

Supplementary Information

Poly(allylamine)-Copper(II) coordination complex grafted on core@shell upconversion nanoparticles for ultrafast and sensitive determination of the phytohormone salicylic acid in plant extracts

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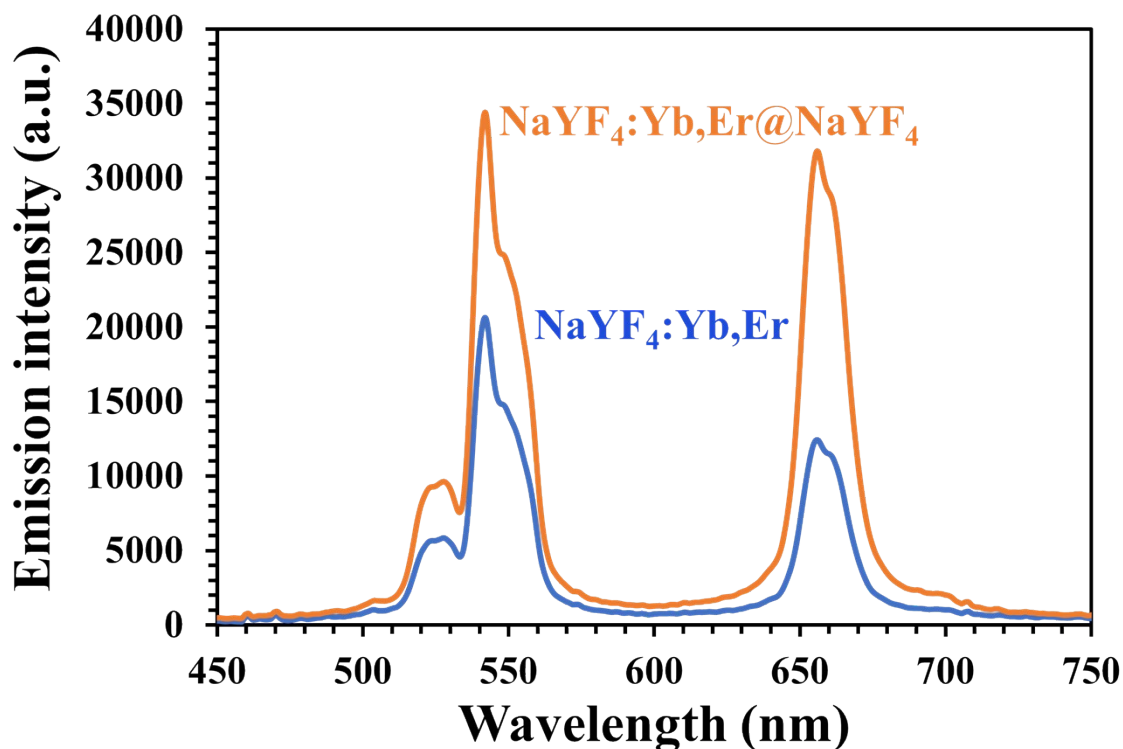


Fig. S1. NaYF₄ shell effect on the emission intensity of NaYF₄:Yb,Er upconversion nanoparticles under 975 nm excitation.

