Electronic Supplementary Material (ESI) for Nanoscale.

Supporting Information

An experimental and theoretical investigation of the anisotropic branching in gold nanocrosses

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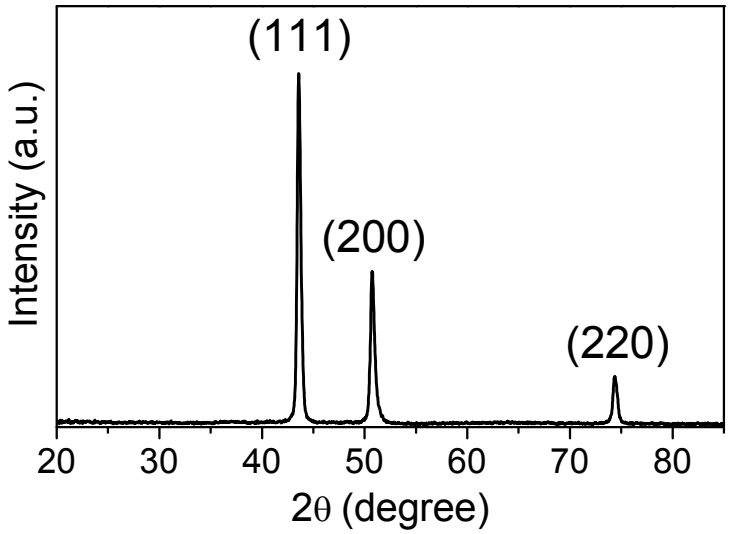

Fig. S1 XRD pattern of the Cu nanostructures that formed from the disproportionation of Cu^{+} when CuCl was heated in oleylamine at 200 °C for 10 min.

