

### Synthesis of Carbon Nanotubes(CNTs) on SiO<sub>2</sub>/Si by Thermal Chemical Vapor Deposition

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We investigated the optimal growth conditions of CNTs on SiO<sub>2</sub>/p-Si wafer by thermal chemical vapor deposition. Pd nanoparticles were used as catalyst and uniformly distributed on the SiO<sub>2</sub>/p-Si surface that provides many nucleation sites for the growth of CNTs at 1000°C. Systematic optimization of parameter was carried out for CNTs, growth. For characterization used are Atomic force microscopy, Field emission scanning electron microscopy, Transmission electron microscopy and Raman spectroscopy. The Raman spectroscopy has been performed for CNTs and showed D, G and the sharp G' peak for CNTs.