



Contribution ID: 104

Type: not specified

ANAHI LIMAS: Preparation of Graphite nanoparticles by laser ablation in distilled water with and without ultrasonic excitation.

Friday, 21 February 2020 12:15 (15 minutes)

In this work we report the synthesis of Graphite nanoparticles by laser ablation of a Graphite target immersed in distilled water. The laser used is a Nd: YAG emitting at 1064 nm with a pulsed length of 10 ns. The effect of an ultrasonic excitation and the laser energy density on the size and shape of the nanoparticles is investigated. The nanoparticles size and shape are determined from transmission electron microscopy (TEM) micrographs. The samples were characterized also by Raman spectroscopy. Photoluminescence measurements were also performed. The UV-Vis measurements show a typical plasmonic absorption at 265 nm approximately this band is characteristic of Graphite. In general samples fabricated under ultrasonic excitation are composed on nanoparticles and plane like structures. Without the presence of the ultrasonic field individual nanostructures having spherical shapes are observe. Furthermore different experimental conditions were studied such as height of water above the target and the spot size effect. The main results are presented

Session Classification: PLENARY TALKS

Track Classification: SYMPOSIUM ON LASER ABLATION