

SCIENCE

FRIDAY, NOVEMBER 23, 1917

CONTENTS

<i>Electromerism, a Case of Chemical Isomerism resulting from a Difference in Distribution of Valence Electrons:</i> PROFESSOR LAUDER WILLIAM JONES	493
<i>Recent Physiology and the War:</i> PROFESSOR CHARLES S. SHERRINGTON	502
<i>Pre-medical Training in Chemistry:</i> DR. FREDERICK S. HAMMETT	504
<i>Scientific Events:—</i> <i>British Experimental Station for Fuel Research; The Columbian Institute; Award of the John Scott Legacy Medals and Premiums and of the Edward Longstreth Medal of Merit</i>	506
<i>Scientific Notes and News</i>	509
<i>University and Educational News</i>	510
<i>Discussion and Correspondence:—</i> <i>An Extraordinary Rainfall Record:</i> PROFESSOR DOUGLAS H. CAMPBELL	511
<i>Quotations:—</i> <i>The Rockefeller Health Researches</i>	512
<i>Scientific Books:—</i> <i>Thompson on Growth and Form:</i> J. P. McM. <i>Boas on Tsimshian Mythology:</i> JOHN R. SWANTON. <i>Trelease's The Genus Phoradendron:</i> GEORGE G. HEDGCOCK	513
<i>Mechanical Properties of Wood</i>	516
<i>Special Articles:—</i> <i>A Convenient Nerve Holder:</i> S. S. MAXWELL. <i>The Urine of the Horned Lizard:</i> A. O. WEESE	517
<i>Societies and Academies:—</i> <i>The American Mathematical Society:</i> PROFESSOR F. N. COLE	518

MSS. intended for publication and books, etc., intended for review should be sent to The Editor of Science, Garrison-on-Hudson, N. Y.

ELECTROMERISM, A CASE OF CHEMICAL ISOMERISM RESULTING FROM A DIFFERENCE IN DISTRIBUTION OF VALENCE ELECTRONS¹

RECENT advances in our knowledge of the structure of matter have made it possible for an organic chemist to address a group of non-organic chemists and of physicists upon this subject without apologizing. During a period which is not far behind us in the past, not only the validity, but, possibly, even the utility of employing structure conceptions requiring atoms and their arrangements was brought into question; so that the organic chemist, who has maintained an abiding faith in atoms and a confidence in his ability to decipher something of their arrangements in molecules, became aware of an indulgent smile whenever he broached this subject except in the company of his own confrères.

With this inheritance, it is natural to expect that the organic chemist would welcome any discoveries which make our conception of atoms and of the mechanism by which atoms combine to form molecules more concrete; and that he would be among the first to seek to apply these concepts to special problems in his own field.

With a feeling of keen satisfaction, therefore, we learn through the work of Bragg that, in a diamond crystal, each carbon atom is surrounded by four other carbon atoms placed equidistant from it. These atoms are grouped around the central carbon atom as the four corners of a

¹ An address prepared for the symposium on the "Structure of Matter," held at the meeting of the American Association for the Advancement of Science in New York City, December, 1916.

Science

46 (1195)

Science **46** (1195), 493-518.

ARTICLE TOOLS

<http://science.sciencemag.org/content/46/1195.citation>

PERMISSIONS

<http://www.sciencemag.org/help/reprints-and-permissions>

Use of this article is subject to the [Terms of Service](#)

Science (print ISSN 0036-8075; online ISSN 1095-9203) is published by the American Association for the Advancement of Science, 1200 New York Avenue NW, Washington, DC 20005. 2017 © The Authors, some rights reserved; exclusive licensee American Association for the Advancement of Science. No claim to original U.S. Government Works. The title *Science* is a registered trademark of AAAS.