

Magnetic microwires as elements for radar absorber

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Abstract

It is shown that magnetic metallic microwires composite media attenuates microwave reflection of metallic surfaces. We show how the distance to the metallic surface, as well as the length and volume fraction of microwires, determine the frequency of maximum absorption and the return loss level. Furthermore, we were able to fit the experimental results with a theoretical model based on Maxwell-Garnett mixing formula.