

## Supplementary Material

# Chiral plasmonic nanostructure of twistedly-stacked nanogaps

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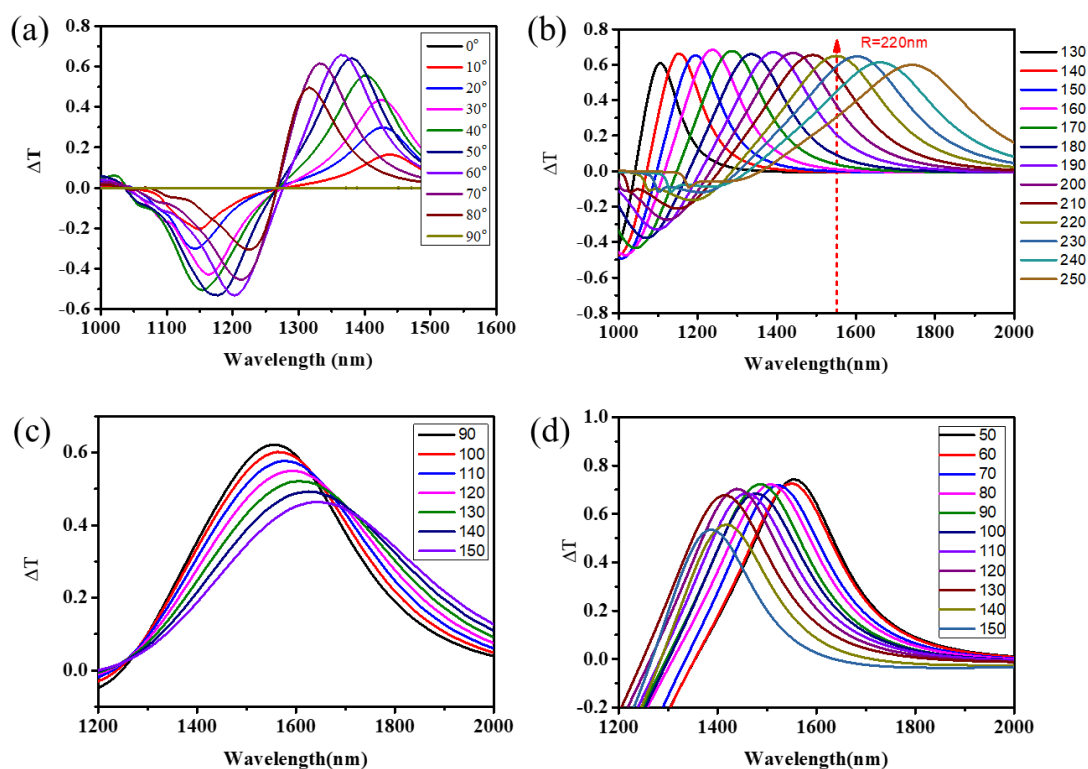


Fig. S1. Calculated CD signals with varied structural parameters. (a) CD spectrum of the structure with the varied twisted angle between 0°~90°, the disc radius=180 nm, the disc thickness=50 nm, the gap width=60 nm, and the insulator thickness=90 nm. (b) CD spectrum of the structure with the varied disk radius between 130~250 nm, the twisted angle=60°, the disc thickness=50 nm, the gap width=60 nm, and the insulator thickness=90 nm. (c) CD spectrum of the structure with the varied insulator thickness between 90~150 nm, the disc radius=180 nm, the disc thickness=50 nm, the gap width=60 nm, and the twisted angle=60°. (d) CD spectrum of the structure with the varied disk radius between 130~250 nm, the twisted angle=60°, the disc thickness=50 nm, the gap width=60 nm, and the insulator thickness=90 nm.

twisted angle=60°, the disc radius=220 nm, the disc thickness=50 nm, and the gap width=60 nm. (d) CD spectrum of the structure with the varied gap width between 50~150 nm, the twisted angle=60°, the disc radius=220 nm, the disc thickness=50 nm, and the insulator thickness=90 nm.

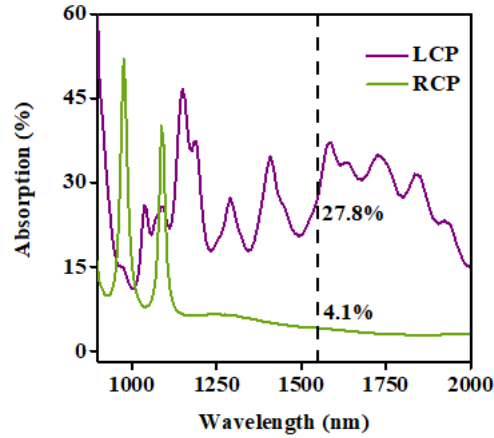


Fig. S2. Absorption spectra of MIM structures for (a) LCP and (b) RCP plane waves with the twisted angles at 60°.

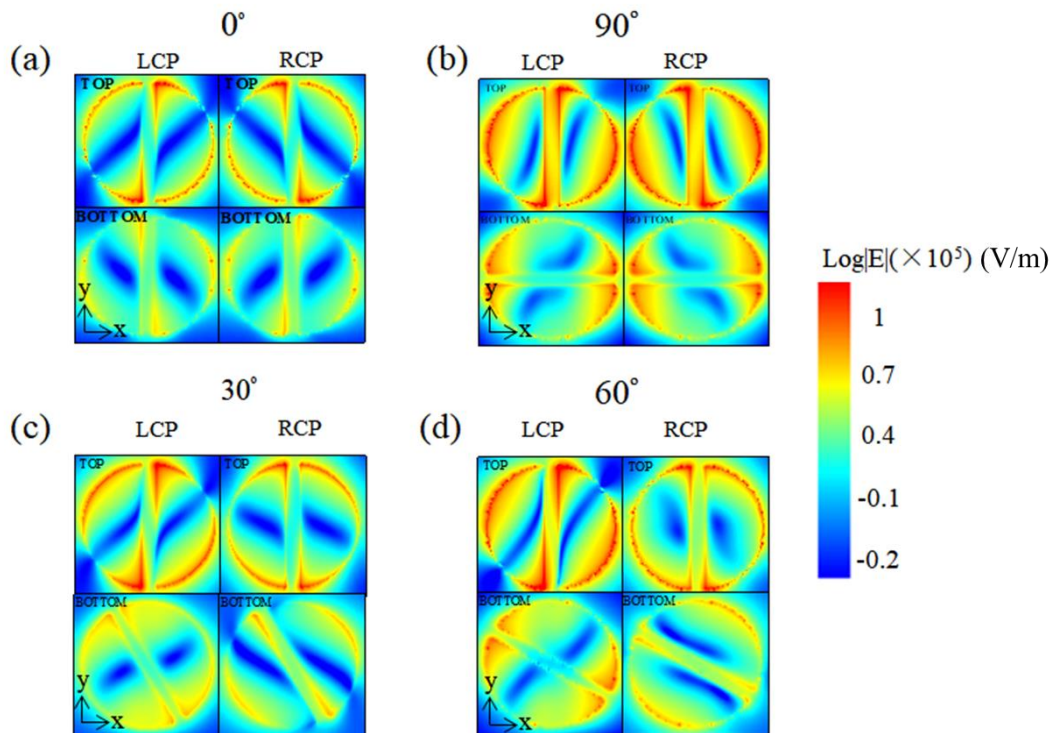


Fig. S3. Calculated electrical near-field distributions of top and bottom nanogaps twistedly stacked with (a) 0°, (b) 90°, (c) 30°, (d) 60°, excited with LCP and RCP plane waves at the wavelength of 1550 nm, respectively.