

## "Buckyball" co-discoverer and 1996 Nobelist Sir Harold Kroto to deliver public lecture at UCSD

May 27, 1997

### MEDIA ADVISORY

EVENT: "Buckyball" co-discoverer and 1996 Nobelist Sir Harold Kroto to deliver public lecture at UCSD, "C60 Buckminsterfullerene-- Not Just a Pretty Molecule"

DATE/TIME: June 4, 1997

4 p.m.--5:30 p.m.

LOCATION: IR/PS Robinson Building Auditorium

University of California, San Diego

**BACKGROUND:** In 1985, Sir Harold Kroto, a professor at the University of Sussex in Brighton, UK, discovered buckminsterfullerene, commonly known as "buckyballs," in experiments designed to unravel the carbon chemistry in red giant stars. His serendipitous discovery led to the isolation of a family of pure carbon cage molecules called fullerenes, with fascinating properties that offer a wide range of potential materials applications.

Since then, the molecule has attracted the attention of the scientist and non-scientist alike. Reminiscent of the geodesic domes devised by Buckminster Fuller, the molecule has a beautiful and elegant symmetry. Though its chemical cousins, graphite and diamonds--have been known for centuries, fullerenes have only been recognized in the past few years. Yet, it has been under our noses for a long time, since it forms in a sooting flame.

Among other things, Kroto will discuss the history of his discovery and the potential benefits offered by fullerenes. He'll also stress the importance of basic research to scientific discovery. Without the freedom to be curious and explore science for its own sake, this new round world of carbon chemistry and materials science would not have been uncovered. This, he says, stands as a timely warning about the serious limitations inherent in over-reliance on applied research strategies.

**LOGISTICS:** The media is invited to attend this presentation. Interviews with Kroto may be arranged in advance.

**BIOGRAPHY:** Harold Kroto was born in 1939 in Wisbech, Cambridgeshire, U.K., and brought up in Bolton, Lancashire. He graduated in chemistry from the University of Sheffield in 1961 and in 1964 received his Ph.D. there for research with R. N. Dixon in high-resolution electronic spectra of free radicals produced by flash photolysis. After two years postdoctoral research in electronic and microwave spectroscopy at the National Research Council in Ottawa, Canada, he spent one year at Bell Laboratories in New Jersey studying liquid phase interactions by Raman spectroscopy; he also carried out studies in quantum chemistry. Kroto started his academic career at the University of Sussex (Brighton) in 1967, where he became professor in 1985. In 1991, he was made a Royal Society Research Professor.

In pioneering studies at Sussex, Kroto's laboratory made a surprising discovery of relatively abundant, long molecular chains of carbon in interstellar space. During a project that sought to explore the possible source of these carbon chains in space, laboratory experiments which simulated the chemical reactions in the shells of red giant carbon stars were carried out that serendipitously uncovered the existence of buckminsterfullerene. In follow-up investigations of this original discovery, the molecule was isolated independently at Sussex and structurally characterized.

Current research at Sussex focuses on the implications of the discovery, for chemistry and carbon-based materials.

For his work, in 1996 Harry Kroto was named a co-recipient of the Nobel Prize in chemistry and was granted knighthood by Queen Elizabeth.

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