

Abstract Submitted
for the DNP13 Meeting of
The American Physical Society

Search for Cluster Structure in ^{14}C by Investigation of $^{10}\text{Be}(^4\text{He},^4\text{He})$ Scattering with the Prototype AT-TPC ADAM FRITSCH, National Superconducting Cyclotron Laboratory, Michigan State University, DAISUKE SUZUKI, Institut de Physique Nucléaire, Orsay, WOLFGANG MITTIG, TAN AHN, DANIEL BAZIN, ZBIGNIEW CHAJECKI, WILLIAM LYNCH, AIMEE SHORE, National Superconducting Cyclotron Laboratory, Michigan State University, JAMES KOLATA, ALAN HOWARD, AMY ROBERTS, XIAODONG TANG, University of Notre Dame, FRED BECCHETTI, University of Michigan — A half-scale prototype Active Target-Time Projection Chamber (AT-TPC) was built at the National Superconducting Cyclotron Laboratory (NSCL) as part of the development of the eventual full-scale AT-TPC device. The prototype AT-TPC was used to investigate ^{14}C cluster structures by way of a 40 MeV ^{10}Be beam incident on He:CO₂ gas at the University of Notre Dame in October 2011. The ^{10}Be beam was produced by Notre Dame's Twinsol before being delivered to the prototype AT-TPC. Elastic and inelastic scattering of ^{10}Be on ^4He were observed and will be presented.

Adam Fritsch
National Superconducting Cyclotron Laboratory,
Michigan State University

Date submitted: 01 Jul 2013

Electronic form version 1.4