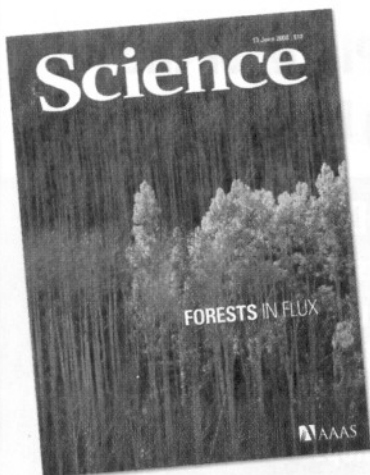




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The influence of human society on the future of the world's forests and the role of forests in the global carbon cycle are discussed in the special section beginning on page 1435.

Image: Micha Pawlitzki/Zefa/Corbis

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www.scienceexpress.org

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The Spread of Ras Activity Triggered by Activation of a Single Dendritic Spine

C. D. Harvey, R. Yasuda, H. Zhong, K. Svoboda

When strengthened, individual synapses on dendritic spines contain an activated small regulatory protein that spreads to nearby spines, possibly altering their sensitivity.

10.1126/science.1159675

PHYSICS

Entangled Images from Four-Wave Mixing

V. Boyer, A. M. Marino, R. C. Pooser, P. D. Lett

Passing light through a warm cloud of rubidium atoms creates quantum mechanically entangled twin images.

10.1126/science.1158275



BIOCHEMISTRY

Micelles Protect Membrane Complexes from Solution to Vacuum

N. P. Barrera, N. Di Bartolo, P. J. Booth, C. V. Robinson

Gas-phase lipid micelles protect a large complex of membrane proteins, allowing its subunit composition and ligand binding to be assessed by mass spectrometry.

10.1126/science.1159292

ASTRONOMY

Supernova Shock Breakout from a Red Supergiant

K. Schawinski et al.

A burst of ultraviolet light reveals the initial expansion of a star leading to a supernova and identifies the star as a red supergiant.

10.1126/science.1160456

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An in Vivo Map of the Yeast Protein Interactome

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A method that identifies pairs of proteins that are 8 nanometers apart produces a map of interacting proteins in living yeast, finding known and previously unknown networks.

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Recognition Dynamics Up to Microseconds Revealed from an RDC-Derived Ubiquitin Ensemble in Solution

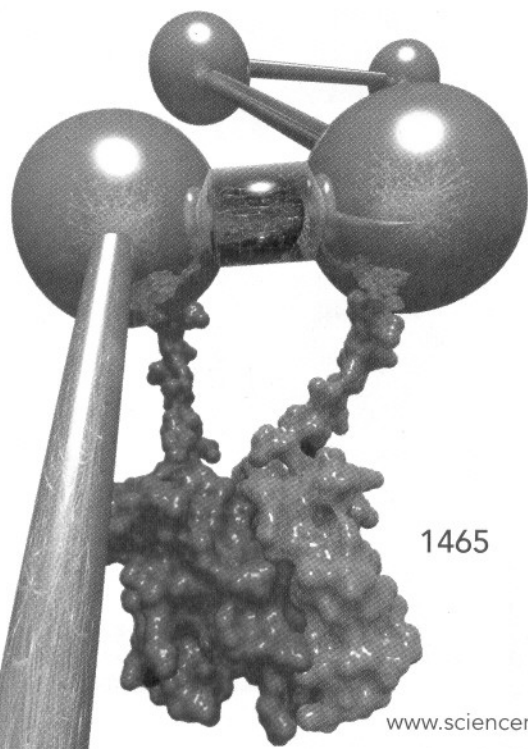
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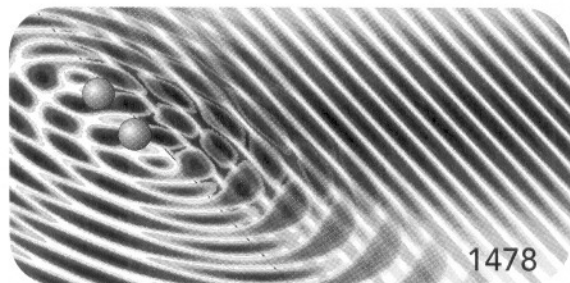
In solution, ubiquitin assumes all conformations seen in crystal structures of its complexes, indicating that it binds by conformational selection rather than induced fit. >> Perspective p. 1429



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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.

>> *Science Podcast*

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www.sciencereers.org

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Measuring the Impact of Invasive Plants

An Adventurous Physicist

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