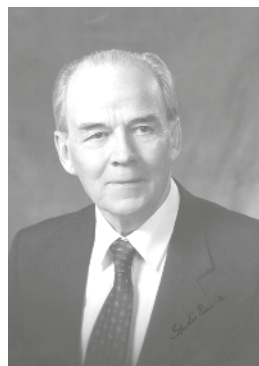


Jouko Koskikallio

* 15.8.1927 † 30.7.2021



Professor Jouko Uolevi Koskikallio (born 15 August 1927 in Helsinki) passed away on 30 July 2021 in Helsinki. His father, Dr. Onni Koskikallio (formerly Forsberg), was the Chief Editor of 'Maaseudun Tulevaisuus' from 1930–1959 and the Chairman of the Finnish Association of Journalists from 1935–1946.

Jouko Koskikallio graduated from Helsingin Suomalainen Yhteiskoulu in 1945. He obtained his master's degree in chemistry and defended his PhD thesis in 1954 at the University of Helsinki. Renowned Professor Eero Tommila was his PhD supervisor. Koskikallio's excellent thesis in the field of experimental physical chemistry dealt with the reactions of organic molecules in different solutes and temperatures. He was interested in a deep understanding of the formations of different products.

He worked as a postdoctoral fellow in Basel, Switzerland, and in Ottawa, Canada. His time in Ottawa was particularly productive as he started to investigate chemical reactions at high pressures, even at thousands of times atmospheric pressure. He was ahead of his time as it is only recently that there has been a surge of interest in these kinds of extreme reaction

conditions. His articles in this field have been widely referenced.

In 1960, Jouko Koskikallio became the first Chemistry Professor at the University of Oulu. He founded the Department of Chemistry and became the Dean of the Science Faculty. Already during his time in Oulu, he became interested in the chemical and medical industry. He was a steering group member of the medical company Medipolar Ltd (now Fermion Ltd).

Jouko Koskikallio succeeded Eero Tommila in 1969 as the Professor of Physical Chemistry at the University of Helsinki. Soon after the appointment, he spent half a year in the laboratory of Nobel Laureate Professor Ronald Norrish in Cambridge, the United Kingdom. There he learnt about the study of fast reactions using flash photolysis. In Helsinki, he started to use this method to study very fast reactions of atmospheric interest. Investigations in this field have continued in Helsinki till today, producing a wealth of new data on the radical-molecule reactions in atmospheric and combustion chemistry. This type of research is unique in Finland and internationally highly significant.

Unlike many scientists in the Western countries, he had good working relations

with Russian and Estonian colleagues during the Soviet Union times. He was able to start new research in photochemistry and in using laser technology in the field of chemical reactions. Koskikallio and the personnel at the Physical Chemistry Laboratory were the first to use lasers in kinetics and spectroscopy in Finland. The photochemistry experiments that began in Koskikallio's laboratory have been significant and have continued particularly in Tampere and Jyväskylä.

Good relations with leading foreign scientists were important to him. He established these by working for long periods in excellent universities and research institutes in several countries, including Britain (1948, 1968, 1971), Switzerland (1955–1956), Canada (1957–1958) and the USA (1975–1976). He also made short working visits to the Soviet Union. This is a lot for a full professor with many duties and would be uncommon even today. Koskikallio set a good example for young, talented scientists. Indeed, several physical chemists followed his example and did their PhD thesis work abroad or, soon after achieving their doctorate, spent their sabbatical years in foreign countries.

He gave strong support to younger scientists who wanted to establish independent research groups in his laboratory. As there was no theoretical chemistry professorship in Helsinki at the time, it was gratifying to see that young theoreticians wanted to work in his laboratory. He also welcomed good researchers who had experienced bad luck elsewhere. The laboratory led by him became an exceptionally fine scientific community. Many of its young members have become professors and university lecturers.

Professor Koskikallio became a member of the Finnish Academy of Science and Letters in 1971. He later led its chemistry group and actively took part in its various activities. He was also a member of the Research Council for Natural Sciences at the Academy of Finland, an important position for supporting chemistry applications financially. Later in his career, he became the Head of the Chemistry Department in Helsinki. He also led a committee to establish a new laboratory building for the Chemistry Department, which was eventually built in Kumpula. He has received the Gadd medal of the Finnish Chemical Society.

Chemistry teaching was close to his heart. In Helsinki, he revised the instruction of physical chemistry in the bachelor's and master's degree programmes. The best foreign books were introduced to the bachelor's level. This meant that modern instruction on the basics of quantum chemistry and molecular spectroscopy began. At the master's level, studies based on final exams were replaced by lecture courses taught by professors and docents. This new approach significantly increased the students' knowledge of physical chemistry. Moreover, Koskikallio supported students who wished to do their masters' thesis work in industry or research laboratories. This was new in Koskikallio's time in Helsinki.

Koskikallio started a summer seminar series in physical chemistry. He invited leading scientists to lecture about their latest ideas. This was also new in the Chemistry Department of the University of Helsinki. The seminars were popular, with all the staff members in Physical Chemistry and many students at all levels attending them. In this way, particularly

young students and scientists could see what cutting-edge science was. Social by nature, Koskikallio would invite all the seminar participants to his home and sometimes also took foreign visitors to his summerhouse in Virolahti to go fishing. Koskikallio also started the tradition of annual Christmas parties in the Physical Chemistry Laboratory already in the early 1970s. These remarkable events were famous for their excellent Christmas dinners and programmes where Koskikallio arranged word play games and quizzes. It is possible that these were the first Christmas parties in the Chemistry Department of the University of Helsinki.

He was close to all the members of his family. He had four children, grandchildren and great-grandchildren. He was

always interested in their hobbies and studies in school, university etc. His summerhouse was also important to him as it was the place where he could relax by fishing, walking in the forest, doing forestry work and picking mushrooms and berries. He enjoyed games and played solitaire almost every day. He was an excellent table tennis and tennis player. He was in good physical shape. He stopped playing tennis when he was 85 years old.

In the summertime, he would read widely on various topics in chemistry. He valued a broad general knowledge. He had a good command of German, English and Swedish. Koskikallio was a modest man who had a very positive personality. He never boasted. He was ready to accept well-thought-out proposals. We have lost a gentleman.

Obituary by Lauri Halonen