

# Abstracts

## Parametric Amplification of Millimeter Waves Using Wafer Diodes: Results, Potentials, and Limitations (Correspondence)

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*J. Edrich. "Parametric Amplification of Millimeter Waves Using Wafer Diodes: Results, Potentials, and Limitations (Correspondence)." 1970 Transactions on Microwave Theory and Techniques 18.12 (Dec. 1970 [T-MTT] (1970 Symposium Issue)): 1173-1175.*

Theoretical considerations and measurements on wafer varactors using Schottky-Barrier junctions show their feasibility for millimeter-wave and possibly low submillimeter-wave frequencies. A degenerate parametric amplifier is described which can be electronically tuned over a wide range ( $\Delta f \approx 2$  GHz) around 24 GHz and reaches a very low noise temperature ( $< 70^\circ\text{K}$ ) when cooled.

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