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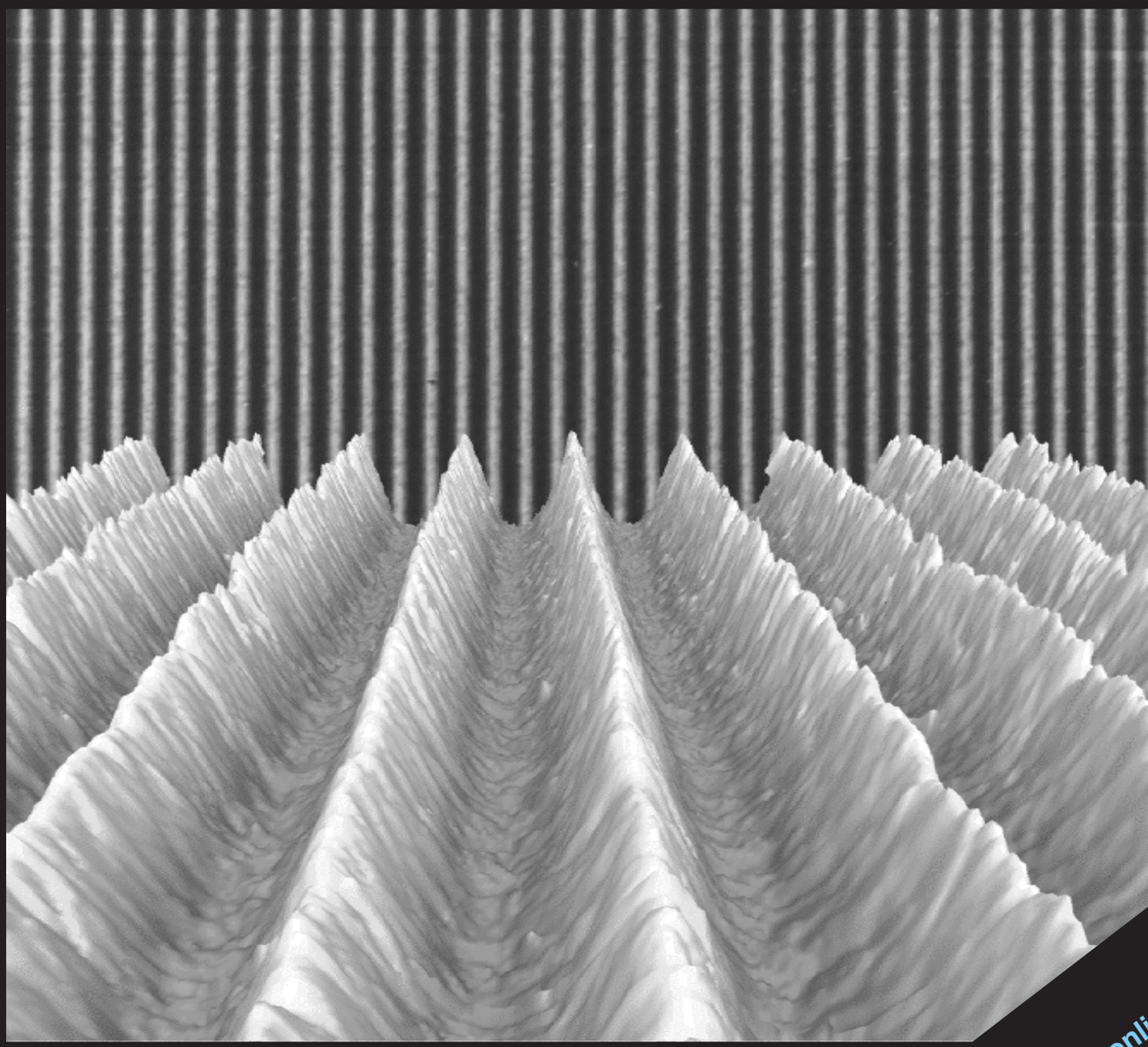

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Technology Administration, U.S. Department of Commerce

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- Advanced Network Technologies
- Computer Security
- Information Access
- Convergent Information Systems
- Information Services and Computing
- Software Diagnostics and Conformance Testing
- Statistical Engineering

[1]At Boulder, CO 80303
[2]Some elements at Boulder, CO

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U.S. Department of Commerce—**Donald L. Evans,** Secretary
Technology Administration—**Phillip J. Bond,** Under Secretary of Commerce for Technology
National Institute of Standards and Technology—**Arden L. Bement, Jr.,** Director

Cover: The cover illustration is a composite of two atomic force microscope images of laser-focused atomic deposition, as described in the paper by McClelland et al., page 99 of this issue. A laser standing wave propagates across a silicon surface, concentrating bombarding atoms into its nodes as they deposit. The foreground is a three-dimensional rendering of an atomic force microscope image, showing 65 nm wide chromium lines. The background is a larger-range AFM image of the same sample, illustrating the regularity of the lines, which are spaced at exactly half the laser wavelength. Cover image by R. Scholten, arranged by C. Carey.

The *Journal of Research of the National Institute of Standards and Technology*, the flagship periodic publication of the national metrology institute of the United States, features advances in metrology and related fields of physical science, engineering, applied mathematics, statistics, biotechnology, and information technology that reflect the scientific and technical programs of the Institute. The *Journal* publishes papers on instrumentation for making accurate measurements, mathematical models of physical phenomena, including computational models, critical data, calibration techniques, well-characterized reference materials, and quality assurance programs that report the results of current NIST work in these areas. Occasionally, a Special Issue of the *Journal* is devoted to papers on a single topic. Also appearing on occasion are review articles and reports on conferences and workshops sponsored in whole or in part by NIST.

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