Abstracts

Picosecond Time-Domain Electromagnetic Scattering from Conducting Cylinders

W.M. Robertson, G.V. Kopcsay and G. Arjavalingam. "Picosecond Time-Domain Electromagnetic Scattering from Conducting Cylinders." 1991 Microwave and Guided Wave Letters 1.12 (Dec. 1991 [MGWL]): 379-381.

The microwave scattering properties of conducting cylinders are characterized by measuring their response to picosecond duration electromagnetic pulses. The ultrafast electromagnetic transients are generated and detected with optoelectronically pulsed antennas. The time-domain response gives physical insight into the scattering process. In addition, Fourier analysis is used to obtain the frequency dependence of the scattered amplitude and phase from 15 to 140 GHz.

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