A three-dimensional model of the topological structure of zeolite SSZ-65. The Gordon Research Conference on Nanoporous Materials will be held 15 to 20 June 2008 at Colby College, Waterville, ME. The schedules for the 2008 Gordon Research Conferences begin on page 637.

Model creation and rendering: Kelly Harvey and Scott Harvey

**NEWS OF THE WEEK**

- DOE’s Disappointing Budget Makes It Harder to Stick to the Basics 554
- *Lancet* and MSF Split Over Malnutrition Series 555
- Indian Government Hopes Bill Will Stimulate Innovation 556
- Dutch Revise Policy Blocking Iranian Students 556
- Deaths Prompt a Review of Experimental Probiotic Therapy 557

**SCIENCESCOPE**

DNA Assembles Materials From the Ground Up 558

Aging of the Ovary Linked to PTEN Pathway 558

**NEWS FOCUS**

- A Seismic Shift for Stem Cell Research 560
  - Shinya Yamanaka: Modest Researcher, Results to Brag About Nuclear Transfer: Still on the Table
- Scientists Hope to Adjust the President’s Vision for Space 564
  - Getting Up to Speed on Space
- The Big Thaw Reaches Mongolia’s Pristine North 567

**LETTERS**

Retraction M. A. Dwyer, L. L. Looger, H. W. Hellinga 569
Comparing Social Skills of Children and Apes F. B. M. de Waal, C. Boesch, V. Horner, A. Whiten Response E. Herrmann et al.

**BOOKS ET AL.**

Evolution of Primary Producers in the Sea P. G. Falkowski and A. H. Knoll, Eds., reviewed by R. Riding 571
No Way Home The Decline of the World’s Great Animal Migrations D. S. Wilcove, reviewed by T. Alerstam 572

**POLICY FORUM**


**PERSPECTIVES**

- Sweet, Hairy, Soft, and Slippery S. Lee and N. D. Spencer 575
- The Toll of Cathepsin K Deficiency A. M. Krieg and G. B. Lipford 576
  - Report p. 624
- Glass Surfaces Not So Glassy J. R. Dutcher and M. D. Ediger 577
  - Report p. 600
- The Art of Assembly F. Szoka 578
  - Report p. 627
- Nanowires in Nanoelectronics D. K. Ferry 579
- Food Security Under Climate Change M. E. Brown and C. C. Funk 580
  - Report p. 607
Human-Induced Changes in the Hydrology of the Western United States
T. P. Barnett et al.
Combining a regional hydrologic and global climate model implies that human-caused CO$_2$ emissions have already greatly changed river flows and snow pack in the western United States.
10.1126/science.1152538

Asphericity in Supernova Explosions from Late-Time Spectroscopy
K. Maeda et al.
Spectroscopic signatures show that supernova explosions of stars that have lost their hydrogen envelopes are strongly aspherical and may be jetlike.
10.1126/science.1149437

Comment on “Saturation of the Southern Ocean CO$_2$ Sink Due to Recent Climate Change”
R. M. Law, R. J. Matear, R. J. Francey
full text at www.sciencemag.org/cgi/content/full/319/5863/570a

Response to Comments on “Saturation of the Southern Ocean CO$_2$ Sink Due to Recent Climate Change”
C. Le Quéré et al.
full text at www.sciencemag.org/cgi/content/full/319/5863/570c

Insights into Phases of Liquid Water from Study of Its Unusual Glass-Forming Properties
C. A. Angell
582

Languages Evolve in Punctuational Bursts
Q. D. Atkinson et al.
A study of Bantu, Indo-European, Austronesian, and Polynesian languages shows that up to one-third of their words arose in rapid evolutionary bursts from the predecessor tongue.
588

Strong natural selection is maintaining multiple alleles of a gene in wild populations of the nematode C. elegans, despite their negative effect on fitness.

Single-Molecule Cut-and-Paste Surface Assembly
S. K. Kufer et al.
An atomic force microscope tip derivatized with DNA can pick up and assemble large molecules bearing DNA handles into specific patterns on a surface in aqueous solution.
594

Neutron-scattering measurements suggest that ordering of fluctuating electron spins explains the liquid crystal phases recently seen in some correlated electron systems.
597
REPORTS CONTINUED...

MATERIALS SCIENCE
Measuring the Surface Dynamics of Glassy Polymers 600
Z. Fakhraai and J. A. Forrest
Removal of gold nanospheres dimpling the surface of a polymer film reveals that polymer chains near the surface relax more rapidly than the bulk.

>> Perspective p. 577

GEOCHEMISTRY
Abiogenic Hydrocarbon Production at Lost City Hydrothermal Field 604
G. Proskurowski et al.
The abundance of hydrocarbons and isotopic data imply that hydrocarbons are produced chemically from mantle carbon at a cool Atlantic Ocean hydrothermal system.

CLIMATE CHANGE
Prioritizing Climate Change Adaptation Needs for Food Security in 2030 607
D. B. Lobell et al.
Analysis of 12 food-insecure regions for vulnerability to crop failure from climate change indicates that those in southern Africa and south Asia are in particular need of attention.

>> Perspective p. 580

DEVELOPMENTAL BIOLOGY
Oocyte-Specific Deletion of Pten Causes Premature Activation of the Primordial Follicle Pool 611
P. Reddy et al.
In mice, a tumor suppressor commonly mutated in human cancers prevents premature activation of ovarian follicles, allowing them to form oocytes throughout life.

>> News story p. 558

DEVELOPMENTAL BIOLOGY
The Maternal Nucleolus Is Essential for Early Embryonic Development in Mammals 613
S. Ogushi et al.
After fertilization or somatic cell nuclear transfer, the oocyte’s nucleolus but not the sperm’s is essential for subsequent development.

MEDICINE
Profiling Essential Genes in Human Mammary Cells by Multiplex RNAi Screening 617
J. M. Silva et al.
Cancer Proliferation Gene Discovery Through Functional Genomics 620
M. R. Schlabach et al.
Systematic inhibition of gene expression with RNA interference screening reveals genes essential for growth and survival of tumor cells, potentially leading to new cancer drugs.

IMMUNOLOGY
Cathepsin K–Dependent Toll-Like Receptor 9 Signaling Revealed in Experimental Arthritis 624
M. Asagiri et al.
A lysosomal enzyme normally associated with osteoclasts of the bone has further function in signaling through an innate receptor in immune cells.

>> Perspective p. 576

IMMUNOLOGY
Systemic Leukocyte-Directed siRNA Delivery Revealing Cyclin D1 as an Anti-Inflammatory Target 627
D. Peer, E. J. Park, Y. Morishita, C. V. Carman, M. Shimaoka
Small RNAs are packaged in lipid nanoparticles with antibodies that direct them to specific gut immune cells, where they suppress inflammation by inhibiting a cell-cycle protein.

>> Perspective p. 578

BIOCHEMISTRY
Direct Observation of Hierarchical Folding in Single Riboswitch Aptamers 630
W. J. Greenleaf et al.
Optical trapping reveals that activation by adenine stabilizes the weakest helix in a riboswitch, after which secondary and tertiary structures are formed sequentially.
SUPPRESSION OF translation by FMRP.