Sidney P. Colowick and Nathan O. Kaplan

Methods in ENZYMOLOGY

Volume 122

Vitamins and Coenzymes

Part G

Edited by

Frank Chytil

Donald B. McCormick

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Preface

Since Volumes 62, Part D, 66, Part E, and 67, Part F of "Vitamins and Coenzymes" were published as part of the *Methods in Enzymology* series considerable new information has become available. Advances continue to be made, rapid in some cases, on techniques and methodology attendant to assays, isolations, and characterization of vitamins and those systems responsible for their biosynthesis, transport, and metabolism. In some instances, additional coenzymic forms of principal groups, e.g., pterins, are now known to participate in roles not heretofore recognized, e.g., methane formation. In others, e.g., porphyrins and hemes, the coenzyme-like function of many warrants inclusion in current volumes.

Because of the new information on vitamins and coenzymes and the certainty that methods attendant to this area continue to provide impetus for further research, we have sought to provide investigators with more current modifications of earlier procedures as well as with those that have newly evolved. The collated information is divided into two new volumes that are the result of our efforts in soliciting contributions from numerous, active experimentalists who have published most of their findings in the usual, refereed research journals. Volume 122, Part G, covers most of the classically considered "water-soluble" forms including ascorbate, thiamin, pantothenate, and biotin. Volume 123, Part H, covers the "fat-soluble" groups of A, D, E, and K, and also covers B_{12}, carnitine, heme, and porphyrins.

We should like to express our gratitude to the contributors for their willingness to supply the information requested and for their tolerance of our editorial revisions. There has been an attempt to allow such overlap as would offer flexibility in the choice of method rather than presume any one is best for all laboratories. Omissions may be deliberate where modification of a "tried and true" technique is quite minor, but in some cases may be attributed to inadvertent oversight of the editors. We believe these volumes will provide useful and fairly replete addendums to the six earlier ones on this subject: 18 A, 18 B, 18 C, 62 D, 66 E, and 67 F.

We wish to acknowledge the encouragement of the founding editors of the *Methods in Enzymology* series, Dr. Nathan O. Kaplan and the late Dr. Sidney P. Colowick. It is with sadness that we join our colleagues in no longer having the kind and sapient advice of Dr. Colowick. Continued thanks are due to the staff of Academic Press for their help.

FRANK CHYTIL
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