Supporting Information

Organic – Inorganic Nanohybrids and their applications in Silver Extraction, Chromogenic Cu^{2+} detection in Biological Systems, and Hemolytic Assay

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Figure S1 Green curve shows the IRF along with the sample signal.

Figure S2 XRD patterns of dried FONPs at 75 ^{o}C.

Figure S3(A-G) Family of partial ^{1}H NMR recorded in DMSO(d_6) / D_2O (9.5/0.5; v/v) solvent system; showing shifts in aromatic and -CH=N signals upon successive addition of Ag^{+} salt to the solution organic host: (A) Organic Host (OH) only, (B) OH + Ag salt (0.5 equiv), (C) OH + Ag salt (1.0 equiv), (D) OH + Ag salt (1.5 equiv), (E) OH + Ag salt (2.0 equiv), (F) OH + Ag salt (3.0 equiv), (G) OH + Ag salt (5.0 equiv).

Figure S4 A comparison of IR spectra of pure host (Blue-Green line) and metal complex (Brown line), showing the shift in band responsible for –CH=N.

Figure S5 SEM images of AgNP@FONPs and AgNP when AgNP@FONPs were dissolved in THF/H_2O

Figure S6 Plot showing the detection limit of Cu^{2+} ions.

Figure S7 Histogram showing the amount of intensity towards the selectivity of Cu^{2+} ions binding to Ag@FONPs in the presence of other ions.

Figure S8 Effect of pH on the UV-visible absorbance of Ag@ONPs.

Figure S9 UV-Vis profile of AgNP@FONPs, AgNP@FONPs + Cu^{2+} (50mM) and AgNP@FONPs + Cu^{2+} (50mM) + EDTA (50mM).

Figure 10 Changes in UV-Vis spectra of AgNPs @FONPs on addition of Cu^{2+} ion after different time intervals

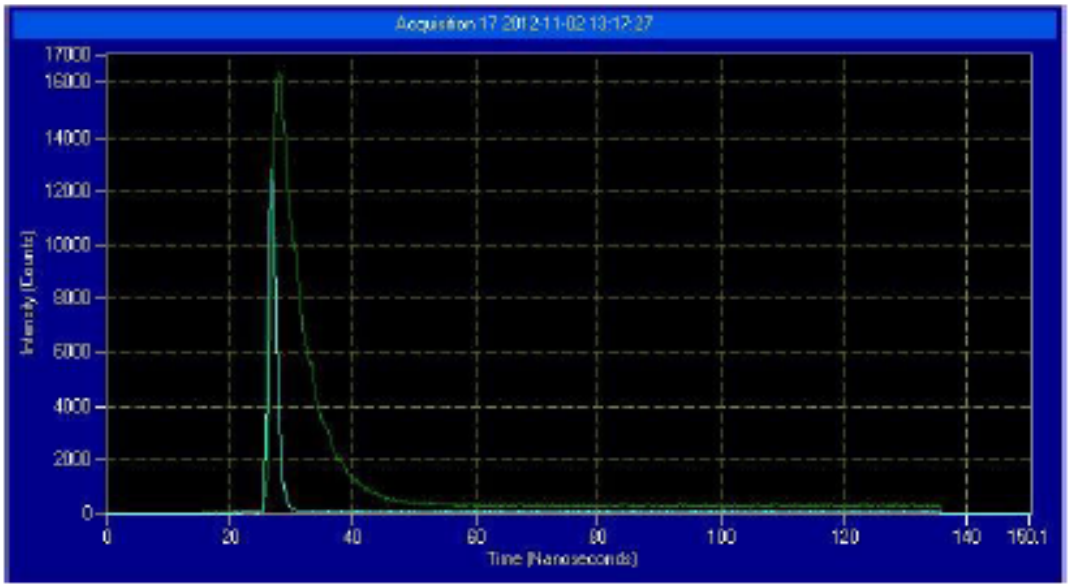
Figure S11 UV-Vis profile on addition of 50mM of Cu^{+} to the AgNP@FNOP solution in aqueous THF (8:2, v/v).

Figure S12a: Changes in the Fluorescent spectrum on addition various metal ion to the solution of Ag@FONPs.

Figure S12b: Changes in the Fluorescent spectrum on addition various anions to the solution of Ag@FONPs.

Figure S13 : Changes in the absorption behaviour of AgNP@FONPs +Cu^{2+} (at 1, 3, 4, 5, 8,30 and 50 mM concentration of Cu^{2+}); the same experiemt was conducted in blood serum at same concentration as that of Cu^{2+} ion (1a, 3a, 4a, 5a, 8a, 30a and 50a).

