

*In Memoriam***Spyridon N. Flengas****1925-2004**

SPYRIDON N. FLENGAS, Professor Emeritus of the University of Toronto, passed away peacefully at Toronto on Sunday, May 2, 2004 surrounded by his loving family. Born May 10, 1925 in Athens, Greece, Spiro graduated from the University of Athens with a BSc in chemistry. This was followed by studies with Sir Eric Rideal at the University of London leading to PhD, DIC, and DSc degrees. After four years with the Mines Branch of Energy, Mines, and Resources Canada, he became an assistant professor in the Department of Metallurgy and Materials Science, University of Toronto (1960), and subsequently rose rapidly to professor (1965).

Dr. Flengas undertook projects always related to the industrial practice either in understanding the fundamentals or studying the electrochemical route for existing expensive processes. In the latter category belongs a major effort to develop an electrolytic process for the production of refractory metals. These investigations resulted in a patent on the separation of hafnium from zirconium. Under his highly effective leadership, his students and colleagues studied the thermodynamic and electrochemical properties of refractory metal molten halide systems, illuminating our understanding of the molten salt state of complex polyvalent reactive metals.

Molten halides were not the only molten systems that drew his attention: molten oxides and molten sulfides were also investigated by electrochemical techniques. However, his interests were not confined to liquid electrolytes; for it is through his pioneer work on the electrical properties of oxide solid electrolytes that we understand the conductivity of these types of conductors. This work allowed them to be applied to the investigation of oxide and gaseous systems. Electrophoretic properties of oxides in aqueous suspensions were also investigated as a technique to prepare metal alloy coatings on iron substrates and these investigations resulted in a patent.

Examples of the significant contributions to fundamental electrochemical science by Dr. Flengas are the introduction of

his molten salts reference electrode for electrochemical studies in molten chlorides and the introduction of the concept of the formal potential.

As an educator Dr. Flengas supervised 48 MAsc and PhD theses and numerous BEng theses. He published over 100 scientific papers, mostly of electrochemical content in refereed journals and he organized symposia. Eight of his former students are presently professors in universities around the world, five of them in Canadian universities. Former students of his are also leading executives in private corporations or government laboratories. Dr. Flengas contributed significantly to reference books such as *The Encyclopedia of Electrochemistry and Advances in Molten Salt Chemistry*; he also published three classic review papers on fuel cells, electromotive force, and solid electrolytes.

His many awards and honors include the Canada Centennial Medal (1967), the Alcan Medal (1986), Fellow Canadian Institute of Chemistry (FCIC) and Fellow Royal Society for the Arts (London, England, 1979), and the Electrochemical Award of the Canadian Section of The Electrochemical Society (1994).

Professor Flengas was a leader in community and cultural affairs. He was the founder and first president of Hellenic Canadian Federation of Ontario (1983-1987) and the founding president of the Hellenic Canadian Congress (1986-1988). He was awarded the Outstanding Achievement Award for Volunteering by the Ministry of Citizenship and Culture of the Province of Ontario (1986) and a Certificate of Recognition by the Secretary of State of the Government of Canada for Dedication and Leadership to the Greek Community of Ontario and Canada (1987). His substantial contributions to the Greek community were also recognized by the Hellenic Republic (1998).

Beyond all the honors, recognition, and achievements, Spiro will be remembered, particularly by his students, as one who illuminated the way through his quest for knowledge, encouragement of high standards, and warm friendship. We will miss him. ■

In Memoriam

FIONA GRAHAM (1962-2004), member since 1990, CORROSION.

TOSHIKATSU SATA (d. 2003), member since 1997.

This notice was contributed by Georges J. Kipouros, Assistant Dean, Faculty of Engineering, Dalhousie University, Halifax, Nova Scotia, Canada.