

Cover Photos

Upper left: Robert Earley and Dale Guy working on the OMEGA off-axis parabola inserter system.

Middle left: Mark Wittman with the advanced target characterization system.

Middle center: Aitoff projection of the variation in ice-layer-thickness uniformity for an LLE DT-filled capsule showing submicron uniformity.

Lower left: David Canning is shown aligning optics in the OMEGA EP grating compressor chamber.

Upper right: Secondary proton spectrum from an OMEGA high-density cryogenic capsule implosion that achieved an areal density of $\sim 200 \text{ g/cm}^2$.

Middle right: High-school student interns participating in the 2007 LLE Summer High School Research Program in the OMEGA EP Laser Bay.

Lower right: View of the OMEGA target chamber along the H3 port direction.

Prepared for
U.S. Department of Energy
San Francisco Operations Office
DOE/SF/19460-798

Distribution Category
October 2006–September 2007

Printed in the United States of America
Available from
National Technical Information Services
U.S. Department of Commerce
5285 Port Royal Road
Springfield, VA 22161
Price codes: Printed Copy A13
Microfiche A01

This report was prepared as an account of work conducted by the Laboratory for Laser Energetics and sponsored by New York State Energy Research and Development Authority, the University of Rochester, the U.S. Department of Energy, and other agencies. Neither the above named sponsors, nor any of their employees, makes any warranty, expressed or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights. Reference herein to any specific commercial product, process, or service by trade name, mark, manufacturer, or otherwise, does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or any agency thereof or any other sponsor. Results reported in the LLE Review should not be taken as necessarily final results as they represent active research. The views and opinions of authors expressed herein do not necessarily state or reflect those of any of the above sponsoring entities.

The work described in this volume includes current research at the Laboratory for Laser Energetics, which is supported by New York State Energy Research and Development Authority, the University of Rochester, the U.S. Department of Energy Office of Inertial Confinement Fusion under Cooperative Agreement No. DE-FC52-92SF19460, and other agencies.

For questions or comments, Laboratory for Laser Energetics,
250 East River Road, Rochester, NY 14623-1299, (585) 275-5286.
Worldwide-Web Home Page: <http://www.lle.rochester.edu/>