

## ILIE G. MURGULESCU, A PROMINENT SCIENTIST AND EDUCATOR

Ilie G. Murgulescu was born on January 27, 1902 in Cornu, County of Dolj, (*Judetul Dolj*), Oltenia, Romania and passed away in Bucharest on October 28, 1991.

He completed elementary school in his native village and attended secondary school at the Carol Lyceum in Craiova. He later enrolled in the Faculty of Science of the University of Cluj, where he had distinguished teachers such as Gheorghe Spacu, Adrian Ostrogovich and Dan Radulescu. He obtained the Ph.D. Degree in Chemistry from the same University in 1930. His doctoral dissertation entitled "*Copper Thiosulfate Complexes*" was approved "Magna Cum Laude".

During 1932 and 1933 he was a collaborator of F. Weigert at the Physical Chemistry Institute of the University of Leipzig, working in photochemistry and chemical kinetics.

Ilie G. Murgulescu held faculty positions first at his *Alma Mater*, the University of Cluj (1928-1932), then the Polytechnic Institute of Timisoara (1934-1949) and subsequently at the University of Bucharest (1949-1972).

In 1948 he was elected Member of the Romanian Academy. Prof. Acad. I. G. Murgulescu held many important administrative positions including Rector of the Polytechnic Institute of Timisoara (1947-1949), Rector of the University of Bucharest (1949-1950), Deputy Minister and Minister of Education (1950-1956), again Minister of Education (1960-1963), Vice-President (1959-1963) and President of the Romanian Academy (1963-1966).

Prof. Academician Ilie G. Murgulescu was elected to many public offices, including Member of the Romanian Parliament, Grand National Assembly, (1948-1965), Vice-President of the Council of State (1965-1967) and Vice-President of the Grand National Assembly (1967-1975).

In 1963 he founded the *Centre of Physical Chemistry* in Bucharest and served as its Director until 1977. During this period, the Centre provided a stimulating environment for research in physical chemistry to many young scientists and graduate students from Romania and abroad. He organized a series of international conferences on physical chemistry and established exchange programs with scientists from all over the world.

Professor's Murgulescu research work covers a variety of fields including photochemistry, chemical kinetics, thermodynamics, electrochemistry, spectroscopy, inorganic and analytical chemistry and molten salts chemistry. Approximately forty young scientists obtained their Ph.D. Degree having Professor I.G. Murgulescu as thesis advisor.

He published over 250 scientific articles. We would like to highlight his contributions in photochemistry dealing with the mechanism and quantum efficiency of the decomposition of potassium cobaltic oxalate and diphenyldiazomethane, anodic passivation of metals and alloys, electrochemical behavior of

thin films, electrode kinetics, new analytical methods for mercury, physical chemical properties of molten salts and adsorption of gases on solid surfaces.

Besides being an outstanding researcher, Professor I. G. Murgulescu was a great teacher. During his tenure as Minister of Education and Member of Parliament, in spite of a plethora of responsibilities, he continued to teach physical chemistry at the University of Bucharest. On many occasions, late at night he used to prepare his lectures for the following day. Routinely, he used to update and improve the physical chemistry laboratory experiments.

His monumental treatise "*Introduction to Physical Chemistry*", that he began publishing in 1976 (Editura Academiei Republicii Socialiste România, Bucuresti, 1976) represents the lectures given by him to students of chemistry and chemical engineering for almost a quarter of a century. This great and monumental work spans thousands of pages and consists of four volumes divided into seven parts: I, 1 *Atoms, Molecules, Chemical Bond*; I, 2 *Structure and Properties of Molecules*; I, 3 *Atomic Nucleus. Nuclear Reactions. Elementary Particles*; II, 1 *Molecular Theory of the States of Matter: Gas, Solid, Liquid and Solutions*; II, 2 *Chemical Kinetics. Catalysis*; III, *Chemical Thermodynamics*; IV, *Electrochemistry*. It is undoubtedly one of the most comprehensive textbooks ever written on physical chemistry.

Professor I. G. Murgulescu firmly believed that the true scientist has a social responsibility and that a teacher can teach the most by his example. He knew that the main purpose of the true scientist was the search for truth and its application to the improvement of the conditions of man. He was convinced that education was the cornerstone in the building and forging of any just society.

During his tenure as Minister of Education, Prof. Ilie G. Murgulescu was always preoccupied with instruction at all levels. He introduced an experimental program involving teaching by subjects in 500 elementary schools. Elementary, secondary, professional, trade schools, university instruction and research institutes were all part of a total effort. He visited hundreds of educational establishments and often solved problems and took decisions on the spot. In this he followed the footsteps of other great Romanian educators, like Vasile Conta and Spiru Haret. Conta, the philosopher, known for his Theory of Universal Ondulation and Theory of Fatalism, during his short term as Minister of Public Instruction, almost a century earlier, had introduced trade and technical schools.

In spite of the many important positions that he held during his life, Prof. I. G. Murgulescu was a modest person and never lost contact with his roots. As Minister and Member of Parliament, he continued to visit his native village, where he had spent his childhood and during the summer months had helped his parents in the fields or at the mill.



**PROF. ACAD. ILIE G. MURGULESCU**

He became a legendary figure among the peasants of the village of Cornu and they used to say "Mr. Professor, the one with the black lamb hat, is one of ours, from Cornu!" ("*Domnu Profesor, ăla cu căciula neagră de miel, e de-al nostru, de la Cornu!*")

Prof. Acad. Ilie G. Murgulescu was widely esteemed and respected in Romania and abroad. He was a member of many erudite societies and academies, including the Academy of Sciences of the USSR, the Czechoslovak Academy of Sciences, Hungarian Academy of Sciences, Bulgarian Academy of Sciences, the New York Academy of Sciences and others. He was also a member of the American Chemical Society, the American Association for the Advancement of Science and the International Society of Electrochemistry.

He received many prizes, medals awards and distinctions. Among them we cite the Romanian State Prize (1963), Gold Medal of the 39th International Congress of Industrial Chemistry (1970) and Hero of Socialist Labor (1971).

He was a Member of the Editorial Board of *Electrochimica Acta* and *Corrosion Science* and Editor in Chief of *Revue Roumaine de Chimie* and *Studii si Cercetări de Chimie - Academia Republicii Socialiste România*.

Prof. Acad. Ilie G. Murgulescu was also a Member of the Editorial Board of the *Southern Brazilian Journal of Chemistry* and he gave us invaluable advice and encouragement during the initial stages of this Journal.

Lavinel G. Ionescu