

Reflection Performance of Truncated Pyramidal and Truncated Wedge Microwave Absorber Using Sugarcane Bagasse (SCB)

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Abstract : One of the parameters that affect the performance of microwave absorbers is the shape of the absorbers. This paper shows the performance (reflection loss) of truncated pyramidal and truncated wedge microwave absorbers in the range frequency between 8.2 to 12.4 GHz (X-Band) in simulation. The material used is sugarcane bagasse (SCB) which is one of the new materials that used to fabricate the microwave absorber. The complex permittivity was measured using Agilent dielectric probe technique. The designs were simulated using CST Microwave Studio Software. The reflection losses between these two shapes were compared.

Keywords : microwave absorber, reflection loss, sugarcane bagasse (SCB), X-Band

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