

Supporting Information

Rapid and highly selective Dip-Checking for Cyanide ions in Aqueous Media.

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6. **Figure S6. The CH-Au films A) Control and on interacting with aqueous solutions of B) Sodium chloride, C) Potassium chloride, D) Manganese acetate, E) Lead acetate, F) Cadmium chloride, G) Calcium chloride, H) Potassium Ferricyanide, and I) Silver nitrate, (1000 mg/L each).**
7. **Figure S7. The CH-Au films A) Control and on interacting with aqueous solutions of B) Cysteine, C) Homocysteine and D) Glutathione (1000 mg/L each).**
8. **Figure S8. The CH-Au discs dipped in 1000mg/L aqueous solutions of Sodium thiosulphate, Ammonium thiocyanate and Sodium chloride.**
9. **Figure S9. Absorption spectra of CH-Au discs dipped in Tap water spiked with 10 mg/L CN^-**

Table T1: The summary of particle size data and gold content per disc of CH-Au

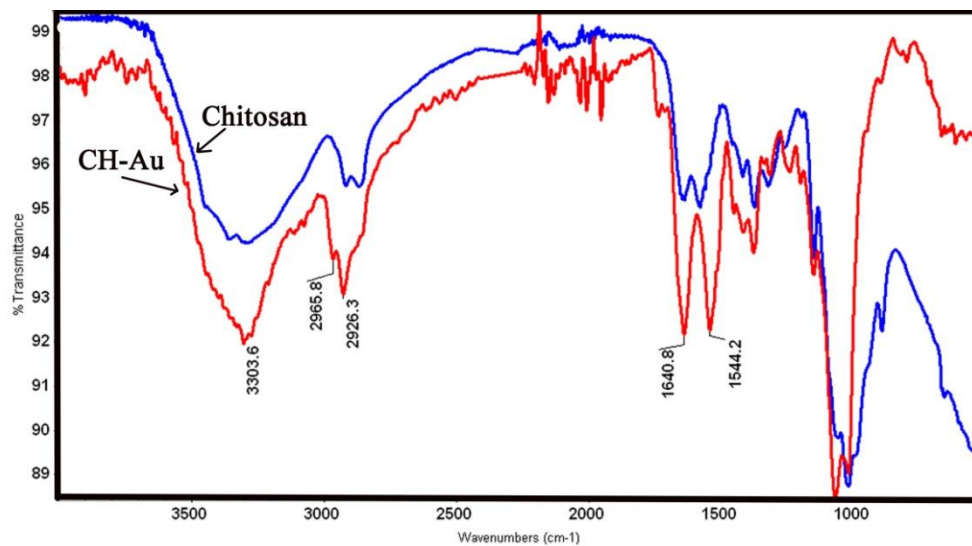


Figure S1 FTIR Spectra of virgin chitosan and the CH-Au NPs

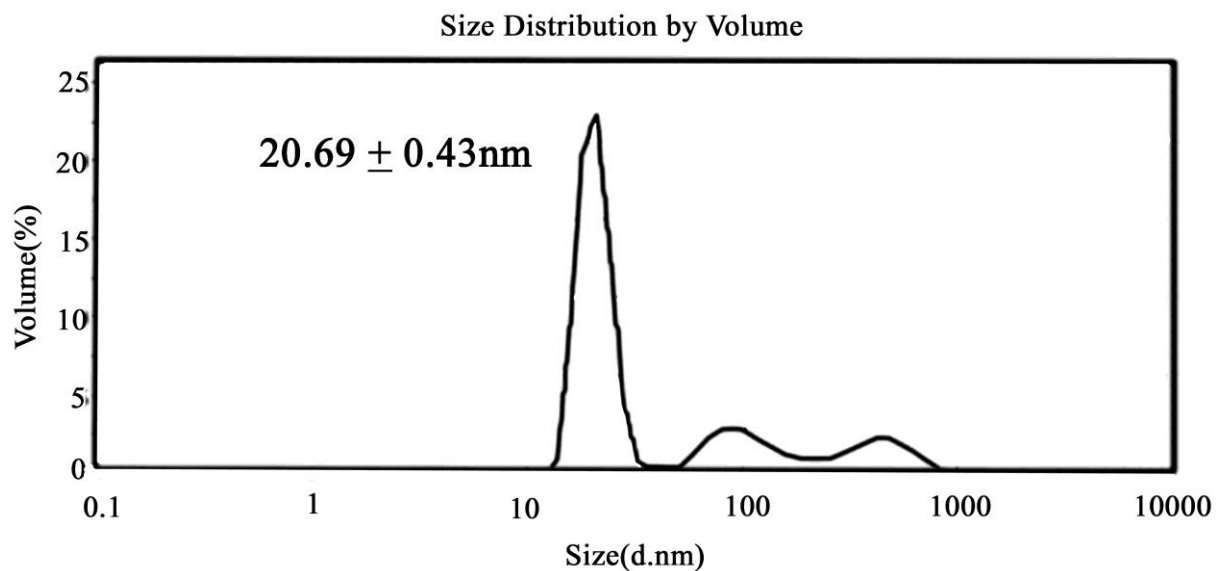


Figure S2. The particle size analysis of CH-Au by DLS

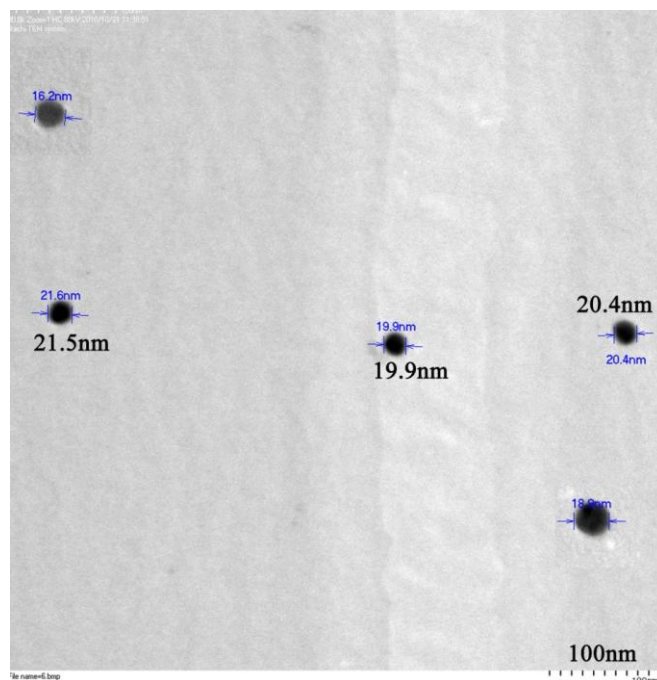


Figure S3. TEM image of CH-Au NPs

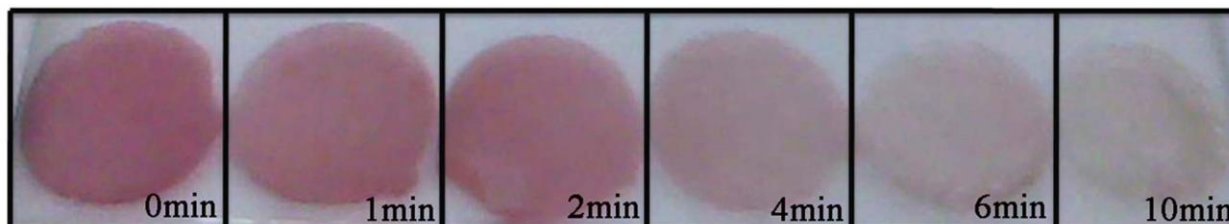


Figure S4. The time bound colour bleaching of CH-Au film in 0.01M KCN

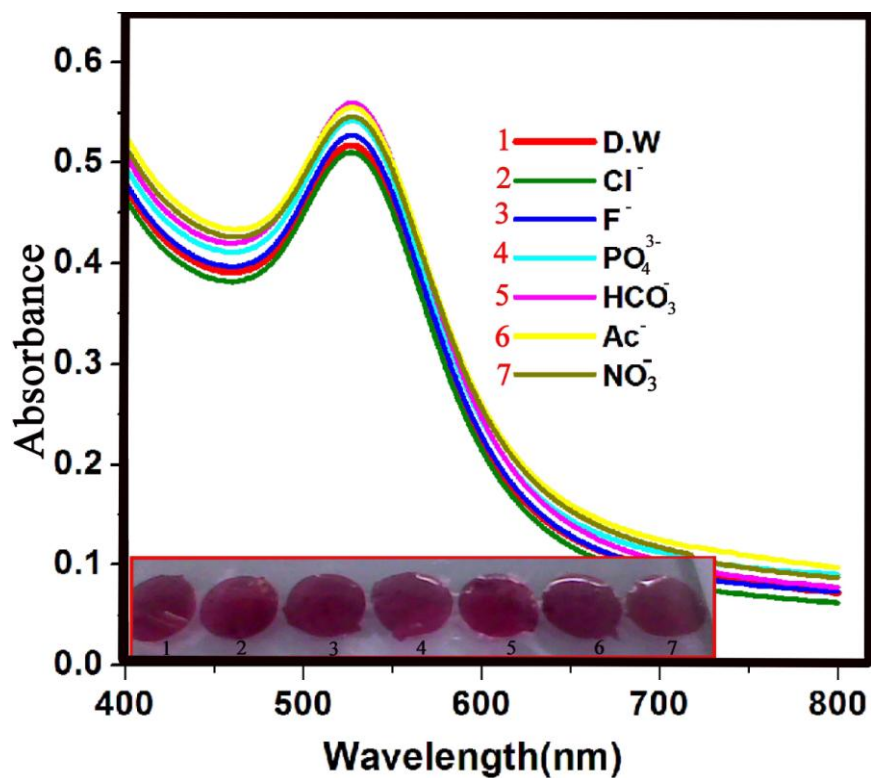


