LETTERS
The Mystery of the Shroud: R. Drakoff; B. Graham; J. P. Ziller, P. Purcell, M. Cul; A. G. Knudson, Jr.; K. J. Touryan; B. Bunow ............... 774

EDITORIAL
Five Years of Energy Paralysis .................. 775

ARTICLES
Time, Structure, and Fluctuations: I. Prigogine ................. 777
Synthetic Maps of Human Gene Frequencies in Europeans: P. Menozzì et al. .... 786

NEWS AND COMMENT
Report of Fusion Breakthrough Proves to Be a Media Event .......... 792
Senators Hear Case for Psychotherapy .................. 794
Health Officials Fired Up over "Tolerable" Cigarettes .......... 795
Briefing: Clash in Congress over the Honourable Schoolboy; We Wanted to Cut and, Well, um, There It Was; Waiting for the Other Plate to Drop in California .................. 796

RESEARCH NEWS
Botulism in Infants: A Cause of Sudden Death? .................. 799
Microcomputers: The Great Electronic Mouse Race .............. 800

AAAS NEWS
1978-79 AAAS Congressional Science Fellows Selected; Proposals and Resolutions Invited for 1979 Council Meeting; OCEANS '78 Set for Washington, D.C. .... 802

BOOK REVIEWS
Primate Conservation, reviewed by T. T. Struhsaker; Modes of Perceiving and Processing Information, L. A. Cooper; Interactions Between Putative Neurotransmitters in the Brain, T. Jessell .................. 804
## REPORTS

The Paredón, Mexico, Obsidian Source and Early Formative Exchange: T. H. Charlton, D. C. Grove, P. K. Hopke .......................... 807

Amorphous Ice on Saturnian Rings and on Icy Satellites: Its Formation, Stability, and Observability: R. Smoluchowski ......................... 809

Age Determination of an Alaskan Mummy: Morphological and Biochemical Correlation: P. M. Masters and M. R. Zimmerman .................. 811

Deimos Encounter by Viking: Preliminary Imaging Results: T. C. Duxbury and J. Veverka .................................................. 812

Earthquake Swarm Along the San Andreas Fault near Palmdale, Southern California, 1976 to 1977: K. C. McNally et al. ................. 814

Estrogen-Binding Sites in Endothelial Cell Cultures: P. Colburn and V. Buonassisi .................................................. 817

Trisodium Phosphonofomate, A New Antiviral Compound: E. Helgstrand et al. .................................................. 819

Generation of New Mouse Sarcoma Viruses in Cell Culture: U. R. Rapp and G. J. Todaro .................................................. 821

Growth Inhibition of Transformed Cells with Succinylated Concanavalin A: R. J. Mannino, K. Ballmer, M. M. Burger .......................... 824

Cytidine 3'5'-Monophosphate Phosphodiesterase; Decreased Activity in the Regenerating and Developing Liver: M. Shoji, N. L. Bruckett, J. F. Kuo .................................................. 826

P-State Pairing and the Ferromagnetism of ZrZn: C. P. Enz and B. T. Matthias .................................................. 828


Allergic Orchitis Lesions Are Adoptively Transferred from Vasoligated Guinea Pigs to Syngeneic Recipients: K. S. K. Tung .......................... 833

Vitamin D: Two Dihydroxylated Metabolites Are Required for Normal Chicken Egg Hatchability: H. L. Henry and A. W. Norman ............ 835

Phenylalanine Depletion for the Management of Phenylketonuria: Use of Enzyme Reactors with Immobilized Enzymes: C. M. Ambrus et al. .................................................. 837

### Technical Comments


### COVER

(Top) A map of the European gene frequencies of eight alleles of the HLA-A and fifteen of the HLA-B gene synthesized by a trichromic superposition of their first three components. (Bottom) The ABO, Rh, MNS, Lewis, Duffy, Hp, and PGM, genes were included. These maps support the idea that farmers spread from the Near East in Neolithic times. See page 786. [P. Menozzi et al., University of Parma, Parma, Italy]