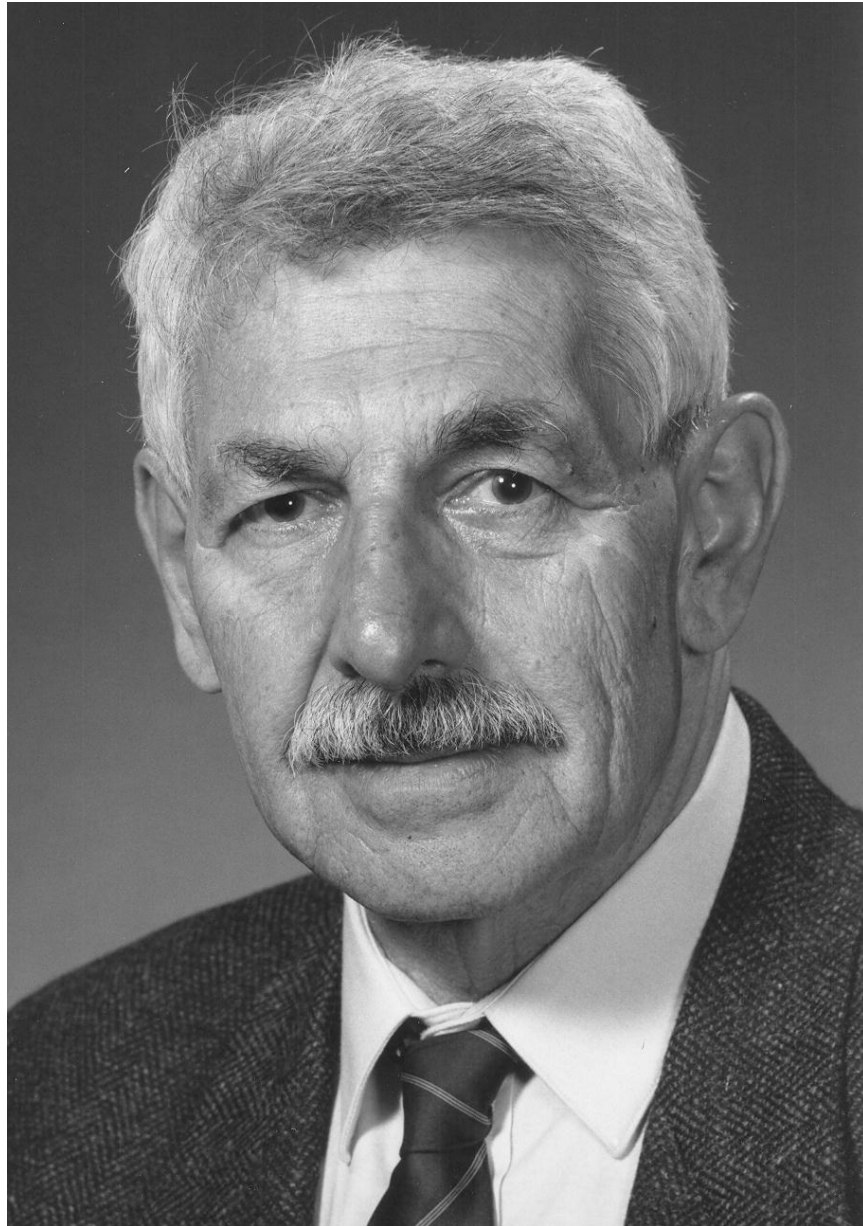


KENNETH O'DRISCOLL

Alfred Rudin
1924-2011



Dr. Alfred Rudin, BSc (University of Alberta), PhD (Northwestern University), Distinguished Professor Emeritus (University of Waterloo), died 13 April 2011 at his home in Toronto at the age of 87. He was born in Edmonton on 5 February 1924. His father was a physician in the small coal-mining town of Nordegg, about 200 km southwest of Edmonton, and Alf grew up there. When he was only 17, World War II was well underway so he enlisted in the Canadian Army as an underage soldier and was assigned to the Signal Corps where he served (in his words) “for three-and-one-half years without hearing a shot fired in anger.”

Alf, as he was known to students and colleagues alike, went from the Army to the University of Alberta where he graduated from an honours chemistry program and then went to Northwestern University in Chicago for his PhD degree. There he worked under the supervision of Prof. Herman Pines in the area of catalytic organic chemistry. In 1952, he and his wife Pearl, whom he had married three years earlier, returned to Canada where he went to work at the Central Laboratory of Canadian Industries Limited (CIL) in McMasterville, PQ. He stayed at CIL for 14 years in a variety of research and managerial positions, while developing great interest in and knowledge of polymers and their properties, and how those properties impinged on their uses. In 1967, Alf accepted a professorial job in the Chemistry Department of the University of Waterloo, and moved to Waterloo with his wife and three sons, Jonathan, Jeremy and Joel. Alf stayed at Waterloo for the rest of his career and focused his teaching and research on polymers.

Given the nature of CIL and its products, it is not surprising that much of Alf's research was done on polyolefins and paints, on films and emulsions, and on analyses of the relations between the molecular structures, properties and performances of those materials. Alf authored almost 300 refereed publications based on his research and was granted 25 patents. The publications were usually co-authored with his students and/or his colleagues, either in industry or university.

A large fraction of the University of Waterloo's undergraduate students in science (and all those in engineering) are in the University's well-known Co-op Program; therefore the relations between the University and many chemical companies are very strong, and make it possible to do collaborative research of high quality. With that in mind, Alf and a Chemical Engineering professor co-founded, in 1978, an organization they called the Copolymer Group that morphed into the Institute for Polymer Research. The two co-founders alternated as Directors until they retired, but the Institute, today including about twenty professors and more than a dozen corporate members, continues with the same mission it had when they started it: the facilitation and “seeding” of interactions between its academic members, their research students and the polymer industry.

Alf was more than just a talented researcher with an extraordinary balance of knowledge, curiosity and pragmatism; he was also an extraordinarily good teacher. In the late 1970s he undertook to give a correspondence course on polymers for “distance” students at the University of Waterloo. This led to a book, published in 1982, *Elements of Polymer Science and Engineering*, which was adopted in many universities for both graduate and undergraduate

courses. It proved so popular that he thoroughly updated it in 1999, and the book is still in print and in use.

Also in the late 1970s Alf, along with a Mechanical Engineering professor, undertook to design a water pump, suitable for a village, which could be easily made, used and repaired in developing countries. They were encouraged to do so by the International Development Research Centre (IDRC), who emphasized that it had to be inexpensive, corrosion-resistant, adaptable to a variety of local conditions, and easily repairable by the people who actually used it. They achieved IDRC's goal, kept their pump design simple, and today millions of people get their water from such pumps.

During his career, Alf received many awards for his accomplishments, including being made a Fellow of the Chemical Institute of Canada, the Royal Society of Canada, and the Federation of Societies for Coatings Technology. He received the Protective Coatings Award of the Chemical Institute of Canada in 1983 and shared a Roon Award of the Federation of Societies for Coatings Technology in 1988. In 1989 he was the first person to be awarded the Macromolecular Science and Engineering Award of the Chemical Institute of Canada. A short time later, when he formally retired from the University of Waterloo, he was made a Distinguished Professor Emeritus, and he continued doing some teaching, research and writing for several years until he moved to Toronto where he spent many years with Pearl, enjoying the City life.

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(Author's title given as of the time of writing)