

Abstract Submitted
for the TSF11 Meeting of
The American Physical Society

High brightness 50 MeV Cyclotron for Accelerator-Driven Subcritical Fission¹ SAEED ASSADI, KARIE BADGLEY, THOMAS MANN, PETER MCINTYRE, NATHANIEL POGUE, AKHDIYOR SATTAROV, Texas A&M University, ACCELERATOR RESEARCH LABORATORY TEAM — The Accelerator Research Lab at Texas A&M University is developing new accelerator technology for a high-brightness, high-current cyclotron with capabilities that will be beneficial for applications to accelerator-driven subcritical fission, medical isotope production, and proton therapy. As a first embodiment of the technology, we are developing a detailed design for TAMU-50, a 50 MeV, 5 mA proton cyclotron with high beam brightness. In this presentation we present devices and beamline components for injection, extraction, controls and diagnostics. We emphasize the system integration and implementation of TAMU-50 for production of medical radioisotopes.

¹This work is supported in part by grants from the Mitchell Family Foundation and from the Texas ASE Fund.

Nathaniel Pogue
Texas A&M University

Date submitted: 12 Sep 2011

Electronic form version 1.4