Figure S14 Photos show the extent hemolysis for the samples with +ive control, -ive control, and different amounts of NPs along with their corresponding absorbance in the inset.



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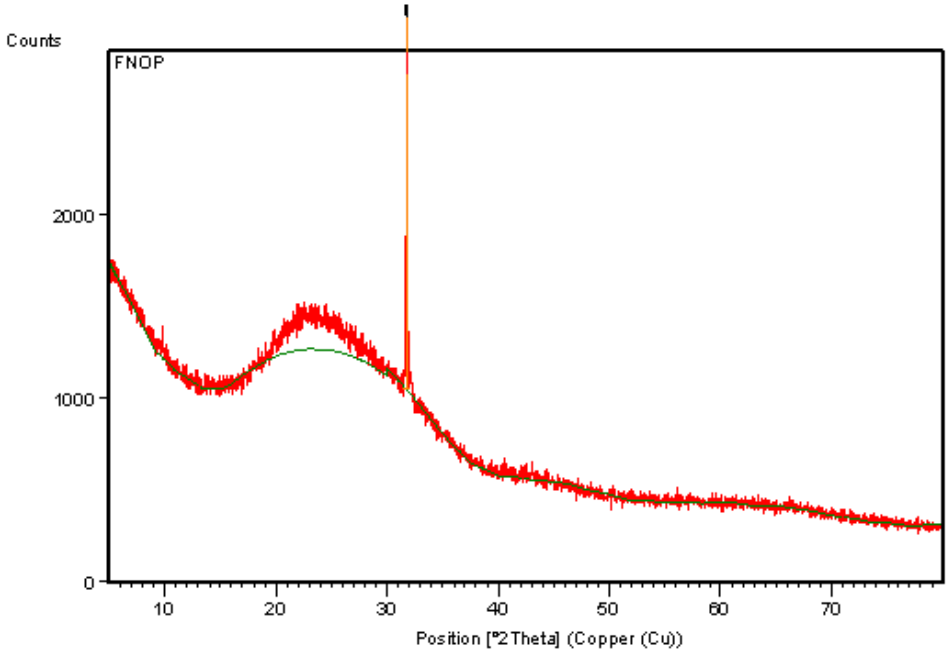

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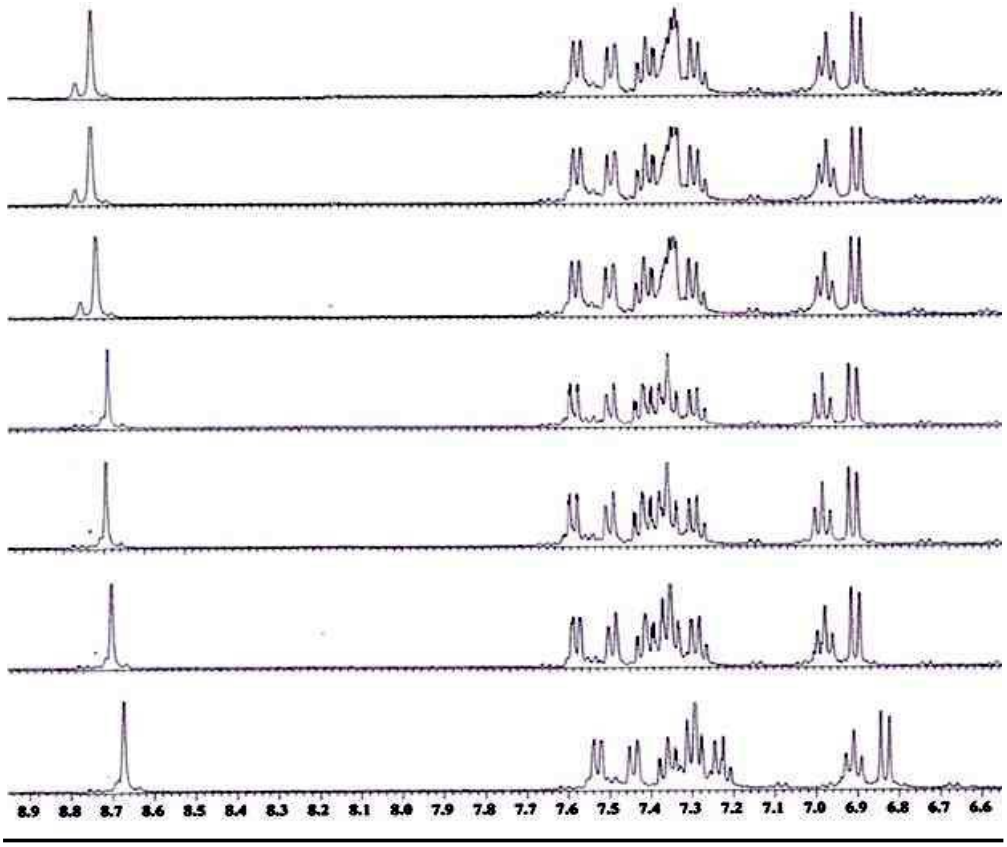

