

## Section 4

# NATIONAL LASER USERS FACILITY NEWS

This report covers the activities of the National Laser Users Facility (NLUF) during the quarter July to September 1983. During this period, four users conducted experiments on LLE facilities. The visiting scientists associated with these experiments represented the University of California at Los Angeles, Yale University, the University of Connecticut, the University of Pennsylvania, and the Naval Research Laboratory. These users conducted experiments on the Glass Development Laser (GDL), compiling a total of 69 shots. A specific listing of shots can be found in Section 1 (Laser System Report) of this issue.

The four user experiments on the GDL system used either 351-nm or 1054-nm laser light focused onto flat targets for either plasma physics or x-ray diffraction experiments. The participating individuals of each experiment are:

1. Francis Chen, Chan Joshi, Humberto Figueroa, and Ken Marsh (UCLA), and Nizarali Ebrahim (Yale University): "Studies of the Two-Plasmon Decay and Stimulated Raman-Scattering Instabilities in Hot, Long Scale-Length Plasmas."
2. Leo Herbette and Robert McDaniel (University of Connecticut): "Time-Resolved X-Ray Diffraction of Acetylcholine Receptor Membranes."

3. J. Kent Blaise, D. Pierce, Donatella Pascolini, and A. Scarpa (University of Pennsylvania): "Time-Resolved Structural Studies of the  $\text{Ca}^{2+}$ -ATPase of Sarcoplasmic Reticulum Membranes Utilizing a Laser Plasma X-Ray Source."
4. Raymond Elton, T. N. Lee, and Robert Denningham (Naval Research Laboratory): "Gain Measurements for a Soft X-Ray Laser High-Density Plasma Probe."

Additional information on these experiments can be obtained from the scientists associated with the experiment. Further information on the NLUF is available by writing to:

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