

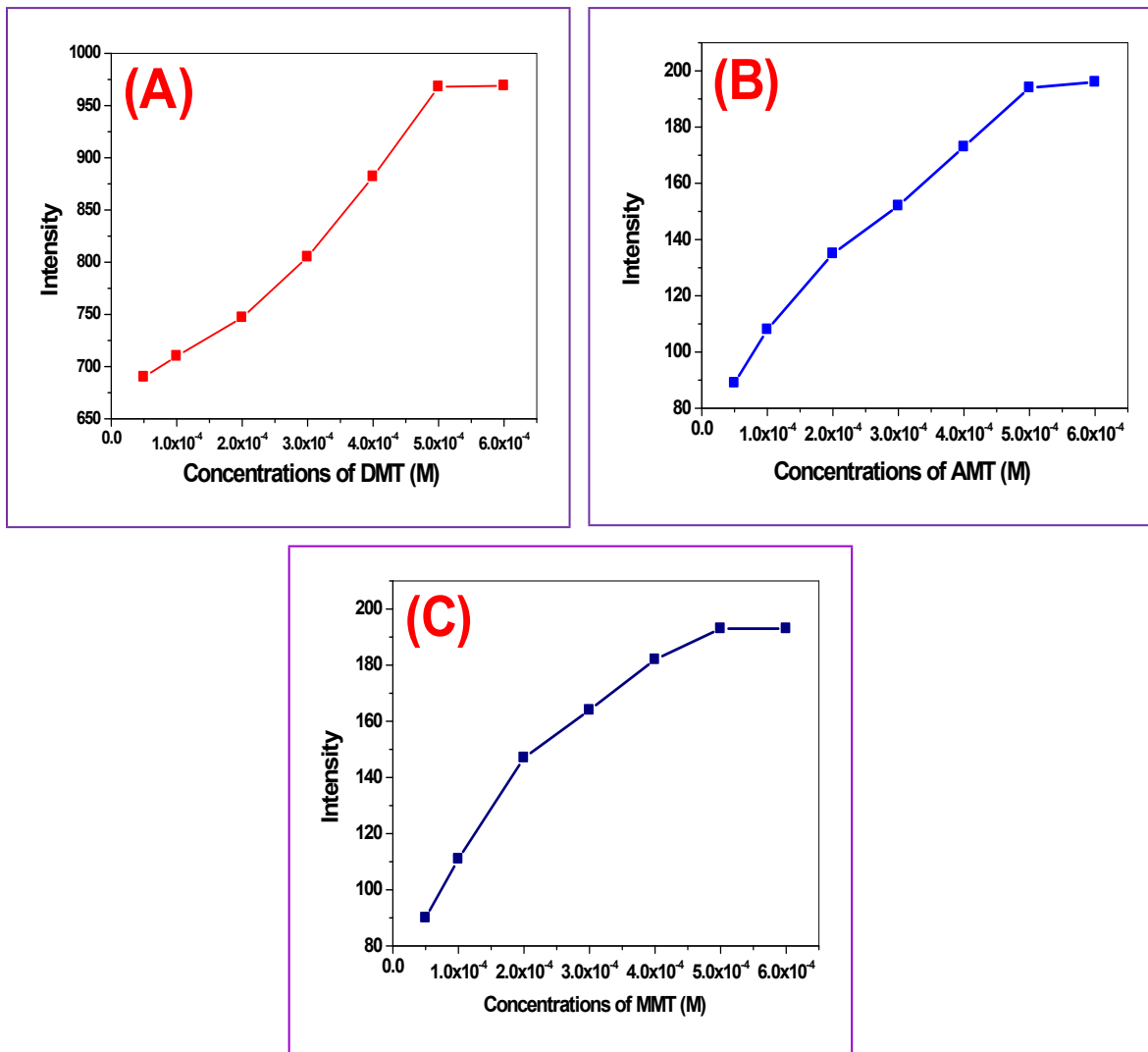
[Supporting information](#)

**Economically viable sensitive and selective luminescent sensor  
for the determination of Au(III) in environmental samples**

