

## SYNTHESIS AND CHARACTERIZATION OF TITANIUM METAL CARBON NANO TUBES

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### ABSTRACT

**Carbon Nano Tubes** (CNTs) are allotropes of carbon with a nanostructure and are molecular-scale tubes of graphitic carbon with outstanding properties. Due to vast applications of CNTs, new methods and techniques are discovered to prepare carbon nano tubes and to characterize them. Certain desired properties can be inculcated in CNTs, so that they can be used in various applications. Carbon-metal Nano Tubes (CMNT) can exhibit the metallic properties to achieve high level of electrical conductivity along with the inherent properties of nano tubes. The Carbon Metal (Ti) Nano Tubes are synthesized by using egg Albumin and a  $Ti^{2+}$  salt solution. Carbon Metal (Ti) Nano Tubes so formed are characterized by UV and visible, IR and NMR spectroscopy.

**KEYWORDS:** Ti (II), Albumin, Albumin, Metal, Complex, IR, NMR, CNTS, CMTS NMR, AFM, STM