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标题: Terahertz probe for spectroscopy of sub-wavelength objects

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摘要: A system of two probes is designed for terahertz (THz) time-domain spectroscopy of sub-wavelength size objects. A twin-needle probe confines broadband THz pulses spatially by means of surface plasmon waves to a sub-wavelength spot smaller than 10 microns. The confined pulses are detected within the near-field zone of the twin-needle probe by a sub-wavelength aperture probe. The system allows THz spectroscopy to be applied to single micrometer-size objects in the 1-2.5THz region. (C)2012 Optical Society of America

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