
Obituary

Professor Emeritus

Dr. ODANI, Hisashi (1928–2009)



Dr. Hisashi Odani, Professor Emeritus of Kyoto University, passed away unexpectedly on August 27, 2009, in Kyoto.

Dr. Hisashi Odani was born in Kyoto on October 12, 1928. He graduated from Department of Industrial Chemistry, Kyoto University in 1952 and continued his studies on physicochemical properties of polymers as a graduate student at the same department under the supervision of Professor Mikio Tamura. After the graduation, he was appointed an instructor of the Faculty of Engineering, Kyoto University in 1957 and received a doctoral degree from Kyoto University for his studies on sorption of low-molecular-weight compounds in solid polymers including polymer membranes in 1962. He was promoted to Associate Professor in the same faculty in 1963 and moved to the Institute for Chemical Research, Kyoto University in 1966. He made a leave stay at the Institute of Physical Chemistry, Uppsala University in 1968 and worked for two years on fluorescence depolarization in sheared solutions of dye-tagged polymers in cooperation with Professor S. Claesson. In 1987, Dr. Odani was promoted to Full Professor of Kyoto University to direct the Laboratory of Fundamental Materials Properties, Institute for Chemical Research until his retirement. He retired from Kyoto University on March 31, 1992 and was honored with the title of Professor Emeritus of Kyoto University on the next day.

Dr. Odani conducted extensive researches in both fundamental and applied fields of polymer materials science, physical chemistry, and membrane science. In particular, he obtained prominent results in studying sorption and

de-sorption of low-molecular-weight compounds in solid polymers, visco-elasticity of solid polymers, solution properties of polymers, and diffusion, transport, and dissolution of gases, vapors, and their mixtures to polymer membranes, and contributed to important progresses in the research fields. Since these achievements were highly appreciated internationally as well as domestically, he was frequently invited to American Chemical Society Meetings, IUPAC Symposia, Polymer International Congresses and so on. Dr. Odani gave lectures on physical chemistry and fundamental materials science at the Faculty of Engineering, Kyoto University and on advanced materials science and polymer physics at the Graduate School of Engineering and he supervised dissertation works of many graduate students. He was also a visiting lecturer in Osaka University, Kyoto Institute of Technology, Ochanomizu Women's University, Yamaguchi University, and Nagasaki University.

Dr. Odani was an active member of the Chemical Society of Japan, the Society of Polymer Science, Japan, the Society of Rheology, Japan, the Society of Fiber Science and Technology, and so on. He served as a vice-president of the Society of Rheology, Japan, for two years since May, 1989 and also as a regular organizer of the Kinki Branch of the Chemical Society of Japan. He also contributed to *Journal of the Society of Rheology, Japan*, as an editor.

Dr. Odani was a gentle and sincere professor. His sincere and warm personality has won him the respect of his friends, colleagues, and students.

Obituary

Professor Emeritus

Dr. ODA, Jun'ichi (1934–2009)



Dr. Jun'ichi Oda, Professor Emeritus of Kyoto University, passed away on October 21, 2009, in Kyoto.

Dr. Jun'ichi Oda was born in Kyoto on December 20, 1934. After graduating from the Faculty of Agriculture, Kyoto University in 1959, he continued his studies on the synthesis and evaluation of biologically active natural products as a graduate student. In 1965, he was appointed Research Associate of the Laboratory of Plant Product Chemistry, Institute for Chemical Research, Kyoto University, under the supervision of late Emeritus Professor Minoru Ohno. Dr. Oda was conferred a doctoral degree from Kyoto University in 1965 for his studies on the synthesis of naturally occurring cumarane compounds. From 1968 to 1969 while he was on leave from Kyoto University, he stayed at the Department of Chemistry, Bonn University in West Germany and studied the metabolism of chlorinated hydrocarbon insecticides with Professor F. Korte. In 1973, Dr. Oda was promoted to Associate Professor of the same laboratory in Kyoto University. In 1984, he was appointed Professor of Kyoto University and directed the Laboratory of Plant Product Chemistry (present name, Chemistry of Molecular Biocatalysts), Institute for Chemical Research, Kyoto University. From April 1, 1992, to March 31, 1993, Dr. Oda was appointed Director of the Institute and made great contributions not only to the institute but also to the university as a councilor. He retired from Kyoto University and received Title of Professor Emeritus of Kyoto University in April 1998. After the retirement, he served as a professor and the dean of Graduate School of Bioscience and Biotechnology, Fukui Prefectural University from 1998 to 2005.

During the past 40 years, Dr. Oda's research interest encompassed a wide array of natural sciences including synthetic organic chemistry, stereochemistry, bioorganic chemistry, molecular biology, and structural biology. Following his early studies on the synthesis of biologically active plant products, he developed a series of asymmetric reactions such as Simmons-Smith reaction, cyclopropana-

tion, and a sigmatropic rearrangement. He synthesized a series of chiral dihydronicotinamide (NADH) derivatives as the model coenzyme of alcohol dehydrogenase, and carried out the stereoselective reduction of ketones with high enantioselectivity. He also focused on the use of lipases as a chiral catalyst in organic synthesis and prepared several important chiral synthons. As for the molecular biological aspect of his research, he cloned the gene of a microbial lipase and characterized a hitherto unknown protein which might assist the folding of the lipase specifically. He also prepared the catalytic antibodies which are capable of stereoselective hydrolysis of esters and carbonates, and defined the mechanisms of the catalyzed reaction and product inhibition. His research interest in enzyme chemistry and structural biology was highlighted by the X-ray crystallography of ATP-dependent ligases such as glutathione synthetase and asparagine synthetase. He also designed and synthesized transition-state analogue inhibitors of these ligases and used them for the elucidation of the detailed reaction mechanisms of the ligases by enzyme kinetics and structural characterization of the enzyme-inhibitor complex, along with time-resolved X-ray crystallography by Laue diffraction. All in all, he pioneered the interdisciplinary area of chemistry and biology; he has been engaged not only in green chemistry in which development of novel biocatalysts to archive environmentally friendly chemical synthesis but also in chemical and structural biology to unveil the nature of biologically important enzymes based on their atomic structures. For his brilliant achievements on biocatalysts, he was honored with the Senior Scientist Award from Japan Society for Bioscience, Biotechnology, and Agrochemistry in 1996.

Dr. Oda was a gentle and sincere man. He educated and mentored a lot of capable students and young scientists. The Japanese Government made public recognition of his achievements by the Order of the Sacred Treasure, "Zuihouchujushou" medal and granted the Senior Grade of the Fourth Court Rank in 2009.