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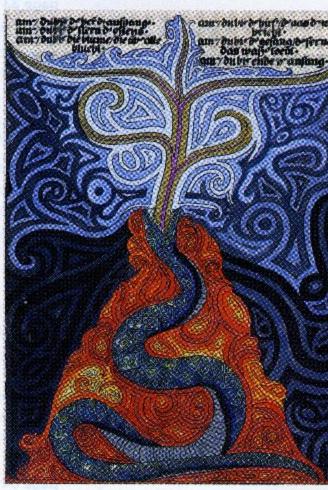
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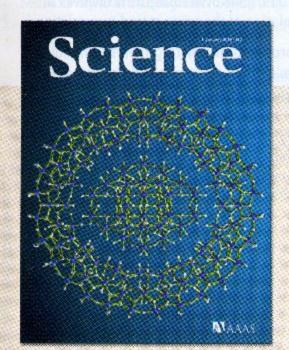
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## COVER

Crystal structure of a molybdenum oxide nanowheel,
2.6 nanometers in diameter, around a smaller molybdenum
oxide cluster. Miras et al. (page 72; related Perspective page 38)
used a controlled-flow reactor to show that the central core serves
as a transient template for the self-assembly of the nanowheel
and is ultimately ejected to yield a hollow finished product.

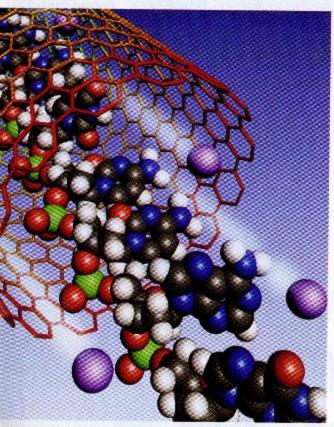
Image: Leroy Cronin, Ryo Tsunashima, Haralampos Miras/ University of Glasgow

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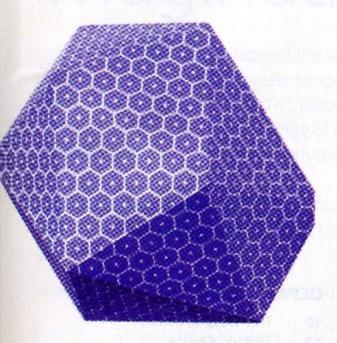
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Potassium channel enrichment in the dendrites of hippocampal basket cells defines a mechanism of neural network function.

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> The distinctive properties of this supernova suggest that it is of a kind predicted by theory but not previously observed.

60 Polarization-Induced Hole Doping in Wide-Band-Gap Uniaxial Semiconductor Heterostructures

J. Simon et al.

A compositional gradient of two semiconductors creates an electronic polarization that ionizes and activates dopant atoms.

Translocation of Single-Stranded DNA Through Single-Walled Carbon Nanotubes H. Liu et al.

> Transfer of DNA by electrophoresis through some carbon nanotubes is accompanied by giant current pulses.

Solid Nanoparticles That Catalyze Biofuel Upgrade Reactions at the Water/Oil Interface

S. Crossley et al.

Oxide nanoparticles bearing carbon nanotubes and functionalized with palladium act as both emulsifiers and catalysts. >> Perspective p. 41

Unveiling the Transient Template in the Self-Assembly of a Molecular Oxide Nanowheel

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> Large-scale ocean circulation changed in different ways during a millennial-scale climate event.

**Human Genome Sequencing Using** 78 Unchained Base Reads on Self-Assembling **DNA Nanoarrays** 

R. Drmanac et al.

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Structure and Mechanisms of a Protein-Based Organelle in Escherichia coli S. Tanaka et al.

> Structures of the shell proteins from a bacterial organelle help to explain how it functions in metabolizing ethanolamine. >> Perspective p. 42

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> Sequencing the Tasmanian devil facial tumor disease provides a potential diagnostic marker. >> Science Podcast

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F. Liu et al.

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Reproducibility Distinguishes Conscious from Nonconscious Neural Representations A. Schurger et al.

> Analysis of functional magnetic resonance imaging data reveals that neural activation patterns are more reproducible for seen versus unseen objects.

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