

Optical Antennas for Enhanced Light-Matter Interactions

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Optical antennas consisting of plasmonic materials provide extreme light localization and small mode volumes, thereby boosting the sensitivity and signal-to-noise ratio in applications ranging from single photon sources to photodetection. Optical antennas can also be employed to efficiently control and manipulate light on the nanometer scale and to achieve directional emission. I will review the physical properties of optical antennas, present recent results, and discuss applications.