Fullerenes



Fullerenes are a large class of allotropes of carbon and are made of balls, 'cages', or tubes of carbon atoms.

How did it come around?

Kroto, a British scientist, originally wanted to study long, carbon molecules that he had observed in outer space. He requested to use Richard Smalley's equipment in his lab, to aid his search for carbon nanostructure.

After a number of days of testing, the scientists began to observe a new type of carbon molecule made from 60 carbon atoms. They named the molecule formula: C60.

Properties

The new molecule displayed properties that did not make sense, they were completely unreactive, suggesting there were no loose electrons.

They ended up withet e buckminsterfullerene.

Buckminsterfullerene has a cage-like ring stru esembling a football.

Buckyballs are tiny, they have surface area con pined to their volume. That gives on surface area, such as catalysts. them potential

Fullerenes are used in materials that need to endure a high level of impact, such as tennis rackets; this is because they can be used to reinforce graphite because they are very strong.

Nanotubes are all fullerenes that reinforce graphite.

Scientists have also said that they might have lots of different uses in medicine.

They are not very reactive, they are probably not toxic and they are likely to be small enough to fit inside all sorts of cavities in the human body.

Fullerenes are also used as semiconductors, which are in electrical circuits









