

Supporting Information

Hexacyano-ferrate (III) reduction by electron transfer induced by plasmonic catalysis on gold nanoparticles

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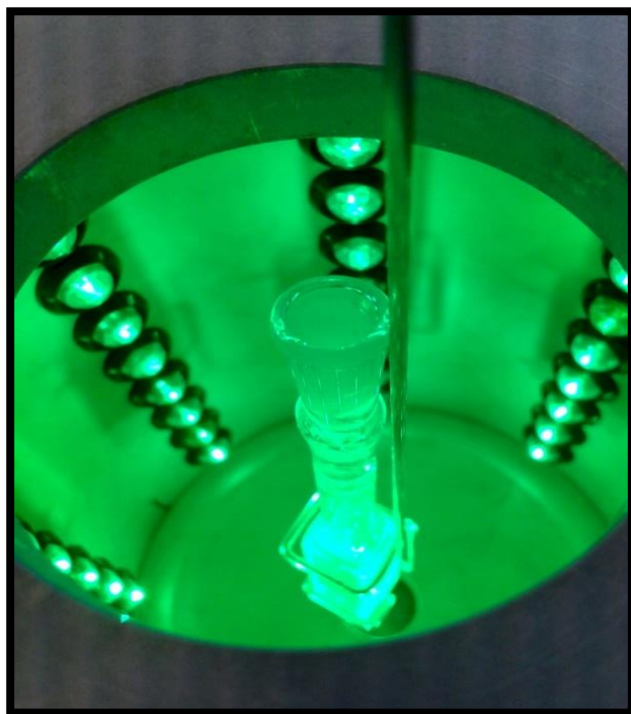


Fig. S1. Photograph of the set-up used for light irradiation of the samples; homemade cylindrical photo-reactor equipped with 525 nm LEDs (Light Emitting Diodes)

