### Editorial

1025  Science and Technology Awards

### Letters

1027  Global Warning: J. A. LAURMANN; B. KEEPIN AND G. KATS; A. I. FINKLIN

Benveniste on Nature Investigation: J. BENVENISTE

HHS Policy on in Vitro Fertilization

Hazardous Waste Clean-Up: C. F. COOPER

### News & Comment

1029  Breaking the Cycle of Addiction

1031  Racing After the Z Particle

1032  Academy Starts News Service

1033  Environmental Awakening in the Soviet Union

Glasnost: Soviet Computer Lag

1035  NSB Ponders Science Policy Role

1036  Research Psychologists Break with APA

### Research News

1037  La Niña’s Big Chill Replaces El Niño

1038  Superconductivity Result Unconfirmed

1039  The AIDS Virus Can Take On Many Guises

1041  Laser-Cooled Atoms Reach Record Low Temperatures

1042  Trapping with Optical Tweezers

### Articles

1043  Climatic Changes of the Last 18,000 Years: Observations and Model Simulations: COHMAP MEMBERS

1053  Time-Resolved Photoacoustic Calorimetry: Probing the Energetics and Dynamics of Fast Chemical and Biochemical Reactions: K. S. PETERS AND G. J. SNYDER

1057  Heterologous Expression of Excitability Proteins: Route to More Specific Drugs?: H. A. LESTER

### Research Articles

1064  Ordered Interstrand and Intrastrand DNA Transfer During Reverse Transcription: A. T. PANGANIBAN AND DICCON FIORE

---

**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 Sciences. Copyright © 1988 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 $35, other (surface mail) $82, air-surface via Amsterdam $86. First class, airmail, school-year, and student rates on request. Single copies $3.00 ($3.50 by mail; back issues $4.50 ($5.00 by mail); Biototechnology issue, $5.50 ($6 by mail); classroom rates on request. Guide to Bio- technology 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.
Wild-type seedlings and one ethylene-insensitive mutant of *Arabidopsis thaliana* grown in an atmosphere containing the plant growth regulator ethylene. The wild-type seedlings show a growth habit characteristic for plants treated with ethylene: reduced elongation, thickened hypocotyl, and pronounced apical hooks. The ethylene-insensitive mutant elongated normally just as wild-type seedlings would do in an atmosphere without ethylene. Such a screen was used to select three ethylene-insensitive mutants among 75,000 seedlings grown in petri dishes. [See page 1086. Photo by Kurt Stepnitz, Instructional Media Center, Michigan State University, East Lansing, MI 48824]

### Reports

- 1070 Hemispherical Color Differences on Pluto and Charon: R. P. Binzel
- 1072 Effect of a Coordination Change on the Strength of Amorphous SiO2: C. Meade and R. Jeanloz
- 1074 Mitotic Recombination Within the Centromere of a Yeast Chromosome: S. W. Lieberman, L. S. Symington, T. D. Petes
- 1084 Conferring Operator Specificity on Restriction Endonucleases: M. Koob, E. Grimes, W. Szymbalski
- 1086 Insensitivity to Ethylene Conferred by a Dominant Mutation in *Arabidopsis thaliana*: A. B. Bleecker, M. A. Estelle, C. Somerville, H. Kendler
- 1092 Tumor Formation Dependent on Proteoglycan Biosynthesis: J. D. Esko, K. S. Rostand, J. L. Weinke
- 1096 A Novel Target for Antidiuretic Hormone in Insects: J. H. Spring, A. M. Morgan, S. R. Hazelton

### AAAS Meetings

- 1103 *AAAS Science and Security Colloquium* • Advance Registration and Housing Form

### Book Reviews

- 1106 Innovation and the Arms Race, reviewed by D. L. Hafner • Explorations in Parallel Distributed Processing, M. M. Segal • Temperature Biology of Animals, M. E. Feder • Physics of Massive Neutrinos, M. S. Witherell • Books Received

### Products & Materials

- 1110 Mathematical Workstation Software • Nonlinear Dynamics Software • Restriction Map Software • Micropipetter • Research Microscopes • Literature