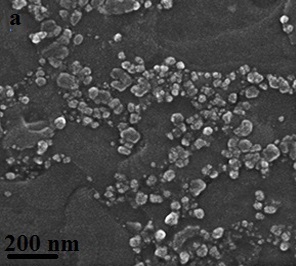
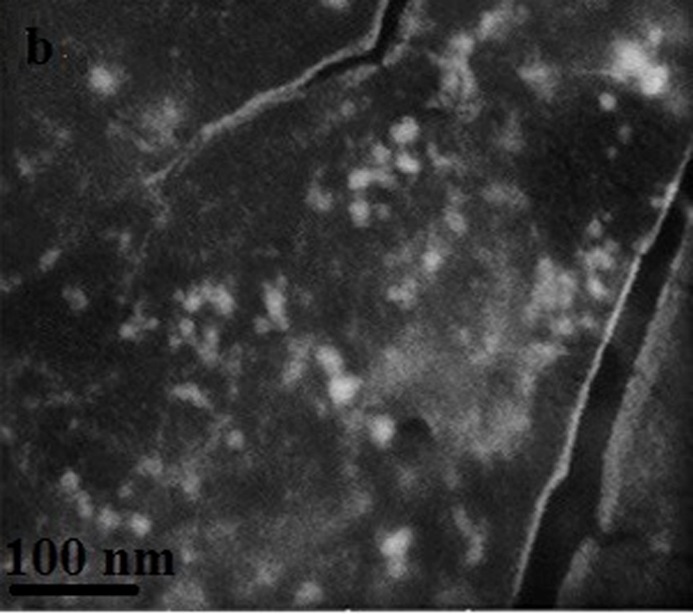


**Figure S1.** The UV-vis spectrum of the synthesized

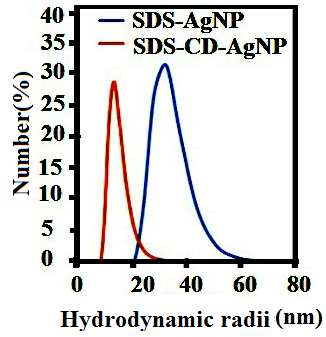
SDS-AgNPs and SDS-CD-AgNPs.





**Figure S2.** SEM images of the synthesized AgNPs:

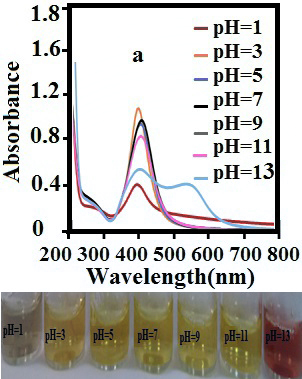
(a) SDS-AgNPs and (b) SDS-CD-AgNPs.

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**Figure S3.** The hydrodynamic radii (Dh) distributions obtained

by DLS for SDS-AgNPs and SDS-CD-AgNPs in aqueous solution

at pH=7.



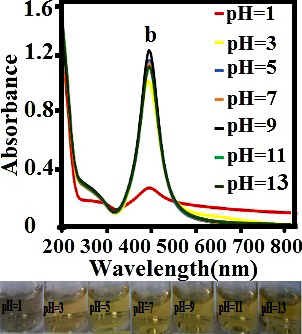
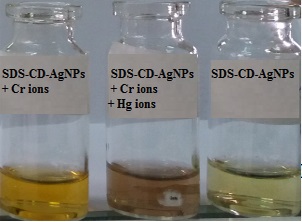


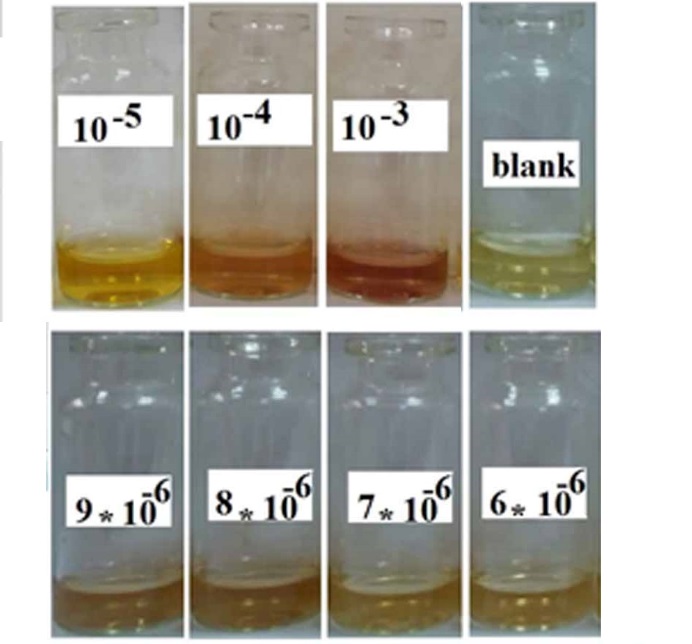
Figure S4. Effect of pH on the stability of the (a) SDS-AgNPs

and (b) SDS-CD-AgNPs.

