Electronic Supplementary Material (ESI) for Analytical Methods

SiO_2 nanoparticles and diphenylcarbazide doped polymethylmethacrylate electrospun fibrous film for Cd^{2+} colorimetric detection

Tianyu Yao, Qin Tu, Xiang Han, Longlong Zhang, Dong-En Wang, Manlin Li, Sheng Chen and Jinyi Wang*

College of Science, Northwest A&F University, Yangling, Shaanxi 712100, PR China

* Corresponding author. Tel. /fax: +86 29 87082520.

E-mail address: jywang@nwsuaf.edu.cn (J. Wang).

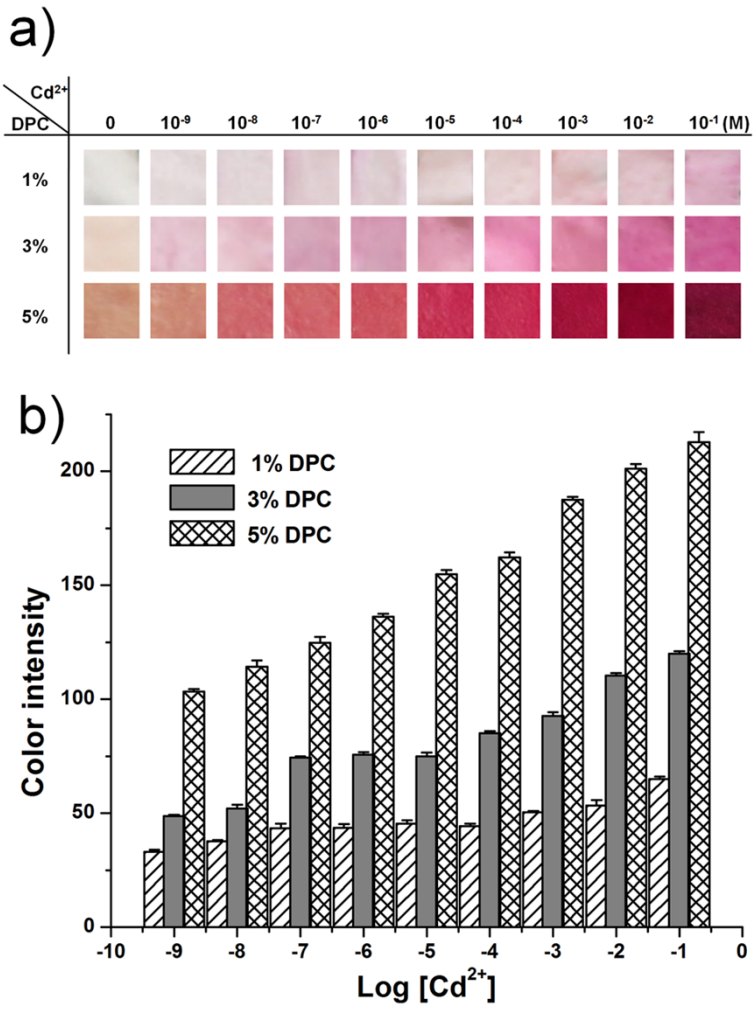

Fig. S1 Optical images (a) of different concentration DPC doped PMMA fibrous films (30 wt% PMMA, 1 wt%, 3 wt% or 5 wt% DPC) after incubation with 10^{-4} M Cd^{2+} solution and their color intensity change (b) as a function of Cd^{2+} concentration.

