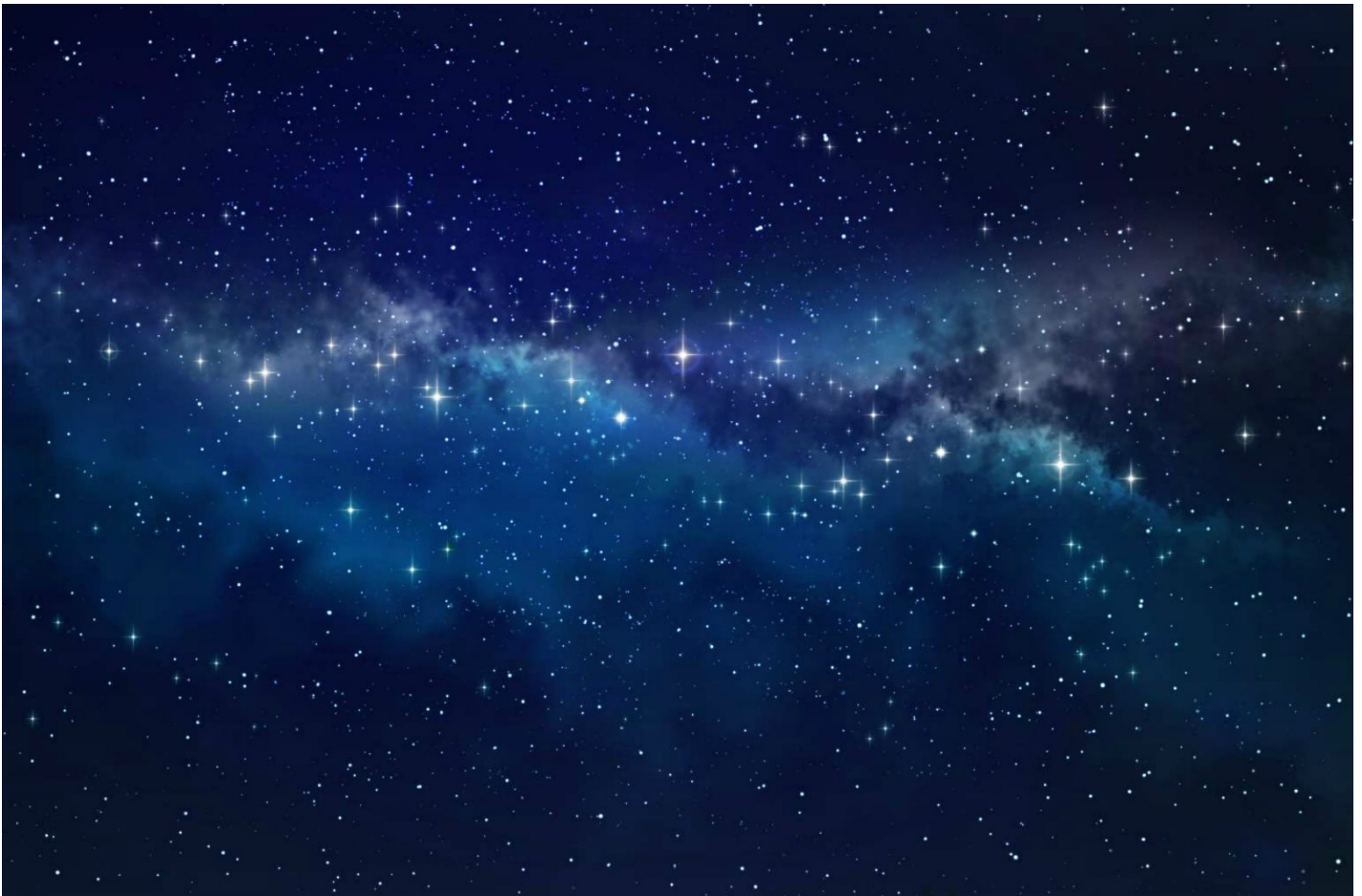


# Stargazing Leads To Process For Making A New Class Of Carbon Compounds

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In 1990, physicists W. Krätschmer and D.R. Huffman opened the door to commercial uses of a new form of carbon, C<sub>60</sub> Buckminsterfullerene or “fullerenes,” by producing a process for creating isolable quantities of C<sub>60</sub> for the first time, a process now known as the Krätschmer-Huffman process. On sabbatical with his colleague Wolfgang Krätschmer at the Max Planck Institute fuer Kernforschung, Donald Huffman was pursuing work to answer a long-standing question in astronomy: “What is the nature of the dust and gas that fills the void between stars?”

The answer was not resolved, but the fullerene production process they developed to try to do so enabled scientists around the world to rapidly advance the world’s knowledge of this new class of carbon compounds; by 1995 more than 3,000 fullerene articles had been published.

“ In 1996, Harold W. Kroto, Robert F. Curl and Richard E. Smalley won the Nobel Prize for their significant discovery of fullerenes.

While Huffman and Kratschner’s eyes may have been on the stars, their discovery paved the way to developments in an entirely new branch of carbon chemistry.

Research Corporation Technologies (RCT) of Tucson, Ariz., manages commercialization of the original technology for both the University of Arizona and the Max Planck Institute. With partners Mitsubishi Corporation of Japan and Materials and Electrochemical Research Corporation of Tucson, Ariz., RCT has formed a joint venture called Fullerenes International Corporation (FIC) to commercialize fullerene materials based upon the Krätschmer-Huffman production method and other patented technology made available by the partners. Honjo Chemical Co. in Japan and under license from FIC, makes production quantities of fullerenes available for applications in areas as diverse as batteries, flat panel displays, gas storage, diamond-like cutting tools, electric vehicle capacitors and pharmaceuticals.

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