

# SCIENCE

VOL. 88

FRIDAY, AUGUST 12, 1938

No. 2276

<i>Chemistry and the Future</i> : PROFESSOR HAROLD C. UREY .....	133
<i>Scientific Events</i> : <i>Appropriations of the British Colonial Development Fund; Control of Erosion in North Carolina; International Technical Commission of Pharmacopoeial Experts; Celebration of the Centenary of the Cellular Theory; Tablet in Honor of W. J. S. Lockyer and Norman Lockyer; Recent Deaths and Memorials</i> .....	140
<i>Scientific Notes and News</i> .....	142
<i>Discussion</i> : <i>An Unpublished Manuscript by the Late Bashford Dean</i> : DR. E. W. GUDGER. <i>A Tribute to John L. Ridgway</i> : DR. CHESTER STOCK. <i>Editorial License</i> : DR. ARTHUR C. MCFARLAN .....	144
<i>Societies and Meetings</i> : <i>The Conference on Algebra at Chicago</i> : DR. S. MACLANE and G. B. PRICE. <i>Eighth Annual Field Conference of Pennsylvania Geologists</i> : DR. ARTHUR B. CLEAVES .....	147
<i>Special Articles</i> : <i>The Structure of the Insulin Molecule</i> : DR. D. M. WRINCH. <i>l-Glyceric Aldehyde and Tumor Metabolism</i> : DR. BRUNO MENDEL, FRIDA STRELITZ and DOROTHY MUNDELL. <i>A Theory of Cortico-adrenal and Post-pituitary Influence on the Kidney</i> : DR. H. SILVETTE and DR. S. W. BRITTON. <i>Isolation of the Fungus Causing the Red Stele or Red Core Disease of Strawberries</i> : H. F. BAIN and J. B. DEMAREE .....	148
<i>Scientific Apparatus and Laboratory Methods</i> : <i>The Measurement of the External Force in Walking</i> : PROFESSOR HERBERT ELFTMAN. <i>A Photoelectric Colorimeter</i> : DR. K. HARE and R. E. PHIPPS.....	152
<i>Science News</i> .....	6

---

SCIENCE: A Weekly Journal devoted to the Advancement of Science, edited by J. MCKEEN CATTELL and published every Friday by

**THE SCIENCE PRESS**  
New York City: Grand Central Terminal  
Lancaster, Pa. Garrison, N. Y.  
Annual Subscription, \$6.00 Single Copies, 15 Cts.

SCIENCE is the official organ of the American Association for the Advancement of Science. Information regarding membership in the Association may be secured from the office of the permanent secretary in the Smithsonian Institution Building, Washington, D. C.

## CHEMISTRY AND THE FUTURE

By Professor HAROLD C. UREY

COLUMBIA UNIVERSITY

IN discussing any subject which deals with an extrapolation from the past to the future, one can not make any certain or dogmatic statements. In the physical sciences extrapolations are very likely to be incorrect even when they involve only a small percentage of the region covered by reliable data unless a very fundamental theory of the phenomena based upon broad scientific evidence exists. Such conditions do not obtain with regard to my subject, and I can not risk more than the most general predictions in regard to the future. Moreover, these general predictions must be predicated upon several alternatives which are definitely beyond the control of chemists or scientists, and which are vital to their future.

It is necessary, in the first place, to consider the objectives of two groups of people. The first of these is the scientific group, and the second is the group

consisting of the community as a whole. In neither case are the objectives exactly formulated, though it seems to me that those of the scientific group are more definite than those of the community in which we work. Of course, the objectives for all chemists or all scientists are not the same, but there is a very considerable agreement between these individuals. The people of the community, on the other hand, are swayed by so many emotions that these appear to be the most unpredictable quantity in the entire problem.

Scientific men are those who are posing particular questions to nature and its laws as they operate about us. In doing so they arrange most carefully devised experiments to test whether the ideas which they have in regard to the operation of natural law are in fact in accordance with these laws. If their postulates are not correct, the answer which they receive is an em-

# Science

**88 (2276)**

*Science* **88** (2276), 6-154.

**ARTICLE TOOLS**

<http://science.sciencemag.org/content/88/2276.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.