

Section 3

NATIONAL LASER USERS FACILITY NEWS

National Laser Users Facility (NLUF) activity during the third quarter of FY87 supported the experiments from three users.

Dr. David Bradley from the Lawrence Berkeley Laboratory has been collecting data from CH targets having Al and Mg tracer layers with the SPEAXS instrument, in support of **Dr. Burton Henke's** NLUF experiment. The targets were designed to measure the progress of the ablation front as it moves through the layers of CH and metal. There is a marked difference between the targets with a CH outer layer and targets with a metal outer layer. The SPEAXS instrument was used to measure x rays when emitted by the Al and Mg layers.

Dr. J. Seely from the Naval Research Laboratory (NRL) collected XUV spectra from targets with a Nd layer with the NRL 3-m grazing-incidence spectrograph. These shots completed the neon-like ionization series study for high-Z ions.

Drs. T. R. Fisher, D. Kohler, and P. Filbert from the Lockheed Palo Alto Research Laboratory and **Dr. G. Dahlbacka** from Plasma Research Corporation obtained XUV spectra from a laser-heated argon gas jet. The argon was released into the OMEGA target chamber through a Mach 8 supersonic nozzle. This experiment is designed to study the ionization-state time evolution of a uniformly heated plasma. The XUV spectra show that eight UV beams of OMEGA heated the argon plasma to about 40 eV to 60 eV. More work is needed if the higher ionization states are to be studied.

For more information about proposal guidelines and the resources available at the users facility, please contact

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