Abstract Submitted for the APR05 Meeting of The American Physical Society

Gamow-Teller Strengths from (t,3He) Charge Exchange Experiments M.E. HOWARD, S.D. REITZNER, E.E. SMITH, The Ohio State University, S. AUSTIN, D. BAZIN, A.L. COLE, M. FAMIANO, A. GADE, D. GALAVIZ RE-DONDO, G.W. HITT, W. MARTINEZ, M. MATOS, H. SCHATZ, B. SHERRILL, C. SIMENEL, A. STOLZ, R.G.T. ZEGERS, National Superconducting Cyclotron Laboratory, B. DAVIDS, TRI-University Meson Facility, Y. SHIMBARA, Research Center for Nuclear Physics, C. SAMANTA, Saha Institute of Nuclear Physics — In pre-collapse and post-bounce evolutionary stages of massive stars, electrons have energies high enough to excite Gamow-Teller (GT) resonances. GT-Strengths are important inputs for codes modeling the dynamics of supernovae. To validate theoretical estimates for GT-Strength distribution, detailed comparisons with experimental results are important. Charge exchange experiments fill this demand. Preliminary results of a recent (t,3He) experiment run at the National Superconducting Cyclotron Laboratory on CD2, 24Mg, 63Cu, 94Mo targets are presented, including a brief discussion of models used to calculate GT strengths.

> Meredith Howard The Ohio State University

Date submitted: 14 Jan 2005

Electronic form version 1.4