
Obituary

Professor Emeritus

Dr. TAKEZAKI, Yoshimasa (1917–2008)



Dr. Yoshimasa Takezaki, Professor Emeritus of Kyoto University, passed away on July 9, 2008.

Dr. Takezaki was born in Osaka on September 28, 1917. He graduated from Kyoto Imperial University with a major in Chemistry in 1940. In April of the same year, he joined the Institute for Chemical Research (ICR), Kyoto Imperial University as a researcher and as an Assistant Professor in June of the same year. In September of the same year, he moved to naval arsenal as an engineer officer and was there until September 1945. In February 1946, he was appointed a Lecturer in the Faculty of Engineering, Kyoto Imperial University. In November 1947, he joined ICR, Kyoto University as Associate Professor, and was promoted to Full Professor at Kyoto University in March 1951 to direct the Laboratory of High Pressure Chemistry. He retired from Kyoto University in 1981 and subsequently was honored with the title of Professor Emeritus of Kyoto University.

He conducted extensive research in photochemistry and high-pressure chemistry. He developed novel addition reactions of carbon monoxide and carbon dioxide to various organic compounds. These reactions made it possible to construct novel carbon framework of organic compounds which were very important from both scientific and industrial points of view. He also contributed significantly to the progress in understanding the mechanism on combustion processes involving free radicals. Especially, he systematically performed kinetic studies on reactions of methyl radical generated from pyrolysis of azomethane with various oxygen-including organic compounds such

as alcohols, aldehydes, ketones, and ethers, which gave us great insight into the correlations between oxidative chain reactions and knocking characteristics. He was a pioneer in the research of reactive intermediates generated by photochemical process and their reactions. His achievements in each field are highly appreciated internationally as well as domestically.

He gave lectures on physical chemistry at the Graduate School of Engineering, Kyoto University as well as at many other foreign and domestic institutions, and supervised the dissertation studies of a number of graduate students. After his retirement from Kyoto University, he continued his educational work at Kyoto Sangyo University from 1981 to 1988 as a professor.

Dr. Takezaki has also made great contributions to the management and administration of ICR, Kyoto University, and other scientific communities. For example, he was director of ICR and member of the University Council, Kyoto University for two years from April 1974. He was director and adviser of Japan Petroleum Institute, and chairperson of JSMS Committee on High Pressure, The Society of Material Science, Japan.

His sincere and warm personality was respected by many friends, colleagues, students, and all those who came in contact with him. For his distinguished scientific achievements, he was honored with the Japan Petroleum Institute Award in 1976. In 1990, the Government made public recognition of his achievements by the Second Class of the Order of the Rising Sun, Gold and Silver Star, “Kun-Ni-Tou Kyoku-Jitsu-Shou” Medal.

Obituary

Professor Emeritus

Dr. TASHIRO, Megumi (1917–2008)



Dr. Megumi Tashiro, Professor Emeritus of Kyoto University, passed away on July 16, 2008, in Kyoto.

Dr. Megumi Tashiro was born in Tokyo on December 19, 1917. He graduated from Department of Ceramics, Tokyo Institute of Technology in 1940 and was enrolled in the Post-Graduate Course of Kyoto University (Industrial Chemistry Course) from May 1940 to September 1942. After two years and three months serving as Research Associate at Institute for Chemical Research (ICR), Kyoto University, he was promoted to Associate Professor of ICR in 1944. He was received Degree of Doctor of Engineering from Kyoto University in August 1949. He was also served as Visiting Associate Professor at Department of Mineral Industries, Pennsylvania State University (USA), from July 1953 to August 1956. In 1959, he was appointed Full Professor of ICR, Kyoto University to take charge of the Laboratory of Ceramic Chemistry. He was served as Director of ICR and the Member of the University Council, Kyoto University, from April 1978 to March 1980. He retired from Kyoto University and received Title of Professor Emeritus of Kyoto University in April 1981.

