

## Effect of rapid thermal annealing (RTA) on structural properties of carbon nanotubes

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We have studied the temperature-dependent Raman peaks of carbon nanotubes (CNTs) in detail. The rapid thermal annealing (RTA) experiments are carried out in the range of temperature 950°C ~ 1150°C for 1 min in the N<sub>2</sub> atmosphere. The CNTs on the p-type Si substrate are grown by thermal chemical vapor deposition (CVD). Structural properties of CNTs are investigated by Raman spectroscopy, Scanning electron microscope (SEM), and transmission electron microscope (TEM). In this study, the I(D)/I(G) ratio of CNTs decreases considerably with an increase in the RTA temperature. It is concluded that the structural properties of the CNTs could be substantially improved by RTA process.

### [Reference]

1. Yi Zhang, Yuan Xu and Ephraim Suhir, Journal of Physics D: Applied Physics. 39 (2006) 4878-4885

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