EFFECT OF REACTION TEMPERATURE ON THE PRODUCTION OF CARBON NANOTUBES ON A SILICON DIOXIDE WAFER

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Floating catalyst chemical vapor deposition (FC-CVD) method has been to synthesize carbon nanotubes (CNTs) on silicon dioxide substrate at different reaction temperature. The effect of the reaction temperature on the purity and the yield of carbon nanotubes were studied. Increasing the temperature has a remarkable effect on the size and shape of the catalyst and this in turn affected the diameter distribution and structure of the carbon materials. The carbon nanotubes were produced from 600 °C to 900 °C with maximum yield at 900 °C.

Keyword: CNTs, FC-CVD, Reaction Temperature.