Arthur Schweiger (1946–2006)

Arthur Schweiger, Professor of Physical Chemistry at ETH Zürich, passed away unexpectedly on January 4, 2006, at the age of only 59.

Having grown up in Zürich, he studied physics at the ETH and graduated with a diploma in 1970 and then joined H. H. Günthard at the Physical Chemistry Laboratory there for his dissertation. Günthard's group of young researchers was pursuing almost all aspects of molecular spectroscopy that were conceivable and exciting at that time. Schweiger's companions, A. Bauder, U. P. Wild, and the already independent R. R. Ernst, all became leading scientists in their respective fields. Schweiger worked on electron paramagnetic resonance (EPR) spectroscopy and, likewise, became one of its undisputed leaders. The hallmark of his research, an intimate mixture of the development of cutting-edge spectrometers, ingenious spin physics, and application to intricate transition-metal complexes, was established already in his dissertation with work on a computer-controlled electron nuclear double resonance (ENDOR) spectrometer, generalized spin operator transforms, and the structure of vitamin B_{12}. For this dissertation, which was completed in 1976, Schweiger was awarded the medal of the ETH.

In the following years, Schweiger applied his deep intuitive understanding of spin physics to the development of new EPR methods. A series of new continuous-wave ENDOR techniques[1] established his reputation as a "spin magician". From then on, he would continuously design new experiments that were highly aesthetic and opened up surprising new perspectives. Both these attributes certainly applied to his first rendezvous with pulse EPR spectroscopy.[2] An experimental signal trace from that work found its way both into the emblem of the International EPR/ESR Society and onto the title page of the issue of *Angewandte Chemie* in which his first review on pulse EPR spectroscopy appeared (Figure 1).[3] For years to come, this review, and another on pulse ENDOR spectroscopy,[4] remained the only introductions into pulse EPR techniques that could be understood by those who were not yet masters of the mysteries of spin dynamics themselves. Arguably, these two reviews transformed pulse EPR from a research field for a select few to an analytical technique accessible to chemists and biologists. It would take ten years before they were surpassed—by a monograph of his own.[5]

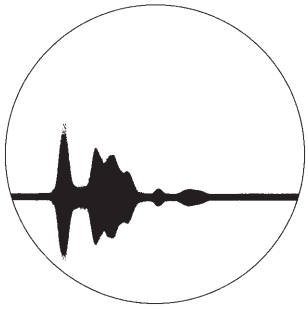

Figure 1.

That it took an entire decade was due to one of Schweiger's main character traits: a great reluctance to sacrifice quality for speed. He knew quite well that human works can never be perfect but wanted to get as close to perfection as possible. Before a manuscript from his group would be allowed to be submitted to a journal, he ensured that everything from the quality of experimental data down to minute typographic details met his elevated standards. His conference talks had the air of an artistic performance, thanks to an abundance of creative ideas matched with careful and often time-consuming preparation. Away from the conference podium Schweiger was a man of extraordinary modesty, bordering on shyness. However, that did not prevent him from successfully managing a sizeable research group. He led by example rather than by command and considered himself not the leader but the humble chauffeur of his group. Now and then he brought one of his ideas to the group seminar or the coffee break, where you could pursue it or ignore it. He never insisted. However, if you worked on it you would usually end up with a paper full of insight.

This quiet man gathered prizes—and friends—throughout his career. Besides the prestigious Werner price of the Swiss Chemical Society, he collected many honors in the field of EPR spectroscopy: the Zavoisky Prize in 1993, the Bruker Lecture of the Royal Society of Chemistry in 1994, and the Gold Medal of the International EPR/ESR Society in 1998. He served the community as an editor of the *Journal of Magnetic Resonance* and in several functions in the International EPR/ESR society. His lectures at the European Summer Schools on EPR were lucid and inspiring.

The aesthetic quality of Schweiger's research and publications was a consequence of his broad interests beyond science. He enjoyed classical music, good meals, and artistic photography, and he was unerring in his judgement about the quality of opera performances, restaurants, and art exhibitions. However, he was not one of those who criticize fine works out of their own artistic inability. With his own photographs, he built a reputation that, judged by rave reviews on the internet, came close to matching his reputation as a scientist.[6]

Arthur Schweiger has gone, but he has left us with impetus and inspiration to continue his work.

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[6] http://www.fotocommunity.de/pc/pc/mypics/592001.

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