

Supplementary Materials: Evidence of the Disassembly of α -Cyclodextrin-octylamine Inclusion Compounds Conjugated to Gold Nanoparticles via Thermal and Photothermal Effects

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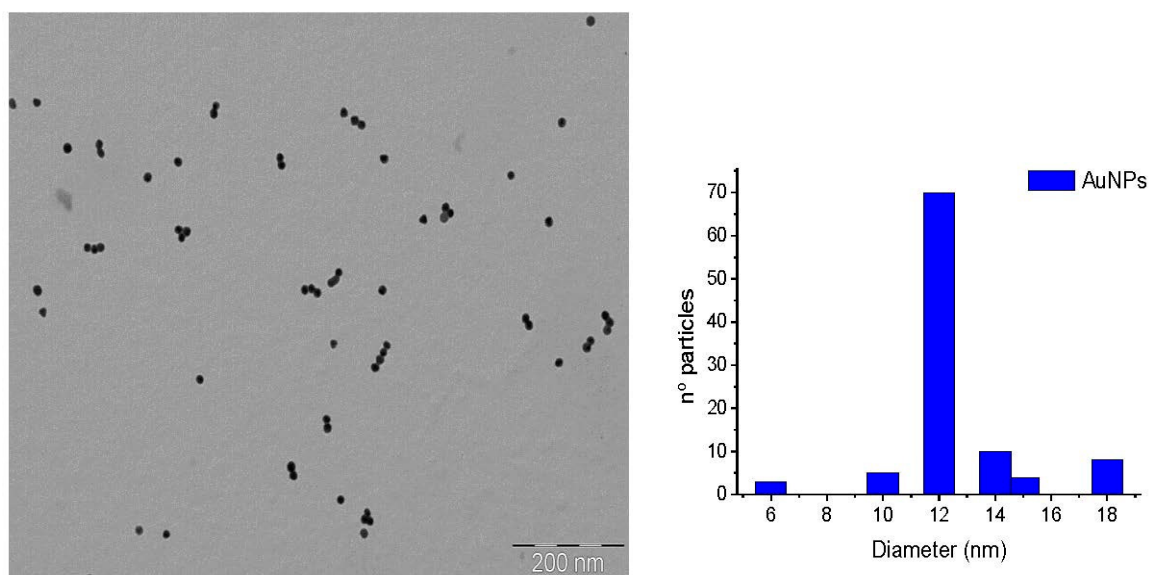


Figure S1. TEM micrograph and histogram of gold nanoparticles.

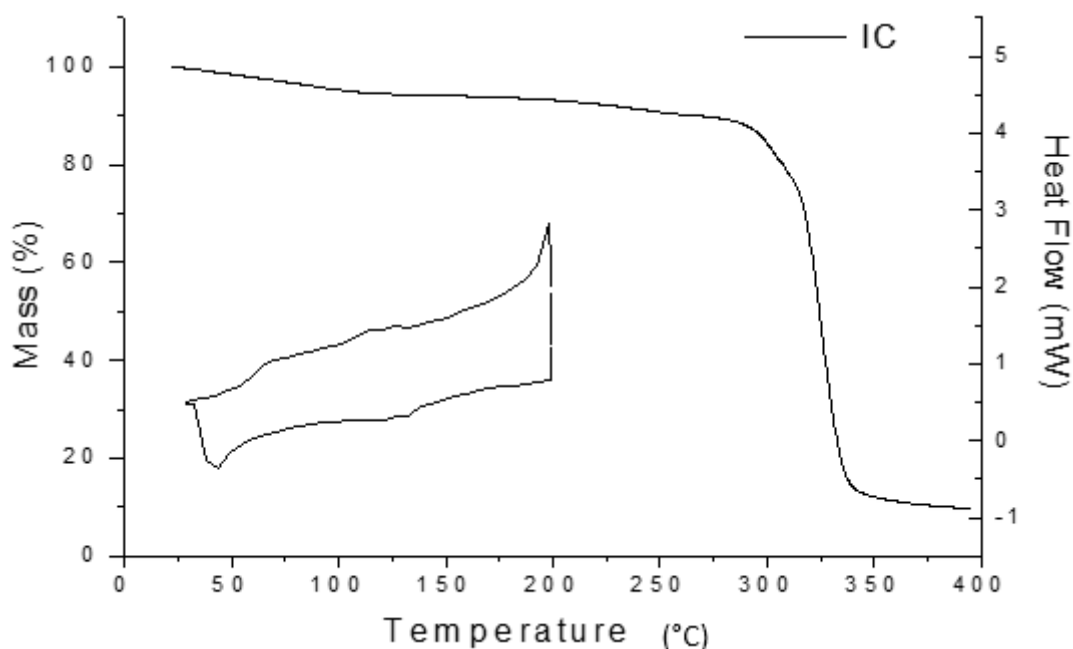


Figure S2. Thermogram (DSC/TGA) of the α -cyclodextrin/octylamine inclusion compound. The temperature range was between 25 and 400 °C for TGA and between 25 and 200 °C for DSC, with a heating rate of 10 °C·min⁻¹.

