

Preface

Poland was the first country in Central Europe to host one of the series of International Vacuum Microbalance Techniques Conferences, the 27th, in 1997. The Conference was organized by the Thermal Analysis Group in the newly created Department of Physico-chemistry of Solid Surfaces (Institute of Physical Chemistry, Chemistry Faculty, Maria Curie-Skłodowska University in Lublin). The joint sponsors were the Polish Chemical Society, the Science Society of Lublin and the Polish Society of Calorimetry and Thermal Analysis, together with IUPAC, BKM Mainz (Germany) and 17 different companies from Lublin (Poland).

Seventy participants from 10 countries (Argentina, England, Germany, The Netherlands, Hungary, Italy, Poland, Russia, Spain and Ukraine) and 5 exhibitors of scientific apparatus (C.I. Electronics Ltd, England; Mettler-Toledo, Warsaw; Projekt & Montaz, TA Instruments, Warsaw; and TAK Poland, Warsaw) took part in the 27th IVMT Conference. The opening ceremony was attended by the Rector of M.C.-Skłodowska University, Kazimierz Goebel, the Vice-Rector of M.C.-Skłodowska University, Zbigniew Krupa, the Vice-Dean of the Chemistry Faculty, Jan Rayss, the Chairman of the International Steering Committee, Erich Robens, the IUPAC Representative, Adam Hulanicki, and the Conference Chairman, Piotr Staszczuk.

The six plenary lectures were presented by F. Paulik (Hungary), E. Robens (Germany), L. Stoch (Poland), S. L. Randzio (Poland), Z. Ali (England) and G. W. Chadzynski (Poland). There were additional 18 lectures and 31 posters. The topics of the conference included measurement of the change of sample mass loss in vacuum and in a controlled atmosphere, balance history and modern technical studies and applications, sorption measurements, chemical reactions and phase transitions. The participants presented new and pioneering methods, results and practical applications of microbalance techniques and special thermal analysis methods. The results of studies of important materials (adsorbents, zeolites, superconductors, minerals and new chemical compounds) by means of various apparatus, and their theoretical interpretation, were presented. During the plenary and poster sessions, there were many discussions and exchanges of opinions and papers, and many new contacts and plans for cooperation were made. The abstracts of the contributions were collected in the Conference Abstracts Book.

The conference was summarized by the Chairman of the International Steering Committee, Erich Robens. The 28th IVMT Conference will take place in Kiev (Ukraine) in 1999 and the 29th IVMT Conference in Middlesbrough (UK) in 2001. Erich Robens was confirmed as Chairman of the International Steering Committee, and Grzegorz Chadzynski (Wrocław, Poland), Piotr Staszczuk (Lublin, Poland) and Amara Jayaweera (Middlesbrough, UK) were elected as Vice-Chairman. Information on the 27th IVMT Conference was published on the Internet and on the local Lublin radio and TV. I would like to mention with gratitude the work of the Science and Organizing Committee members. The meetings took place in an excellent, friendly atmosphere. Three excursions allowed the participants to see the historic town and some of the lovely countryside. The Organizing Committee subsequently received many letters from participants, congratulating it on a successful international event.

The participants were invited to submit manuscripts for publication in a special issue of *Journal of Thermal Analysis and Calorimetry* devoted to the 27th IVMT Conference. The received manuscripts were reviewed by a double team of referees; one was chosen by the Journal, and the other by the Guest Editor. The process has now been completed with the publication of the present issue containing the selected papers. I hope that they will be of interest to readers. I thank all the authors for providing the manuscripts, and all the referees, who preferred to contribute anonymously, for their careful reviewing. Finally, I wish to express my profound gratitude to the editorial staff, and especially Prof. Judit Simon, Editor-in-Chief, who has made possible the appearance of this issue with the highest standards of quality.

Piotr Staszczuk
Guest Editor

