

Preface

The Vth International Conference on Methods and Applications of Fluorescence Spectroscopy, MAFS V, held in Berlin, September 21–24, 1997 was one in a series following MAFS I and II in Graz (1989 and 1991), MAFS III in Prague (1993), and MAFS IV in Cambridge (1995). It covered the state of the art in fluorescence spectroscopy and its applications in various disciplines such as chemistry, physics, biology, and medicine. The diversity of these scientific branches alone shows the marked interdisciplinary character of the MAFS V, which brought together 261 researchers and applicants from 32 countries. The presentations included 24 invited oral presentations and 218 posters.

This issue contains part one of the peer-reviewed papers submitted at the conference, which again reflect its interdisciplinary character. The traditional applications of fluorescence in biology and medicine were extended to new aspects in applications of fluorescence probes in polymer materials science and engineering at this conference. The main topics of the conference focused on methods and applications of fluorescence. The methods were represented by contributions of time resolved spectroscopy, multidimensional luminescence, conventional and near-field fluorescence microscopy, two-photon fluorescence, fluorescence correlation spectroscopy, single-molecule detection, luminescence quenching, fluorescence depolarization, fiberoptical methods, and energy transfer. In parallel, many contributions emphasized the applicational side: membrane studies, protein studies, voltage-sensitive dyes, pharmaceutical analysis, clinical analysis, fluorescence immunoassay's, DNA studies, imaging of biomaterials, chromatography, environmental analysis, polymer characterization, free volume probes, and polymer process

control. The papers published in this issue are grouped into energy transfer, fluorescence probes, membrane studies, luminescence analysis, imaging of biomaterial, polymer characterization, protein studies, and time-resolved spectroscopy.

We wish to express, also on behalf of the Organizing Committee, sincere thanks to all authors and reviewers for their kind collaboration. We would also like to acknowledge the substantial financial support of the Deutsche Forschungsgemeinschaft, the Gesellschaft Deutscher Chemiker, and the Fonds der Chemischen Industrie to conference participants from Eastern Europe, Asia, Third World countries, and students. Special thanks go to the sponsors (BASF AG and Shimadzu Europe GmbH) and the exhibitors (AMKO GmbH, Hamamatsu Photonics, Instruments S.A. GmbH, L.O.T.-Oriel GmbH, Laser 2000 GmbH, Photomed GmbH, PicoQuant GmbH, Polytec GmbH Büro Berlin, SLT-Tecan Deutschland GmbH, SOPRA GmbH, SpectroLas GmbH), who also helped to finance this conference.

The next MAFS conference, MAFS VI, will be held in Paris in 1999 under the chairmanship of Professor B. Valeur.

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