Abstract Submitted for the DNP13 Meeting of The American Physical Society

Analysis of  ${}^{26}\mathbf{P}(\beta^+\mathbf{p}\gamma){}^{25}\mathbf{Al}$  Decay Gamma-ray Spectrum SARAH SCHWARTZ, Michigan State University, NSCL and University of Southern Indiana, CHRISTOPHER WREDE, MICHAEL BENNETT, Michigan State University and NSCL, NSCL EXPERIMENT 10034 COLLABORATION — The spectrum of gamma rays emitted following the beta-delayed proton emission of  ${}^{26}\mathbf{P}$  to excited states of  ${}^{25}\mathbf{Al}$  was analyzed to obtain information about this decay channel. New and existing gamma-ray transitions in  ${}^{26}\mathbf{P}(\beta^+\mathbf{p}\gamma){}^{25}\mathbf{Al}$  were observed and their relative intensities were measured to determine the feeding and branching of excited  ${}^{25}\mathbf{Al}$  states. Doppler-broadening effects due to the recoil of the daughter nucleus were observed and analyzed in detail for the 1612 keV gamma-ray line.

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