

Target Lab and G_E^n Update

Aidan M. Kelleher
The College of William & Mary

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Outline

1. Recap of Last Meeting
2. Work Done on New Laser Building
3. Current Status of Target Work
4. August 1 Milestone
5. G_E^n Overview
6. Urgent G_E^n Request

Recap

At last meeting:

- Working with aluminum version of oven
- Using a crude homemade system oven reached hybrid temperatures
- Completed optical fiber transmission tests (not Gaussian parameters)

Work Done on New Laser Building

- Final safety checkout was yesterday, July 21 – the laser building is now safe.
- Built nearly complete system
 - power supply controlled by computer
 - RF system in place and able to reach required H_1
 - Heater system in place – with airflow and temperature interlocks
 - Re-vamped, cleaner air system in place
 - Temporary NMR pickup coil mount built
- Still a high traffic area (to change when there is a cell or laser)

Current Status of Target Work

- Support tube with heater lines installed
- Old oven in place
- “bad” cell (Vega) mounted in flange
- problem with heater interlocks – talking to Scot Spiegel
 - want to test with blank flange 1st to see effects of cleaner air
 - NMR coils ready, will be mounted at same time as Vega
 - Ready to take polarized light and make NMR measurement 1 day after interlock problem solved.

August 1 Milestone

10 Days Away

- Must complete preliminary tests next week
- Concerns:
 - Temperature interlocks
 - Polarized light
- Oven (and flange) to arrive July 29
- Concerns:
 - Oven on time?
 - Time to assemble oven, mount cell, reposition coils?

After August 1 Milestone

Still lots of work to do after we meet the milestone

- Bring in light from top of magnet box
- Establish polarimetry and calibration
- Setup EPR system
- Raise new oven to hybrid temperature
- Test new pickup coils in ladder

G_E^n Overview

- Big Bite tests in Hall A
 - Ran parasitically with the first days of Happex.
 - Test set up was 2 wire chambers and simple lead glass trigger.
 - Able to measure counting rate and can now scale.
- Big HAND construction
 - All bars except for Glasgow bars are in place.
 - Only 1% of the wiring done.
 - Close to 1 month behind schedule – and slipping.

- Need 6 people for 1 month to get back on schedule.

Urgent G_E^n Request

Cabling of neutron detector is at least one month behind – and continuing to fall behind.

We need construction help. Especially in the next 2-3 months.

According to Bogdan: “[T]he experiments which [would] like to use BigBite should provide manpower now because just data taking shifts will not qualify them for use of the detector.”

Full time help is great, but all help is welcome.