STATUS AND UPGRADE PROJECT OF HIRFL

G.Q. Xiao, Y. He, X. Ma, M.T. Song, J.W. Xia, H.S. Xu, J.C. Yang, Y.J. Yuan, H.W. Zhao, X. Zhou [IMP, Lanzh

Abstract

Heavy Ion Research Facility at Lanzhou is a heavy ion accelerator complex for nuclear, atomic, and biology application research activities. It is the biggest heavy ion accelerator facility in China, consisting two cyclotrons in series as injector and two cooling storage rings (CSRm and CSRe) as main synclotron and experimental spectrum separately. The species from P to U were accelerated in the machine, And the maximum energy is 1 GeV/u for C. The experimetal teminals are on meterial, biology, canser therapy, SHE, RIB, mass measurement, inner target, and so on. To improve beam intensity and available beam time, a linear injectors SSC-LINAC were proposed in 2009. It consists a 4-rod RFQ and 4 IH-DTL tanks. The RFQ, IH-DTL, and 60 kW solid state amplifier for SSC-LINAC are tested priliminaryly. The operation status and progress of upgrade projects of HIRFL are presented in the paper.

CONTRIBUTION NOT RECEIVED