

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

Beam:  $^{124}\text{Sn}$  @ 1000 A MeV, PIG source;  $^{112}\text{Sn}$  @ 1000 A MeV, EZR source.

Maximum intensity in SIS was about  $2.3 \cdot 10^8$ /spill for  $^{124}\text{Sn}$  beam, and about  $6.8 \cdot 10^8$ /spill for  $^{112}\text{Sn}$  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.

$^{124}\text{Sn}$  (142 mg/cm<sup>2</sup>) and  $^{112}\text{Sn}$  (126 mg/cm<sup>2</sup>) 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: -1953V.

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  $\mu\text{F}$  capacity have been used. For energy-loss signal ADC from the LAND group was borrowed. Gate on the ADC was 12  $\mu\text{s}$  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.