SPECIAL SECTION

Cold Atom Physics

INTRODUCTION
984 Manipulating ultracold matter

NEWS
986 Trapped in orbit A. Cho

REVIEWS
990 Probing the frontiers of particle physics with tabletop-scale experiments D. DeMille et al.
995 Quantum simulations with ultracold atoms in optical lattices C. Gross and I. Bloch
1002 Cold molecules: Progress in quantum engineering of chemistry and quantum matter J. L. Bohn et al.

▶ RESEARCH ARTICLE BY P. Puri et al.
10.1126/science.aan4701 ▶ VIDEO

ON THE COVER

Artistic depiction of ultracold atoms (shown with atomic orbitals; blue/red indicate frozen/mobile internal states) loaded into an optical lattice, which mimics the periodic environment experienced by electrons in solids. Probing atoms and molecules cooled to very low temperatures can tease out answers to some of the most intriguing questions in physics and chemistry. See the special section beginning on page 984. Illustration: C. Bickel/Science

NEWS

IN BRIEF
952 News at a glance

IN DEPTH
954 RECORD STORM PUTS GULF RESILIENCE TO THE TEST
Researchers aim to understand the impact of Hurricane Harvey’s unprecedented flood
By E. Pennisi and D. Malakoff

955 NIH’S MASSIVE HEALTH STUDY IS OFF TO A SLOW START
All of Us hopes to begin recruiting 1 million volunteers by early 2018
By J. Kaiser

956 BILLIONAIRE’S GIFT PUSHES OCEAN SENSORS DEEPER
With $4 million from Paul Allen, Deep Argo expands its search for hidden ocean heat
By P. Voosen

957 OKLAHOMA POLITICIAN PICKED TO LEAD NASA BACK TO THE MOON
Dogged by climate change remarks, Jim Bridenstine is expected to champion commercial spaceflight
By P. Voosen

958 IN COLOMBIA, PEACE DIVIDEND FOR SCIENCE PROVES ELUSIVE
Scientists protest steep budget cuts floated for 2018
By L. Wade

959 PANEL URGES STEPS TO BOOST EVIDENCE-BASED POLICY
New secure data portal would help researchers evaluate how programs are working
By J. Mervis

FEATURE

960 ZAPPING COCAINE ADDICTION
Powerful magnetic pulses that modify brain activity may loosen the drug’s grip
By M. Wadman

INSIGHTS

BOOKS ET AL.
964 AUTUMN BOOKS
Fall into a new book

PERSPECTIVES
970 A LOOMING TRAGEDY OF THE SAND COMMONS
Increasing sand extraction, trade, and consumption pose global sustainability challenges
By A. Torres et al.
972 MEET THE PRIMORDIAL ASTEROID FAMILY
Identification of an ancient family of asteroids may help constrain solar system origins By F. DeMeo
▶ REPORT P. 1026

973 THE BALANCE BETWEEN IMMUNITY AND INFLAMMATION
Lung immunity is calibrated to protect from inhaled pathogens and avoid inflammation By D. L. Wiesner and B. S. Klein
▶ RESEARCH ARTICLE P. 1014; REPORT P. 1037

974 WIRE TOGETHER, FIRE APART
New learning rule aligns behavioral and synaptic time scales in place cells By J. Krupic
▶ REPORT P. 1033

976 THE ROAD TO CROHN’S DISEASE
A stress pathway directs the antimicrobial response to an enteric pathogen By A. Kaser and R. S. Blumberg
▶ REPORT P. 1047

977 HOW GLASS FRONTS DECEIVE BATS
Bats fail to perceive vertical mirroring structures, such as large windows, and collide with them By P. Stilz
▶ REPORT P. 1045

POLICY FORUM
979 SCIENCE IN LITIGATION, THE THIRD BRANCH OF U.S. CLIMATE POLICY
The context and role of climate science in court are changing By S. McCormick et al.
▶ PODCAST

LETTERS
981 RETRACTION
By Y. Tanno et al.

981 MITIGATING COASTAL LANDSLIDE DAMAGE
By B. Leshchinsky et al.

982 THE EU’S ECOLOGICAL RISK ASSESSMENTS
By P. Calow

RESEARCH
IN BRIEF
1011 From Science and other journals

RESEARCH ARTICLES
1014 INFLAMMATION
mTOR regulates metabolic adaptation of APCs in the lung and controls the outcome of allergic inflammation C. Sinclair et al.
▶ PERSPECTIVE P. 973

1021 STRUCTURAL BIOLOGY
Structure of a symmetric photosynthetic reaction center–photosystem C. Gisriel et al.

REPORTS
1026 ASTEROID BELT
Identification of a primordial asteroid family constrains the original planetesimal population M. Delbo’ et al.
▶ PERSPECTIVE P. 972

1029 METALLURGY
High dislocation density–induced large ductility in deformed and partitioned steels B. B. He et al.

1033 NEUROSCIENCE
Behavioral time scale synaptic plasticity underlies CA1 place fields K. C. Bittnner et al.
▶ PERSPECTIVE P. 974

1037 FUNGAL PATHOGENS
Sterilizing immunity in the lung relies on targeting fungal apoptosis-like programmed cell death N. Shlesinger et al.
▶ PERSPECTIVE P. 973

1041 SOCIAL SCIENCE
Protecting unauthorized immigrant mothers improves their children’s mental health J. Haimmueller et al.

1045 SENSORY TRAPS
Acoustic mirrors as sensory traps for bats S. Greif et al.
▶ PERSPECTIVE P. 977; VIDEO

1047 INTESTINAL STRESS
Paneth cells secrete lysozyme via secretory autophagy during bacterial infection of the intestine S. Bel et al.
▶ PERSPECTIVE P. 976

DEPARTMENTS
951 EDITORIAL
Postdocs power research
By Rob Wallach

1058 WORKING LIFE
Choose a program, have a life
By Samantha H. Jones

Science Staff ........................................... 950
New Products ....................................... 1053
Science Careers ................................... 1055
Science 357 (6355), 951-1058.

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