Abstracts

Quasi-Optical Cavity Dumping at Millimetre Wave Frequencies

G.M. Smith, J.C.G. Lesurf, Y. Cui and M. Dunn. "Quasi-Optical Cavity Dumping at Millimetre Wave Frequencies." 1993 MTT-S International Microwave Symposium Digest 93.1 (1993 Vol. I [MWSYM]): 155-158.

A thin silicon wafer when illuminated by a Q-switched frequency doubled Nd-YAG laser is used as a very fast, ultra-low loss, quasi-optical, photo-conductive switch to cavity dump a millimetre-wave open resonator. This novel scheme should provide short pulses at millimetre wave frequencies with power gains of several hundred from conventional cw sources. Potential applications are in high resolution radar, plasma diagnostics and pulsed electron spin resonance experiments.

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