

**GRAPHENE: A MATERIAL FULL OF MIRACLES**

Dr. Aparna Dixit

Associate Professor

Department of Physics, Pranveer Singh Institute of Technology, Kanpur, UP India

**Abstract**

As we know that Graphene is a material rich in properties like thinnest material, strongest material, best electrical conductor, best thermal conductor, most impermeable material, flexible and transparent, mechanical strength, current density, electron mobility and surface area. It has a thickness of an atom. It is a two-dimensional carbon arranged in a honeycomb crystal structure. These extraordinary properties make Graphene to be advanced and functional in various fields of the industry. On this basis of studies, researchers are interested to find out the methods to produce fine quality of Graphene for industry use. Nowadays scientific evidences has indicated that Graphene

based products can improve the efficiency of current green energy technologies and energy storage systems. In this study, we discussed about the history, challenges, and prospects of Graphene production for research and industrial. In the coming years, the utilization of Graphene will show a remarkable difference in current technologies. The developments of Graphene in the field of electronics, batteries, medicines and construction can be seen.

**Biography**

Dr. Aparna Dixit is Associate Professor Department of Physics, Pranveer Singh Institute of Technology, Kanpur, UP India