

“Microwave characterization of materials in civil engineering”, pp.128-135

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Abstract – This paper deals with a free space method for the electromagnetic characterization of building materials at microwave frequencies. The technique exploits both transmission and reflection measurements and the experimental data is processed by means of the global minimization of error functions accounting for the difference between the measurements and the theoretical model. Reconstruction results are presented for both a reference material, as plexiglass, and a tuff masonry.