This volume contains the text of selected presentations from the 16th European Symposium on Polymer Spectroscopy (ESOPS16) held at the Rolduc Abbey, Kerkrade, The Netherlands from May 29–June 1, 2005. The conference was jointly organized by Philips Research and Eindhoven University of Technology, both located in the Netherlands.

The European Symposia on Polymer Spectroscopy (ESOPS) are held biennially to review the latest research and development in the application of spectroscopy to the characterization and analysis of polymer systems. All types of spectroscopy are welcome. ESOPS has become the leading European meeting in polymer spectroscopy attracting participants from all over the world. The symposium brings together scientists specialized in different spectroscopic techniques, giving them the opportunity to broaden their minds beyond their individual specializations. The symposium is intended not only for those who are actively engaged in the field, from both industry and academia, but also for those wishing to become acquainted with the latest developments.

The program consisted of invited and contributed lectures and posters and the following subjects were covered: Plastic Electronics, Biopolymers, Interfaces, Process analysis, Engineering Plastics and Coatings.

True to tradition, molecular vibrational spectroscopic techniques like UV-VIS, IR, NIR and Raman are well represented. At ESOPS 16 special attention was paid to other techniques like NMR, XPS, SPM and hyphenated techniques. The collection of papers in this volume illustrates the importance of characterization techniques for the understanding, designing, and controlling of material properties and performance.

We thank the authors of the papers for their invaluable contributions to this volume. We also acknowledge the colleagues who reviewed the manuscripts. We would like to express our gratitude to the members of the International Advisory Board for their help before and during the conference, and last but not least all participants for their contribution to make the conference a success.

J. A. J. Jansen, J. G. P. Goossens