

719 This Week in *Science*

Editorial

721 The Saving of Yosemite

Letters

724 Virus Hunting and the Scientific Method: P. DUESBERG ■ Radon Risk and EPA: R. J. GUIMOND; H. HURWITZ, JR.; D. W. MOELLER; B. L. COHEN ■ Ubiquitous Neuroscientists: J. T. DURKIN

ScienceScope

733 The Saturn V's return from the grave; NSF's clean bill of health; etc.

News & Comment

734 Indirect Costs: Dingell Takes On Stanford ■ How Does Stanford Compare with Its Peers? ■ Has ONR "Cleared" Stanford?

737 It Ain't Broke, Buy Why Not FCCSET?

738 NIH Budget
Creationist School Lives On

739 Biotech Nightmare: Does Cetus Own PCR?

740 British Science Under the Ax—Again

741 The SSC Gets Its (Official) Price Tag: \$8.3 Billion

742 *Briefings*: Right Handers Live Longer ■ Juggling Robot ■ Social Scientists Get a Man at OSTP . . . and an NSF Directorate? ■ Smooth Ride for Nominee ■ New Genome Centers ■ Log On, Ye Clinicians ■ Biotech Directory

Research News

744 Biologists Turn On to "Off-Enzymes"

746 Did a Burst of Volcanism Overheat Ancient Earth? ■ Beyond a Volcanic Spasm

748 New Center to Study Therapies and Ethnicity

Perspective

753 Retroposons—Seeds of Evolution: J. BROSIUS

Articles

754 Exact Solution of Large Asymmetric Traveling Salesman Problems: D. L. MILLER AND J. F. PEKNY

761 The *myoD* Gene Family: Nodal Point During Specification of the Muscle Cell Lineage: H. WEINTRAUB, R. DAVIS, S. TAPSCOTT, M. THAYER, M. KRAUSE, R. BENEZRA, T. K. BLACKWELL, D. TURNER, R. RUPP, S. HOLLENBERG *et al.*

Research Article

767 Light-Directed, Spatially Addressable Parallel Chemical Synthesis: S. P. A. FODOR, J. L. READ, M. C. PIRRUNG, L. STRYER, A. T. LU, D. SOLAS

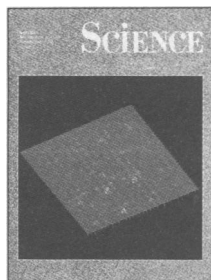
Reports

774 Detection of CN Emission from (2060) Chiron: S. J. BUS, M. F. A'HEARN, D. G. SCHLEICHER, E. BOWELL

777 Constraints on the Diameter and Albedo of 2060 Chiron: M. V. SYKES AND R. G. WALKER

■ SCIENCE (ISSN 0036-8075) is published weekly on Friday, except the last week in December, 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 additional mailing offices. 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): \$82. Domestic institutional subscription (51 issues): \$150. Foreign postage extra: Canada \$46, other (surface mail) \$46, air freight \$90. First class, airmail, school-year, and student rates on request. Canadian GST Number: 125488122. Change of address: allow 6 weeks, giving old and new addresses and 11-digit account number. Postmaster: Send change of address to Science, P.O. Box 1723, Riverton, NJ 08077. Single copy sales: \$6.00 per issue prepaid includes surface postage; Guide to Biotechnology Products and Instruments, \$20. 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. 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 An ordered array of 1024 peptides. Light was used to direct the simultaneous synthesis of many different peptides in a 1.28 cm by 1.28 cm region. Particular amino acids were attached to the growing peptide chains only when protecting groups had been selectively removed through photolithography. This fluorescence image reveals those peptides that bind to a specific antibody with high affinity. See page 767. [Image by Stephen P. A. Fodor and co-workers]

