

Characterization of nanostructures by aperture-less SNOM

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We review briefly the state-of-the-art in subwavelength optical microscopy. After an introduction to the essential aspects of scanning nearfield optical microscopy -- in theory and implementation -- we show how the cross-polarization scheme does afford us with an elegant method to map plasmonic eigenmodes of metallic nanostructures. We conclude with a few recent examples that beautifully demonstrate the capabilities of this approach.