

Status-report after experiment S276 (06-Jun to 11-JUN-2007)

Beam: ^{124}Sn @ 1000 A MeV, PIG source; ^{112}Sn @ 1000 A MeV, EZR source. Maximum intensity in SIS was about $2.3 \cdot 10^8/\text{spill}$ for ^{124}Sn beam, and about $6.8 \cdot 10^8/\text{spill}$ for ^{112}Sn beam. Spill length was between 1 and 10 s. SEETRAM was not used except at the end of the experiment, and the output of the SEETRAM current digitizer looked reasonable.

^{124}Sn (142 mg/cm²) and ^{112}Sn (126 mg/cm²) targets were used. Wanted positions were reached without any problem.

MWPC:

MW11: although not in the beam line, this MW has often tripped. MW21: preamplifier was changed on Jun 5, and MW21 has functioned during the experiment (with higher voltage compared to other FRS MWs). MW41: the one in vacuum didn't function. We used the one from RISING group (in the air). It seems that this MW has lower efficiency than FRS MWs; we had to increase the voltage on this detector in order to see light fragments.

See attached xls file for more details on MWs.

Scintillators:

SC21: 2.8 mm paddle at 195 mm was used. HV: SC21L: -2002 V, SC21R: -1953 V.

SC41: 3 mm paddle was used. HV: SC41L: -1649 V, SC41R: -1749 V

MUSICs:

Two "old" (big) MUSICs at S4 have been used. HV: MUSIC41C: -4092 V, MUSIC41A: +650 V, MUSIC42C: -3995 V, MUSIC42A: +650 V. HV to anodes was taken from channels TPC21A and TPC22A, as these were the only free HV units that deliver positive voltage. Preamplifiers with 4.7 μF capacity have been used. For energy-loss signal ADC from the LAND group was borrowed. Gate on the ADC was 12 μs long. Charge resolution was very good.

Remarks:

Apart from the vacuum problems, everything else (concerning the FRS and the associated detectors and electronics) functioned without any problem.