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标题: Experimental research on terahertz Gabor inline digital holography of concealed objects
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来源出版物: APPLIED OPTICS 卷: 51 期: 29 页: 7052-7058 出版年: OCT 10 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: 17
摘要: Terahertz (THz) radiation has the characteristics of penetrating nonmetallic and nonpolar materials that are opaque to visible light, which makes THz digital holography have an application potential of imaging concealed objects with certain barriers. A CO2 pumped continuous THz Gabor inline digital holographic imaging system was utilized to conduct experimental researches on imaging concealed objects. Paper, Teflon, a plastic express envelope, and silicon wafers were used as barriers. High-quality reconstructed images were obtained. Compared with the reconstruction results without any barriers, the results verify the feasibility of THz Gabor inline digital holography in imaging concealed objects. (C) 2012 Optical Society of America
入藏号: WOS:000309976700021
语种: English
文献类型: Article
KeyWords Plus: FOCAL-PLANE ARRAY; REAL-TIME
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出版商: OPTICAL SOC AMER
出版商地址: 2010 MASSACHUSETTS AVE NW, WASHINGTON, DC 20036 USA
Web of Science 类别: Optics
研究方向: Optics
IDS 号: 022QP
ISSN: 1559-128X
29 字符的来源出版物名称缩写: APPL OPTICS
ISO 来源出版物缩写: Appl. Optics
来源出版物页码计数: 7