

Loucas G. Christophorou

On the occasion of his 65th birthday



The International Advisory Committee decided to dedicate the 2nd International Symposium on Low Energy Electron–Molecule Interactions (LEEMI II) to **Loucas G. Christophorou**. The contribution and impact of Loucas to the field, and more generally to science, are manifold and it is impossible to acknowledge even parts of it in any detail here. He has been an active researcher for nearly 4 decades investigating the behavior of electrons and ions in dilute and dense gases as well as in condensed matter. The experimental techniques he used included molecular beams, electron swarms, high pressure devices and also liquids. He investigated various aspects of electron attachment and laser detachment reactions in these different environments. His work emerged in several hundreds original articles in scientific journals and many books acting as editor and author. His latest book, published a year ago (*Place of Science in a World of Facts and Values*, Kluwer/Plenum, New York 2001) is an engrossing view on science, technology, society and their mutual interactions, the responsibility of scientists on the background of the available technology but also the limitations of scientific inquiry.

As an old friend and colleague I want to emphasize only two specific points: (1) he was the outstanding researcher to provide systematic studies on electron processes yielding information on the mechanisms and dynamics of the induced reactions, but also delivering important data necessary for the control and modeling of plasmas. *Plasma processing* is the key technology for the fabrication of micro-

and nanostructures in integrated circuits, the heart of information technology, (2) he brought up the important issue that in radiation damage (e.g. DNA strand breaks in biological material) the reactions of slow secondary electrons is the key to describe the effects on the microscopic level. The understanding of the molecular mechanism, on the other hand, is necessary for a more directed use of radiotherapy in cancer treatment. These facts are nowadays widely recognized. I enjoyed several interactions and collaborations with Loucas, the most extensive one when he spent an entire year in our lab (1991/1992) after receiving the prestigious *Senior Scientist Award* of the Humboldt Foundation.

Loucas was born in Cyprus on 21 January 1937. He received his B.Sc. in Physics at the University of Athens in 1960 and his Ph.D. at the University of Manchester (UK) in 1963. Most of his career he spent as a Corporate Fellow at the Oak Ridge National Laboratory and jointly as a Ford Foundation Professor of Physics at the University of Tennessee at Knoxville. He is married since the beginning of his scientific career to Toula Christophorou, also born in Cyprus. Two years ago he was elected for a chair in Physics at the world's oldest Academy, the Academy of Athens.

Welcome back to Europe, Loucas and Toula! We very much hope to regularly welcome both of you at the forthcoming meetings.

Eugen Illenberger
July 2002