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Artist’s rendering of an electronic device hosting Majorana fermions. The semiconducting nanowire (cylindrical structure) has a diameter of 100 nanometers and lies atop a gate structure consisting of many metallic stripes. The nanowire is contacted at the top with a gold electrode and at the bottom with a superconducting electrode (shown in blue). See page 1003.


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Predicting Pragmatic Reasoning in Language Games
M. C. Frank and N. D. Goodman
A Bayesian inference model predicts how listeners decode communications.
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The addition of tubulin monomers to microtubules provides the force to relocate the oocyte nucleus.
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Signatures of Majorana Fermions in Hybrid Superconductor-Semiconductor Nanowire Devices
V. Mourik et al.
Theoretical predicted particles that double as their own antiparticles emerge in a superconductor-coupled indium antimonide nanowire.
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Unidirectional Growth of Microbumps on (111)-Oriented and Nanotwinned Copper
H.-Y. Hsiao et al.
Oriented copper grains grown using direct-current electroplating serve as a template for intermetallic microbumps.

Real-Time Imaging of Pt_3Fe Nanorod Growth in Solution
H.-G. Liao et al.
An in situ liquid stage is used to study the formation of nanowires from solution in a transmission electron microscope.

Direction-Specific Interactions Control Crystal Growth by Oriented Attachment
D. Li et al.
Iron oxyhydroxide nanoparticles rotate until finding a perfect lattice match with a neighboring particle to grow.

Large-Pore Apertures in a Series of Metal-Organic Frameworks
H. Deng et al.
Metal-organic frameworks with hexagonal channel pores up to almost 100 angstroms in diameter have been synthesized.

Linking Petrology and Seismology at an Active Volcano
K. Saunders et al.
Volcanic minerals from a Mount St. Helens eruption reveal a causal relationship between magma processes and seismicity.

Temperature-Dependent Alterations in Host Use Drive Rapid Range Expansion in a Butterfly
R. M. Pateman et al.
A warmer UK has enabled the brown argus butterfly to expand its range by feasting on the geranium.

Linking Crystallographic Model and Data Quality
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N. T. Schirle and I. J. MacRae
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M. Jain et al.
Rapidly growing cancer cells rely on the amino acid glycine to make nucleotides.
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FKF1 Conveys Timing Information for CONSTANS Stabilization in Photoperiodic Flowering
Y. H. Song et al.
A plant protein sensitive to blue light links longer afternoons to more flowering.

Kinship Categories Across Languages Reflect General Communicative Principles
C. Kemp and T. Regier
The systems of terms used in different languages to describe kin are optimized for simplicity and informativeness.
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Neural Correlates of a Magnetic Sense
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Neurons in a pigeon’s brain encode the direction and intensity of the geomagnetic field.
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Don’t get MAD or be SAD; try lower energy.
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D. K. Bricker et al.
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Identification and Functional Expression of the Mitochondrial Pyruvate Carrier
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Two components of the mitochondrial pyruvate transporter confer transport activity when expressed in bacteria. 10.1126/science.1218530

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The genomes of cancer cells have preferentially lost genes that inhibit cell growth. 10.1126/science.1219580

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C. S. Westfall et al.
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Analysis of 11 martian meteorites reveals complex hydrocarbons associated with magmatic minerals in 10 of them. 10.1126/science.1220715

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M. L. Shinohara and A. M. VanHook
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PERSPECTIVE: Revisiting Channel Allostery—A Coherent Mechanism in IP3, and Ryanodine Receptors
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A. H. Achtman et al.
Anti-inflammatory drugs based on host defense peptides ameliorate malaria in mice.

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FOCUS: TB and HIV—Deadly Liaison or Manageable Threat?
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Experimental Error: The Unwritten Rules of Journalism
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Scientists interested in any phase of drug research and development can find opportunities within CROs.

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New group leaders need to learn how to manage people, projects, finances, and more.

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Editor's Summary

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