

Updates for Bo Meeting

July 29, 2014

Continuing Attenuation Measurements

- Continuing our efforts to measure attenuation lengths of TPB dip coated acrylic in Lar
- Working with same Acrylic bar as previously, but inverted to measure effects of TPB thickening on one end during drying

Prep Stuff

- Finished filling TallBo on Friday
- O₂ measurements taken over the weekend
- Worked out bugs in new data acquisition system (Courtesy of Taritree)

Measurements

- New acquisition system is $\sim 10x$ faster, allowing us to take all measurements in one day
- Data taking schedule (all completed now)
 - LED calibration run
 - SiPM 7 Trigger run
 - LED calibration run
 - SiPM 6 Trigger run
 - LED calibration run
 - SiPM 4 Trigger run
 - LED calibration run
 - SiPM 3 Trigger run
 - LED calibration run
 - SiPM 2 Trigger run
 - LED calibration run
- SiPM runs used 5000 samples/waveform, calibration runs used 1000 samples/waveform. 40,000 waveforms for all runs

Ongoing Stuff

- We have briefly looked at the output files to verify that they look to be in order (right number of samples ect.) but still need to do actual analysis on them
- Runs triggering on *coincidence* with cosmics and triggering on the 2" PMT rather than SiPMs are being done today

PMT Calibration System

- 36 LED array couples to fibers, each directed towards a PMT. LED array controlled by FPGA/uC on driver board.
- Familiarization with flasher interface
- Characterization of pulse timings
- Testing sequence and burst modes
- Some firmware work needs to be done. Taking board to 14th floor when testing is done.