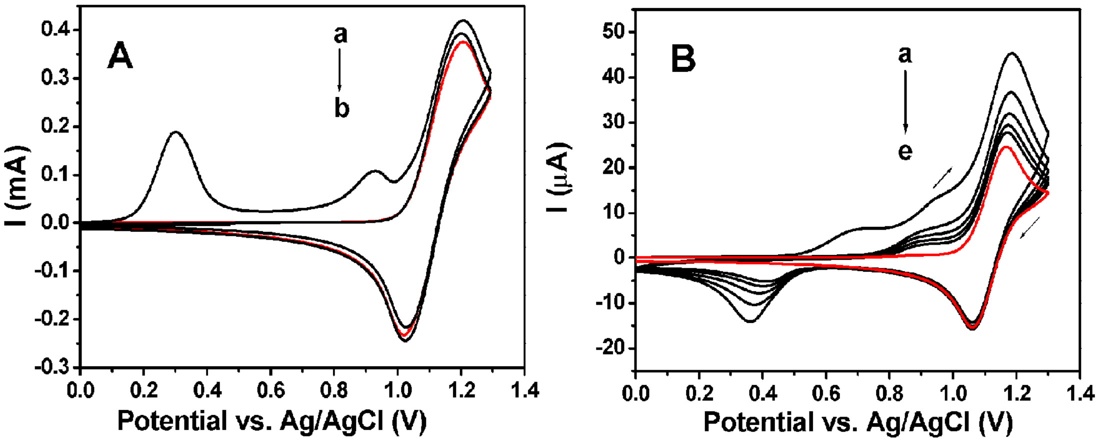

Fig. S2 Cyclic voltammograms of blank ITO electrode (red line of A and B), ITO electrode after dipped into DMAET capped CdTe NPs crude solution (black line of A, a-b corresponding to the first cycle to second cycle) or DMAET capped gold NPs (black line of B, a-e corresponding to the first cycle to fifth cycle) for 10 minutes in ECL solution. The second cycle of ITO electrode adsorbed CdTe NPs showed a very similar CV spectrum to blank ITO electrode in $Ru(bpy)_3^{2+}$ ECL solution. However, in the gold NPs case, the fifth cycle stilled had an obvious difference to blank ITO electrode. It may be due to the CdTe NPs can be thoroughly oxidation-decomposed in the anodic CV scan, while the gold NPs can not be thoroughly decomposed and the residues took part in the subsequent CV process.