571.
标题: Fano Resonance Filtering Characteristic of High-Resistivity Silicon Photonic Crystal Slab in Terahertz Region
作者: Li, JS (Li, Jiu-Sheng); Zouhdi, S (Zouhdi, Said)
来源出版物: IEEE PHOTONICS TECHNOLOGY LETTERS 卷: 24 期: 8 页: 625-627
DOI: 10.1109/LPT.2012.2184088 出版年: APR 15 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: 22
摘要: We investigate experimentally and numerically the Fano resonances of terahertz waves through a high resistivity silicon photonic crystal slab with a hexagonal array of circular air holes. Finite-difference time-domain simulation and terahertz time-domain spectroscopy transmission measurement show good agreement with the data, in support of the Fano resonance mechanism. The frequency dependent transmission spectra show there is a Fano resonance bandpass filtering characteristic at the center frequency of 2.10 THz with a Q factor of 191, which is consistent with that of Fano resonance theory calculation.
入藏号: WOS:000302210800001
语种: English
文献类型: Article
作者关键词: Fano; filter; high resistivity; photonic crystal
KeyWords Plus: PLASMONIC NANOCAVITIES; SCATTERING; ARRAYS; SHIFTS
地址: [Li, Jiu-Sheng; Zouhdi, Said] Lab Genie Elect Paris LGEP Supelec, F-91192 Gif Sur Yvette, France
[Li, Jiu-Sheng] China Jiliang Univ, Ctr THz Res, Hangzhou 310018, Zhejiang, Peoples R China
通讯作者地址: Li, JS (通讯作者),Lab Genie Elect Paris LGEP Supelec, F-91192 Gif Sur Yvette, France
电子邮件地址: lijsh2008@126.com; said.zouhdi@supelec.fr
出版商: IEEE-INST ELECTRICAL ELECTRONICS ENGINEERS INC
出版商地址: 445 HOES LANE, PISCATAWAY, NJ 08855-4141 USA
Web of Science 分类: Engineering, Electrical & Electronic; Optics; Physics, Applied
学科类别: Engineering; Optics; Physics
IDS 号: 917XB
ISSN: 1041-1135
29 字符的来源出版物名称缩写: IEEE PHOTONIC TECH L
ISO 来源出版物缩写: IEEE Photonics Technol. Lett.
来源出版物页码计数: 3