

Dear ICS members,

It is with deep sadness announcing that **Prof. Aharon Loewenstein** of the Technion Schulich Faculty of Chemistry passed away on February 10, 2022. The funeral took place yesterday in Haifa.

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Prof. Aharon Loewenstein (1929 – 2022)

Aharon Loewenstein was born on January 31, 1929, in Verden an der Aller, a small town near Bremen, Germany. His father, a lawyer, was dismissed from his profession by the Nazi regime in April 1933. Fortunately, the family managed to immigrate to Palestine in June 1934, achieving a 'Capitalist Certificate' from the British mandate. They settled in Netania and bought a small hotel named Gal-Yam. Aharon studied in the Bialik Elementary School and the agricultural boarding school in Pardess Hanna (1942-47). He later served in the third battalion of the Palmach (1947-49) in the reconnaissance unit, taking an active role in the war of independence. After the war, he became a founding member of Kibbutz Palmachim. In 1950, he left the Kibbutz and studied chemistry at the Hebrew University. With the blessing of his first mentor, Aharon Katchalsky, he traveled to Amsterdam on a student exchange program to work in the Shell's Research Laboratories. He visited other research groups working on monolayer films in Utrecht and Cambridge. After completing his M.Sc. with Israel Miller at the Weizmann Institute, he joined Shlomo Alexander and Saul Meiboom at the Hebrew University, working on their newly built machine, Nuclear Induction (about 31 MHz for protons), the NMR predecessor. After completing his Ph.D. (1958), Aharon with his wife Rachel went for a postdoc at Caltech with John D. Roberts (1958-59) as a Fulbright fellow. Following a second postdoc term at Columbia University (1959-60), he returned to the Weizmann Institute to continue working on "Nuclear Induction."

In 1962 he accepted an offer from Otto Schnepp and David Ginsburg to join the Technion, then in the Hadar campus. He established a laboratory with a Varian DP60 spectrometer, focusing on the measurements of chemical kinetic processes by NMR, electron transfer reactions, and reaction mechanisms. He was a Visiting Professor at Oxford University (1967-68, 1974-75), University Paris-Sud (1982-83, 1996), and Cambridge University (1988-89). Aharon served on many departmental responsibilities, including Chairman of the Faculty Committee of Graduate and Undergraduate Teaching and Head of the Physical Chemistry Section.

His early research used NMR methods to study metal complexes in aqueous solutions, electron transfer, and isotope effects in inorganic complexes. In 1965 he expanded his interest in using ESR to study proton exchange kinetics in organic free radicals. He helped recruit Brian Silver to the Technion, who took over most ESR research. Aharon's interest in the kinetics of chemical reactions and molecular dynamics in liquids took him to the world of liquid crystals. He used NMR to measure the anisotropy of molecular reorientations in the liquid crystalline phase. He initiated the study of lyotropic liquid crystals during a sabbatical in Orsay that he continued with Zeev Luz, Helen Gutman, and Herbert Zimmermann (MPIMF, Heidelberg) at the Weizmann Institute. Chirality was his latest scientific curiosity, triggered by Jacques Courtier, followed by a prolonged fruitful collaboration with the Orsay NMR group and Jacques's former student, Philippe Lesot (Université Paris-Saclay).

Aharon's autobiography, available on the ICS website, <https://www.chemistry.org.il/in-memorium>, reveals a fascinating story of a highly gifted scientist.

Aharon will be remembered with much respect and admiration as a pioneer of magnetic resonance. The ICS and the entire community of Israeli scientists mourn the loss of a great scientist.

Ehud Keinan