

Abstract Submitted
for the HAW14 Meeting of
The American Physical Society

Beta-Decay Properties of Neutron-Rich pf-shell Nuclei A.L. COLE, Department of Physics, Kalamazoo College, B.A. BROWN, NSCL, Department of Physics and Astronomy, Michigan State University — Determining weak interaction rates of pf-shell nuclei is necessary to model late stage supernova evolution. As all rates cannot be measured, we must develop and test model calculations. We present shell model calculations of β -decay half-lives and Q-values for $^{47-60}\text{Ca}$, $^{46-57}\text{Sc}$ and $^{51-62}\text{Ti}$ isotopes. These calculations, performed with NuShellX using three different interaction Hamiltonians, are compared to experimental measurements where possible.

Arthur Cole
Department of Physics, Kalamazoo College

Date submitted: 30 Jun 2014

Electronic form version 1.4