

Raman Spectroscopy of Carbon Nanostructures in Strong Magnetic Field

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Abstract : One- and two-dimensional carbon nano structures with sp² hybridization of carbon atoms (single walled carbon nano tubes and graphene) are promising materials in future electronic and spintronics devices due to specific character of their electronic structure. In this paper, we present a comparative study of graphene and single-wall carbon nano tubes by Raman spectro-microscopy in strong magnetic field. This unique method allows to study changes in electronic band structure of the two types of carbon nano structures induced by a strong magnetic field.

Keywords : carbon nano structures, magnetic field, raman spectroscopy, spectro-microscopy

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