

Dr. Shimshon Gottesfeld

BRIEF PROFESSIONAL BIOGRAPHY

Dr. Gottesfeld obtained his D.Sc. in chemistry in 1970 from the Technion, Israel Institute of Technology and joined the staff of the Department of Chemistry, University of Tel Aviv, in 1972. His research activities at Tel Aviv included studies of electrochemical interfaces with spectroscopic techniques, focusing on fundamental and applied aspects of electrocatalysis and on photoelectrochemical energy conversion processes.

Dr. Gottesfeld spent an extended sabbatical leave between 1977 and 1979 at Bell Labs, Murray Hill, NJ, working primarily on electrochromic materials.

In 1984 he came to Los Alamos National Laboratory (LANL) on sabbatical leave, stayed there and became in 1987 Technical Project Leader for the Fuel Cell Research program at LANL. The work of this team at LANL in the 1980's and 1990's is recognized world-wide for technology enabling contributions in the areas of polymer electrolyte fuel cells (PEFCs) and direct methanol fuel cells (DMFCs). During the same period of time, Dr. Gottesfeld also initiated and directed R&D work in the field of ultracapacitors based on electronically conducting polymers as active materials.

Between 1996 and 2000, Dr. Gottesfeld served as representative of the US National Laboratories on the Fuel Cell Technology Steering Committee of the "Partnership for the New Generation Vehicle" (PNGV).

- In 1999, Dr. Gottesfeld was appointed a Laboratory Fellow at LANL.

Dr. Gottesfeld has published over 150 articles and several book chapters and holds 25 patents with ten more pending. He served for several years as officer and Chair of the Physical Electrochemistry Division of the Electrochemical Society.

- Dr. Gottesfeld was selected in 1999 a Fellow of the Electrochemical Society.

In 1999, Dr. Gottesfeld co-initiated the series of Grodon Research Conferences on Fuel Cells, remaining to date the highest level annual meeting devoted to fuel cell science and technology.

In December, 2000, Dr. Gottesfeld took an entrepreneurial leave from LANL, to become CTO of MTI Microfuel Cells in Albany, NY. He led at MTI the development of direct methanol fuel cells for use in advanced power sources for portable electronic applications. A central development of DMFC technology at MTI under his technical leadership, was a novel platform that enables significant DMFC power system simplification.

- Dr. Gottesfeld is the 2006 recipient of the Grove Medal for Fuel Cell Science and Technology.
- Dr. Gottesfeld is the 2008 recipient of the Fuel Cell Seminar Award for achievements in the Science and Technology of Membrane Electrolyte Fuel Cells

In 2007, Dr. Gottesfeld made another new start in the area of fuel cell technology, aiming this time at resolution of the significant barrier to market entry to do with the high cost of the technology. He co-initiated a new start-up company, Celler Technologies, where he was CTO and member of the board till 2015. Celler initiated the development of a new polymer electrolyte fuel cell technology, AMFC, based on non-Pt catalysts and inexpensive stack hardware. Celler has brought AMFC technology to the point of a demonstrated system for back-up power, with a 2 kW AMFC stack which was built in-house based on novel core technology elements, field-operated for several thousand hours.

Dr. Gottesfeld has continued to pursue all along work of fundamental nature in the field of fuel cells and electrocatalysis and is considered world expert in this field.

- He was awarded in 2014 the George Schuit Lectureship by the University of Delaware.

In 2015, Dr. Gottesfeld was nominated Adjunct Professor at the Dept. of Chemical Engineering of the University of Delaware. His activity at U. Del. is scheduled to involve teaching and R&D work in the fields of electrocatalysis and electrochemical power sources.