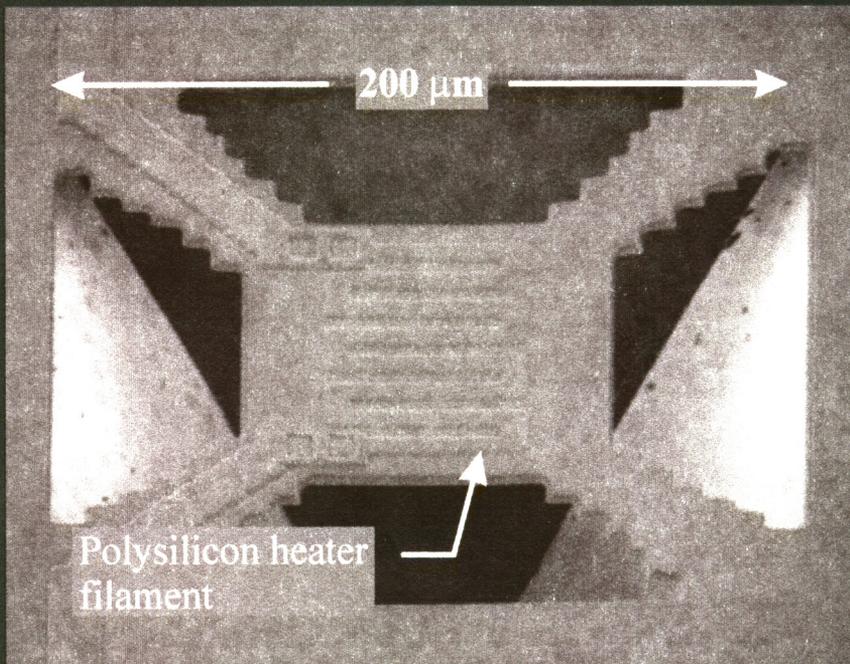


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- Software Diagnostics and Conformance Testing
- Statistical Engineering

¹At Boulder, CO 80303

²Some elements at Boulder, CO

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Cover: Image of a microheating element fabricated by the cif-MEMS (CMOS Integrated Circuit MEMS) method. The microheating element is composed of a thin ($\approx 3 \mu\text{m}$) glass film that encapsulates a polysilicon resistor. The device is micromachined as a post process to the standard CMOS integrated circuit foundry process to create a well that thermally isolates the microheater from the silicon substrate. This element is embedded in a fluidic microchannel described in the paper to control the temperature of fluids passing over it and to measure flow rate (see article on p. 335). Cover 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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