LETTERS
Basic Research in the Social and Behavioral Sciences: F. T. Juster; Dairy Product Consumption: H. R. Superko and D. Drewno

EDITORIAL
Materials Science and Engineering

ARTICLES
Tailored Surface Modification by Ion Implantation and Laser Treatment: S. T. Picraux and L. E. Pope
Metalorganic Chemical Vapor Deposition of III-V Semiconductors: R. D. Dupuis
Surface-Active Biomaterials: L. L. Hench and J. Wilson
Multicomponent Polymeric Engineering Materials: M. Panar and B. N. Epstein
Dynamics of Conformational Transitions in Polymers: E. Helfand
Conducting Organic Materials: R. L. Greene and G. B. Street
Materials for Optical Information Processing: A. M. Glass
The Search for Very Low Loss Fiber-Optic Materials: M. E. Lines

NEWS AND COMMENT
The Washington-Moscow Seismic Hot Line
The Allure of Nuclear Testing
EPA Scraps Radionuclide Regulations
Schlesinger Attacks Star Wars Plan

Briefing: Connecticut Church Passes Genetics Resolution; Committee Vetoes Proposal to Ban Gene Tests; NASA Suggests New Shuttle Price; Coalition Recognizes Ten Friends of Science; Landsat Stalled Again
No Panacea for the Firewood Crisis
RESEARCH NEWS

Vail's Sea-Level Curves Aren't Going Away ........................................ 677
The Search for a Malaria Vaccine ........................................................... 679
Coordinating the Effort ................................................................. 681

BOOK REVIEWS

The Prospects for Plural Societies, reviewed by J. Vincent; Understanding Relativity, R. Palter; Theory of Climate, A. Henderson-Sellers; Quarks, Gluons and Lattices, J. B. Kogut; Books Received .............................................. 683

REPORTS

Solar p-Mode Eigenfrequencies Are Decreased by Turbulent Convection: T. M. Brown ................................................................. 687
Periodicity of Extinctions in the Geologic Past: Deterministic Versus Stochastic Explanations: J. A. Kitchell and D. Pena ..................................................... 689
Covariance Patterns of Foraminiferal δ18O: An Evaluation of Pliocene Ice Volume Changes Near 3.2 Million Years Ago: W. L. Prell .............................................. 692
Shiga-Like Toxin-Converting Phages from Escherichia coli Strains That Cause Hemorrhagic Colitis or Infantile Diarrhea: A. D. O'Brien et al ........................................... 694
Molecular Weight Determinations of Proteins by Californium Plasma Desorption Mass Spectrometry: B. Sundqvist et al .................................................. 696
Human Ornithine Transcarbamylase Locus Mapped to Band Xp21.1 Near the Duchenne Muscular Dystrophy Locus: V. Lindgren et al .............................................. 698
Detection of High Molecular Weight Forms of Platelet-Derived Growth Factor by Sequence-Specific Antisera: H. L. Niman, R. A. Houghten, D. F. Bowen-Pope ...................................................... 701
Pavonins: Shark-Repelling Ichthyotoxins from the Defense Secretion of the Pacific Sole: K. Tachibana, M. Sakaitani, K. Nakanishi ...................................................... 703
Growth Inhibitor from BSC-1 Cells Closely Related to Platelet Type β Transforming Growth Factor: R. F. Tucker et al .................................................. 705
Transcription and Promoter Usage of the myc Gene in Normal Somatic and Spermatogenic Cells: T. A. Stewart, A. R. Bellvé, P. Leder ........................................... 707
Unequivocal Delayed Hypersensitivity in Mast Cell–Deficient and Beige Mice: S. J. Galli and I. Hammel ................................................................. 710

COVER

Polymeric structural materials such as composites of “Kevlar” aramid or carbon fiber and resins are replacing metals in many aerospace applications. The high strength of the fibers in these composites depends on a molecular morphology which takes maximum advantage of the strength of the individual polymeric molecules. See page 642. [E. I. duPont de Nemours and Company, Inc., Wilmington, Delaware 19898]
Editor's Summary