

About the Cover:

The cover photograph shows Scientist Vladimir Smalyuk and Greece Arcadia High School senior Nicole Toscano (also a participant of LLE's 2003 Summer High School Research Program) discussing diagnostic configuration on OMEGA. The results of their experiment, presented in this issue, contain the characterization of a temperature-density profile of the cryogenic D_2 target at peak neutron production.

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-FC03-92SF19460, and other agencies.

Printed in the United States of America Available from National Technical Information Serv

National Technical Information Services U.S. Department of Commerce 5285 Port Royal Road Springfield, VA 22161

Price codes: Printed Copy A03

Microfiche A01

For questions or comments, contact Valeri N. Goncharov, *Editor*, Laboratory for Laser Energetics, 250 East River Road, Rochester, NY 14623-1299, (585) 275-5877.

Worldwide-Web Home Page: http://www.lle.rochester.edu/