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## Professor James R. Welty on the occasion of his retirement from full academic service



Professor James R. Welty officially retired from Oregon State University (OSU) on 31 December 1996. On this occasion it is a great pleasure to honor his achievements, even though he will continue to be active as Professor Emeritus.

Professor Welty was born on 23 October 1933 in Garden City, Kansas. After graduating from high school in Medford, Oregon, he went to OSU, where he received his B.Sc. degree in 1954. After working for Pratt and Whitney and the U.S. Air Force, Professor Welty returned to OSU and received an M.S. in Mechanical Engineering in 1959, and a Ph.D. in Chemical Engineering in 1962, completing the requirements while also having an appointment as a research engineer at the U.S. Bureau of Mines. In 1962 he was appointed Associate Professor of Mechanical Engineering at OSU and became a full professor in 1967. He served as head of Mechanical Engineering from 1970 to 1985. Professor Welty has made a lasting mark to both the university and community at OSU during his 38 years of service. Because of his many contributions and his outstanding professional achievements through teaching, scholarship, and service, he

was awarded the OSU Alumni Association Distinguished Professor award in 1993.

The breadth of Professor Welty's accomplishments and the importance of his contributions to the heat transfer community are very impressive. His outstanding scholarly achievements and publications during the past decades have significantly impacted the science, practice, and education in heat transfer. In response to the special needs of nuclear cooling, he undertook fundamental studies of natural convection in liquid metals which yielded major contributions to the permanent literature. The energy crisis motivated his research in fluidized bed heat transfer, where he and co-workers have played strong roles in enhancing fundamental understanding of this technology. He has clearly established himself as an excellent researcher in heat transfer field, with contributions in other areas as well, such as radiation and non-Newtonian fluids. His contributions, which encompass both experiment and analysis, have become standard reference. He has many journal articles and his three textbooks have helped students learn for many years, throughout the world.

Professor Welty is acknowledged by students and faculty alike as an outstanding educator and has received numerous awards for excellence in engineering education at the department, college, university, state and national levels.

He has made unparalleled contributions to the transmission of technical information and improvement of professional practice through his work in the American Society of Mechanical Engineers (ASME) where he is a Fellow and has served as the chairman of the Heat Transfer Division. His contributions have been recognized by the ASME award for dedicated service, the ASME Centennial Medallion and the ASME Edwin Church Medal for his many contributions to engineering education at the national, regional and sectional levels. Other activities include Chairman of the Mechanical Engineering Department Heads Committee, and member of boards on Government Relations, Basic Engineering, Engineering Education and Professional Development. In these positions, he has played an important role in upgrading the quality of ASME short-course offerings and assisted in the development of many programs from infancy.

Professor Welty's extensive service to professional engineering brings a very high level of national recognition. He has just been elected to the national Board of Governors of ASME, and serves on the Board of Directors for the Accreditation Board for Engineering and Technology (ABET). He has also served as the national president of Pi Tau Sigma, the mechanical engineering honorary society.

On the occasion of his retirement, it is a great pleasure for his students, colleagues and friends and editors of this journal to wish Professor Welty many years of good health and happiness.

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