

# SCIENCE

<b>LETTERS</b>	Least Publishable Unit: <i>R. W. Buddemeier; J. Roth</i> ; Startling Punctuation: <i>N. P. Christy; G. B. Kolata</i> ; Guinea Worm Disease: <i>D. R. Hopkins and W. H. Foeger</i> .....	494
<b>EDITORIAL</b>	Affordable Science .....	497
<b>ARTICLES</b>	An Ice-Free Cretaceous? Results from Climate Model Simulations: <i>E. J. Barron, S. L. Thompson, S. H. Schneider</i> .....	501
	Brain, Lung, and Heart Functions During Diving and Recovery: <i>P. W. Hochachka</i> .....	509
	National Science Foundation Budgets: Fiscal Years 1981, 1982, and Beyond: <i>L. M. Branscomb</i> .....	514
<b>NEWS AND COMMENT</b>	Ambitious Energy Project Loses Luster .....	517
	Military Plans for Shuttle Stir Concern .....	520
	Afghanistan: The Politics of a Tragicomedy .....	521
	Attempts to Safeguard Technology Draw Fire .....	523
	<i>Briefing: Meltdown Too Hot for Maryland Science Center; The Perils of Isabelle: Under the Budget Ax; Edwards Hears Criticism from Synfuels Industry; College Students Fail Global Awareness Test</i> .....	524
	The Containment of Research .....	526
<b>RESEARCH NEWS</b>	Micromainframe Is Newest Computer on a Chip .....	527
	<i>Meeting Highlights: Magma Chambers in the Laboratory; More Deep-Sea Hot Springs in the Pacific; Rifts Propagating in the Pacific</i> .....	528
	Tale of the Orphaned Genes .....	530
<b>AAAS NEWS</b>	Questions of Science Literacy Addressed by Rutherford/AAAS; 1982 Exhibit; Energy and Health to Be Discussed in Berkeley; Short Courses at Pacific Division, Annual Meeting .....	532
<b>BOOK REVIEWS</b>	Evolution and Ecology of Zooplankton Communities, <i>reviewed by E. L. Mills</i> ; Ball Lightning and Bead Lightning, <i>R. E. Orville</i> ; The Nature of Thought, <i>K. Oatley</i> ; A History of Computing in the Twentieth Century, <i>N. Stern</i> ; Books Received .....	534

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<b>REPORTS</b>	Control of Equatorial Ocean Currents by Turbulent Dissipation: <i>W. R. Crawford and T. R. Osborn</i> .....	539
	Regression of Aflatoxin B <sub>1</sub> -Induced Hepatocellular Carcinomas by Reduced Glutathione: <i>A. M. Novi</i> .....	541
	Changes in DNA During Meiosis in a Repair-Deficient Mutant ( <i>rad 52</i> ) of Yeast: <i>M. A. Resnick et al.</i> .....	543
	Mutation Caused by Human Phagocytes: <i>S. A. Weitzman and T. P. Stossel</i> .....	546
	Transformation of Paralytic Shellfish Toxins as Demonstrated in Scallop Homogenates: <i>Y. Shimizu and M. Yoshioka</i> .....	547
	Tritiated Thymidine Incorporation Does Not Measure DNA Synthesis in Ribavirin-Treated Human Cells: <i>J. C. Drach et al.</i> .....	549
	Ctenidial Autotomy in <i>Corbicula fluminea</i> in Response to Massive Granulomas: <i>J. C. Britton et al.</i> .....	551
	Purified Reduced Nicotinamide Adenine Dinucleotide: Responses to Lactate Dehydrogenase Isozymes from Three Cell Sources: <i>A. E. Kaplan et al.</i> ....	553
	Excitation of <i>Limulus</i> Photoreceptors by Vanadate and by a Hydrolysis- Resistant Analog of Guanosine Triphosphate: <i>A. Fein and D. W. Corson</i> ....	555
	Isoguanosine: Isolation from an Animal: <i>F. A. Fuhrman et al.</i> .....	557
	Tyrosine Increases Blood Pressure in Hypotensive Rats: <i>L. A. Conlay, T. J. Maher, R. J. Wurtman</i> .....	559
	Cadmium-113 Nuclear Magnetic Resonance Studies of Bovine Insulin: Two-Zinc Insulin Hexamer Specifically Binds Calcium: <i>J. L. Sudmeier et al.</i> .....	560
	Evidence for Endomycorrhizae in Pennsylvanian Age Plant Fossils: <i>C. A. Wagner and T. N. Taylor</i> .....	562
	Alternative Male Strategies: Genetic Differences in Crickets: <i>W. H. Cade</i> .....	563
	Energetics of Honeybee Swarm Thermoregulation: <i>B. Heinrich</i> .....	565
	Different Proteins Associated with 10-Nanometer Filaments in Cultured Chick Neurons and Nonneuronal Cells: <i>G. S. Bennett et al.</i> .....	567
	Drug Discrimination Learning in Lead-Exposed Rats: <i>H. Zenick and M. Goldsmith</i> .....	569
	Eusociality in a Mammal: Cooperative Breeding in Naked Mole-Rat Colonies: <i>J. U. M. Jarvis</i> .....	571
	Male Vole Urine Changes Luteinizing Hormone-Releasing Hormone and Norepinephrine in Female Olfactory Bulb: <i>D. E. Dluzen et al.</i> .....	573
	Age Determination for the Shanidar 3 Neanderthal; <i>D. D. Thompson and E. Trinkaus</i> .....	575
	<i>Technical Comments: Terminal Cretaceous Extinctions and the Arctic Spillover Model: D. L. Clark and J. A. Kitchell; S. Gartner; Food Colors and Behavior: R. L. Brunner, C. V. Vorhees, R. E. Butcher; B. Weiss</i> .....	577

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**COVER**

Antarctic Weddell seal (*Leptonychotes weddelli*) initiating a dive under the ice shelf near Ross Island, Antarctica. The length of diving depends on regulated blends of anaerobic and aerobic metabolism in different tissues and organs. See page 509. [R. Davis, Scripps Institution of Oceanography, La Jolla, California]

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