Abstracts

Characteristics of High-Power Breakdown at 28 GHz

M. Nakamura, T. Saito and M. Kuramoto. "Characteristics of High-Power Breakdown at 28 GHz." 1978 Transactions on Microwave Theory and Techniques 26.5 (May 1978 [T-MTT] (Special Issue on High-Power Microwaves)): 354-356.

Characteristics of arcs resulting from high-power breakdown in a waveguide at 28 GHz were detemined as a function of CW power level. The radio frequency power reflected from and absorbed in arcs as well as the arc velocity were measured. In addition, the spectrum of the arc light and the track on the surface in a waveguide caused by an arc were evaluated. Comparing the velocity of an arc at 28 GHz with that at about 10 GHz, it was found that the velocity of the arc is proportional to the square of the electric field strength but depends very little on radio frequency.

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