



החברה הישראלית לכימיה
THE ISRAEL CHEMICAL SOCIETY

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Dear ICS members,

It is my great pleasure to announce that the 2020 ICS Gold Medal will be awarded to **Prof. Robert Benny Gerber** of the Hebrew University of Jerusalem for his fundamental contributions to the structure and dynamics of polyatomic molecular systems and deciphering mechanisms of atmospheric reactions; and **Prof. Doron Aurbach** of Bar-Ilan University for his breakthrough contributions to non-aqueous electrochemistry, development of novel analytical tools, and the invention of new rechargeable batteries and electrochemical processes for water treatment.

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Prof. Robert Benny Gerber
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Prof. Doron Aurbach
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Robert Benny Gerber was born in Ashabad, Turkmenistan (1944). His family, originally from Poland, stayed there during WW2, spent a few years in a refugee camp in Western Europe, and then arrived in Israel (1949). He received B.Sc. in Chemistry (with excellence, 1965) from the Hebrew University and a Ph.D. with Charles A. Coulson from the University of Oxford, UK (1968). Following his postdoctoral research with Martin Karplus at Harvard University, he joined the Weizmann Institute (1969), moved to the Hebrew University (1976), and in 1980 he became a Full Professor. He is currently Saeerree K. and Louis P. Fiedler, Professor Emeritus. He is also Professor Emeritus at the University of California at Irvine. He held the dual positions at HUJI and UCI since 1990. He was also a Distinguished Finland Professor at the University of Helsinki (2011-2015). Gerber has developed theoretical and computational methods for vibrational spectroscopy calculations for large polyatomic systems. Vibrational spectroscopy, which reflects the structure and dynamics of polyatomic molecules, has always been difficult to interpret. Therefore, the Vibrational Self-Consistent Field (VSCF) method, developed by the Gerber group, has become the most powerful and widely used computational tool in the field. They collaborated with experimentalists to determine the structures of peptides and saccharides. The Gerber group also predicted novel molecules, such as acetylenic compounds of xenon and krypton, which were later prepared experimentally, and a crystalline molecular solid made of N_8 . They have also shown that Molecular Dynamics simulations, using potentials from quantum chemical methods, can unravel the microscopic mechanisms. This approach, which is particularly useful to decipher mechanisms of atmospheric reactions at the air/liquid water interface, is now widely applied by many research groups worldwide. Gerber is a Fellow of the American Physical Society, Member of the EU Academy of Sciences (EUAS), Fellow of The Royal Society of Chemistry, Foreign Member of the Finnish Academy of Science, and Foreign Member of the American Academy of Arts and Sciences. He won the 1992 Kolthoff Prize, the 2004 ICS Prize of Excellence, and others.

Doron Aurbach was born in Israel (1952), served in the IDF (rank of major) in combat infantry, received his B.Sc. in Chemistry (Magna cum Laude, 1978) from Bar-Ilan University, and B.Sc. in Chemical Engineering (Summa cum Laude, 1980) from the Technion, M.Sc., (Summa cum Laude, 1982) and Ph.D. (with the highest distinction, 1983) with Shmaryahu Hoz from Bar-Ilan University. Following postdoctoral research with Ernest B. Yeager at Case Western Reserve University, Ohio, he joined the Department of Chemistry at Bar-Ilan University, and in 1996 became a Full Professor. He was Chairman of the Chemistry Department at BIU (2001-2005), and currently serves as Director of the Energy Center at Bar-Ilan University Institute of Nanotechnology and Advanced Materials (BINA). His broad scope of research activities include all aspects of non-aqueous electrochemistry, various kinds of batteries: Li, Li-ion, Na-ion, Mg metal (Li,Na)-air, Li-sulfur, and lead-acid systems, super- and pseudo-capacitors, electronically conducting polymers and electrochemical water desalination. His group employs a wide range of electrochemical, microscopic, spectroscopic, and structural techniques to decipher the correlation among surface chemistry, morphology, and structure and function of complicated electrochemical systems related to power sources. Prof. Aurbach has published more than 670 research papers that, according to WOS have been cited more than 53,000 times with an h-index of 113. He has mentored more than 60 Ph.D. and 80 M.Sc. students. His list of recognitions includes membership of the European Academy of Science, the 2018 Samson Prime Minister Prize for Innovation in Alternative Fuels for Transportation, the 2018 A. Frumkin Medal of the International Society of Electrochemistry, the 2017 A. J. Bard Award of the Electrochemical Society, the 2013 Kolthoff Prize, the 2012 ICS Prize of Excellence, the 2011 Landau Prize for Green Chemistry, and many others.

The award ceremony will take place in the ICS Prize Ceremony in February 2021. Details will follow.
Congratulations to Benny and Doron for their achievements!

Ehud Keinan