LETTERS


EDITORIAL

Handcuffing Science: .................................................. 1207

ARTICLES

Catalytic Processes in the Atmospheres of Earth and Venus: W. B. DeMore and Y. L. Yung ................................................. 1209
Living with Water Stress: Evolution of Osmolyte Systems: P. H. Yancey et al. .................................................. 1214
Some Effects of Disconnecting the Cerebral Hemispheres: R. Spery .................................................. 1223

NEWS AND COMMENT

White House Study Plows into Ag Research ........................................... 1227
Briefing: Science Board Nominations; A New Pot of Money for Plant Sciences; Stephen Bechtel Appointed NAE Chairman; Cetus Cuts Projects, Lays Off 40 People; Pesticide Data Released ........................................... 1228
Curbing the Antiquities Trade ........................................... 1230
OSHA Reviewing Cotton Dust Standards ........................................... 1232
Export Control Threat Disrupts Meeting ........................................... 1233

RESEARCH NEWS

Rethinking the Future of Magnetic Fusion ........................................... 1235
How Can Computers Get Common Sense? ........................................... 1237
A Downward Slope to Greater Diversity ........................................... 1239

BOOK REVIEWS

The Inheritance of Personality and Ability, reviewed by J. C. Loehlin; Population and Biological Aspects of Human Mutation, J. W. MacCluer; Organization in the Spinal Cord, E. R. Perl; Relation between Laboratory and Space Plasmas, C. K. Goertz; Fire Ecology, J. K. Agee; Books Received ........................................... 1241
Cloud Feedback: A Stabilizing Effect for the Early Earth?
W. B. Rossow, A. Henderson-Sellers, S. K. Weinreich

Numbers of Receptor Sites from Scatchard Graphs: Facts and Fantasies:
I. M. Klotz

Direct Determination of Ionic Solvation from Neutron Diffraction:
A. H. Narten and R. L. Hahn


Fluorescence Microscopy: Reduced Photobleaching of Rhodamine and Fluorescein Protein Conjugates by n-Propyl Gallate: H. Giloh and J. W. Sedat

Stimulation of Colonic Secretion by Lipoygenase Metabolites of Arachidonic Acid: M. W. Musch et al.

Bleb Formation in Hepatocytes During Drug Metabolism Is Caused by Disturbances in Thiol and Calcium Ion Homeostasis: S. A. Jewell et al.

Polyamines and Plant Stress: Activation of Putrescine Biosynthesis by Osmotic Shock: H. E. Flores and A. W. Galston

Glycolipids in Mammalian Epidermis: Structure and Function in the Water Barrier: P. W. Wertz and D. T. Downing

Cystine Transport Is Defective in Isolated Leukocyte Lysosomes from Patients with Cystinosis: W. A. Gahl et al.


Detoxification Enzyme Differences Between a Herbivorous and Predatory Mite: C. A. Mullin et al.

Naloxone Antagonism of the Thermoregulatory Effects of Phencyclidine: S. D. Glick and R. A. Guido

Characterization of Estrogen-Concentrating Hypothalamic Neurons by Their Axonal Projections: J. I. Morrell and D. W. Pfaff

Enhancement of Sexual Behavior in Female Rats by Neonatal Transplantation of Brain Tissue from Males: G. W. Arendash and R. A. Gorski

Giant bladder kelp, *Macrocystis pyrifera*. Marine plants and animals, as well as other organisms that encounter water stress, utilize a small number of organic molecules as the dominant intracellular osmotic agents ("osmo-lytes"). Polyhydric alcohols, amino acids and their derivatives, urea, and methylamines are the major osmo-lytes in virtually all water-stressed species except the halophilic bacteria. The selective advantages of these organic osmo-lyte systems include the establishment of a cellular microenvironment compatible with macromolecular structure and function. See page 1214. [Craig Cary, Scripps Institution of Oceanography, La Jolla, California 92037]