Graphene

**Carbon** has got many different allotropic forms: diamond, graphite, lonsdaleite, buckminster fullerene, etc.

And now a new form carbon has been discovered: the **graphene**.

**Graphene** is a new innovative material discovered by **Andre Geim** and **Konstantin Novoselov** who received the **Nobel Prize** for physics last year.

It is different from graphite; a sheet of graphene is considered bi-dimensional, because it is about an atom of carbon thick.

**Graphene** was discovered in 2004 and from that moment on a lot of scientist have started to study it.

They discovered a lot of interesting properties that can revolutionize modern science. **Graphene** is a good electrical and heat conductor; it is one of the strongest material in the world, even stronger than steel; it’s transparent and flexible, so it can be used for the new generation of **touch screens**.

Electronics, electrical and photovoltaic engineers are testing graphene to highlight every possible application. In **Italy** the **University of Pisa**, in the collaboration with the **National Institute of Physics**, is studying how to produce artificial graphene in the laboratory because an industrial production of natural graphene has so far been impossible.

On the new generation of computers we should find graphene microchips instead of silicon ones, or a new model of **photovoltaic cells** made up by graphene sheets, or a new prototype of electrode made up by graphene; the future of this new amazing material is all in the hands of the scientists.

**Bibliography**

www.rinnovabili.it/grafene-benvenuti-nella-realta-2d801419

www.bbc.co.uk/news/world-11476301

news.sciencemag.org/sciencenow/2010/06/graphene-finally-goes-big.html

**Iconography**


www.alternativasostenibile.it/archivio/2010/10/13/images/grafene%5B12%5D.jpg