Abstracts

Interaction of Intense Submillimeter Radiation with Plasmas

B. Lax and D.R. Cohn. "Interaction of Intense Submillimeter Radiation with Plasmas." 1974 Transactions on Microwave Theory and Techniques 22.12 (Dec. 1974, Part I [T-MTT] (Special Issue on the Proceedings of the First International Conference on Submillimeter Waves and Their Applications)): 1049-1052.

Recent advances in the development of high power submillimeter lasers have opened up new areas of investigation in the study of laser plasma interactions. These areas include studies of laser-induced gas breakdown and plasma heating at cyclotron resonance, laser-induced breakdown effects in solids, and studies of laser-generated parametric instabilities in arc plasmas. In addition, high power submillimeter lasers can be used for important diagnostic measurements in Tokamak plasmas. These measurements include the determination of ion temperature by Thomson scattering and the measurement of transverse thermal conductivity by resonant local heating.

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