

1995

## 54. Burkart Philipp

Otto Vogl

University of Massachusetts - Amherst, vogl@polysci.umass.edu

Ch. Wandrey

Follow this and additional works at: [https://scholarworks.umass.edu/emeritus\\_sw](https://scholarworks.umass.edu/emeritus_sw)

 Part of the [Chemical Engineering Commons](#), and the [Chemistry Commons](#)

---

Vogl, Otto and Wandrey, Ch., "54. Burkart Philipp" (1995). *Polymer News*. 208.  
Retrieved from [https://scholarworks.umass.edu/emeritus\\_sw/208](https://scholarworks.umass.edu/emeritus_sw/208)

This Article is brought to you for free and open access by ScholarWorks@UMass Amherst. It has been accepted for inclusion in Emeritus Faculty Author Gallery by an authorized administrator of ScholarWorks@UMass Amherst. For more information, please contact [scholarworks@library.umass.edu](mailto:scholarworks@library.umass.edu).



**Burkart Philipp**

became acquainted with cellulose and its chemistry when he was working as an apprentice in the Rayon factory in Pirna—an experience that influenced greatly his scientific life.

Burkart Philipp entered the Technical University Dresden in 1947, obtained a B.S. in chemistry in 1950 and a Ph. D. *summa cum laude* in 1952. His graduate work, under the direction of the famous Karl Schwabe was on *Swelling and Dissolution of Cellulose in Various Solvents*. From 1950–1953 he was an Instructor at the Institute of Physical Chemistry and in 1956, he became an Associate Professor.

Since 1953, Burkart Philipp has been active in cellulose and polymer research, first as a scientist in the department of cellulose fibers at the Institute of Fiber Research, in Teltow, near Berlin, later named Institute of Polymer Chemistry of the Academy of Sciences of the GDR. In 1960, he became Director of the Institute and remained in this position until 1981. He was primarily responsible for its transition into the Institute of Polymer Chemistry. In 1965, Burkart Philip was promoted to Full Professor.

In Teltow, Philipp began his comprehensive works about the kinetics and the mechanism of the formation and the decomposition/degradation and derivatization of cellulose. Problems of pulp evaluation, of formation of the structure of alkali cellulose and of the characterization of viscose spinning solutions were also investigated. The supra-molecular structure of cellulose and its reactivity behavior for chemical reactions, especially for the regioselective derivatization in organic solvents, the enzymatic, hydrolytic and thermal degradation of cellulose were also studied.

Since several cellulose derivatives

## Personalities in Polymer Sciences

The name **Burkart Philipp** is closely connected with the physics and chemistry of cellulose, with polyelectrolyte complexes and with polymeric salts.

Burkart Philipp was born on February 8, 1925, in Pirna, Germany, a town in Saxony, situated on the upper Elbe river. He went to elementary and high school in Pirna and graduated in 1942. He first

have ionic characters, polyanion-polycation interactions, also of synthetic materials, were investigated. This work resulted in both highly recognized scientific achievements and also in new practical applications, such as in membranes and microcapsules.

Professor Philipp has always been interested in the development of the scientific junior staff and also in the publication of new results and the dissemination of new knowledge. He lectured on polymer chemistry at the Technical Universities of Magdeburg and Dresden. He supervised numerous graduate students; some of his students have become professors. Burkart Philipp published more than 600 scientific papers and presented a great number of invited, main and plenary lectures.

Burkart Philipp has been not only active as an author but also as an editor. He was coeditor of *Acta Polymerica* and its predecessor *Faserforschung und Textiltechnik* for more than 25 years. He is or was a member of the editorial board of a number of highly regarded Journals, including *Cellulose Chemistry and Technology* and *Progress in Polymer Science*; he is also a contributing editor to *Polymer News*.

The scientific work of Burkart Philipp was always connected with additional activities. In 1969 he became Corresponding Member and in 1971 Full Member of the Academy of Sciences of GDR. From 1967-1980, he was at the Head of the Division of Macromolecular Chemistry of the Chemical Society, and in 1980 he was elected President of this Society. Since 1981 he is a Member of the IUPAC Division of Macromolecules and was the Chairman of the IUPAC Symposium on Macromolecules in Merseburg in 1987.

Philipp's scientific work and his other activities were widely recognized and he has received a number of awards and Medals: the Friedrich Wohler Prize in 1963, the Kekule Medal in 1976, the Mitscherlich Medal in 1981, and an honorary doctoral degree in 1984. In 1993, he received the Distinguished Service Cross First Class of the Federal Republic of Germany for his merits in connection with the reformation of science and research in the Bundesland Brandenburg after 1989. He was especially cited for his accomplishments in the reorganization of the Institute of

Polymer Chemistry in Teltow. In September 1994, he was awarded the Hermann Staudinger Prize of the Society of German Chemists.

After the reunification of Germany, Philipp was again elected the Director of the Polymer Institute in December 1989 and was largely responsible for the creation of the new research center, founded in Teltow, in the beginning of 1992. This Center is at the area of the former Institute of Polymer Chemistry and houses the Max Planck Society, the Fraunhofer Society, the Research Centre Geesthacht and the University of Potsdam. Up to the time of his retirement in July 1993, he had a leading position in the newly founded Max Planck Institute for Colloid and Interface Research. He was also responsible for the cellulose research activities that were established in the Fraunhofer Institute of Applied Polymer Research.

Because of his general interest to accomplish, his undisputed competence, reliability and organizing ability, he became involved in additional activities, such as the Committee on raw materials from renewable sources, in several commissions and as an expert during the integration of research in Germany.

When asked how he could manage all these activities, scientific and otherwise, he frequently answered: "I have always enjoyed my work!"

Since 1952 Burkart has been married to Helga Philipp, who has always supported his activities and professional interests. They have two daughters and now having more time he enjoys looking after his four grandchildren.

**This article was submitted by Ch. Wandrey, Teltow, Germany and Otto Vogl, Brooklyn, NY.**