

ANIMAL HEALTH AND PRODUCTION—  
Proceedings of the Thirteenth Symposium  
of the Colston Research Society held in  
the University of Bristol, April 10th–  
13th, 1961. Edited by C. S. Grunsell and A. I. Wright  
(Butterworth Inc., 7235 Wisconsin Ave., Washington 14,  
D. C., 224 pp., 1962, \$8.50). The book is of convenient  
size 19 × 26 cm., with a dark blue durable cover and large  
gold lettering along the surface exposed while it is on the  
library shelf.

The text is referred to as the Colston Papers and as  
such constitutes the thirteenth volume. Due to the nature  
of the symposium it has included many facets of veterinary  
science. Broadly, the subjects presented and discussed  
embrace three areas of interest as follows: I. Individuality  
and its measurement with special emphasis on ketosis in  
cattle and hypomagnesemia, II. Sex hormone balance in  
fowl, and also the avian leukosis complex, III. The nature  
of non-specific resistance, and the immune response to  
bacterial, viral and helminth parasite pathogens.

A total of thirteen chapters has been contributed by  
different authors for each paper. Along with each are  
notes covering the ensuing group discussions. Also of  
value are the pertinent references at the end of each paper.  
No author or subject index is provided at the back of the  
book. A comprehensive subject index would have improved  
this volume for reference purposes.

For one who is concerned with these specific areas of  
animal health there is a wealth of information, both in  
the text of the papers and in the discussion notes. In  
addition, many other scientists who wish to broaden their  
knowledge, and gain an appreciation of some of the prob-  
lems in this field, will benefit from reading these papers.

It is stated that hypomagnesemia should be avoided, in  
that it may have an injurious influence on the longevity  
of the animals, since changes in the electrocardiograms  
of such cows did not disappear although the serum-Mg level  
had been normal for a period of six months.

Avian visceral lymphomatosis was transmitted from af-  
fected flocks with cell-free tumor extracts, and oral wash-  
ings to produce a high incidence of this disease in normal  
birds, which indicates a causative virus.

In the third part, one paper pointed out clearly the im-  
portance of disease control if production is to be profitable.  
The need for the application of available methods, as well  
as for further research is emphasized.

Because of the nature of this book, which is composed  
of a series of conference papers, naturally it lacks the  
continuity of subject matter and integrated thought of a  
normal textbook. It has, however, maintained the high  
quality of earlier Papers of the Colston Society.

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AUTOXIDATION AND ANTIOXIDANTS, Volume 2, Edited by  
W. O. Lundberg, (Interscience Publishers, New York, pp.  
705, 1962, \$25.00). This book is the second of two volumes  
dealing with the practical aspects of autoxidation and its  
inhibition. The scope of the book is apparent from the  
titles of the chapters contributed by fifteen recognized  
authorities: 1. Oxidative Rancidity in Food Fats and Its  
Prevention; 2. Antioxidants for Use in Foods; 3. Rancidity  
in Food Products; 4. Flavor Reversion and Related Forms  
of Oxidative Deterioration; 5. Oxidative Polymerization;  
6. Driers; 7. Autoxidation and Antioxidants of Petroleum;  
8. Oxidation and Antioxidants in Rubber; 9. Oxidation  
of High Polymers; 10. Oxidative Deterioration and Its  
Prevention in Miscellaneous Products; 11. Autoxidation  
of Fatty Compounds in Living Tissue, Biological Anti-  
oxidants.

A welcome attempt has been made to bring together in  
a single volume related information on oxidation affecting  
such widely different materials as foods, petroleum prod-  
ucts, rubber, feedstuffs, soaps and cosmetics, textile oils,  
pharmaceuticals, essential oils, and the living cell. This  
commendable effort should produce a much needed cross-  
fertilization of ideas. Unfortunately, a significant portion

## NEW BOOKS

Although this shortcoming may have been  
inevitable, as admitted by the Editor, still  
it may reflect stagnation of research in  
this field. The difficulties in updating a  
review volume of this kind become obvious when one ex-  
amines the mass of literature that the contributing authors  
have surveyed. Dr. Chipault included at the end of his  
chapter a summary list of recent references, a commendable  
practice. In general, the information offered is descriptive  
and directed in breadth rather than in depth.

The volume is handsomely printed on good paper, is well  
illustrated, and includes a comprehensive index that add to  
its usefulness. This well-documented book should be an  
important reference to those specializing in the broad field  
of oxidative deteriorations and to the serious student start-  
ing in this area. It is unfortunate that the exorbitant price  
will limit its availability.

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PROGRESS IN STEREOCHEMISTRY, Vol. 3, edited by P. D. D.  
de la Mare and W. Klyne (Butterworth, Inc., Washington,  
D. C., 1962, 386 pp., \$13.50). This volume, like the previous  
volumes of the series *Progress in Stereochemistry* is a  
compilation of review articles on recent developments in  
the field of stereochemistry. The subject matter of the  
book includes physical, inorganic, organic and biological  
chemistry as presented by an array of outstanding authors.  
The specific topics reviewed are divided into eight chapters:  
1. The Stereochemistry of Some Elements of Group III,  
D. C. Bradley; 2. Nuclear Magnetic Resonance and Stereo-  
chemistry, R. G. Gillespie and R. F. M. White; 3. Steric  
Problems in the Hydration of Ions in Solution, H. Taube;  
4. Restricted Rotation about Single Bonds, D. J. Millen;  
5. Steric Effects in Acid-Base Reactions, V. Gold; 6. The  
Stereochemistry of Many-Membered Rings, J. Sicha; 7.  
The Stereochemistry of Addition Polymers, C. L. Arcus;  
8. The Steric Course of Enzymatic Reactions at Meso  
Carbon Atoms: Application of Hydrogen Isotopes, H. R.  
Levy, P. Talalay, B. Vennesland.

A glance at the table of contents is convincing evidence  
that this book is not a basic text or even a general reference  
for the average organic chemist. Although each author  
attempts to develop the history and background of his  
subject matter, the reviewers assume that the reader pos-  
sesses a reasonable background knowledge of the area of  
chemistry discussed and of stereochemistry in general. As  
a result, the book is of most value to those working in the  
specific field reviewed (e.g. boron chemistry, polymer  
chemistry, etc.) or to chemists involved in definitive stereo-  
chemical problems. (i.e. The chapters on NMR and on  
restricted rotation should be of value to many stereochem-  
ical problems.)

A resume of one of the chapters—The Stereochemistry  
of Many-Membered Rings by Sicha—should be representa-  
tive of the book. The subject matter of this review en-  
closes the chemistry of medium rings starting with cyclo-  
octane and ending with macrocyclic polyolefins. The his-  
torical development of this chapter is quite good and re-  
quires little pre-knowledge of the chemistry of medium  
and large rings. Theoretical and mechanistic concepts are  
brought up-to-date. (The review covers references through  
1960.) A broad coverage of the most intriguing aspects of  
cyclo-ring chemistry is achieved. For example, Sicha dis-  
cusses the ever intriguing problem of the relative stabilities  
of *cis-trans* olefin isomers of medium size rings, the effect  
of ring size on reactivity, transannular processes and even  
the first synthesis of the interlocking ring system referred  
to as *catenanes*. However, probably due to lack of space,  
he has ignored a number of recent developments in the  
field such as carbene intermediates in transannular reac-  
tions and cyclododecatriene chemistry.

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