Electronic Supplementary Material (ESI) for Analytical Methods.

Through the synthesis progress with L-cysteine as the stabilizing agent, both amine groups and carboxyl groups existed on the surface of CdTe QDs, which could lead to the aggregation of the QDs in the presence of EDC introduced to induce the conjugation between GOx and the QDs. With the reaction illustrated in Fig. S1, CdS shell formed around the CdTe core and the CdTe/CdS QDs were modified only with amine groups, which was favorable to the following step of the experiment.

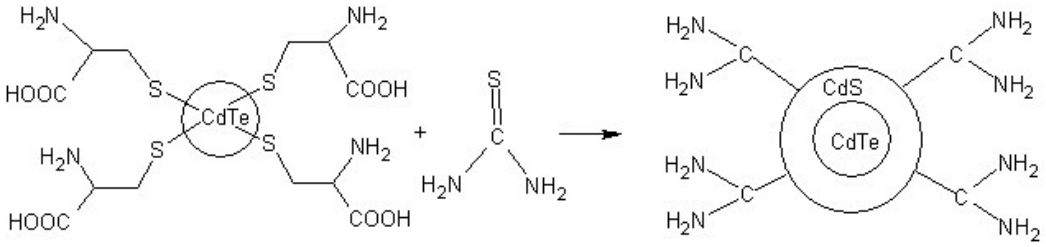

Fig. S1 The reaction to synthesize CdTe/CdS QDs

Compared with CdTe QDs, the fluorescence of CdTe/CdS QDs was red-shifted and with higher intensity when excited in the same condition, shown in Fig S2.

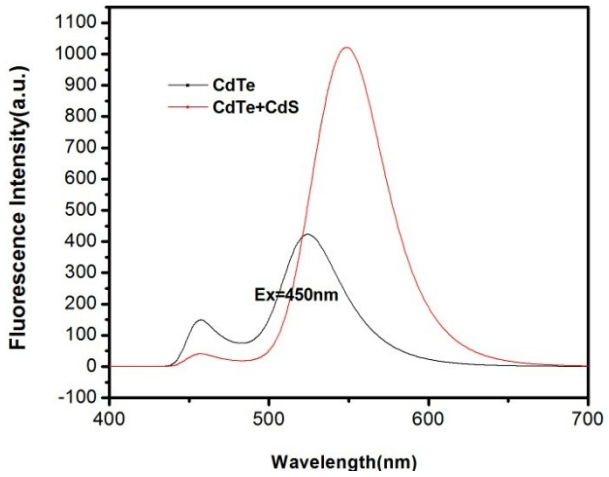

Fig. S2 The fluorescence spectra of CdTe/CdS QDs and CdTe QDs excited at 473nm