Electronic supporting information

Green synthesis of gold nanoparticles under sunlight irradiation and its colorimetric detection of Ni^{2+} and Co^{2+} ions

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Fig. S1. UV-visible spectra of NaValC stabilized AuNPs fresh and after six months

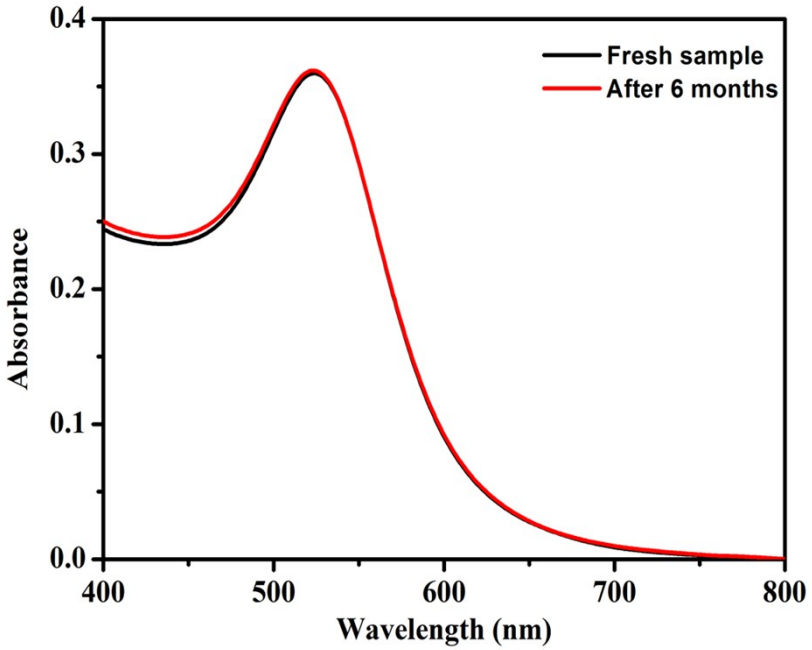


Fig. S2. UV-visible spectra of AuNPs synthesized at different conditions

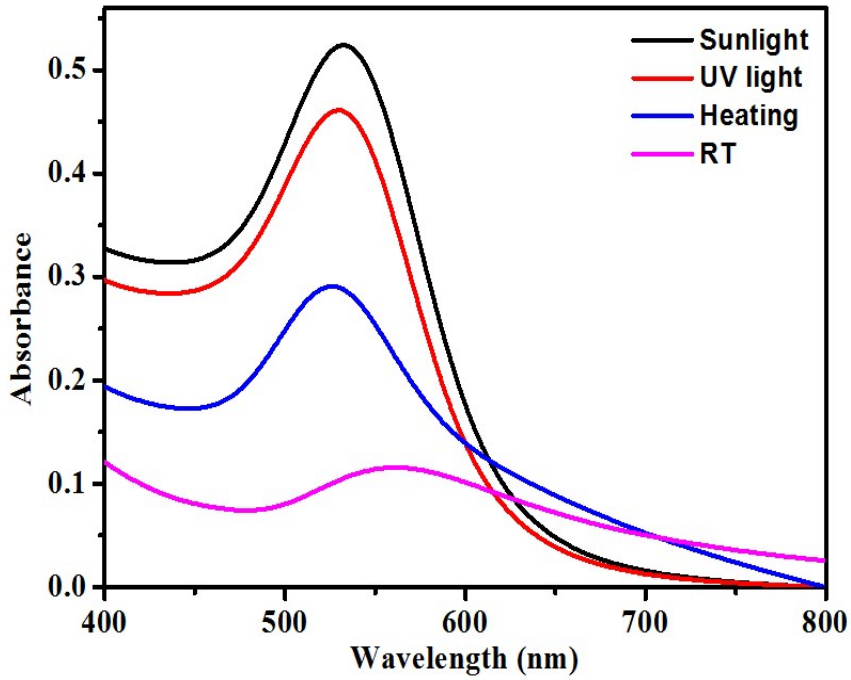


Fig. S3. Average particle size distribution of the AuNPs at low (a) and high (b) concentrations of NaValC

