

In memoriam professor Wittko Francke

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Professor Dr. Dr. h.c. mult. Wittko Francke, a former Head of the Institute of Organic Chemistry, University of Hamburg, a Councillor and former President of the International Society of Chemical Ecology, a member of the editorial boards of the Journal of Chemical Ecology and of the Acta Phytopathologica et Entomologica Hungarica, a leading scientist of organic chemistry and chemical ecology unexpectedly passed away at the end of December 2020.

Wittko Francke has been an iconic scientist, well known in all corners of the World, where chemistry of natural products are studied. Motivated by his Mother, who was a professor of forest entomology, Wittko Francke devoted a special interest to chemistry and behavioral role of semiochemicals of bark beetles, in course of his entire career. He was genius in identifying the chemical structure of insect pheromones and kairomones and also in finding astonishing, brand new routes for the synthesis of these compounds of highly complicated structures. His ability to interpret mass spectra was legendary.

He looked nature, using his favorite phrase, “Mother Nature”, as a whole, combining *par excellence* chemistry, plant biochemistry and entomology. He discovered several new types of organic compounds, out of which perhaps spiroacetals were the most famous group, first identified from bark beetles. In cooperation with entomologists, he characterized sex pheromones of great many insect species, representing various taxonomic classa of insects, from Coleoptera through Lepidoptera to Hymenoptera. He published around 450 papers, for which received over 11 thousand independent citations.

His international scientific activities in organizing conferences, supervising great numbers of PhD students, acting as Dean of UH, contributing as scientific adviser in various panels will be listed in commemorating articles in prestigious international media.

Here in the following we briefly indicate only his intense connection with the pheromone research group at the Plant Protection Institute, Budapest, Hungary, and his connections to the institute itself.



Prof. Dr. Dr. h.c. mult. Wittko Francke
(1940–2020)
(photo: Francke family)

Professor Francke, or Wittko, as he liked to be called by his friends and colleagues, even by much younger colleagues, was open-minded and open-hearted. He liked very much to take challenges, liked fresh ideas and started projects in brand new lines, even if the chances for success were not in sight at all. Thanks to his outstanding skills and extraordinarily intense tempo in work (he often worked 14–15 hours per day in the lab), he usually achieved his objectives. Mother Nature rewarded his efforts usually by break-through scientific discoveries. Having such a character, Wittko accepted us, as his free-will Hungarian remote team-members, contributing from the side of entomology. In course of forty years, these informal (never-funded) joint studies yielded many fascinating new results. We managed to identify the sex pheromone of many pests, sometimes of such species, which represented the first example from their respective insect taxa. Typically, these results revealed new chemical structures, as well, to the delight of Wittko. Most of these findings were passed to the practice: the pest species concerned are monitored until today by pheromone traps baited with compounds, identified in course of these studies (geometrid moths, apple leaf-miners, click beetles). Wittko also participated in the Supervisory Board of the Plant Protection Institute, Budapest, Hungary.

The international community of chemical ecologists misses him. We will miss his advices, his structure elucidations, his stereochemically pure compounds for the experiments, and most importantly his encouraging and friendly personality. He never put himself in focus, however, he validated with his life-work the famous line of Horace's ode: „*Exegi monumentum aere perennius*”! Wittko, we will remember you!

Gábor Szöcs and Miklós Tóth, on behalf of the Editorial Board