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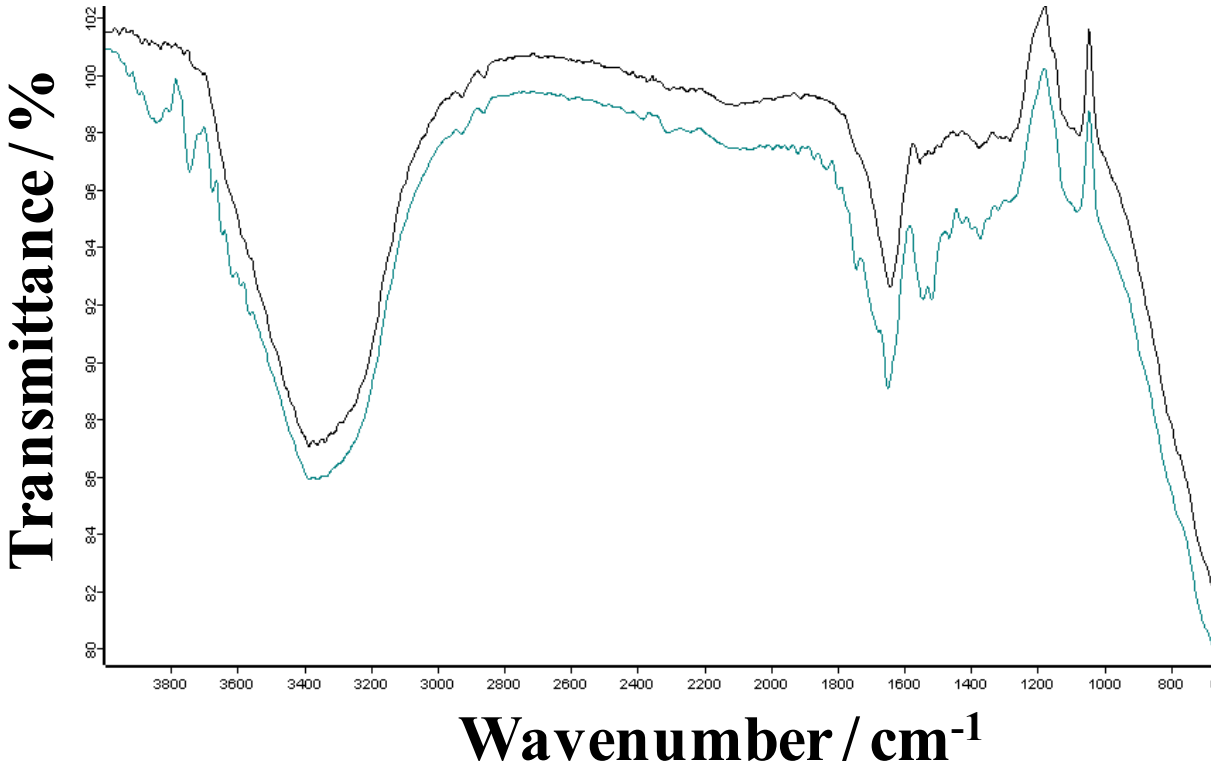

