

Lead Ion Beam Emittance and Transmission Studies in the PS-SPS Complex at CERN, G. ARDUINI, R. BAILEY, T. BOHL, H. BURKHARDT, R. CAPPI, C. CARTER, K. CORNELIS, M. DACH, G. DE RIJK, A. FAUGIER, G. FERIOLI, H. JAKOB, M. JONKER, D. MANGLUNKI, G. MARTINI, M. MARTINI, J.P. RIUNAUD, B. VANDORPE, L. VOS, M. ZANOLLI, CERN - In the Lead Ion Facility at CERN, Pb^{53+} ion beams are accelerated up to a kinetic energy of 4.2 GeV/u in the CERN PS, extracted and stripped to Pb^{82+} in the transfer line from PS to SPS where they are injected and accelerated up to 157 GeV/u. The emittance growth, the energy loss and the stripping efficiency in aluminium strippers of different thicknesses have been measured and the impact on the transmission efficiency has been determined. The measured emittance growth and the energy loss are in good agreement with the calculated values while for the stripping efficiency, neither precise experimental data, nor accurate theoretical predictions exist. The results of the measurements and considerations on the transmission efficiency are presented.