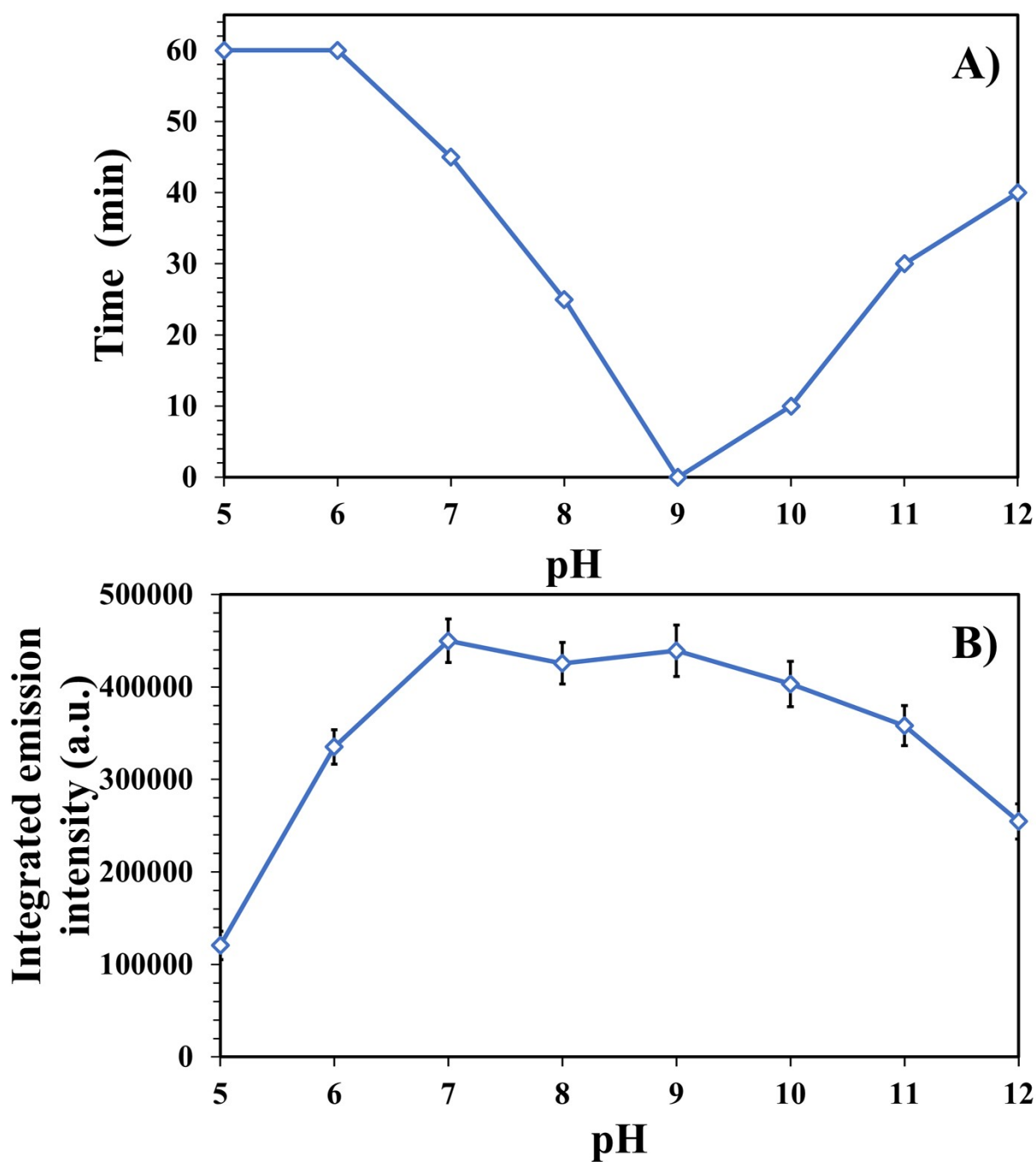


Fig. S2. A) Time required for the maximal upconversion emission recovery of UCNPs-PAAm-Cu(II) nanocomplex in the presence of 500 nM SA solutions at different pH values. B) Maximal integrated emission intensity recovery at the corresponding pH values.

