NANOCARBON IN OUR LIFE

Nanocomposites play a significant role in one of the most developing technologies, called nanotechnology. We use this technology in our daily lives; construction, automobiles, food and agriculture, sports and health as the major impact. This technology is designed to make our lives easier. The latest improvement of nanotechnologies in sports is nano carbon tennis rackets. Wilson used nano tecnology in tennis rackets, it is called Nano Carbon Ace tennis racket. We can consider it as a part of the evolution in Wilson's racket design from wood to aluminum to graphite and lastly to nano particles. The Nano Carbon Ace is made out of nano carbon graphite, which makes it light and easy wielded on the court and Kevlar which is stronger than the old hyper carbon largely used in aerospace. It is stronger, lighter, and weights less than titanium. The racket is designed to give racquetball players power and control. The balance of the graphite with the silicon properties of the racket means that the racket offers exceptional control to specifically combat torsional stress on the racket body. This means you can play harder without losing the necessary control for proper shots. As the benefits of this racket, it offers a good playing option for those who knows how to place their shots and looks for an increase in power without losing the finesse of their game.

Nanocarbons are Carbon-based materials that can be attached at the molecular level in different ways to achieve unique properties. This family of material include Nanotubes, buckytubes, fullerenes and more... The development into nanocarbon control and manipulation is very important for the production and creation of nanomachines and nanobots. As a beginning of the molecular age, we will be able to program these successful creation of molecular level machines to do the molecular manipulation instead of us. It appears that carbon is going to become the wonder element of the Nano Age. The coming age of molecular nanotechnology is sometimes referred to as The Diamond Age in reference to the immence potential of carbon as a multipurpose building material. Richard Smalley, who was awarded the Nobel Prize in Chemistry for the discovery of a new form of carbon, buckyballs, said that "Carbon has this genius of making a chemically stable, two-dimensional, one-atom-thick membrane in a three-dimensional world. And that, I believe, is going to be very important in the future of chemistry and technology in general."

Nanocarbon polymer composites are materials that combines nanosized particles in a form of standard materials such as polymers. Adding nanoparticles can create a strong improvement in quality.They have properties such as mechanical strength, solidity and electrical or thermal conductivity which are superior to those ordinary composites. Also nanocarbon composites can be synthesized using simple and inexpensive techniques. A few nanocomposites have already reached the marketplace, a few others are on the verge, and many of them still remains in the laboratories of research institutions.

Nanocarbon can be used in many different domains apart of tennis rackets, as sports and equipement; it is also used for bikes, shoes and golf clubs. Aircraft wings and all light weight strong structures in aerospace can contain nano carbon too. In construction its used in cement and substructure as a replacement for steel. Nanocarbon can be helpful for thermal conducting in fillers as lubricants and paints.The filters that used in water purification, the batteries, fuel cells for energy and storage, microwaves and flat panel displays... all contains nanocarbon. Eventually it is used in composites for developed electrical and mechanical performance.

As a consequence of multiple-use areas nanocarbon is so desired by industry, each answers to specific and various type of commercial use. In brief, nanocarbon offers unique properties such as extreme mechanical strength, thermal and electrical conductivity, light weight and resistant capability. With these properties nano carbon becomes the best current and future solution for many ranges such as medical applications, energy savings, fuel cells for electric vehicles.

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