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The Radio Frequency Fragment Separator for Rare Isotope Beams at the NSCL[1] JOSHUA STOKER, VLADIMIR ANDREEV, DANIEL BAZIN, ANA BECERRIL, MARC DOLEANS, DIMITRY GORELOV, PATRICK GLENNON, TERRY GRIMM, DON LAWTON, PAUL MANTICA, FELIX MARTI, JACK OTTARSON, HENDRIK SCHATZ, JOHN VINCENT, JIM WAGNER, XIAOYU WU, AL ZELLER, National Superconducting Cyclotron Laboratory, Michigan State University — Secondary beams at the National Superconducting Cyclotron Laboratory (NSCL) are separated through a combined application of magnetic rigidity and energy loss filtering. Design and construction of a Radio Frequency Fragment Separator (RFFS) for further beam purification is underway. The RFFS will apply a time-varying electromagnetic field to induce transverse beam separation. This method relies on velocity differences of the beam species to selectivey apply separation to unwanted fragments. The technical design of the RFFS and the expected purification of exotic beams are shown in detail[1].
[1] Gorelev, D. *et al.*, "RF Kicker System for Secondary Beams at the NSCL" Proc of Part Accel Conf 2005, Knoxville, TN

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