STUDIES IN ANALYTICAL CHEMISTRY 1

STRUCTURAL ANALYSIS OF ORGANIC COMPOUNDS

by Combined Application of Spectroscopic Methods

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Preface

Spectroscopic methods have taken over the lion's share of organic analysis within the last two to three decades and one or more of them are employed in all chemical laboratories. Meanwhile it has become widely appreciated that for structural analysis the most efficient use of these modern methods is made by their combined application wherever possible, because they provide complementary information which increases their overall effectiveness. The importance of the subject has caused the appearance of a large number of texts dealing with the individual methods at fundamental as well as advanced levels. However, treatments of their combined application are surprisingly scarce and many of the practical aspects, which are so important in everyday work, are essentially neglected.

From the response to our joint teaching of the subject of organic structural analysis by combined application of spectroscopic methods, we have been led to the conclusion that a treatment of some examples demonstrating different ways of approach and reasoning and including remarks and hints about practical analytical aspects would be welcome. The following text is an attempt to implement these suggestions. We chose a set of problems intended to cover as much variety in chemical structure and spectroscopic argument as possible, carry out exemplifying interpretations and comment on specific practical aspects of the problem solving procedure. We hope not to annoy the readers by English which falls somewhat short of Oxford grade.

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PART 1

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