Figure S1. Absorption spectra of Cy3\textsuperscript{TM} and Cy5\textsuperscript{TM} in aqueous solution.

Figure S2. Cyclic voltammogram of Cy3\textsuperscript{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\textsuperscript{-1} on a 1mm diameter disc electrode. The surface coverage determined for Cy3\textsuperscript{TM} is larger, as expected, than Cy5\textsuperscript{TM} at 8.64 x 10\textsuperscript{-11} mol cm\textsuperscript{-2}.

Figure S3. A typical SEM image of the ordered-spherical-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.