

The High Intensity Radioactive Beam Facility at TRIUMF, R. BAARTMAN, P. BRICAULT, M. DOMBSKY, G. DUTTO, R. LAXDAL, F. MAMMARELLA, M. MCDONALD, G. MACKENZIE, L. MORITZ, R. POIRIER, J.-M. POUTISSOU, P.W. SCHMOR, G. STANFORD, G. STINSON, I. THORSON, J. WELZ, TRIUMF, 4004 Wesbrook Mall, University of British Columbia, Vancouver, British Columbia, Canada, V6T 2A3 - Construction has begun on ISAC, a radioactive ion beam and accelerator facility which utilizes the ISOL production method. A five year budget for this new radioactive beam facility at TRIUMF was approved in June 1995. ISAC includes: a new building with 5000 m² of floor space, a proton beam-line with adequate shielding to transport up to 100 microamperes at 500 MeV from the TRIUMF cyclotron to two target/ion-source stations, remote handling facilities for the targets, a high-resolution mass-separator, linear accelerators and experimental facilities. The ISAC design for the target/ion source station permits the production of nuclei far from stability over a large isotopic range with high luminosity. Ions from the target/ion-source will be transported at energies up to 60 keV through low-resolution preseparator followed by a high-acceptance, high-resolution mass-separator system to a variety of low energy experimental stations. Alternatively, ions with $q/m > 1/30$ and an energy of 2 keV/u can be bunched after the mass separator system and accelerated. The accelerator consists of a cw RFQ followed by a stripper, a rebuncher and a cw drift-tube linac. The final energy will be variable from 0.15 to 1.5 MeV/u. The accelerated beams will be used primarily for nuclear astrophysics studies. The buildings are now complete and the installation and commissioning of the RFQ has started. This paper outlines the ISAC project status.