

Supplementary Information

Hyperspectral Dark Field Optical Microscopy for Orientational Imaging of a Single Plasmonic Nanocube using Physics-based Learning Method

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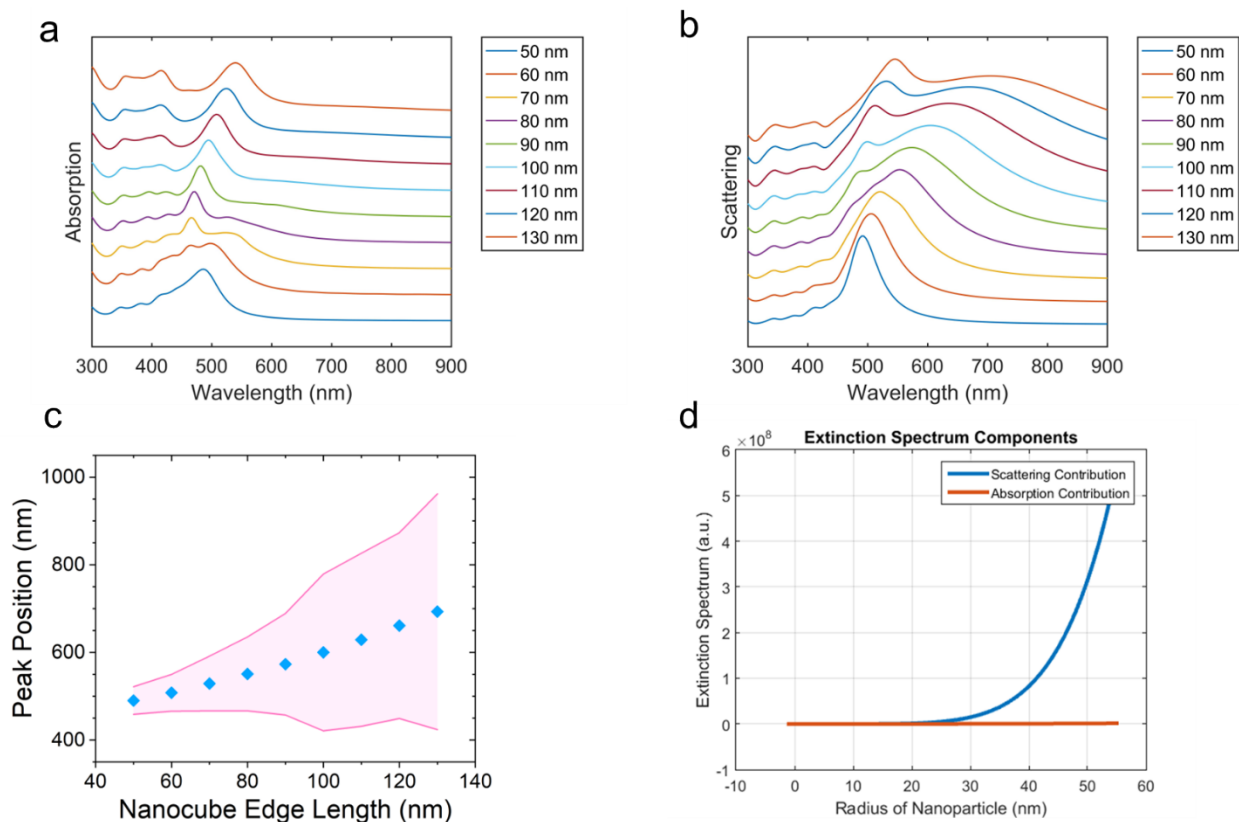
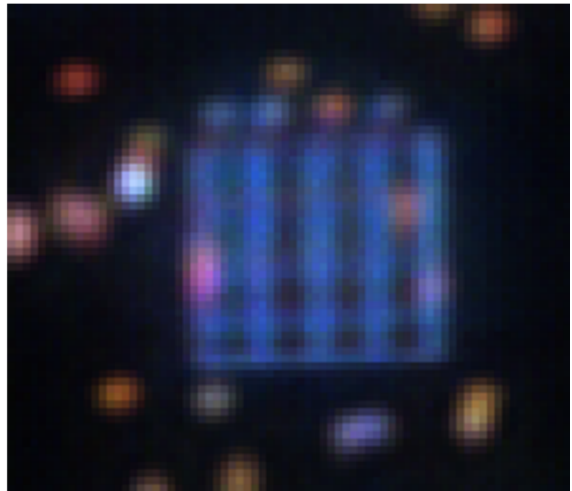
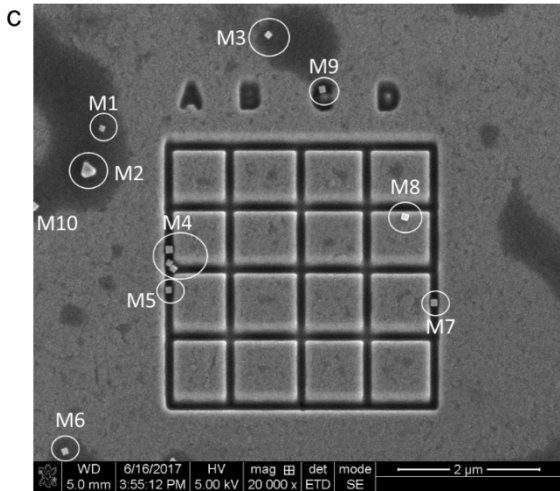
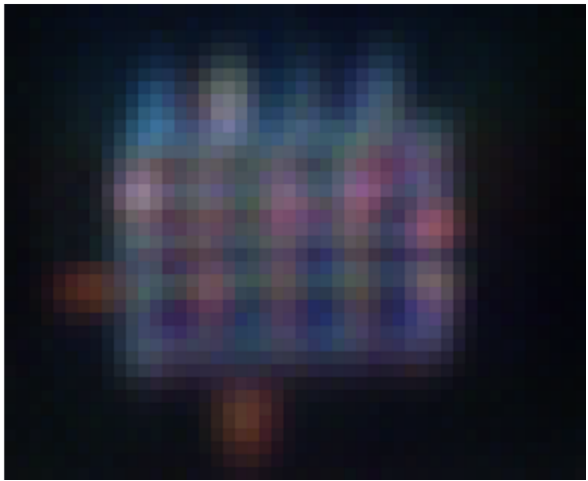
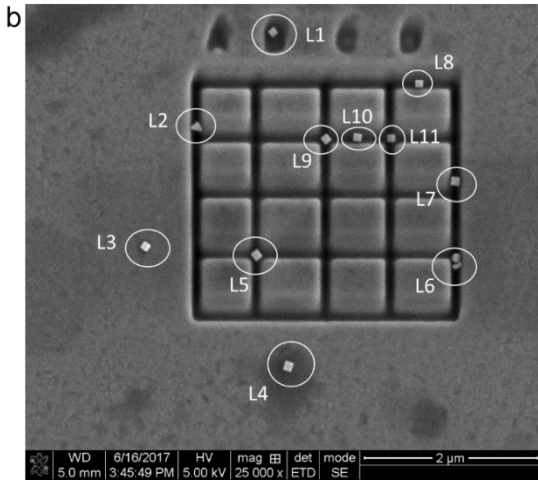
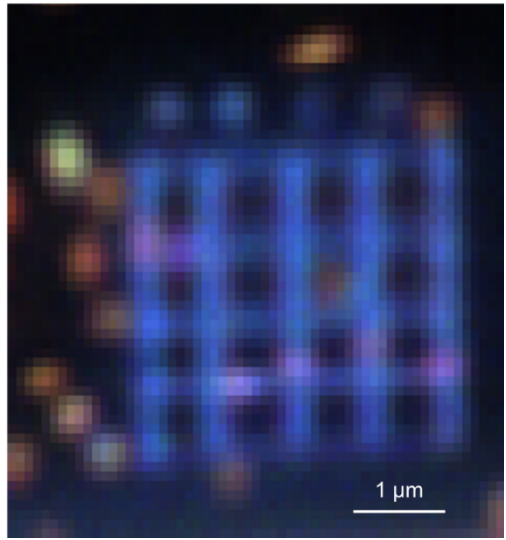
