

SUPPLEMENTARY MATERIALS

Figure 1S. Changes of SPR curves from a gold surface exposed to increasing concentrations of **P2S** (mg mL^{-1}): 0, 0.003, 0.012, 0.15, 0.3, 0.6.

Figure 2S. Absorbance of 4 nM aqueous gold colloids at 520 nm as a function of the etch time. Naked particles (circles), **P1S**-derivatized colloids (triangles), **P1S**-derivatized colloids in the presence of 0.01 M **MPDiol** (squares). [**P1S**] = 0.03 mg mL^{-1} .

Figure 3S. Changes of the plasmon band wavelength at the maximum of intensity λ_{max} of an aqueous suspension of **P2S**-modified gold colloids (12 nM) as a function of temperature.

Figure 4S. Absorbance at 260 nm of a 0.36 mg mL^{-1} aqueous **P2S** solution as a function of temperature. A more pronounced sigmoidal behavior is observed for the heating cycle than for the cooling one. This is probably related to the entanglement of the collapsed polymer chains leading to a hysteresis under the experimental conditions.

Figure 5S. TEM images of gold colloids. **a**: naked gold colloids; **b**: gold colloids in the presence of polyvinylpyrrolidone; **c**: gold colloids in the presence of **P2I**. The bar displays 100 nm.

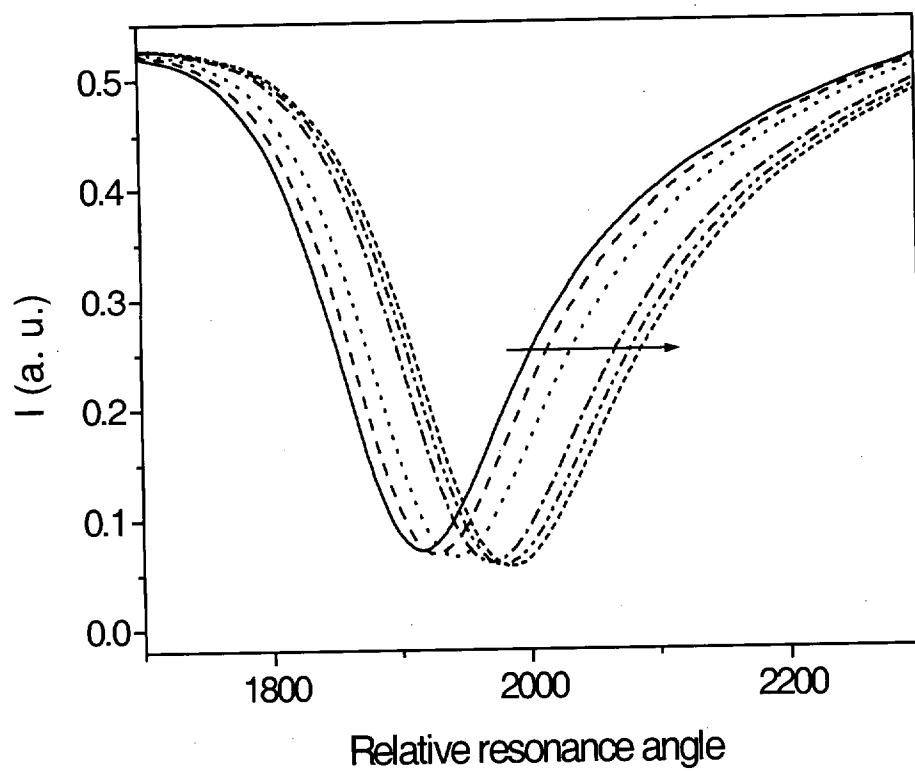


Figure 1S

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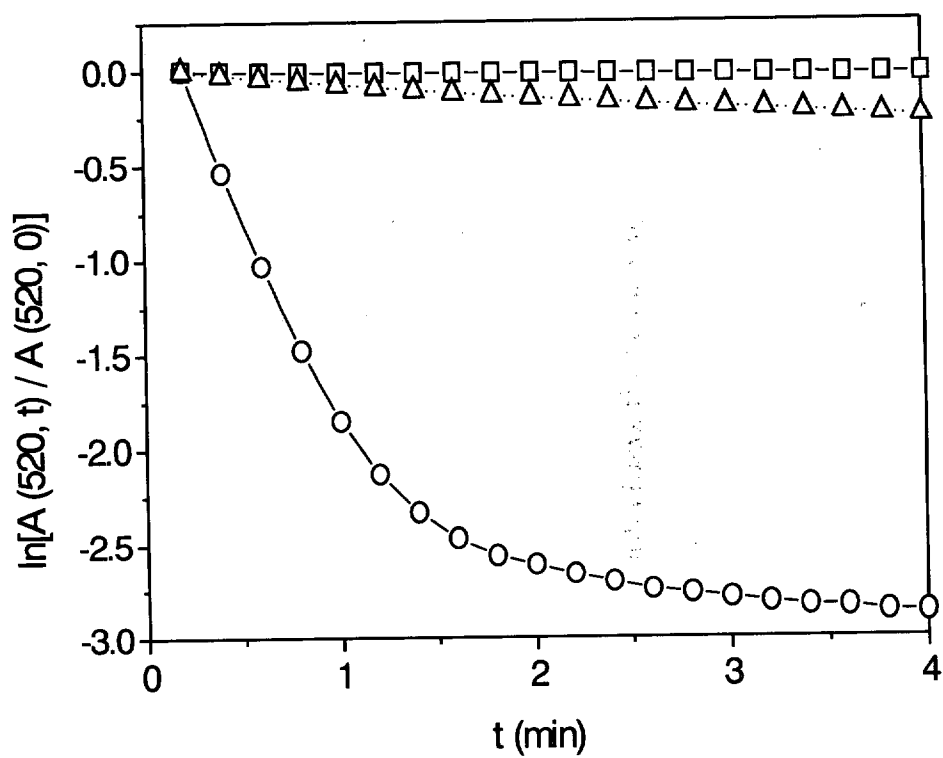