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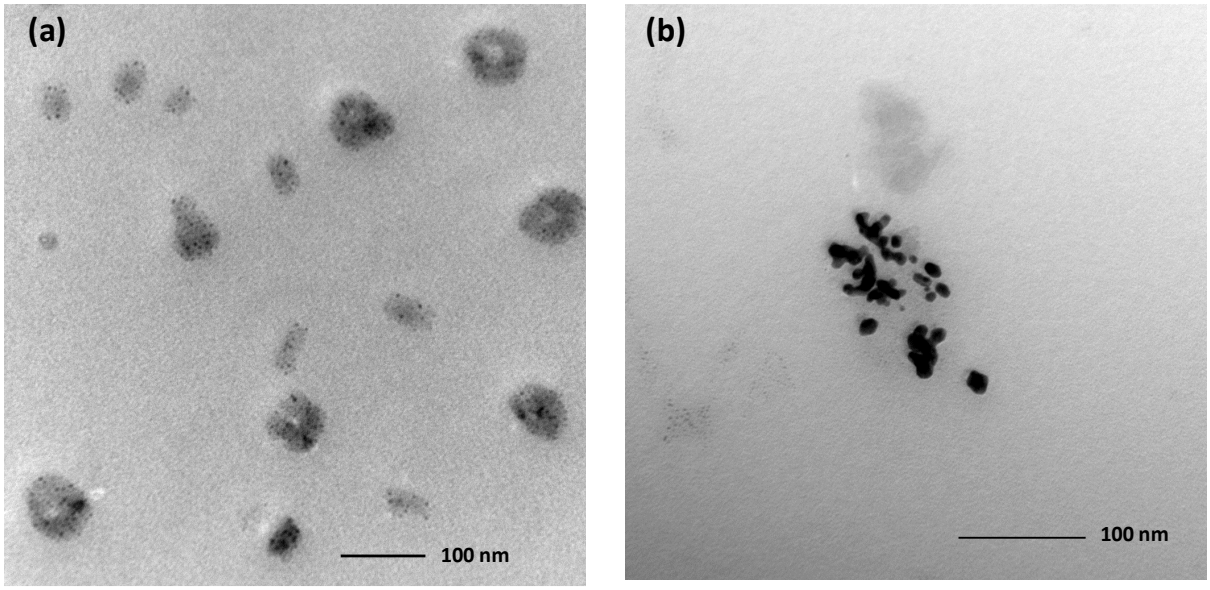
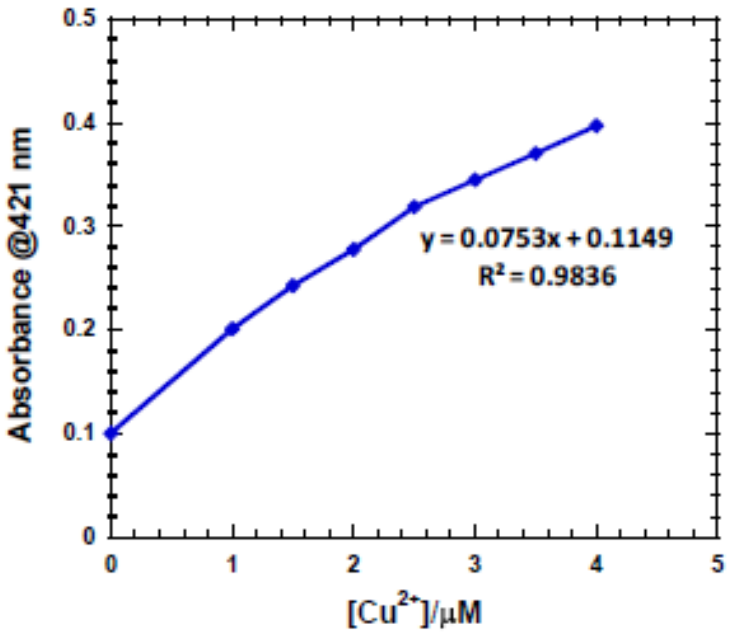


Figure S5 SEM images of AgNP@FONPs and AgNP when AgNP@FONPs were dissolved in THF/H_2O



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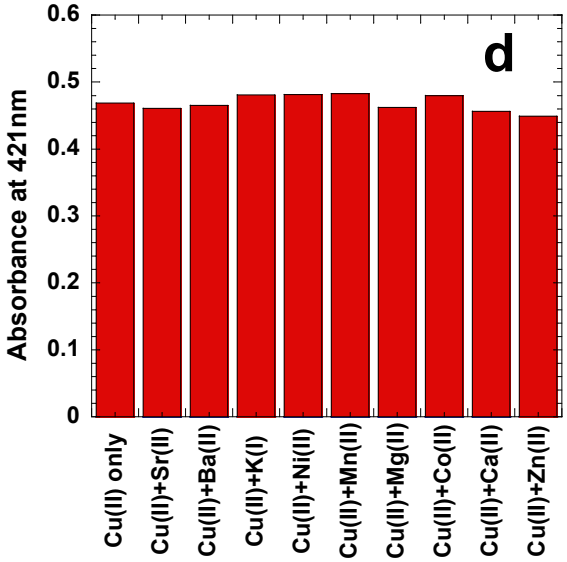

