Abstract Submitted
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The Beta-Delayed Proton and Gamma Decay of 27P for Nuclear Astrophysics[1] E. SIMMONS, A. BANU[2], R. CHYZH, M. DAG, J.C. HARDY, V.E. IACOB, M. MCCLESKEY, H. PARK, B. ROEDER, A. SPIRIDON, L. TRACHE[3], R.E. TRIBBLE, Cyclotron Institute, Texas A&M, A. SAASTAMOINEN[4], University of Jyvaskyla, Finland, R.G. PIZZONE, INFN-Laboratori Nazionali del Sud, Catania, Italy, T. DAVINSON, D. DOHERTY, G.J. LOTAY[5], J. WALLACE, P.J. WOODS, University of Edinburgh, UK, CYCLOTRON INSTITUTE, TEXAS A&M COLLABORATION, UNIVERSITY OF JYVASKYLA, FINLAND COLLABORATION, INFN-LABORATORI NAZIONALI DEL SUD, CATANIA, ITALY COLLABORATION, UNIVERSITY OF EDINBURGH, UK COLLABORATION — The destruction of 26Al can be accomplished by proton capture on either the ground state or the metastable-state. The indirect method used here was the study of beta-delayed gamma and proton decay of 27P. The states that are populated above the proton threshold in 27Si can then decay by proton emission to 26mAl. These states represent the resonances of interest in the direct proton capture process. While no new proton lines were observed, a slightly higher total proton branching ratio was estimated. Several new gamma lines were seen, mostly gamma's emitted from the IAS, which itself had a new and more accurate energy value assigned.

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