LETTERS
Neutron Facilities: P. B. Moore; Polywater on the Highway: J. Shapiro;
Oak Ridge Cancer Treatments: P. L. Johnson; Censorship Charge:
Z. S. Altschuler, P. B. Moore, A. S. Posner; Hinged Teeth: R. A. Kiltie .. 388

EDITORIAL
Support for Scientific Journals .......................................................... 393

ARTICLES
Acyclic Stereocontrol Through the Aldol Condensation: C. H. Heathcock ..... 395
Carcinogen Testing: Current Problems and New Approaches:
J. H. Weisburger and G. M. Williams ............................................. 401
Prehistoric Irrigation Systems in the Salt River Valley, Arizona:
W. B. Masse ................................................................. 408

NEWS AND COMMENT
MIT Agonizes Over Links with Research Unit ...................................... 416
Human-Animal Relationship Under Scrutiny ....................................... 418
Reagan’s Plan for Nuclear Power ....................................................... 419
No Boost in Sight for Science Budgets .............................................. 420
Germplasm Resources Are Losing Ground .......................................... 421
Gore Investigates Radiation Clinic .................................................... 423

 "Briefing: Arms Control Teach-ins Planned by Scientists; NIOSH Move Is
Postponed; French Discuss Reviving 1968 University Reforms; Senate
Gives Blessing to Baby Bell ........................................................ 424

RESEARCH NEWS
Evolutionary History Written in Globin Genes .................................... 426
Whither the Shoreline? ..................................................................... 428

BOOK REVIEWS
From ENIAC to UNIVAC, reviewed by P. E. Ceruzzi;
History of Programming Languages, B. Randell;
Basic Structure and Evolution of Vertebrates,
REPORTS

Mechanisms of Nitrogen Dioxide Reactions: Initiation of Lipid Peroxidation and the Production of Nitrous Acid: W. A. Pryor and J. W. Lightsey ........... 435


Metals in Estuarine Sediments: Factor Analysis and Its Environmental Significance: F. Bopp III and R. B. Biggs ........... 441

Epifluorescence and Video Analysis of Vacuole Motility and Development in Stomatial Cells of Allium: B. A. Palevitz and D. J. O'Kane ........... 443

Complete Nucleotide Sequence and Organization of the Moloney Murine Sarcoma Virus Genome: E. P. Reddy, M. J. Smith, S. A. Aaronson ........... 445

An Effector Copy Which Is Modified by Reafferent Input: C. C. Bell ........... 450

A New Laser Scanning System for Measuring Action Potential Propagation in the Heart: S. Dillon and M. Morad ........... 453

Blood-Brain Glucose Transfer: Repression in Chronic Hyperglycemia: A. Gjedde and C. Crone ........... 456

Voltage Clamp Studies in Macrophages from Mouse Spleen Cultures: E. K. Gallin ........... 458

Interaction Between the Antibiotic Trichotheccenes and the Higher Plant Baccharis megapotamica: B. B. Jarvis et al. ........... 460

Direct Electrical Connections Between Transient Amacrine Cells in the Catfish Retina: K. I. Naka and B. N. Christensen ........... 462

Vibratory Communication Through Living Plants by a Tropical Wandering Spider: J. S. Rovner and F. G. Barth ........... 464

Choline Stimulates Nicotinic Receptors on Adrenal Medullary Chromaffin Cells to Induce Catecholamine Secretion: R. W. Holt and R. A. Senter ........... 466

Multiple Opiate Receptors: Alcohol Selectively Inhibits Binding to Delta Receptors: J. M. Hiller, L. M. Angel, E. J. Simon ........... 468

Brain Pyruvate Dehydrogenase: Phosphorylation and Enzyme Activity Altered by a Training Experience: D. G. Morgan and A. Routtenberg ........... 470

Technical Comments: Questions About Spatial Adaptation of Short-Wavelength Pathways in Humans: B. Drum; C. F. Stromeyer III and D. M. Snodderly, Jr. ........... 471

PRODUCTS AND MATERIALS

Waveform Generator; Storage for Hazardous Chemicals; Sample Extraction; Low-Temperature Diffractometer Sample Chamber; Acoustic Microscope; Mouse Hybridoma Adjunct Reagents; Literature ........... 474

COVER

Oblique aerial photograph of a Louisiana salt marsh dominated by smooth cordgrass, Spartina alterniflora. In the marsh interior, Spartina dieback, characterized by sparse vegetation and open water bodies, is evident. Ecophysiological studies show that roots of highly productive streamside Spartina (adjacent to streambanks) respire aerobically, while that of the inland and dieback sites respire anaerobically. See page 439. [R. Boyd, Louisiana State University, Baton Rouge, Louisiana 70803]