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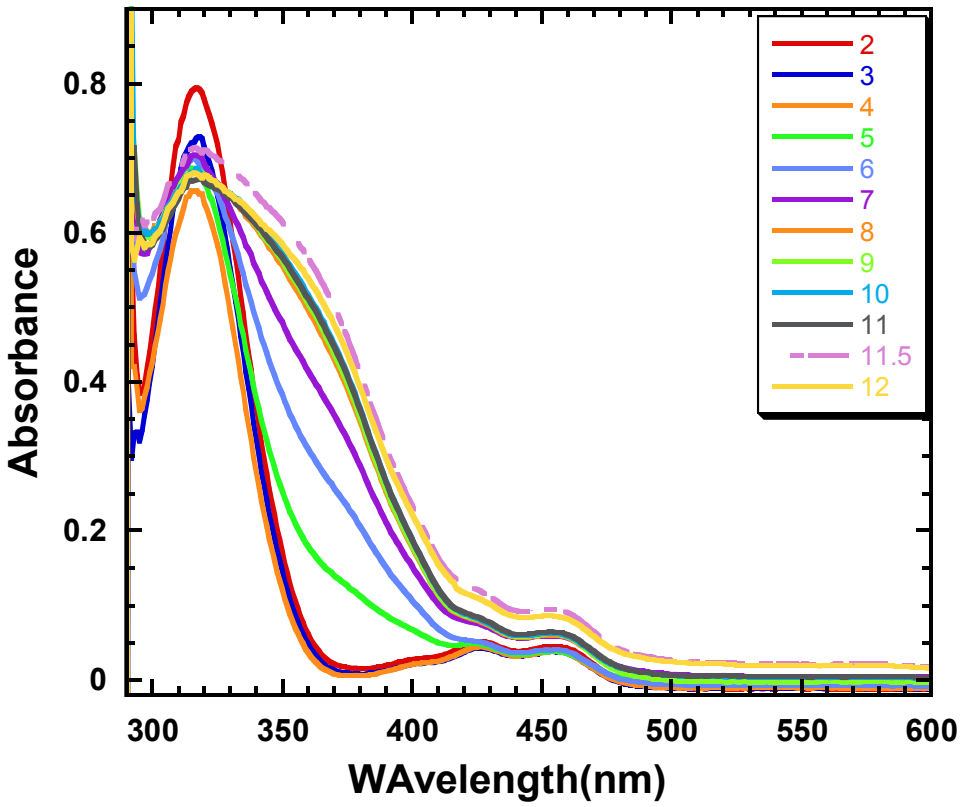


Figure S8 Effect of pH on the UV-visible absorbance of Ag@ONPs.

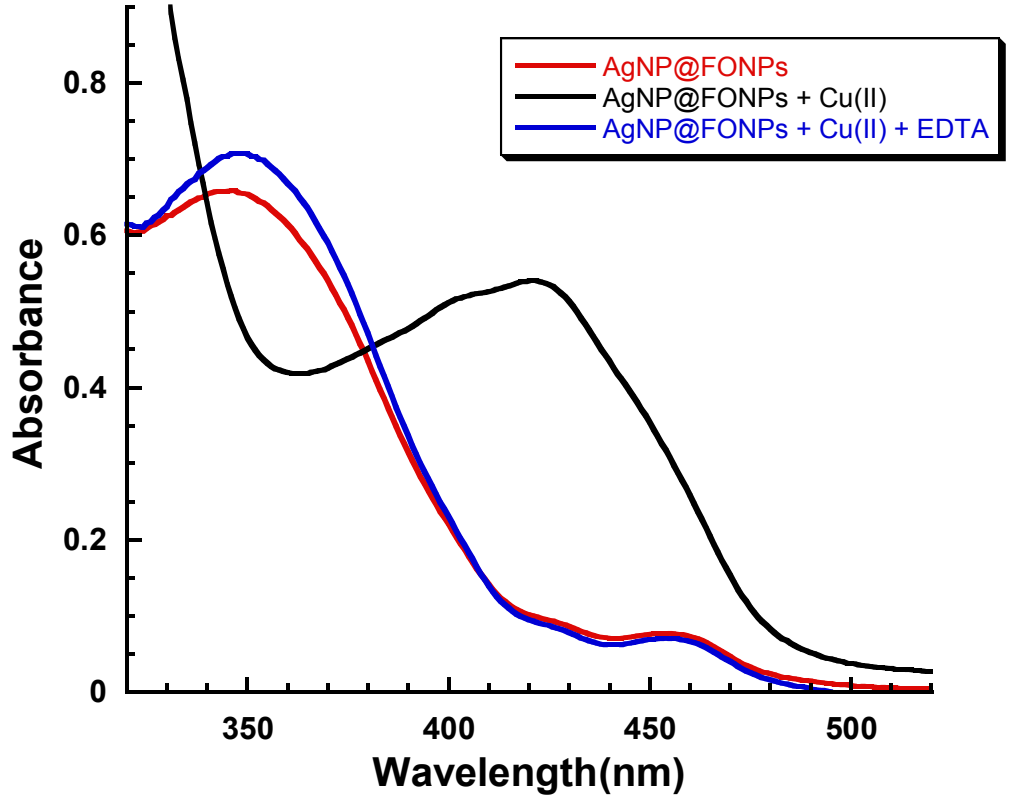


Figure S9 UV-Vis profile of AgNP@FONPs, AgNP@FONPs + Cu^{2+} (50mM) and AgNP@FONPs + Cu^{2+} (50mM) + EDTA (50mM).

