



# Journal of Chromatography A



## NEWS SECTION

### JÓZSEF TAKÁCS 70



Happy Birthday!!

József Takács, the man who introduced to Hungary the retention index system, which is applied in qualitative identification by gas and liquid chromatography and which was worked out by E. sz. Kováts, reached the age of 70 years on 5 February 2004.

József Takács was born in Budapest, in 1934. He studied, taught, and worked in Budapest, and now he lives and spends his retirement days on the outskirts of the capital.

He passed his school leaving exams with excellent results in 1952, after which he was admitted to the Faculty of Chemical Engineering at the Technical University of Budapest (BME). However, he had to postpone his studies because of domesticities and he could only begin the university in 1954.

According to his family, although there were lots of difficulties at many times, he never gave up studying, it was always the most important thing to him.

After finishing his university studies in 1959, he began to work as a demonstrator in the Institute for General and Analytical Chemistry of the BME. He wrote his Ph.D. Thesis on

*Newer examinations of the operating mechanism of the lucigenin chemiluminescent indicator* in 1966. Subsequently he taught as an assistant professor in the institute until 1974.

Between 1974 and 1980 he worked as a technical economic consultant in the Research Laboratory for the Oil and Gas Industry. In 1980, he became the designing engineer of the Phylaxia Company, then he worked for the Research Institute for Animal Hygiene from 1982. His health began to worsen so he retired in 1988.

During his years at the BME he taught regular and correspondence students as well, and he also took part in the training and further training of engineers. He led the scientific student teams with great enthusiasm. His students could always count on him when they had any professional problems.

József Takács was one of the founder members of the chromatographic committee of the Hungarian Academy of Sciences, and also of the chromatographic team of the Association of Hungarian Chemists (MKE), moreover he was the chairman of the gas committee of the Hungarian Hydrocarbon Office.

His papers were published in many, often famous, journals: 50 papers in Hungarian journals and 120 papers in international ones. Most of his articles deal with the gas and liquid chromatography and within that, usually with Kováts' retention indices system.

After the work of James and Martin [1] in 1952, gas and liquid chromatography spread immediately all around the world. József Takács was one of the Hungarian experts in analysis, and he contributed significantly to spreading knowledge on gas and liquid chromatography in Hungary since the mid-1960s, and to applying these new techniques to the quantitative and qualitative analysis of organic material.

The chromatographic team of the MKE held the first Chromatographic Regional Meeting in 1969, which became a tradition and during a few years grew to be an international conference the so-called Duna Symposium.

József Takács, as the founder member of the chromatographic team took part in the organising process wholeheartedly and although there were not too many people to perform at the beginning, he was always one of the presenters.

In Hungary, he was one of the first people who learned about the theory and the possible applications of the retention index system which was introduced by Kováts [2] in 1958. The system was of great importance to him, and much of his further theoretical research was devoted to it.

The most important topics he dealt with are the following:

- the examination of the difference between measured and calculated dead time;
- the relationship between the retention index and the molecular structure;
- the examination of the temperature-dependent retention index; and
- the retention polarity and the temperature-dependent retention polarity.

A very important milestone of his research is his suggestion about the binary programming (temperature; rate of flow of the carrier gas), the theoretical basis of which he presented at an international conference in Berlin in 1968.

He published his first paper on the relationship between retention index and molecular structure in 1971. After that, more research teams began to deal with this problem, especially the results of the French and English researchers are significant.

He followed with great attention those results of other experts which could be related to his own research work. The article including 1392 references, published in the *Journal of Chromatography* in 1983, on the 25th anniversary of the introduction of the retention index system [3] and the enlarged edition for the 30th anniversary in 1989 [4] are the results of József Takács' collecting work.

Although nowadays IR, MS and other special detection methods which can be combined with gas chromatography are more widely used in qualitative identification, the scientific literature of recent years suggests that the retention index system still has a reason for existence in gas and liquid chromatography. No comprehensive collection of the scientific literature of the last decade has been presented yet.

In spite of the fact that József Takács retired officially, he did not lose his interest in his favourite scientific field. He still follows with attention the scientific literature, and he still spends his time on considering professional problems, technical questions, and he is always happy to share it with his curious colleagues.

Let this short summary be the birthday congratulation on behalf of us who learned from him, argued with him, to whom he gave a lot of colourful ideas, who know, like and respect him!

We wish you good health and a very happy 70th birthday!

## References

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