

Supporting Information

Confined Surface Plasmon Sensors Based on Strongly Coupled Disk-in-Volcano Arrays

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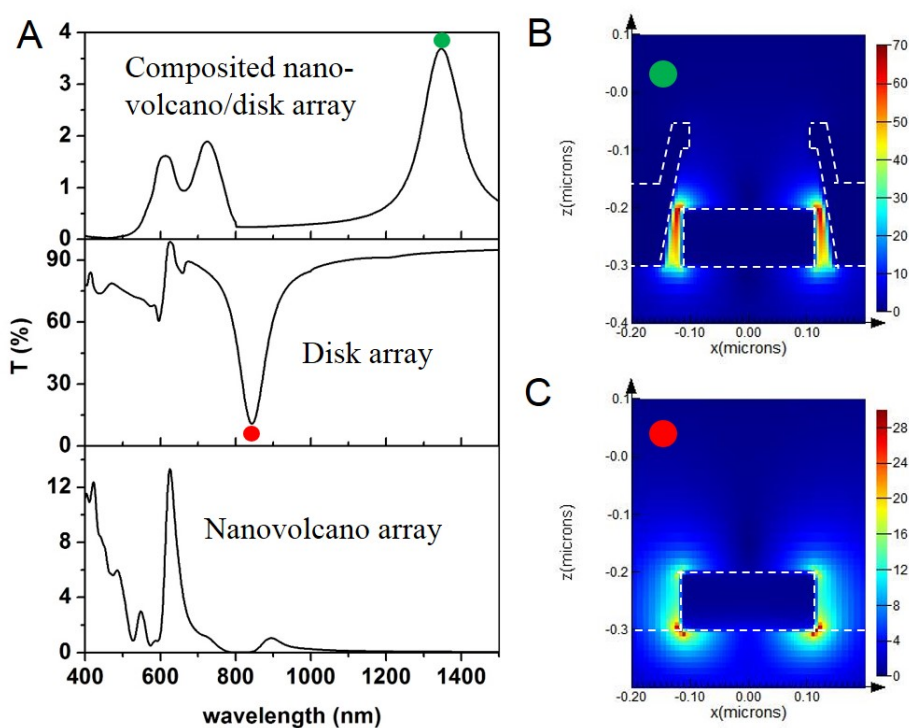


Figure S1. (A) Calculated spectra of the composited disk-in-volcano array, and disk array and nanovolcano array. Simulated distributions of normalized electric field intensity at the peak wavelengths indicated by (B) green and (C) red dots in (A).

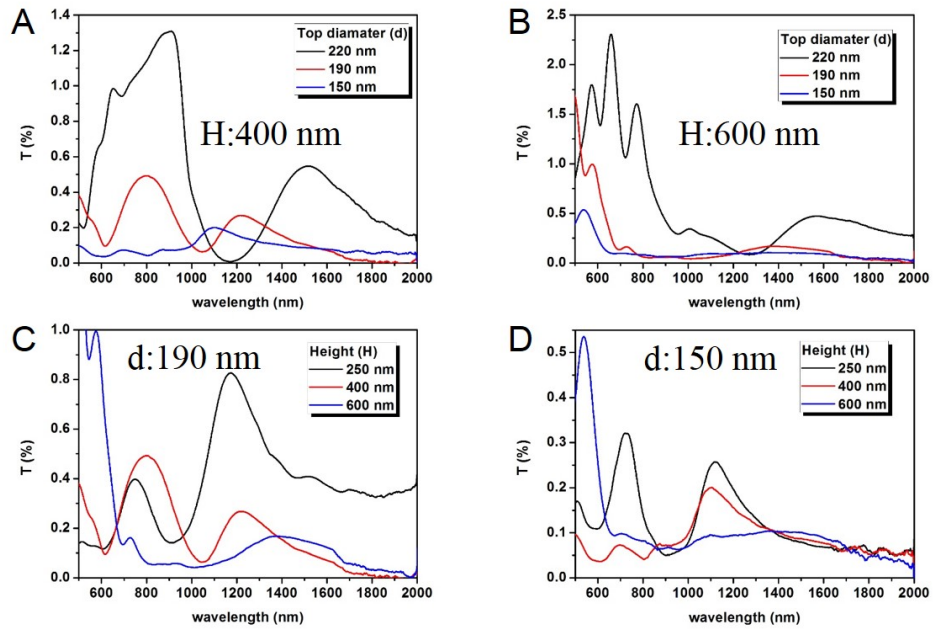


Figure S2. Transmission spectra of the disk-in-volcano array with varied structural parameters. (A) The top hole diameter $d=190$ nm with changing height. (B) The top hole diameter $d=150$ nm with changing height. (C) The height is 400 nm with changing hole diameter. (D) The height is 600 nm with changing hole diameter. The height of disks is 100 nm.

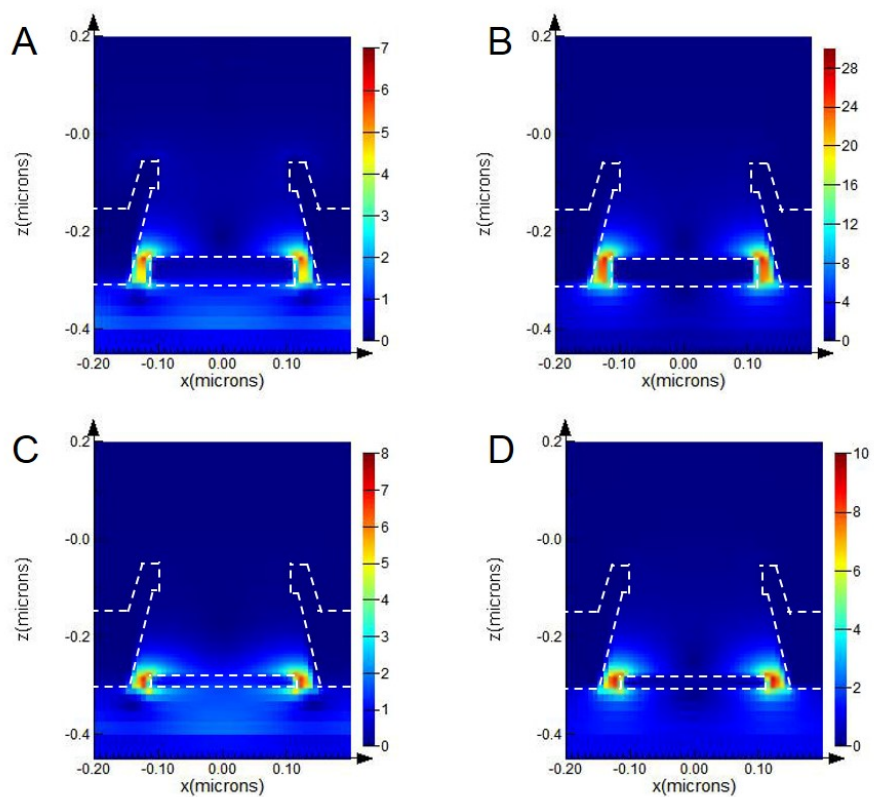


Figure S3. Simulated SP energy distributions for the peaks at the (A) short and (B) long wavelengths for the sample with the disk height of 50 nm. Simulated SP energy distributions for the peaks at the (C) short and (D) long wavelengths for the sample with the disk height of 20 nm. The white dotted lines indicate the positions of the structures.