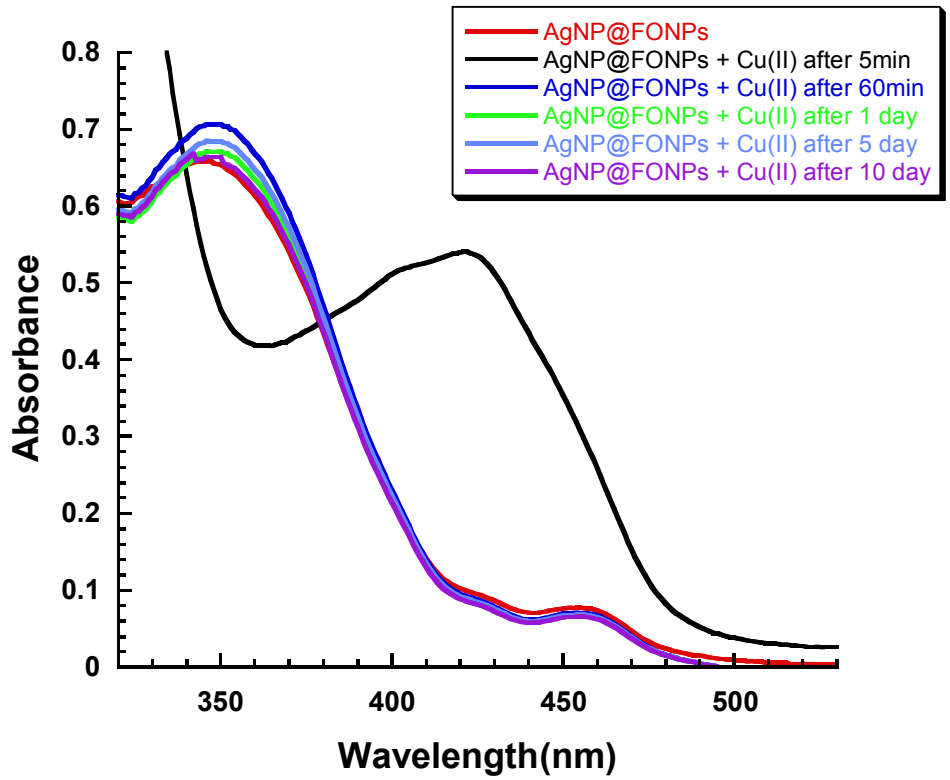
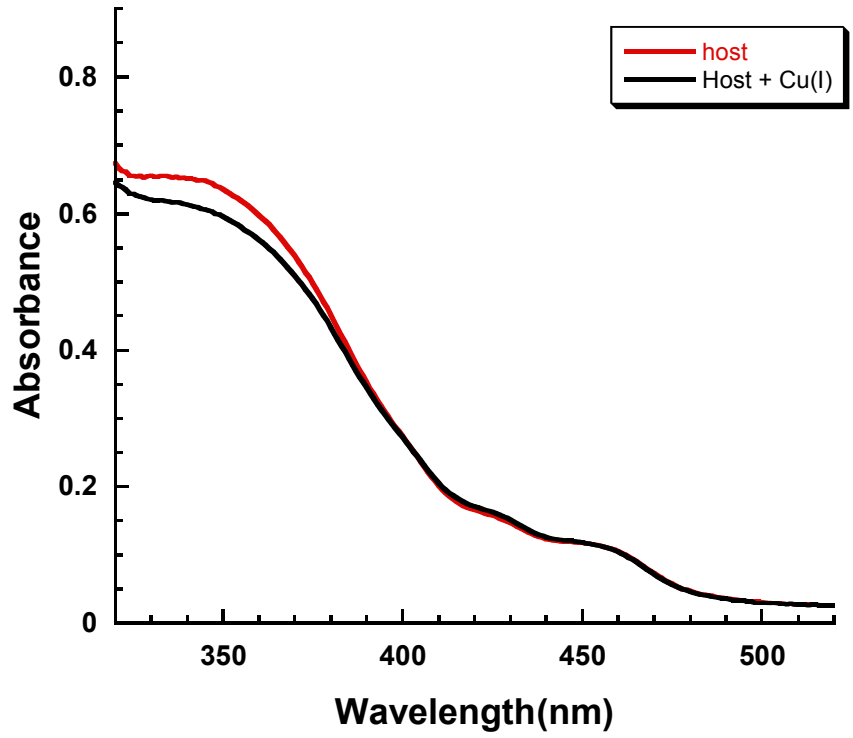


