

## **HUYSKENS, Pierre**

Born: 27 December 1927 (Sint-Pieters-Leeuw, near Brussels)

Died: 13 May 2001 (buried at Winksele cemetery)

### **A Broad Education**

His father is an agricultural engineer at a brewery in Anderlecht. Pierre studies Greek and Latin at the Collège Notre Dame in Kuregem and starts his studies at the University of Leuven in 1944. Tutored by Prof. Walter Mund (1892-1956) he obtains in 1950 his doctorate summa cum laude in 1950. A delicate surgical intervention on his back will keep bothering him during his life. He joins the department of radiochemistry of his mentor prof. Mund, but has to resign because of health problems. Pierre has always shown a deep respect for his mentor. On his retirement in May 1993, he refers to Mund as “one of the greatest minds of our country” and is duly impressed by his “extensive knowledge of science and literature who could recite Dante’s sonnets by heart in Italian”. Pierre becomes Munds biographer in “Florilège des Sciences en Belgique”.

### **A Born Teacher**

His father teaches Pierre the principles of chemistry and introduces him into the secrets of brewing. Together they publish a handbook of chemistry for high schools.

Pierre becomes an assistant at the university in 1956, professor in 1959 and is appointed full professor of physical chemistry in 1963. Before he has taught analytical chemistry at the Université Catholique de Louvain as successor to professor Raymond Breckpot (1902-1983). In the context of his above mentioned final lecture he declares “During 45 years I have taught general chemistry, central heating, cement, physical chemistry, radiochemistry and the solubility of polymers to thousands of students of different branches and faculties. I have taught in Brussels, Leuven, Vienna, Bochum, and Louvain-la-Neuve in Dutch, French and German. I have published a number of books “Fysische Scheikunde”, “Les Bases Théoriques de l’Analyse Chimique” and “Die Physikalisch-Chemische Grundlagen der Löslichkeit von festen Stoffen und Polymeren in Lösungsmitteln”. He also refers to his colleague Maurice Van Meerssche (1923-1990) and his wife. He credits her with “having published more than himself”.

### **An Eminent Researcher**

In 1959 Pierre Huyskens starts studying the hydrogen bond and the specific behavior of molecules and ions in liquids, applying a number of experimental fields: calorimetry, conductometry, measurement of dipoles, spectroscopy, viscosimetry, etc. He contributes to the insight into proton transfer and cooperative effects. His main subject of interest lies in the study of the thermodynamics of the liquid phase. It is acceptable to consider the distribution of a situation according to the whole or to the factor time. According to the ergodic effect, both viewpoints are equivalent. Huyskens has shown that in hydrogen bonds this principle is not valid. The definition of the energy within the OH...H hydrogen bond in alcohols is vague. Considering the time fractions instead of the whole fractions leads to a new viewpoint in thermodynamics: “the mobile order and disorder”. This contributes to another expression of the chemical equilibrium confirmed by spectral analysis and predicts better the solubility and other properties than the traditional theories. In 1989 an Erasmus Course is organized at the University of Leuven. The book “Intermolecular Forces”, which Huyskens publishes with his wife Thérèse Zeegers-Huyskens contains the adapted and extended lectures of this seminar.

[In 1983 the team of Huyskens starts developing a new theory based on the movement rather than the position. The order created by the O-H...O hydrogen bond is not the result of the decrease of the static configuration but of the proton in the –O-H tracking the neighboring O-atom in its course through the solution]

Together with his team, Huyskens publishes 182 articles... He receives the Stas-Spring award of the Royal Academy of Belgium (1950), the “Prize of the Sections” of the Belgian Society of Chemistry (1956), the Breckpot award of the Flemish Chemical Society (VCV) in 1986 and the Gold Medal of the University of Wroclaw (Poland) in 2000. He is honorary member of the Polish Chemical Society (1987), publisher of the Bulletin of the Belgian Chemical Society from 1962 till 1966 and of the “Tijdingen” of the VCV 1974-1991. He is president of the VCV from 1974 till 1978 and member of the National Council of Chemistry since 1988. He is member of the editorial staff of the Journal of Molecular Liquids, Berichte der Bundesgesellschaft Physical Chemistry and the Polish Journal of Chemistry.

### **Huyskens second life: music**

At the age of 12, Huyskens already plays the organ at the parish church in Sint Pieters Woluwe because the official organist has fled for the German invasion (WWII). In 1957 Huyskens resigns and becomes the organist of the Onze Lieve Vrouwekerk in Leuven from 1962 till 1978. He performs in Belgium and Germany with his violin playing son Dominique. He develops his

personal style by using a varying registration to avoid monotony. He shortens long musical pieces and plays Bach in a romantic way. He starts the fugues by using soft registers and adds registers as the performance proceeds This is not the point of view of a number of organists (i.e. Albert Schweitzer in his book on Bach) who prefer to introduce the fugue never piano.

Huyskens performs also on the viola and the cello. Together with his colleagues prof . Georges Thinès (°1923) and prof. Joris Verhulst (1906-1987) he is the founder of the Leuven Universitair Orchestra.

He was married to Mrs. Thérèse Zeegers-Huyskens, professor of physical chemistry at the KUL. They have 3 sons.