

Preface

The involvement of nucleic acids in biological systems has stimulated intensive research in the biological sciences. Advances in recent years have led not only to new and fundamental concepts concerning the role of nucleic acids in biology and biochemistry but also to the introduction of novel methodological approaches to these areas of research in general. These two volumes represent an attempt to cover, comprehensively, the established biochemical and biological procedures and the more advanced techniques of importance in current efforts. They are designed to provide a collection of methods to those already involved in these fields of investigation as well as to those in closely related disciplines whose research has lead them into areas in which nucleic acids are involved.

The first volume considers the chemistry and enzymology of nucleic acid components, including oligonucleotides; the preparation of tissue organelles; and the preparation and fractionation of nucleic acids. The second volume covers additional isolation and purification procedures for high molecular weight nucleic acids; chemical, enzymatic, physical, and immunochemical characterization as well as techniques for altering the structure of nucleic acids; systems for studying nucleic acid biosynthesis; and biochemical and biological systems in which nucleic acids play an important role such as protein synthesis and genetic transformation. Reference is made to articles from previously published volumes of *Methods in Enzymology* as they relate to specific sections under consideration.

The authors wish to thank the numerous contributors to these volumes for their valuable cooperation; their articles have been read with a growing sense of satisfaction and confidence. We also wish to thank Mrs. Mildred Selikson for her intelligent and invaluable assistance in dealing with the extensive correspondence involved in organizing these volumes and Academic Press for its superlative organization of the production of these volumes.

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