



Contribution ID: 133

Type: Oral Presentation

## Relative stability of graphene and carbon nanotube structures

*Tuesday, 9 July 2013 11:50 (20 minutes)*

### Abstract content <br> &nbsp; (Max 300 words)

Abstract.

Molecular dynamics simulations were used to study properties of graphene and single walled carbon nanotube. The formulation of the Tersoff bond-order potential was used to investigate the structural properties and thermodynamics properties of these two carbon polymorphs through a range of temperature. The structural properties were studied using the radial distribution functions effects and the thermodynamics effects were studied using the energy-temperature and volume-temperature plots. Similarities and differences in graphene and carbon nanotubes are discussed.

### Apply to be<br> considered for a student <br> &nbsp; award (Yes / No)?

yes

### Level for award<br>&nbsp;(Hons, MSc, <br> &nbsp; PhD)?

Msc

### Main supervisor (name and email)<br>and his / her institution

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### Would you like to <br> submit a short paper <br> for the Conference <br> Proceedings (Yes / No)?

Yes

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