Electronic Supplementary Material (ESI) for RSC Advances.

Carbon-dot-hydrogel for enzyme-mediated bacterial detection

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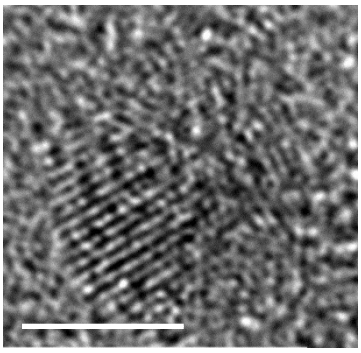

Fig. S1 High resolution transmission electron microscopy (HRTEM) image of a representative carbon dot embedded within the hydrogel, showing the graphite crystal planes. Scale bar is 2 nm. HRTEM images were recorded on a 200 kV JEM-2100F transmission electron microscope (JEOL, Peabody, MA). For the HRTEM measurements, 0.5 mg of C-dots synthesized as described above were dissolved in 500 m L of chloroform, and 10 m L of the solution was placed upon an ultrathin carbon-film-coated Cu grid, dried at room temperature for 2 h, and imaged.

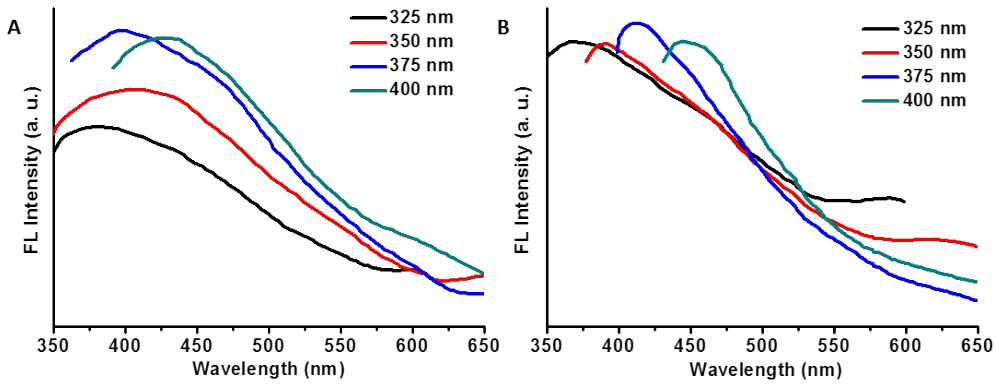

Fig. S2 Photoluminescence spectra of C-dot embedded in hydro gel (**A**) and in solution excited at different wavelengths (**B**) (10 mg mL^{-1}) were recorded on FL920 spectrofluorimeter.