

Surface Enhanced Visible Absorption of Dye Molecules in the Near-Field of Gold Nano-Antennas

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Surface enhanced absorption was clearly reported to occur in the infrared region of the spectrum of light. In this presentation, we show that it also occurs in the visible region of the spectrum by using a dye, i.e. an azo-dye, which exhibits a good light absorption in that region, and gold nanoparticles, which act as plasmonic nanoantennas, when the azo-dyes and the nanoparticles are incorporated in the bulk of solid films of polymer.