Rayleigh-Taylor instability and planar Feedthrough experiments With CHGe on OMEGA
ALEXIS CASNER, G. HUSER, J-P JADAUD, B. VILLETTE, M. VANDENBOOMGAERDE, D. GALMICHE, S. LIBERATORE, CEA-DAM Ile de France, Bruyères le Chatel, FRANCE, T. BOEHLY, Laboratory of Laser Energetics, U. of Rochester, CEA TEAM, LLE TEAM — Germanium-doped CH (CHGe) is the nominal ablator for LMJ target design. To investigate its properties we performed indirect drive experiments on the OMEGA laser facility. On each shot foil motion and modulations growth were simultaneously measured by side-on and face-on radiography, while drive was assessed by measuring radiation escaping hohlraum LEH. This allows to better constrain hydrocode simulations of the experimental results. We compare CHGe front and rear-side perturbations growth with those acquired on CHBr in the same experimental configuration. Additional shots allow us also to get shock breakout timings and to characterize the X-Ray flux on the foil with CEA Soft X-Ray Spectrometer DMX, whose results will be compared with DANTE measurements through the LEH.

Alexis Casner
CEA-DAM Ile de France, BP 12, 91680 Bruyères le Chatel, FRANCE