

a technical detail never contradicted by specific nuclear-test technical data.

The MOX weapons-conversion program would help the US comply with its international obligations toward worldwide reciprocal nuclear disarmament under article VI of the Nuclear Non-Proliferation Treaty. Such a move would present a commendable example for the other weapon states—the UK, China, and France.

Alexander DeVolpi
(waterfoxg@gmail.com)
Oceanside, California

Unusual wind effect on a lake-surface monolayer film

Joe Greene's article "Organic thin films: From monolayers on liquids to multilayers on solids" (PHYSICS TODAY, June 2014, page 43) brought back some memories for this retired atmospheric scientist. When I first entered graduate school at Colorado State University, I was part of a team that was testing early versions of IR surface-temperature-measuring devices. The US Bureau of Reclamation was testing the ability of a monomolecular layer, a

mixture of hexadecanol and octadecanol, to reduce evaporation from low-altitude reservoirs—in this case, Lake Hefner, which held a good portion of Oklahoma City's water supply.

We did observe the reduction effect. However, we would have profited by reading Benjamin Franklin's description of his Clapham Common experiment presented in the article, because the reduction effect was definitely dependent on wind speed and direction. Applied during a calm, high-pressure, sunny day, the film reduced evaporation. However, when wind would pick up, it would blow the film to the lee shore or churn it into the lake's upper layer, which had been warmed by sunlight and the reduced evaporation.

With the film no longer protecting it, that warm upper layer evaporated like crazy due to the nonlinear effect of the Clausius-Clapeyron relationship during a hot summer day at slightly above sea level. Thus the net effect of the hypothetically evaporation-reducing monomolecular layer was to increase evaporation. Although a solution to that negative effect was described (but never implemented), the experience was fundamental to the skepticism I have enjoyed in my scientific career:

The result was completely unexpected to a young scientist and was revealed by a true field experiment denying the prominent hypothesis. It also got me my first publication—in the *Journal of Geophysical Research*, volume 74, page 2471, 1969—and an MS degree.

Robert L. Grossman
(grossman@colorado.edu)
Boulder, Colorado

Dusting off a comet

I offer a very minor correction to the fascinating article "Making the Moon," by Dave Stevenson (PHYSICS TODAY, November 2014). On page 35, Stevenson writes, "the Moon remains the only body from which we have returned samples." That neglects the Stardust mission, which successfully returned a sample of dust from Comet Wild 2 in 2006.

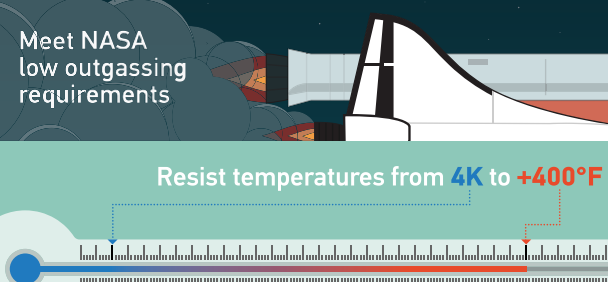
Fred Bortz
(drfredb@att.net)
Monroeville, Pennsylvania

Correction

December 2014, page 19—Figure 2 was adapted from A. Miyawaki, *Nat. Rev. Mol. Cell Biol.* 12, 656, 2011. ■

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