



Acad. Ionel Haiduc



ACAD. IONEL HAIDUC AT HIS 85th ANNIVERSARY – A LIFE DEDICATED TO SCIENCE OR HOW TO TRANSFORM A HOBBY IN A SUCCESSFUL PROFESSION

Even now, when the Roumanian scientific community is honored to celebrate the 85th anniversary of Academician Ionel Haiduc, we can only find him at the computer, searching the last achievements in the field of coordination and organometallic chemistry and further sharing with joy and personal considerations the deep understanding of the new scientific findings.

More than sixty years of his life were dedicated with constant passion and devotion to a science which was characterized by himself as “a great love at a first glance”.

Ionel Haiduc was born in 1937 in Cluj-Napoca and his education as a remarkable scientist started in this town as well. He was a very good scholar of the National College “Emil Racoviță”, when Chemistry appeared as his favorite discipline, based on interesting practical experiments. Later, he was a talented student of the Faculty of Chemistry of the Babeș-Bolyai University and he graduated in 1959 with a valuable thesis which was published in 1960 as his first book, “Introduction to the chemistry of inorganic rings” („Introducere în chimia ciclurilor anorganice”, Editura Academiei, București).

His successful academic carrier started in 1959 as a teaching assistant at the Faculty of Chemistry of the Babeș-Bolyai University in Cluj-Napoca and he remained a brilliant member of the teaching staff of this institution during his whole life. He completed his studies and specific experience in the field with a PhD in chemistry at the “M. V. Lomonosov” Institute of Fine Chemical Technology in Moscow (1964), under the guidance of the Academician Kuzma Andrianovich Andrianov, followed by postdoctoral research stays in USA with Professor Henry Gilman, at Iowa State University (1966-1968) and with Professor Robert Bruce King, at University of Georgia (1971-1972).

He became full professor in inorganic chemistry at the age of only 36, when he also introduced for the first time in Roumania the organometallic chemistry as a specific field. As a recognition of his exceptional scientific contributions, he was elected as corresponding member in 1990 and soon after, in 1991, as full member of the Roumanian Academy.

Most of his scientific contributions in various areas, *e.g.* coordination and organometallic chemistry of main group elements, supramolecular organometallic chemistry, inorganic ring systems, biologically active metal compounds, nomenclature and systematization in inorganic chemistry, are based on a pioneering work developed in Roumania.

The successful career of Academician Ionel Haiduc in Chemistry was based not only on deep study and a continuous interest for acquiring advanced knowledge and new skills, but also on enthusiasm, passion, talent and imagination in the experimental work and, as well, on selecting in his research group students and collaborators with a similar passion for chemistry.

The valuable contributions of Academician Ionel Haiduc to the international scientific community in the field of inorganic and organometallic chemistry can be summarized in his publications: 9 books, published in Roumanian [*Introducere în chimia ciclurilor anorganice* (*Introduction to the chemistry of inorganic rings*), Ed. Academiei, București, 1960; *Chimia compușilor metalorganici* (*The Chemistry of Metalorganic Compounds*), Ed. Științifică, București, 1974] or English [*The Chemistry of Inorganic Ring Systems* (Wiley Interscience, London, 1970); *Basic Organometallic Chemistry* (co-author – Jerry Zuckerman, Walter de Gruyter, Berlin, 1985); *The Chemistry of Inorganic Homo- and Heterocycles* (co-author – Bryan D. Sowerby, Academic Press, London, 1987; 2 vols.); *Organometallics in Cancer Chemotherapy* (co-author – Cristian Silvestru, CRC Press, Boca Raton, Florida, USA, 1989 – vol. I; 1990 – vol. II); *Supramolecular Organometallic Chemistry* (co-authored by Frank T. Edelman, Wiley-VCH, Weinheim, 1999)], some of them translated also in other languages, *e.g.* Polish or Greek, 35 chapters in collective volumes and more than 350 original and review articles.

The whole scientific work of Acad. Ionel Haiduc is relevant for his research interests to provide new valuable insights into the coordination and the organometallic chemistry, based on appropriate synthetic procedures, structural aspects, applications in biology, catalysis or nanomaterials, as well as on newly developed concepts. The book *Supramolecular Organometallic Chemistry* was characterized by the Nobel laureate Jean-Marie Lehn as “a thorough description and incisive analysis of organometallic compounds and bonding features, in terms of the concepts and relationships with supramolecular chemistry”. Jonathan W. Steed appreciated in his review that „the supramolecular organometallic chemistry did not exist until the publication of Haiduc and Edelmann’s book” (Cryst. Growth. Des. 2002, 2, 79).

