

OBITUARY

Detlef Schröder (1963–2012)

Dr. Detlef Schröder suddenly passed away on 22nd August 2012. He was 49 years old. Detlef was one of the leading scientists in gas-phase ion chemistry. Although he mainly worked in the field of mass spectrometry, he always stressed that by training he was an organic chemist with a strong background in classical laboratory synthesis. His interests ranged from fundamental questions on diatomic molecules, organic reaction mechanisms, and inorganic chemistry to questions of astrochemical and biochemical interest. His scientific success was based on his broad and deep knowledge that allowed him to tackle problems at the interfaces of different disciplines and to use a large spectrum of methodological approaches. His work is documented in more than 400 scientific papers.

Detlef studied at the Technical University in Berlin. During his Ph.D. studies as well as in the following 14 years, he worked in the laboratory of Professor Helmut Schwarz, where he contributed to the development of several important concepts. He participated, among other pursuits, in the development of the two-state reactivity concept, the neutral-ion dissociation difference method for the investigation of neutral transient species, numerous studies concerning C–H bond activation by metals and metal oxides, and remote functionalization. His ability to understand quickly, problems and new ideas, allowed him to make insightful suggestions in almost any discussion on any topic, and this ability led to his international recognition. He enjoyed interactions with great scientists all over the world.

In 2006, he moved to the Institute of Organic Chemistry and Biochemistry (IOCB) in Prague, where he headed a group in physical organic chemistry. Within the 6 years in Prague, he made impressive progress. At the beginning of his employment in Prague, he was often asked about the working and living conditions in the Czech Republic. He always optimistically answered that the conditions are comparable with those in Germany or other EU countries. The beginning, however, was not at all easy. His first office was a cloak room for mass spectrometry technicians. The first small laboratory for his own use was available only after several months. In the first years, despite his numerous grant proposals, he was not able to get a grant from the funding agency of the Czech Republic, despite his convincing justifications. Most of the colleagues at the Institute were mainly oriented towards medicinal chemistry



and did not favor research in gas-phase ion chemistry. I was very pessimistic about the situation in these first difficult years but Detlef, with his always positive approach to life, said that if we worked harder than other researchers around, we would finally manage the situation and have success even under those difficult circumstances.

Detlef followed his plan, and his group rapidly became one of the most productive ones in the IOCB. Although he did not receive any significant funding from the Czech grant agencies, he did receive a prestigious advanced ERC grant from the European Union. Later, he became the vice-chair and then the chair of the physical-chemistry panel in the Grant Agency of the Czech Republic, and he significantly contributed to the changes to make grant awarding more transparent. In 2011, he became the distinguished chair of the IOCB and a member of the Czech Learned Society. Shortly before he passed away, he was awarded the newly introduced Rudolf Lukes Prize, which honors excellent results in organic, bioorganic, and medicinal chemistry. We were very much surprised when this new prize

of the Czech Chemical Society was given first to a German. In fact, it illustrates how much Detlef could influence and impress people with whom he was working and collaborating. Despite the cool welcome upon his arrival, he managed to turn most of his colleagues to his side and to build respect for him and his program. After his untimely death, I have heard from many people how they miss his view of chemistry, his discussions with them, and his generous help with all possible problems and projects.

During his time in Prague, he mainly focused his research on approaching condensed-phase chemistry with mass spectrometry. Specifically, he published a series of contributions about ion solvation. He became interested in the behavior of simple inorganic salts in different solvents, ion pairing and gas-phase chemistry of contact-ion pairs, and in solvation of large organic ions. Another series of his papers addressed reaction mechanisms. His goal was to investigate systems of fundamental interest. For example, he resolved a previous controversy about the mechanism of the pseudo-epimerization of Tröger bases and showed the importance of palladium clusters in Suzuki-Miyaura coupling. In the last years, he very elegantly used the ion-mobility technique for solving structural questions of organic ions and metal complexes.

In addition to developing approaches for correlation between condensed phase and gas-phase chemistry, he also worked on the chemistry of superelectrophiles. After the discovery of bond-forming reactions of molecular dications

in 2006, he developed a complete theory of growth of larger hydrocarbons in interstellar environments and extraterrestrial ionospheres that was based on the reactivity of medium-sized hydrocarbon dications.

Detlef was not only an excellent researcher but also an extraordinary teacher. He was able to pass on to his students a more general view of chemistry and an efficient way to tackle scientific problems. He was patient explaining problems and always available for help.

It was the luck of my life that I could have been Detlef's student, colleague, and also wife. Living and working with Detlef was demanding, but we were both very happy. Detlef was often singing, not only alone in a car, but also everywhere else. As creative as he was in research, he also greatly enjoyed playing with our son. He was excellent in making huge constructions from Legos, or building castles from cardboard. He loved cooking, and we were being spoiled by his cuisine. I loved his bright perceptions and refined sense of humor, and I was proud of his principled manners. Everything seemed so easy by his side. We miss him terribly, but still we are happy that we had the chance to be with him though for such a short time.

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