

Abstracts

Remote detection of bioparticles in the THz region

E.R. Brown, D.L. Woolard, A.C. Samuels, T. Globus and B. Gelmont. "Remote detection of bioparticles in the THz region." 2002 MTT-S International Microwave Symposium Digest 02.3 (2002 Vol. III [MWSYM]): 1591-1594 vol.3.

Recent measurements of the electromagnetic transmission through *Bacillus subtilis*, an innocuous anthrax substitute, have revealed absorption resonances in the THz region. A system-level analysis is carried out to show that at least one of the resonances (centered at 14.05 cm/sup -1/, or 421 GHz) is located at a frequency of low enough atmospheric absorption to be detectable by an active remote sensor - a differential absorption radar.

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