

**Mass Separator for TRIUMF ISAC Project,**  
J. DOORNBOS, TRIUMF - ISAC aims to accelerate radioactive ions produced by the 500 MeV proton beam from a thick target after extraction from an ion source with an energy of 2 keV/u. The different masses are separated by a mass separator. A front section with electrostatic quadrupoles produces an object in front of a preseparator. This is a 60 degree sector magnet, which can accept beam from two different production targets. The third section is a high resolution separator consisting of four 60 degree bends with 17 degrees poleface rotations. Two counter clockwise bends are followed by two clockwise bends. Two quadrupoles give extra focusing in the non-bend plane. Separate sextupoles and octupoles correct higher order aberrations. For a bend plane emittance of 20 mm.mr and a non-bend plane emittance of 80 mm.mr the mass resolution is 12,000 for a source with zero energy spread.