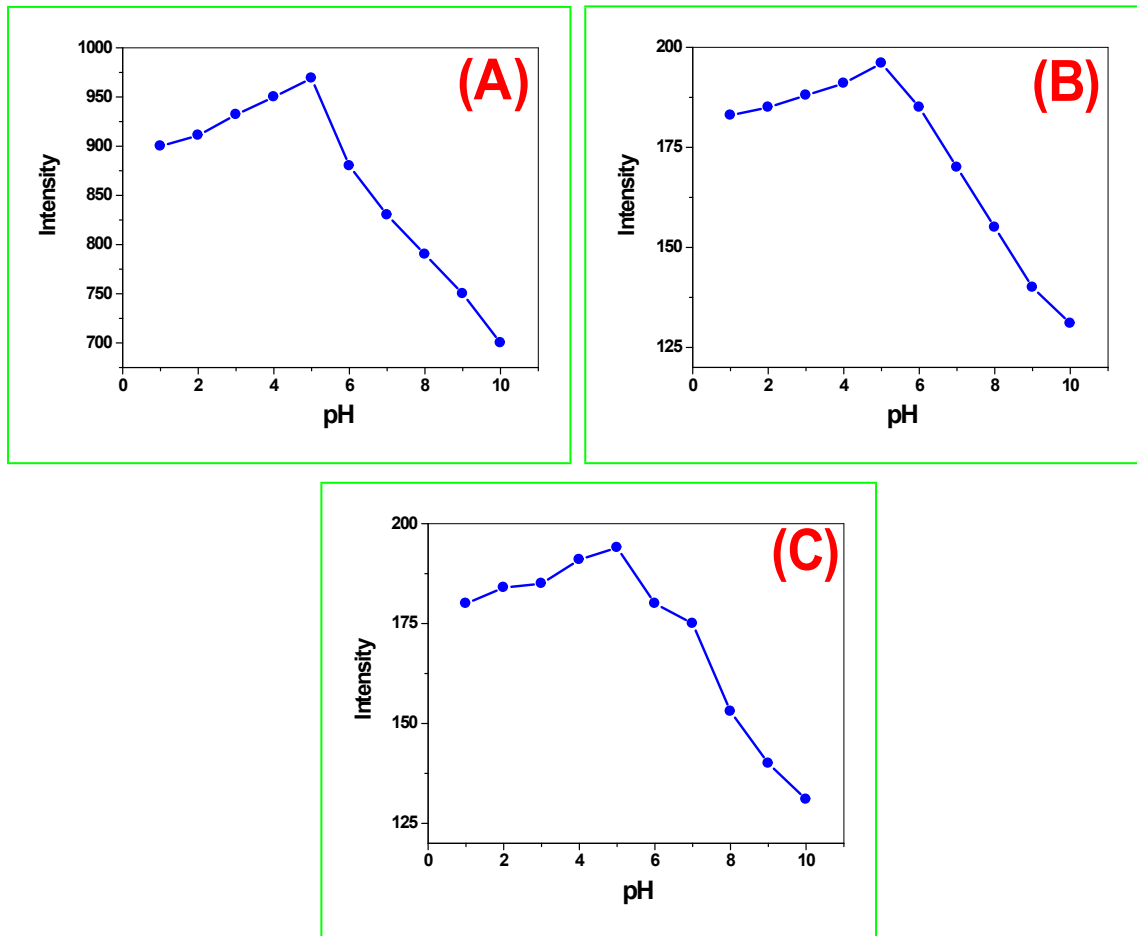
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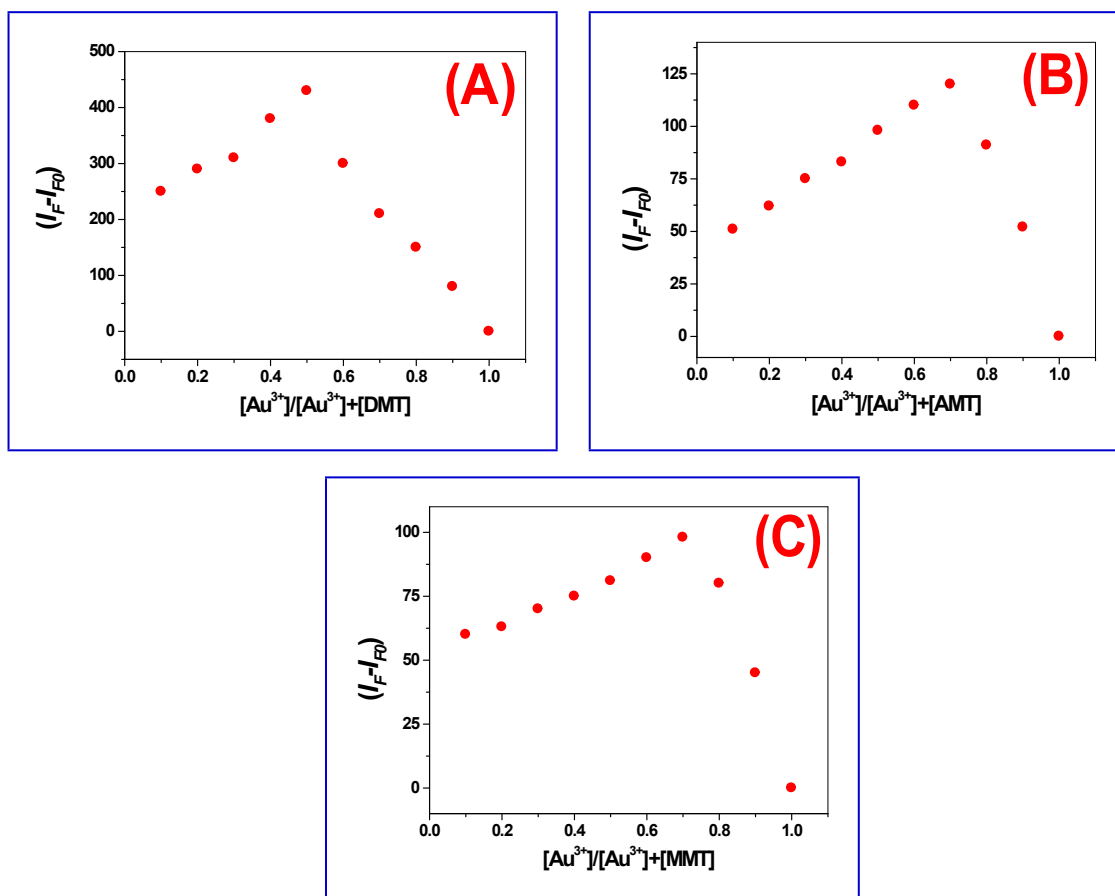
**Fig. S1.** Effect of (A) DMT (B) AMT and (C) MMT concentrations on the fluorescence intensity in the presence of 8 nM Au(III).



