

Supplementary Materials

Article

Power Loss Reduction of Angled Metallic Wedge Plasmonic Waveguides via the Interplay between Near-Field Optical Coupling and Modal Coupling

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Calculations of Propagation Loss and Modal Index

Figure S1a presents the E_x - Z plot. The power loss can be obtained by fitting the Y-dependent oscillation peaks with an exponential decaying function: $E_x(Z) = E_o^P \exp(-\alpha Z / 2)$, where E_o^P is the peak value of the E_x field at the starting point of the fitting curve and α is the propagation loss. Figure S1b presents the modal wavelength spectrum, which can be obtained by analyzing the black curve in Figure S1a with a fast Fourier transformation method. The modal index can be obtained by using the simple equation: λ_0/λ_m , where λ_0 and λ_m are the excitation wavelength in free space and the modal wavelength, respectively.

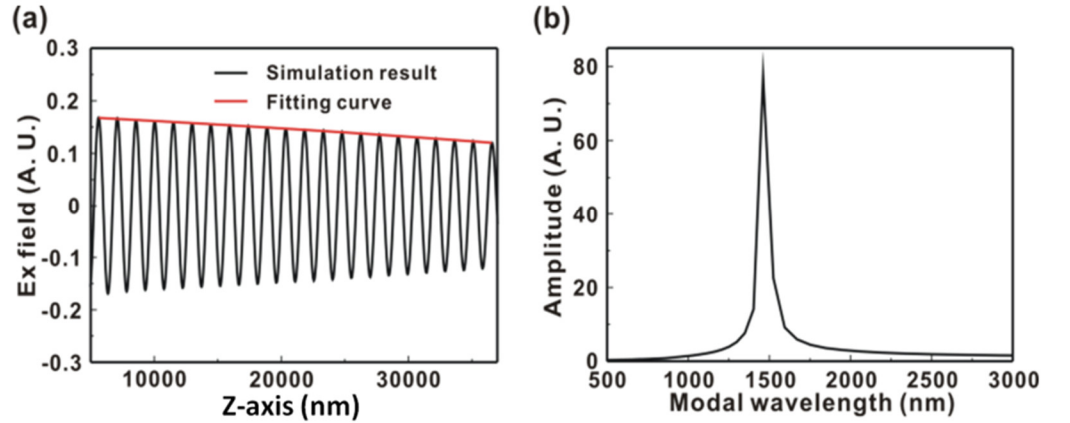


Figure. S1. (a) E_x - Z plot and the fitting curve, (b) Modal wavelength spectrum.