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Title:High-precise spectrometry of the terahertz frequency range: The methods, approaches and applications

Authors: Vaks, Vladimir (1)

Author affiliation:(1) Institute for Physics of Microstructures RAS, GSP-105, Niznhy Novgorod 603950, Russia

Corresponding author: Vaks, V.(vax@ipm.sci-nnov.ru)

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Abstract:In the paper we present a high precise THz technique (frequency synthesizers and spectrometer) and its applications for noninvasive medical diagnostics and security systems. The cornerstone of the presented devices is multipliers and mixers based on quantum superlattice structures. The multipliers based on superlattice structures are shown to be more effective than Schottky diodes and provide THz radiation up to 8.1 THz. © 2011 Springer Science+Business Media, LLC.

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