



“Gh. Asachi” Technical University of Iasi, Romania

In Memoriam

PROFESSOR RADU Z. TUDOSE, CORRESPONDING MEMBER OF THE ROMANIAN ACADEMY



On March 5, 2008, Professor Radu Z. Tudose passed away at the age of 80.

His illness ended a distinguished academic career in chemical engineering – teaching, research and professional practice – which included more than 45 years of dedicated service in the “Gheorghe Asachi” Technical University of Iasi.

Professor Radu Z. Tudose was born on June 5, 1928 in Grănicești, Suceava County, in the beautiful Bucovina region of Romania.

Between 1948 and 1953, Radu Tudose was a student within the “Gheorghe Asachi” Polytechnic Institute of Iasi, Faculty of Industrial Chemistry, and in 1953 he received the degree in chemical engineering. Since 1953, he has been a member of the academic staff of the Faculty of Industrial Chemistry of the “Gheorghe Asachi” Technical University of Iasi. He retired in 1999, but remained very active in the department as *emeritus* professor.

In 1965, Professor Tudose defended his PhD Thesis, *Intensification of absorption with low frequency pulsations* at the Politehnica University of Bucharest, under the supervision of Academician

Emilian Bratu. He became a full professor in 1970 and *doctor docent* in 1971, with Academician Cristofor I. Simionescu as supervisor. All his degrees were in chemical engineering.

In 1991, due to his outstanding contributions to chemical engineering and in recognition of his scientific activity, Professor Radu Z. Tudose was elected corresponding member of the Romanian Academy.

His major research areas include liquid flow in thin films, modeling of solid drying, liquid-liquid extraction, modeling of mass transfer with chemical reactions in gas-solid systems, transfer phenomena in biphasic and triphasic systems. He contributed to a better design and safer operation of chemical processes involving chemical reactions, to a better understanding of heat, mass and momentum transfer processes, of the complex flow of fluids and solids. His results increased the fundamental understanding of chemical phenomena, significantly influenced the industrial practice and were materialized in a new method of adsorption intensification, in the modeling of non catalytic solid-gas reactions and of solid drying with gases and by contact with a hot surface, in the design and experimentation of a new liquid-liquid extraction column.

Professor Tudose published nearly 400 papers, handbooks, monographs, reports and patents. He gave about 130 conferences and presentations.

Radu Z. Tudose was the initiator and coauthor of eleven handbooks and monographs which significantly contribute to teaching and research in chemical engineering. He elaborated the first handbooks in Romania in the field of processes and processing equipment in macromolecular compounds (1976), as well as in polymer rheology (1982, 1983 and 1987). His handbook on processes and equipment in chemical industry, published in 1977 and addressed to students, researchers and engineers, was one of the first modern publications in this field. In 2000 he published the first volume of the planned treatise on physical processes engineering in chemical industry,

entitled *Transfer Phenomena*, which appeared at the Romanian Academy Editing House.

His inventions and discoveries were documented almost entirely by over one hundred patents and even more patent applications. In addition, he was very successful as a consultant in chemical engineering and processes.

As department chairman, Professor Tudose discussed with all faculty members the details of their current research programs and was an excellent mentor and adviser. His standards of integrity and honesty were very high. His friendly attitude, teamwork capacity and communication ability put him in a central position in the chemical engineering department and in the faculty. Professor Tudose was an inspiring teacher and a valuable consultant for many students and for the teaching staff of the faculty. He supervised 26 PhD theses. By his own example of hard work, wide-ranging technical interests and personal kindness, he served as an inspiration to all of us.

He was always generous with his time, and dedicated some of it to his hobby – painting.

During all his activity, Professor Tudose displayed invaluable features leading to high standards in writing scientific and technical papers and reports.

For many years he was editorial advisor for *Revista de Chimie, Roumanian Chemical Quarterly Reviews, Bulletin of the Polytechnic Institute of Iasi*.

As a member of the Romanian Academy, Professor Tudose initiated and upheld the development of research in the field of chemical engineering. He was the founder of the Romanian Society of Chemical Engineering, with four subsidiaries, acting also as the president of the branch in Iasi.

Chemical engineering in Romania has been strengthened by the important and continuing research conducted and supervised by Prof. Radu Z. Tudose.

In addition to his professional contributions, Prof. Tudose will always be remembered by those who knew him for his vibrant and enthusiastic personality, warm friendship and helpfulness to his colleagues, friends and students.

On June 5, 2008, Prof. dr. docent eng. Radu Z. Tudose, corresponding member of the Romanian Academy would have been 80 years old!

We are all grateful to him, as one of our most esteemed colleagues, for his contributions in chemical engineering – research and education. His departure is a loss to all of us. May he rest in peace!

Professor Bogdan C. Simionescu
Corresponding member of the Romanian Academy

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