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Branko Kaitner – *Curriculum Vitae*

PROFESSOR EMERITUS Branko Kaitner was born on the 29th of October, 1942, in Zagreb, Croatia. He was not the first chemist in his family, his grandfather Gjuro Kaitner (1876–1956) also studied chemistry at the Faculty of Philosophy, University of Zagreb as well as oenology in Dijon, France. Professor Kaitner started his elementary education in Zagreb and, after completing first four years, he continued his education in Slavonski Brod where he finished his elementary and secondary school. In 1961 he moved to Zagreb and enrolled as a student of geodesy at the (then) Faculty of Architecture, Civil Engineering and Geodesy, where he stayed for two semesters, after which he transferred to the Department of Chemistry of the Faculty of Science where he graduated in 1969 with the degree in chemical education. Immediately after graduating he became a teaching and research assistant at the Division of General and Inorganic Chemistry (ZOAK) at the Department of Chemistry and enrolled in the postgraduate programme in the field of X-ray structural analysis. Under the mentorship of professor Boris Kamenar he defended his magister thesis *The crystal structure of mercury(I) arsenate* in 1973, and his doctoral thesis *Crystal and molecular structures of some iron and nickel complexes* in 1979. Both theses were the result of continuing scientific research in the field of chemical crystallography of inorganic compounds and transition metal complexes which were at the time the main research goal at the Division of General and Inorganic Chemistry.

In 1983 he was promoted to the scientific grade of research associate, in 1989 to the grade of senior scientific associate, and in 1993 to the grade of scientific advisor. In 1989 he was promoted to assistant professor, in 1992 to associate professor, in 1998 to full professor and in 2003 to full professor with tenure, all at the Department of Chemistry, Faculty of Science. In 2017, he was awarded the title of *professor emeritus.* Professor Kaitner was the Head of the Division of General and Inorganic Chemistry (2000–2004, 2007–2009), Head of the Department of Chemistry (1999–2002), and Vice Dean for Finances and Operations at the Faculty of Science (2002–2004). He was a visiting researcher three times at the Department of Chemistry and Biochemistry, College of Physical Sciences, University of Guelph (Ontario, Canada), in 1979/1980 as a postdoctoral researcher, and in 1985/1986 and 1990/1991 as a visiting academic. He has been a member of the Croatian Chemical Society since 1969 and of the Croatian Crystallography Association since 1992. He was a member of the American Chemical Society from 1986 until 1994, and of the Yugoslav Crystallography Centre at JAZU from 1969 until 1991 (when it was dissolved). Since 1992, he has reviewed multiple articles for scientific journals, including *Acta Crystallographica, Journal of Chemical Crystallography, Croatica Chemica Acta, Zeitschrift für Kristallografie, Inorganic Chemistry, Spectroscopy Letters, Journal of Structural Chemistry, Journal of Coordination Chemistry* and *Inorganica Chimica Acta*. He was an editor of the Special Issue of *Croatica Chemica Acta* focused on structural chemistry, in honour of the 70th birthday of *Professor emeritus* Boris Kamenar. In 2002, he became a member of the Editorial Office of the journal *Croatica Chemica Acta*, and a member of the Committee for Awards of the Croatian Chemical Society. He was a member of the Scientific Field Committee for Chemistry from 2001 until retirement in 2013, and of research project evaluation boards formed by the Croatian Ministry of Science, Education and Sports and the Croatian Science Foundation. Additionally, he was a member of the Croatian Ministry of Science, Education and Sports' Committee for the evaluation of text books for secondary education. He was awarded the Annual national award for science in 1999.

Professor Kaitner was involved in a variety of forms of teaching: laboratory and instrumental courses, seminars and lectures at the Division of General and Inorganic Chemistry for students at the Departments of Chemistry, Biology, Physics and Geology of the Faculty of Science. He also participated in courses at the Faculty of Pedagogy (now Department of Chemistry), J. J. Strossmayer University of Osijek and at the Faculty of Textile Technology, University of Zagreb. He lectured the *General Chemistry* courses for students of the Departments of Biology and Physics, programmes Professor of Biology and Chemistry, Master of Molecular Biology and Professor of Physics and Chemistry.

In 1995 he introduced a courses on *Reaction Mechanism of Transition Metal Complexes* for graduate and PhD students at the Department of Chemistry, which were the first university courses on inorganic reaction mechanisms in Croatia. In 2010 he introduced three additional courses for graduate students *Metals and Ligand Reactivity*, *Chemistry of Molecular Solids* (with D. Cinčić) and *Physical Inorganic Chemistry* (with V. Stilinović).

