SPECIAL SECTION
Materials for Grid Energy

INTRODUCTION
921 Electricity Now and When

NEWS
922 Saving for a Rainy Day
925 Turning Over a New Leaf
Sunlight in Your Tank—Right Away

REVIEWS
928 Electrical Energy Storage for the Grid:
A Battery of Choices
B. Dunn et al.

935 Lowering the Temperature of
Solid Oxide Fuel Cells
E. D. Wachsman and K. T. Lee

>> Editorial p. 877, News Focus story p. 896, and
Perspective p. 917

EDITORIAL
877 The Energy Research Imperative
Bill Gates
>> Materials for Grid Energy section p. 921

NEWS OF THE WEEK
880 A roundup of the week’s top stories

NEWS & ANALYSIS
883 NSF Creates Fast Track for
Out-of-the-Box Proposals
884 Research Projects Could Be Roadkill
in Revision of Massive Highway Bill
885 Revolution Brings New Hopes
for Libyan Archaeology
886 China Looks to Balance Its Carbon Books
An Unsung Carbon Sink

LETTERS
899 Race Disparity in Grants:
Check the Citations
H. P. Erickson
Race Disparity in Grants:
Empirical Solutions Vital
J. L. Voss
Response
D. K. Ginther et al.

905 CORRECTIONS AND CLARIFICATIONS
905 TECHNICAL COMMENT ABSTRACTS

NEWS FOCUS
888 Will Busting Dams Boost Salmon?
Out of the Frying Pan?
>> Science Podcast
893 Evolutionary Time Travel
896 Dreams of a Lithium Empire
>> Materials for Grid Energy section p. 921

BOOKS ET AL.
906 The Next Convergence
M. Spence, reviewed by C. I. Jones
906 Design with the Other 90%: Cities
C. E. Smith, curator;
Design with the Other 90%: Cities
C. E. Smith et al., reviewed by E. M. Sternberg

POLICY FORUM
908 Preparing to Manage
Climate Change Financing
S. D. Donner et al.

PERSPECTIVES
910 When More Is More
L.-A. Giraldeau
>> Report p. 1000
911 Understanding Tribal Fates
R. Arthur and J. Diamond
912 Human Locomotor Circuits Conform
S. Grillner
>> Report p. 997
914 One Atom Makes All the Difference
S. Ramaswamy
>> Brevia p. 940; Report p. 974
915 Antioxidant Strategies to Tolerate Antibiotics
P. Belenky and J. J. Collins
>> Reports pp. 982 and 986
916 Analyzing Solar Cycles
S. K. Solanki and N. A. Krivova
917 True Performance Metrics in
Electrochemical Energy Storage
Y. Gogotsi and P. Simon
>> Materials for Grid Energy section p. 921
919 Retrospective: Steven P. Jobs (1955–2011)
T. J. Misa

CONTENTS continued >>
BREVIA

940 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.
>> Perspective p. 914; Report p. 974

RESEARCH ARTICLE

941 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.

REPORTS

948 The Large, Oxygen-Rich Halos of Star-Forming Galaxies Are a Major Reservoir of Galactic Metals
J. Tumlinson et al.
Observations with the Hubble Space Telescope show that halos of ionized gas are common around star-forming galaxies.

952 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.

955 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 matter for fueling ongoing star formation.

958 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.

962 Ultralight Metallic Microlattices
T. A. Schaedler et al.
A route is developed for fabricating extremely low-density, hollow-strut metallic lattices.

965 Silica-Like Malleable Materials from Permanent Organic Networks
D. Montarnal et al.
A polymer shows thermoset-like stability while displaying melt processability like that of a thermopolymer.

968 Domain Dynamics During Ferroelectric Switching
C. T. Nelson et al.
The role of defects and interfaces on switching in ferroelectric materials is observed with high-resolution microscopy.

972 Negative Frequency-Dependent Selection of Sexually Antagonistic Alleles in Myodes glareolus
M. Mokkonen et al.
Selection of rare-male types in a population can maintain genetic variation that benefits one sex but harms the other.

974 X-ray Emission Spectroscopy Evidences a Central Carbon in the Nitrogenase Iron-Molybdenum Cofactor
K. M. Lancaster et al.
A central light atom in a cofactor at the nitrogenase active site is identified as a carbon.
>> Perspective p. 914; Brevia p. 940

977 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.

982 Active Starvation Responses Mediate Antibiotic Tolerance in Biofilms and Nutrient-Limited Bacteria
D. Nguyen et al.
During growth arrest, bacteria tolerate the presence of antibiotics, thanks to mechanisms that protect against oxidant stress.
>> Science Podcast

986 H2S: A Universal Defense Against Antibiotics in Bacteria
K. Shatalin et al.
Sulfide formation helps to protect various bacteria from antibiotic toxicity.

990 Wolbachia Enhance Drosophila Stem Cell Proliferation and Target the Germline Stem Cell Niche
E. M. Fast et al.
A bacterial endosymbiont up-regulates mitosis of Drosophila germline stem cells and blocks programmed cell death.

993 Correction of Sickle Cell Disease in Adult Mice by Interference with Fetal Hemoglobin Silencing
J. Xu et al.
Manipulation of a transcriptional repressor promotes expression of protective fetal globin genes.

997 Locomotor Primitives in Newborn Babies and Their Development
N. Dominici et al.
Mammalian locomotion patterns share common roots.
>> Perspective p. 912

1000 Rational Choice, Context Dependence, and the Value of Information in European Starlings (Sturnus vulgaris)
E. Freidin and A. Kacelnik
Context-related information improves serial decision-making but impairs simultaneous choice.
>> Perspective p. 910

CONTENTS continued >>
Science 334 (6058), 875-1004.