

Studying the nature of some graphite materials using Raman spectroscopy

S. Kendouli¹, N.Sobti¹, M. Baghriche¹, O. Khalfallah² and S. Achour³.

¹ Ceramic Laboratory. University of Constantine 1, Route Ain El Bey, 25000 Constantine Algeria

² Laboratory of microstructures and defects in materials. University of Constantine 1, Route Ain El Bey, 25000 Constantine Algeria

³ Ecole Nationale Polytechnique de Constantine. Ali Mendjeli, Constantine Algeria
souadken1@hotmail.fr

Abstract

This work is a review of the application of Raman spectroscopy to identify the nature of some carbon materials such as: commercial graphite with various compositions. The RAMAN spectra show four bands D, G, D' and 2D bands. The G and 2D Raman peaks change in shape, position and relative intensity with number of graphene layers. These results were confirmed using XRD and FTIR. The samples were analyzed using a scanning electron microscopy to identify their morphologies.

Keywords: Raman spectroscopy; Graphite; Reduced graphite oxide.