

Near-Field Coupling in Plasmonic Nanoarrays:
Tailoring Radiative and Non-Radiative Losses
Through Gap Engineering: Supporting Information

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1 Figures

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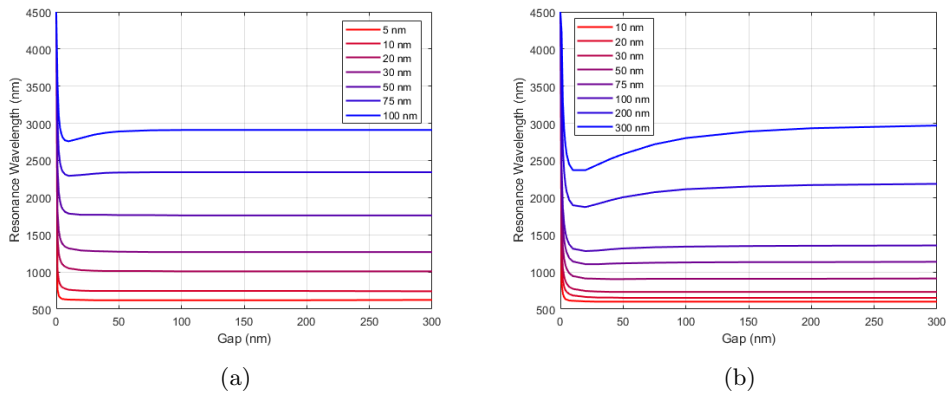


Fig. S1: Resonance wavelength extracted from FDTD simulations of the longitudinal dipolar localised surface plasmon resonance for different nanorod geometries as a function of interparticle edge-to-edge distance (gap). **(a)** Gold nanorods are 2 nm in height, **(b)** gold nanorods are 20 nm in height.

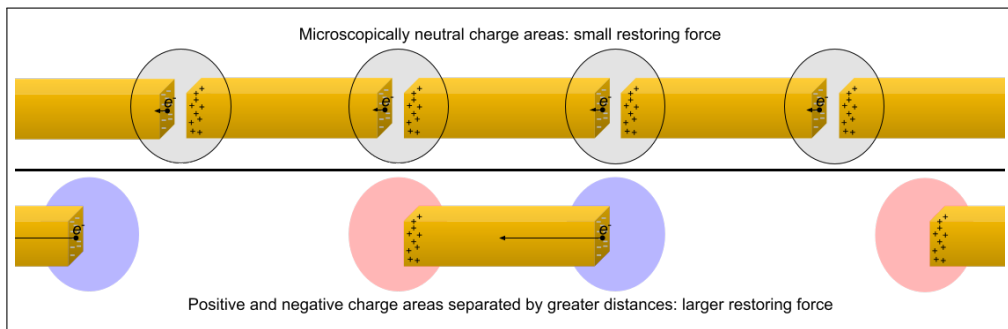


Fig. S2: Illustration of the charge screening for small gaps that leads to a smaller restoring force, red-shifted resonance, and reduced absorbance.

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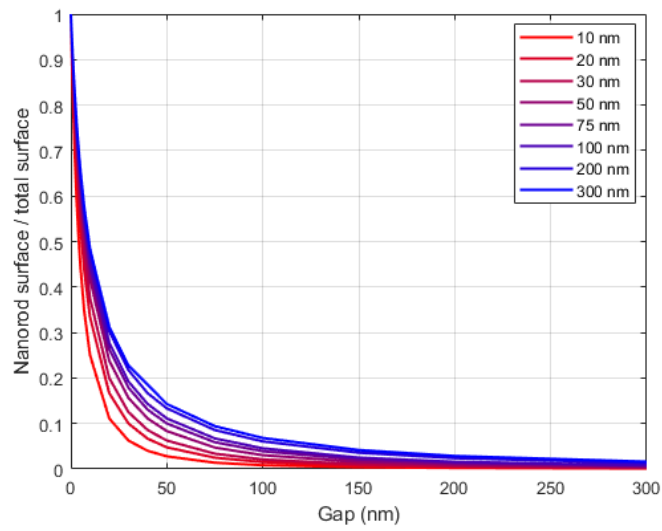


Fig. S3: Ratio of gold nanorod surface area to total surface area as a function of gap for different gold nanorod lengths.

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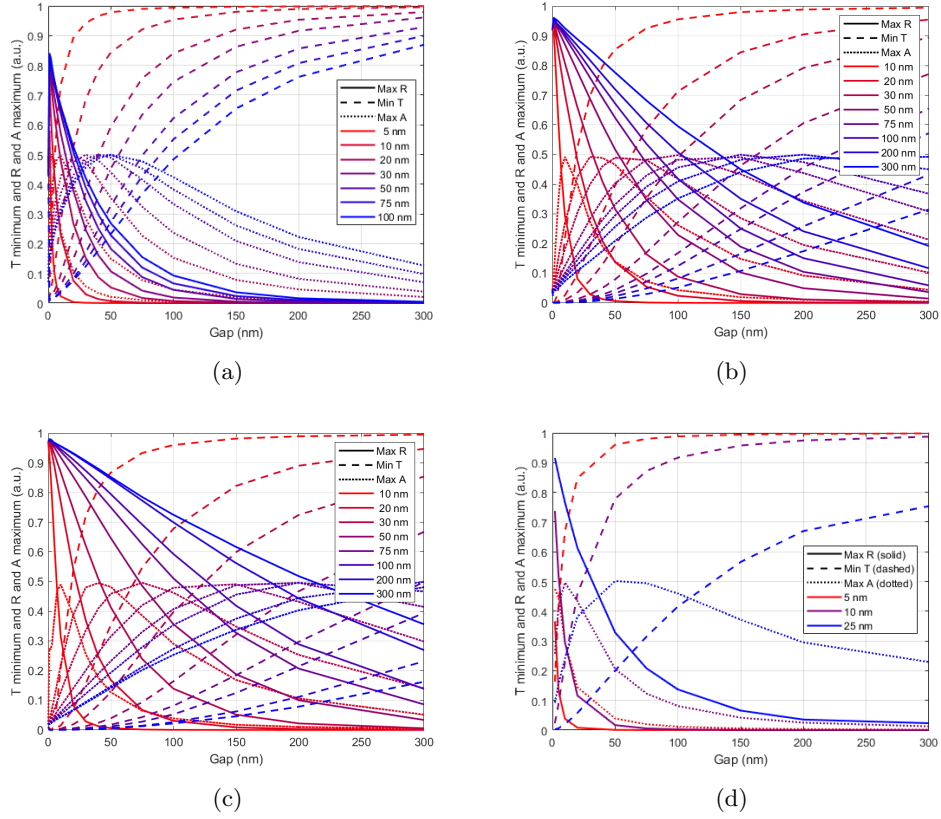


Fig. S4: Minima of transmittance (dashed lines), maxima of reflectance (solid lines) and maxima of absorptance (dotted lines) for different gold nanorod lengths as a function of gap from FDTD simulations. There are less lengths in the 2 nm high nanorod arrays due to resonance wavelength being out of our range for lengths above 100 nm. **(a)** 2 nm high nanorods, **(b)** 10 nm high nanorods, **(c)** 20 nm high nanorods, **(d)** spheres of radii 5, 10 and 25 nm.