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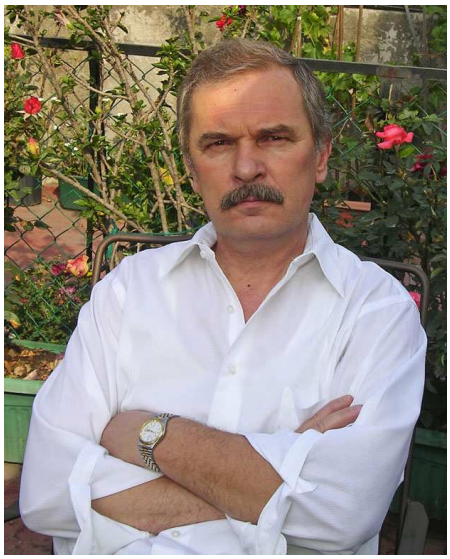
CONDENSED MATTER PHYSICS

Foreword

Orest Pizio: scientist and friend



Orest Pizio was born in Lviv on January 30, 1952. After graduating from Ivan Franko Lviv State University in 1973, he started his scientific work at the Department of Statistical Theory of Condensed Systems of the Institute of Theoretical Physics, Ukrainian Academy of Sciences, under the leadership of Prof. Ihor Yukhnovskii. The Department grew later into Lviv Division of Statistical Physics of that Institute. Hard work and creative atmosphere were the principal keys of success of that entity due to his tutor and other young researchers. According to Orest, he learned and benefited much from the scientific interaction with his supervisor M. Holovko, as well as with his friends Yu. Rudavskii, I. Vakarchuk, V. Vysochanskii, P. Kostrobii, R. Petrashko, I. Kuryliak, I. Kopych, M. Kozlovskii, M. Korynevskii, H. Ponedilok, E. Sovyak. In 1976 he published his first work in the Ukrainian Physical Journal. In 1980 Orest Pizio received PhD degree from the Institute of Theoretical Physics at Kyiv, presenting the dissertation, entitled "Reference system approach in the collective variables method for ion-molecular systems", under supervision of Prof. I. Yukhnovskii and Prof. M. Holovko. Next decade he worked as a researcher and senior researcher. At that time Lviv Division, due to scientific successes, grew into the Institute of Condensed Matter Physics of the National Academy of Sciences of Ukraine. During these years Orest was developing his research on equilibrium properties of liquids and electrolyte solutions in a tight collaboration with M. Holovko. Both of them, O. Pizio and M. Holovko were supervisors of the Ph.D. thesis by Andriy Trokhymchuk (1985). Andriy became a close collaborator of Orest Pizio for many years to follow.

In 1993 he got fellowship at the Institute of Chemistry of the National University of Mexico (UNAM). His scientific work was appreciated by UNAM authorities and in a few years O. Pizio got at the Institute of Chemistry the top rank permanent position and highest level of the National System of Researchers. His prolific group at the Institute in late nineties of the last century included A. Trokhymchuk, A. Kovalenko, Yu. Duda, all from their Lviv cradle, as well as young Mexican researchers: B. Millan, A. Huerta, G. Anguiano and A. Martinez.

During more than 30 years of his scientific work he published more than 200 works and several chapters in monographs (the list of the most significant publications is presented below). The main field of O. Pizio's scientific activity is connected with the development of new statistical-mechanical approaches and computer simulations in the description of nonuniform fluids. The theoretical tools he uses in his work include integral equations (of the first and of the second-order), different density functional approaches and computer simulations. His research has covered a wide spectrum of scientific problems: description of uniform and nonuniform ionic fluids, polydisperse nonuniform fluids, investigation of structure and phase transitions in nonuniform associating fluids, development of new theoretical and simulation approaches in description of the so-called quenched-annealed systems, and thus, the confinement of fluids by strongly disordered porous solids. More recently his scientific interest has been shifted toward the description of adsorption and phase transitions in the systems involving polymeric fluids and polymers tethered at surfaces and in model pores. His main scientific achievements include description of (i) the effects of chemical association in partly-quenched fluids (or more specifically the associative version of

the Replica Ornstein-Zernike and Mass of Action Law, in collaboration with M. Holovko and A. Trokhymchuk); (ii) screening and correlations between ions in quenched-annealed fluids with charges (with V. Vlachy and B. Hribar) and thermodynamics of adsorption, (iii) the effects of chemical association on adsorption and phase transitions of fluids in pores of different geometry (with S. Sokołowski) (iv) phase diagram of RPM under confinement in pores and the temperature dependence of capacitance (with S. Sokołowski). (v) phase transitions and phase behavior of single-component and fluid mixtures in pores with tethered chains (with S. Sokołowski et al.).

He has been collaborating with scientists from numerous countries: Czech Republic, Hungary, Poland, Spain, Ukraine, USA, as well as with Mexican scientists. Several researchers worldwide have been either in direct contact with him or related through their supervisors or colleagues. Orest has always given his students, collaborators and visitors his unconditional support. He served and serves to scientific community as a member and secretary of the organizing committees of several successful conferences and congresses, like International School on Ionic Solvation and Soviet - Italian Symposium on selected problems of mathematical physics in Ukraine, Applied Statistical Physics in Mexico, International Symposium on the Effects of Surface Heterogeneity in Adsorption and Catalysis on Solids in Poland between the others. Other related activities include membership in the Editorial Board of the journal "Ciencia" of the National University of Nuevo Leon in Mexico, reviewing grants of American Petroleum Research Fund of the American Chemical Society and referring for several leading journals.

Orest is a very intelligent and attractive personality. Apart from science he dedicated almost two decades of his life to hiking and mountaineering after his university studies. He served as a guide and was a participant and a chief of schools for guides in the mountains of Caucasus, Altai, Pamir, Tian Shan and Siberia. He also enjoys music, modern arts and literature. The Editorial Board of "Condensed Matter Physics" congratulates our good friend and a member of the Editorial Board on the occasion of his birthday anniversary and acknowledges his unique and valuable contribution to science. We also wish him to stay in good health, be happy and prosperous.

Finally, we wish to thank the authors who sent papers to this issue and acknowledge that many others could not send them in spite of having wished to do so. Furthermore, we sincerely apologize for any omissions.

Carlos Vega
(Departamento de Química Física, Facultad de Ciencias Químicas, Universidad Complutense de Madrid, 28040 Madrid, Spain),

Stefan Sokołowski
(Department for the Modelling of Physico-Chemical Processes, Maria Curie-Skłodowska University, 20031 Lublin, Poland)

Main publications

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