LETTERS
Environmental Analysis: L. G. Jacobs; Assessing Diagnostic Technologies:
J.-P. Habicht; P. M. Weber; J. A. Swets and R. M. Pickett

EDITORIAL
Shadow of Death over Aging: O. Pollack

ARTICLES
East Pacific Rise: Hot Springs and Geophysical Experiments:
F. N. Spiess et al.
Sulfide Deposits from the East Pacific Rise Near 21°N:
R. Hekinian et al.

NEWS AND COMMENT
NRC Takes a Second Look at Reactor Design
INFCE: Little Progress in Controlling Nuclear Proliferation
Navy to Close Arctic Research Lab
Physicians Take on Nuclear War
Briefing: Gasohol: A Choice That May Buy Grief; UC-San Diego May Hire Hand
That Feeds It; The RAC of Judgment; Sakharov Expulsion Averted
New Graduate Program in Health Advocacy

RESEARCH NEWS
Reye's Syndrome: A Medical Mystery
Geopressed Energy Fighting Uphill Battle

BOOK REVIEWS
Malthus, reviewed by M. W. Flinn; The Biosphere and Politics, B. Jancar;
Bumblebee Economics, V. A. Tucker; Primordial Germ Cells in the Chordates,
A. W. Blackler; The Spermatozoon, V. D. Vacquier; Books Received

REPORTS
The Climatological Significance of a Doubling of Earth's Atmospheric Carbon
Dioxide Concentration: S. B. Idso
Core Drilling Through the Ross Ice Shelf (Antarctica) Confirmed Basal Freezing: I. A. Zotikov, V. S. Zagorodnov, J. V. Raikovsky ........................................... 1463

Geothermal System at 21°N, East Pacific Rise: Physical Limits on Geothermal Fluid and Role of Adiabatic Expansion: J. L. Bischoff ........................................... 1465

Cytochrome P-450: Localization in Rabbit Lung: C. J. Serabjit-Singh et al. ................... 1469

Successful Culture of Rat Embryos on Human Serum: Use in the Detection of Teratogens: C. L. Chatot et al. ................................................................. 1471

Dendrodendritic Inhibition: Demonstration with Intracellular Recording: C. E. Jahr and R. A. Nicoll ................................................................. 1473

Role of Nitrogen Dioxide in the Biosynthesis of Nitrosamines in Mice: Z. M. Iqbal, K. Dahl, S. S. Epstein ................................................................. 1475

Intracellularly Injected Cobaltous Ions Accumulate at Synaptic Densities: C. E. Phillips ................................................................. 1477

Cytosolic and Microsomal Epoxide Hydrolases: Differential Properties in Mammalian Liver: K. Ota and B. D. Hammock ................................................................. 1479


Esterase 6 and Reproduction in Drosophila melanogaster: R. C. Richmond et al. ............ 1483

Food Dyes Impair Performance of Hyperactive Children on a Laboratory Learning Test: J. M. Swanson and M. Kinsbourne ................................................................. 1485

Behavioral Responses to Artificial Food Colors: B. Weiss et al. ........................................ 1487

Neurotransmitter Release from a Vertebrate Neuromuscular Synapse Affected by a Food Dye: G. J. Augustine, Jr., and H. Levitan ................................................................. 1489

Single-Nutrient Microbial Competition: Qualitative Agreement Between Experimental and Theoretically Forecast Outcomes: S. R. Hansen and S. P. Hubbell ................................................................. 1491

Motile Flagellum with a "3 + 0" Ultrastructure: G. Prensier et al. ........................................ 1493

PRODUCTS AND MATERIALS

Kit for Determination of Iron-Binding Capacity: Microelectrode Pipette Holders; Laboratory Data Management System; Hand-Held Germanium Spectrometer; Alternative to Dialysis in Clinical Assay; Implantable Miniature Pump; Ventilators for Small Animals; Literature ................................................................. 1496

Hot-water jet spouting from a knocked-over chimney on the East Pacific Rise crest at 21°N. Water temperatures of 380° ± 30°C were measured at such vents. The photograph was taken from the submersible Alvin during expedition RISE. See page 1421. [Photograph by Dudley Foster, Woods Hole Oceanographic Institution]