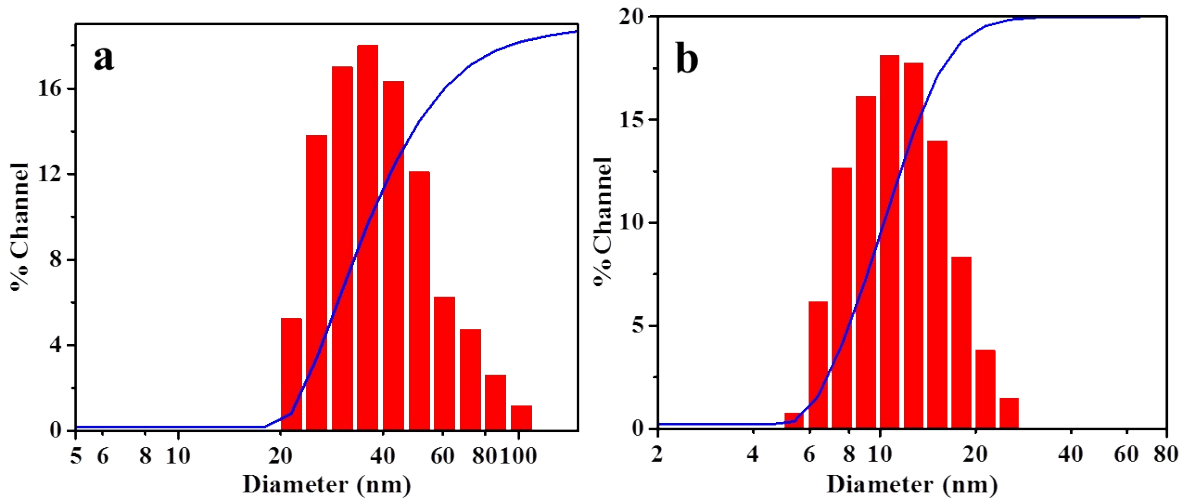


Table. S1 Comparative table for the sensing of metal ions using AuNPs

S.No	Method	Probe	Target	LOD	Time	Ref.
1	Colorimetric method	Peptide-modified AuNPs	Ni^{2+} Co^{2+}	0.3 mM 2.0 mM	3-5 min	1
2		Thiosulfate stabilized AuNPs	Co^{2+}	0.04 mM	20 min	2
3		Carboxyl-Functionalized CdS Quantum Dots	Co^{2+}	0.23 μg mL− 1	5 min	3
4		Dopamine dithiocarbamate functionalized AgNPs	Co^{2+}	14 μM	10 min	4
5		GSH-stabilized AgNPs	Ni^{2+}	75 μM	1-5 min	5
6		GSH and L-Cys silvernanoplates	Ni^{2+}	120nM	6 min	6
7		coumarin derivatives	Ni^{2+}	0.5 μM	10 min	7
8		CVal-AuNPs	Ni^{2+} Co^{2+}	10.0 nM 10.0 nM	2 min	Present study

Fig. S4 Plot of absorbance intensity difference versus concentrations of Ni^{2+} ions in drinking and tap water samples

