

Cover Photos

Upper Left: View of the OMEGA EP target chamber as it is installed within the target chamber structure in the new OMEGA EP Facility that is currently under construction.

Upper Right: Senior Technical Associate Nelson LeBarron inspects a single full-size grating from a three-tile grating array under development for OMEGA EP.

Lower Left: Photograph of cryogenic target holders that are used to hold target assemblies in the OMEGA Cryogenic Target Handling System.

Center: A cryogenic target layering sphere undergoing optical testing to assess its ability to uniformly illuminate a target.

Middle Right: View inside the target chamber for the MTW (multi-terawatt) laser. MTW is a 10-J, 1-ps laser facility that is used to develop diagnostics for OMEGA EP.

Lower Right: Technical Associate Chad Abbott is shown making adjustments during the installation of the second fill station in LLE's target fill facility.

Prepared for
U.S. Department of Energy
San Francisco Operations Office
DOE/SF/19460-646

Distribution Category UC712
October 2004–September 2005

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 A12
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, contact Laboratory for Laser Energetics
250 East River Road, Rochester, NY 14623-1299, (585) 275-5286.
Worldwide-Web Home Page: <http://www.lle.rochester.edu/>