

316. Title:Ultra wideband terahertz absorbers

Authors:Dubey, Ashish (1); Shami, T.C. (1); Bhasker Rao, K.U. (1); Prabhu, S.S. (2)

Source title:Microwave and Optical Technology Letters

Volume:53

Issue:7

Issue date:July 2011

Publication year:2011

Pages:1463-1464

Language:English

Document type:Journal article (JA)

Abstract:Most of the recent research on electromagnetic absorbers at terahertz (THz) frequencies is focused on metamaterials based absorber, which provides high absorptivity of electromagnetic (em) radiations in narrow frequency band and tailoring of em response of materials. Under this work, we have also attempted the same problem with different approach, i.e., by using combination of different materials in uniform layered configuration system. Result obtained shows em absorption of 10-20 dB in the lower and higher side of measured spectrum and high absorption of 20-30 dB in central part, i.e., from 1 to 2 THz. Materials with such broadband absorptivity find numerous military and civilian applications.