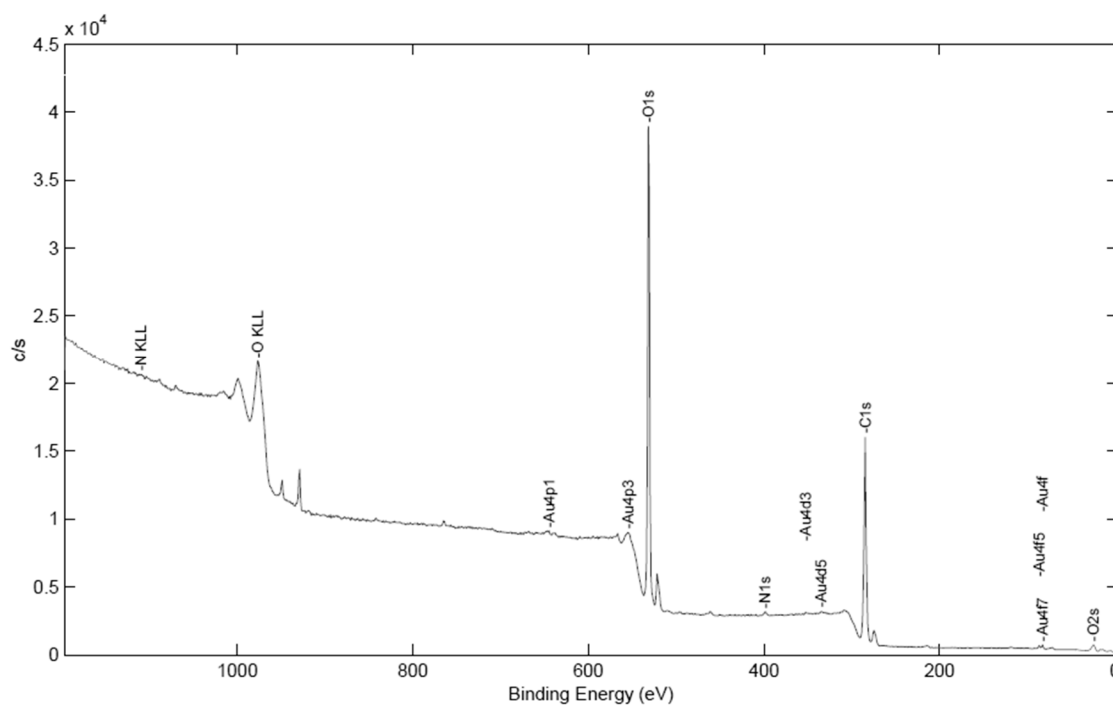


Figure S3. XPS general spectrum of IC conjugated to AuNPs.

