INTRODUCTION

Two major steps in photosynthesis, the most important biological process of solar energy conversion and storage, are light-harvesting in the antenna complexes and charge separation in the reaction centers.

The first international workshop devoted exclusively to organization and function of photosynthetic light-harvesting systems was held in 1987 in Freising and resulted in the first monograph on this subject. Since then, new and more powerful experimental techniques have appeared: reconstitution techniques and site directed mutagenesis allows preparation of specifically modified antenna systems, which, in combination with improved (laser) spectroscopic techniques provide novel information for the test of models and theoretical concepts.

The aim of the second workshop held in Freising (FRG) from March 20th to April 3rd, 1992 was, therefore, again to bring together representatives of the leading research groups working on the different antenna systems of the entire range of photosynthetic organisms with different methods and to discuss structure-function relationships. The interdisciplinary character is apparent from the various contributions ranging from botany, microbiology, and molecular genetics to the most advanced spectroscopic techniques and quantum mechanics.

It was generally accepted that the presentation of the current status of research in this field should be accessible to a larger community than the circle of participants. We, therefore, appreciate the possibility to publish most of the contributions of the workshop in a dedicated "Symposium-in-Print" issue of Photochemistry and Photobiology and generate thereby a well-accessible, second "monograph" on photosynthetic antennas within a reasonable time after the conference. Our thanks are due to the authors for submitting their contributions in time, to the reviewers for their comments, which helped to improve the presentation, and finally, to the editorial office of Photochemistry and Photobiology for making it the first issue in 1993.

As usual, many people have worked hard to make the workshop a successful one. Special thanks are due to Mrs. B. Thormann and Mrs. T. Neuner. We also acknowledge the hospitality of the staff of the "Bildungscentrum der Erzdiözese München-Freising". Finally, we want to express our gratitude to Deutsche Forschungsgemeinschaft, Bonn, who sponsored this meeting via the Sonderforschungsbereich 143: Elementarprozesse in der Photosynthese.

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