

Supporting materials

The adsorption of chlorpromazine on the surface of gold nanoparticles and its effect on the toxicity to selected mammalian cells

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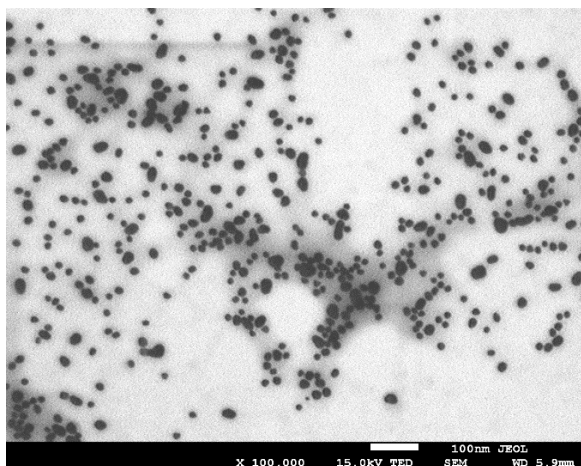
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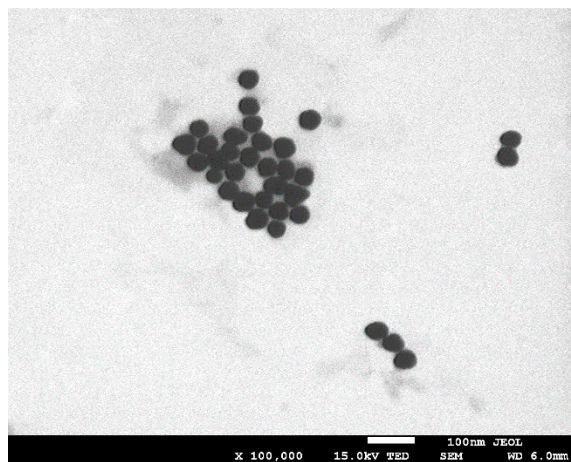
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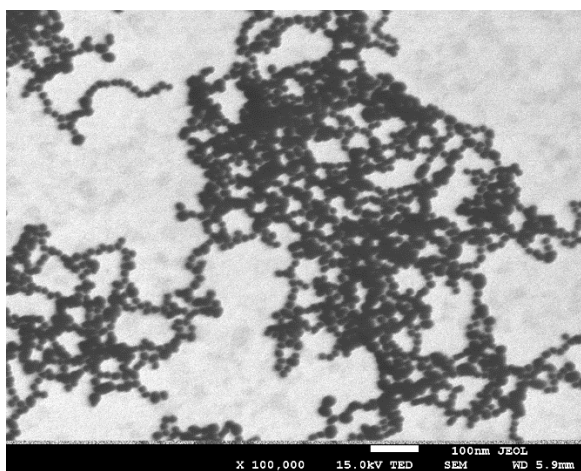
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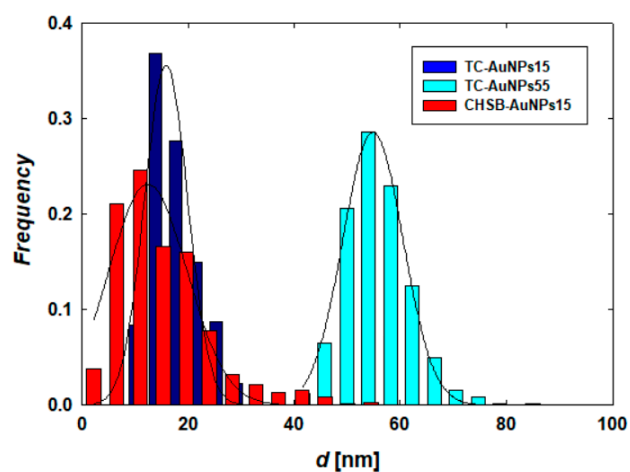
(a)



(b)



(c)



(d)

Figure S1. Typical TEM micrographs showing: (a) TC-AuNPs15, (b) TC-AuNPs55, (c) CHSB-AuNPs15 and (d) size distribution of AuNPs. The histograms were prepared by analyzing the diameters of 1000 AuNPs of each type.

