

## **Preface**

### **Physics of Organic Semiconductors**

Organic semiconductors are of steadily growing interest as active components in electronics and optoelectronics. Due to their flexibility, low cost and ease-of-production they represent a valid alternative to conventional inorganic semiconductor technology in a number of applications, such as flat panel displays and illumination, plastic integrated circuits or solar energy conversion. Although first commercial applications of this technology are being realized nowadays, there is still the need for a deeper scientific understanding in order to achieve optimum device performance.

This special issue of *physica status solidi (a)* tries to give an overview of our present-day knowledge of the physics behind organic semiconductor devices. Contributions from 17 international research groups cover various aspects of this field ranging from the growth of organic layers and crystals, their electronic properties at interfaces, their photophysics and electrical transport properties to the application of these materials in different devices like organic field-effect transistors, photovoltaic cells and organic light-emitting diodes.

Putting together such a special issue one soon realizes that it is simply impossible to fully cover the whole area of organic semiconductors. Nevertheless, we hope that the reader will find the collection of topics in this issue useful for getting an up-to-date review of a field which is still developing very dynamically.

Augsburg, April 2004

Wolfgang Brütting