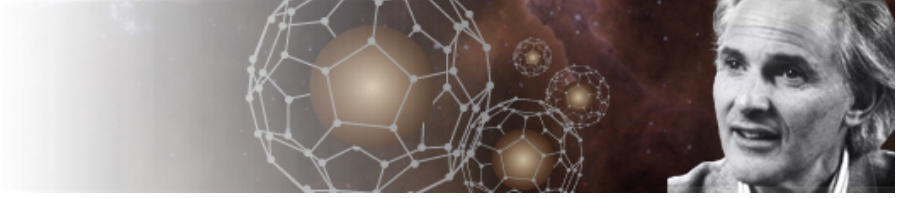
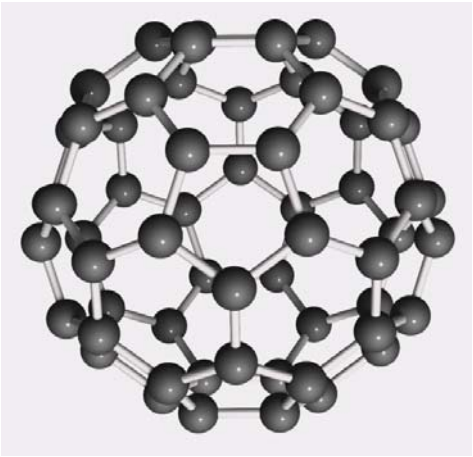
Ask a Nobel Laureate



The soccer ball-shaped molecule that scored a Nobel Prize

About Harry Kroto, Nobel Prize in Chemistry 1996

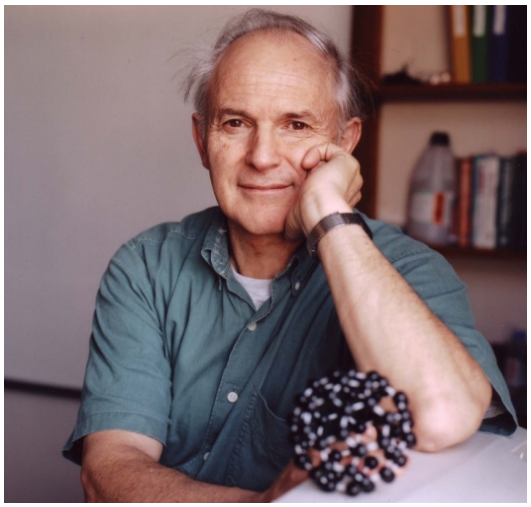


All of life is based on carbon. The unique way in which carbon forms more compounds than any other element has given rise to a spectacular array of molecules of all shapes and sizes, from tiny, linear carbon dioxide particles to the complex, double helical structure of DNA.

Even in its pure form, carbon molecules appear on Earth as two completely different substances, graphite and diamond. But another class of pure carbon molecules known as the fullerenes has been created in the lab, the best known of which is C60, a remarkable molecule composed of 60 carbon atoms shaped like a soccer ball.

Harry Kroto received the Nobel Prize in Chemistry in 1996 with Robert Curl and Richard Smalley for the discovery of C60, which was named Buckminsterfullerene, in tribute to the architect Richard Buckminster Fuller, whose geodesic domes the structure resembles.

By studying how these carbon molecules assemble, scientists are trying to build and design complex molecules on the nanoscale, such as better solar cells and drug delivery agents. And recently, a team of astronomers using NASA's Spitzer Space Telescope detected what they say is the first conclusive evidence that C60 molecules are created in space[1].



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Harry Kroto is also fascinated by the Internet's potential in getting children and students worldwide interested in science. In 1995, he established the Vega Science Trust, an online database of science lectures, discussions and interviews with Nobel Laureates. His latest website, GEOSET, hosts a wealth of free educational scientific presentations given by pre-eminent scientists. He continues to be actively involved in science communication initiatives worldwide. He is a keen tennis player and has a lifelong passion for graphic design.

Do you have a question for Harry Kroto?
Submit your video or text question by visiting the Nobelprize.org YouTube channel www.youtube.com/thenobelprize or Facebook page www.facebook.com/Nobelprize.org.

The deadline for questions is 4 September 2010.

Further information
Harry Kroto, Nobel Prize in Chemistry 1996
nobelprize.org/nobel_prizes/chemistry/laureates/1996/index.html

[1] Cami, J. et al. *Science*, published online July 22, 2010: http://www.sciencemag.org/cgi/content/abstract/science.1192035