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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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Caterpillars masquerading as twigs are misidentified by chick predators as inanimate objects, rather than remaining undetected.

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

An Unusually Fast-Evolving Supernova
D. Poznanski et al.
The distinctive properties of this supernova suggest that it is of a kind predicted by theory but not previously observed.

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.

Unveiling the Transient Template in the Self-Assembly of a Molecular Oxide Nanowheel
H. N. Miras et al.
Use of a flow reactor reveals a key intermediate in the formation of a molybdenum oxide nanostructure.

Synchronous Deglacial Overturning and Water Mass Source Changes
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Large-scale ocean circulation changed in different ways during a millennial-scale climate event.

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R. Drmanac et al.
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The Rate and Molecular Spectrum of Spontaneous Mutations in *Arabidopsis thaliana*
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