

# Tunable Plasmonic Lattices of Silver Nanocrystals

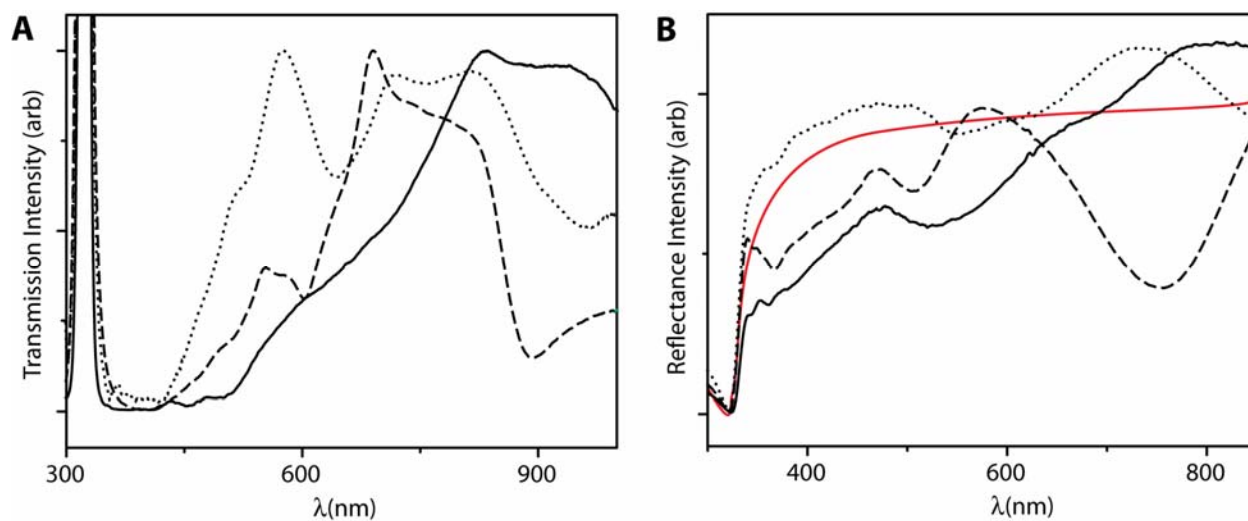
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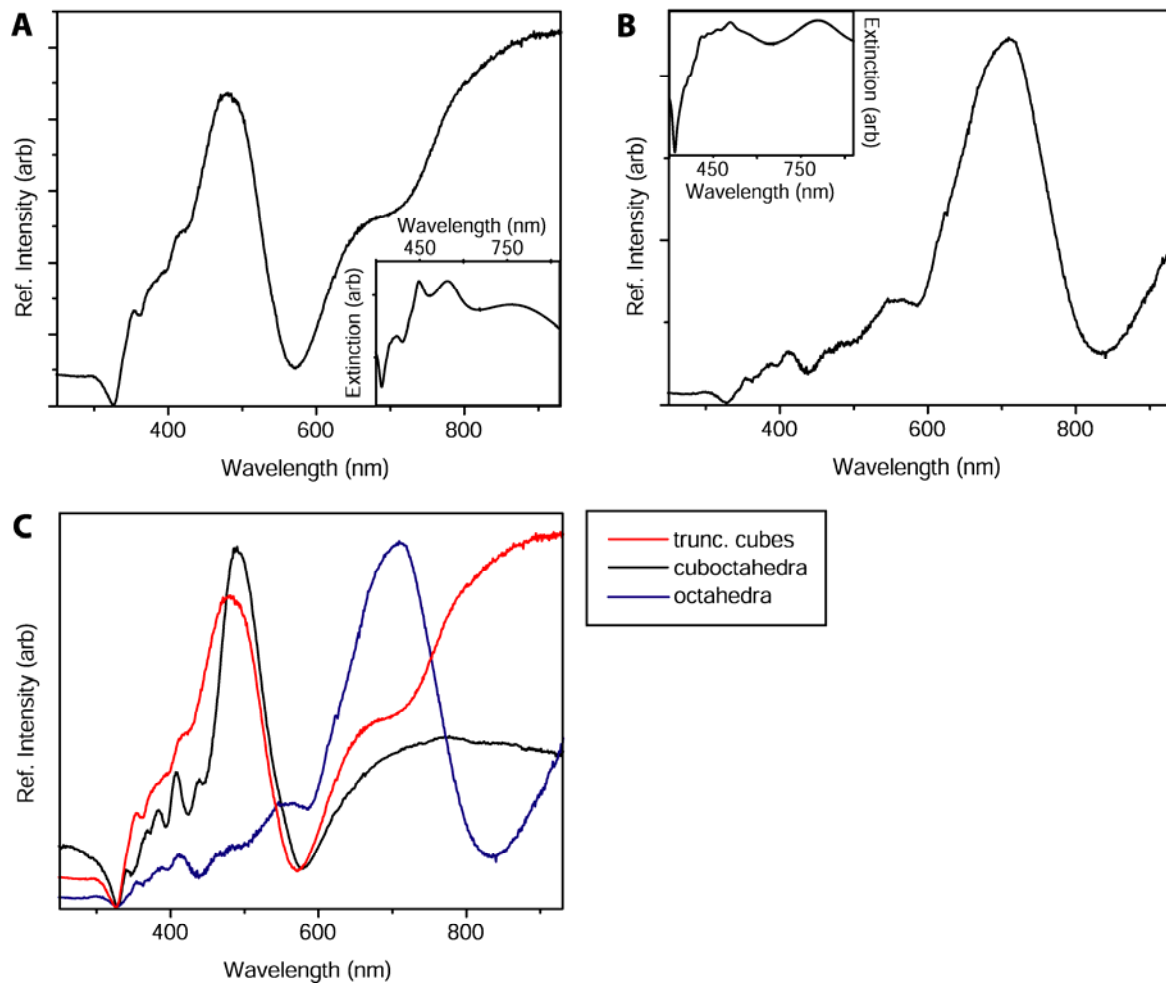
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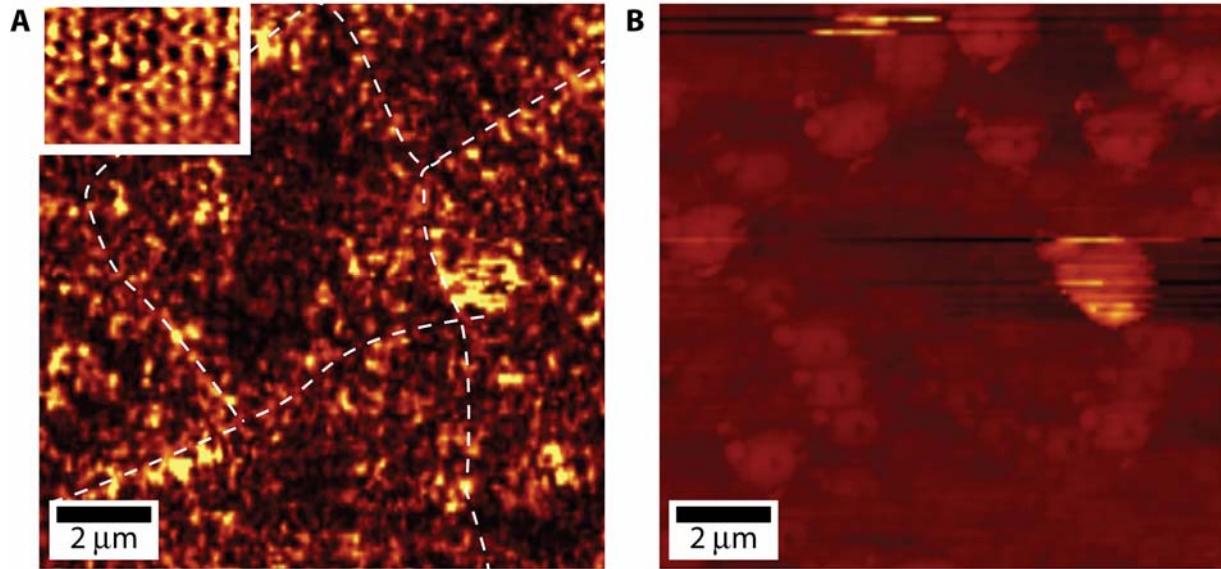
## Supporting Information



