

Status Report after Exp. S327 (23-AUG to 01-SEP-2008)

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Beam: $^{36}\text{Ar}^{18+}$ @ 760-825 A MeV, enriched gas in MUCIS source (10 l of gas were bought by KR). Consumption was about 0.2 l/day. About 8 l of enriched gas should remain.

Max. intensity in SIS was ca. 3×10^{10} /spill, on target ca. 1.5×10^{10} /spill, transmission SIS-FRS around 50%.

After empirical adjustment, transmission of the ^{36}Ar beam (with Be-6347 target and Al-2000 S2-degrader) from S8 to Cave C was ca. 50% as predicted by MOCADI using "frstor3b-ta2" ion optics. The corresponding reference save set has the key word "S327B_02". The same for minimum matter (SIS-window, SEETRAM, SC21 = SC81 = 3mm) was stored with keyword "S327B_01"; here the transmission was better than simulated (60% from S8 to Cave C).

MWPC:

Detector	HV setting
MW11A	2600 V
MW21A	3500 V
MW22A	2500 V
MW31A	3000 V
MW51A	3400 V
MW71A	3400 V
MW81A	3500 V
MW82A	3500 V

All MW detectors worked for ^{36}Ar , including MW21. **CAMAC CFD for MW81/82 is broken and needs to be repaired.** MW41/42 CFD was used instead.

Scintillators:

Detector	HV setting
SC21L	- 3000 V
SC21R	- 2550 V
SC81L	- 2900 V
SC81L	- 2730 V

SC21: 3 mm paddle at 250 mm was used. Saw intense beam for 8 d. Should not be used for production runs. **Both SC21 PM-tube bases suffered from high intensity and should be exchanged.** SC21L trips around -2000 V with overcurrent. SC21R does not trip but shows twice the current compared to SC81L at the same voltage.
SC81: 3 mm paddle at 234mm was used. Works well. Typical count rate was a few kHz.

To do list:

- 1) Replace SC21 3mm paddle at 250 mm.
- 2) Replace both PM-tube bases at SC21.
- 3) Repair CAMAC CFD for MW81/82.