LETTERS


EDITORIAL

Recombinant DNA

ARTICLES

Agriculture and Behavioral Science: Emerging Orientations: W. S. Saint and E. W. Coward, Jr.

NEWS AND COMMENT

Arthur Canfield Upton: New Director of the NCI.
China After Mao: Science Seeks to Be Both Red and Expert
IEEE: A Policy Challenge for Big Engineering Society

RESEARCH NEWS

Photosynthetic Solar Energy: Rediscovering Biomass Fuels
Cryptography: On the Brink of a Revolution?

ANNUAL MEETING

Call for Contributed Papers: A. Herschman; Instructions for Contributors

BOOK REVIEWS

Two Centuries of American Medicine and Advances in American Medicine, reviewed by G. G. Reader; The First Three Minutes, D. W. Sciama; Solid State Physics, H. Ehrenreich; Metallurgical Remains of Ancient China, K. C. Chang; Books Received and Book Order Service

REPORTS

Detection of Lyman α Emission from the Saturnian Disk and from the Ring System: H. Weiser, R. C. Vitz, H. W. Moos
Multistranded Helix in Xanthan Polysaccharide: G. Holzwarth and E. B. Prestridge

Bacteria–Plant Cell Surface Interactions: Active Immobilization of Saprophytic Bacteria in Plant Leaves: V. O. Sing and M. N. Schroth

Phase Control of Neural Pacemakers: A. T. Winfree

Water-to-Air Transfer of Virus: E. R. Baylor, V. Peters, M. B. Baylor

Flavonoid and Other Chemical Constituents of Fossil Miocene Celtis and Ulmus (Succor Creek Flora): D. E. Giannasi and K. J. Niklas

Geochemistry and Thermolysis of Flavonoids: K. J. Niklas and D. E. Giannasi

HLA Variants of Cultured Human Lymphoid Cells: Evidence for Mutational Origin and Estimation of Mutation Rate: D. Piou and C. Soderman

Polarity Reversal in Nerve-Free Hydra: B. A. Marcum, R. D. Campbell, J. Romero

Correlation Between Lipid Synthesis in Tumor Cells and Their Sensitivity to Humoral Immune Attack: S. I. Schlager and S. H. Ohanian

Control of a Cell Surface Major Glycoprotein by Epidermal Growth Factor: L. B. Chen et al.

Dopamine and Adenosine 3',5'-Monophosphate Responses of Single Mammalian Sympathetic Neurons: N. J. Dun, K. Kaibara, A. G. Karczmar

Artificial Pancreas Using Living Beta Cells: Effects on Glucose Homeostasis in Diabetic Rats: W. L. Chick et al.

Ovarian Hormone: Lack of Effect on Reproductive Structures of Female Asian Musk Shrews: G. L. Dryden and J. N. Anderson


Ultrasound Emission in Infant Rats as an Indicant of Arousal During Appetitive Learning and Extinction: A. Amsel et al.

Sociobiology of Rape in Mallards (Anas platyrhynchos): Responses of the Mated Male: D. P. Barash

Identification of the Female Japanese Beetle Sex Pheromone: Inhibition of Male Response by an Enantiomer: J. H. Tumlinson et al.

Augmenting Mental Chronometry: The P300 as a Measure of Stimulus Evaluation Time: M. Kutas, G. McCarthy, E. Donchin

Progressive Brain Damage Accelerates Axon Sprouting in the Adult Rat: S. Scheff, L. Benardo, C. Cotman

Cover

The Gerard P. Kuiper Observatory consists of a gyroscopically stabilized 91-centimeter telescope which is mounted in a converted C-141 transport aircraft. The telescope is in the cavity just forward of the left wing. The observatory operates at an altitude in excess of 12.5 kilometers for a period of 8 hours or more. At this altitude the observatory is above more than 99 percent of the water vapor in the earth's atmosphere, so that observations can be carried out at infrared wavelengths between 30 and 300 micrometers which are not accessible from the ground. See page 723. [C. M. Gillespie, National Aeronautics and Space Administration, Ames Research Center, Moffett Field, California]