

TUDOR LUPAȘCU – A BRILLIANT SCIENTIST AND SKILFULL MANAGER



Dear reader!

The Moldovan chemical community has recently honoured Professor Tudor LUPAȘCU on the occasion of his 60's anniversary. Known as brilliant scientist and skilful manager, Professor LUPASCU is now the director of the Institute of Chemistry and one of the founders of the "Chemistry Journal of Moldova", being the Managing Editor from the very beginning of its activity.

Notorious researcher in the field of physical chemistry, active promoter of environmental protection and follower of sustainable use of natural resources, doctor in chemical sciences, Tudor LUPAȘCU was born on March 2, 1950 in Flamanzeni – a small village in North-Eastern Moldova. His family provided him with a good sense of life, based on the profound folk philosophy and wisdom. Due to unfortunate circumstances, he was deprived from father's love from the very early age of 9, after his father sudden passing away. This unhappy situation made the young Tudor carry on his fragile shoulders the heavy family duties, along with his mother, brother and sister.

The interest to chemistry has developed from the early years of his secondary school studies. Being an active participant of chemistry Olympiads, he joined the Moldova University Chemistry Department in 1967, where he graduated in 1972. Following the military service in East Germany (1972-1974) as an active officer, he enrolled to doctoral studies at the famous Institute of Water and Colloidal Chemistry in Kiev (Ukraine).

With a solid training in theoretical chemistry, Professor Tudor LUPAȘCU directed his view towards problems related to the protection of the native country from anthropogenic effects, to avoidance and prevention of environmental pollution by toxic substances. He is known to the scientific world due to complex scientific investigations, devoted to the directed synthesis of carbonic adsorbents with scheduled properties by managing the activation technology and the chemical agents of treatment of the raw wood.

On the basis of this concept were developed and patented new kinds of carbonic adsorbents and catalysts for detoxification of the human body and protection of the environment. Surface chemistry was established for the new carbonic adsorbents and the mechanisms of interaction-immobilization-transformation of organic and inorganic pollutants on catalytic supports. Based on these concepts, technologies of potabilization of natural waters and purification of waste waters have been developed.

Nowadays, a trend of interaction between fundamental and applied research gets evidenced more and more, at the boundaries between different areas and disciplines. Professor Tudor LUPAȘCU, due to his outstanding intellectual and managerial skills, successfully combines fundamental scientific activity with practical elaborations and the work on implementation of scientific results into practice.

Over the years he studied the physico-chemical and mechanical properties of new construction materials, obtained on the basis of local raw material, and in particular of by-products of the extractive industry. New compositions for plastering surfaces inside and outside of buildings have been developed, patented and implemented. The economic effect of these implementations to date constitutes about 2 million lei.

In 2009, on the basis of patents of inventions elaborated by Professor Tudor LUPAȘCU, S.A. Monolit and S.L.R. Odgon built and put into operation the technological lines for production of construction materials. Industrial tests have shown that considering the weather conditions in the Republic of Moldova, the new materials are more efficient, and also cheaper in comparison with those imported.

Under the guidance of Dr. Sc. T. LUPAȘCU was developed the concept of oxidative cleavage of natural polymers and of formation of active biological compounds, were highlighted the functional groups and the principles of action of the biologically active substance Enoxil.

On the basis of the biologically active substance Enoxil were developed and patented new pharmaceutical products. Medicinal preparations produced at the S.A. "Farmaco" have been tested in four republican clinics in Chisinau. To our great moral satisfaction, results showed that medicinal preparations obtained on the basis of the biologically active substance Enoxil manifested highly efficient curative effects in the case of human bacterioses and mycoses, in the process of regeneration of thermal, chemical and physical wounds, in the treatment of post-operational wounds and post-radiant lesions in oncology patients, as well as in the treatment of traumatic lesions of soft tissues and inflammatory diseases of maxillo-facial region in children.

The rich scientific activity of Dr. Sc. T. LUPAȘCU is eloquently described by the high number of scientific papers that have exceeded 500 publications, including 4 monographs, 47 inventions. The results of the investigations undertaken by him have been validated and recognized by participation in approximately 70 scientific forums in the country and abroad, including in Bucharest, Moscow, Kiev, Odessa, Lvov, Riga, etc.

After the proclamation of the independence of the Republic of Moldova and the opening of borders, the investigator and manager T. LUPAȘCU obtained by contest 17 international projects, which have been carried out in collaboration with scientists from Romania, USA, France, Germany, Spain, Norway, Austria, Russia, Ukraine.

High erudition, creative spirit, outstanding capacity to analyze and generate new ideas, as well as his organizer qualities were fully manifested during his directorship at the Institute of Chemistry, from 2002 until now. During these years the Institute of Chemistry accomplished new results, theoretical as well as applied.

Also should be mentioned the outstanding educating skill of the honored, who guided several generations of chemists, activating as a Professor at the Faculty of Chemistry and Chemical Technology of the State University of Moldova, but also being the scientific advisor of 3 theses for Dr. Sc. and 2 theses for PhD in chemistry.

On this anniversary stopover, with the occasion of rounding off the beautiful age of 60 years of which nearly 40 years of research in the unknown labyrinths of chemistry, we address to our colleague Dr. Sc. Tudor LUPAȘCU most sincere wishes of prosperity, health and welfare, new achievements in research, training of researchers and implementation of his results to the benefit of the cultural and spiritual heritage of our people.

President of the Academy of Sciences of Moldova,
Academician

Gheorghe DUCA