Abstracts

Resonant Tunneling Diodes as Sources for Millimeter and Submillimeter Wavelengths (Short Papers)

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High quality Resonant Tunneling Diodes have been fabricated and tested as sources for millimeter and submillimeter wavelengths. The devices have shown excellent I-V characteristics with peak-current ratios as high as 6:1 and current densities in the range 50-150 kA/cm2 at 300 K. Used as local oscillators, the diodes are capable of the art output power delivered by AIGaAs-based tunneling devices. As harmonic multipliers, a frequency of 320 GHz has been achieved quintupling the fundamental oscillation of a klystron source.

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