

**OUTLINES OF PROXIMATE ORGANIC  
ANALYSIS: FOR THE IDENTIFICATION,  
SEPARATION,  
AND QUANTITATIVE DETERMINATION  
OF THE MORE COMMONLY OCCURRING  
ORGANIC COMPOUNDS**

Published @ 2017 Trieste Publishing Pty Ltd

ISBN 9780649666133

Outlines of Proximate Organic Analysis: For the Identification, Separation, and Quantitative Determination of the More Commonly Occurring Organic Compounds by Albert B. Prescott

Except for use in any review, the reproduction or utilisation of this work in whole or in part in any form by any electronic, mechanical or other means, now known or hereafter invented, including xerography, photocopying and recording, or in any information storage or retrieval system, is forbidden without the permission of the publisher, Trieste Publishing Pty Ltd, PO Box 1576 Collingwood, Victoria 3066 Australia.

All rights reserved.

Edited by Trieste Publishing Pty Ltd.  
Cover @ 2017

This book is sold subject to the condition that it shall not, by way of trade or otherwise, be lent, re-sold, hired out, or otherwise circulated without the publisher's prior consent in any form or binding or cover other than that in which it is published and without a similar condition including this condition being imposed on the subsequent purchaser.

[www.triestepublishing.com](http://www.triestepublishing.com)

**ALBERT B. PRESCOTT**

**OUTLINES OF PROXIMATE ORGANIC  
ANALYSIS: FOR THE IDENTIFICATION,  
SEPARATION,  
AND QUANTITATIVE DETERMINATION  
OF THE MORE COMMONLY OCCURRING  
ORGANIC COMPOUNDS**



**OUTLINES**  
**OF**  
**PROXIMATE ORGANIC ANALYSIS.**

*BY THE SAME AUTHOR.*

---

12mo, cloth, \$1 50.

**CHEMICAL EXAMINATION**

**ALCOHOLIC LIQUORS.**

A MANUAL OF THE

CONSTITUENTS OF THE DISTILLED SPIRITS

AND

FERMENTED LIQUORS OF COMMERCE,

AND THEIR

QUALITATIVE AND QUANTITATIVE DETERMINATIONS.

# OUTLINES

OF

## PROXIMATE ORGANIC ANALYSIS.

FOR THE

IDENTIFICATION, SEPARATION, AND QUANTITATIVE  
DETERMINATION

OF THE

MORE COMMONLY OCCURRING ORGANIC COMPOUNDS.

BY

ALBERT B. PRESCOTT,

PROFESSOR OF ORGANIC AND APPLIED CHEMISTRY IN THE UNIVERSITY OF MICHIGAN.

THIRD EDITION.

NEW YORK:

D. VAN NOSTRAND, PUBLISHER,  
23 MURRAY STREET, AND 27 WARREN STREET.

1883.

ND

---

Entered, according to Act of Congress, in the year 1894, by

D. VAN NOSTRAND,

In the Office of the Librarian of Congress, at Washington, D. C.

---



## PREFACE.

---

969p 18  
THIS little work has been prepared more especially for the use of a class of chemical students who devote a semester to the analysis of vegetable products and other organic mixtures, taking previously at least two semesters in qualitative and quantitative analysis. After working with this class for several years, without other aid than a manuscript digest of directions and references, the author is convinced that a compilation in this subject is desirable—not alone for students in special applications of chemistry, but for the convenience of every general analyst.

Proximate organic analysis is not altogether impracticable, and organic chemistry is not solely a science of synthetical operations even at present. It is true, as the chief analytical chemists have repeatedly pointed out, that in the rapid accumulation of organic compounds the means of their identification and separation have been

left in comparative neglect. It is true, also, that the field is limitless; but this is not a reason for doing nothing in it. Fifty years ago, the workers in inorganic analysis were unprovided with a comprehensive system, but they went on exploring the mineral kingdom and using their scanty means to gain valuable results.

That this compilation is a fragmentary and very brief exponent of this part of analytical science as it exists at present, the author is fully aware, but he hopes that, as a beginning, it may prove to be worth enough to afford an opportunity for its improvement hereafter.

UNIVERSITY OF MICHIGAN, September, 1874.

# CONTENTS.

PARAGRAPHS.	PAGE.	PARAGRAPHS.	PAGE.
<b>PRELIMINARY EXAMINATIONS.</b>			
1. Carbon, uncombined, - - -	11	23. Quinovic acid, - - -	38
2. Carbon in combination, - -	11	24. Columbic acid, - - -	39
3. Preliminary examination of Solids, - - - - -	11	25. Gentianic acid, - - -	39
4. Preliminary examination of Liquids, - - - - -	13	26. Carmine acid, - - -	40
5. References for Solids and Liquids; Fixed and Vola- tile; Acid, Fatty, Basic, and Neutral, - - - - -	13	27. Chrysophanic acid, - -	41
		28. Gambogic acid, - - -	41
		29. Santalic acid, - - -	42
<b>SOLID NON-VOLATILE ACIDS.</b>			
6. Tartaric acid, - - - - -	14	<b>SOLID VOLATILE ACIDS.</b>	
7. Racemic acid, - - - - -	18	30. Benzoic acid, - - - - -	43
8. Citric acid, - - - - -	18	31. Cinnamic acid, - - - -	44
9. Aconitic acid, - - - - -	21	32. Succinic acid, - - - -	45
10. Malic acid, - - - - -	22	33. Salicylic acid, - - - -	47
11. Meconic acid, - - - - -	24	34. Veratric acid, - - - -	47
12. Digitalic acid, - - - - -	26	35. Phenic acid, - - - - -	48
13. Tannic acid, - - - - -	26	36. Nitrophenic acid, - - -	51
14. Gallic acid, - - - - -	30	37. Sulphophenic acid, - -	53
15. Pyrogallic acid, - - - -	32		
16. Quinotannic acid, - - - -	33	<b>LIQUID NON-VOLATILE ACID.</b>	
17. Catechutannic acid, - - -	33	38. Lactic acid, - - - - -	53
18. Catechuc acid, - - - - -	34		
19. Morintannic acid, - - - -	35	<b>LIQUID VOLATILE ACIDS.</b>	
20. Caffetannic acid, - - - -	35	39. Formic acid, - - - - -	55
21. Bobaic acid, - - - - -	36	40. Acetic acid, - - - - -	55
22. Quinic acid, - - - - -	36	41. Butyric acid, - - - - -	61
		42. Valeric acid, - - - - -	63
		43. Separations, - - - - -	67
		44. Volatile Fat Acids of the acetic series, - - - - -	67