

Abstract Submitted  
for the DPP05 Meeting of  
The American Physical Society

**Diagnostics for laser plasma interaction in the target chamber of the LIL** C. REVERDIN, E. ALOZY, J.L. BOURGADE, J.Y. BOUTIN, G. CHARLES, L. DISDIER, A. DUVAL, A. ESTADIEU, D. GONTIER, J.P. LE BRETON, G. LIDOVE, REMY MARMORET, R. ROSCH, G. SOULLIE, P. STEMMER, P. TROUSSEL, B. VILLETTE, R. WROBEL, CEA-DIF BP12 91680 Bruyres le Chtel France — The main features of the diagnostics for laser plasma interaction in the target chamber of the LIL will be presented. The LIL facility (Ligne d'Intégration Laser) is located at CEA CESTA near Bordeaux in France. First experiments were performed in 2004 with x-ray diagnostics. The remaining diagnostics will be available before the next experiments. The set of diagnostics to characterize the interaction of the quadruplet laser beam with the target includes the full aperture back scattering diagnostic called DRED, the full aperture transmitted laser light imaging camera, the near back scattering and the near forward scattering imaging cameras. Ten modules with UV, visible and x-ray diodes are installed on the target chamber for power measurements. X-ray imagery diagnostics include two multi-imagers with mirrors and framing camera, two mirror imagers with streak camera, a multi pinhole framing camera and a pinhole camera with film. For x ray spectrometry measurements, there is a broad band x ray spectrometer, similar to DMX now on OMEGA, LLE, a hard x ray broad band spectrometer and two crystal x-ray spectrometer. For equation of state measurements a VISAR diagnostic will be installed in 2006.

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Date submitted: 21 Jul 2005

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