

Recent Activities at CELSIUS, T. BERGMARK, C. EKSTRÖM, C.J. FRIDÉN, K. GAJEWSKI, L. HERMANSSON, T. LOFNES, G. NORMAN, D. REISTAD, R. WEDBERG, L. WESTERBERG, V. ZIEMANN, The Svedberg Laboratory, Uppsala Sweden; H. CALÉN, K. HEDBLÖM, B. HÖISTAD, A. JOHANSSON, A. RINGBOM, Department of Radiation Sciences, Uppsala University, Sweden; P. THÖRNGREN-ENGBLOM, P.E. TEGNÉR, Department of Physics, Stockholm University, Sweden; M. BERGLUND, Alfvén Laboratory, Stockholm; Sweden, Y. YIN, TRIUMF, Vancouver, Canada - The CELSIUS ring is used for nuclear physics experiments with stored ion beams interacting with a thin internal target. The target that has been used until now is a cluster-jet target, producing target beams of a range of elements from hydrogen to xenon. An electron cooling system is used to accumulate beams that are only delivered with a low intensity from the injector, the Gustaf Werner Cyclotron, and often also to cool the beams after acceleration to improve the conditions for the experiments. A target consisting of a stream of frozen hydrogen pellets has been installed, and first tests of the interaction between this target and stored and cooled beams have been done. These and other recent accelerator physics investigations and additions and improvements of the machine as well as the activities of the most important experimental groups will be summarized.