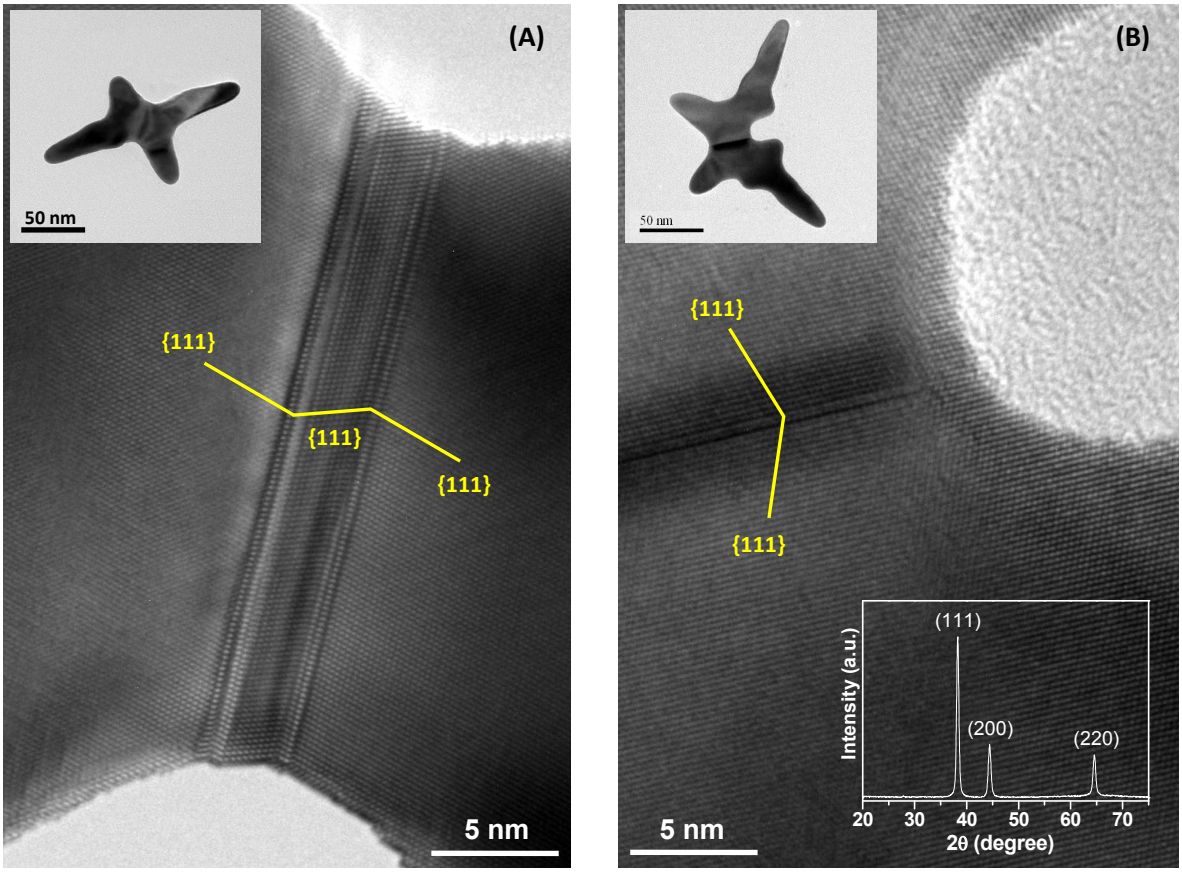

Fig. S2 Typical morphologies of the Au nanocrosses obtained using Method 1. HRTEM and TEM (inset) images of (A) doubly-twinned Au nanocross with D_{2h} symmetry and (B) singly-twinned Au nanocross with C_{2v} symmetry. The XRD pattern of the Au nanocrosses is presented in the lower inset of (B).

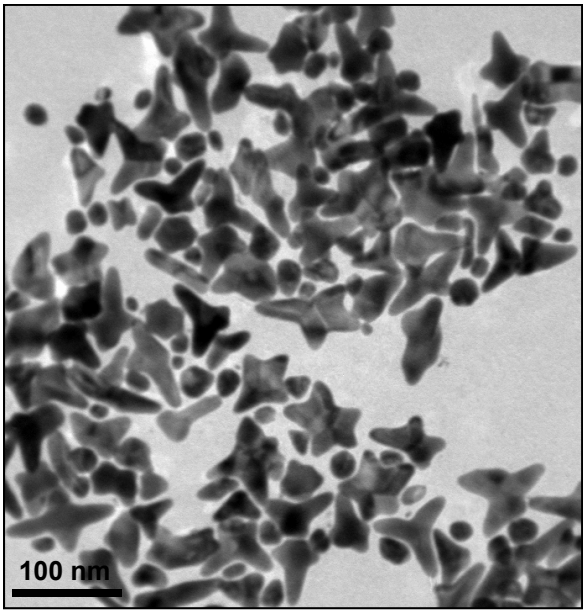

Fig. S3 TEM image of the Au nanostructures obtained using Method 2 when the pre-formed anisotropic Au seeds were allowed to grow at 100 °C for 10 min.

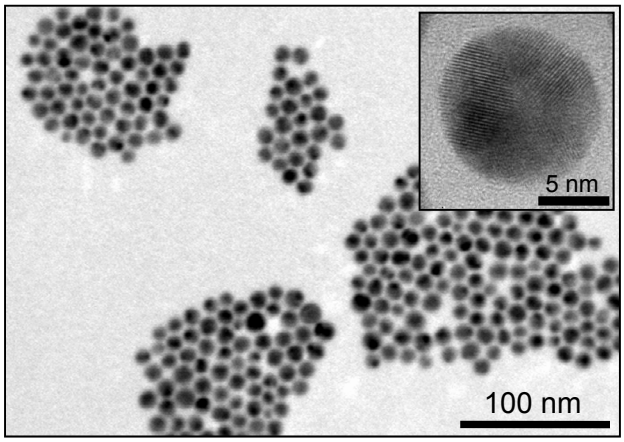

Fig. S4 TEM image and HRTEM image (inset) of ~12 nm multiply-twinned Au nanocrystals prepared by reduction of $AuCl_3$ by oleylamine at 100 °C.