



### To Professor Heribert Offermanns on the Occasion of his 75<sup>th</sup> Birthday

Heribert Offermanns, former board member of Degussa AG and honorary professor at the Johann Wolfgang Goethe University, Frankfurt will celebrate his 75<sup>th</sup> birthday on October 24, 2012. Heribert Offermanns was born on a farm in Merksteim close to Aachen, the son of a mining engineer. After having started studying physics at the RWTH Aachen he soon switched to chemistry, a much better fit to his spontaneous and creative personality. There he got to know Prof. Friedrich Asinger, who became supervisor of his doctoral thesis and a lifelong mentor and paternal friend. Early on Asinger recognized Heribert Offermanns' talent and allowed him to take the lead of a group working on heterocyclic chemistry. Through this work he also gained his first contact to Degussa, which later has become part of Evonik Industries. Having already built a reputation he was offered a job without even having had to apply for one. He started in Hanau-Wolfgang, where he headed an organic chemistry lab working on hydrogen peroxide and acrolein chemistry. He was soon promoted and became Head of Drug Synthesis of Degussa's pharma business, Chemiewerk Homburg. From there he moved to Antwerp, Belgium, where he worked as manager of the Aerosil<sup>®</sup>-plant. After a subsequent secondment in the USA, where he managed the Corporate Technol-

ogy Group, he returned to Hanau-Wolfgang as Head of Chemical Research in 1975. Shortly thereafter, in 1976, at just 38 years of age he was appointed to the Board of Degussa, a position he retained until his retirement on December 31, 1999. Throughout an almost 25 year period as a Board Member he held – at different times – responsibility for the pharma business, for Degussa Corporation in the US, for the South American activities of Degussa, as well as for the Industrial Chemicals business unit. Above all, however, spanning several decades he retained responsibility for Research and Development. This was certainly the function he was most passionate about, and he can become very passionate, when it comes to chemistry! There were times when he would even use a board submission to sketch his new ideas about a chemical synthesis in exactly the same way as others would use the back of an envelope! Following one of his many mottos and quotations “Den, der sich mit dem abfindet, was er vorfindet, den können wir hier nicht gebrauchen!” (Those who simply accept what they are presented with, have no place here with us), he shaped the research and development landscape at Degussa. Heribert Offermanns made significant contributions to the development of the Hanau-Wolfgang site, turning it into the central R&D hub for De-

gussa. It was also the stimulating scientific atmosphere Heribert Offermanns created that resulted in the high reputation of research at Degussa. For him it was a “must” that researchers broaden their scientific expertise by regularly attending the lectures series of the German Chemical Society and the scientific Degussa colloquia.

It did not stop there, as he also laid the foundations for the biotechnology activities of Degussa. An early example of this was using the enzyme-membrane-reactor developed by Prof. Regina Kula and Prof. Christian Wandrey at the Research Center in Jülich. This was put into production for the synthesis of L-methionine only three and a half years later by Degussa. The technology, which won the BMBF-Transfer Prize in 1983, is still being used today. Under Heribert Offermanns’ patronage, Degussa later picked up another development by Prof. Kula and her team, the integrated cofactor regeneration. Cofactor regeneration is a precondition for using cofactor-dependent enzymes for commercial application. Prof. Kula and her co-worker, Dr. Martina Pohl, were awarded the Future Prize of the President of the Federal Republic of Germany for this development in 2002. Degussa was the company which first commercialized the process in the 90’s. Heribert Offermanns also supported the development of a fermentation process for the production of L-lysine, and later its industrial implementation at Fermas in Slovakia and, finally, the setting up of the Midwest Lysine Joint Venture with Cargill, as well as the construction of Degussa’s first worldscale plant in Blair, Nebraska. Another scientific highlight in this series was the sequencing of the genome of *Corynebacterium glutamicum*, which was still technically challenging and associated with considerable cost at the end of the 90’s. The biotechnology activities of Degussa and Evonik have continued to grow ever since.

Another important development, which has its roots back then, is the HPPO-process (**H**ydrogen **P**eroxide **P**ropylene **O**xide). Being the only licensable process for the production of propylene oxide not associated with the production of salt or other by-products, today it is the predominant process for new plants worldwide. This development took more than ten years, and it is through Heribert Offermanns’ direct support that the project was not mothballed in economically strained times.