Figure 10 Changes in UV-Vis spectra of AgNPs @FONPs on addition of Cu^{2+} ion after different time intervals



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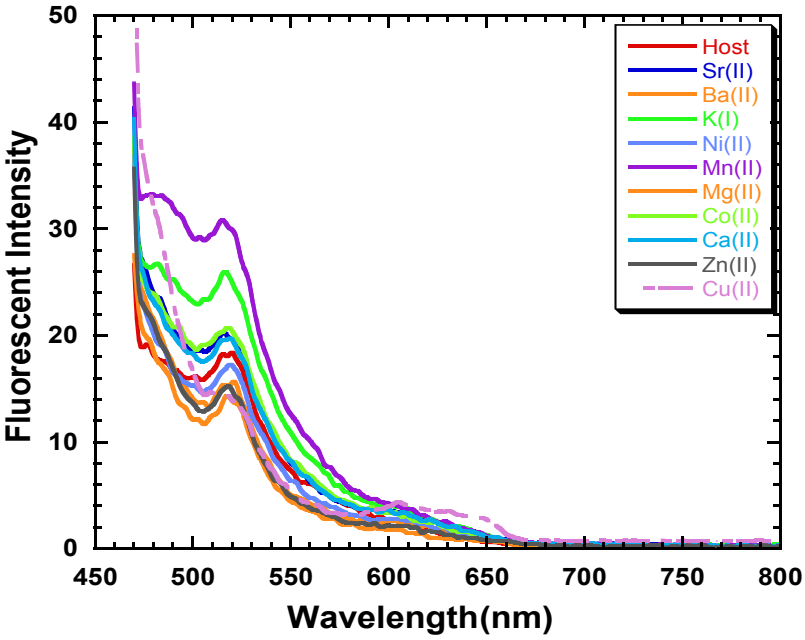


Figure S12a: Changes in the Fluorescent spectrum on addition various metal ion to the solution of Ag@FONPs.

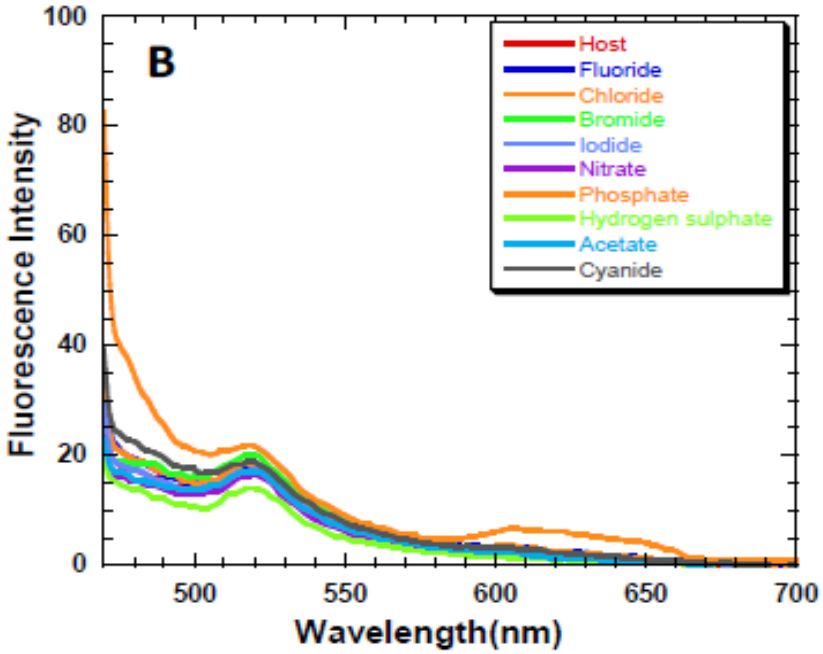
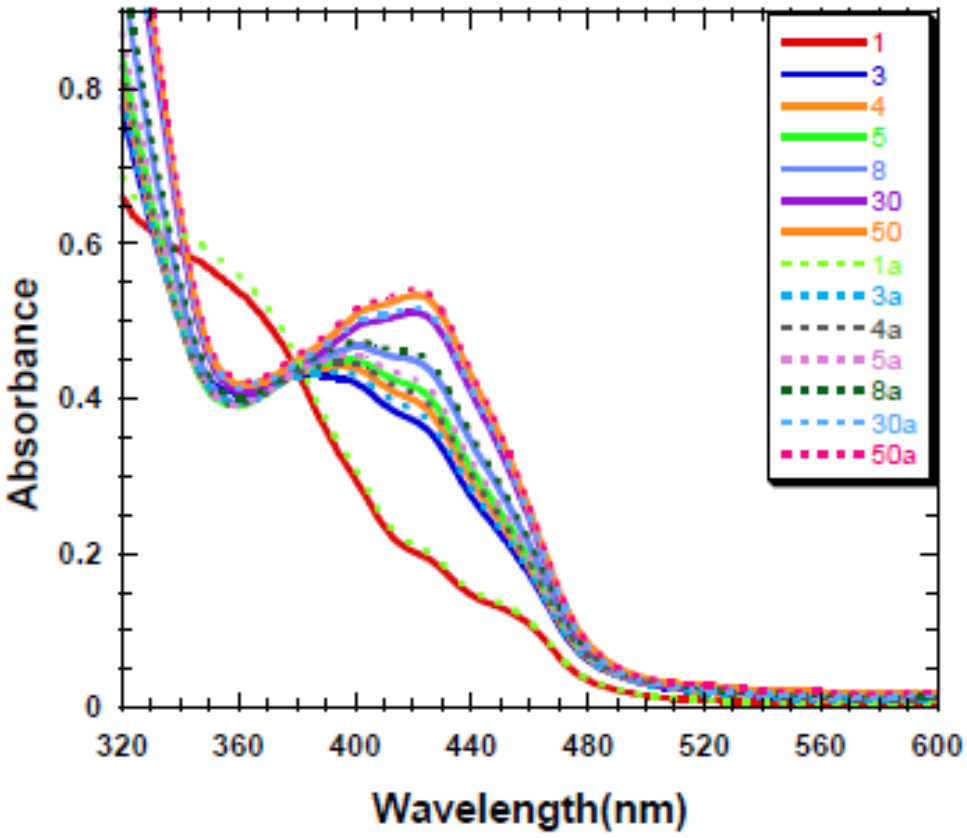


