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标题: Imaging of a Polycrystalline Silicon Solar Cell Using a Laser Terahertz Emission Microscope
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来源出版物: APPLIED PHYSICS EXPRESS 卷: 5 期: 11 文献号: 112301 DOI: 10.1143/APEX.5.112301 出版年: NOV 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: 16
摘要: We employed a laser terahertz (THz) emission microscope (LTEM) as a novel tool for evaluating solar cells. LTEM images are obtained by exciting a polycrystalline silicon solar cell with femtosecond laser illumination and visualizing the local distribution of the optical response. THz emission signals also provide various types of information, such as the screening effect of the built-in electrical field near pn junctions. These results indicate that this technique can be used to evaluate the local photoelectric conversion efficiency distribution and dynamic behavior of optically excited carriers in solar cells. (C) 2012 The Japan Society of Applied Physics
入藏号: WOS:000310867800013
语种: English
文献类型: Article
KeyWords Plus: PHOTOLUMINESCENCE
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出版商: JAPAN SOC APPLIED PHYSICS
出版商地址: KUDAN-KITA BUILDING 5TH FLOOR, 1-12-3 KUDAN-KITA, CHIYODA-KU, TOKYO, 102-0073, JAPAN
Web of Science 类别: Physics, Applied
研究方向: Physics
IDS 号: 034JB
ISSN: 1882-0778
29 字符的来源出版物名称缩写: APPL PHYS EXPRESS
ISO 来源出版物缩写: Appl. Phys. Express
来源出版物页码计数: 3