

S7 operation update

Eric Dufresne, TRR group meeting, Mar. 13, 2007

- EL and Mark Erdmann designed a new laser porthole to deliver the laser beam to 7ID-C. Completion of the beamline modification project is occurring March 12-13 during the PSS revalidation. The laser interlock in 7ID-C will be completed this week, and the laser SOP will then be updated and reviewed by ANL. The first 7ID-C laser experiment is scheduled for March 28, 2007.
- The laser chiller was repaired by Harold Gibson. Harold replaced a broken PC board. He requested also quotes to get a back up chiller.
- Starting March 1st, 2007, APS requires all its employee and users to wear safety goggles in the wet labs such as 432 D030.

S7 May shutdown (draft)

- The beamline controls and network will be integrated in the APS network during the May 2007 shutdown. The experimental floor network will be upgraded to 10 Gigabits/s, and all computers on the network will be administered by the APS IT group. The EPICS IOCs will be upgraded to 3.14 by the APS BCDA group. The mhatt.aps.anl.gov domain will be phased out. The 10G cabling infrastructure is being installed at nights and during weekends.
- The new IT supported network rack needs dedicated AC circuits. This work is scheduled in the early shutdown.
- On Jan. 26, we had an XOR Safety Inspection. Mitigation of deficiencies found is underway.
- DA and ED tried to integrate the 7ID-A monochromator encoder in EPICS during the start-up week but the new Heidenhain decoder box doesn't seem to read the monochromator encoder pulses. We will work with BCDA to integrate the encoder in EPICS.
- We will develop a plan to bring Air Conditioning in the 7ID-C hutch.
- We plan to install also a new cable tray near 7ID-D (awaiting funding).
- The new control station will be added for 7ID-C next to the new 7ID-D workstation on the Wrightline wall next shutdown.

Sector 7 Development and R&D

- JW and partners are developing a plan to complete the 7BM beamline for imaging of fuel sprays. ED and Mark Erdmann (AES) are working on a draft design and equipment needs for the beamline.
- Several papers of work done on beamline 7ID were published since the beginning of the year (three Phys. Revs, one APL). Please visit <http://www.mhatt.aps.anl.gov/research/publications/papers.html#Pub2007> for details.
- DW gave an XOR Science seminar on March 12, 2007 on Ultrafast Science from thin films. He also recently coauthored a Phys. Rev. Lett. paper (J. T. Robinson et al. “*Sculpting Semiconductor Heteroepitaxial Islands: From Dots to Rods*”) with the group of Oscar Dubon from UC Berkeley. Congratulations to all involved.

Random pictures from Sector 7



PSS modification in 7ID-D.



New Phytron microstepping drives for the 7ID-C Huber procured by D. Walko.