

**THE STUDY ON THE EFFECT OF NEUTRON RADIATION
TO THE CARBON NANOTUBES NANOSTRUCTURES**

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DECLARATION

I hereby declare that the final year project report is based on my original work except for quotation and citations, which have been duly, acknowledged. I also declare that it has not been previously or concurrently submitted for any other degree at UiTM or other institutions.



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ABSTRACT

THE STUDY ON THE EFFECTS OF NEUTRON RADIATION TO THE CARBON NANOTUBES NANOSTRUCTURES

Nanotechnology is the technology that has attracted the interest many scientists around the world. It could be consider as the most progressive manufacturing technology. Nanotechnology also defines as engineering of functional systems at the molecular scale. This covers both current work and concepts that are more advanced. In its original sense, 'nanotechnology' refers to the projected ability to construct items from the bottom up, using techniques and tools being developed today to make complete, high performance products. Carbon nanotubes (CNTs) are among the nanomaterials that are commonly used as fillers to improve the mechanical properties. These nanomaterials have excellent mechanical and thermal characteristics. The method that used to synthesize carbon nanotubes are based on arc discharge method, laser ablation method and chemical vapour deposition (CVD) method. Chemical Vapour Deposition (CVD) was selected to encounter the problems mentioned. This research project aims to optimize the effect of temperature to the growth CNTs, to determine the sample properties and also to know what happen to the CNTs after radiated by neutron radiation. The results from this research showed that the sample at 900°C is more sensitive while exposed to radiation than samples at 800°C and 1000°C.