

## DRAGON Meeting Minutes Nov 15th 2005

Present: CR (recorder), CD, LB, JAC, JP, PM, LF, AH, CV, GR, MT, JDA, DH

### 1. Acceptance Tests (JP)

JP has completed alpha-source (Gadolinium) acceptance tests at DRAGON. Source was placed in holder at gas target (0,0,0) position and alphas transmitted to the DSSSD. Note that source can slip in holder if not handled carefully.

JP has asked Safety to do a source calibration as it appears to be one third of its quoted strength. The results of these tests will be compared to GEANT simulations. Preliminary results suggest 18-19 mrad.

### 2. $^{40}\text{Ca}(a,g)^{44}\text{Ti}$ prep.

There have been HV problems with ED1. It was conditioned up to 170 kV, then brought down, and then brought up again to 160 kV when it started to fail. The current on the anode power supply was already showing signs of excess at 120 kV. The current was also erratic throughout this region. Bursts of X-rays and I excursions were not correlated to vacuum excursions.

On removal, a few spots were seen on the resistor stack. There was also black 'goop' present inside the insulator tube, thought to be the sealant used in the previous repair. Track-like marks were seen on the insulator.

Related: PM found TISOL N2 bottle for our use.

It was decided that we need a backup for the anode insulator. Perhaps look into ceramics?

The estimate for repair is Thursday or Friday. CV needs ED1 up to 165 kV for the Ca run.

However this is only for tuning, and for recoils it will be down at around 150 kV max.

### 3. $^{40}\text{Ca}(a,g)^{44}\text{Ti}$ Run Plan.

CV discussed run plan which will be posted on the DRAGON website.

Beam energy measurements can be started straight away because they do not require ED1.

Keerthi is running the MW source at lower intensity to give a better output stability in the Ca beam.

Note there are no Owl shifts during this run - DRAGON will be left on Autopilot with ISAC Ops taking diagnostics throughout the night.

### 4. Elastic Monitor drawings.

CR has Autocad drawings of gas target from Roland Kokke. They have been modified to show true position of collimator for SB detectors which was measured while target was under prep for the Ca run. If anyone needs accurate dimensions for anything inside the gas target they can be read off the Autocad drawing.

### 5. $^{12}\text{C}(a,g)^{16}\text{O}$

Catalin Matei will arrive next week to tie up some work on the  $^{12}\text{C}(a,g)^{16}\text{O}$  experiment.