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Kinetics of Desorption of Oxygen SHARVIL DESAI, University of Louisville, GAMINI SUMANASEKERA[1], Dept. of Physics, University of Louisville, CHAMINDA JAYASINGHE, University of Cincinnati, DAVID MAST, Dept. of Physics, University of Cincinnati — The kinetics of desorption of oxygen was studied by measuring in-situ thermopower of the Single Walled Carbon Nanotube samples subjected to (a) post synthesis acid treatment by refluxing (b) high temperature annealing at 10^{-7} Torr (c) plasma (Ar, O_2, H_2) treatment using an inductively coupled plasma reactor. Raman Spectroscopy and X-Ray Photoluminescence Spectroscopy were used to identify wall defects and other disorders created due to each treatment on the nanotubes. Also we have estimated binding energy of oxygen with the carbon in all cases.

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