This Week in Science

Editorial
Astrophysical Plasmas: D. Voss

Letters

Association Affairs
Science, Slogans, and Civic Duty: D. N. Langenberg

ScienceScope
Indirect cost probe expands; planning discoveries at DOE; etc.

News & Comment
Tiger Teams Draw Researchers' Snarls ■ “Buying Into” the Reforms ■ Privacy Rules Blindside French Glaucoma Effort ■ A Fix for the FDA ■ Acid Rain Program: Imperfect But Improvable: A Hard Lesson Learned, Again, at Valdez

Research News
The Sobering Geography of AIDS ■ New Vector Delivers Genes to Lung Cells ■ Fanning the Hope for Flat Diamond ■ Pulling Neanderthals Back into Our Family Tree ■ Yucatan Killer Impact Gaining Support ■ Mysterious Celestial Object Found ■ Lynn Margulis: Science's Unruly Earth Mother: Gaia: Myth or Mechanism? ■ Briefings: Infectious Disease Grants ■ CF Screening Studies Nearing Reality ■ Looking for Loyalty in DNA ■ Myths and Maths

Perspective
Human Hemoglobin Switching: G. Stamatoyannopoulos

Articles
COVER  Earth's magnetosphere, created by the interaction of the supersonic solar-wind plasma (blue) with the geomagnetic field. The plasma sheet (red) is a reservoir of hot (~1 kiloelectron volt) plasma originating in the solar wind and in the ionosphere. The solar wind–magnetosphere interaction drives a circulation of plasma that populates the Van Allen radiation belts (red dots) and powers auroral optical and radio emissions. See page 410. [Source, T. W. Hill; illustration by Susan Nowoslawski]

Reports


419 Folding and Unbinding Transitions in Tethered Membranes: F. F. Abraham and M. Kardar

422 The Shapes and Sizes of Closed, Pressurized Random Walks: J. Rudnick and G. Gaspari

424 A Virus-Encoded "Superantigen" in a Retrovirus-Induced Immunodeficiency Syndrome of Mice: A. W. Hügin, M. S. Vachio, H. C. Morse III

427 Engraftment and Development of Human T and B Cells in Mice After Bone Marrow Transplantation: I. Lubin, Y. Faktorowich, T. Lapidot, Y. Gan, Z. Eshhar, E. Gazz, M. Levite, Y. Reisner


434 Group I Intron Self-Splicing with Adenosine: Evidence for a Single Nucleoside-Binding Site: M. D. Been and A. T. Perrotta

437 Dynamic Tracking of Cardiac Vulnerability by Complex Demodulation of the T Wave: B. D. Nearing, A. H. Huang, R. L. Verrier


443 Calcium as a Coagonist of Inositol 1,4,5-Trisphosphate–Induced Calcium Release: E. A. Finch, T. J. Turner, S. M. Goldin

446 Primary Structure and Functional Activity of a Phosphatidylinositol-Glycan–Specific Phospholipase D: B. J. Scallon, W.-J. C. Fung, T. C. Tsang, S. Li, H. Kado-Fong, K.-S. Huang, J. P. Kochan

Technical Comment

449 Atrioatriuretic Peptide and Calcium-Conducting Sodium Channels: M. F. Sheets and D. A. Hanck; L. A. Sorbera and M. Morad

Book Reviews

453 History of AIDS, reviewed by E. Fee — Rheostasis, A. F. Bennett — Some Other Books of Interest

Products & Materials

456 Tiny pH and Temperature Probe — Sequencing Electrophoresis System — Program for DNA and Protein Sequence Analysis — Antibody-Enzyme Conjugation Kits — Monoclonal Antibody Isotyping Kits — Electroporation Device — pH Maintenance Kit — Literature
Science 252 (5004), 351-456.