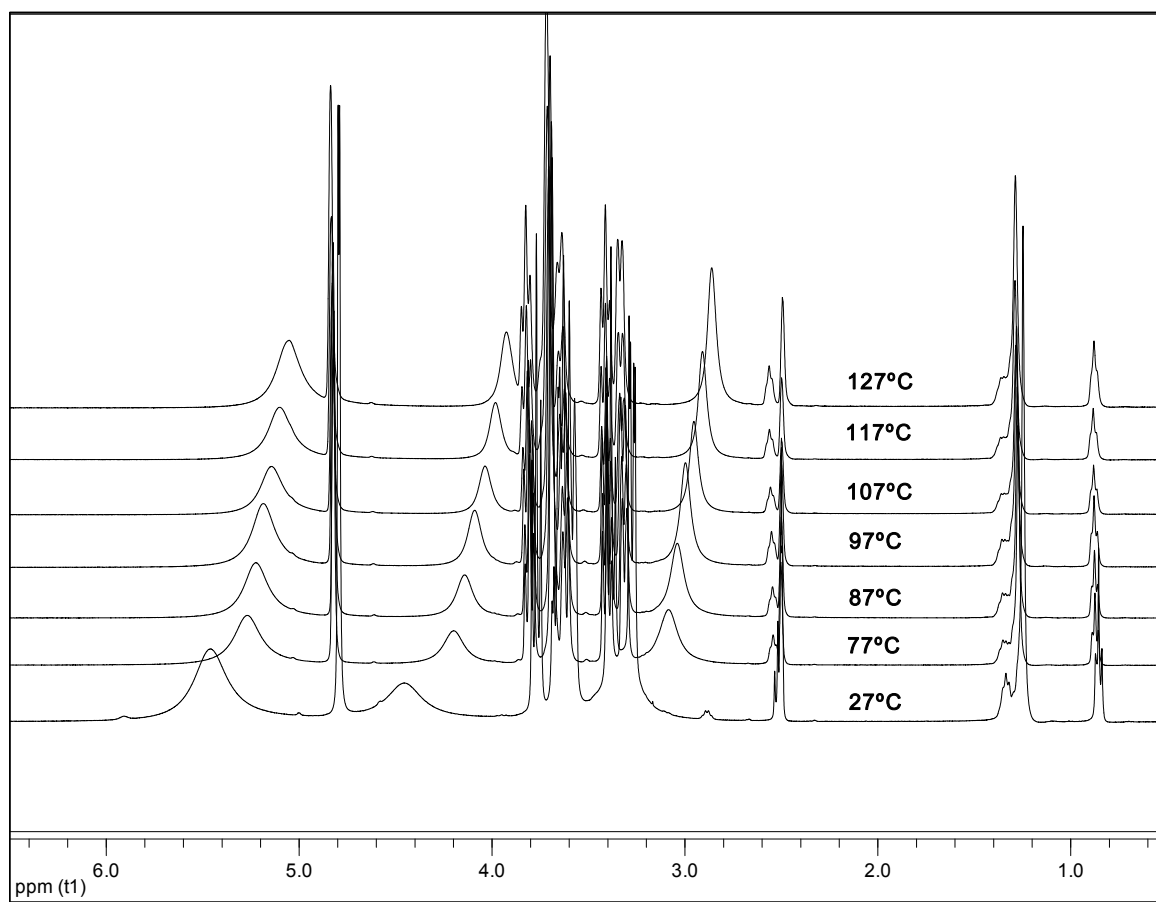


Figure S4. ^1H -NMR spectra of an α -cyclodextrin/octylamine IC at various temperatures.

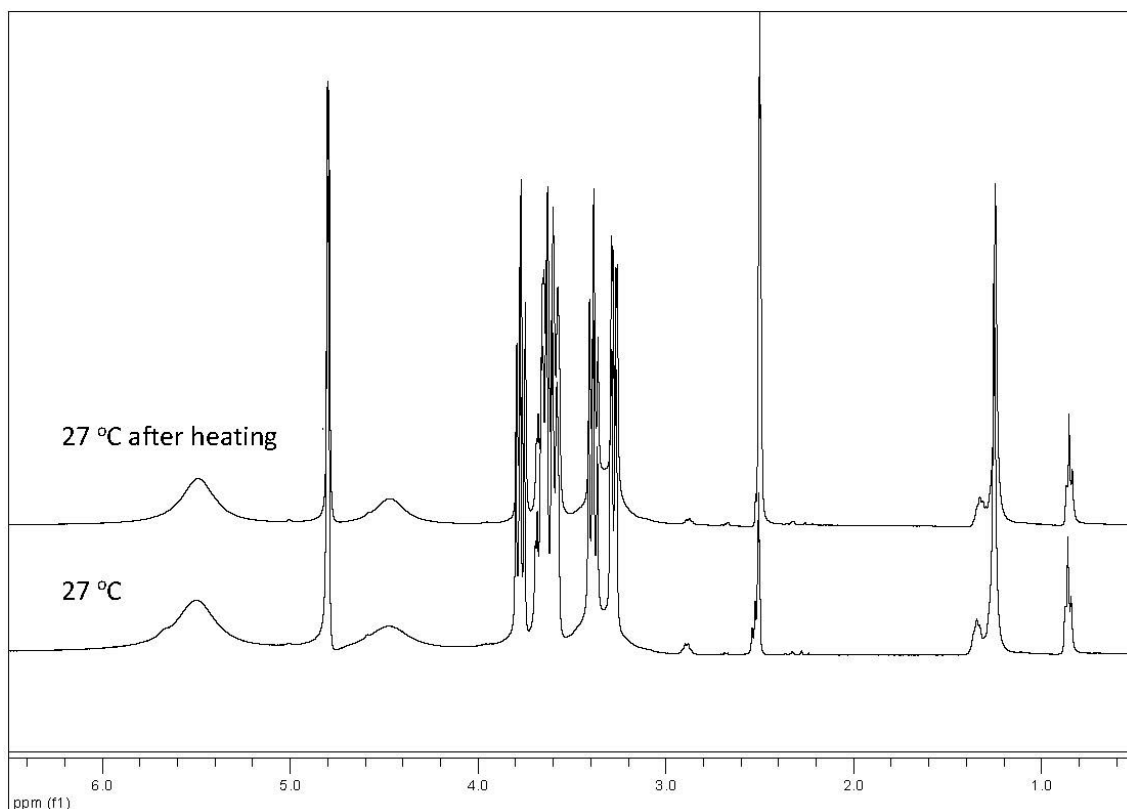


Figure S5. ¹H-NMR spectra of the inclusion compound conjugated to AuNPs at 27 °C before and after heating.