Figure S5. Absorption spectra (Inset the corresponding photographs) of CH-Au films dipped in 1) D.W, and anions like 2) Cl^- 3) F^- 4) PO_4^{3-} 5) HCO_3^- 6) Ac^- 7) NO_3^-

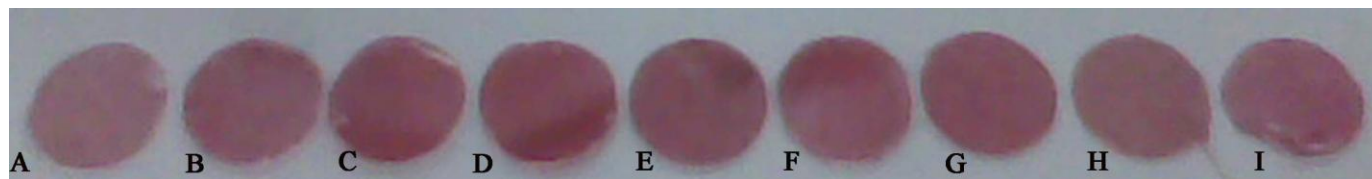


Figure S6. The CH-Au films A) Control and on interacting with aqueous solutions of B) Sodium chloride, C) Potassium chloride, D) Manganese acetate, E) Lead acetate, F) Cadmium chloride, G) Calcium chloride, H) Potassium Ferricyanide, and I) Silver nitrate, (1000 mg/L each).

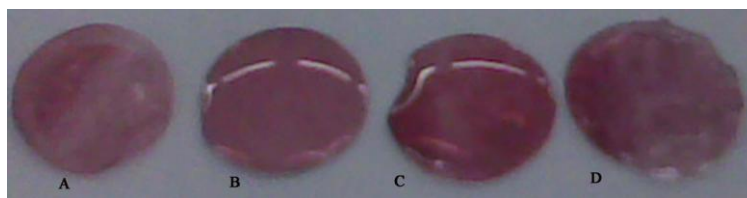


Figure S7. The CH-Au films A) Control and on interacting with aqueous solutions of B) Cysteine, C) Homocysteine and D) Glutathione (1000 mg/L each).

