

**SUGAR ANALYSIS; FOR REFINERIES,  
SUGAR-HOUSES, EXPERIMENTAL  
STATIONS, ETC., AND AS A HANDBOOK  
OF INSTRUCTION IN SCHOOLS OF  
CHEMICAL TECHNOLOGY**

Published @ 2017 Trieste Publishing Pty Ltd

ISBN 9780649222513

Sugar analysis; for refineries, sugar-houses, experimental stations, etc., and as a handbook of instruction in schools of chemical technology by Ferdinand G. Wiechmann

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**FERDINAND G. WIECHMANN**

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EXPERIMENTAL STATIONS, ETC.,*

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HANDBOOK OF INSTRUCTION IN SCHOOLS OF CHEMICAL  
TECHNOLOGY.

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*SECOND REVISED EDITION.*

FIRST THOUSAND.

NEW YORK:

JOHN WILEY & SONS,

53 EAST TENTH STREET.

1893.

90712  
25/8/08

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## PREFACE.

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It has been the aim of the writer to prepare a concise yet thorough treatise on Sugar Analysis that should prove of service to the practising chemist as well as to the student of this branch of analytical chemistry.

Within the past few years numerous changes have been made in the older methods of sugar-analysis, new methods have been devised, and many researches of importance to sugar-chemistry have been accomplished.

The current literature of the day devoted to sugar and its interests, abounds in matter pertinent to the subject. A great number of these investigations have, however, appeared only in foreign journals and have therefore not been accessible to all; moreover, they occur scattered through so many different publications that a critical study of the same involves no inconsiderable outlay of time and labor.

A work that should give a general survey of this field seemed therefore both desirable and timely, and it has been with the aim indicated in view, that this publication was undertaken.

The greatest difficulty encountered was the making of a proper choice from the wealth of material at hand.

The schemes selected and here offered, embrace those methods of analysis which, after careful investigation, and, in many cases, after prolonged trial in practice, have seemed to the writer best adapted to the requirements of a technical laboratory.

A glance at the Table of Contents will show at once the plan and scope of this manual.

Instead of taking up for discussion, as is usually done, the different products met with in sugar-laboratories, such as raw sugars, refined sugars, liquors, molasses, etc., and describing for each in turn the determination of their constituents, it has been deemed more expedient to discuss the methods of determining the individual constituents, as sucrose, invert-sugar, water, ash, etc., independently of the products in which they may occur, and then to add such comments and suggestions as certain contingencies would seem to call for.

By the adoption of this plan numerous repetitions have been avoided.

Wherever feasible, examples have been inserted in the text to aid in the understanding of the principles discussed, and of the calculations explained.

Numerous references are given throughout; these will, it is hoped, incite to a study of the original memoirs.

The tables have been selected with the greatest of care, prompted by a desire to introduce only the most accurate. To ensure uniformity of basis, several of these tables have been calculated expressly for this issue. The publication of the formulæ by which the different tables were obtained, should prove a welcome feature to the student.

A list of books and of periodical literature bearing on Sugar Analysis is appended. Asterisks attached to titles show that the publications so marked were consulted in the preparation of these pages, and indicate the obligations of



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