



SEMINAR

Determination of the Chiral Indices Carbon Nanotubes by Electron Diffraction

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2.00 – 3.00 pm
Engineering Lecture Theatre E4, Bldg 32

Abstract

The atomic structure of a carbon nanotube can be defined by specifying its chiral indices, (n,m) , that specify its perimeter vector (chiral vector), with which the diameter and helicity are also determined. This information is necessary to understand and to control the properties of carbon nanotubes for nanoelectronics applications.

This talk will cover two aspects related to the use of electron diffraction for the study of carbon nanotubes: (i) to express analytically the electron diffraction intensities and (ii) to obtain the chiral indices (n,m) of the carbon nanotubes from their electron diffraction patterns.

Selected examples will also be presented on the determination of the chiral indices of both single-walled carbon nanotubes and multiwalled carbon nanotubes. For a multiwalled carbon nanotube, the chiral indices of each and every shell are determined.

Convenor: Dr. Joanne Etheridge

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Visitors are most welcome: Please note that there is a designated Visitors Car Park (N1) clearly ground-marked by white paint and tickets, at a cost of \$1.4/hour for up to 3 hours, available from a dispensing machine. This high-rise carpark is located on the following Clayton Campus Map, Ref. B2.

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