- 780 *A*-Axis-Oriented $\text{YBa}_2\text{Cu}_3\text{O}_7/\text{PrBa}_2\text{Cu}_3\text{O}_7$ Superlattices: C. B. EOM, A. F. MARSHALL, J.-M. TRISCONE, B. WILKENS, S. S. LADERMAN, T. H. GEBALLE
- 783 Determination of Membrane Protein Structure by Rotational Resonance NMR: Bacteriorhodopsin: F. CREUZET, A. McDERMOTT, R. GEBHARD, K. VAN DER HOEF, M. B. SPIJKER-ASSINK, J. HERZFELD *et al.*
- 786 Baddeleyite-Type High-Pressure Phase of TiO_2 : H. SATO, S. ENDO, M. SUGIYAMA, T. KIKEGAWA, O. SHIMOMURA, K. KUSABA
- 788 Endothelial Expression of a Mononuclear Leukocyte Adhesion Molecule During Atherogenesis: M. I. CYBULSKY AND M. A. GIMBRONE, JR.
- 791 Human Immunodeficiency Virus Infection of Human-PBL-SCID Mice: D. E. MOSIER, R. J. GULIZIA, S. M. BAIRD, D. B. WILSON, D. H. SPECTOR, S. A. SPECTOR
- 794 The Assimilation of Elements Ingested by Marine Copepods: J. R. REINFELDER AND N. S. FISHER
- 796 Senescence of Nickel-Transformed Cells by an X Chromosome: Possible Epigenetic Control: C. B. KLEIN, K. CONWAY, X. W. WANG, R. K. BHAMRA, X. LIN, M. D. COHEN, L. ANNAB, J. C. BARRETT, M. COSTA
- 799 Effect of Cytochrome P450 Arachidonate Metabolites on Ion Transport in Rabbit Kidney Loop of Henle: B. ESCALANTE, D. ERLIJ, J. R. FALCK, J. C. MCGIFF
- 802 Identification of the Hepatocyte Growth Factor Receptor as the *c-met* Proto-Oncogene Product: D. P. BOTTARO, J. S. RUBIN, D. L. FALETTO, A. M.-L. CHAN, T. E. KMIECIK, G. F. VANDE WOUDE, S. A. AARONSON
- 804 Regulation of Polyphosphoinositide-Specific Phospholipase C Activity by Purified G_q : A. V. SMRCKA, J. R. HEPLER, K. O. BROWN, P. C. STERNWEIS
- 807 Translational Potentiation of Messenger RNA with Secondary Structure in *Xenopus*: L. FU, R. YE, L. W. BROWDER, R. N. JOHNSTON

Technical Comment

- 811 Conserved Sequence and Structural Elements in the HIV-1 Principal Neutralizing Determinant: Corrections and Clarifications: G. J. LAROSA, J. P. DAVIDE, K. WEINHOLD, J. A. WATERBURY, A. T. PROFY, J. A. LEWIS, A. J. LANGLOIS, G. R. DREESMAN, R. N. BOSWELL, P. SHADDUCK, L. H. HOLLY, M. KARPLUS, D. P. BOLOGNESI, T. J. MATTHEWS, E. A. EMINI, S. D. PUTNEY

Book Reviews

- 813 Cognitive Ethology, reviewed by C. T. SNOWDON ■ The Age of Reptiles, D. A. RUSSELL ■ Science and Cultural Crisis, A. E. MOYER ■ Effective Care in Pregnancy and Childbirth AND A Guide to Effective Care in Pregnancy and Childbirth, M. S. KRAMER ■ Books Received

Products & Materials

- 824 Portable Clean Air Enclosure ■ Software for Nonlinear Curve-Fitting ■ Nonprotein Binding Gel ■ Plant and Tissue Growth Environment ■ Device Blows Away Static and Dirt ■ Literature

Board of Directors

Richard C. Atkinson
*Retiring President,
Chairman*

Donald N. Langenberg
President

Leon M. Lederman
President-elect

Mary Ellen Avery
Francisco J. Ayala
Eugene H. Cota-Robles
Robert A. Frosch
Joseph G. Gavin, Jr.
John H. Gibbons
Beatrix A. Hamburg
Florence P. Hasetline

William T. Golden
Treasurer

Richard S. Nicholson
Executive Officer

Editorial Board

Charles J. Arntzen
Elizabeth E. Bailey
David Baltimore
William F. Brinkman
E. Margaret Burbidge
Pierre-Gilles de Gennes
Joseph L. Goldstein
Mary L. Good
Harry B. Gray
F. Clark Howell
Paul A. Marks
Yasutomi Nishizuka
Helen M. Ranney
Robert M. Solow
Edward C. Stone
James D. Watson

Board of Reviewing Editors

John Abelson
Frederick W. Alt
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

Harry A. Fozzard
Theodore H. Geballe
Roger I. M. Glass
Stephen P. Goff
Corey S. Goodman
Stephen J. Gould
Eric F. Johnson
Stephen M. Kosslyn
Konrad B. Krauskopf
Charles S. Levings III
Richard Losick
John C. McGiff
Anthony R. Means
Mortimer Mishkin
Roger A. Nicoll
William H. Orme-Johnson III
Yeshayau Pocker

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

Science

251 (4995)

Science **251** (4995), 719-824.

ARTICLE TOOLS

<http://science.sciencemag.org/content/251/4995>

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.