

Testing the ISAC LEBT and 35 MHz RFQ in an Intermediate Configuration, R. BAARTMAN, P. BRICAULT, G. DUTTO, K. FONG, K. JAYAMANNA, R. LAXDAL, M. MACDONALD, A. MITRA, R. POIRIER, L. ROOT, B. UZAT, J. WELZ, TRIUMF - An 8 m long, 35 MHz 4-rod splitting RFQ is required to accelerate exotic beams with $A/q \leq 30$ from 2 keV/u to 150 keV/u at the ISAC radioactive beam facility at TRIUMF. Noteworthy aspects of the RFQ include operation in cw mode at an rf power of 120 kW and the elimination of a bunching section in favour of an external pre-buncher in the LEBT. An initial 2.8 m section of the accelerator (7 of 19 rings) has been installed in the 8 m tank to allow rf and beam tests well in advance of the final configuration. An injector consisting of a 2.45 GHz micro-wave CUSP source, analyzing magnet and electrostatic beam transport line (LEBT) supplies the test beams. A 11.7 MHz three-harmonic saw-tooth pre-buncher is installed in the LEBT. Electro-static elements positioned in the remainder of the RFQ tank transport the 53 keV/u beam to a diagnostic station downstream of the RFQ. A description of the test set-up and results of both rf tests and beam tests will be reported.