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Correction: Exploring the 3D structure and defects of a self-assembled gold mesocrystal by coherent X-ray diffraction imaging

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Correction for 'Exploring the 3D structure and defects of a self-assembled gold mesocrystal by coherent X-ray diffraction imaging' by Jerome Carnis *et al.*, *Nanoscale*, 2021, DOI: 10.1039/D1NR01806J.

The authors regret that the original article contained some errors in the main text and in the captions of Fig. 1 and 3. In section 4.3 of the original article, the sentence "The polymer tip was fixed on a rotation stage around the vertical axis z ." should read "The polymer tip was fixed on a rotation stage around the vertical axis.". Fig. 1 and 3 are displayed below with the updated captions.

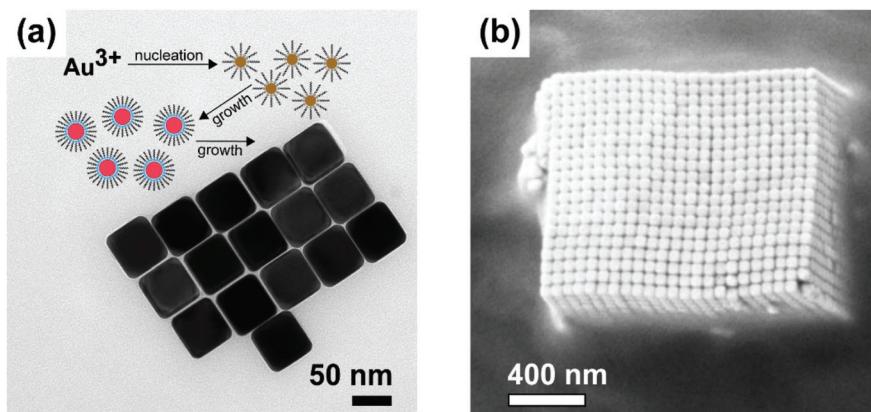


Fig. 1 Synthesis of gold nanoparticles and mesocrystals. (a) TEM image of gold nanocubes stabilized by CTAC and synthesized using a seed-mediated approach. (b) SEM image of the self-assembled gold mesocrystal prior to FIB preparation for the CXDI measurements.

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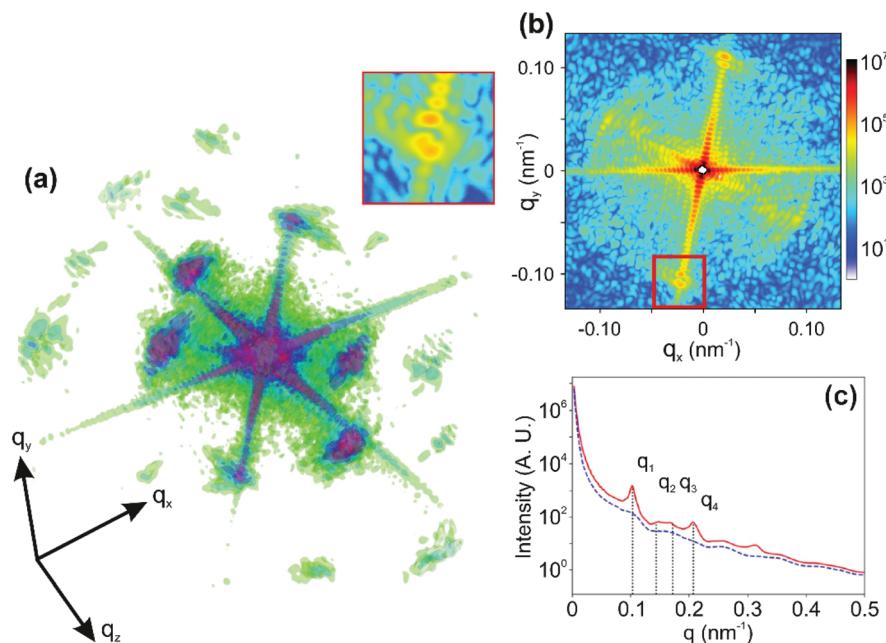


Fig. 3 Diffraction patterns measured in the CXDI experiment. (a) Isosurface view (from 54% to 72% level) of the 3D diffraction pattern from the mesocrystalline grain shown in SEM image in the inset of Fig. 2. The data has been gridded onto the orthonormal laboratory frame. The length of coordinate arrows corresponds to 0.1 nm^{-1} . (b) Slice at the center of the interpolated diffraction pattern in the q_xq_y plane, showing the low-angle scattering region up to the first superlattice Bragg peaks. An enlarged view of the area outlined by a red box is shown in panel (a). (c) Intensity distribution as a function of the momentum transfer value q obtained by angular averaging of the 3D diffraction pattern (red line). The blue dashed line corresponds to the median value at momentum transfer q determined from the angular averaged values. The AXCCA was performed on the data obtained by subtracting these median values from the 3D diffraction pattern shown in (a). The vertical dotted lines correspond to the momentum transfer values used in the AXCCA: $q_1 = 0.104 \text{ nm}^{-1}$, $q_2 = 0.144 \text{ nm}^{-1}$, $q_3 = 0.172 \text{ nm}^{-1}$, and $q_4 = 0.208 \text{ nm}^{-1}$. Note, that intensities in all panels are given in logarithmic scale.

The Royal Society of Chemistry apologises for these errors and any consequent inconvenience to authors and readers.

