IN BRIEF

This issue of LLE Review contains articles on recent progress in the laser fusion effort, on certain aspects of the LLE advanced technology development program, and on National Laser Users Facility activities.

Highlights of the work summarized in this issue include:

- Target design calculations indicating increased drive uniformity and target performance with two-color laser irradiation of directly driven, laser-fusion targets.
- Hydrodynamic efficiency measurements conducted with 351-nm laser irradiation showing a close agreement with predictions made using the two-dimensional hydrodynamic code *SAGE*.
- Continuing theoretical and experimental work aimed at understanding the physical processes taking place in the underdense region of laser-produced plasmas.
- The initiation of x-ray laser experiments on OMEGA.
- The development of liquid-crystal devices as laser-blocking, notch filters.
- The first successful demonstration of single-shot, submicron-resolution, x-ray lithography using a laser-produced plasma as the x-ray source.

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Laboratory Engineer Kathy Cerqua, of the Optical Materials Group, is shown fabricating a liquid-crystal circular polarizer. The Laboratory for Laser Energetics is carrying out research on the use of liquid-crystal devices in a number of high-power laser applications.