



## SCIENCE EXPRESS

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### ECOLOGY

**Why Are There So Many Species of Herbivorous Insects in Tropical Rainforests?**

V. Novotny et al.

The number of insect species in tropical and temperate forests is determined by the diversity of tree species.

10.1126/science.1129237

### PLANETARY SCIENCE

**Spitzer Spectral Observations of the Deep Impact Ejecta**

C. M. Lisse et al.

The nucleus of comet Tempel 1 is made of minerals and organic compounds from throughout the proto-solar nebula.

10.1126/science.1124694

### ATMOSPHERIC SCIENCE

**Smoke and Pollution Aerosol Effect on Cloud Cover**

Y. J. Kaufman and I. Koren

A higher concentration of aerosol particles increases cloudiness, but this effect is offset by the amount of sunlight absorbed by the clouds.

10.1126/science.1126232

### PHYSICS

**Violation of Kirchhoff's Laws for a Coherent RC Circuit**

J. Gabelli et al.

Transport measurements on a fully coherent circuit highlight the difference between quantum and classical electronics.

10.1126/science.1126940

## TECHNICAL COMMENT ABSTRACTS

### EVOLUTION

**Comment on "Ongoing Adaptive Evolution of ASPM, a Brain Size Determinant in *Homo sapiens*" and "Microcephalin, a Gene Regulating Brain Size, Continues to Evolve Adaptively in Humans"** 172

M. Currat et al.

full text at [www.sciencemag.org/cgi/content/full/313/5784/172a](http://www.sciencemag.org/cgi/content/full/313/5784/172a)

**Response to Comment on "Ongoing Adaptive Evolution of ASPM, a Brain Size Determinant in *Homo sapiens*" and "Microcephalin, a Gene Regulating Brain Size, Continues to Evolve Adaptively in Humans"**

N. Mekel-Bobrov et al.

full text at [www.sciencemag.org/cgi/content/full/313/5784/172b](http://www.sciencemag.org/cgi/content/full/313/5784/172b)

## BREVIA

### CHEMISTRY

**Electronic Control of Friction in Silicon pn Junctions** 186

J. Y. Park, D. F. Ogletree, P. A. Thiel, M. Salmeron

Depletion or accumulation of charge unexpectedly modifies the friction between a silicon surface and the metal-coated tip of an atomic-force microscope.

>>Perspective p. 184; Report p. 207

## RESEARCH ARTICLES

### STRUCTURAL BIOLOGY

**Crystal Structure of the Low-pH Form of the Vesicular Stomatitis Virus Glycoprotein G** 187

S. Roche, S. Bressanelli, F. A. Rey, Y. Gaudin

Glycoprotein G from an RNA virus shows a reversible conformational change upon fusion with the host cell and is homologous to glycoprotein gB from herpesvirus.

>>Perspective p. 177; Report p. 217

### CELL BIOLOGY

**Arginylation of  $\beta$ -Actin Regulates Actin Cytoskeleton and Cell Motility** 192

M. Karakozova et al.

Addition of an amino acid to actin modulates its properties, affecting (for example) its localization and the formation of lamellae in motile cells.

>>Perspective p. 180

### ASTROPHYSICS

**Massive-Star Supernovae as Major Dust Factories** 196

B. E. K. Sugerman et al.

A 2003 supernova produced 10 times the dust seen after other such stellar explosions, implying that supernovae were dust factories in the early universe.

>>Perspective p. 178