Status report after exp. S306 (16-29 Jan 2009)

Expert team (30.01.09)

17-20 Jan 2009

Verified operation of magnets, beam diagnostics and FRS operating up to S4 focal plane.

Beam: $^{40}Ar^{18+}$ @575 MeV/u (Brho=8.7681 Tm), i =10^3 /spill , spill lenght 3-4 sec.

TA-Matter: SIS-window C 0.035 mg/cm2
SEETRAM Ti 13.62 mg/cm2
Target Be 8047.0 mg/cm2 (43.54mm)
TS1ET5:pos. 38

S2-Matter: SC21 Sci BC400 0.32 cm
TS3ESA_S: 195 mm

S4-Matter: standard Rising setup up to SC41 (0.1 cm)

Beam aligned at all focal planes using MWPCs.

Detector	HV setting
MW11A	2600 V
MW21A	3600 V
MW22A	2700 V
MW31A	3000 V
MW41A (on air)	3500 V
MW42A (on air)	3600 V

All MWPC worked except MW41 which has cathode signals in the noise. MW21 anode signal replaced by MW22 anode signal for position reconstruction.

Detector	HV setting
SC21L	~2800 V
SC21R	~2400 V

Standard optics TA2 used.

Two calibration points (with and without target). See lmd files.

20-21 Jan 2009

Verified operation of magnets, beam diagnostics and FRS operating up to CC.
Beam: 40Ar18+ @575 MeV/u (Brho=8.7681 Tm), i =10^3 /spill , spill lenght 3-4 sec for calibration, i_max = 2 10^10 /spill , spill lenght 1 sec.

S8-Matter: SC81 Sci BC400 0.3 cm
TH4DI5 = 124 mm

Beam aligned at all focal planes using MWPCs.

Detector	HV setting
MW51A	3400 V
MW71A	3400 V
MW81A	3500 V
MW82A	3500 V

All MWPC worked.

Detector	HV setting
SC81L	2900 V
SC81R	2700 V

Standard optics TA2 used.
Primary beam (minimum matter)
Tr S2-S8: 93 % (96 % predicted by Mocadi)
Tr S8-CC: 51 % (55 % predicted by Mocadi)
Tr S2-CC: 48 % (53 % predicted by Mocadi)

With 4s spill for 10^{10} /spill ^{40}Ar beam on Seetram:
- counting rate at S2 was about <1 MHz
- counting rate at S8 was about 50 kHz
- counting rate in CC was about 5 kHz

With <1s spill for **2.6 10^{10}** /spill ^{40}Ar beam in SIS **1.5 10^{10}** /spill on Seetram.

Experimental rates (s^{-1}) for 10^{10} Ar/s :

67	32Mg	(98 predicted by Mocadi, 72 predicted by LISE)
7	33Mg	(6 predicted by Mocadi, 6 predicted by LISE)
60	34Al	(155 predicted by Mocadi, 179 predicted by LISE)
45	27Ne	(118 predicted by Mocadi, 58 predicted by LISE)