

The Position of Organic Chemistry in a General Chemistry Course

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Organic chemistry is very often confusing and uninteresting to beginning students, and their attitude may be reasonably considered justifiable. I am now speaking of the organic chemistry as it is presented to our high school and college students taking an introductory course in general chemistry. True, the student is introduced to carbon compounds in these courses but it is the impression that this is done in such a fashion as to leave the student with the idea that organic chemistry is "advanced," and very difficult to absorb. Sufficient organic chemistry should be introduced to round out the beginner's point of view. Organic chemistry should be of more general interest than the material ordinarily included in beginning courses.

One of the principal purposes of teaching chemistry is to have the student appreciate Chemistry's contribution to the services of man. In what field of chemistry has the greatest advancement been made? "Organic chemistry, that is, the chemistry of the carbon compounds, has taken a development far overshadowing inorganic chemistry, or the chemistry of mineral substances. Chemists have prepared or know how to prepare hundreds of thousands of such 'organic compounds' few of which occur in the natural World."

The teacher of today has access to many teaching tools such as projection lanterns, sound motion pictures, demonstration models, blackboards, samples, and references. The most common of these is the textbook, which is largely responsible for the methods and content that is taught in chemistry. General chemistry books are beginning to include more and more organic chemistry that is of interest to the student. The first texts included only a chapter on carbon and its compounds which meant carbon dioxide and carbon monoxide, but today they include several, with a wider range of reactions, methods, and processes. The ideal situation would probably be to present a broad view of the entire field of organic chemistry, which would mean including hydrocarbons, saturated and unsaturated, alcohols, halides, organic acids, esters, ethers, aldehydes, and ketones. In presenting this material no one group can be over emphasized or stressed because of the lack of time. The aliphatic and aromatic compounds should be treated together, however most of the time will be spent with the aliphatic com-

pounds. By use of models and simple organic reactions a coherent picture may be presented. Time should be devoted to the proper nomenclature of organic compounds, then long dangling formulas will not be a terror to the students. However, students will still be confused by trade names of commercial products.

Once the foundation is laid, the practical connection between it and the student's life may best be shown by motion pictures or lantern slides, showing the process of manufacture and the apparent natural sources of products that he uses constantly. A few of the carbon products that the student consumes, wears, handles, and buys may be listed under the following heads: clothing, petroleum products, plastics, fuel gases, sugars, alcohols, rubber, fats, and foods. Besides making the material practical, realism may be added by taking the student through a chemical plant such as a coke plant or an oil refinery.

If the student takes no more chemistry than is offered in a general course, he will have a brief and broad view of the entire field, and if he pursues additional organic chemistry he will have a fair background upon which to build.

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