



Handbook of Biochemistry

Selected Data for Molecular Biology

Second Edition

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whose assistance is acknowledged in the list of
contributors and in connection with their specific
contribution**

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Preface

In the past two decades, biochemistry has extended into new areas. Medicine, modern biology, genetics, immunology, biophysics and molecular biology are among the disciplines enormously advanced by its contributions. We believe it is just this breadth that underlined the need for a modern Handbook of Biochemistry that would, on a continuing basis, make new, unique, in-depth compilations of critically evaluated data available to graduate students, post-doctoral fellows and research workers in selected areas of biochemistry. This belief was amply affirmed by the gratifying acceptance of the first edition.

In the preparation of this second edition, the flourishing state of biochemistry and the disciplines closely related to it has provided a wealth of new data to the editor and his coworkers. The volume is, therefore, substantially larger than its predecessor. It could have been even larger were it not for the exercise of great care to reduce duplication and to eliminate obsolete material. However, all areas of potential interest have not been covered in this edition. We have not attempted to meet the needs of the beginning student, nor have we included tables that can readily be found elsewhere. Indeed, we have concentrated the major thrust of this compilation on today's principal research frontiers, and, as a result, certain areas of important biochemical interest are relatively neglected; we hope none have been ignored.

This second edition is some 600 pages larger than the first edition, the bulk of the increase being accounted for by 59 new tables. Only 22% of the pages in this volume are reprinted unchanged from those in the first edition. Most of the tables from that edition have been extensively revised, up-dated and expanded to accommodate the new data published in the vastly expanding, primary literature. In addition, the index has been enlarged three-fold to facilitate the use of the Handbook.

We shall continue to up-date the information published in the Handbook and, in subsequent editions, hope to fill the gaps. It is also our intention to expand the subject matter covered to include new data as information is acquired.

The editor wishes to thank the numerous contributors, Robert A. Harte and the Advisory Board for their willing and valuable cooperation. Without their aid, this book would not have been possible. Special acknowledgements are due to the editorial staff of The Chemical Rubber Co., particularly Mrs. Florence Thomas and Mrs. Ruth Pokorny for their intelligent and invaluable assistance in the editing of the manuscript and the preparation of the index. The editor, however, is responsible for the scope and the organization of the tables.

Once more, comments and criticisms regarding format and selection of subject matter are invited, as well as specific suggestions for new data (and their sources) which might be included in subsequent editions. We hope that errors and omissions in the data that appear in the Handbook will be brought to the attention of the editor and the publisher.

August 1970

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Chart of Biochemical Pathways

Insert

Outlining the dynamic relationships that exist in intermediary metabolism and illustrating the interdependence of the various biochemical systems involved in energy storage and utilization, biosynthesis and catabolism. Several hundred biochemical reactions are shown associated with metabolic pathways in terms of precursors, intermediates, substrates, products, enzymes, cofactors, coenzymes and inhibitors.

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PEPTIDES AND PROTEINS

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