

374. Title:Quantitative analysis and measurements of near-field interactions in terahertz microscopes

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Abstract:We demonstrated quantitative analysis and measurements of near-fields interactions in a terahertz pulse near-field microscope. We developed a self-consistent line dipole image method for the quantitative analysis of the near-field interaction in THz scattering-type scanning optical microscopes. The measurements of approach curves and relative contrasts on gold and silicon substrates were in excellent agreement with calculations.