'Nanoscience centuries old, has great potential'

Carbon nanotechnology much older than carbon nanoscience

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The prospect of a world filled with the magic of nano materials looks imminent as scientists and students alike are enthralled with the vast promise they hold.

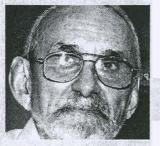
However, nanotechnology

Tipu Sultan might not have heard of the word 'nano', but the swords made during his time contained elements made of carbon-rich iron ore, indicating the abundant use of nano structures.

Even swordsmiths in the Arab world made the legendary Damascus steel swords using it.

"We have been using the technology for over 2,000 years and carbon nano for about 500 years, though unwittingly. Carbon nanotechnology is much older than carbon nanoscience," Nobel laureate Prof Robert F. Curl said.

The 74-year-old scientist from the US won the Nobel Prize for Chemistry (1996)



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Robert F. Curl

jointly with Mr Richard Smalley and Sir Harold Kroto for the discovery of the carbon cage compounds or the buckminsterfullerene, widely known as fullerenes.

Prof Curl addressed a packed audience of scientists and students on 'The contributions of elemental carbon to the development of nanoscience and technology' at the Indian Institute of Chemical Technology (IICT) here on Monday.

"Doing it (use of carbon in nano products) unwittingly is one thing and doing it wittingly is another," he said.

THE HISTORY

Tracing the history of exploration of the magical world of nano materials, Prof Curl related his own experiments with fullerenes and how they were able to discover the structure.

Prof Curl, whose love for chemistry was kindled by a chemistry set gifted to him by his preacher father, went on to achieve the highest recognition that a scientist could dream of.

He described to the audience various carbon nano structures that promised to have a tremendous impact on certain composite products, hydrogen storage, batteries, pharmaceuticals and solar cells.

He said that though nothing much came out of the proposals made from several quarters, he was still quite confident that the technology would have tremendous potential.

The scientist, however, did not like people using it in facial creams without thorough evaluation.

"I don't think it is making real difference in facial creams. There's always a possibility of something going wrong. I feel with new materials we have to be careful," he said, addressing the reporters later.

At a separate event in the evening at the B. M. Birla Science Centre, Prof Curl was conferred the 'Lifetime Achievement Award in Science'.