

### Medical chemistry- year1

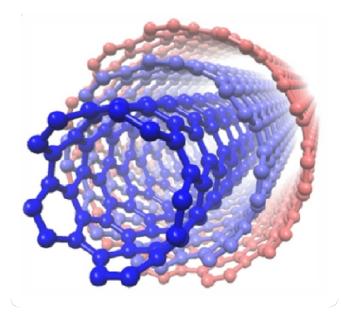


Lecture No:11

# **Carbon Nanotubes (CNTs) – Dentistry Applications**

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#### **Objectives**

At the end of this lecture we will understand the following points.

Introduction

➢ Bonding in Carbon

**≻**Bonding in Carbon

➤Allotropes of Carbon

➢Diamond

➢Graphite

≻Graphene





- > Fullerenes
- **Buckminster fullerenes**
- Carbon nanotubes (CNTs)
- ➢Single-walled carbon nanotubes(SWCNTs
- >Multi-walled carbon nanotubes (MWCNTs)
- >Double-walled carbon nanotubes (DWNTs):
- >Double-walled carbon nanotubes (DWNTs):
- >Chemical Bonding of CNTs



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≻Application Of CNTs in Dentistry

- Dental Restorative Materials:
- > Scaffolds
- Implant Coats
- Fillers in dental Materials