JOURNAL OF PHYSICAL ORGANIC CHEMISTRY
J. Phys. Org. Chem. 2005; **18:** 684–685
Published online in Wiley InterScience (www.interscience.wiley.com). DOI: 10.1002/poc.920

Biography

Otto Exner—a short biography†

O. Pytela*

Department of Organic Chemistry, Faculty of Chemical Technology, University of Pardubice, nám. Cs. legií 565, 532 10 Pardubice, Czech Republic

Received 25 January 2005; accepted 7 February 2005

Professor Otto Exner

Professor Otto Exner, one of the outstanding scientists of Czech physical organic chemistry, belongs to the generation of brilliant chemists who finished their university studies just after the Second World War. New pioneering theories, new technologies, the development of new experimental techniques—they created together a great opportunity for the advancement of the group of talented scientists to which Professor Exner undoubtedly belongs.

Professor Exner was born in Prague on 14 November 1924. He graduated from the Institute Chemical Technology in Prague, where he also earned the degree of PhD in 1951 for his thesis entitled 'On oxim derivatives'. In 1961, was awarded the degree of Doctor of Sciences (DSc) by the Czechoslovak Academy of Sciences in the field of 'The spectroscopic and physico-chemical studies of hydroxylamine derivatives'. In 1969, he was appointed Professor. After his university graduation, he was employed at the Research Institute of Pharmacy and Biochemistry, and later, from 1954, he worked at different Institutes of the Czechoslovak (later Czech) Academy of Sciences.

The professional fields of Professor Exner's scientific interests have been focused on isokinetic relationships (fundamental papers cited over 400 times), inductive and mesomeric effects in benzene derivatives (the most important papers cited 220 times), additive physical properties, electrostatic calculations and reaction-field theory, reactivity–selectivity relationships, correlations in spectroscopy, statistical comparison of theory with experiments, re-examination of several popular but statistically incorrect equations, dipole moments and their application in organic chemistry for determining configuration and conformation, general stereochemistry of functional groups, mesomeric dipole moments and electron distribution in conjugated systems. Earlier work in synthetic and systematic organic chemistry concerned hydroxylamine derivatives and their configuration, conformation and ionization, and further some sulfone derivatives.

Even though Professor Exner's scientific work has a broad scope of interests, his work is consistent in the methodology of his scientific approach based on the critical analysis of facts. His genuine formulation of new (quite challenging) questions to seemingly solved problems is his unique personal quality. He searches for the answers to these questions systematically using appropriately and carefully designed plans and actions. The process of finding solutions brings him apart in answering new questions and challenges that need to be solved. In none of the topics involved does he consider any matter to be a closed case: he returns to it and, from an almost philosophical point of view, incorporates it into a more general context. The evidence of such processes can be seen in his recent work and papers, in which he applies the latest progress in quantum chemistry to

**Correspondence to:* O. Pytela, Department of Organic Chemistry, Faculty of Chemical Technology, University of Pardubice, nám. Cs. legií 565, 532 10 Pardubice, Czech Republic.
E-mail: oldrich.pytela@upce.cz
†Selected paper presented for a special issue dedicated to Professor Otto Exner on the occasion of his 80th birthday.

correct or exactly formulate the substitutional fundamentals of effects, particularly inductive effects in connection with isodesmic reactions, steric inhibition of resonance, buttressing effect, Baker–Nathan effects and steric effects of *ortho* substituents. Most recently, he has been involved in the reinvestigation of the Hammett equation (question: is it valid exactly only for *meta* derivatives?), the *ortho* efect of groups containing hydrogen (question: does a hydrogen bond exist in every case where it was anticipated?) and conjugation of two polar groups through an unsaturated chain (question: is a generally valid scale of resonance effects possible?). Indeed, he has shown an admirable inventiveness.

Professor Exner has published the results of his findings in more than 300 original papers in respected scientific journals, two books with international publishers (*Dipole Moments in Organic Chemistry*, Thieme, 1975; *Correlation Analysis of Chemical Data*, Plenum, 1986), two books in the Czech language and 20 chapters in different books and reviews. He has presented invited lectures at six international conferences about Correlation Analysis in Chemistry (1979–1996) and many plenary and other lectures at conferences or during his scientific professional visits in universities worldwide, especially in Europe and North America.

Professor Exner has been and still is an outstanding University teacher. He spent part of his active professional life also as a Professor at the Institute of Chemical Technology in Pardubice (1964–1975) and the Slovak Institute of Technology in Bratislava (Slovak Republic, 1973–1984). His pedagogical activities have also spread abroad. He was a Visiting Professor in Bologna (Italy, 1983), Nice (France, 1991 and 1995) and Umea (Sweden, 1986). Moreover, he has also led and educated many PhD students and young colleagues, who proudly endorse his scientific school.

His thorough scientific work and notable contributions to higher education were highly appreciated by scientific community. He has been elected a member of varous prestigious organizations, e.g. the Learned Society of the Czech Republic. He was awarded the title of 'Doctor honoris causa' of the University of Pardubice and became an Honorary Member of the Czech Chemical Society. He has received many other awards and orders of merit from respected universities and scientific societies in the Czech Republic and abroad.

Professor Exner is not only an excellent scientist and teacher but also a very exceptional person. He is honored, respected and admired for his high principles and standards of both his professional approach and personal qualities. He attracts others by the depth of his thoughts, broadness of his knowledge, strong sense of a partnership, kind behavior, understanding and undoubtedly his unique sense of humor. Meeting him and communicating and cooperating with him are very pleasant and enriching for all involved. I hope for many more such occasions of meeting and being around Professor Exner for a long time to come.