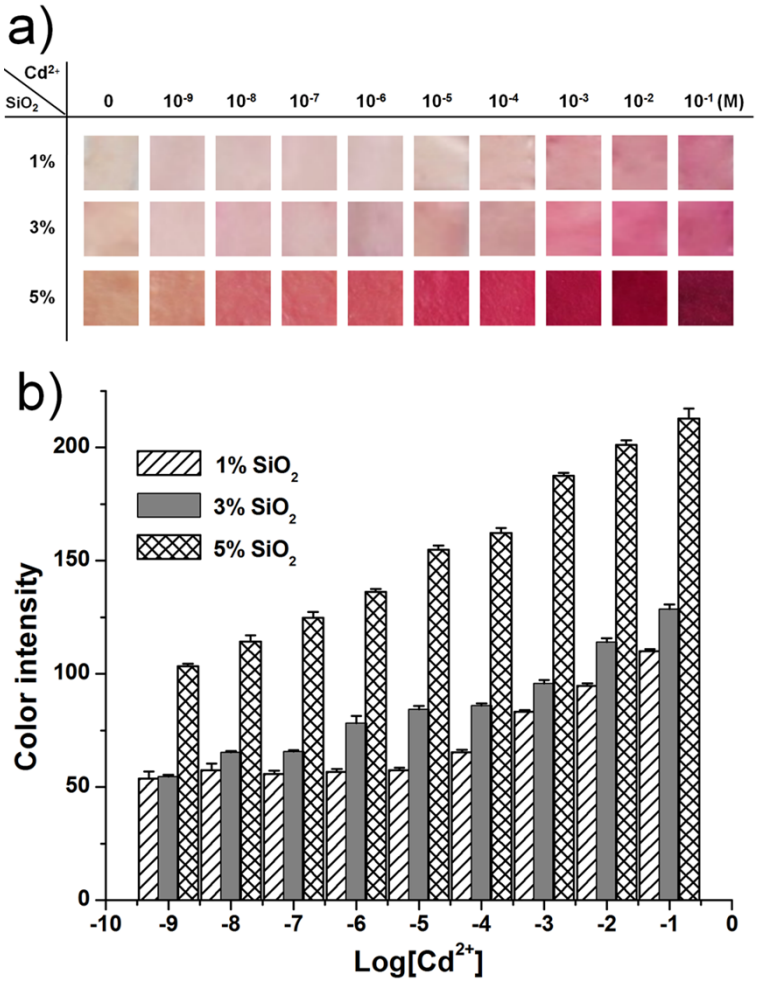

Fig. S2 Optical images (a) of DPC and different concentration SiO_2 nanoparticle doped PMMA fibrous films (30 wt% PMMA, 5 wt% DPC, and 1 wt%, 3 wt% or 5 wt% SiO_2 nanoparticles) after incubation with 10^{-4} M Cd^{2+} solution and their color intensity change (b) as a function of Cd^{2+} concentration.

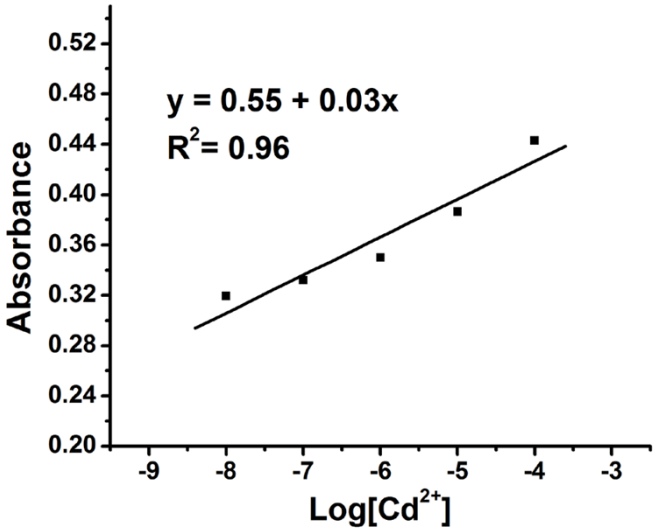

Fig. S3 Calibration curve of absorbance intensity of SiO_2 nanoparticle doped PMMA fibrous films at 523 nm versus increasing concentration of Cd^{2+}.

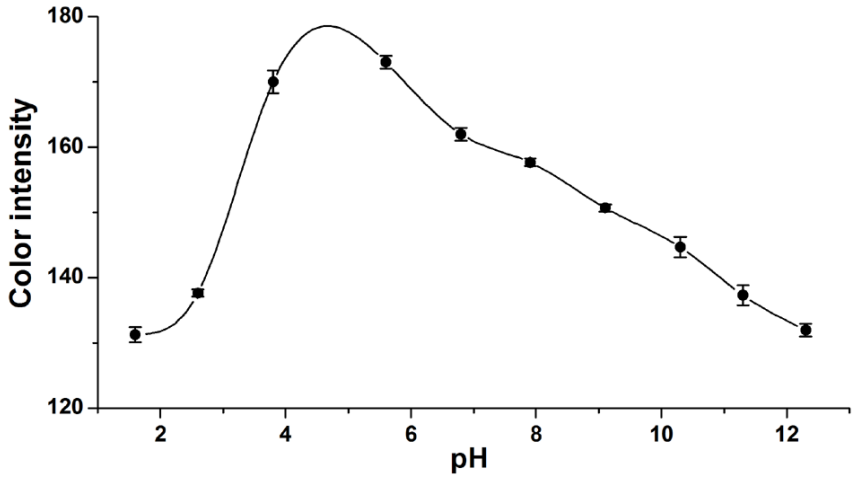

Fig. S4 Color intensity change of SiO_2 nanoparticle and DPC doped PMMA fibrous film after incubation with 10^{-4} M Cd^{2+} solution with various pH values.