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EDITORIAL

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Cover: Synthetic image of the north polar cap of Mars, about
1000 kilometers across, with cutaway revealing interior
structure as imaged by the Shallow Radar (SHARAD)
on the Mars Reconnaissance Orbiter mission. Vertical
exaggeration is about 60:1. In this false-color rendition,
bright lines in the cross section are reflections from
internal layer boundaries within the icy cap; their depth
distribution provides clues to recent climate history.
See page 1182.

Image: NASA/JPL-Caltech/Agenzia Spaziale Italiana/
Università di Roma/Southwest Research Institute;
additional data credits: Mars Orbiter Laser Altimeter
Science Team, Mars Orbiter Camera (NASA/JPL/
Malin Space Science Systems); digital graphics:
JPL/Eric De Jong/Mike Stetson/Jason Craig
BIOCHEMISTRY
Structural Basis of Trans-Inhibition in a Molybdate/Tungstate ABC Transporter
S. Gerber, M. Comellas-Bigler, B. A. Goetz, K. P. Locher
A class of membrane transporters is subject to product inhibition: The imported substrate binds to a regulatory domain that sterically inhibits further adenosine triphosphate hydrolysis.
10.1126/science.1156213

GENETICS
Paleo-Eskimo mtDNA Genome Reveals Matrilineal Discontinuity in Greenland
M. T. P. Gilbert et al.
Ancient human DNA sequences from Greenland suggest that the earliest inhabitants of the far north were from a lineage distinct from extant Native Americans and Eskimos.
>> News story p. 1146
10.1126/science.1159750

PHYSICS
Probing Cold Dense Nuclear Matter
R. Subedi et al.
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10.1126/science.1156675

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C. Hillaire-Marcel and A. de Vernal
full text at www.sciencemag.org/cgi/content/full/320/5880/1161a
Response to Comment on "Mixed-Layer Deepening During Heinrich Events: A Multi-Planktonic Foraminiferal $\delta^{18}O$ Approach"
H. Rashid and E. A. Boyle
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>> Perspective p. 1167; Science Podcast

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Science 320 (5880), 1129-1230.