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Authors:Zhang, Xueqian (1); Gu, Jianqiang (1); Cao, Wei (2); Han, Jiaguang (1); Lakhtakia, Akhlesh (3); Zhang, Weili (1)
Author affiliation:(1) Center for Terahertz Waves and College of Precision Instrument and Optoelectronics Engineering, Tianjin University, Tianjin 300072, China; (2) School of Electrical and Computer Engineering, Oklahoma State University, Stillwater, OK 74078, United States; (3) Nanoengineered Metamaterials Group, Department of Engineering Science and Mechanics, Pennsylvania State University, University Park, PA 16802, United States
Corresponding author:Zhang, W.(weili.zhang@okstate.edu)
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Abstract:A bilayer fish-scale metamaterial is experimentally demonstrated to function as a broad bandpass filter in the terahertz regime. The measured 3 dB-bandwidth for normal incidence is 1.13 THz with a high transmittance. The measured transmission spectrum is described well by a model based on an RLC circuit and multiple reflections. The filter is relatively insensitive to incidence angles up to 45°. © 2012 Optical Society of America.
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