S1. (A) Transmission and (B) reflectance measurements of close-packed films of truncated cubes (dash), cuboctahedra (dot), and octahedra (solid). For reference, the lineshape for the reflectance spectrum of bulk Ag is displayed in red.



S2. Reflectance spectra for NC monolayers obtained just before the gas-to-liquid transition. (A) Reflectance spectrum for a fluid-supported monolayer of truncated cubes obtained at  $\Pi \sim 0$  mN/m. Inset: Extinction spectrum for the colloidal solution. (B) Reflectance spectrum for a fluid-supported monolayer of octahedra NCs obtained at  $\Pi \sim 0$  mN/m. Inset: Extinction spectrum for the colloidal solution. (C) Reflectance spectra for truncated cubes (red), cuboctahedra (black), and octahedra (blue) superlattices overlaid.



S3. NSOM measurements were performed on close-packed cuboctahedra films deposited on commercially available glass slides. Samples were illuminated with a 532 nm laser and the local optical signal was collected in transmission mode with a tapered optical fiber with an aperture of ~100 nm. (A) NSOM and (B) topographical images of the crystalline film. The dashed white lines indicate grain boundaries of the superlattice as given by the topographical image of the corresponding film are shown in (B). Dark spots indicate areas of low optical transmission. The inset shows a NSOM image with the same scale of isolated cuboctahedra, where individual NCs are spaced with ~500 nm pitch.