Abstract Submitted for the DNP11 Meeting of The American Physical Society

Intermediate States in the Photoexcitation of $^{176m}Lu^1$ J.J. CAR-ROLL, US Army Research Laboratory, T. HENRY, University of Surrey, T. BALINT, Youngstown State University, H.-H. PITZ, F. STEDILE, U. KNEISSL, University of Stuttgart — The photoexcitation of ^{176m}Lu has been studied experimentally using the high-intensity DYNAMITRON accelerator at the University of Stuttgart. Enriched samples of ^{176}Lu (72.5%) were irradiated with bremsstrahlung having endpoint energies between 700 – 2,200 keV. Several intermediate states were identified by which the 3.64 hour isomer was populated, and their energy-integrated cross sections were measured. The results and implications for stellar nucleosynthesis of this odd-odd nuclide will be discussed.

¹Supported in part by DTRA grant HDTRA1-08-1-0014.

James Carroll US Army Research Laboratory

Date submitted: 05 Jul 2011

Electronic form version 1.4