

770

标题: Progress on Reflective Terahertz Imaging for Identification of Water in Flow Channels of PEM Fuel Cells

作者: Buaphad, P (Buaphad, P.); Thamboon, P (Thamboon, P.); Tengsirivattana, C (Tengsirivattana, C.); Saisut, J (Saisut, J.); Kusoljariyakul, K (Kusoljariyakul, K.); Rhodes, MW (Rhodes, M. W.); Thongbai, C (Thongbai, C.)

编者: Fan W

来源出版物: MECHANICAL AND AEROSPACE ENGINEERING, PTS 1-7??丛书: Applied Mechanics and Materials?? 卷 : 110-116?? 页 : 2301-2307??DOI: 10.4028/www.scientific.net/AMM.110-116.2301??子辑: Part 1-7??出版年: 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: 7

摘要: This work reports an application of reflective terahertz (THz) imaging for identification of water distribution in the proton exchange membrane (PEM) fuel cell. The THz radiation generated from relativistic femtosecond electron bunches is employed as a high intensity source. The PEM fuel cell is designed specifically for the measurement allowing THz radiation to access the flow field region. The THz image is constructed from reflected radiation revealing absorptive area of water presence. The technique is proved to be a promising tool for studying water management in the PEM fuel cell. Detailed experimental setup and results will be described.

入藏号: WOS:000303370301114

语种: English

文献类型: Proceedings Paper

会议名称: 2nd International Conference on Mechanical and Aerospace Engineering (ICMAE 2011)

会议日期: JUL 29-31, 2011

会议地点: Bangkok, THAILAND

会议赞助商: Int Assoc Comp Sci & Informat Technol

作者关键词: Terahertz; imaging; reflective; PEM fuel cells; water management

地址: [Buaphad, P.; Saisut, J.; Kusoljariyakul, K.; Thongbai, C.] Chiang Mai Univ, Dept Phys & Mat Sci, Chiang Mai 50200, Thailand

通讯作者地址: Buaphad, P (通讯作者), Chiang Mai Univ, Dept Phys & Mat Sci, Chiang Mai 50200, Thailand

电子邮件地址: Luck_phys@hotmail.com

出版商: TRANS TECH PUBLICATIONS LTD

出版商地址: LAUBLSRUTISTR 24, CH-8717 STAFA-ZURICH, SWITZERLAND

Web of Science 分类: Engineering, Mechanical; Materials Science, Multidisciplinary; Mechanics

学科类别: Engineering; Materials Science; Mechanics

IDS 号: BZY43

ISSN: 1660-9336

ISBN: 978-3-03785-262-0

29 字符的来源出版物名称缩写: APPL MECH MATER

来源出版物页码计数: 7