Figure 2S

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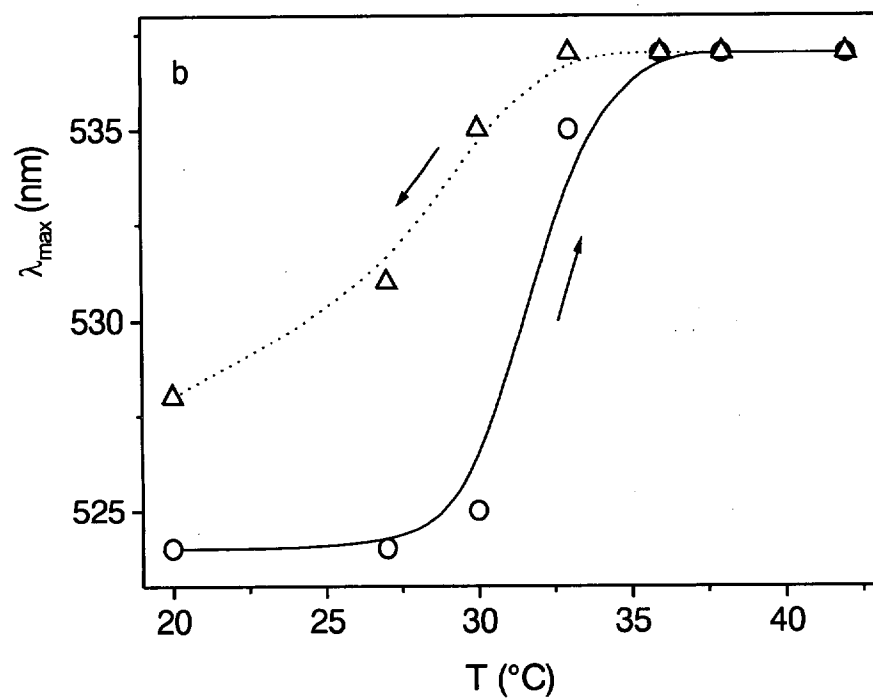


Figure 3S

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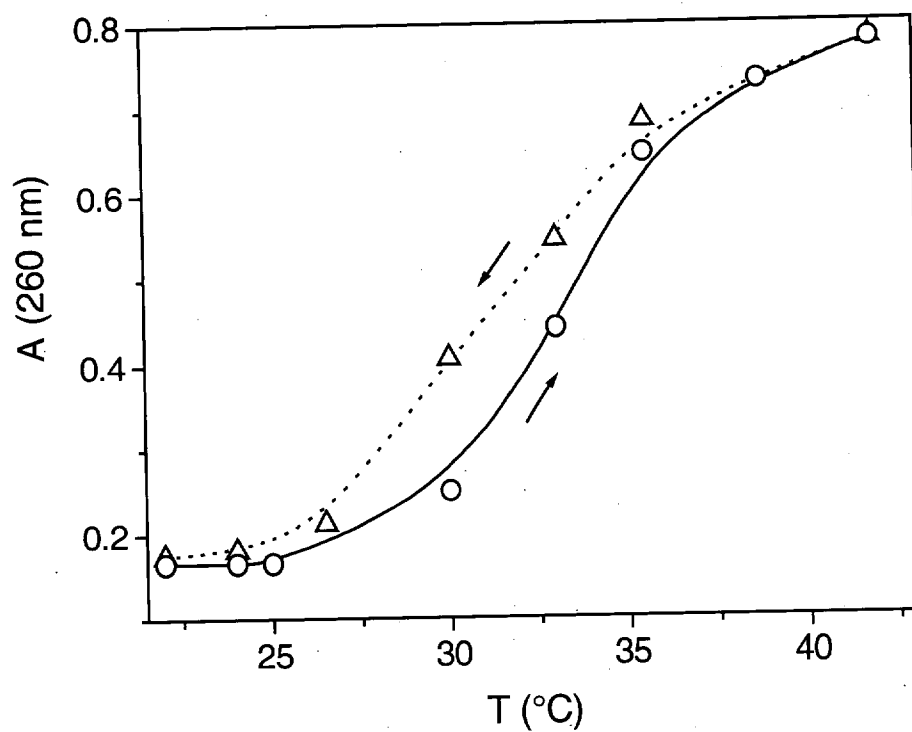


Figure 4S

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