

Awards

The 'JSAP Outstanding Achievement Award' recognizes outstanding individual achievements in the field of applied physics. The JSAP Executive Board selects the recipient based on the recommendations of an awards committee appointed by the president of JSAP.

One of the award recipients, Dr. Tanaka had a commemorative

talk during the Spring Meeting of the Japan Society of Applied Physics, March 2003. Dr. Iijima will have a commemorative talk during the Autumn Meeting of the Japan Society of Applied Physics, September 2003.

3rd JSAP Outstanding Achievement Awards (Research Accomplishments)



Recipient: **Sumio Iijima, Ph.D.**

Research Fellow, NEC Corporation
Professor, Meijo University

Citation: For the discovery and elucidation of carbon nanotubes

Dr. Iijima was educated at the University of Electro-Communications in Tokyo. After completing his Ph.D. in physics at Tohoku University in Sendai, he moved to Arizona State University in Phoenix, Arizona. There, in postdoctoral research and later as a research scientist from 1970 to 1982, he worked on high-resolution electron microscopy. He is a professor at Meijo University in Nagoya, Japan, and a Research Fellow at NEC Laboratories.

Dr. Iijima revealed the first electron micrograph showing atoms in a crystal. Dr. Iijima also worked as a visiting scholar at Cambridge University in 1979, where he carried out electron microscopy of graphite. He moved back to Japan in 1982 to join the ERATO ultra fine particles project, where he succeeded in a dynamic observation on metal clusters. Dr. Iijima has been a research fellow at NEC since 1987 and discovered carbon nanotubes in 1991.

He is a recipient of the 1996 Asahi Award, the 2001 Agilent Technologies Europhysics Prize, B. E. Warren Diffraction Physics Award, Seto Award, Nishina Memorial Award, Asahi Award, Tsukuba Prize, and the McGroddy Materials Prize for 2002 from the American Physical Society.

Inspired by the discovery of fullerenes (for which the 1996 Nobel chemistry was awarded), Dr. Iijima discovered tiny tubules with a diameter as small as 0.8 nanometres, now known as carbon nanotubes. By further discovering a technique to insert metal into the hollow of carbon nanotubes, Dr. Iijima created what could be the tiniest wire ever made and has attracted considerable attention from the scientific community.



Recipient: **Dr. Shoji Tanaka**

Vice President, International Superconductivity Technology Center
Director, Superconductivity Research Laboratory

Citation: For pioneering research of oxide superconductors

Dr. Tanaka became a member of the physics faculty of Tokyo University after a distinguished career at the doctoral level in the late 1950s. In 1959, He moved to Purdue University in West Lafayette, Indiana to collaborate with Professor H. Y. Fan, a member of physics department. He became Professor of Physics at the University of Tokyo in 1968, a position he held with great distinction until his retirement in 1988. In 1999, he received the Honorary Degree of Doctor of Science from Purdue University. As one of the leading members of the Japanese physics community, as the Vice President of the International Superconductivity Technology Center and as the Director of the Superconductivity Technology Center, Dr. Tanaka has played an influential role in the high prestige Japanese science and technology internationally. Dr. Tanaka was honored by the Japanese government with the Medal with Purple Ribbon in 1990.

In 1986, when Bednorz and Muller made the epoch-making discovery that certain oxides can become superconductors at temperatures significantly higher than those at which the conventional superconductors did, it was Dr. Tanaka's group which validated it by confirming it. The position Japan commands in the field of high T_c superconductors, an area of extraordinary importance in basic science and its applications, is in no small measure due to Dr. Tanaka's scientific vision and preeminence as a scientist.

Recommendations are invited for 4th JSAP Outstanding Achievement Award. Details about this award and criteria for selection can be found at:

<http://www.jsapor.jp/activities/award/outstanding/provision.html> (in Japanese).