987 This Week in Science

Editorial

989 Scientific Competency Through Fun

Letters


News & Comment

999 Landsats: Drifting toward Oblivion?

1000 Hospital Faulted on Dry Eye Study

1001 CBO Lists Options for Cutting R&D

1002 Europe Tries to Untangle Laws on Patenting Life

1004 A Global Supercomputer Race for High Stakes

Research News

1007 Arctic Ozone Is Poised for a Fall

1009 New Look at Turtle Migration Mystery

1010 Keck Telescope Mirror Is in Production

Research Articles

1012 How DNA Viruses May Cause Cancer

1017 Combining Cognitive and Statistical Approaches to Survey Design: S. E. Fienberg and J. M. Tanur

1023 Polymers, Fractals, and Ceramic Materials: D. W. Schaefer

1027 Genetic Control of Differentiation of the Caenorhabditis elegans Touch Receptor Neurons: M. Chalfie and M. Au

1033 Reverse Transcriptase in a Clinical Strain of Escherichia coli: Production of Branched RNA-Linked ssDNA: B. C. Lampson, J. Sun, M.-Y. Hsu, J. Vallejo-Ramirez, S. Inouye, M. Inouye

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 © 1989 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): $70. Domestic institutional subscription (51 issues): $110. Foreign postage extra: Canada $32, other (surface mail) $32, air-surface 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. Change of address: allow 6 weeks, giving old and new addresses and 11-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+.00. Postmaster: Send Form 3579 to Science, P.O. Box 1722, 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 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.
Reports

1043 Chemico-Viscous Remanent Magnetization in the Fe₃O₄-γFe₂O₃ System: O. Ozdemir and J. D. Dunlop


1050 Atomic Resolution Imaging of Adsorbates on Metal Surfaces in Air: Iodine Adsorption on Pt(111): B. C. Schardt, S.-L. Yau, F. Rinaldi


1056 Specific Recognition of Cruciform DNA by Nuclear Protein HMG1: M. E. Bianchi, M. Beltramé, G. Paonessa

1059 A Salmonella Locus That Controls Resistance to Microbicidal Proteins from Phagocytic Cells: P. I. Fields, E. A. Groisman, F. Heffron


1066 Macrophage Inflammatory Protein-1: A Prostaglandin-Independent Endogenous Pyrogen: G. Davatelis, S. D. Wolfe, B. Sherry, J.-M. Dayer, R. Chicheportiche, A. Cerami

1068 Block of Stretch-Activated Ion Channels in Xenopus Oocytes by Gadolinium and Calcium Ions: X.-C. Yang and F. Sachs

1071 Neuroanatomical Correlates of Anticipatory Anxiety: E. M. Reiman, M. J. Fusselman, P. T. Fox, M. E. Raichle


Book Reviews

1085 Beamtimes and Lifetimes, reviewed by S. E. Cozzens • Nucleus, J. S. Walker • Divide and Prosper, M. Walker • The War of Invention, J. H. Morrow, Jr., Books Received

Products & Materials

1089 System for Probe Synthesis and Hybridization • Drawing Utility for Chemical On-Line Searches • Modular Environmentally Controlled Chamber • Columns for Amino Acid Analysis • Antibodies • Six-Vessel Culture System • Vibrating Microtome • Literature