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Title:Possibility of High Order Harmonic Oscillators Based on Active Transmission Lines Loaded with Resonant Tunneling Diode Pairs

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Abstract: The oscillators based on an active transmission line periodically loaded with RTD pairs are studied using circuit simulation with special attention to the behavior of harmonics. Generation of strong high order harmonic (9th) was observed. This is caused by the frequency locking in the high frequency passband. The harmonic oscillators based on this phenomenon are promising for high performance THz sources.

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