

## Supporting Information

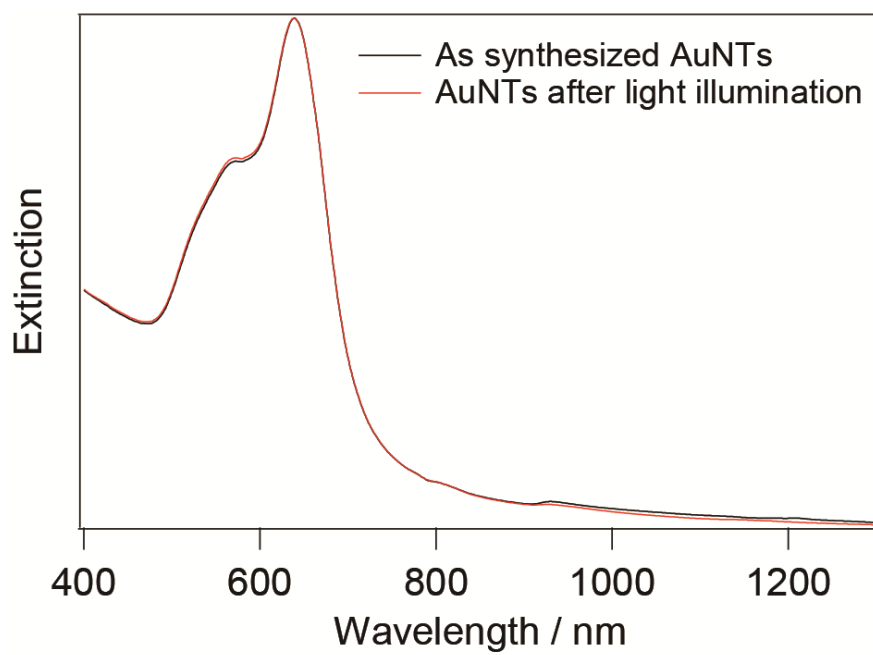
# Three-Dimensional Building of Anisotropic Gold Nanoparticles under Confinement in Submicron Capsules

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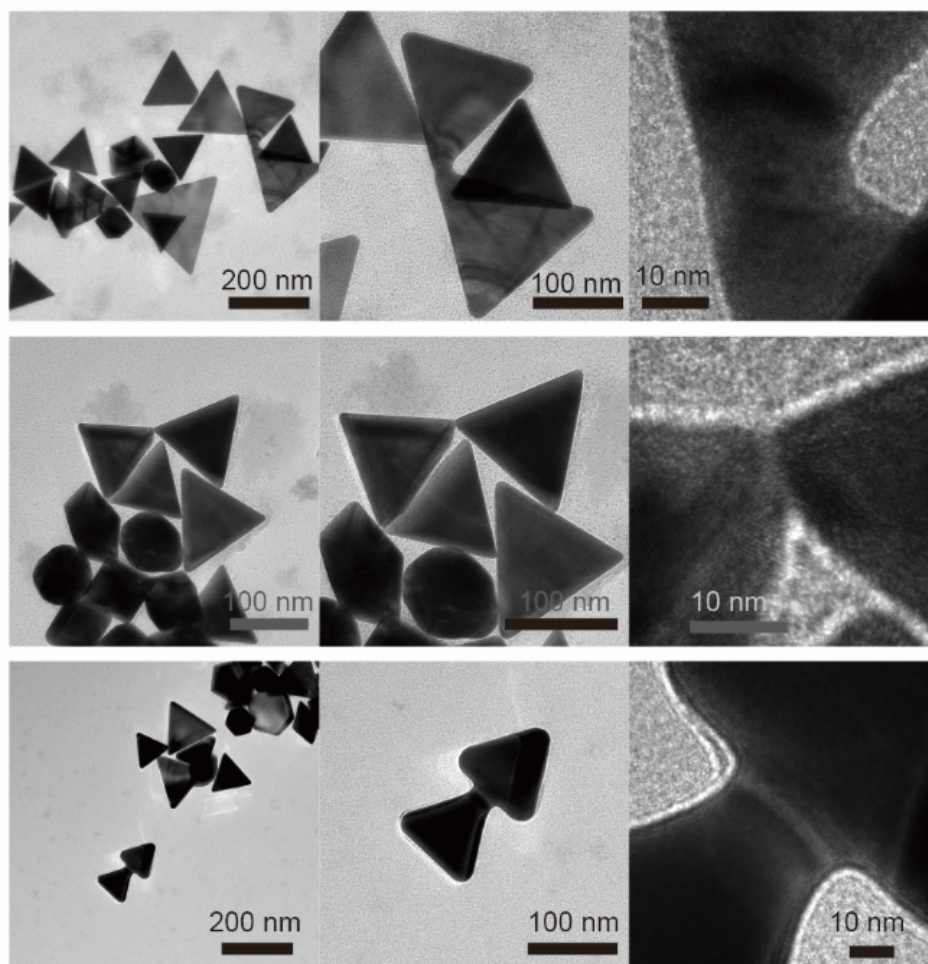
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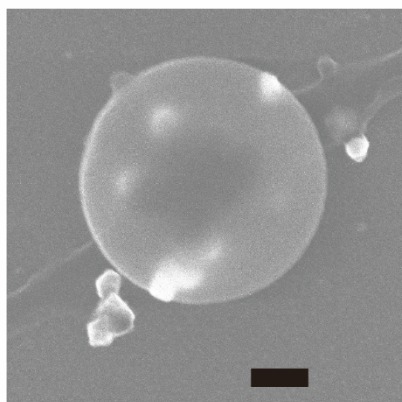