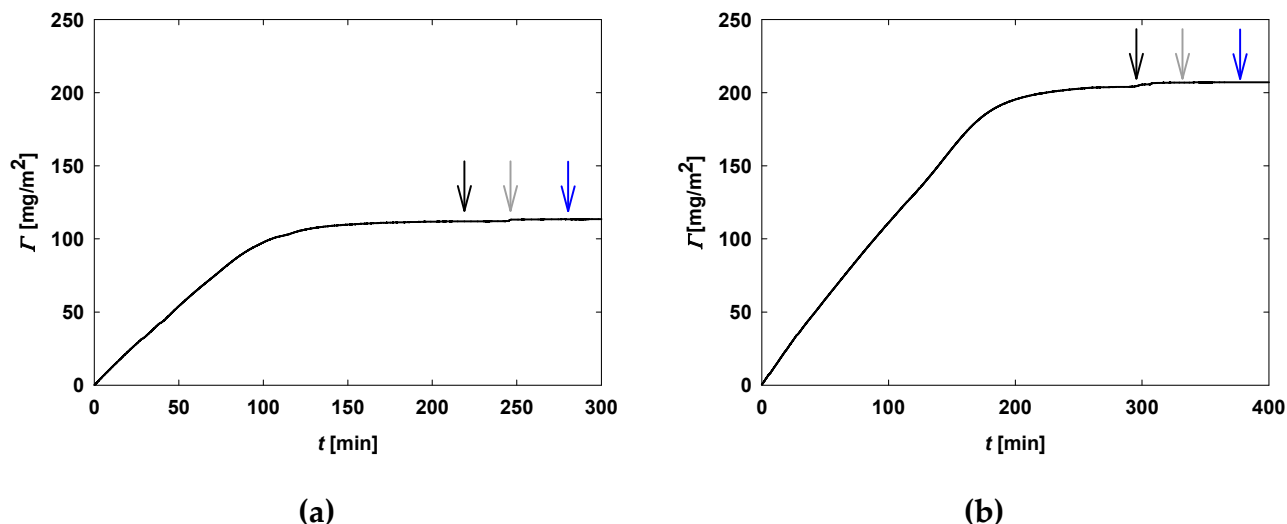


Figure S2. Deposition kinetics of (a) TC-AuNPs15 and (b) TC-AuNPs55 on PAH-modified Si/SiO₂ sensors determined using a QCM (flow rate $1.33 \times 10^{-3} \text{ cm}^3/\text{s}$) for a suspension concentration of (a) 30 mg/L and (b) 50 mg/L, ionic strength of 10^{-2} M , pH 5.8 and temperature of 25°C. The black arrows indicate the start of surface activation using 10^{-2} M NaCl, while the grey arrows indicate the beginning of CPZ deposition. The blue arrows indicate the onset of the desorption experiments, initiated with a sodium chloride solution of ionic strength 10^{-3} M .

