Resonant Raman spectroscopy on enriched $^{13}$C carbon nanotubes

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Carbon materials and its derivates have captured the attention of many researchers in the past. For instance, carbon nanotubes have been widely explored in the past two decades, revealing remarkable structural and physical properties. However, some physical phenomena still remain unclear.

Here, a resonant Raman spectroscopy study on isotope ($^{13}$C) enriched carbon nanotubes will be presented. The comparative spectroscopic analysis of $^{13}$C and $^{12}$C carbon nanotubes is advantageous, since the variation of mass of these materials leads to modifications in the Raman spectra, such as shifts in the bands position. The influences of the laser wavelength and the isotope carbon concentration in the samples have been investigated and will also be presented.

**Keywords**: Raman spectroscopy, carbon nanotubes, isotope.

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