

Professor Eliezer Gileadi (1932 – 2022)



Dear Colleagues, it with deep sadness and sorrow that we inform you of the passing away of Eliezer Gileadi, PhD, Emeritus Professor of Physical Chemistry at the School of Chemistry, Tel Aviv University, Israel.

Eliezer Gileadi was born in 1932 in Hungary and immigrated to Israel together with his family in February 1940, at the age of 8, escaping from the hands of Nazi Germany. In 1951 he obtained his bachelor's and master's degrees from the Hebrew University, Jerusalem, specializing in physical chemistry. In 1963, Eliezer submitted his PhD dissertation, the research on which was conducted under the supervision of Prof. Brian E. Conway at the University of Ottawa in Canada. Later on Eliezer worked as a Senior Research Associate and a Fuel Cells team leader in John Bockris's lab in the University of Pennsylvania, US, with six students working under his supervision and state-of-the-art instrumentation.

Since joining Tel Aviv University in 1966, he became a recognized leader in Israel and international electrochemistry communities. Eliezer Gileadi developed the combined electrosorption isotherm, which provided the first understanding of the effect of molecular size on electrode kinetics. Measuring Tafel slopes with unprecedented accuracy, he could establish the temperature dependence of the transfer coefficient, a central question in electrode kinetics. He had also demonstrated that Grothuss-type hopping conductivity could also occur with halide ions in liquid and solid bromine and iodine, showing for the first time that unusual conductivity mechanisms can involve ions other than protons. His long list of achievements also includes the theory of microelectrode assemblies, electrodeposition of active metals and alloys in non-aqueous solutions, and corrosion in non-aqueous media. He

also developed new methods for studying adsorption isotherms using electrochemical quartz crystal microbalance (EQCM) in gas and liquid phases. Eliezer has published more than 200 scientific papers, books and book chapters. He has written several patents on a wide spectrum of electrochemical applications.

Eliezer Gileadi received numerous prizes for excellence and recognition, and is a Fellow of the Electrochemical Society, the American Association for the Advancement of Science, the International Society of Electrochemistry and the International Society for Pure and Applied Electrochemistry, a Fellow of the Royal Society of Canada, a member of its Academy of Sciences and the Olin Palladium Awardee of the Electrochemical Society.” In 2014, he received the Gold Medal of the Israel Chemical Society.

Apart from research, Eliezer enjoyed teaching and interacting with fellow scientists. He has been the author of three textbooks in Physical Electrochemistry, which are being taught and used by graduate and undergraduate students.

Prof. Gileadi’s contribution to society was exceptional. In 1994 he established the Gileadi Program, which provided over 500 university research positions to first-class immigrant scientists from the former Soviet Union. That program was later extended to the Kamea Program. The highly successful Gileadi and Kamea Programs, which affected science in Israel, were highlighted in a study conducted by the Science magazine.

Eliezer was a wonderful person, always willing to listen, and give advice and help. He has been and will be forever considered “the father of the Israeli electrochemistry”. Eliezer Gileadi will be greatly missed. May His Memory Be for a Blessing.

<http://www.israel-electrochemistry.com/in-their-memory.html>