Dr. Tashiro made a significant contribution to the researches on (1) the porcelain enamel, (2) the preparation and properties of glasses, (3) the glass-ceramics and (4) the ceramics prepared by unidirectional solidification of melts. In the researches on the porcelain enamel, he elucidated the mechanism of adherence of enamel on steel surface, leading to the development of novel heat-resistant enamels. In the researches of optical glass, he established the homogenization of glass in tank furnace melting and succeeded in the improvement of the chemical durability of optical glass. The results of effects of high energy

irradiation and high pressure on the properties of glass were widely appreciated. His most notable achievement is without doubt related to glass-ceramics. He found that the addition of ZrO_2 with P_2O_5 as the nucleating agents to the base glasses remarkably promoted the nucleation in the glasses, producing the glass-ceramics with high strength or high transparency depending on the heat-treatment condition. Based on the finding, a number of glass-ceramic wares have been commercialized by a Japanese glass company so far. These distinguished achievements in the respective fields are highly appreciated internationally as well as domestically. He was recipient of the Japanese Ceramic Association Award in 1953 for his research on enamels. Especially, he was honored with the Science Award from Kyoto News Paper in November 1963 and the Special Patent Award (the Award of the President of the Chamber Commerce and Industry, Japan) from the Patent Association of Japan in April 1967 for his significant achievement in the development of a new type of the glass-ceramics. He was honored with the Title of Fellow of the Society from the American Ceramic Society in April 1968.

Dr. Tashiro was a gentle and sincere man. He educated a lot of able students and young scientists. He served as the Regional Editor of the Journal of Non-Crystalline Solids from 1969 to 1981 and the Vice-President of the Ceramic Society of Japan. The Japanese Government made public recognition of his achievements by the Second Class of the Order of the Sacred Treasure, “Kun-Nitou Zuihoushou” medal in 2000 and granted the Grade of the Fourth Court Rank in 2008.

Obituary

Professor Emeritus

Dr. UYEDA, Natsu (1924–2008)



Dr. Natsu Uyeda, Professor Emeritus of Kyoto University, passed away unexpectedly on April 6, 2008, in Osaka.

Dr. Natsu Uyeda was born on October 4, 1924, in Kyoto. After graduating from Kyoto Imperial University in September, 1947, with his major in chemistry, he continued to study crystal chemistry under the supervision of the late Professor Emeritus Kenzo Tanaka at the Department of Physics, the Faculty of Science, Kyoto University. He was conferred the degree of Doctor of Science from Kyoto University for his studies on crystal structure analysis by using subsidiary maxima in electron diffraction in 1958.

Dr. Uyeda was appointed an Instructor at Institute for Chemical Research, Kyoto University in April, 1950, and started his academic career studying crystal and colloid chemistry in the laboratory of the late Professor Emeritus Eiji Suito. Dr. Uyeda was promoted to an Associate Professor in December, 1956 at the same institute. In March, 1976, he was appointed a Full Professor of the institute to direct the Laboratory of Crystal and Powder Chemistry until his retirement. He retired from Kyoto University on March 31, 1988 after 38 years service to the University, and was honored with the title of Professor Emeritus of Kyoto University on the next day.

Dr. Uyeda conducted extensive research in crystal chemistry. Specifically, his research fields included organic powdery crystal dispersion system, formation and structure of colloidal fine particles, organic thin film system, and high resolution electron microscopy. His pioneering achievements in these fields are highly appreciated internationally as well as domestically. The achievement, most widely recognized by the scientific community and very

much cherished by himself, is the subject on high resolution imaging by electron microscopy using many beams synthesis method. In order to realize the world's first atomic imaging of molecules, he made huge contributions to introduce high voltage electron microscopes to Institute for Chemical Research.

Dr. Uyeda was invited to many international conferences to give special lectures on direct imaging of organic molecules in crystal using high resolution electron microscopy at atomic level. His stimulating presentations always attracted the interest of the audience. He was a member of many international organizing committees such as International Congress on Electron Microscopy and International Crystal Conference. For his high resolution electron microscopic study on thin films of organic semiconductors, Dr. Uyeda was awarded the Seto Prize from the Japanese Society of Electron Microscopy in 1964.

Dr. Uyeda gave lectures on crystal chemistry at the Graduate School of Science from 1961, and supervised the dissertation works of many talented graduate students. He authored and coauthored more than 150 scientific papers and several books, including the famous monograph, "The Achievement and Limitation of HV-HREM". Moreover, his beautiful molecular images by high resolution imaging were widely cited in many text books to stimulate young students in universities and high schools.

Owing to his sincere and warm personality, Dr. Uyeda won the respect and friendship of those who came in contact with him. In 2003, Japanese government made the public recognition of his achievements by the Order of the Sacred Treasure.