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标题: THz Output Improvement in a Photomixer with a Resonant-Cavity-Enhanced Structure
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来源出版物: CHINESE PHYSICS LETTERS 卷: 29 期: 4 文献号: 044203 DOI: 10.1088/0256-307X/29/4/044203 出版年: APR 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: We carry out a detailed theoretical study on THz coherent generation in an LTG-GaAs photomixer with a resonant-cavity-enhanced (RCE) structure. In the structure, an improvement in THz output can be achieved by increasing the quantum efficiency. Under optimized structure parameters, the maximum quantum efficiency of the RCE photomixer is 93%, which is 2.82 times higher than that of the case without an RCE structure. The corresponding THz output ratio of the two structures is found to be about eight in the whole range of the lower frequency at the same incident optical power.
入藏号: WOS:000302877000022
语种: English
文献类型: Article
KeyWords Plus: TEMPERATURE-GROWN GAAS; TERAHERTZ SYSTEM
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出版商: IOP PUBLISHING LTD
出版商地址: TEMPLE CIRCUS, TEMPLE WAY, BRISTOL BS1 6BE, ENGLAND
Web of Science 分类: Physics, Multidisciplinary
学科类别: Physics
IDS 号: 927AM
ISSN: 0256-307X
29 字符的来源出版物名称缩写: CHINESE PHYS LETT
ISO 来源出版物缩写: Chin. Phys. Lett.
来源出版物页码计数: 3