A depiction of the interaction of an excess electron with the hydrogen-bonded complex $\text{NH}_3\ldots\text{HCl}$, which induces formation of the ionic pair $\text{NH}_4^+\text{Cl}^-$ solvated by the excess electron. The image shows the structures of three possible systems and highlights the areas that correspond to 10%, 30%, and 50% of the excess electron. See page 936.

*Illustration: Maciej Haranczyk*
APPLIED PHYSICS
Sr Lattice Clock at $1 \times 10^{-16}$ Fractional Uncertainty by Remote Optical Evaluation with a Ca Clock
A. D. Ludlow et al.
Two clocks based on optical transitions in single trapped ions set 4 kilometers apart are able to keep time within a fractional error of $1 \times 10^{-16}$, better than the standard atomic clock.
10.1126/science.1153341

MICROBIOLOGY
A Cholesterol Biosynthesis Inhibitor Blocks Staphylococcus aureus Virulence
C.-I. Liu et al.
A drug for controlling cholesterol may be useful as an antibiotic for multi-drug-resistant Staphylococcus because of unexpected structural similarities among critical proteins.
10.1126/science.1153018

MEDICINE
Neurokinin 1 Receptor Antagonism as a Possible Therapy for Alcoholism
D. T. George et al.
A drug that inhibits a neural signaling pathway linked to behavioral stress may be a useful therapy in preventing relapse in alcoholics.
10.1126/science.1153813

DEVELOPMENTAL BIOLOGY
Generation of Pluripotent Stem Cells from Adult Mouse Liver and Stomach Cells
T. Aoi et al.
Induced pluripotent stem cells are generated by direct reprogramming of adult liver and stomach cells without retroviral integration into specific sites in the genome.
10.1126/science.1154884

TECHNICAL COMMENT ABSTRACTS
EVOLUTION
Comment on “The Latitudinal Gradient in Recent Speciation and Extinction Rates of Birds and Mammals”
J. A. Tobias, J. M. Bates, S. J. Hackett, N. Seddon
full text at www.sciencemag.org/cgi/content/full/319/5865/901c
Response to Comment on “The Latitudinal Gradient in Recent Speciation and Extinction Rates of Birds and Mammals”
J. T. Weir and D. Schluter
full text at www.sciencemag.org/cgi/content/full/319/5865/901d

REVIEW
CELL BIOLOGY
Adapting Proteostasis for Disease Intervention
W. E. Balch, R. I. Morimoto, A. Dillin, J. W. Kelly

BREVIA
CLIMATE CHANGE
Emergence of Anoxia in the California Current Large Marine Ecosystem
F. Chan et al.
Extreme oxygen deficits in the northern California Current system caused widespread anoxia, killing benthic invertebrates on the continental shelf of Oregon during 2006.

MEDICINE
Identification of Host Proteins Required for HIV Infection Through a Functional Genomic Screen
A. L. Brass et al.
An RNAi screen identified 237 new and 38 known human proteins required for HIV infection, including ones used in Golgi transport and in viral integration and transcription.

REPORTS
ASTRONOMY
Discovery of a Jupiter/Saturn Analog with Gravitational Microlensing
B. S. Gaudi et al.
A system of two giant planets orbiting a star has been discovered through their gravitational deflection of light from more distant stars.
>> News story p. 885

APPLIED PHYSICS
Imaging Phonon Excitation with Atomic Resolution
H. Gawronski, M. Mehlhorn, K. Morgenstern
Maps of the second derivative of the scanning tunneling microscope current with respect to voltage reveal atomic-scale variations in the surface vibrational modes of metals.
Capture and wait to ambush their prey. An ecosystem containing actively hunting spiders shows lower plant diversity but higher primary production than one with spiders that sit and wait. A meta-analysis shows that human activities have altered virtually all marine ecosystems. An immune cell–derived protein binds metal ions in infected tissue abscesses, depriving the bacteria of the essential nutrients magnesium and zinc and reducing their growth.

Population fitness. Developing mouse oocytes that harbor highly deleterious mitochondrial DNA mutations are eliminated, minimizing negative impact on population fitness.

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M. E. Guicciardi and G. J. Gores
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