Supplement information for Nanoplasmonic sensing to study CO and oxygen adsorption and CO oxidation on size-selected Pt_{10} clusters.

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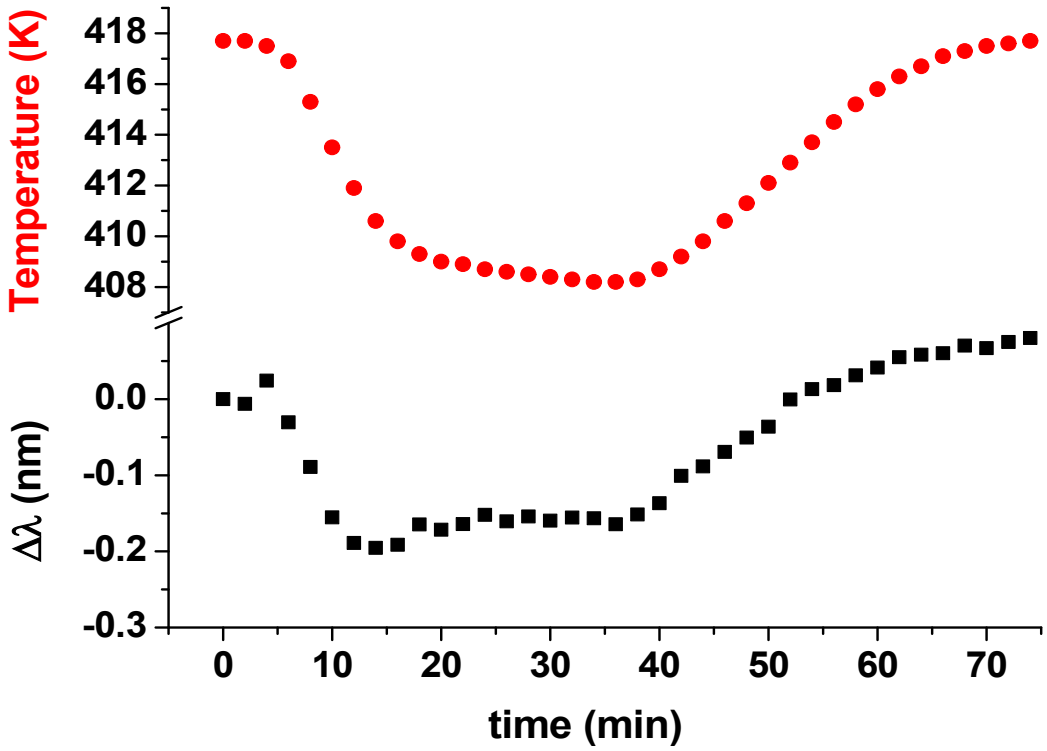

Fig. S1 Top: variation of the sample temperature (T) versus time. Bottom: Experimental LSPR shift Δλ versus time of Au disks (h = 17.5 nm, p = 300 nm, d = 140 nm) covered with a SiO2 layer (6 nm) deposited on an ITO film (21 nm) supported on a HQ-float glass window versus time. Δλ is defined with respect to a reference which is the plasmonic sample at T = 418 K under high vacuum (P ~ 10^{-6} Pa*).*

