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Electronic-Beam Experiments Reveal that Some Neutrons within $^{12}$C Nuclei Tend to Form Close, Dynamical Pairs with Protons but that Pairs of the Same Particle Type are Rare.

Chemistry

Laser-Induced Electron Tunneling and Diffraction

M. Meckel et al.

Extracting electrons from $O_2$ and $N_2$ with a laser and redirecting some to diffract off the atoms reveals the geometry of electronic orbitals and maps the nuclei.

Chemistry

Electrical Resistance of Long Conjugated Molecular Wires

S. H. Choi, B. Kim, C. D. Frisbie

The stepwise synthesis of molecules of increasing length on a gold substrate reveals a change in electron transport from tunneling to hopping as molecule length increases.

Atmospheric Science

The Impact of Stratospheric Ozone Recovery on the Southern Hemisphere Westerly Jet

S.-W. Son et al.

Models show that as stratospheric ozone recovers, westerly tropospheric winds at high southern latitudes should weaken, not strengthen as was thought, affecting Antarctic climate.

Climate Change

Evidence for Upwelling of Corrosive "Acidified" Water onto the Continental Shelf

R. A. Feely et al.

As a result of anthropogenic $CO_2$ uptake, corrosive seawater undersaturated with calcium carbonate shoaled on the continental shelf of western North America.

Molecular Biology

Regulation of Hepatic Lipogenesis by the Transcription Factor XBP1


In mice, a transcription factor known to participate in secretion is also necessary for induction of lipid synthesis by carbohydrates in the liver.

Neuroscience

Transfer of Learning After Updating Training Mediated by the Striatum

E. Dahlin, A. S. Neely, A. Larsson, L. Bäckman, L. Nyberg

Individuals who become better at a letter recognition test through practice also improve at a different task, even without practice, when both tasks utilize the same brain region.

Developmental Biology

VelB/VeA/LaeA Complex Coordinates Light Signal with Fungal Development and Secondary Metabolism

Ö. Bayram et al.

The multiprotein velvet complex in the fungus *Aspergillus nidulans* coordinates light-responsive development and the generation of secondary metabolites such as antibiotics and toxins.

Ecology

Animal Versus Wind Dispersal and the Robustness of Tree Species to Deforestation

D. Montoya, M. A. Zavala, M. A. Rodriguez, D. W. Purves

In Spanish forests, tree species with seeds that are dispersed by animals are more resilient in a fragmented forest than those with wind-dispersed seeds.

Perspective

Molecular Wires

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Forests in Flux

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