

LLE Celebrates 40th Anniversary



In 2010, LLE celebrated its 40th year. LLE accomplishments, marked by the innovation and brilliance that have received international attention for 40 years, have been possible because of the dedication, talent, creativity, and resolve of the research team—the scientists, faculty, students, and staff of the Laboratory. Equally important in our history are the support and funding LLE has received from our major sponsors including the University, private industry, the State of New York, and the Federal government. The collective accomplishments of the Laboratory are testimony to the tradition of scientific and technical excellence that marks the rich history of the University of Rochester.

Laboratory for Laser Energetics

a unique national resource

Membranes that Respond to Light



One of the developers, Eric Glowacki, preparing a membrane for testing

Novel gas membranes that demonstrate variable permeability when illuminated with different wavelengths of light were developed at LLE's Optical Materials Laboratory. These are based on light-sensitive liquid crystals, synthesized at LLE, and absorbed into micropores of a thin plastic sheet.

E. Glowacki, K. Horovitz, C. W. Tang, and K. L. Marshall, "Photoswitchable Gas Permeation Membranes Based on Liquid Crystals," Adv. Funct. Mater. **20**, 2778–2785 (2010).

K. L. Marshall and E. Głowacki, "Photo-Switchable Membrane and Method," U.S. Patent No. 8,435,333 (7 May 2013).

DT Fueling of NIF Diagnostic Commissioning Targets



Operators mount targets in the Hoppe
Target Mounting Station (Sal Scarantino, Steve Noyes, and Michael Koch)

LLE successfully developed and tested a technique to fill room-temperature glass targets with deuterium–tritium (DT) fuel to 10 atm as required for diagnostic purposes on the National Ignition Facility (NIF).



