

CERAMIC CHEMISTRY

Published @ 2017 Trieste Publishing Pty Ltd

ISBN 9780649440917

Ceramic Chemistry by H. H. Stephenson

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

H. H. STEPHENSON

**CERAMIC
CHEMISTRY**

CERAMIC CHEMISTRY

By

H. H. STEPHENSON.

UNIV. OF
CALIFORNIA

LONDON:

DAVIS BROS., 265, Strand, W.C.

1912.

TP810
S8

UNIV. OF
CALIFORNIA

PREFACE.

Modern Ceramics may be said to date from Brogniart (1770-1847). The predominance of the French chemists in the science of pottery during the early and middle parts of last century caused the word *Ceramic* to be transplanted into English and German. Seger and his colleagues then caused potters to turn their eyes to Berlin for a generation ; but there are not wanting signs that many of Seger's conclusions are being seriously questioned by the present school of ceramists. New vitality has sprung from the foundation of the American and English Ceramic Societies and from the adoption of the science as a subject for degrees in many American Universities.

That Ceramics is suitable for University study—both theoretical and practical—there can be no doubt. It is the natural means of transition from Geology to Chemistry, Mathematics, Physics, and Engineering. No other subject unites those five sciences so intimately. If this book should promote the secondary and higher study of the subject in England, the writer's aim will be accomplished. He wishes to express his indebtedness to the Transactions of the English and American Ceramic Societies.

H. H. S.

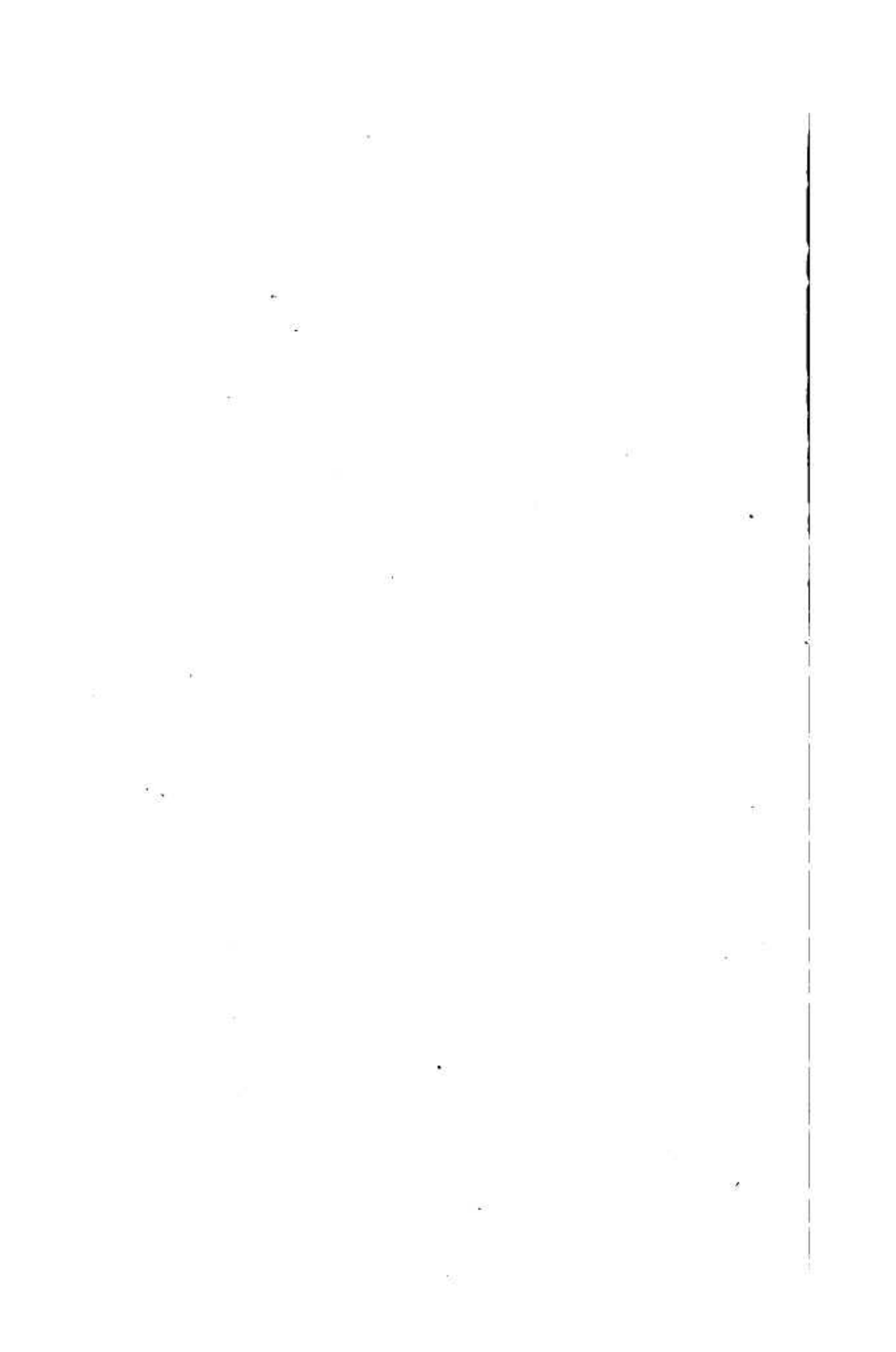
The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that every entry should be supported by a valid receipt or invoice. This ensures transparency and allows for easy verification of the data.

In the second section, the author outlines the various methods used to collect and analyze the data. This includes both primary and secondary data collection techniques. The analysis focuses on identifying trends and patterns over time, which is crucial for making informed decisions.

The third section provides a detailed breakdown of the results. It shows that there has been a significant increase in sales volume, particularly in the online channel. However, the profit margins have remained relatively stable, indicating that the additional revenue is being effectively managed.

Finally, the document concludes with several key recommendations. It suggests that the company should continue to invest in digital marketing and customer service to further drive growth. Additionally, it highlights the need for ongoing monitoring and reporting to stay on top of market changes.

CONTENTS.		Page
Preface	- - - - -	iii.
Introduction	- - - - -	vii.
Chapter.		
I. Geological Origins	- - - - -	1
II. Clay	- - - - -	12
III. Clay Analysis	- - - - -	17
IV. Raw Materials	- - - - -	30
V. Bodies	- - - - -	37
VI. Glazes	- - - - -	46
VII. Enamels	- - - - -	52
VIII. The Production of Colour	- - - - -	59
IX. Firing of the Ware	- - - - -	65
X. Loss in Manufacture	- - - - -	71
XI. Industrial Disease	- - - - -	75
XII. Testing of Finished Ware	- - - - -	79
XIII. Classification of Pottery	- - - - -	82
XIV. Research	- - - - -	84
XV. Bibliography in English	- - - - -	85
Index of Authors	- - - - -	87
Index of Subjects	- - - - -	89



INTRODUCTION.

Ceramic chemistry is concerned chiefly with the reactions of silicates. It is complicated by the difference in conduct between body and glaze. In the latter, if properly matured, the chemical reaction between the constituents has proceeded to a finish, and the melt consists of a homogeneous mixture or solid solution of silicates and, it may be, borates and phosphates, and any eutectics that may be formed. With the body, on the other hand, it is different. The firing is only conducted to incipient vitrification, if as high as that. The chemical reactions are not allowed to proceed to a finish. The chemistry of pottery is therefore, as far as the body is concerned, one of incomplete reactions. Consequently, the nature and condition of the raw materials are of importance in the body, while in the glaze they are irrelevant as long as the same ultimate composition is preserved.