This Week in Science .......................................................... 1039

LETTERS
Information Storage: C. A. Beam; D. E. Koshland, Jr.; “Star Wars” Program: A. Ralston; Clay Eating: J. M. Hunter; Fisheries Research: R. R. Stickney.................................................. 1040

EDITORIAL
A Good Word for Realities.................................................. 1041

ARTICLES
High-Speed Lightwave Transmission in Optical Fibers: H. Kogelnik............................................ 1042
Qinghaosu (Artemisinin): An Antimalarial Drug from China: D. L. Klayman............................................ 1049
Model Structure for the Inflammatory Protein C5a: J. Greer.......................................................... 1054
Chromatin Structure and de Novo Methylation of Sperm DNA: Implications for Activation of the Paternal Genome: M. Groudine and K. F. Conkin.................................................. 1061

NEWS AND COMMENT
Hard Times in Magnetic Fusion............................................ 1066
New French Law Boosts Industrial R&D............................................ 1070
Dispute over Soviet Testing Heats Up............................................ 1071
Hawaiian Rainforest Being Felled............................................ 1073
Briefing: Environmental Leadership in State of Flux; Stockman Relents on Landsat; Pentagon Claims Export Controls Save Billions; New York Mayor Honors Scientists.................................................. 1074

RESEARCH NEWS
Interleukin-1 Genes Are Cloned............................................ 1076
Fractal Fingers in Viscous Fluids............................................ 1077
Hopping Along the Chromosome............................................ 1080
BOOK REVIEWS

Households, reviewed by W. Roseberry; Lake Biwa, H. E. Wright, Jr.; Marine Ecological Processes, M. D. Bertness; Biology of Lichenized Fungi, W. L. Culberson; Books Received .............................................................. 1081

REPORTS

A Theory for El Niño and the Southern Oscillation: M. A. Cane and S. E. Zebiak .............................................................. 1085

The Diversification of the Leguminosae: First Fossil Evidence of the Mimosoideae and Papilionoideae: W. L. Crepet and D. W. Taylor .............................................................. 1087

Chronic Herbivory: Impacts on Architecture and Sex Expression of Pinyon Pine: T. G. Whitham and S. Mopper .............................................................. 1089

Major Glycoprotein Antigens That Induce Antibodies in AIDS Patients Are Encoded by HTLV-III; J. S. Allan et al. .............................................................. 1091

Virus Envelope Protein of HTLV-III Represents Major Target Antigen for Antibodies in AIDS Patients: F. Barin et al. .............................................................. 1094

In Vivo Function and Membrane Binding Properties Are Correlated for Escherichia coli LamB Signal Peptides: M. S. Briggs et al. .............................................................. 1096

Reversibility of Progression of the Transformed Phenotype in Ad5-Transformed Rat Embryo Cells: L. E. Babish, S. G. Zimmer, P. B. Fisher .............................................................. 1099

Adaptation of the Membrane Lipids of a Deep-Sea Bacterium to Changes in Hydrostatic Pressure: E. F. DeLong and A. A. Yayanos .............................................................. 1101

Induction of Hepatitis B Virus Core Gene in Human Cells by Cytosine Dimethylation in the Promoter: B. E. Korba, V. L. Wilson, G. H. Yoakum... 1103

Endogenous Anticonvulsant Substance in Rat Cerebrospinal Fluid After a Generalized Seizure: F. C. Tortella and J. B. Long .............................................................. 1106

Functional Coupling of γ-Aminobutyric Acid Receptors to Chloride Channels in Brain Membranes: R. A. Harris and A. M. Allan .............................................................. 1108

Late Pleistocene Faunal Extinctions in Southern Patagonia: V. Markgraf .............................................................. 1110

A Sexually Dimorphic Nucleus in the Human Brain: D. F. Swaab and E. Fliers .............................................................. 1112

Loss of M2 Muscarine Receptors in the Cerebral Cortex in Alzheimer’s Disease and Experimental Cholinergic Denervation: D. C. Mash, D. D. Flynn, L. T. Potter .............................................................. 1115

Circulating Autoantibodies to the 200,000-Dalton Protein of Neurofilaments in the Serum of Healthy Individuals: K. Stefansson et al. .............................................................. 1117

Male Reproductive Parasitism: A Factor in the Africanization of European Honey-Bee Populations: T. E. Rinderer et al. .............................................................. 1119

COVER

Artemisinin (qinghaosu) crystals photographed in polarized light (about ×60). The compound, a sesquiterpene lactone containing an unusual peroxide moiety, was isolated initially in the People’s Republic of China and recently in the United States from the weed Artemisia annua. It has been reported to have excellent antimalarial activity in man against chloroquine-sensitive and chloroquine-resistant strains of Plasmodium falciparum. See page 1049. [Daniel L. Klayman, Walter Reed Army Institute of Research, Washington, D.C. 20307-5100]