LETTERS

Laboratory Decontamination: M. Castegnaro; Science and Technology Awareness Month: A. W. Trivelpiece; Animal Rights Movement: J. E. McArdle; EDB Alternatives: S. L. Sauter et al.; Gene-Splicing Experiment: T. Suslow

EDITORIAL

Spacelab 1

ARTICLES

Amazon Basin: A System in Equilibrium: E. Salati and P. B. Vose

Genetic Screening: Marvel or Menace?: P. T. Rowley

NEWS AND COMMENT

Reagan Seeks Expansion of Soviet Ties

OTA Questions Space Station

Zoos Forging New Role in Science

NIMH Faces Renewed Uncertainties

Briefing: High Court Upholds EPA's "Bubble" Concept; Supreme Court Orders Pesticide Data Released; Environmentalists Produce National Economic Agenda; Fight Over Ag Research Continues; Tennessee Luring Scientists for High-Tech Development; Comings and Goings

EPA Seeks Unified Approach to Risk

RESEARCH NEWS

The Continuing Tale of a Small Worm

The Other T-Cell Receptor Gene

The Art of Learning from Experience

BOOK REVIEWS

American Science in the Age of Jefferson, reviewed by W. D. Jordan; The Explanation of Organic Diversity, N. Knowlton; Geology of Scotland, J. F. Dewey; Geomorphology of Europe, V. R. Baker; Books Received

BOARD OF DIRECTORS

Anna J. Harrison, Retiring President, Chairman

David A. Hamburg, President

Gerard Piel, President-Elect

Robert W. Berlinger, Lawrence Bogorad

Walter E. Massey, Dorothy Nelkin

Chairmen and Secretaries of AAAS Sections

Mathematics (A)

Gail S. Young

Lynn Arthur Steen

Physics (B)

Chen Ning Yang

Rolf M. Sinclair

Chemistry (C)

Fred W. McLafferty

Jeanne M. Shreeve

Astronomy (D)

Patrick Palmer

Donat G. Wentzel

Psychology (J)

Gregory A. Kimble

William N. Dembski

Social, Economic, and Political Sciences (K)

Robin M. Williams, Jr.

David L. Sils

History and Philosophy of Science (L)

Wesley C. Salmon

David L. Hull

Engineering (M)

Raymond L. Boggs

W. Edward Lear

Education (G)

Marvin Druger

Joseph D. Novak

Dentistry (R)

Robert J. Fitzgerald

Harold M. Fuller

Pharmaceutical Sciences (S)

Stuart Feldman

David A. Knapp

Information, Computing, and Communicating

Joseph Becker

Madeline M. Henderson

Divisions

Arctic Division

Pacific Division

Southwestern and Rocky Mountain Division

John Davies

Gunter E. Walter

Barbara Wright

Alan E. Leavitt

Charles E. Holley, Jr.

M. Michelle

President

Executive Secretary

President

Executive Director

President

Executive Director
Atmospheric Physics and Earth Observations

Mapping from Space: The Metric Camera Experiment: G. Konecné, M. Reynolds, M. Schroeder ........................................ 167
Atmospheric Spectral Imaging: M. R. Torr and D. G. Torr ................................................ 169
Sample Performance of the Grille Spectrometer: M.-P. Lemaître et al. ................................. 171
Waves in the OH Emissive Layer: M. Hersé ........................................ 172
Observations of Lyman-α Emissions of Hydrogen and Deuterium: J. L. Bertaux, F. Goutail, G. Kockarts ................................. 174

Astronomy and Solar Physics

X-ray Gas Scintillation Spectrometer Experiment: R. D. Andresen et al. ........................................ 177
Very-Wide-Field Ultraviolet Sky Survey: G. Courtès et al. ........................................ 179
Solar Irradiance Observations: D. Crommelynck and V. Domingo ........................................ 180
Measurement of the Solar Spectral Irradiance from 200 to 3000 Nanometers: G. Thuillier et al. ........................................ 182
Astronomical Observations with the FAUST Telescope: J. Bisk et al. ........................................ 184

Space Plasma Physics

Electron Flux Intensity Distributions Observed in Response to Particle Beam Emissions: K. Wilhelm, W. Stüdemann, W. Rieder ........................................ 186
Phenomena Induced by Charged Particle Beams: C. Beghin et al. ........................................ 188
Atmospheric Emissions Photometric Imaging Experiment: S. B. Mende, G. R. Swenson, K. S. Clifton ........................................ 191
Isotopic Stack: Measurement of Heavy Cosmic Rays: R. Beauché et al. ........................................ 193
Space Experiments with Particle Accelerators: T. Obayashi et al. ........................................ 195

Materials

Marangoni Convection in Space Microgravity Environments: L. G. Napolitano ........................................ 197
Solidification and Ostwald Ripening of Near-Monotectic Zinc-Lead Alloys: A. Kneissl and H. Fischmeister ........................................ 198
Protein Single Crystal Growth Under Microgravity: W. Littke and C. John ........................................ 203

Life Sciences

Spatial Orientation in Weightlessness and Readaptation to Earth’s Gravity: L. R. Young et al. ........................................ 205
Effects of Rectilinear Acceleration and Optokinetic and Caloric Stimulations in Space: R. von Baumgarten et al. ........................................ 208
Vestibulospinal Reflexes as a Function of Microgravity: M. F. Reschke, D. J. Anderson, J. L. Homick ........................................ 212
Prolonged Weightlessness and Humoral Immunity: E. W. Voss, Jr. ........................................ 214
Influence of Spaceflight on Erythropoiesis in Man: C. S. Leach and P. C. Johnson ........................................ 216
Venous Pressure in Man During Weightlessness: K. A. Kirsch et al. ........................................ 218
Mass Discrimination During Prolonged Weightlessness: H. Ross, E. Brodie, A. Benson ........................................ 219
Eye Movements During Sleep in Weightlessness: O. Quadens and H. Green ........................................ 221
Radiobiological Advanced Biostack Experiment: H. Bückler et al. ........................................ 222
Radiation Measurements Aboard Spacelab 1: E. V. Benton et al. ........................................ 224
Microorganisms in the Space Environment: G. Horneck et al. ........................................ 226
Cell Sensitivity to Gravity: A. Cogoli, A. Tschopp, P. Fuchs-Bislin ........................................ 228
Neurospora Circadian Rhythms in Space: A Reexamination of the Endogenous-Exogenous Question: F. M. Saltman et al. ........................................ 232

Klyuchevskaya Spoka volcanic complex located on the Kamchatka Peninsula, Union of Soviet Socialist Republics (56°05'N, 160°34'E). This is the tallest (4750 meters) of the Kamchatka volcanoes, one of the world's most active volcanic areas. The Kamchatka River meanders around the volcanic complex. Photo was taken from Columbia spaceflight during the 24th orbit of the earth, 30 November 1983. [NASA--Lyndon B. Johnson Space Center, Houston, Texas 77058]
Editor's Summary

This copy is for your personal, non-commercial use only.

**Article Tools**  Visit the online version of this article to access the personalization and article tools:
http://science.sciencemag.org/content/225/4658

**Permissions**  Obtain information about reproducing this article:
http://www.sciencemag.org/about/permissions.dtl