

Figure S1. Absorption spectra of $Cy3^{TM}$ and $Cy5^{TM}$ in aqueous solution.



Figure S3. A typical SEM image of the orderedspherical-cavity gold substrates (600 nm sphere templated, grown to 450 nm by electrodeposition) employed in this study taken with a Philips XL30 environmental scanning electron microscope.



Figure S2. Cyclic voltammogram of $Cy3^{TM}$ immobilized on gold surface recorded in acetonitrile (0.3 M TBAP), degassed for 15 min. with Argon and blanketed during experiment at a scan rate of 100 mV s⁻¹ on a 1mm diameter disc electrode. The surface coverage determined for $Cy3^{TM}$ is larger, as expected, than $Cy5^{TM}$ at 8.64 x 10^{-11} mol cm⁻².

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