
Preface

The field of fluorescence continues to grow steadily, both in fundamental aspects and in applications. For instance, the number of scientific articles published every year that contain the word 'fluorescence' in the title has increased approximately linearly in the last 50 years (ISI data), from 150 in 1960 to 3,200 in 2005. These articles are only a small fraction of the total number of publications. A search with the same keyword 'fluorescence' anywhere in the article yielded nearly 16,000 articles for the year 2005, a high number indeed, and that exceeds the corresponding figure for 'NMR,' another powerful spectroscopy.

The present book, which is the fourth in the Springer Series on Fluorescence, collects articles written by speakers of the *9th International Conference on Methods and Applications of Fluorescence: Spectroscopy, Imaging and Probes* (MAF 9), held in Lisbon, Portugal, in September 2005, along with a few invited articles. The meeting, with more than 300 participants from 33 countries, included 18 plenary and invited lectures.

Current issues related to fluorescence are discussed in the present book, including recent advances in fluorescence methods and techniques, and the development and application of fluorescent probes. Historical aspects and an overview of fluorescence applications are also covered. Special emphasis is placed on the fluorescence of artificial and biological nanosystems, single-molecule fluorescence, luminescence of polymers, microparticles, nanotubes and nanoparticles, and on fluorescence microscopy and fluorescence correlation spectroscopy.

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