

204

标题: Spectral Control of Thermal Radiation by Metasurface with Split-Ring Resonator

作者: Ueba, Y (Ueba, Yosuke); Takahara, J (Takahara, Junichi)

来源出版物: APPLIED PHYSICS EXPRESS 卷: 5 期: 12 文献号: 122001 DOI: 10.1143/APEX.5.122001 出版年: DEC 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: 25

摘要: We demonstrate the spectral control of thermal radiation by a metamaterial with a split-ring resonator (SRR). We experimentally observe the resonant enhancement of thermal radiation from an SRR array at specific wavelengths. The measured peaks of relative emittance are in good agreement with numerical simulations. These peaks are controlled by the size of the SRR. The thermal radiation source constituted by the metasurface can be applied to a thin-film emitter from terahertz to visible frequency. (C) 2012 The Japan Society of Applied Physics

入藏号: WOS:000312000800005

语种: English

文献类型: Article

KeyWords Plus: BROAD-BAND; EMISSION; MODES; MICROCAVITIES; RESONANCES; SURFACES; LIGHT

地址: [Ueba, Yosuke; Takahara, Junichi] Osaka Univ, Dept Appl Phys, Suita, Osaka 5650871, Japan

[Takahara, Junichi] Osaka Univ, Adv Photon Res Ctr, Suita, Osaka 5650871, Japan

通讯作者地址: Ueba, Y (通讯作者), Osaka Univ, Dept Appl Phys, Suita, Osaka 5650871, Japan.

电子邮件地址: ueba@ap.eng.osaka-u.ac.jp

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: 049RJ

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