Abstract Submitted for the APR08 Meeting of The American Physical Society

Correlations between protons produced in the decay of  ${}^{10}$ C and  ${}^{6}$ Be states. R. SHANE, K.M. MERCURIO, R.J. CHARITY, J.M. ELSON, L.G. SOBOTKA, Departments of Chemistry and Physics, Washington University in St. Louis, M. FAMIANO, A. WUOSMAA, Department of Physics, Western Michigan University, A. BANU, C. FU, L. TRACHE, R.E. TRIBBLE, A.M. MUKHAMEDZHANOV, Cyclotron Laboratory, Texas A&M University — This talk will present the 2-proton correlation data from recent secondary beam experiments using the MARS separator at TAMU. The experiment itself and the extracted decay paths for the previously known levels and a newly discovered level are described in a separate talk by K. Mercurio. The 2-proton relative-energy and relative-angle spectra for the  ${}^{10}$ C state at E\*=6.6 MeV contain correlations that can be reproduced by R-matrix or Fadeev calculations but not sequential or three-body calculations. In the same experiment, we also collected kinematically complete data on  ${}^{6}$ Be ground-state decay. These data, as well as calculations from Grigorenko, will be presented in Jacobi "T" and "Y" coordinates.

lee Sobotka

Date submitted: 15 Jan 2008

Electronic form version 1.4