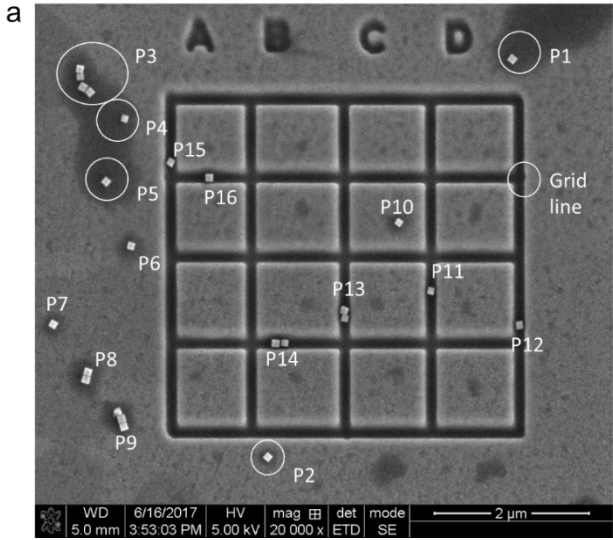


Figure S1. Calculated (a) absorption, and (b) scattering spectra of a single nanocube in water as a function of the nanocube size. (c) Variation of scattering peak positions as a function of nanocube edge length. The corresponding full-width half-maximum (FWHM) is shown as shaded area. (d) Contribution of scattering and absorption to the extinction spectra as a function of nanocube size.



