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Title:Intersubband terahertz transitions in Landau level system of cascade GaAs/AlGaAs quantum well structures in strong tilted magnetic field

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Abstract:The tunable terahertz intersubband Landau level transitions in resonant tunneling cascade quantum well structures are considered. The way of lifting the selection rule forbidding the inter-Landau level terahertz transitions of interest by applying a magnetic field tilted with respect to the structure layers is proposed. The importance of asymmetric structure design to achieve considerable values of transition dipole matrix elements is demonstrated. © 2012 Telenkov et al.; licensee Springer.

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