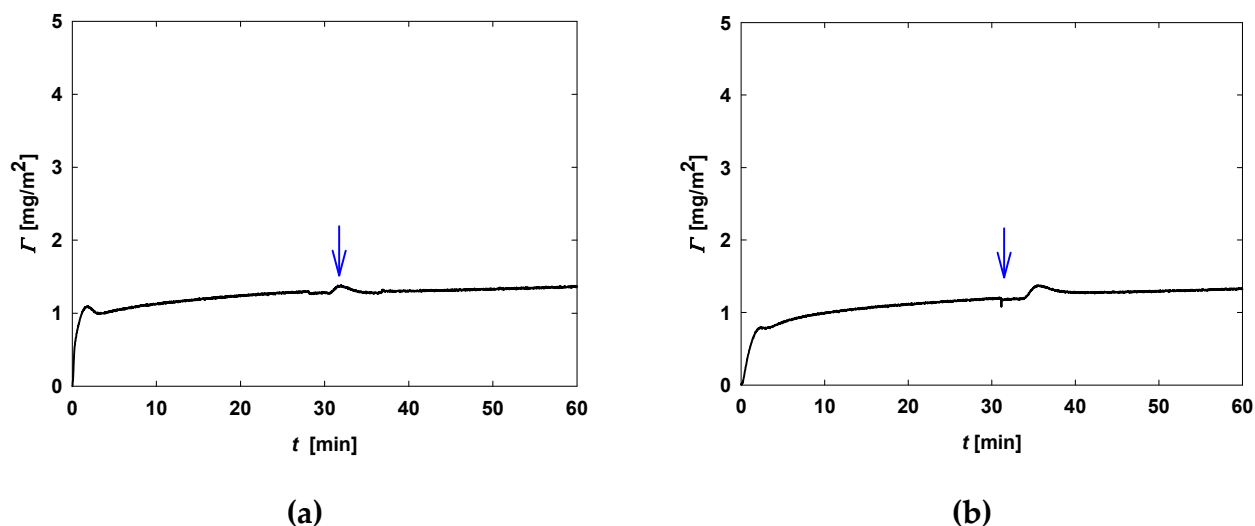
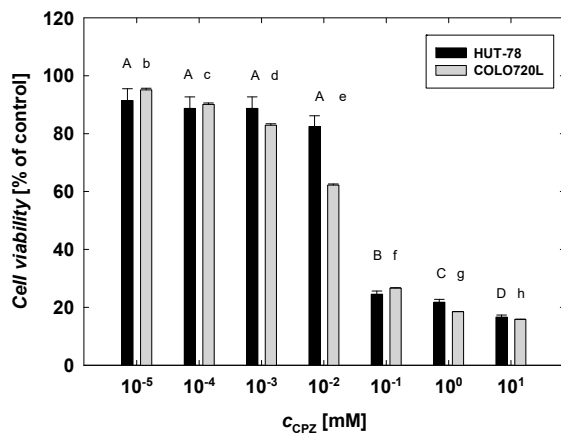
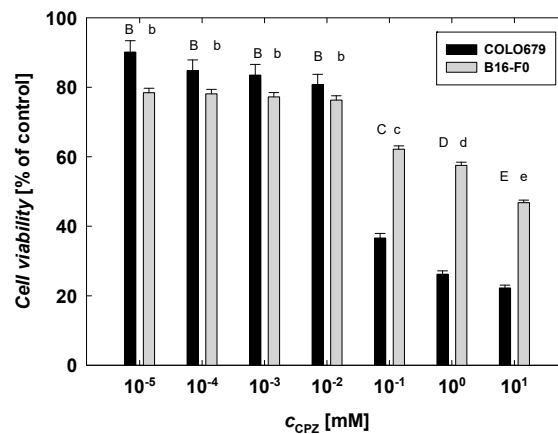


Figure S3. Adsorption kinetics of CPZ molecules on (a) TC-AuNPs15 and (b) TC-AuNPs55 monolayers with a coverage of 0.32-0.33 (deposited on PAH-modified Si/SiO₂ sensors) were determined using a QCM (flow rate: $1.33 \times 10^{-3} \text{ cm}^3/\text{s}$) for a CPZ solution concentration of 10^{-3} M and at a temperature of 25°C. The blue arrows indicate the beginning of the desorption experiments initiated with a sodium chloride solution of ionic strength 10^{-3} M .



(a)



(b)

Figure S4. Effect of CPZ on the viability of **(a)** lymphocytes and **(b)** melanoma cells. Cell viability was determined after 24 hours of CPZ treatment using the MTT assay. The letters indicate significant differences ($p < 0.05$) between the results of each treatment.