

775 This Week in *Science*

Editorial

777 Priority One: Rescue the Environment

Letters

788 New World Epidemics: M. L. SEMPOWSKI, L. P. SAUNDERS, J. W. BRADLEY ■
Evolutionary Questions: The "Progenote": C. E. WOESE ■ The
Tasaday Debate: J. NANCE ■ SSC Magnet Development: R. V. PERIN

News & Comment

798 Paleoanthropology Gets Physical ■ Racemization Dating: Great Expectations
801 Hearing on Lab Vandalism
802 Old Law Puts a New Wrinkle in Fraud Probes
803 Science Indicators: Healthy. . . For Now

Research News

804 The Microchip Microbe Hunters
807 New Lightest Aerogel Is Nothing to Look At
808 Puzzling Out the Tectonic Plates
809 Concerns Raised About Mouse Models for AIDS
810 *Briefings*: China Curbs Outflow of Students ■ The NSF and Biodiversity ■ Testing
Relativity ■ Perils of Moderation ■ Poles Plug In ■ British Brain Drain ■ Biotech
Protection ■ Alps Threatened with Deforestation ■ Primate Use Down ■ OTA
Speaks Out on Communications

Articles

812 Race and Imprisonment Decisions in California: S. KLEIN, J. PETERSILIA, S. TURNER
817 "Dead Quasars" in Nearby Galaxies?: M. J. REES

Research Articles

824 Induction of Chronic Myelogenous Leukemia in Mice by the P210^{bcr/abl} Gene of
the Philadelphia Chromosome: G. Q. DALEY, R. A. VAN ETTEN, D. BALTIMORE

Reports

831 NMR Characterization of Surface Interactions in the Cytochrome b₅-Cytochrome c
Complex: A. M. BURCH, S. E. J. RIGBY, W. D. FUNK, R. T. A. MACGILLIVRAY,
M. R. MAUK, A. G. MAUK, G. R. MOORE
833 Painting the Phase Space Portrait of an Integrable Dynamical System: S. COFFEY,
A. DEPRIT, E. DEPRIT, L. HEALY

■ **SCIENCE** is published weekly on Friday, except the last week in December, and with a supplement in March by the American Association for the Advancement of Science, 1333 H Street, NW, Washington, DC 20005. Second-class Non-profit postage (publication No. 484460) paid at Washington, DC, and at an additional entry. Copyright © 1990 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): \$75. Domestic institutional subscription (51 issues): \$120. Foreign postage extra: Canada \$46, other (surface mail) \$46, air mail via Amsterdam \$85. First class, airmail, school-year, and student rates on request. **Single copy sales**: Current issue, \$3.50; back issues, \$5.00; Biotechnology issue, \$6.00 (for postage and handling, add per copy \$0.50 U.S., \$1.00 all foreign); Guide to Biotechnology Products and Instruments, \$18 (for postage and handling add per copy \$1.00 U.S., \$1.50 Canada, \$2.00 other foreign). Bulk rates on request. **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, 27 Congress Street, Salem, Massachusetts 01970. The identification code for *Science* is 0036-8075/83 \$1 + .10. **Change of address**: allow 6 weeks, giving old and new addresses and 11-digit account number. **Postmaster**: Send Form 3579 to *Science*, P.O. Box 1723, Riverton, NJ 08077. *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 objectives 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, to advance education in science, and to increase public understanding and appreciation of the importance and promise of the methods of science in human progress.



COVER Graphical representation of the motion of satellite orbits in phase space (the space whose dimensions are position and momentum). Each point fixes the orbital eccentricity and argument of perigee; color bands correspond to constant energy levels. Rendered by contour "painting" on a massively parallel processor, the plot reveals a startling configuration of equilibria spawned by pitchfork and saddle node bifurcations. See page 833. [Computer graphics generated on a Thinking Machines Corporation CM-2 by Etienne Deprit and Liam Healy, Naval Research Laboratory, Washington, DC; photographic image by Mark Stucky]

