

Section 3

NATIONAL LASER USERS FACILITY NEWS

During the third quarter of FY89 NLUF activity consisted of support for work done by **J. Seely** of NRL, **C. Hooper** of the University of Florida, **A. Honig** of Syracuse University, and **P. Cheng** of SUNY Buffalo, and preparation for acceptance of new FY90 proposals at the DOE San Francisco office.

J. Seely visited LLE to take data on Au-coated targets with the 3-m grazing-incidence spectrograph. The XUV spectrum from this target was used to calibrate the thickness of foils placed in the spectrograph. Data were taken for 800- μm -diameter targets and 250- μm -diameter targets. The beams on the larger target were well separated; thus, the illumination intensity was reduced by a factor of 5. The 3-m spectrograph has been taken to LLNL for a series of measurements NRL is doing with the NOVA laser.

C. Hooper visited LLE to plan for future collaborative experiments with Ar-gas implosions. These experiments will use the OMEGA laser to implode Ar-filled plastic shells and Ar-doped D₂-filled shells to study high-density plasmas. Target selection, diagnostic instrumentation, analysis, and scheduling were discussed during this visit.

A. Honig visited to finalize plans for a FY90 NLUF proposal. The group from Syracuse has demonstrated the ability to freeze polarized D₂ and is now working on a technique to insert a frozen target into

the OMEGA target chamber. This will facilitate the implosion of cryogenic targets at any ICF laboratory.

P. C. Cheng is collaborating with LLE to do x-ray microradiography using a GDL-created plasma as an x-ray source. Both biological and inert material have been exposed to the x-ray fluence. The data have been taken to SUNY Buffalo for further analysis.

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