Nighttime view of present-day Chicago, USA. Since the 1893 Chicago World’s Fair introduced alternating current to the public, demand for electrical power has soared. Increased use of power from renewable resources will require new materials to store energy or generate power to ensure proper load balancing, as discussed in the special section beginning on page 921.

Photo: Jim Richardson/National Geographic/Getty Images
Evidence for Interstitial Carbon in Nitrogenase FeMo Cofactor
T. Spatzal et al.
Structural data show that the light atom at the center of the nitrogenase active site cofactor is a carbon.
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Crystal Structure of the Eukaryotic 60S Ribosomal Subunit in Complex with Initiation Factor 6
S. Klinge et al.
The 3.5 angstrom–resolution structure provides insights into the architecture of the eukaryotic ribosome and its regulation.

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J. Tumlinson et al.
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The Hidden Mass and Large Spatial Extent of a Post-Starburst Galaxy Outflow
T. M. Tripp et al.
A galaxy that has experienced a recent burst of star formation has an extended halo of hot, ionized gas surrounding it.

A Reservoir of Ionized Gas in the Galactic Halo to Sustain Star Formation in the Milky Way
N. Lehner and J. C. Howk
Clouds of ionized gas located inside our Galaxy provide a major supply of material for fueling ongoing star formation.

Giant Piezoelectricity on Si for Hyperactive MEMS
S. H. Baek et al.
High-quality piezoelectric thin films are grown and exhibit superior properties for microelectromechanical systems.

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Silica-Like Malleable Materials from Permanent Organic Networks
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A polymer shows thermoset-like stability while displaying melt processability like that of a thermoplymer.

Domain Dynamics During Ferroelectric Switching
C. T. Nelson et al.
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Negative Frequency-Dependent Selection of Sexually Antagonistic Alleles in Myodes glareolus
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X-ray Emission Spectroscopy Evidences a Central Carbon in the Nitrogenase Iron-Molybdenum Cofactor
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Structural Basis of Silencing: Sir3 BAH Domain in Complex with a Nucleosome at 3.0 Å Resolution
K.-J. Armache et al.
A regulatory protein forms extensive interactions with the nucleosome core particle to create the basis for gene silencing.

Active Starvation Responses Mediate Antibiotic Tolerance in Biofilms and Nutrient-Limited Bacteria
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High-precision geochronologic dating constrains probable causes of Earth’s largest mass extinction.
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The Origin of OB Runaway Stars
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Most of the unusually fast, young stars in our galaxy are produced in three-body encounters within dense clusters of stars.
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