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Extraordinary Properties of Carbon Nanotubes and their Use in Technology and Medicine<sup>1</sup> MICHAEL DURAN, MICHAEL JACOBS, DANIEL BULLMORE, SAMINA MASOOD, University of Houston - Clear Lake — Single and multi-walled carbon nanotubes (CNTs) have remarkable thermal and electromagnetic properties that suggest a wide range of application. Here, we discuss some of the various properties of the tubes and how they are related to the method used to synthesize them. We focus on the electromagnetic and chemical properties, and use them to show the viability of discrete CNT based components. After considering various advantages that CNTs have over microstructures, we make a proposition for the advancement and development of electronics using nanotechnology. As for current applications, we discuss the use and functionality of CNTs in the development of cancer treatment. Whether these nanostructures of carbon are being used for chemotherapeutic drug delivery or photodynamic therapy, we show that their extraordinary properties of can be used in advantageous ways by many different industries. We discuss some new applications of existing results.

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