

The SISSI Facility at GANIL, JL BAELE, E. BARON, C. BERTHE, J. GILLET, C. GRUNBERG, C. JAMET, M. LEMAITRE, MH. MOSCATELLO, M. OZILLE, A. SAVALLE and the Operations Group Grand Accelérateur National d'Ions Lourds, IN2P3(CNRS)-DSM(CEA) BP 5027, 14021 CAEN CEDEX (FRANCE) - The GANIL cyclotrons in Caen provide ion beams from carbon to uranium, with energies from 20 to 95 MeV/nucleon. These primary beams may bombard a thick target located in the high energy beam line, in order to produce secondary radioactive beams. A device called SISSI (Superconducting Intense Source for Secondary Ions) has been used since October 1994 to get a 0.4 mm diameter spot on the target, and to improve the downstream beam line angular acceptance, thus increasing the collection of the secondary ions. This is realized with 2 superconducting solenoid coils, which provide a maximum field of 11 Teslas. The cooling is provided by a closed circuit of liquid He at 4.6 K. The target is a 3000 rpm rotating disk, so that the radiated heat is spread over an area much larger than that of the beam spot. The whole system is described, in both the theoretical and technological aspects. The cryogenic and the target systems are more detailed. The tuning aspects and the results for the transmission of secondary ion beams are presented.