

Proteins at Interfaces III State of the Art

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Proteins at Interfaces III

State of the Art

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Foreword

The ACS Symposium Series was first published in 1974 to provide a mechanism for publishing symposia quickly in book form. The purpose of the series is to publish timely, comprehensive books developed from the ACS sponsored symposia based on current scientific research. Occasionally, books are developed from symposia sponsored by other organizations when the topic is of keen interest to the chemistry audience.

Before agreeing to publish a book, the proposed table of contents is reviewed for appropriate and comprehensive coverage and for interest to the audience. Some papers may be excluded to better focus the book; others may be added to provide comprehensiveness. When appropriate, overview or introductory chapters are added. Drafts of chapters are peer-reviewed prior to final acceptance or rejection, and manuscripts are prepared in camera-ready format.

As a rule, only original research papers and original review papers are included in the volumes. Verbatim reproductions of previous published papers are not accepted.

ACS Books Department

Preface

This book is based on the Proteins at Interfaces III symposium held at the 243rd American Chemical Society meeting in San Diego March of 2012. The symposium was sponsored by the Colloid and Surface Science division, whose support and help we gratefully acknowledge, especially the warm welcome and continuous aid given to us by the program chairman Ramanathan Nagarajan. We also wish to thank the American Chemical Society book division for agreeing to publish this volume, in particular our editor Timothy Marney who helped us throughout to keep on time with the many tasks involved in preparing this volume. Ms. Arlene Furman was our invaluable assistant editor throughout the process, and we are especially grateful for her thorough work in guiding us through the many steps involved in getting each manuscript through the review process. The authors who contributed chapters are thanked again for their willingness to share their knowledge of Proteins at Interfaces. Finally, we wish to acknowledge the contribution of Dr. Dan Li, Soochow University, who provided the cover art.

The chapters in the book are grouped into five general areas: physical chemistry, computer simulation, biological effects, protein resistant surfaces, and techniques for the study of protein adsorption and adsorbed proteins. We considered these to be major categories into which the research in this area falls; the introductory chapter is organized along the same lines. We also wish to point out that the various chapters typically include elements that represent more than one of these areas; we placed them in the topic area we felt they were most closely related to.

As the book's title indicates, this is the third volume of its type to appear. The prior two also originated from symposia sponsored by the ACS Colloid and Surface Science division, and were published by ACS books division: ACS Symposium Series Vol. 343, *Proteins at Interfaces, Physicochemical and Biochemical Studies*, J. L. Brash and T. A. Horbett, editors, American Chemical Society, Washington, D.C., 1987; ACS Symposium Series Vol. 602, *Proteins at Interfaces II: Fundamentals and Applications*, T. A. Horbett and J. L. Brash, editors, ACS Books, Washington, D.C., 1995. The general intent for all three initiatives was the same, namely to bring together the many groups around the world working on proteins at interfaces to share their ideas and knowledge, and to document the current state of the art in the resulting publication.

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