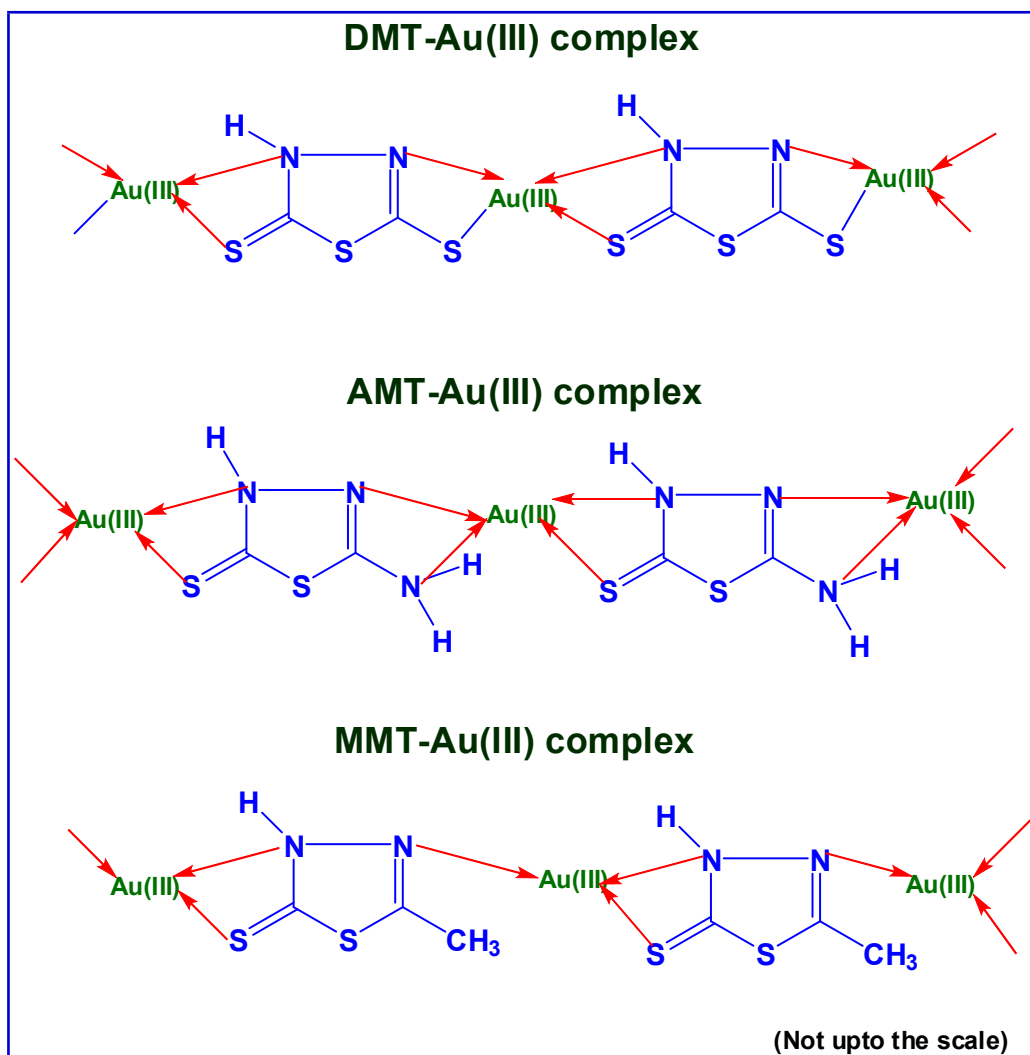
**Fig. S2.** Effect of pH on the fluorescence intensity of 0.5 mM of (A) DMT, (B) AMT and (C) MMT in the presence of 8 nM Au(III).



**Fig. S3.** Job's plot of (A) DMT, (B) AMT and (C) MMT with Au(III) in water (pH: 5.0). The total concentrations of ligands and Au(III) was 10  $\mu$ M. The molar fraction was given by  $[\text{Au}^{3+}]/([\text{Au}^{3+}]+[\text{ligand}])$ .



Scheme S1. Possible binding sites of DMT, AMT and MMT ligands with Au(III).



**Fig. S4.** Emission spectra of 0.5 mM DMT in the presence of different concentrations of Au(III): (A): (a)-(z) each increment 100 pM of Au(III) and (B): (a)-(z) each increment 10 pM of Au(III) ( $\lambda_{\text{ex}}/\lambda_{\text{em}}$ : 330/435 nm).

