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Research into the physical properties of organic solids, especially those containing conjugated π-electron systems, has developed into an active and attractive sub-area of solid-state physics over the last few decades.

There are several reasons for this development. First of all, there is the enormous diversity of properties typical of organic solids, such as long-distance energy transfer via excitons without electric-charge transport. With the powerful methods of organic chemistry, it is possible to vary these properties over wide ranges with "tailor-made" molecules. Secondly, new applications are under development, such as organic light-emitting diodes and novel molecular electronics, which supplement electronic components based on inorganic semiconductors. Finally, organic solids represent a link between traditional physics and biological physics: Organic solid-state physics has made important contributions to the clarification of the elementary processes of photosynthesis, for example.

This textbook has been written for graduate students and researchers, but will also be an interesting and valuable information source for all physicists, physical chemists and chemists wishing to learn more about the fascinating variety of organic solids. It is an introduction to the fundamentals of this topic, featuring detailed references and problems.

Professor Markus Schwoerer *studied physics at the ETH Zurich, Switzerland, and at the University of Stuttgart, Germany, where he received his Ph.D. in 1967. In 1975, he accepted a professorship for experimental physics at the University of Bayreuth. He received the Annual Award for Chemistry from the Academy of Science at Göttingen in 1974. From 1996 to 1998, Professor Schwoerer was President of the German Physical Society (DPG). His main research interest is the physics of organic solids.*

Professor Hans Christoph Wolf *studied physics, chemistry and biology in Freiburg and Tübingen, both Germany, where he received his Ph.D. in 1952. From 1952 to 1954, he worked as a researcher in physical chemistry at the Technical University of Munich. After several years as an assistant professor, he was awarded a full professorship at the Third Physical Institute of the University of Stuttgart, of which he also became director, and from which he retired in 1997. Professor Wolf received the Otto Hahn Award of the German Physical Society and the Society of German Chemists (GDCh) in 2000. He was a member of the editorial boards of numerous international journals and is one of the most renowned and established authors in the fields of atomic and molecular physics. His field of research is the physics of organic solids.*

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