

Abstract Submitted
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Neutron-Induced Signal Measurements in Cables on OMEGA
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BOURGADE, J.L LERAY, CEA — The National Ignition Facility (NIF) and the
Laser Megajoule Facility (LMJ) are currently under construction in the U.S. and
France, respectively. Ignited targets at these facilities are anticipated to produce up
to 10^{19} DT neutrons. For approximately 500 ns after ignition, the NIF and LMJ
target diagnostics and control systems will work under extremely harsh radiation
conditions. In particular, neutron-induced signals in cables can compromise or de-
stroy diagnostic instruments and control systems. Recent results of neutron-induced
signal measurements at 30 kJ in different cables at the 60-beam OMEGA Laser Fa-
cility will be reported. Based on these results, specific recommendations on cable
selection for the NIF and LMJ will be given. Neutron-background mitigation tech-
niques in the NIF neutron time-of-flight diagnostics will be presented. This work
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