

SCIENCE

VOL. 81

FRIDAY, MARCH 1, 1935

No. 2096

<i>The American Association for the Advancement of Science:</i>	
<i>What to Believe about Cosmic Rays:</i> DR. ROBERT A. MILLIKAN	211
<i>Certain Aspects of Geologic Classifications and Correlations. II:</i> PROFESSOR ROLLIN T. CHAMBERLIN.....	216
<i>Obituary:</i>	
<i>Collier Cobb:</i> PROFESSOR WM. F. PROUTY. <i>Thomas Huston Macbride:</i> DR. GEO. B. RIGG	219
<i>Scientific Events:</i>	
<i>Television in Great Britain; Exhibit of Minerals at the Academy of Natural Sciences of Philadelphia; Awards of the American Institute of Mining and Metallurgical Engineers; The Harvard Archeological Expedition to Venezuela; The Thomas Alva Edison Foundation; Fellowships of the American Association of University Women</i>	220
<i>Scientific Notes and News</i>	223
<i>Discussion:</i>	
<i>Attitude Measurement and "The Dunlap Dilemma":</i> DR. F. L. WELLS. <i>Early Geography in Northern Illinois:</i> PROFESSOR DERWENT WHITTLESEY. <i>A New Outlet for Unabridged Scientific Papers:</i> DR. MILTON J. POLISSAR	227
<i>Scientific Books:</i>	
<i>Earth, Radio and the Stars:</i> DR. J. A. FLEMING. <i>Asteroidal and Cometary Orbits:</i> DR. FRED L. WHIPPLE	229
<i>Quotations:</i>	
<i>A Message from the President of the American Chemical Society</i>	231
<i>Scientific Apparatus and Laboratory Methods:</i>	
<i>A Second Experimental Method for Increasing Auditory Acuity:</i> DR. WALTER HUGHSON. <i>A Simple Method for Making Low-Power Photomicrographs:</i> F. MARTIN BROWN and LEIGH E. CHADWICK	232
<i>Special Articles:</i>	
<i>Selenite—A Criterion of Effective Wind Scour:</i> PROFESSOR KIRK BRYAN and PROFESSOR WALTER H. SCHOEWE. <i>The Occurrence and Activity of Urea-Splitting Bacteria in the Sea:</i> DR. C. E. ZOBELL and CATHARINE B. FELTHAM. <i>A Growth-Inhibiting Substance in Lettuce Seeds:</i> DR. A. L. SHUCK	233
<i>Science News</i>	10

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.

WHAT TO BELIEVE ABOUT COSMIC RAYS¹

By Dr. ROBERT A. MILLIKAN

CALIFORNIA INSTITUTE OF TECHNOLOGY

It is almost inevitable that any new field in which there are many workers should appear to the public and even to many of the workers themselves to be in a state of hopeless confusion. This is because the individual workers, unrestrained in a new field by a body of established fact, tend to set up hypotheses that seem to fit their particular experiments or their particular theories and are themselves ignorant of, or at least incredulous about, the findings of others, so that the public soon loses itself in a maze of incompletely understood and apparently contradictory statements and opinions, and knows not whom or what to believe. This situation is not improved by the existence of the daily newspaper, which, as its very name implies, is under a greater pressure to find for its pages some-

thing that is new than something that is true. The truth is illusive, as Pilate long ago observed, and it can not possibly be determined in time for the three o'clock edition. If the present craze for the new regardless of the true, in art, science, society and government, goes much further the remedy may be found in the prospect that a nugget of sober uncolored truth may become the most exciting news there is just because of its rarity. I venture the prediction that our present age, because of its craze for the new regardless of the true, will be looked back upon by our children's children with more amazement and ridicule than we ourselves feel because of the credulity of the middle ages or the smugness and hypocrisy of the Victorian age.

In talking therefore, as I am asked to do to-day, to teachers who seek to know what to pass on to their pupils in order to instruct and develop rather than to excite and mislead them, I propose to stick closely

¹ Address on the occasion of a special conference of the Committee on the Place of Science in Education, American Association for the Advancement of Science, Pittsburgh, December 29, 1934.

Science

81 (2096)

Science **81** (2096), 10-236.

ARTICLE TOOLS

<http://science.sciencemag.org/content/81/2096.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.