

Abstract Submitted
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CONSTRUCTION OF A MULTI-REFLECTION TIME-OF-FLIGHT MASS SPECTROGRAPH FOR ISOBARIC PURIFICATION AT THE UNIVERSITY OF NOTRE DAME BRAD SCHULTZ, University of Notre Dame — One of the most significant problems in the production of rare isotopes is the simultaneous production of isobaric contaminants. Thus, a high-resolution beam purification method is required to isolate the desired radionuclide, which must be compatible with both short half-lives and low yields. A multi-reflection time-of-flight mass spectrograph (MR-TOF-MS) meets all these criteria, in addition to boasting a smaller footprint relative to traditional separator dipole magnets. Such a device has been designed and constructed at the University of Notre Dame and will be installed in the upcoming cyclotron facility. The motivation, conceptual design and status report will be presented.

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