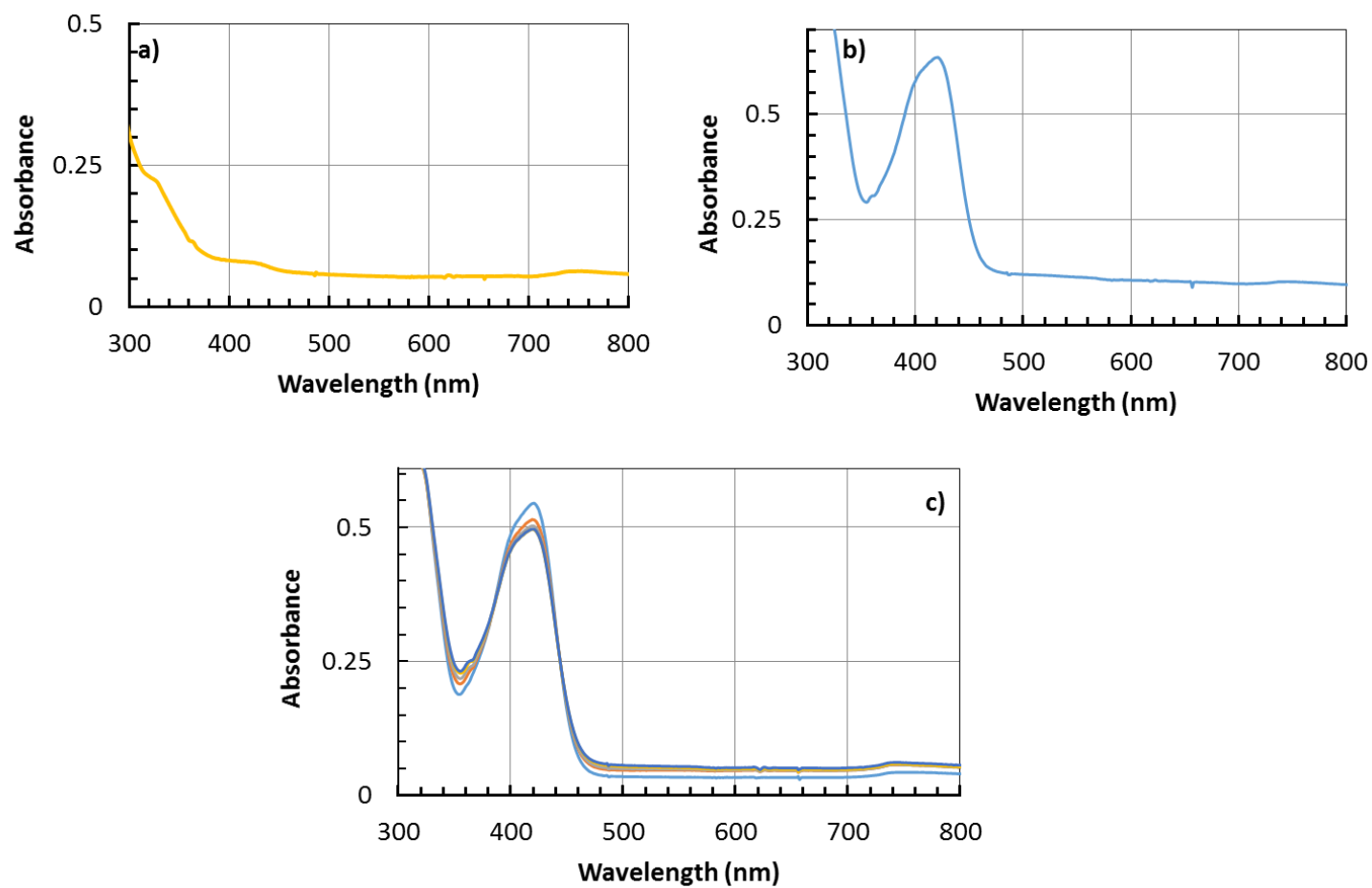


Figure S-2: Absorbance spectra of (a) Sodium Thiosulfate 10^{-3} M, (b) Hexacyanoferrate 10^{-2} M (c) Mixture of both reagents under illumination: 20 mL of distilled water under visible irradiation for 120 min under N_2 (black spectrum before irradiation and blue spectrum after 120 min irradiation). The spectra were recorded using 2 mm quartz cell.

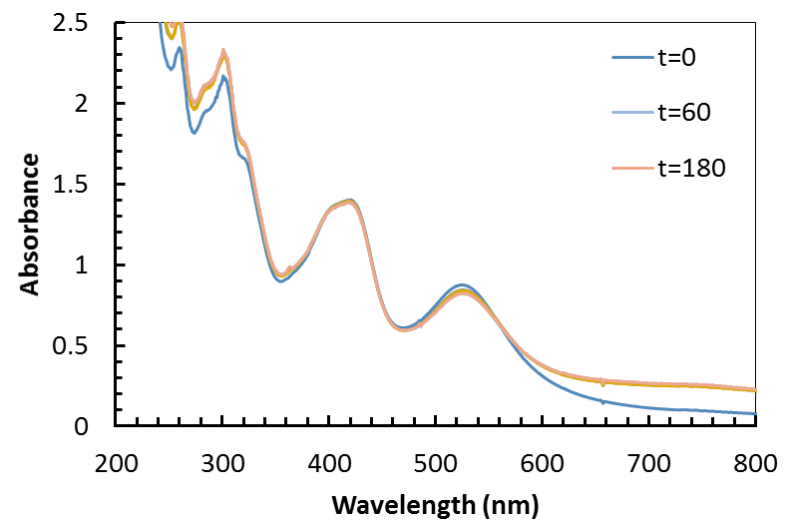


Figure S3. Temporal evolution of the absorption spectra of a solution containing 15 nm Au-NPs@citrate and 10^{-3} M potassium hexacyanoferrate III with no irradiation (in dark) for 180 minutes.

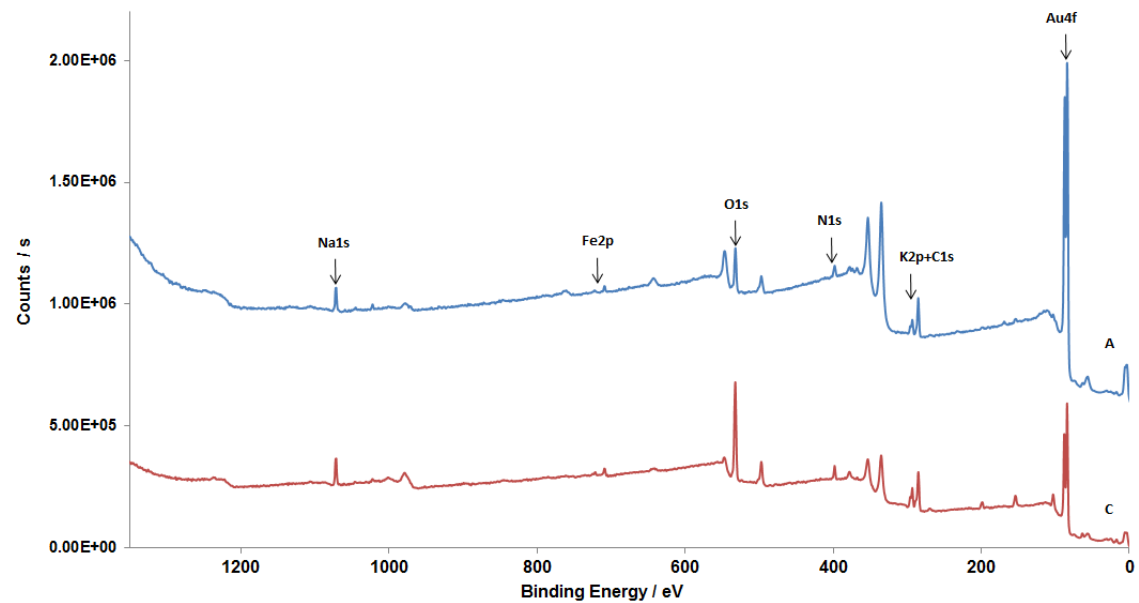


Figure S4. XPS wide-scan spectra of 30 nm Au-NPs@citrate after reaction under LEDs irradiation at 520 nm for deaerated solutions containing HC-FeIII with ST or without ST.