



COVER

Using sunlight to rearrange the chemical bonds of water into hydrogen and oxygen, as in photosynthesis, would constitute a practical way to store solar energy as a fuel. Such an energy source will depend on new catalysts that promote this fuel-forming reaction cheaply and efficiently. See page 1072.

Photo illustration: Paul Montie
(images: iStockphoto.com; Getty Images)

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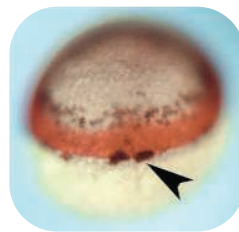
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Quantum Communication with Zero-Capacity Channels

G. Smith and J. Yard

Two quantum communication channels, each of which is so noisy that it has zero-capacity to independently transmit information, can do so when used together.

10.1126/science.1162242

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High-Quality Binary Protein Interaction Map of the Yeast Interactome Network

H. Yu et al.

Comparison of existing methods for mapping protein-protein interactions in yeast cells shows that the high-throughput approaches are complementary to one another.

10.1126/science.1158684

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Chemokine Signaling Controls Endodermal Migration During Zebrafish Gastrulation

S. Nair and T. F. Schilling

During zebrafish gastrulation, chemokines are required for integrin-dependent adhesion of endodermal cells to mesoderm, a role distinct from their action as chemoattractants.

10.1126/science.1160038

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10.1126/science.1161818

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[full text at www.sciencemag.org/cgi/content/full/321/5892/1040b](http://www.sciencemag.org/cgi/content/full/321/5892/1040b)

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J. M. Asara, M. H. Schweitzer, L. C. Cantley, J. S. Cottrell

[full text at www.sciencemag.org/cgi/content/full/321/5892/1040c](http://www.sciencemag.org/cgi/content/full/321/5892/1040c)

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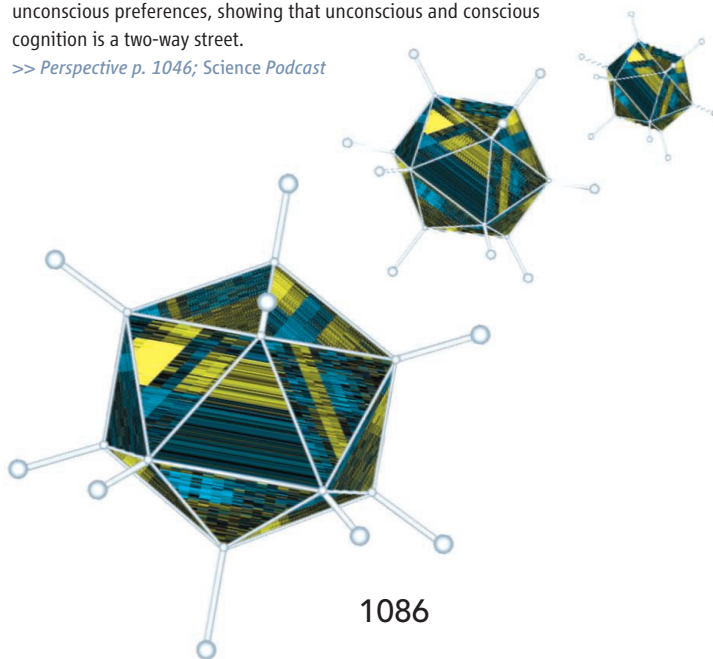
For quiescent cells to periodically divide and then rest, a member of the Notch signaling pathway HES1 must be present; this protein is also activated in some tumors.

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Unexpectedly, consciously expressed voting choices predict later unconscious preferences, showing that unconscious and conscious cognition is a two-way street.

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Science Careers Poll Results: A Realistic Readership

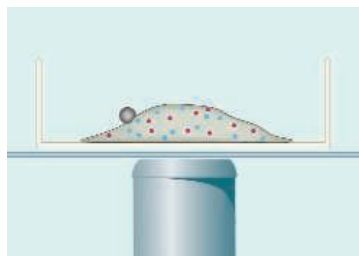
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Grad students and postdocs are guardedly optimistic about their career prospects.

From the Archives: Choosing a Thesis Lab

S. Brass

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S. Na and N. Wang

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