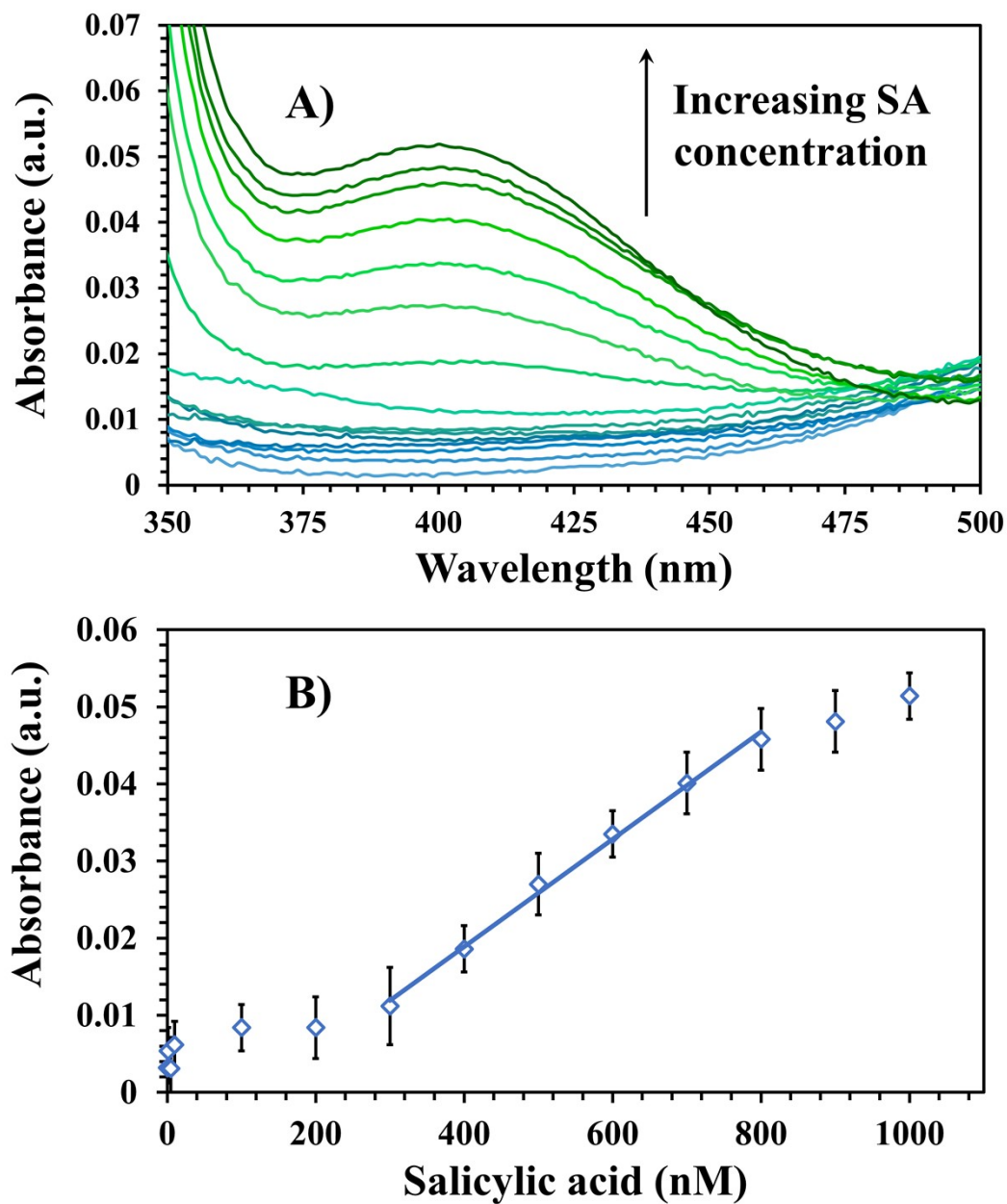


Fig. S3. A) Absorbance spectra of the UCNPs-PAAm-Cu(II) nanoprobe upon interaction with varied SA concentrations denoting the gradual SA-Cu(II) complex formation. B) Corresponding absorbance intensity at 402 nm. The signals refer to SA concentrations of 0, 0.5, 1.0, 5.0, 10, 100, 200, 300, 400, 500, 600, 700, 800, 900 and 1000 nM.