

Journey towards ANURIB – Applied & Nuclear Research using Rare Isotope Beams

An ISOL post-accelerator type RIB facility has been developed in Variable Energy Cyclotron Centre (VECC). The RIBs are produced using alpha and proton beams from K130 cyclotron using multiple thin targets. The recoil products are transported using gas jet transport and ionized in a 2.4 GHz ECR ion source capable of handling dynamic gas loads. The charge state of the 1+ ions from the first ECR source are increased further using a 6.4 GHz second ECR source as charge breeder followed by an isotope separator. The RIBs are accelerated from 1.75 to 99 keV/u using a Heavy Ion Radio Frequency Quadrupole (RFQ). Further acceleration up to 1.04 MeV/u is done by five numbers of IH LINACS. In near future, four superconducting Quarter Wave Resonators will augment the energy to 1.5 MeV/u.

A few RIBs have been already developed using this facility. The present status of the facility will be pro

Based on the experience gathered in developing the present RIB facility, a dedicated RIB facility named as

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