

Written by experienced authors, this book presents numerous natural everyday products with a high range of structural diversity. Twenty natural products have been arranged in five sections, describing three alkaloids, five colored compounds, three carbohydrates and glycosides, seven terpenoids, and two aromatic compounds.

Adopting a highly didactical approach, each chapter features a uniform structure: Background in-depth information about isolation processes and structural characterization. The assignment of the  $^{13}\text{C}$  NMR spectra of all compounds are confirmed by accompanying quantum chemical calculations of structure and chemical shifts using contemporary ab initio methods. A comprehensive overview of UV-, IR- and NMR-spectroscopy as well as mass-spectrometry for every exemplified compound is provided and the understanding of these methods is supported by concluding questions and exercises.

Educating and entertaining, this full-color textbook turns the learning process into a real pleasure, not only for students in natural products chemistry but also experienced professionals.



**Dieter Sicker**, born in Chemnitz in 1954, was fascinated by the processes involved in cooking, which led him to chemistry as a profession. Since 1997 he is an associate professor at the University of Leipzig. Benzoxazinoid resistance factors in cereals and microbiologically produced carboxylic acids belong to his research interests. Since 2006 he is dedicated to the reestablishment of the isolation of natural products, which combines organic and analytical chemistry, in the curriculum of chemistry degrees.



**Klaus-Peter Zeller**, born in Baden Baden in 1944, worked several years as technician before he could pursue his dream to study chemistry. In 1972 he received his doctoral degree from the University of Tübingen. After postdoctoral work at the Heriot-Watt University in Edinburgh, he returned to Tübingen where he became a professor in 1983. His research and teaching interests focus on reaction mechanisms, photochemistry, mass spectrometry, and more recently science history.



**Hans-Ullrich Siehl**, born in Herford in 1946, studied chemistry at the University of Tübingen. After his PhD thesis with Prof. M. Hanack at the University of Saarbrücken, he was a postdoctoral fellow with Prof. M. Saunders at Yale University, Connecticut. He completed his habilitation on NMR spectroscopy of reactive carbocations in 1987 at the University of Tübingen and became a JSPS guest professor at Kyushu University, Japan. At Ulm University since 1995 his main interests in experimental physical organic chemistry and NMR spectroscopy were successively expanded and complemented by quantum chemical methods such as computational NMR spectroscopy.



**Stefan Berger**, born in Heidelberg in 1946, received his PhD in Organic Chemistry at the University of Tübingen with Prof. A. Rieker. Then he worked as a postdoc at Caltech with Prof. J. D. Roberts from 1973 to 1974. In 1981 he completed his habilitation and became adjunct professor in 1988 at the University of Marburg. From 1997 to 2013 he worked as full professor of analytical chemistry at the University of Leipzig. He is the coauthor of several standard textbooks on NMR spectroscopy.



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Hans-Ullrich Siehl, Stefan Berger

# Natural Products

Isolation, Structure Elucidation, History

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