**Figure S1.** Optical absorption spectra of AuNTs obtained (black) before and (red) after light illumination ( $\lambda > 600$  nm) for 1 h.

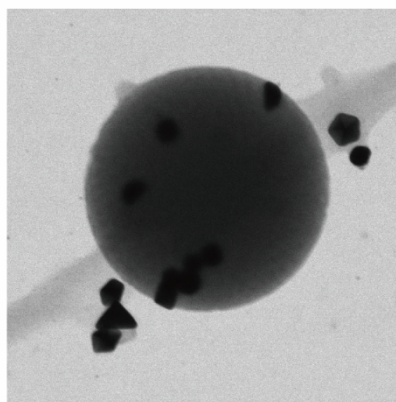


**Figure S2.** Transmission electron microscopy (TEM) images of welded gold nanotriangles (AuNTs) obtained after light illumination ( $\lambda > 600$  nm) from Figure 1c at different magnifications.

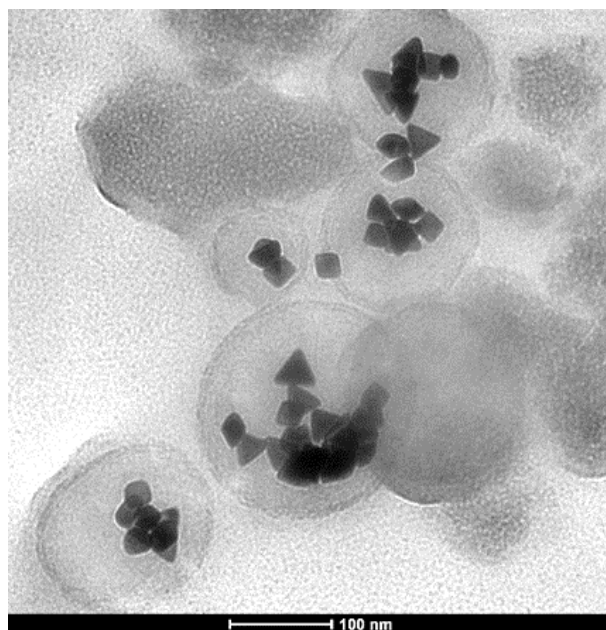
a)