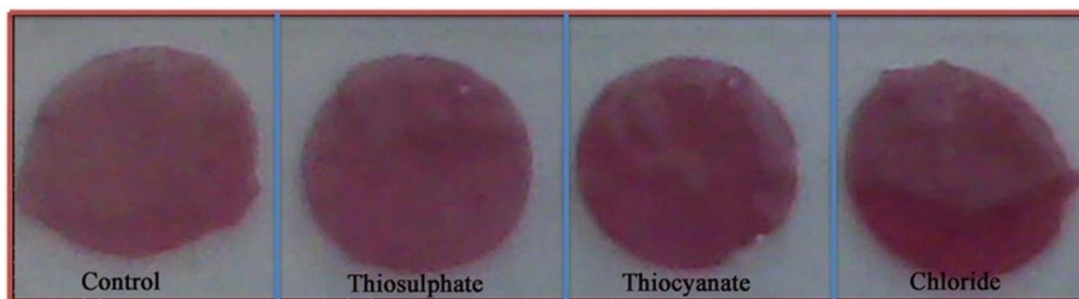


Figure S8. The CH-Au discs dipped in 1000mg/L aqueous solutions of Sodium thiosulphate, Ammonium thiocyanate and Sodium chloride.

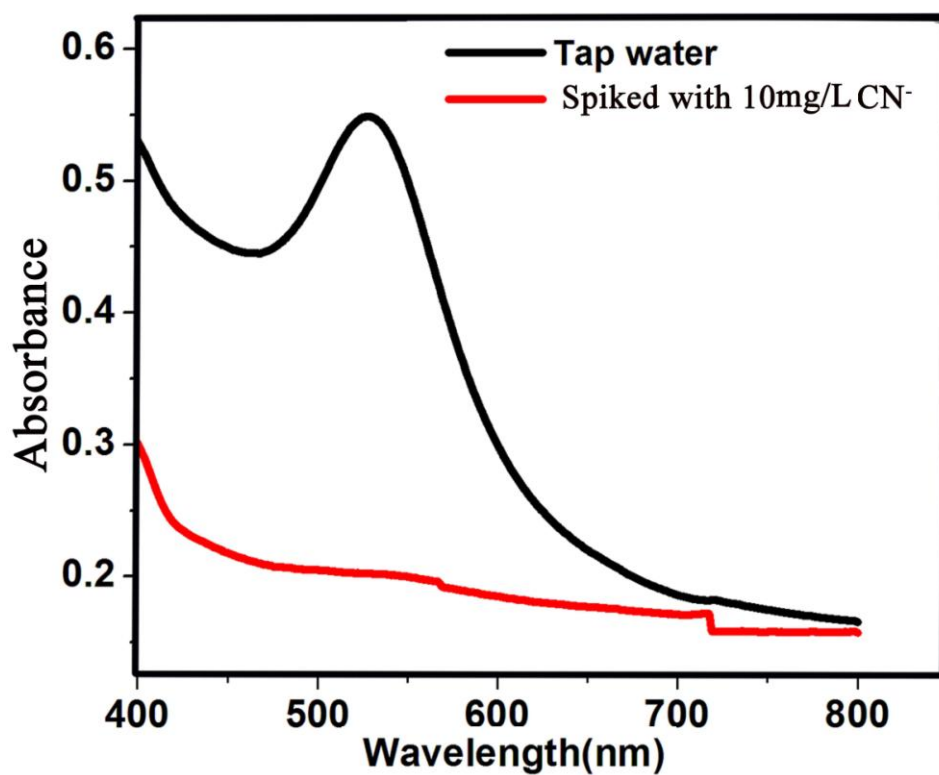


Figure S9. Absorption spectra of CH-Au discs dipped in Tap water spiked with 10 mg/L CN⁻

Table T1: The summary of particle size data and gold content per disc of CH-Au

1	Particle Size by DLS	20.69 \pm 0.43nm.
2	Particle Size by TEM	20.60 \pm 0.80nm
3	Gold content by ICP	15.6 \pm 0.02 μ g per disc