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Supporting Information

for

Cross-reactivities in conjugation reactions involving iron oxide nanoparticles

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UV–vis of pure cyanine dyes, N 1s XPS spectrum of IONP-PPA, S 2p XPS spectrum of Si substrate, UV–vis of supernatant from CySH reaction and control

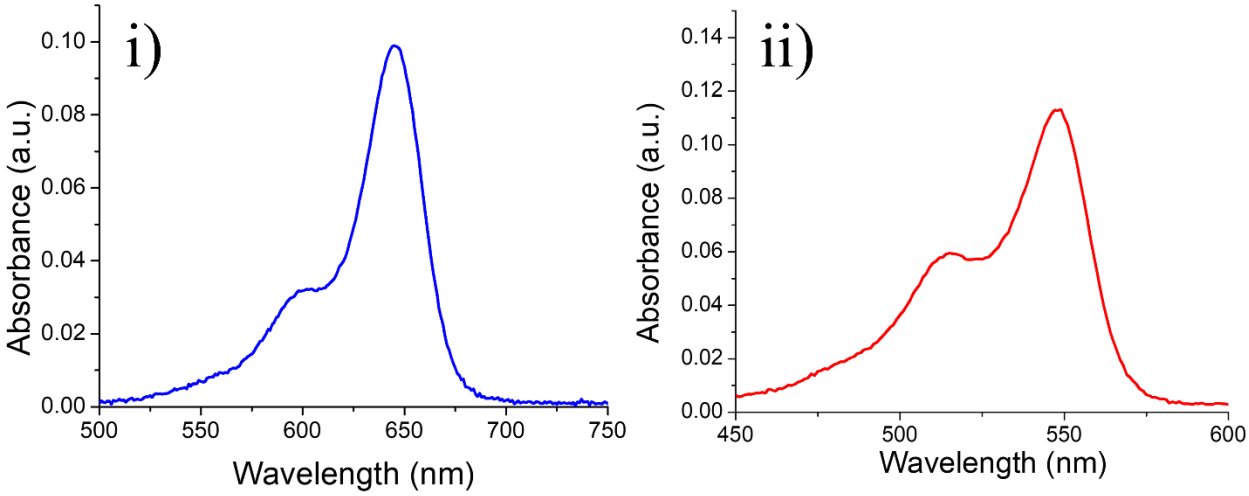

Figure S1: UV–vis spectra of aqueous solutions of the cyanine dyes used in this work. i) 1 µM Sulfo-Cy5-azide in 30 mM MOPS (pH 7), and ii) 2 µM sulfo-Cy3-maleimide in 30 mM MOPS (pH 7).

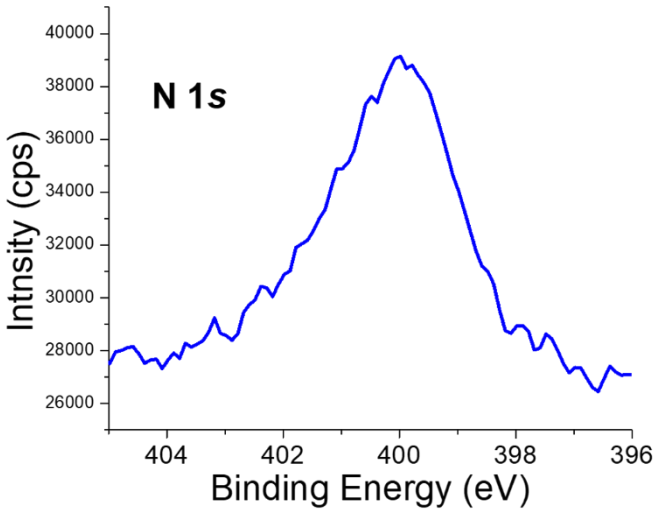

Figure S2: High resolution N 1s spectrum of IONP-PPA.

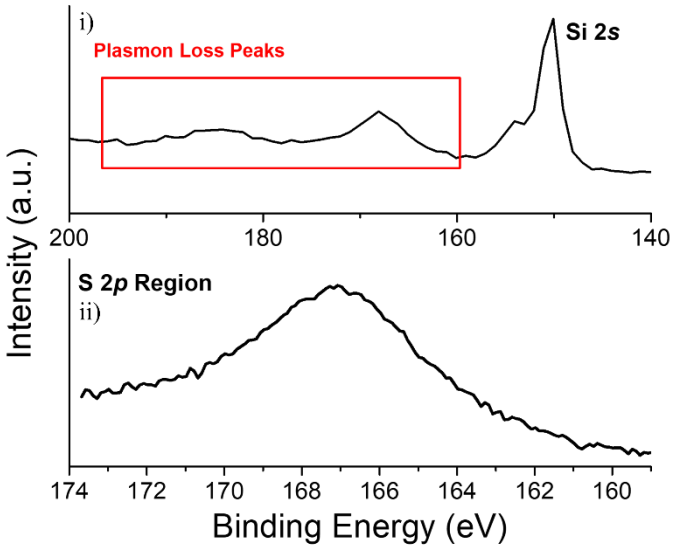

Figure S3: XPS spectra of the bare Si wafer substrate. i) Section of a survey spectrum illustrating the plasmon loss peaks from the Si 2s peak (red box), and ii) the high-resolution S 2p region, illustrating the broad Si 2s plasmon loss peak of the Si wafer substrate.

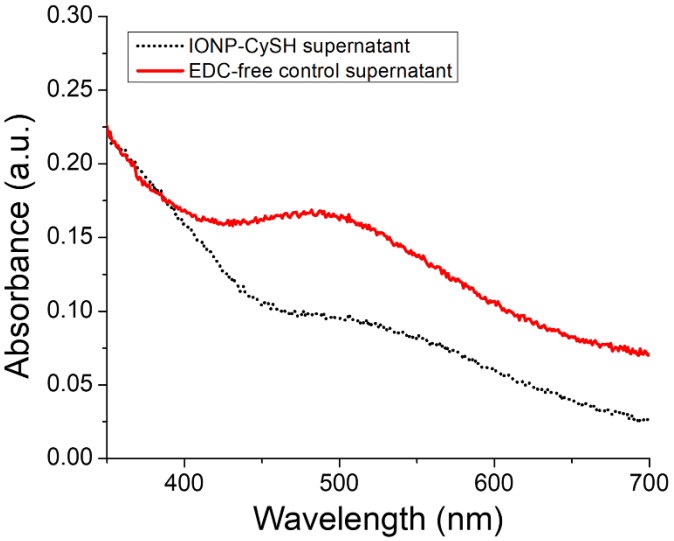

Figure S4: UV–vis spectrum of the reaction supernatant produced following reaction of IONP-3,4-DHBA with CySH. Red solid curve: reaction supernatant in the absence of EDC/NHS activation; black dotted curve: IONP-CySH reaction supernatant. λ_{max} = 485 nm.