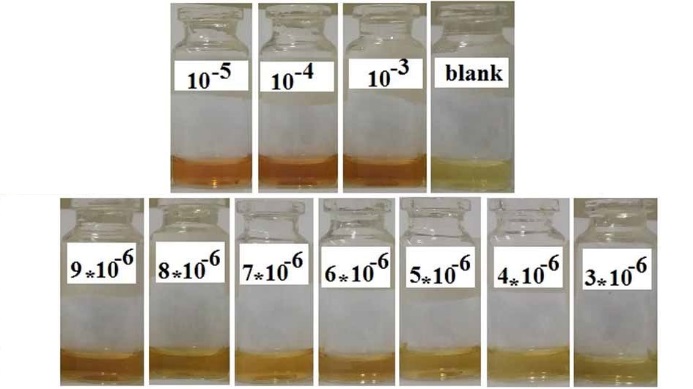


**Figure S5.** photographic image of SDS-CDAgNPs solution

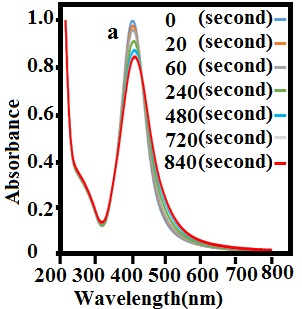
containing Cr2+ as colorimetric sensor for Hg2+ ion.



**Figure S6.** Photographic images of SDS-AgNP solutions after addition of Mn2+ ions at concentration range from 1.0 mM to 6.0 µM

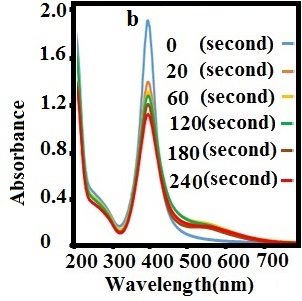


**Figure S7.** Photographic images of SDS-CD-AgNP solutions after addition of Cr2+ ions at concentration range from 1.0 mM to 3.0 µM



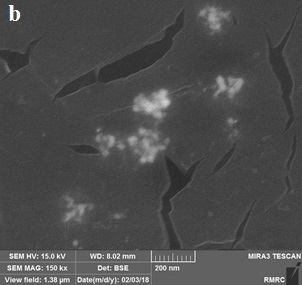
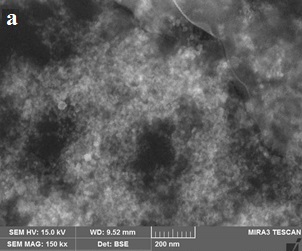
**Figure S8.** Time course of the spectral response of the SDS-AgNPs

at presence of 0.8 μM Mn2+ ions.



**Figure S9.** Time course of the spectral response of the SDS-CD-AgNPs

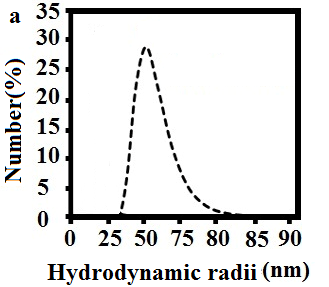
at presence of 0.8 μM Cr2+ ions.

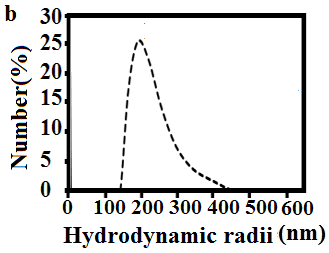


**Figure S10.** SEM images for and (b) (a) SDS-AgNPs after

the addition of 0.5 µM of Mn2+ ions (b) SDS-CD-AgNPs

after the addition of 0.5 µM of Cr2+ ions.





**Figure S11.** The hydrodynamic radii (Dh) distributions obtained

by DLS for (a) SDS- AgNPs after the addition of 0.5 µM of Mn2+

ions (b) SDS-CD-AgNPs after the addition of 0.5 µM of Cr2+ ions.