**ABSTRACT**

This article reviews the latest developments in the synthesis of Graphene, Carbon nanotubes and graphene/CNT based devices based on patents, patent applications and articles published in the last two years. A brief introduction about CNT and Graphene is presented, followed by the latest techniques and advanced processing for the large scale synthesis of Graphene and CNTs. Furthermore, a brief account of emerging devices based on applications of CNTs and graphene not limited to sensors, high speed electronics, energy harvesting and storage applications are presented.