

Abstract Submitted
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A Study of Electromagnetic Wave Absorption Properties of Carbon Nanotubes-Based Composites at Microwave Frequencies¹ JIM ROBERTS, The University of North Texas, GUANG-LIN ZHAO, Southern University Baton Rouge, ZHOU YE, Southern University Baton Rouge, JIN TONG WANG, Southern University Baton Rouge — This paper focuses on the absorption properties of electromagnetic (EM) wave, both electric and magnetic, absorption properties of carbon nanotubes (CNTs)-based composites by using a resonant microwave cavity as a probe. The unusual properties of CNTs present new opportunities for creating new hybrid and multifunctional composite materials. However, these materials have largely been unexplored for their EM wave absorption properties. The objective of this research is a better understanding of the fabrications and characterizations of multi-walled carbon nanotubes (MWNTs)-based composites with a better understanding of the EM wave absorption properties of these materials to determine the feasibility of their application to electromagnetic shielding of satellites, pacemakers and radar target reduction.

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