

Abstract Submitted
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Commissioning of a Compton-Scattering-Based Gamma Ray Source¹ DAVID GIBSON, FELICIE ALBERT, SCOTT ANDERSON, FRED HARTEMANN, MIKE MESSERLY, MIRO SHVERDIN, DENNIS MCNABB, CRAIG SIDERS, CHRIS BARTY, Lawrence Livermore National Lab — Recently a Compton-scattering based gamma-ray source, in which a high-intensity laser scatters off a high-brightness electron beam and emerges as a narrow-band gamma-ray beam, has been commissioned at Lawrence Livermore National Laboratory. Operating at energies from 0.1 to 0.9 MeV, the source produces fluxes upwards of 10^6 photons/sec with a brightness of 10^{15} photons/s/mm²/mrad²/0.1% BW. Presented here is a discussion of the design and performance of the laser and electron subsystems that are used to drive the source, and an overview of the parameters of the generated gamma-ray beam.

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