

## Book review

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*Methods in Enzymology*, S. P. COLOWICK AND N. O. KAPLAN, Editors-in-chief. Volume XLI, *Carbohydrate Metabolism*, Part B, and Volume XLII, *Carbohydrate Metabolism*, Part C, edited by W. A. WOOD, Academic Press, New York and London, 1975, 564 and 537 pages, respectively; \$32.50 and \$31.50.

The original seven volumes of the treatise on "Methods in Enzymology" has served an admirable purpose in presenting a comprehensive compilation of methods used in the study of enzymes, including methods for the assay, isolation, and purification of enzymes, the preparation of substrates and co-substrates, and general analytical procedures for the characterization of enzymes. With the rapid expansion of knowledge that has occurred in enzymology, it became increasingly difficult for the editors to keep up with the developments in the various areas. Accordingly, the policy was instigated of selecting editors who are experts in the various fields of enzymology, and giving them the responsibility of publication of supplemental volumes dealing with a particular subject area.

The tendency of the editors of the supplemental volumes, including Volumes XLI and XLII, has been to make the volumes all-inclusive rather than selective. As a result, an enormous expansion in the series has occurred, so that it now consists of 7 original volumes and 36 supplemental volumes. One wonders if such an expansion and proliferation of the published word is justified, or in fact is necessary, even in an area as dynamic as enzymology.

Some of the original decisions on editorial policies for the treatise could well be re-evaluated. Is it necessary to publish specific procedures for enzymes that catalyze the same reaction but are obtained from different sources? The policy had been that such procedures would be published only when distinct differences in properties of the enzyme preparations had been demonstrated. But, in the two current volumes on carbohydrate metabolism, there are five articles describing the isolation of 6-phosphogluconate dehydrogenase, five on glycerophosphate dehydrogenase, seven on glucose 6-phosphate dehydrogenase, and seven on phosphofructokinase. Although the biological source of an enzyme such as glycerophosphate dehydrogenase (the honey bee, chicken heart-muscle, *Escherichia coli*, pig brain, and beef liver) may affect the type of methodology that is selected for purification, it should be possible to present the information in a single, concise article stressing basic principles and manipulations. If they exist, differences in the properties and physical constants of an enzyme prepared from different sources could be compiled in a table. A perusal of the properties of the glycerophosphate dehydrogenase isolated from the various biological sources does not reveal such striking differences that separate articles are justified.

It is regrettable that it was not possible to instigate the policy of checking of procedures by independent workers. In some of the articles in the current volumes on carbohydrate metabolism, the procedures in the original literature are described almost *verbatim*. Little effort seems to have been made to devise and incorporate improvements in the methods, or to check the reproducibility of the procedures.

"Methods in Enzymology" has filled, and will continue to fill, a vital need of the enzymologist. It is a central and quick source of information. Supplements for various areas of enzymology should certainly be issued as justified by new developments and discoveries in the area. However, greater discretion in the selection of the contents for supplemental volumes should be exercised, in order to avoid unnecessary and repetitious cataloguing of procedures for the same or similar enzymes.

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