

EDITORIAL

Jan Andersson

To Karl Cammann on his 60th birthday

Those who are involved in the business of career planning must get gray hair when they discover the unusual turns of the professional career of Karl Cammann, one of the best known professors of analytical chemistry in Europe today. It also gives food for thought: would such a meandering be acceptable or at all possible today? Even though this path undoubtedly has been immensely productive due to the multitude of experiences that have been collected? Do we lock out promising scientific talents in our increasingly streamlined academic student processing factories because they do not fit an expected pattern? If the answer is yes, why?

When we now congratulate him on his 60th birthday on May 15, it may be instructive to look at the unusual turns of his career and learn from it.

Born in 1939 in Düsseldorf, Karl Cammann experienced the horrors of the Second World War as a pre-school child. He would take his first steps in chemistry in booming post-war Germany. Starting in 1956 he spent three years as a chemistry laboratory technician apprentice at the Max-Planck-Institut für Eisenforschung. This obviously opened up an exciting world to him, for following a compulsory year in the army he went back to school to graduate as a chemical engineer in 1963, thus earning the right to study at the university level.

Before doing so, he went into industry and spent seven years as product line manager at Beckman Instruments in Munich. His experiences there had a profound influence on his professional thinking, for even today his students are treated to scientific and non-scientific reminiscences of that time. When his scientific interests grew stronger, he took up studies for the degree of Diplomchemiker (1970) at the Technical University of Munich, at the same time keeping his industrial position.

It is typical for him that Karl Cammann did not continue straightaway with his Ph.D. studies but instead accepted a

position in the Department of Mineralogy and Petrography at the University of Munich. Here he built up a laboratory for geochronology based on isotope mass spectrometry, a completely new field for him. At the same time he carried out the laboratory work for his doctoral dissertation on “Working Principle of Ion Selective Electrodes” (1975). This was the foundation for his first claim to fame, for his experiences with “Working with Ion-selective Electrodes” led to a book with this title (1973). This was a text that obviously came at the right time, for it has been translated into four languages and experienced two later editions.

It was at this time that I first met Charly, as he was known at the University of Chicago when he was a visiting scientist there. His broad background in various analytical areas was fascinating, as I could more closely observe when I joined him in Munich in 1979 to work with atomic absorption spectroscopy (AAS). Amazingly, he worked nearly alone in the lab but performed a tremendous number of mineralogical analyses and at the same time he did research of his own interest. This led to the appointment as professor of analytical chemistry at the University of Ulm in 1979 and a particularly happy couple of years. He was very grateful to be selected although he lacked the habilitation, the degree usually required for a university professor in Germany. In Ulm he had an excellent opportunity to go into much more depth regarding the mysteries of ion-selective electrodes and at the same time learn to teach and to fuel the enthusiasm of students.

After a one-year stay at the Technical University of Munich he accepted a full professorship at the University of Münster in 1987. He quickly concentrated his considerable energies on the fledgling area of sensors and in less than two years had founded the Institute of Chemo- and Biosensors (ICB) where he is still Director. This institute integrates a multitude of chemical subdisciplines with technological developments. Students doing research at ICB are confronted not only with sensor development but also spectroscopy, chromatography, electrochemistry, immunological chemistry, etc. The very wide range of scientific questions investigated is illustrated in the nearly 100

J. Andersson
Department of Analytical Chemistry,
Westfälische Wilhelms-Universität, D-48149 Münster, Germany

Ph.D. dissertations finished under the guidance of Karl Cammann as well as in some 30 patents.

Some of his patented inventions include a novel AAS background-correction method using a Doppler-shifted monochromatic light source, one of the first microsystem-based potentially implantable glucose sensors, and a near-infrared based ice- and water-thickness measuring device that is cheap and fast enough to be used in vehicles to warn the driver of icy road conditions. He may never need another invention of his – an emergency signal source based on a metallized balloon as radar reflector that is visible also at high waves on the sea – for his wife Jessika, skipper onboard the Scheherazade, knows to sail a steady course when her husband is working at his laptop.

Various national and international organizations benefit greatly from his experience in analytical chemistry, quality control, accreditation, and other areas. As a result, he has also been honored with several awards, like the

technology transfer prize of the Federal Government of Germany, the prize for environmental protection research of the Océ van der Grinten foundation, or winning the competition for a modern definition of the science of Analytical Chemistry in this journal in 1992. This year he will visit Italy to deliver the Ziegler-Natta lecture. This overview gives only a rough picture of the background of the scientist, educator and inventor Karl Cammann and is worth pondering upon for those who believe there is only one road to academic success. His colleagues all over the world have seen him in yet other roles and their appreciation is, I think, amply expressed in the following pages containing scientific work from many countries. They are all thanked cordially for dedicating such excellent research papers to our common friend.

Happy birthday, Charly, and good luck in science, sailing and all other adventures!