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A current flow through a hematite crystal couples dissolution and growth reactions at different surfaces, a finding likely relevant to a broad range of semiconducting minerals.
10.1126/science.1154833

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Frequency Ratio of Al\textsuperscript{+} and Hg\textsuperscript{+} Single-Ion Optical Clocks; Metrology at the 17th Decimal Place
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Precise measurements of the frequency ratio of two optical clocks indicate that the fine-structure constant is fine and constant to an uncertainty of 10\textsuperscript{-17}.
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G. Lenz et al.
One type of non-Hodgkin’s lymphoma is caused by mutations in a scaffolding protein that inappropriately activate an inflammatory signaling pathway.
10.1126/science.1153629

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A Model for Neuronal Competition During Development
C. D. Deppmann et al.
Modeling and experiments show that neurons successfully innervate muscle when neuronal sensitization to survival signals outweighs antagonistic signals for cell death.
10.1126/science.1152677

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Reef fish locate desirable feeding opportunities by recognizing dimethylsulfoniopropionate, which is released by coral reef algae in response to foraging by fish.

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Long-Term Sea-Level Fluctuations Driven by Ocean Basin Dynamics
R. D. Müller, M. Sidrakas, C. Gaina, B. Steinberger, C. Heine
Considering changes in the shape of the ocean basins implies that global sea level fell by ~250 meters since 140 to 80 million years ago, a larger drop than implied in a recent study.

PSYCHOLOGY
Antisocial Punishment Across Societies
B. Herrmann, C. Thöni, S. Gächter
Retaliation against those who enforce the social norms of civic cooperation and rule of law varies among cultures and is more pronounced where social norms are weaker.

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Fiber-Optical Analog of the Event Horizon
T. G. Philbin et al.
An optical analog of the event horizon of a gravitational black hole can be produced with light pulses propagating along an optical fiber, providing a tractable experimental system.
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A rubbery polymer coated with nanofibers that segregate upon addition of a solvent can rapidly stiffen and relax, like the inner skin of a sea cucumber. J. R. Capadona et al.

High-resolution mapping of crossovers reveals extensive variation in fine-scale recombination patterns among humans. G. Coop, X. Wen, C. Ober, J. K. Pritchard, M. Przeworski

Sequence variants in the RNF212 gene associate with genome-wide recombination rate. A. Kong et al.

A variant of a human gene associated with high rates of recombination in males and low rates in females is an ortholog of a nematode gene essential for recombination.

A drug for controlling cholesterol may be useful as an antibiotic for multi-drug-resistant Staphylococcus aureus. C.-I. Liu

A computationally designed enzyme acts as a retro-aldolase that splits a carbon-carbon bond in a nonnatural substrate. L. Jiang

Retro-Aldol Enzymes

De Novo Computational Design of Retro-Aldol Enzymes

L. Jiang et al.

A computationally designed enzyme acts as a retro-aldolase that splits a carbon-carbon bond in a nonnatural substrate.

A drug for controlling cholesterol may be useful as an antibiotic for multi-drug-resistant Staphylococcus aureus. C.-I. Liu et al.

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A variant of a human gene associated with high rates of recombination in males and low rates in females is an ortholog of a nematode gene essential for recombination.
Perspective: Matrix Elasticity, Cytoskeletal Tension, and TGF-β: The Insoluble and Soluble Meet

R. G. Wells and D. E. Discher

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Glossary

Find out what MVE, SFRP, and LCR mean in the world of cell signaling.