

5 April 1974

Volume 184, No. 4132

SCIENCE

LETTERS	Appeal for Mars Data: <i>V. Chalidze</i> ; How Much Is Enough? <i>R. G. Chenhall</i> ; Hepatitis Research: <i>R. H. Purcell</i>	9
EDITORIAL	Assessing the Demand for Scientists and Engineers: <i>B. M. Vetter</i>	11
ARTICLES	Stratospheric Ozone Depletion and Solar Ultraviolet Radiation on Earth: <i>P. Cutchis</i> Modulation of Inflammation and Immunity by Cyclic AMP: <i>H. R. Bourne et al.</i> . . Enzyme Polymorphism and Metabolism: <i>G. B. Johnson</i> Presidential Science Advising: <i>G. B. Kistiakowsky</i>	13 16 19 21
NEWS AND COMMENT	Biomedical Research: Would Special Presidential Advisers Help? Bottle-Feeding: Adverse Effects of a Western Technology DOD Said to Admit to Weather War Metrication: Craft Unions Seek to Block Conversion Bill	23 24 25 26
RESEARCH NEWS	Theoretical Physics: Speculations on Abnormal Nuclear Matter Lac System: New Research on How a Protein Binds to DNA	27 28
BOOK REVIEWS	Animal Colonies, reviewed by <i>E. O. Wilson</i> ; Neurobiology of Invertebrates, <i>C. H. Page</i> ; The Encyclopedia of Microscopy and Microtechnique, <i>O. W. Richards</i> ; Immobilized Enzymes, <i>P. Cuatrecasas</i> ; Lysosomes and Storage Diseases, <i>J. Kanfer</i> ; Free Radicals, <i>W. A. Pryor</i> ; Arctic Geology, <i>M. Churkin, Jr.</i> ; Books Received . .	29
REPORTS	Barrier Island Forest Ecosystem: Role of Meteorologic Nutrient Inputs: <i>H. W. Art et al.</i>	30

Downloaded from <http://www.sciencemag.org/> on January 18, 2019

BOARD OF DIRECTORS

LEONARD M. RIESER Retiring President, Chairman	ROGER REVELLE President	MARGARET MEAD President-Elect	RICHARD H. BOLT BARRY COMMONER	EMILIO Q. DADDARIO EDWARD E. DAVID, Jr.
---	----------------------------	----------------------------------	-----------------------------------	--

CHAIRMEN AND SECRETARIES OF AAAS SECTIONS

MATHEMATICS (A) John G. Kemeny Truman A. Botts	PHYSICS (B) Solomon J. Buchsbaum Rolf M. Sinclair	CHEMISTRY (C) Milton Harris Leo Schubert	ASTRONOMY (D) Ivan R. King Arlo U. Landolt
PSYCHOLOGY (J) Charles Cofer Edwin P. Hollander	SOCIAL AND ECONOMIC SCIENCES (K) George J. Stigler Daniel Rich	HISTORY AND PHILOSOPHY OF SCIENCE (L) Owen Gingerich George Basalla	ENGINEERING Byron D. Tapley Paul H. Robbins
EDUCATION (Q) J. Myron Atkin Phillip R. Fordyce	DENTISTRY (R) Howard M. Myers Sholom Pearlman	PHARMACEUTICAL SCIENCES (S) Louis P. Jeffrey John Autian	INFORMATION AND COMMUNICATION Martin Greenberger Joseph Becker

DIVISIONS

ALASKA DIVISION William E. Davis Chairman, Executive Committee	Irma Duncan Executive Secretary	PACIFIC DIVISION Robert C. Miller President	Robert T. Orr Secretary-Treasurer	SOUTHWESTERN AND ROCKY MOUNTAIN DIVISION Gordon L. Bender President	Max P. Dunford Executive Secretary-Treasurer
---	------------------------------------	--	--------------------------------------	--	---

SCIENCE is published weekly, except the last week in December, but with an extra issue on the fourth Tuesday in November, by the American Association for the Advancement of Science, 1515 Massachusetts Ave., NW, Washington, D.C. 20005. Now combined with *The Scientific Monthly*. Second-class postage paid at Washington, D.C. Copyright © 1974 by the American Association for the Advancement of Science. Member rates on request. Annual subscription \$30; foreign postage: Americas \$4, overseas \$6, air lift to Europe \$11. Single copies \$1 (back issues, \$2) except *Guide to Scientific Instruments* which is \$4. School year subscription: 9 months \$22.50; 10 months \$25. New rates will become effective 1 May 1974. Provide 6 weeks notice for change of address, giving new and old address and zip codes. Send a recent address label. *Science* is Indexed in the Reader's Guide to Periodical Literature.

AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE

Radiohalos in a Radiochronological and Cosmological Perspective: <i>R. V. Gentry</i> . . .	62
γ -Glutamyl Transpeptidase in Brain Capillaries: Possible Site of a Blood-Brain Barrier for Amino Acids: <i>M. Orłowski, G. Sessa, J. P. Green</i>	66
Regulation of Amino Acid Transport in Kidney Cortex of Newborn Rats: <i>R. Reynolds, C. Rea, S. Segal</i>	68
Biogenic Amines and Control of Melanophore Stimulating Hormone Release: <i>A. Bower, M. E. Hadley, V. J. Hruby</i>	70
Respiration of Benthopelagic Fishes: In situ Measurements at 1230 Meters: <i>K. L. Smith, Jr., and R. R. Hessler</i>	72
Myelin Basic Protein: Location of Multiple Independent Antigenic Regions: <i>B. F. Driscoll, A. J. Kramer, M. W. Kies</i>	73
Follicle-Stimulating Hormone Secretion in the Female Rat: Cyclic Release Is Dependent on Circulating Androgen: <i>V. L. Gay and R. L. Tomacari</i>	75
Electron Diffraction of Wet Biological Membranes: <i>S. W. Hui and D. F. Parsons</i> . . .	77
Spermidine in Hormone-Dependent Differentiation of Mammary Gland in vitro: <i>T. Oka</i>	78
5-Methylcytidylic Acid: Absence from Mitochondrial DNA of Frogs and HeLa Cells: <i>I. B. Dawid</i>	80
Prostaglandins Stimulate Thyroid Function in Pregnant Women: <i>L. Shenkman et al.</i> . . .	81
Identification of a Ventral Scent Marking Pheromone in the Male Mongolian Gerbil (<i>Meriones unguiculatus</i>): <i>D. D. Thiessen et al.</i>	83
Prolactin Receptors in an Estrogen Receptor-Deficient Mammary Carcinoma: <i>M. E. Costlow, R. A. Buschow, W. L. McGuire</i>	85
Recovery from Retrograde Amnesia: A Learning Process: <i>A. M. Schneider, J. Tyler, D. Jinich</i>	87
<i>Technical Comments: North Carolina Glacier: Evidence Disputed: J. B. McKeon; J. T. Hack and W. L. Newell; J. O. Berkland and L. A. Raymond; Structure of Silica Glass: R. Roy; J. H. Komert, G. A. Ferguson, J. Karle</i>	88

Downloaded from <http://science.sciencemag.org/> on January 18, 2019

NORTH M. DAVIS WARD H. GOODENOUGH	CARYL P. HASKINS CHAUNCEY STARR	WILLIAM T. GOLDEN Treasurer	WILLIAM BEVAN Executive Officer
GEOLOGY AND GEOGRAPHY (E) Graham L. Smiley Gordon E. Bisque	BIOLOGICAL SCIENCES (G) Beatrice M. Sweeney Jane C. Kaltenbach	ANTHROPOLOGY (H) Bernice Kaplan Philleo Nash	MEDICAL SCIENCES (N) Louis G. Welt Richard J. Johns
STATISTICS (U) John W. Tukey Ezra Glaser	ATMOSPHERIC AND HYDROSPHERIC SCIENCES (W) William R. Bandeen Stanley A. Changnon, Jr.	INDUSTRIAL SCIENCE (P) Gabor Strasser Robert L. Stern	GENERAL (X) Frederick Seitz Joseph F. Coates

COVER

The proliferation of branches on trees in the Sunken Forest, Fire Island, New York. The enormous surface area of branches in this maritime forest is a result of the toxic effects of salt spray aerosols and provides an effective surface for trapping airborne nutrients. See page 60. [Henry W. Art, Williams College, Williamstown, Massachusetts]

Science

184 (4132)

Science **184** (4132), 9-94.

ARTICLE TOOLS

<http://science.sciencemag.org/content/184/4132>

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.