

# SCIENCE

FRIDAY, NOVEMBER 5, 1909

## CONTENTS

<i>The Quantitative Study of Organic Reactions:</i> PROFESSOR S. F. ACREE .....	617
<i>Bacteriology as a Non-technical Course for Public Schools:</i> DR. H. W. HILL .....	625
<i>Teaching by the Lecture System:</i> DR. NORMAN A. DUBOIS .....	628
<i>Kakichi Mitsukuri:</i> PRESIDENT DAVID STARR JORDAN .....	630
<i>The Western Excursion following the Winnipeg Meeting of the British Association:</i> DR. F. P. GULLIVER .....	632
<i>Forest Products Investigation</i> .....	633
<i>The American Association of Economic Entomologists</i> .....	635
<i>The Rockefeller Commission for the Eradication of the Hookworm Disease</i> .....	635
<i>Scientific Notes and News</i> .....	636
<i>University and Educational News</i> .....	638
<i>Discussion and Correspondence:</i> — <i>A Reply to Mr. Percival Lowell:</i> PROFESSOR F. R. MOULTON. <i>The Development of the Planetesimal Hypothesis:</i> PROFESSORS T. C. CHAMBERLIN and F. R. MOULTON. <i>An Association of American Chemical Research Laboratories:</i> PROFESSOR M. A. ROSANOFF. <i>Family Records:</i> DR. C. B. DAVENPORT ...	639
<i>Scientific Books:</i> — <i>Kofoed on the Plankton of the Illinois River:</i> C. JUDAY. <i>Friend on the Theory of Valency:</i> PROFESSOR LOUIS KAHLENBERG ..	646
<i>The Mechanics of Biology:</i> PROFESSOR VERNON L. KELLOGG .....	649
<i>Notes on Entomology:</i> DR. NATHAN BANKS ..	650
<i>Special Articles:</i> — <i>The Possible Effects of Cement Dust on Plants:</i> PROFESSOR GEORGE J. PEIRCE. <i>The Algae of the Ithaca Marshes:</i> H. A. ANDERSON. <i>The Molecular Constitution of Solids:</i> J. E. SIEBEL .....	652
<i>Societies and Academies:</i> — <i>The Anthropological Society of Washington:</i> JOHN R. SWANTON. <i>The New York Section of the American Chemical Society:</i> DR. C. M. JOYCE .....	656

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

## THE QUANTITATIVE STUDY OF ORGANIC REACTIONS<sup>1</sup>

BEFORE this body of chemists it is not necessary to call attention to the importance of many of the great researches in the field of so-called pure organic chemistry. The investigations of Liebig and Woehler and Fischer on uric acid derivatives, of Friedel and Kraft and others on the use of aluminium chloride, ferric chloride and zinc chloride in effecting many condensations; of Sandmeyer and Gatterman, Hantzsch, and Bamberger on the formation of diazo compounds and their derivatives; of Baeyer, Greene, Nietzki, Fischer and others on the formation of dyes; of Willstaetter, Pictet, Koenigs, and Pschorr on the alkaloids; of Wallach, Tiemann, Semmler and Harries on the terpenes; of Fischer, Kiliani, Tollens, Bruyn, Wohl and Ruff on the sugars, and of Fischer, Abderhalden, Neuberg, Curtius, Kossel, Osborne and Chittenden on the proteid compounds—all of these great researches speak for themselves in their importance to pure science, technology, medicine and the biological branches.

However much the physical chemist may turn up his nose, or hold it, in the organic laboratory and call us *pot-boilers* and *stink-producers* and *mere compound-makers*; however much the clean-working analytical or inorganic chemist may rail at us because we do not, as a rule, collect and weigh our organic precipitates accurately to within 0.10 per cent., yet these same deluded col-

<sup>1</sup>Address of the chairman of the Division of Organic Chemistry in Section C of the American Association for the Advancement of Science, Baltimore, 1908.

# Science

**30 (775)**

*Science* **30** (775), 617-656.

**ARTICLE TOOLS**

<http://science.sciencemag.org/content/30/775.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.