- 836 **Activin-Binding Protein from Rat Ovary Is Follistatin:** T. NAKAMURA, K. TAKIO, Y. ETO, H. SHIBAI, K. TITANI, H. SUGINO
- 838 **Endocranial Features of *Australopithecus africanus* Revealed by 2- and 3-D Computed Tomography:** G. C. CONROY, M. W. VANNIER, P. V. TOBIAS
- 841 **Genetic Analysis of Histone H4: Essential Role of Lysines Subject to Reversible Acetylation:** P. C. MEGEE, B. A. MORGAN, B. A. MITTMAN, M. M. SMITH
- 845 **Secondary Structure Is the Major Determinant for Interaction of HIV *rev* Protein with RNA:** H. S. OLSEN, P. NELBOCK, A. W. COCHRANE, C. A. ROSEN
- 848 **Expanded HIV-1 Cell Tropism by Phenotypic Mixing with Murine Endogenous Retroviruses:** P. LUSO, F. DI MARZO VERONESE, B. ENSOLI, G. FRANCHINI, C. JEMMA, S. E. DEROCO, V. S. KALYANARAMAN, R. C. GALLO
- 852 **Glucose, Sulfonyleureas, and Neurotransmitter Release: Role of ATP-Sensitive K⁺ Channels:** S. AMOROSO, H. SCHMID-ANTOMARCHI, M. FOSSET, M. LAZDUNSKI
- 854 **Functional Properties of Rat Brain Sodium Channels Expressed in a Somatic Cell Line:** T. SCHEUER, V. J. AULD, S. BOYD, J. OFFORD, R. DUNN, W. A. CATTERALL
- 858 **Subcellular Calcium Transients Visualized by Confocal Microscopy in a Voltage-Clamped Vertebrate Neuron:** A. HERNÁNDEZ-CRUZ, F. SALA, P. R. ADAMS

Technical Comments

- 863 **Evidence for Band Overlap Metallization of Hydrogen:** I. F. SILVERA; H. K. MAO AND R. J. HEMLEY

Book Reviews

- 865 **Productivity of the Ocean, reviewed by P. G. BREWER** ■ **Clostridia, E. R. KASHKET** ■ **The Biology of *Euglena*, C. A. PRICE** ■ **Quaternary Type Sections, W. R. FARRAND** ■ **Books Received**

Products & Materials

- 868 **Monoclonal Antibodies** ■ **Kit for Automated DNA Extraction** ■ **Right-to-Know Bottles and Labels** ■ **Ultralow-Temperature Freezers** ■ **Tiny Microcentrifuge** ■ **CO₂ for Supercritical Fluid Extraction** ■ **HPLC Pump for Critical Conditions** ■ **Highest Resolution Analytical Balances** ■ **Literature**

Board of Directors

Walter E. Massey
*Retiring President,
Chairman*

Richard C. Atkinson
President

Donald N. Langenberg
President-elect

Mary Ellen Avery
Francisco J. Ayala
Floyd E. Bloom
Mary E. Clutter
Eugene H. Cota-Robles
Joseph G. Gavin, Jr.
John H. Gibbons
Beatrix A. Hamburg
William T. Golden
Treasurer
Richard S. Nicholson
Executive Officer

Editorial Board

Elizabeth E. Bailey
David Baltimore
William F. Brinkman
E. Margaret Burbidge
Pierre-Gilles de Gennes
Joseph L. Goldstein
Mary L. Good
F. Clark Howell
James D. Idol, Jr.
Leon Knopoff
Oliver E. Nelson
Yasutomi Nishizuka
Helen M. Ranney
David M. Raup
Howard A. Schneiderman
Larry L. Smarr
Robert M. Solow
James D. Watson

Board of Reviewing Editors

John Abelson
Don L. Anderson
Stephen J. Benkovic
Gunter K.-J. Blobel
Floyd E. Bloom
Henry R. Bourne
James J. Bull
Kathryn Calame
Charles R. Cantor
Ralph J. Cicerone
John M. Coffin
Robert Dorfman
Bruce F. Eldridge
Paul T. Englund
Fredric S. Fay

Theodore H. Geballe
Roger I. M. Glass
Stephen P. Golf
Corey S. Goodman
Stephen B. Gould
Eric F. Johnson
Stephen M. Kosslyn
Konrad B. Krauskopf
Charles S. Levings III
Richard Losick
Joseph B. Martin
John C. McGiff
Anthony R. Means
Mortimer Mishkin
Roger A. Nicoll
Carl O. Pabo
Yeshayau Pocker

Dennis A. Powers
Erkki Ruoslahti
Thomas W. Schoener
Ronald H. Schwartz
Terrence J. Sejnowski
Robert T. N. Tjian
Virginia Trimble
Emil R. Unanue
Geerat J. Vermeij
Bert Vogelstein
Harold Weintraub
Irving L. Weissman
Zena Werb
George M. Whitesides
Owen N. Witte
William B. Wood

Science

247 (4944)

Science **247** (4944), 775-868.

ARTICLE TOOLS

<http://science.sciencemag.org/content/247/4944>

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 © 1990 The Authors, some rights reserved; exclusive licensee American Association for the Advancement of Science. No claim to original U.S. Government Works.