

**PHYSICAL MODELING OF HIGHLY DENSE PERIODIC ARRAY OF CARBON
NANOTUBES**

C. Dridi, M. Zaabat and A.Boudine
Faculty of Sciences Univeristy of Oum el Bouaghi.

Abstract

In 1991, Iijima discovered, carbon nanotubes (CNTs) that have since been an intensive research [1]. Given their exceptional intrinsic properties, they become very interesting in many fields of science and technology. Especially in the field of electronic structure their remarkable electrical and mechanical properties have attracted much interest in their application for nanoelectronics components, their one-dimensional (1D) and the nature of their carbon atoms makes very sensitive to the charge, chemical properties allow advanced chemical functionalization, and their mechanical properties make them compatible with most substrates.