
Fundamentals of Organic Chemistry. *James Bryant Conant, Albert Harold Blatt.* Macmillan Company, New York. 1950. ix+413 pp. \$4.00.

The authors of this book set as their objective the presentation of organic chemistry for students planning to enter a vocation connected in one way or another with applied biology. A broader purpose is expressed in the secondary motive of describing organic chemistry in the world of today in terms of its proper place in an industrial society such as ours and in terms of the products and the raw materials.

To make it possible to achieve these additional objectives in presumably a one-semester course, considerable compression must be exerted on the conventional curriculum of organic chemistry. The compression has been done very well in what is probably the only feasible way: the most notable eliminations are in discussion of mechanisms of reactions, reaction rates, and equilibria. The classic topic of organic colors is reduced to a total of several pages of description, interspersed in the discussion of aromatic compounds at points at which the intermediates or related compounds are encountered.

As usual, special chapters are devoted to polyhydric alcohols: fats and oils, stereoisomerism, carbohydrates, amino acids and proteins, and heterocyclic compounds; and in all of these, the emphasis is placed on biochemical interpretation. The secondary objectives of the authors are most definitely accomplished in the following admirable chapters: "Gasoline and Rubber," "Industrial and Laboratory Syntheses," "Biochemical Processes," and "Natural and Synthetic Drugs." Industrial organic chemistry is treated mainly as their objective would require, in terms of the raw materials and the needs of our technology.

In the field of synthetic medicinals, the classic "cut-and-try" exploratory method is described, but then in the discussion of drug antagonism in the sulfa drugs, the explanation in terms of enzyme complexes is brought out and thus a possible rational basis of chemotherapy. Indeed, the biochemical thread of enzyme chemistry runs through all these discussions, in connection with vitamins, drugs, carbohydrate and protein metabolism, and alcoholic fermentation. The cumulative effect of these presentations is to make the student aware of the place of organic chemistry in all of these fields—in terms of present achievement and in terms of the promise of valuable results in the investigation of as yet unsolved problems.

This text then consists of first an able presentation of the structural concepts of the most important chemical reactions in organic chemistry. The further discussion of the application of this basic knowledge in industrial and biological problems is carried out in such a way that the authors' secondary objectives are very effectively achieved. The place of the book is in a course for non-chemistry majors. With acceptance of the philosophy that students in the fields of applied biology can profit through increased interest and from a biochemical slant to the subject matter, this book is highly recommended.

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