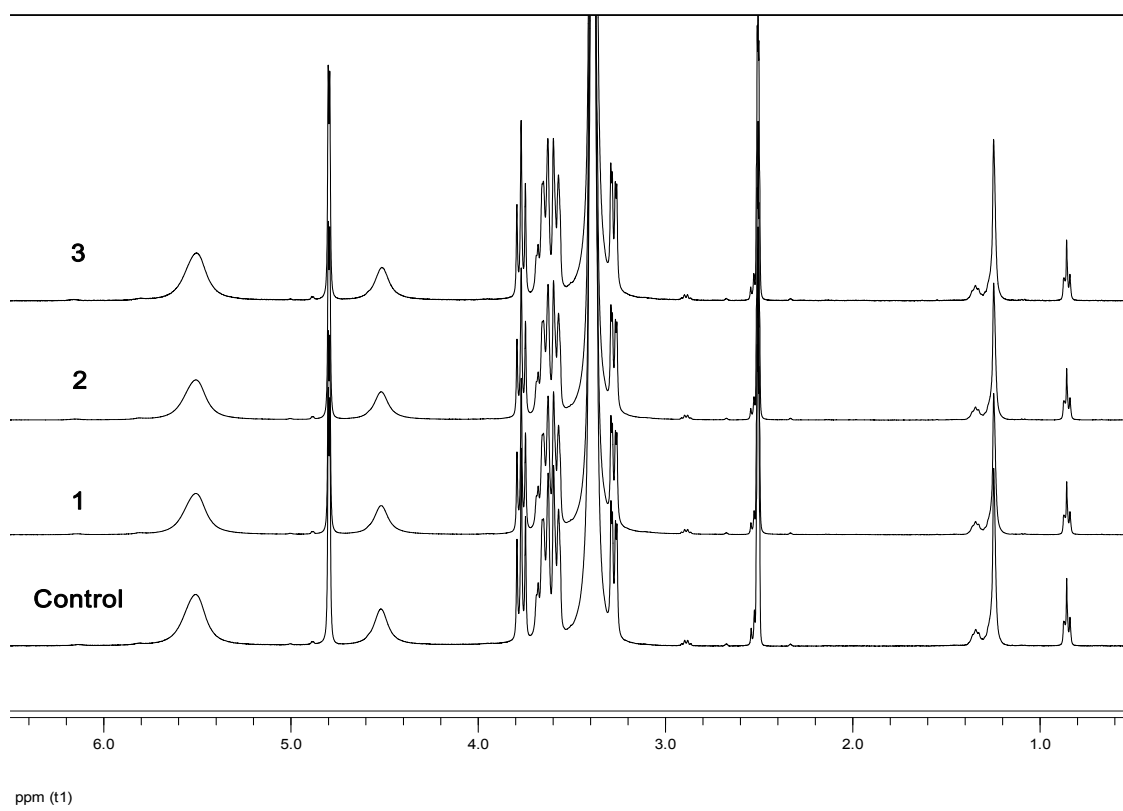


Figure S6. ¹H-NMR spectra of IC before and after irradiation. The irradiation conditions for each spectrum were: control (without irradiation), 1 (250 mW/15 min), 2 (450 mW/15 min) and 3 (450 mW/60 min).

Table S1. Chemical shifts of α -CD in the IC at 27 °C before and after being heated.

Temperature (°C)	H1 (ppm)	H2 (ppm)	H3 (ppm)	H4 (ppm)	H5 (ppm)	H6 (ppm)	OH(2) (ppm)	OH(3) (ppm)	OH(6) (ppm)
27	4.79	3.27	3.77	3.38	3.59	3.65	5.49	5.49	4.47
27 after heating	4.79	3.27	3.77	3.38	3.59	3.65	5.49	5.49	4.47

Table S2. Chemical shifts of OA in the IC to 27 °C before and after being heated.

Temperature (°C)	CH ₃ (ppm)	-(CH ₂) _n - (ppm)	-CH ₂ - (ppm)	NH ₂ (ppm)
27	0.85	1.23	1.31	2.53
27 after heating	0.85	1.23	1.31	2.53