He mentored more than 35 diploma and four magister theses (N. Strukan, N. Judaš, D. Cinčić, A. Blagus) as well as seven doctoral dissertations (E. Meštrović, G. Pavlović, N. Judaš, D. Cinčić, A. Blagus, V. Stilinović, M. Zbačnik) and co-mentored multiple additional doctoral theses (Figures 1 and 2).

Professor Kaitner's research work was focused on the preparation and structural studies of small molecules, particular polydentate ligands and their coordination compounds with transition metals. During his stay at the University of Guelph in 1985/1986 he became involved in the study of calix[4]arenes which resulted some of the most detailed structural descriptions of calixarenes and complexes published to date. Among the most important papers which resulted from this study are *Synthesis, X-ray Crystal Structures, and Cation-Binding Properties of Alkyl Calixaryl Esters and Ketones, a New Family of Macrocyclic Molecular Receptors* (paper no 27) which was cited over

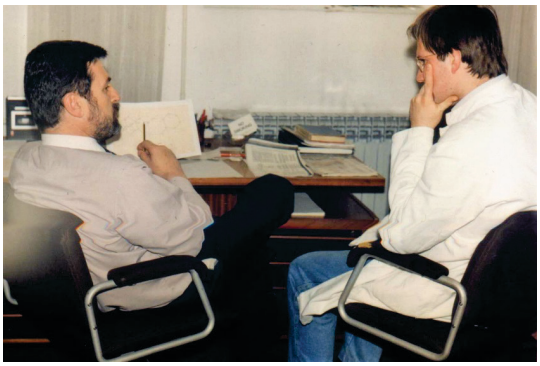

Figure 1. Professor Kaitner with his first PhD student E. Meštrović (1994).

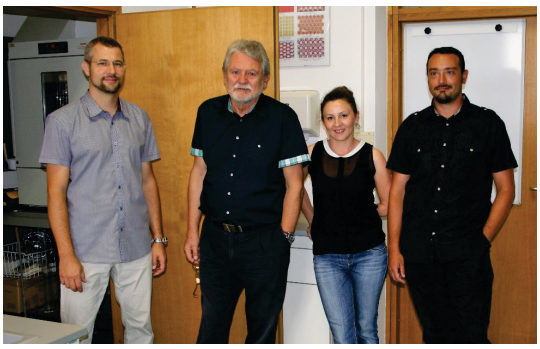

Figure 2. Professor Kaitner with his last three PhD students (from left to right) D. Cinčić, M. Zbačnik and V. Stilinović (2013).

Figure 3. Professor Kaitner and his students M. Đaković and T. Friščić on the 4th Croatian-Slovenian Crystallographic Meeting in Trakošćan (1995.).

630 times, and *Functionalization of Calix[4]arenes by Alkylation with 2-(Chloromethyl)pyridine Hydrochloride* (paper no 49) which was cited over 110 times to date.

After his return to Croatia he initiated a research program of study of Schiff bases in the solid state and their use as ligand for first series transition metals. Some of the most cited papers dealing with the intramolecular hydrogen bond, proton transfer and quinoid effect in salicilideneimines in the literature have resulted from this research, such as *Intramolecular N–H···O hydrogen bonding, quinoid effect, and partial π-electron delocalization in N-aryl Schiff bases of 2-hydroxy-1-naphthaldehyde: The crystal structures of planar N-(α-naphthyl)- and N-(β-naphthyl)-2-oxy-1-naphthaldimine* (paper no 73) cited over 130 times and *A reinvestigation of the quinoidal effect in N-n-propyl-2-oxo-1-naphthylidene-methylamine* (paper no 74) cited over 90 times. The work on Schiff bases culminated with the review *Schiff bases derived from hydroxyaryl aldehydes: Molecular and crystal structure, tautomerism, quinoid effect, coordination compounds* (paper no 125) cited over 110 times.

During his career he was the principal investigator of three national research projects: *Coordination compounds and coordination polymers* (1996–2001), *Weak interactions and intermolecular connectivity in materials synthesis* (2001–2005), and *New organic and coordination compounds — synthesis and relations between properties and structure* (2006–2013), coordinator of a bilateral Croatian-Austrian research project and a bilateral Croatian-Macedonian project (*Minerals from Macedonia — Spectral and Structural Characterization*, 2005–2006), He published 149 scientific articles in more than 25 journals indexed in the *Web of Science* (cited over 3100 times, *h*-index 30), one book chapter, and seven expert articles. He participated with 116 presentations at 46 national conferences and meetings, and with 49 presentations at 27 international expert and scientific conferences and meetings (Figure 3).