## Abstract Submitted for the DNP13 Meeting of The American Physical Society

Elastic scattering and neutron transfer of the  $^{26}\mathrm{Mg} + ^{13}\mathrm{C}$  reaction MATTHEW MCCLESKEY, A. ALHARBY¹, A. BANU², V.Z. GOLDBERG, E. MCCLESKEY, B.T. ROEDER, A. SPIRIDON, L. TRACHE³, R.E. TRIBBLE, Texas A&M University Cyclotron Institute — Direct proton capture on  $^{26}\mathrm{Si}$  is of interest for its role in the destruction of  $^{26}\mathrm{Si}$  that would otherwise be available to  $\beta+$  decay into  $^{26m}\mathrm{Al}$ . This is part of the network of reactions that influence the production and destruction of the important astrophysical observable  $^{26}\mathrm{Al}$ . The  $^{13}\mathrm{C}(^{26}\mathrm{Mg},^{27}\mathrm{Mg})^{12}\mathrm{C}$  reaction at 12 MeV/nucleon has been measured at Texas A&M University Cyclotron Institute with the aim to determine ANC for  $^{27}\mathrm{P} \leftrightarrow \mathrm{p} + ^{26}\mathrm{Si}$  via mirror symmetry. Details of the experiment as well as preliminary results will be presented.

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