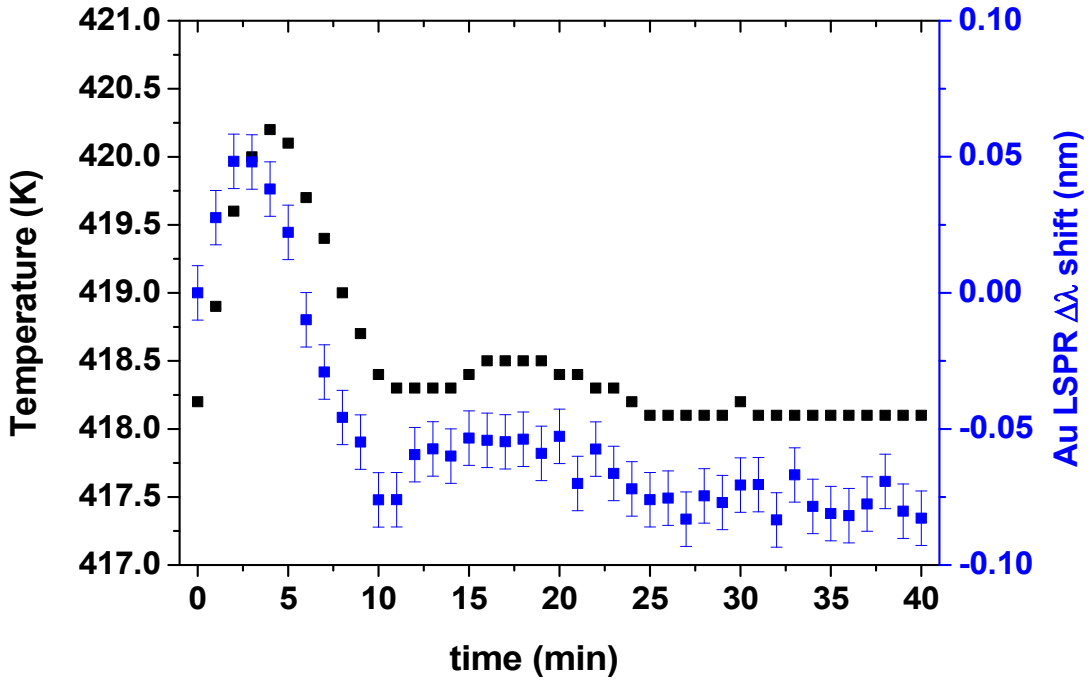

Fig. S2 Experimental Au LSPR shift and sample temperature versus time at T = 418 K and P_{CO} = 2.3 Pa for Pt_{10} clusters deposited on Au disks (h = 17.5 nm, p = 300 nm, d = 140 nm) covered with a SiO_2 layer (6 nm) and deposited onto an ITO-coated film (21 nm) glass window. The LSPR shift is defined with respect to a reference which is the plasmonic sample before CO adsorption. The accuracy of the wavelength measurements in the LSPR response is 0.01 nm (error bars).

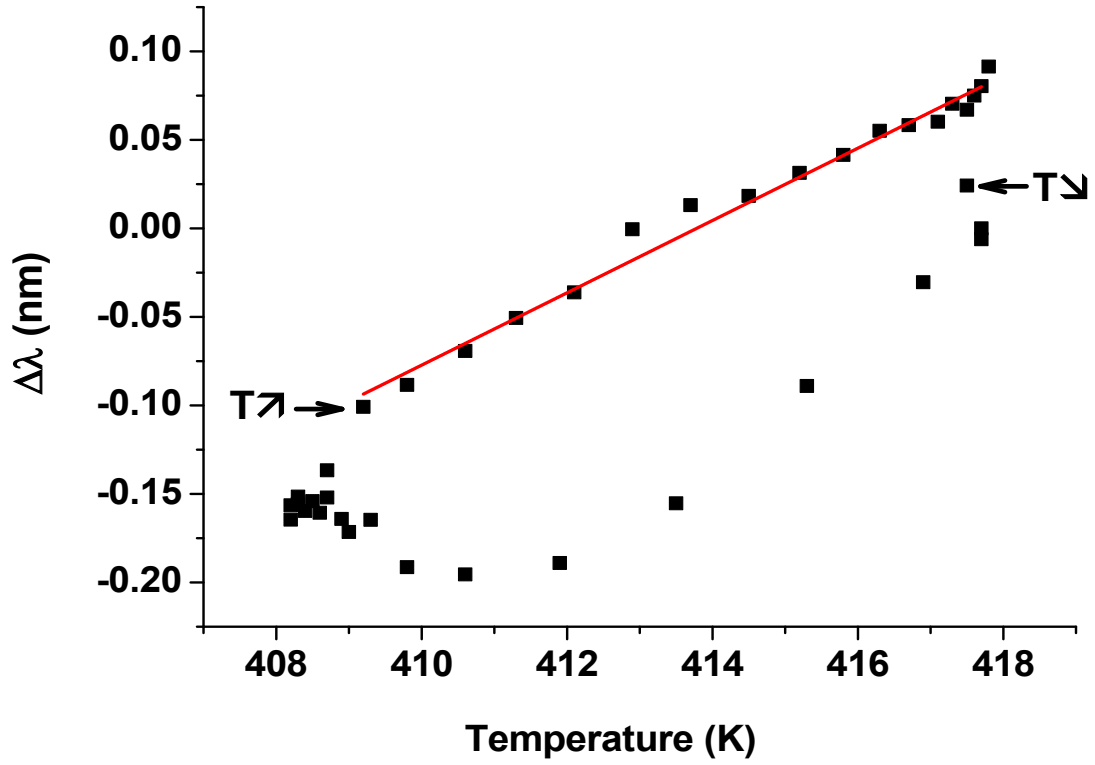

Fig. S3 Experimental LSPR shift Δλ versus sample temperature (T) of Au disks (h = 17.5 nm, p = 300 nm, d = 140 nm) covered with a SiO2 layer (6 nm) deposited on an ITO film (21 nm) supported on a HQ-float glass window. Δλ is defined with respect to a reference which is the plasmonic sample at T = 418 K under high vacuum (P ~10^{-6} Pa). There is a linear (fitted) part corresponding to the increase in T and a non-linear part corresponding to the decrease in T.