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MODERN ORGANIC CHEMISTRY.

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MODERN ORGANIC CHEMISTRY

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PREFACE.

IN a letter to Berzelius in 1837 Wöhler, in describing the condition of organic chemistry, says—"It seems to me like the tropical forest primæval, full of the strangest growths, an endless and pathless thicket, in which a man may well dread to wander."

During the long period that has elapsed since these words were written, this branch of chemistry has changed to one of the most thoroughly investigated and systematic of sciences, but its development has been associated with so much technical detail, both in language and in method, that Wöhler's words still express the view of many readers and workers in other sciences on the organic chemistry of to-day.

The causes that contribute to this opinion are not far to seek. The necessity of separating the study of carbon compounds from that of the other elements, which has arisen purely for the sake of convenience, and which led to the division of chemistry into organic and inorganic, has tended to relegate the former to the position of a branch of the science which is reserved for the specialist. This division is in many respects unreal and disadvantageous; it has, to a considerable extent, had the effect of robbing organic chemistry of its true position as an intrinsic part of chemical science as a whole, a position which it fully merits on account of its important contributions to chemical theory and to technology.

Further, the very technical character of the language of organic chemistry has undoubtedly proved a barrier to its more general study on the part of many who would

otherwise have followed its wide-reaching developments with interest. The existence of such a barrier must to some extent be admitted, but it is far less formidable than is generally imagined. Owing to the importance attached in this branch of chemistry to the study of what is termed the "structure" of compounds, the elementary principles of the subject appear somewhat more complex than those of inorganic chemistry; they can, however, be acquired with a little careful study, and the apparently intricate formulæ and nomenclature then become helpful, systematic and explanatory. In short, the language is easily learnt, and with this knowledge the full story of organic chemistry is open to all.

There can be but few workers in science to whom organic chemistry is not of importance or even of direct value. The physiologist, the biologist and the medical practitioner are continually concerned with substances and processes that are included in the domain of organic chemistry, whilst the physicist, the engineer, and the geologist are brought into touch with organic compounds both in practice and in research. In view of the many applications and materials of organic chemistry that enter into the daily life of the individual the subject is one that should also appeal to the general reader of science, and especially so because its field of study is so closely concerned with the fundamental substances and processes of life.

It is with the object of making some knowledge of organic chemistry accessible to students of other sciences and to the general reader, that this volume has been written. No attempt has been made to make it a complete survey of the progress of the science; the scope of organic chemistry is far too wide to allow of any approach to this within the limits of a small volume, and many subjects of interest and importance have, of necessity, been omitted. The aim has been restricted to recording