

**CHEMISTRY OF THE ALBUMENS;
TEN LECTURES DELIVERED IN THE
MICHAELMAS TERM 1904, IN THE
PHYSIOLOGICAL DEPARTMENT OF
UNIVERSITY COLLEGE, LONDON**

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Chemistry of the albumens; ten lectures delivered in the Michaelmas term 1904, in the Physiological Department of University College, London by S. B. Schryver

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S. B. SCHRYVER

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CHEMISTRY OF THE ALBUMENS

TEN LECTURES DELIVERED IN THE MICHAELMAS
TERM, 1904, IN THE PHYSIOLOGICAL DEPARTMENT
OF UNIVERSITY COLLEGE, LONDON

BY S. B. SCHRYVER, D.Sc. (LOND.), PH.D. (LEIPZIG)
LECTURER IN PHYSIOLOGICAL CHEMISTRY TO UNIVERSITY COLLEGE, LONDON

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CHEMISTRY OF THE
ATMOSPHERE

EDITED BY
R. M. M. METCALFE
AND
D. M. METCALFE



PREFACE

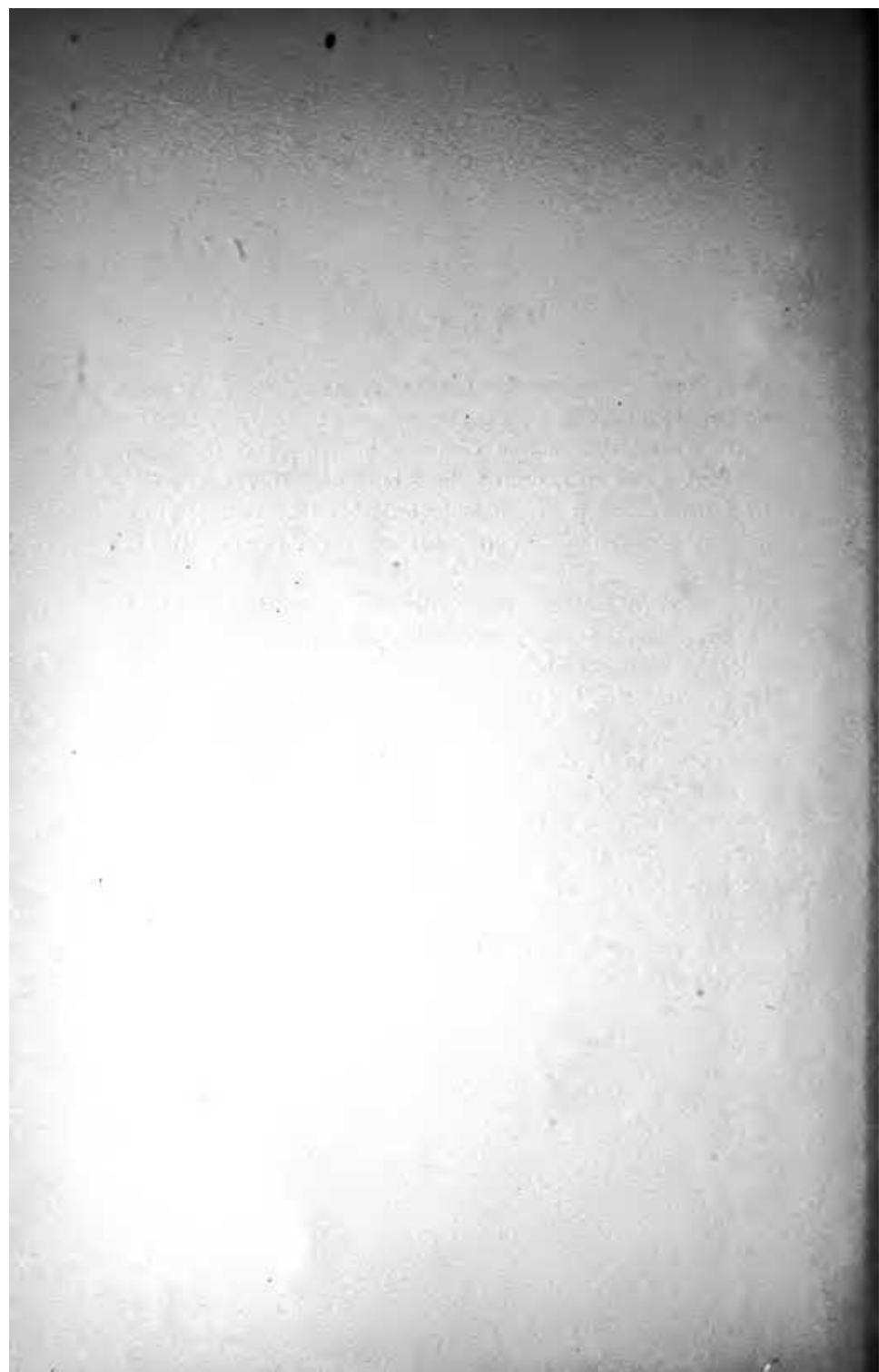
THE following lectures were given with the object of summarising the methods that have been employed in the investigations of the chemical structure of the albumens, and the results obtained. The structure of the albumens is only one of the problems presented to the biological chemist. In this branch of study, considerable progress has been made during the last few years.

An equally important study, however, which is still in its infancy, relates to the chemical dynamics of the albumen molecules when carrying out their normal functions in the living tissue. Attention is called to this branch of biological chemistry in the very incomplete review of the theories of biochemical action given in Lectures IX. and X. When few facts are known, we are obliged to content ourselves with theories; if the latter, however, stimulate subsequent research, they will justify their existence. For this reason I have not hesitated to include Lectures IX. and X. in this publication, imperfect as I feel they are.

I am indebted to Dr R. H. Aders Plimmer for his kindness in revising the proofs.

S. B. S.

November 1905.



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ABBREVIATIONS IN THE LITERATURE
REFERENCES

A.P.P. Archiv für Experimentelle Pathologie und Pharmacologie
(Schmiedeberg).

Ber. Berichte der deutschen chemischen Gesselschaft.

H.Z. Zeitschrift für physiologische Chemie (Hoppe-Seyler).

CHEMISTRY OF THE ALBUMENS

LECTURE I

THE GENERAL PROPERTIES AND REACTIONS OF THE ALBUMENS

THE investigation of the chemical mechanism of a living body is analogous to the investigation of a complex machine in working order performing certain definite functions. Our researches on such a mechanism can proceed in two directions; either, we can investigate the construction of the machine, or we can determine its functions and its needs, the fuel it requires, its waste products, etc. Our researches on the albumen in the living organism can likewise branch out into two different directions. We can investigate the construction of the albumen molecule, which is known to perform certain vital functions in the living body, or we can proceed to determine these functions. It is to the consideration of the first of these problems that the following lectures will be devoted. The determination of the construction of the albumen molecule is essentially a task for the chemist, and it will be my endeavour in the course of the following lectures to demonstrate the methods that have been employed in the investigations on the constitution of the albumens, and to give a short account of the principal results that have been obtained up to the present time.

At the outset, however, we encounter certain difficulties. Let us refer again to our analogy of the working machine. It is conceivable that we are so ignorant of mechanics as to be unable to remove our machine from its working position *in*