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DR. DUMITRU I. MARCHIDAN AT HIS 80 ANNIVERSARY

Doctor Dumitru I. Marchidan was born on October 7, 1930 in Braşov. He attended there the elementary school (1937-1941) and the "Andrei Şaguna" High School (1941-1949), chose to accomplish his advanced education in Bucharest at the Faculty of Chemistry (physical-chemistry section) of the "C. I. Parhon" University, and graduated in Chemistry in 1953 with a diploma thesis concerning the electrochemical preparation of ammonium peroxodisulfate.

Under the supervision of professor Ilie G. Murgulescu – chief of the physical-chemistry chair and member of the Roumanian Academy – he started working on a Ph.D. thesis in the modern and for Ruomania completely new research field of high-temperature molten salts. In 1962 he defended his Ph.D. thesis on "Concentration (electrochemical) cells with molten salts", the first one presented in Roumania in the field of high-temperature molten salts. That's why he may be considered the promoter of scientific researches in the field in our country. In 1971 he was granted the title of "doctor docent" (Dr.Sc.) for his scientific contributions in the field of high-temperature molten salts thermodynamics.

In 1963, an unexpected opportunity arose for the newly promoted dr. Marchidan. Professor I. G. Murgulescu, president of the Roumanian Academy at that time, just laid the fundaments of the Centre of Physical Chemistry of the Roumanian Academy. Dr. Marchidan – along with dr. Ştefania Zuca and dr. Hans Adam Schneider – was member of the team selected to establish its future research directions, taking into account the equipment and team available at that moment. Some pre-existent original research initiatives were also taken into account: thermodynamics and kinetics of high-temperature molten salts, thermal dissociation of methane, kinetics of metal high-temperature oxidation, electrochemical corrosion and spectroscopy.

In the mean time (1965) he had the chance to work with professors Eduard Calvet and Marc Laffitte in the field of high-temperature calorimetry of molten salts (heats of melting) at the Institute of Microcalorimetry and Thermochemistry, Marseille-France.

Dr. Marchidan's research career – representing about half a century of activity in the research field of physical chemistry – started in 1953 as a young researcher and continued as a senior researcher (1962) up to his retirement in 1998. In the Roumanian Academy's Institute of Physical Chemistry he was in turn: head of laboratory (1963-1970; 1975-1993), head of section (1970-1971) and scientific deputy director (1971-1975). He was also a member of the scientific board of the institute (1963-1993).

Dr. Marchidan held various other functions such as member of the Editorial Board of Revue Roumaine de Chimie (1965-2005), Studii si Cercetări de Chimie (1964-1975), Revista de Chimie-Bucuresti (1984) and Romanian Chemical Quarterly Reviews (1993-2004).

He was elected as national representative (1981-1989) in the JUPAC's Commission on Thermodynamics (I.2). He translated and published in 1996 at the Romanian Academy Publishing House "the IUPAC Green book", "*Quantities, Units and Symbols in Physical Chemistry*", and in 1979 "*The International System of Units (SI)*" published by BIPM.

In September 2009, dr. Marchidan was copped as a member in the IUPAC Project 2008-007-3-100 concerning the "Preparation of translation of the Green Book (third edition – 2008)".

Doctor Marchidan was member of the Organizing Committees of the biannual National Conferences on Physical Chemistry held in Bucharest (1968-1976) and of the National Congress on Chemistry (1978,1981). He initiated in 1986 and organized yearly until his retirement, the colloquium "Vapor-Liquid Equilibria".

Seven Ph. Doctors in physical chemistry owe their careers as scientific researchers to ideas and themes initiated by dr. Marchidan.

The scientific research activity of dr. Marchidan covers the following important fields of thermodynamics:

Thermodynamics of binary molten salts mixtures (thermodynamic activity, heat of mixing and heat of melting, high temperature heat content).

High temperature enthalpy and related thermodynamic functions of non-stoichiometric uranium oxides (high temperature heat content by drop-calorimetry and EMF measurements on solid electrolyte galvanic cells) – in the frame of a contract with AIEA, Vienna.

Relative enthalpy and related thermodynamic functions of some organic compounds (heat capacity, enthalpies of combustion and formation, vapor-liquid equilibria).

Design of new experimental devices in the field: a new high temperature drop calorimeter and a differential calorimeter for the study of thermal oscillations in catalytic oxidation of methanol.

The scientific results obtained by dr. Marchidan and his coworkers – subject of various scientific communication presented at different national and international scientific conferences or as visiting professor or invited lecturer – are gathered in four books, 106 papers, five patents and four new technologies.

For his scientific activity he was granted: The "N. Teclu" Academy Award in 1961, the State's Award for the year 1963, the Medal for Scientific Merit in 1966, the Order for Scientific Merit in 1972 and the academic distinction "Meritul Academic" in 2010.

Doctor Marchidan was constantly preoccupied by the professional development of his coworkers and the formation of young researcher groups capable to take over both fundamental and development research in the field of chemical thermodynamics.

On the occasion of dr. Dumitru I. Marchidan's 80^{th} anniversary, the Editorial Board of Revue Roumaine de Chimie along with his many colleagues, friends and coworkers express their best wishes for a long and healthy life.

The Editorial Board