Figure S12b: Changes in the Fluorescent spectrum on addition various anions to the solution of Ag@FONPs.



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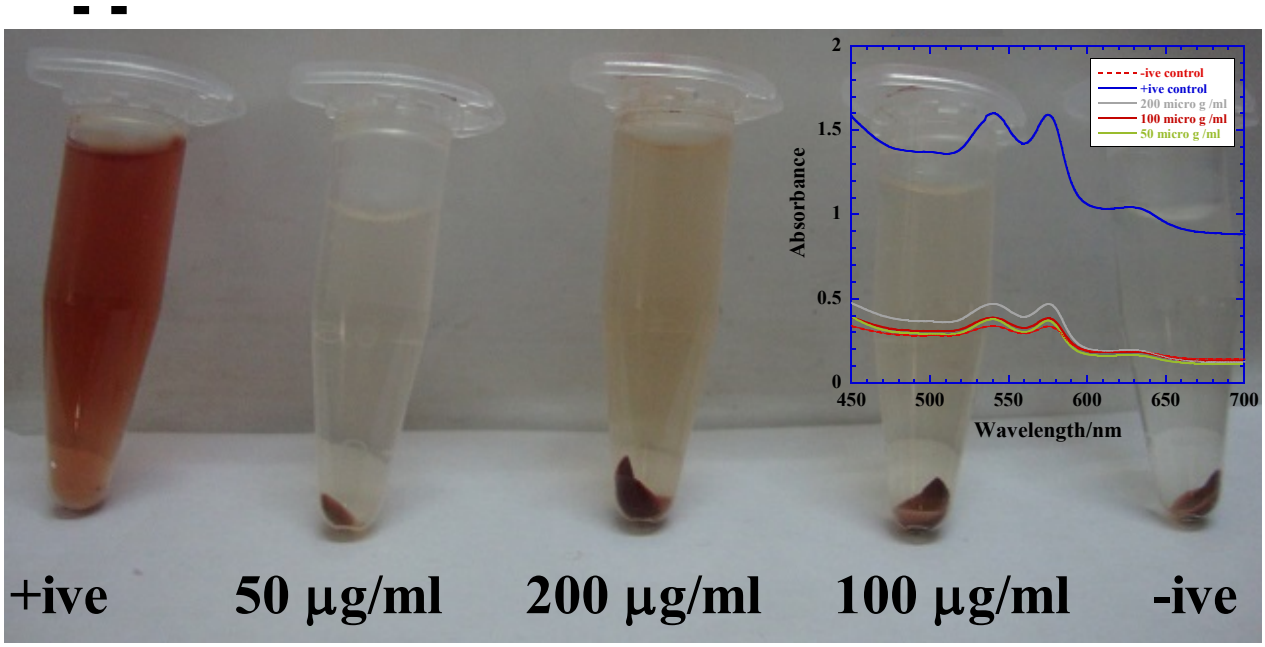

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