288.
标题: STUDYING THE FREQUENCY TUNING OF PULSED TERAHERTZ QUANTUM CASCADE LASERS
作者: Lastovkin, AA (Lastovkin, A. A.); Ikonnikov, AV (Ikonnikov, A. V.); Gavrilenko, VI (Gavrilenko, V. I.); Antonov, AV (Antonov, A. V.); Sadof'ev, YG (Sadof'ev, Yu. G.)
来源出版物: RADIOPHYSICS AND QUANTUM ELECTRONICS 卷: 54 期: 8-9 页: 609-615 出版年: JAN 2012
在 Web of Science 中的被引频次: 0
被引频次合计: 0
引用的参考文献数: 12
摘要: Radiation spectra of pulsed quantum cascade lasers operated at about 2.6 and 3.2 THz have been studied using the Fourier-transform technique. Tuning of the laser radiation frequency by 5.4 GHz in a temperature variation range of 8 to 86 K for the 2.6 THz laser and by 2.7 GHz in a range of 10 to 60 K for the 3.2 THz laser, resulting mainly from the temperature dependence of the effective refractive index of the active region, has been demonstrated. Frequency tuning by 420 MHz during the radiation pulse was shown for the first time in a laser with the active region designed on the basis of fast removal of the carriers from the lower operating level due to the phonon scattering.
入藏号: WOS:000302290000011
语种: English
文献类型: Article
KeyWords Plus: OPERATION; GAAS
地址: [Lastovkin, A. A.; Ikonnikov, A. V.; Gavrilenko, V. I.; Antonov, A. V.] Inst Phys Microstruct, Nizhnii Novgorod, Russia
[Sadof'ev, Yu. G.] State Radiotech Univ Ryazan, Ryazan, Russia
通讯作者地址: Lastovkin, AA (通讯作者),Inst Phys Microstruct, Nizhnii Novgorod, Russia
电子邮件地址: antikon@ipmras.ru
出版商: SPRINGER
出版商地址: 233 SPRING ST, NEW YORK, NY 10013 USA
Web of Science 分类: Engineering, Electrical & Electronic; Physics, Applied
学科类别: Engineering; Physics
IDS 号: 918ZJ
ISSN: 0033-8443
29 字符的来源出版物名称缩写: RADIOPHYS QUANT EL+
ISO 来源出版物缩写: Radiophys. Quantum Electron.
来源出版物页码计数: 7