

1209 This Week in *Science*

Editorial

1211 Federal and Trade Deficits

Letters

1215 Of Doomsday and the Lower Mississippi: E. S. DEEVEY, JR. ■ GenBank Information: J. C. CASSATT AND J. L. PETERSON ■ Interpretation of the ABM Treaty: S. F. SINGER ■ Monitoring of Atmospheric Ozone: W. F. J. EVANS, J. B. KERR, D. I. WARDLE, A. J. FORESTER ■ Mitochondrial DNA in Sperm: A. R. PALMER ■ "Homology" Controversy: H. K. KIMELBERG

News & Comment

1219 Radar's Growing Vulnerability
1221 UC Told to Review Impact of Research
1222 U.S. Antiabortion Policy May Increase Abortions
1223 Gallo Gets Itchy Feet, Looks to Academe
Rubbia in Line to Head CERN
1224 DOE Undermines Own Nonproliferation Effort
1225 In the Shadow of the Budget Ax
Outline of a Defense Budget

Research News

1226 Hot Dry Rock: Problems, Promise
1228 Coral Bleaching Threatens Atlantic Reefs
1230 The First Americans Are Getting Younger ■ Speaking in Many Tongues

Articles

1237 End-Cretaceous Mass Extinction Event: Argument for Terrestrial Causation: A. HALLAM
1242 Icosahedral Solids: A New Phase of Matter?: P. J. STEINHARDT

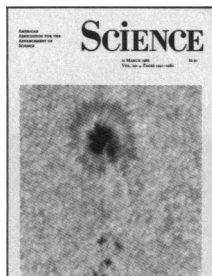
Research Articles

1247 Purification and Properties of *Drosophila* Heat Shock Activator Protein: C. WU, S. WILSON, B. WALKER, I. DAWID, T. PAISLEY, V. ZIMARINO, H. UEDA
1253 Antarctic Stratospheric Chemistry of Chlorine Nitrate, Hydrogen Chloride, and Ice: Release of Active Chlorine: M. J. MOLINA, T.-L. TSO, L. T. MOLINA, F. C.-Y. WANG

Reports

1258 Reaction of Chlorine Nitrate with Hydrogen Chloride and Water at Antarctic Stratospheric Temperatures: M. A. TOLBERT, M. J. ROSSI, R. MALHOTRA, D. M. GOLDEN

- SCIENCE is published weekly on Friday, except the last week in December, and with an extra issue in February by the American Association for the Advancement of Science, 1333 H Street, NW, Washington, DC 20005. Second-class postage (publication No. 484460) paid at Washington, DC, and at an additional entry. Now combined with *The Scientific Monthly*® Copyright © 1987 by the American Association for the Advancement of Science. The title SCIENCE is a registered trademark of the AAAS. Domestic individual membership and subscription (51 issues): \$65. Domestic institutional subscription (51 issues): \$98. Foreign postage extra: Canada \$32, other (surface mail) \$27, air-surface via Amsterdam \$65. First class, airmail, school-year, and student rates on request. Single copies \$2.50 (\$3 by mail); back issues \$4 (\$4.50 by mail); Biotechnology issue, \$5.50 (\$6 by mail); classroom rates on request; Guide to Biotechnology Products and Instruments \$16 (\$17 by mail). Change of address: allow 6 weeks, giving old and new addresses and seven-digit account number. Authorization to photocopy material for internal or personal use under circumstances not falling within the fair use provisions of the Copyright Act is granted by AAAS to libraries and other users registered with the Copyright Clearance Center (CCC) Transactional Reporting Service, provided that the base fee of \$1 per copy plus \$0.10 per page is paid directly to CCC, 21 Congress Street, Salem, Massachusetts 01970. The identification code for Science is 0036-8075/83 \$1 + .10. Postmaster: Send Form 3579 to Science, 1333 H Street, NW, Washington, DC 20005. Science is indexed in the *Reader's Guide to Periodical Literature* and in several specialized indexes.
- The American Association for the Advancement of Science was founded in 1848 and incorporated in 1874. Its objects are to further the work of scientists, to facilitate cooperation among them, to foster scientific freedom and responsibility, to improve the effectiveness of science in the promotion of human welfare, and to increase public understanding and appreciation of the importance and promise of the methods of science in human progress.



COVER A white-light image of an active region on the sun taken by the Solar Optical Universal Polarimeter instrument during the Spacelab-2 mission on board the space shuttle Challenger. The granular structures are due to convection in the solar atmosphere. The dark sunspot is a region of strong magnetic fields and is approximately 14,000 kilometers in diameter. See page 1264. [Lockheed Palo Alto Research Laboratory, Palo Alto, CA 94304]