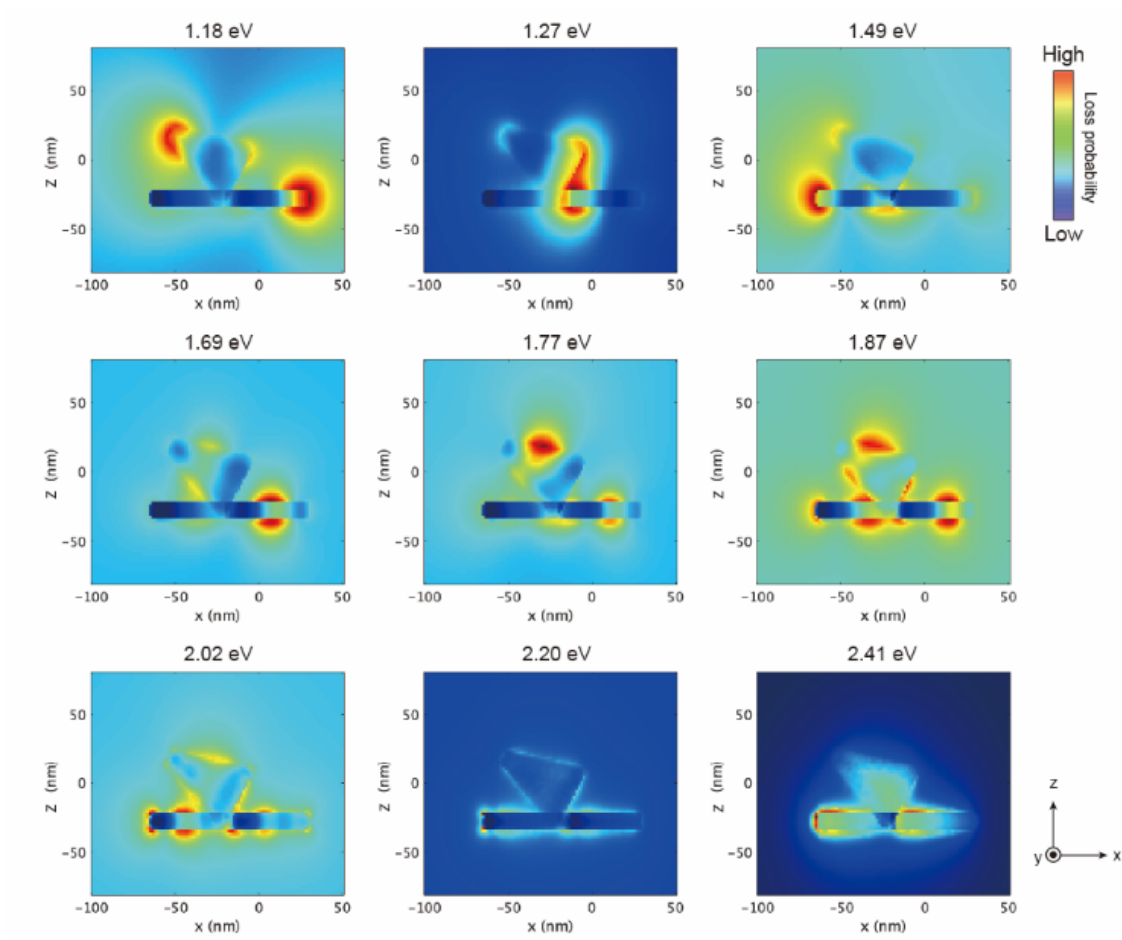
b)



**Figure S3.** (a) SE and (b) bright-field STEM images of a synthesized gold NP encapsulated in silica nanocapsule (scale bar: 100 nm).



**Figure S4.** Representative TEM image of the encapsulated gold NPs to obtain Figure 2d.



**Figure S5.** Simulated EEL maps of the welded gold nanostructure observed in Fig. 3a. The welding two AuNTs was placed on the xy plane, and observed from y-axis.