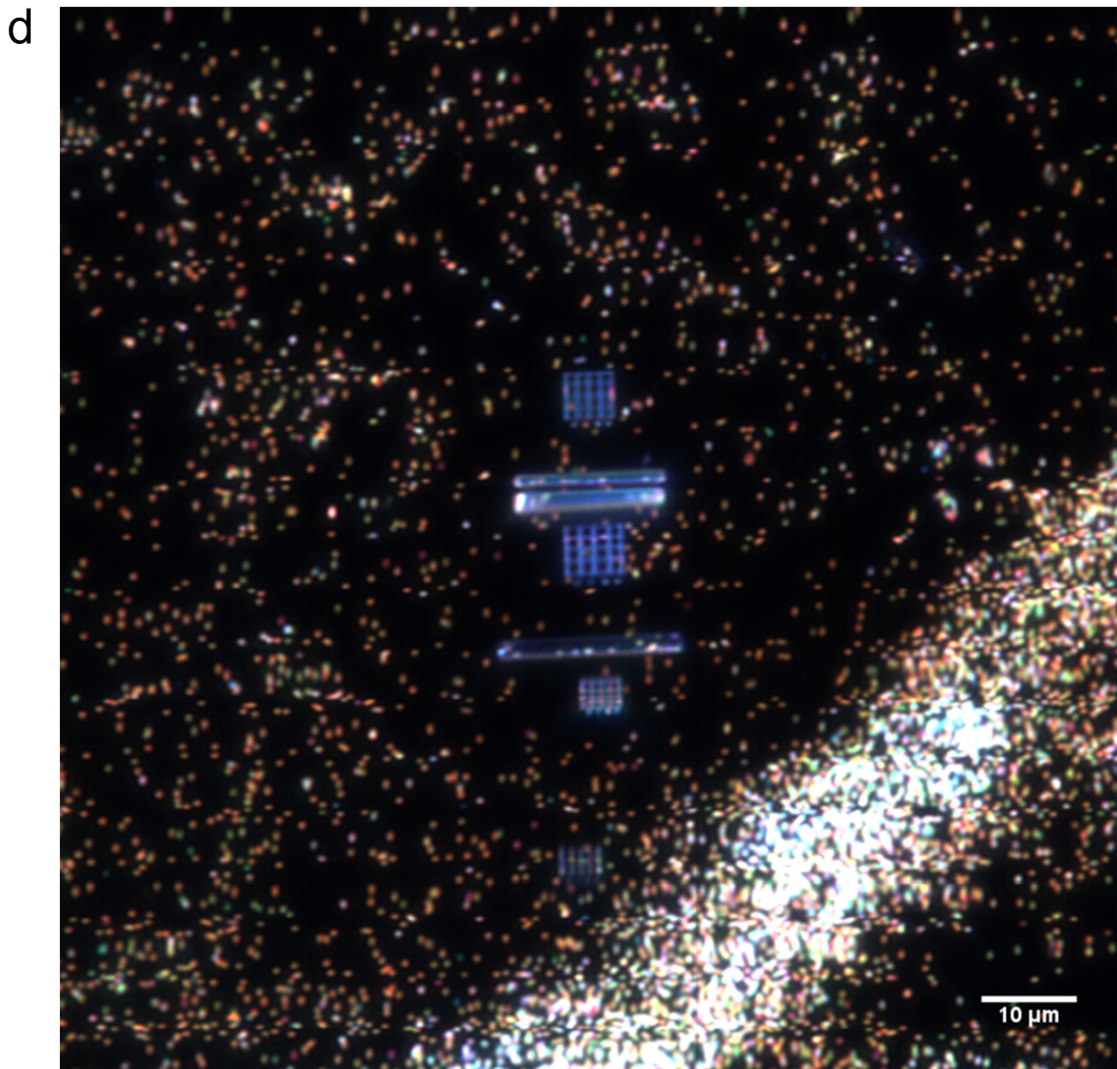


Figure S2. (a-c) Representative SEM images and their corresponding hyperspectral images used for correlative microscopy analysis. **(d)** Representative image of a hyperspectral image from a wide field of view showing many nanocubes.