344. Title:Wavelength tuning of GaAs/AlGaAs terahertz quantum cascade lasers by controlling aluminum content in barriers

Authors:Samal, N. (1); Sadofyev, Y.G. (1); Annamalai, S. (1); Chen, L. (1); Samal, A. (1); Johnson, S.R. (2)

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Abstract:We present an approach of uniformly changing the barrier height of AlGaAs in GaAs/AlGaAs based Terahertz (THz) quantum cascade laser structures for tuning the emission wavelengths. By uniformly changing the aluminum content of all the barriers from 15.5% to 13.5% in a set of 5 MBE-grown samples emission wavelengths from ∼70 to 67.5 μm, in nearly equal steps, are realized.