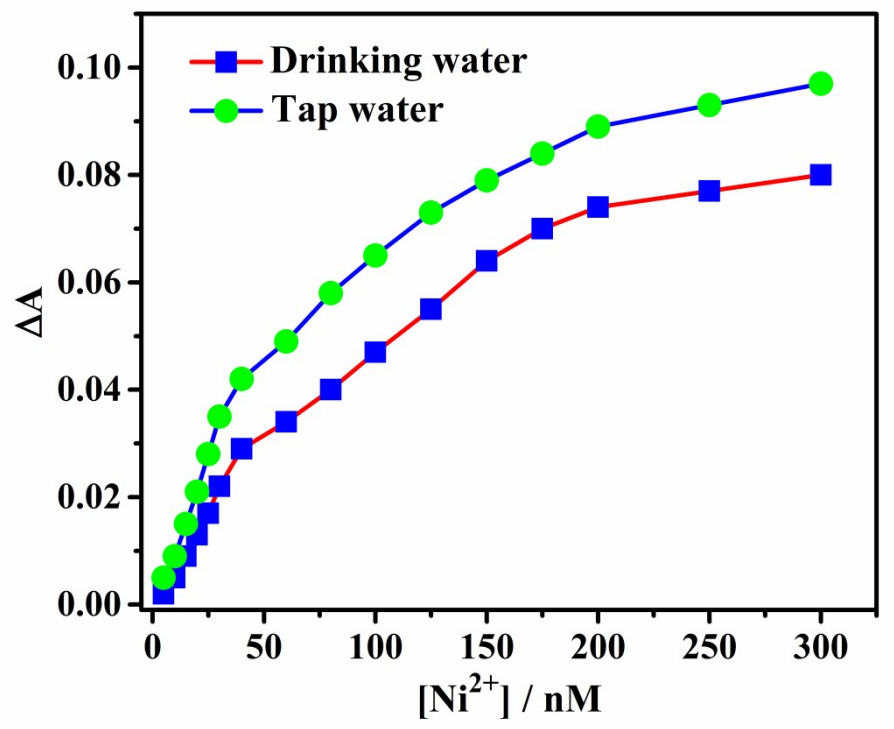
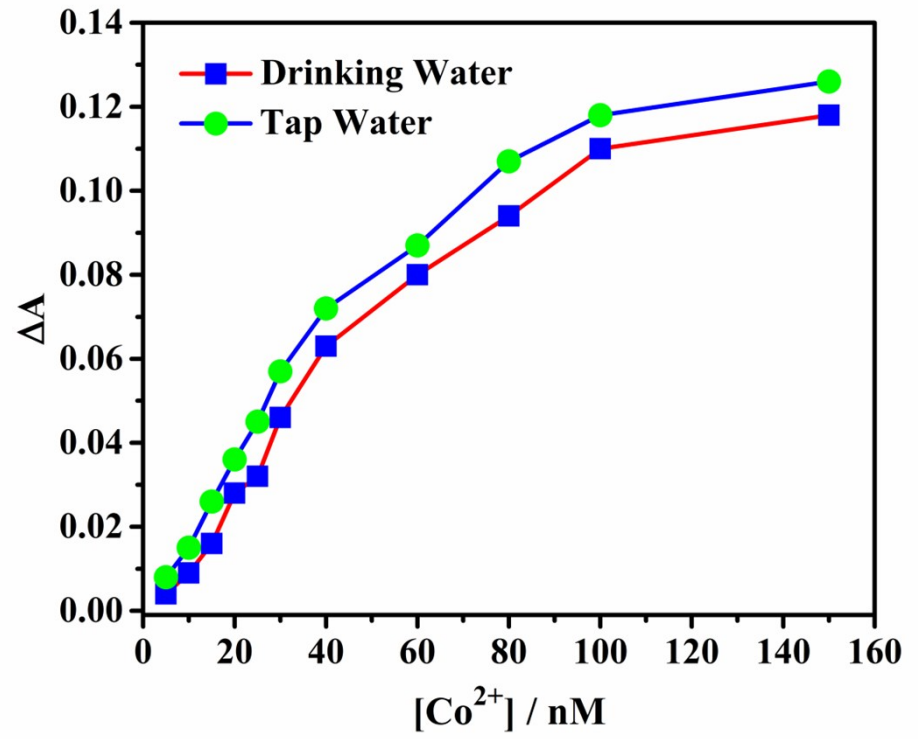


Fig. S5 Plot of absorbance intensity difference versus concentrations of Co^{2+} in drinking and tap water samples



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