- 1260 Spacelab-2 Plasma Depletion Experiments for Ionospheric and Radio Astronomical Studies: M. MENDILLO, J. BAUMGARDNER, D. P. ALLEN, J. FOSTER, J. HOLT, G. R. A. ELLIS, A. KLEKOCIUK, G. REBER
- 1264 White Light Sunspot Observations from the Solar Optical Universal Polarimeter on Spacelab-2: R. A. SHINE, A. M. TITLE, T. D. TARBELL, K. P. TOPKA
- 1267 Ultraviolet Observations of Solar Fine Structure: K. P. DERE, J.-D. F. BARTOE, G. E. BRUECKNER, J. W. COOK, D. G. SOCKER
- 1269 A Cell-Cycle Constraint on the Regulation of Gene Expression by Platelet-Derived Growth Factor: B. J. ROLLINS, E. D. MORRISON, C. D. STILES
- 1272 Mutations in the First Exon Are Associated with Altered Transcription of *c-myc* in Burkitt Lymphoma: E. CESARMAN, R. DALLA-FAVERA, D. BENTLEY, M. GROUDINE
- 1275 Acylation of Proteins with Myristic Acid Occurs Cotranslationally: C. WILCOX, J.-S. HU, E. N. OLSON
- 1278 Tumor Cell Rejection Through Terminal Cell Differentiation: J. J. JIMENEZ AND A. A. YUNIS
- 1280 Signal for Attachment of a Phospholipid Membrane Anchor in Decay Accelerating Factor: I. W. CARAS, G. N. WEDDELL, M. A. DAVITZ, V. NUSSENZWEIG, D. W. MARTIN, JR.
- 1283 Efflux of Chloroquine from *Plasmodium falciparum*: Mechanism of Chloroquine Resistance: D. J. KROGSTAD, I. Y. GLUZMAN, D. E. KYLE, A. M. J. ODUOLA, S. K. MARTIN, W. K. MILHOUS, P. H. SCHLESINGER
- 1285 Diel Periodicity of Photosynthesis in Polar Phytoplankton: Influence on Primary Production: R. B. RIVKIN AND M. PUTT
- 1288 A G Protein Directly Regulates Mammalian Cardiac Calcium Channels: A. YATANI, J. CODINA, Y. IMOTO, J. P. REEVES, L. BIRNBAUMER, A. M. BROWN

Technical Comments

- 1292 Epilepsy Hypothesis: C. E. RIBAK; R. S. SLOVITER

Book Reviews

- 1296 Scientific Controversies, *reviewed by* U. SEGERSTRÅLE ■ Stomatal Function, A. H. MARKHART III ■ Geomorphology from Space, L. H. LATTMAN ■ Books Received

Products & Materials

- 1300 Protein-Structure Prediction Software ■ Ribonuclease Inhibitor ■ HPLC Chemistry for Hydrophobic Peptides ■ Graphics Terminal for Molecular Modeling ■ Chromatography Fraction Collector ■ Sequencing System ■ Molecular Modeling Software ■ Literature

Board of Directors

Lawrence Bogorad
*Retiring President,
Chairman*

Sheila E. Widnall
President

Walter E. Massey
President-elect

Robert McC. Adams
Floyd E. Bloom
Mary E. Clutter
Mildred S. Dresselhaus
Beatrix A. Hamburg
Donald N. Langenberg
Frank von Hippel
Linda S. Wilson

William T. Golden
Treasurer
Alvin W. Trivelpiece
Executive Officer

Editorial Board

Elizabeth E. Bailey
David Baltimore
William F. Brinkman
Phillip E. Converse
Joseph L. Goldstein
James D. Idol, Jr.
Leon Knopoff
Seymour Lipset
Oliver E. Nelson
David V. Ragone
David M. Raup
Vera C. Rubin
Larry L. Smarr
Solomon H. Snyder
Robert M. Solow
James D. Watson

Board of Reviewing Editors

John Abelson
Qais Al-Awqati
James P. Allison
Don L. Anderson
Elizabeth H. Blackburn
Floyd E. Bloom
Charles R. Cantor
Ralph J. Cicerone
James H. Clark
Bruce F. Eldridge
Stanley Falkow
Theodore H. Geballe
Roger I. M. Glass
Stephen P. Goff
Robert B. Goldberg

Corey S. Goodman
Stephen J. Gould
Richard M. Held
Gloria Heppner
Eric F. Johnson
Konrad B. Krauskopf
I. Robert Lehman
Karl L. Magleby
Joseph B. Martin
John C. McGiff
Alton Meister
Mortimer Mishkin
Peter Olson
Gordon H. Orians
Carl O. Pabo
John S. Pearce

Yeshayau Pocker
Jean Paul Revel
James E. Rothman
Thomas C. Schelling
Ronald H. Schwartz
Stephen M. Schwartz
Otto T. Solbrig
Robert T. N. Tjian
Virginia Trimble
Geerat J. Vermeij
Martin G. Weigert
Harold Weintraub
Irving L. Weissman
George M. Whitesides
Owen N. Witte
William B. Wood

Science

238 (4831)

Science **238** (4831), 1209-1300.

ARTICLE TOOLS

<http://science.sciencemag.org/content/238/4831>

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. The title *Science* is a registered trademark of AAAS.

Copyright © 1987 The Authors, some rights reserved; exclusive licensee American Association for the Advancement of Science. No claim to original U.S. Government Works.