Abstracts

THz techniques in plasma diagnostics

B.H. Deng, C.W. Domier, A.J.H. Donne, K.C. Lee, N.C. Luhmann, Jr., E. Mazzucato, T. Munsat, H. Park and M. van de Pol. "THz techniques in plasma diagnostics." 2002 MTT-S International Microwave Symposium Digest 02.3 (2002 Vol. III [MWSYM]): 1587-1590 vol.3.

THz techniques have been widely employed In magnetic fusion plasma diagnostics, including far infrared Interferometry, polarimetry, and scattering to measure plasma electron density profiles, magnetic field strength profiles, and density fluctuations, respectively. The high magnetic field strength and high plasma densities anticipated for next generation fusion devices will further extend the applicability of THz techniques to the diagnostics of electron temperature profiles and fluctuations by electron cyclotron emission imaging, and electron density profiles and fluctuations by imaging reflectometry.

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