

One-Pot Synthesis of Triangular Gold Nanoplates Allowing Broad and Fine Tuning of Edge Length

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XPS characterization of the nanoparticles

Figure S1 and Table S1 show the results obtained in the XPS study of the gold nanotriangles.

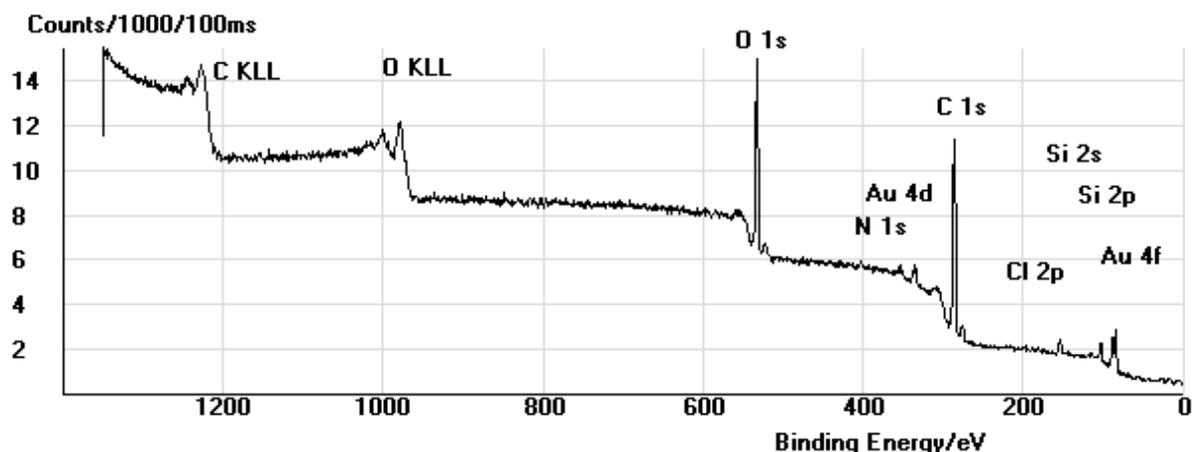


Figure S1. XPS survey spectrum of a sample of Au nanotriangles. The peaks for C, O, and Si are also detected in the blank support used.

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Table S1. Curve fitting of the data of XPS spectra of the nanotriangles in the C 1s, O 1s, N 1s, Cl 2p, Br 3d, Au 4f regions. Values between brackets refer to the full-width at half maximum of the bands

| Sample | Binding energy (eV) ^[a] | | | | | |
|---------------|------------------------------------|--------------|------------------------------|------------------------------|-------------|----------------------------|
| | C 1s | O 1s | N 1s | Cl 2p | Br 3d | Au 4f |
| Support | 284.9 (2.31) 284.5 (1.02) | 532.4 (3.27) | --- | --- | --- | --- |
| Nanotriangles | 285.6 (2.11) 287.1 (1.57) | 533.2 (1.81) | 400.2 (3.04) 403.0 (1.48) | 197.8 (1.21) 199.6 (1.47) | 68.3 (2.01) | 87.7 (1.25) 84.0 (1.38) |

Nanoparticles obtained with high concentration of CTAB

¹⁵ Fig. S2 shows TEM images of the nanoparticles obtained with a concentration of CTAB of 6.2 mM. The results for higher concentrations of CTAB were similar.

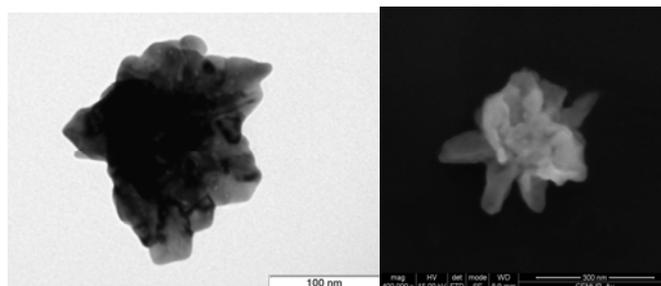


Figure S2 TEM (left) and SEM (right) image of nanoparticles obtained with a concentration of CTAB of 6.2 mM. In addition to these branched nanoparticles the sample also had some regular nanotriangles.