However, Heribert Offermanns’ influence on chemistry has reached far beyond the boundaries of De-

gussa. For him it has been an affair of the heart to contribute to the development of chemistry, wherever he could. For this reason he gave lectures at the Goethe University in Frankfurt, where he became honorary professor in 1982. With numerous public lectures on chemical topics such as hydrogen peroxide and amino acids, he is even today still fostering a broader understanding of chemistry as he has always been convinced that this is the basis for an increased level of acceptance and valuation of chemistry as our profession, our science and our industry. Basic chemical research for him is a value in its own right and he has supported it, wherever he could. The statement “Utility is just a second-order moment” from Immanuel Kant is one of his favorite quotes. This attitude, together with his deep and broad understanding of our science led to both a profound appreciation and highest esteem among his academic colleagues, which is also reflected through the numerous honorary appointments he has held throughout his career. As a Member of the Senate of the German Research Foundation and of the Senate of the Max-Planck Society, he has significantly influenced research policy and funding in Germany. He was a Member of the Board of the German Chemical Society from 1984 until 1991 and later served as its Treasurer.

Heribert Offermanns has always been convinced that academic and industrial research benefit from one another, a view he promoted in many articles and presentations with titles like “Innovation by Cooperation” many years before the term “Open Innovation” became an over-hackneyed phrase. “Basic research converts money to knowledge, applied research converts knowledge to money” is another one of his favorite quotes. It is just one example of his visions of future potential developments and his openness to new endeavours, that he generously agreed in 1996 to host and support – together with Dr. Jürgen Heraeus – the first major international conference on Gold Chemistry in Hanau. The great success of this meeting led to the foundation of a series of highly popular congresses on the subject which now reflects the enormous advances in this field.

Due to this belief in the effectiveness of the cooperation between academia and industry, being a Member of the Board of Trustees of the Fund of the Chemical Industry was probably the honorary position which meant most to him. In this committee board members of German chemical companies work together with outstanding chemistry professors to develop joint political positions and to support exceptional chemical re-

searchers and students. In nearly 25 years on the board, which he headed from 1995 until his retirement, he never missed a single meeting.

For his numerous achievements Heribert Offermanns was awarded an honorary doctorate in engineering at the RWTH Aachen, the Carl Duisberg Medal of the German Chemical Society in 1988, the Karl-Winnacker-Prize of the University of Marburg in 2001 and the Merit 1st Class of the Federal Republic of Germany in 2011.

Only one other of Heribert Offermanns' interest is as strong as his interest in chemistry: his interest in people. Due to this and his amazing memory, he not only knew all Degussa researchers personally, but also had a detailed insight into their research and achievements. He also met with all candidates who applied to be chemists at Degussa, and years later he would be able to recount in a discussion on their hobbies that they had mentioned during their interview.

Developing young co-workers as well as young academic researchers has always been important for Heribert Offermanns. For example, along with Prof. Hans-Jürgen Quadbeck-Seeger from BASF, Heribert Offermanns initiated and – in spite of busy schedules over the years as a Degussa board member – regularly attended the “Steinheimer Gespräche” as a platform for the exchange between young academic researchers, in particular Assistant Professors, and colleagues from academia and industry.

Heribert Offermanns is still very active in publishing *e.g.* about the azalogy principle – substituting a =CH- group by an isoelectronic =N- group in ac-

tive substances –, which was key to many successful products at ASTA Medica, Degussa's former pharma business. He is currently working on a new edition of a book written by his doctoral supervisor Asinger on C1-Chemistry, which is enjoying resurging importance as fossil oil is depleting and shale gas, as well as coal are becoming resources of increasing importance within the global chemical industry.

In spite of all those accomplishments, Heribert Offermanns is still a very much down to earth individual, preferring a simple Franconian regional fare instead of a five course French menu and in improving most of his meals with a few drops of Maggi. In his spare time he loves nothing more than to spend time with his family, he has two daughters and two grandchildren, at their holiday home in Switzerland.

On the occasion of Heribert Offermanns' 75<sup>th</sup> birthday, his former colleagues, co-workers and academic friends present 19 papers in this issue of the Zeitschrift für Naturforschung B: Chemical Sciences, to express to him their deep appreciation and gratitude.

The editors, publishers and the whole ZfN B team would like to join all the authors of this special issue and express their sincere thanks to Professor Heribert Offermanns for his contributions both to industry and to academia.

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