MEMORIAL RESOLUTION OF THE FACULTY OF THE UNIVERSITY OF WISCONSIN-MADISON

ON THE DEATH OF EMERITUS PROFESSOR CHARLES CHURCHILL WATSON (1911-2000)

Charles C. Watson was born in Madison, Wisconsin, on 18 October 1911, the eldest son of James W. Watson, a professor of electrical engineering. His mother was an organist and piano teacher. He married Jean Mathews, daughter of Professor J. Howard Mathews, the chairman of the Department of Chemistry. They had one son, Richard, who is an organist and a builder of carillons.

"Chuck," as he was called, attended the University of Wisconsin, receiving his BS degree in chemical engineering in 1932 and the MS degree a year later. His M. S. thesis was entitled "The Effect of Viscosity on the Discharge Coefficient of Square-Edged Orifices." Then he switched to physical chemistry, receiving the PhD in 1938, under the direction of Professor J. W. Williams, with a thesis entitled "The Physical Chemistry of the Protein Zein."

He spent 1934-1935 in Uppsala, Sweden, in the laboratory of the Nobel Laureate Theodor Svedberg, who had developed the ultracentrifuge as a device for fractionating proteins. Upon his return to the United States, Chuck spent seven months at E. I. du Pont de Nemours & Co., installing the first Svedberg ultracentrifuge in this country. He then supervised the installation of the second such instrument in the Chemistry Department at the University of Wisconsin in 1937. This instrument was used for over two decades in Professor Williams' research program.

Following his PhD, Chuck spent the next nine years with the Universal Oil Products Company in Chicago. There he gained valuable experience which proved relevant to his later teaching duties. Among other activities, he participated in the development and start-up of refinery processes for the production of aviation fuel. During this period he was granted six patents dealing with petroleum refining.

In 1946 Chuck returned to the University of Wisconsin as an assistant professor of chemical engineering. The following year he was promoted to associate professor, and in 1954 he became full professor, a rank which he held until 1977, when he became emeritus professor. During his career he was responsible for the teaching of process design, chemical reactor design, and unit operations. He enlivened his teaching by drawing on his extensive industrial experience to discuss "real-life problems" as opposed to "textbook problems." The students, including one of the undersigned (WES), came to appreciate very much his ability to connect their classroom discussions with career activities.

In connection with his teaching activities, he collaborated with Professor Dale F. Rudd on a textbook entitled Strategy of Process Design (Rudd and Watson, Wiley, New York (1968)), which was both practical and innovative. He further showed how modern statistical approaches could be integrated into design studies; he was joined in this activity by Professor G. E. P. Box of the Statistics Department.

He participated in various professional and administrative activities. He served as the assistant director of the Office of University and Industry Relations, and, from 1949 to 1972, as a member of the Panel of Engineering Examiners of the Wisconsin Registration Board of Architects and Professional Engineers. He was a member of the Physical Sciences Divisional Executive Committee and of the Public Relations Committee of the College of Engineering. He held memberships in the following professional societies: the American Institute of Chemical Engineers, the American Society of Engineering Education, Alpha Chi Sigma, and the Engineering Society of Milwaukee. He was also elected to several honorary fraternities: Phi Eta Sigma, Phi Kappa Phi, Tau Beta Pi, and Phi Lambda Upsilon. In addition he was a member of the Skate Sailing Association of America and the AFC Club.

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The College of Engineering honored him in 1975 with the Benjamin Smith Reynolds Award for Excellence in Teaching, in recognition of his many years of outstanding teaching of undergraduates and graduates. The American Institute of Chemical Engineers conferred on him the rank of fellow, for his distinguished service to the profession. One of the supporting letters for this recognition stated "In looking through the names of the twenty-nine persons [whose PhD theses Chuck has supervised], many of them are outstanding chemical engineers now in their own right, which ... attests to the type of contributions made by Professor Watson." In the same letter of endorsement it is stated "I have followed Professor Watson's activities in reaction kinetics based on his outstanding publications, especially those related to catalysis and parameter [estimation]. I have also used the book he wrote with Dale Rudd as the text in several of the courses I have taught on plant design. In all cases his work has been on a high professional level and clearly indicates exceptional ability as a chemical engineer."

Professor Watson was modest, quiet, philosophical, and self-effacing. He gave generously of his time to help and advise students, and exemplified the best in professional dignity and ethical behavior. He won the sincere admiration of everyone with whom he came into contact. A few phrases in letters from former students and colleagues summarize his effect on others:

"What is probably best known about him was his very high standard of personal behavior."
"He was a gentle man."
"He was a true gentleman and an accomplished teacher."
"He was a good friend to me in my years at the university. Always gentle, never threatening."

In addition to his professional activities, he had a life-long interest in music, participating in local choral groups, including the Madison Civic Chorus. In his younger days he was an avid hiker, exploring the woods of northern Wisconsin. His interests also included letterpress printing and skate-sailing.

In 1990 he and his wife, Jean, moved to Ohio to be near their son, and after his wife's death in 1992, he chose to remain in Ohio. He passed away there on 29 July 2000, a few months before his 89th birthday.

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