The continuous interest of Acad. Ionel Haiduc in recent scientific achievements in chemistry, in the development of new fields in this fast developing science, is excellently reflected by his basic contributions, brought in the last 10 years, in the new topic of *inverse coordination* (comprehensive reviews published in prestigious journals as *Coordination Chemistry Reviews*, *Inorganica Chimica Acta* and *Journal of Coordination Chemistry*) or by a new, very recent book in the field of organometallic chemistry [*Organometallic Chemistry: Fundamentals and Applications* (co-author – Luminița Silaghi-Dumitrescu, De Gruyter, Berlin, 2022)].

Besides his scientific activities, Acad. Ionel Haiduc was strongly involved in the administrative academic life in his capacity as Vice-Rector (1976-1984) and Rector (1990-1993) of the Babeș-Bolyai University in Cluj-Napoca, Vice-President of the National Conference of Rectors, Vice-President (1998-2000) and President (2006-2014) of the Roumanian Academy, promoting strategies and solutions for the European integration of the Roumanian teaching and research systems and for a continuously increasing visibility of the Roumanian science at international level.

For the prestigious achievements obtained along his fruitful scientific career, for his valuable contributions to science policy and academic management, he was elected as member or honorary member of several scientific academies [Academy of Sciences of Moldova (2002), Akademie der Wissenschaften zu Göttingen (2009), Hungarian Academie of Sciences (2007), Leibnitz Sozietät der Wissenschaften, Berlin (2009), American Chemical Society (2016), Academia Europaea (London) (2002) and corresponding member of the Montenegrin Academy of Sciences (2008)], as well as member of several other organizations (IUPAC, the International Council of Main Group Chemists and the Alliance of the Universities for Democracy).

He was honored with prestigious awards: the “Gh. Spacu” prize of the Roumanian Academy in 1974, the *Prize for his whole activity* of the Roumanian Chemical Society (2004), *Humboldt fellow* at Magdeburg Universität (1997), *Gauss Professorship* by the Göttingen Academy of Science (1998-1999), “*Pro Colaboratione*” award of the Hungarian Academy of Sciences, *Honour Diploma* of the Presidium of the Moldavian Academy of Sciences (1999), the Gold Medal “*Dimitrie Cantemir*” of the Academy of Sciences of Moldova (2007), the “*Costin Nenitzescu-Walter Criegee Vorlesungen*” prize of Gesellschaft Deutscher Chemiker (2005). He also was awarded by the Presidents of Roumania with the “*Star of Romania*” (*Steaua României*, in 2000 and 2006), by the President of the Republic Moldova with the “*Order of Honour*” (2006), and with the “*Pushkin Medal*” by the President of the Russian Federation (2007). Several Romanian universities (the “Gh. Asachi” Technical University in Iași, the Polytechnic University of Timișoara and the West University of Timișoara) awarded him the *Doctor honoris causa* title.

He was an active ambassador of the Roumanian science and culture in the world as visiting or invited professor to different universities not only in Europe (Spain, Germany, UK), but also in the United States, Mexico, Brazil, Singapore. In the same time he developed valuable collaborations with renowned scientists, thus enabling the recognition at international level not only of his own achievements, but also an increased visibility of the Roumanian science.

Beyond the scientist is the teacher, who guided generations of students in their way to become researchers, a kind person who shared with generosity his knowledge and lighted with diplomacy and tenacity the development of the Romanian science over years, who offered his friendship to those which had the privilege to be in his close proximity, and who will be always inside the family of those scientists which found joy and a deep satisfaction by continuously approaching the heights of understanding and sharing the scientific truth.

With the occasion of the 85th anniversary, the Editorial Board of *Revue Roumaine de Chimie* along with the whole community of Roumanian chemists are honored to bring to Acad. Ionel Haiduc their best wishes for a long healthy life and joyful days on his journey to a deep understanding and analysis of the structure and bonding inside and beyond molecules.

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