Supporting Information

Determination of Cu$^{2+}$ and biothiols by the novel red fluorescent hybrid nanoparticles

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Fig. S1. DLS distribution of the NPG@PFBD nanoparticles.

Fig. S2. Stability of the NPG@PFBD nanoparticles. (a) fluorescence intensity of new synthetic sample, fluorescence intensity of the same sample after 10 days. (b) photobleaching curves of NPG@PFBD nanoparticles.
Fig. S3. The relationship between the fluorescence intensity of the NPG@PFBD nanoparticles and the reaction time in the presence of 50 µM Cu$^{2+}$ and 50 µM GSH.

Fig. S4. The relationship between the Er and pH in the presence of NPG@PFBD nanoparticles and 50 µM Cu$^{2+}$ and 50 µM GSH.
Fig. S5. The relationship between the Er and reaction temperature in the presence of NPG@PFBD nanoparticles and 50 μM Cu^{2+} and 50 μM GSH.