

Heino Finkelmann: 65 Years of Devotion to Science

“Ansgar and Tony, would you like to contribute to a laudation for Finkelmann’s 65th birthday? By the way, the deadline was last week.”

For sure we all have something to say concerning our old mentor from PhD-times. The three of us met in the Finkelmann group in Freiburg some years back, and we believe that we can share our thoughts about Heino and his attitude towards science exemplarily for many of his former group members.

Who is Heino Finkelmann?

He was born and raised in northern Germany shortly before the end of WWII. He started out studying in the field of chemical engineering, which consequently led him to his first positions in the chemical industry in the late sixties. Shortly afterwards he moved to the Technical University of Berlin, where he first encountered the fascinating field of liquid crystals in the group of Professor Horst Stegemeyer. The group moved to Paderborn, where he completed his PhD in the field of cholesteric liquid crystals in 1975. During his next research period, Heino came across the second major component of what would remain the ambition of his whole research life. While spending the following three years as a postdoctoral researcher with Professor Helmut Ringsdorf in Mainz, he combined the anisotropy of liquid crystalline units with the entropylasticity of polymers. In the following years he then worked on his habilitation under the guidance of Professor Günther Rehage in Clausthal which he completed in 1984. After all these years of constant changes, he finally

settled down in Freiburg where he was appointed as Full Professor and Director of the Institute for Macromolecular Chemistry.

Which are Heino’s Achievements?

The creativity of combining liquid crystals with polymer chemistry led to many years of basic research and is well documented in around 300 publications. His research focus ranges from liquid crystalline side-chain and main-chain polymers, all the way to lyotropic liquid crystalline polymeric systems. Undisputable, Heino Finkelmann is the man when it comes to liquid crystalline elastomers. In particular, his work on tunable lasers using cholesteric liquid crystalline elastomers has aroused tremendous interest in the scientific community. The theoretical understanding of liquid crystalline polymers has significantly

advanced through his profound investigations. His work has been - and will be - inspiration for new generations of scientists who like doing serious and systematic science, combining theory and experiment.

He was always a cooperative and supportive person, as can be seen by the number of universities and institutions all over the world which have collaborated with his team, and by him leading a European project and sharing his experience with all members. His persistent, altruistic and pioneering scientific behavior has been acknowledged by the German Chemical Society (Carl Duisberg Memorial Prize) in 1984, by the Alexander von Humboldt Foundation (Gay-Lussac/Humboldt Prize) in 2000, by the European Physical Society (Agilent Technologies Europhysics Prize) in 2003, by the University of Toulouse (Doctor Honoris Causa) in 2004, and by the British Liquid Crystal Society (GW Gray Medal) in 2006.



Figure 1. Group picture of the Finkelmann group in 2005, on the occasion of his 60th birthday.

What Distinguishes Heino's Way of Research and Guidance?

Maybe it is due to the many stages in his own personal career that he always managed to bring together people from all over the world and from totally different scientific roots. A typical day in the Finkelmann group would start with the whole group meeting for the daily coffee break. Here, Heino discussed besides practical issues from the lab also his private passions: family and friends, aviation, and his motorbike. By doing this, he created a familiar and open atmosphere throughout the entire group. You would always find his office door open and Heino taking his time for problems and discussions, or if you simply needed advice of any kind. In the rare cases that the door was locked, you could easily join him during a cigarette break and have a conversation there and then. His recipe for

success is the combination of curiosity, joy, and surely hard work. Always according to the motto: Keep on going. Perseverance will get you there!

This is also regarded as a guideline for many of his former students who can be found proudly working in various areas today – many of them remaining close friends over the years. Exemplarily, Tony, an organic chemist from Spain, is currently at the ETH Zurich pursuing an academic career. Ansgar, having studied chemistry in Münster and Freiburg, has chosen the path into chemical industry. One of the reasons why this laudation is published in this issue of *Macromolecular Chemistry and Physics* (where Heino Finkelmann served as a member of the International Advisory Board for many years – thanks for that on behalf of the whole editorial team) is that Kirsten, originally a chemical engineer, moved to the publishing business after her PhD in Freiburg.

Apart from the extension of deadlines, we gained important aspects of Heino Finkelmann's intellectual attitude from our time together with him. In other words: Stay calm, work hard, question your findings, and don't forget the fun! In this spirit we completed this text during a cheese fondue and a skype session on a Sunday evening in the very last minute. We would like to thank Heino Finkelmann as representatives for over 100 alumni for his lasting influence and for a fruitful and unforgettable time in Freiburg. All the best!

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