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Accession number:20122915254987
Title:Backward wave radiation from negative permittivity waveguides and its use for THz subwavelength imaging
Authors:Basharin, Alexey A. (1); Kafesaki, Maria (1); Economou, Eleftherios N. (1); Soukoulis, Costas M. (1)
Author affiliation:(1) Institute of Electronic Structure and Laser (IESL), Foundation for Research and Technology Hellas (FORTH), P.O. Box 1385, 71110 Heraklion, Crete, Greece; (2) Department of Materials Science and Technology, University of Crete, 71003 Heraklion, Greece; (3) Department of Physics, University of Crete, 71003 Heraklion, Greece; (4) Ames Laboratory-USDOE, Department of Physics and Astronomy, Iowa State University, Ames, IA 50011, United States
Corresponding author:Basharin, A.A.(basharin@iesl.forth.gr)
Source title:Optics Express
Abbreviated source title:Opt. Express
Volume:20
Issue:12
Issue date:June 4, 2012
Publication year:2012
Pages:12752-12760
Language:English
E-ISSN:10944087
Document type:Journal article (JA)
Publisher:Optical Society of America, 2010 Massachusetts Avenue NW, Washington, DC 20036-1023, United States
Abstract:In this paper we demonstrate the possibility of backward radiation from a negative permittivity planar (slab) waveguide. Furthermore, we show that backward radiation can be used to achieve sub-wavelength imaging of a point source placed close to such a slab or to a periodic layered system of slabs. Finally, we demonstrate backward-radiation-based imaging in the case of realistic materials operating in the THz regime, such as polaritonic alkali-halide systems. ©2012 Optical Society of America.
Number of references:35
Main heading:Terahertz waves
Controlled terms:Alkali halides - Permittivity - Waveguides
Uncontrolled terms:Backward radiation - Backward-wave radiation - Layered systems - Negative permittivity - Point sources - Realistic materials - Sub-wavelength - Subwavelength imaging
Classification code:701 Electricity and Magnetism - 711 Electromagnetic Waves - 714.3 Waveguides - 804 Chemical Products Generally
DOI:10.1364/OE.20.012752
Database:Compendex