**PX2 2015 Annual Report**

**COMPRES Facilities Comments**

**Andy Campbell**

This beamline has made terrific progress, very fast, in getting its basic capabilities operational. Now it should focus on establishing a broader user base to demonstrate community enthusiasm for the project, before investing heavily in further development.   
  
What is the expected spot size (HxV) after installing the new K-B mirror?  
  
I am not aware of foreign travel being done by beamline scientists on COMPRES funds. Anyway, this is not listed in the budget table although it is desribed in the budget text. Should resolve this discrepancy.  
  
It should not be necessary to purchase new DACs every year.  
  
Budget: Many of these equipment items in Table 2 are not necessary at this early stage of the beamline development. Pi-shaper: No. Portable raman system: Should be in the COMPTECH budget, not the PX2 budget. (By the way, here it says that that money is not yet spent, but in the COMPTECH report it said it was already spent. Which is true?)  
  
Laser heating money should be withheld until the new K-B mirrors demonstrate a suitable spot size. COMPRES has a too-long history of supporting laser heating systems that didn't work well, or took too long to implement because the beamline wasn't ready for it. Let's not keep repeating this mistake; it is not so critical that PX^2 have laser heating in the next year or two.

**Bin Chen**

I probabaly have a conflict of interest. The commissioning of 13-BMC beamline is extremely quick. The future plan and budget appear ok to me.

**Kanani Lee**

**Mark Rivers**

There has been good progress on commissioning the system and getting users.

They did not provide quantitative information on the spot size and flux obtained with the new K/B mirror, although commissioning of this is complete. How does it compare with previous values?

Update I received: For 2016-1 PX2 received 18 beamtime proposals for 182 shifts. This indicates that the system has rapidly become a user facility.

I think there may be some confusion about the budget. The report includes the details of the second half of Year 4, which is the current year, for the period after the grant was transferred to UNM. The PiShaper and other components for laser heating are in this budget. Many of the components listed here have already been purchased. The proposed budget for 2016 does not include any capital equipment. Also, this section contains information on the equipment for the portable sample viewing system. That is also presented as a COMPTECH project. It is really the same system.

The design for the laser heating and Raman spectroscopy system are well underway. It needs to be built as an integrated system, with an optical path for spectroscopy, temperature measurement and laser heating. The spectroscopy should be available ASAP for online pressure measurement, but it does not make sense to build the system twice, once with the heating laser and once without.

There are no publications listed for the reporting year, presumably because the first round of experiments have just been completed and the papers have not yet been written.

**Dan Shim**

• DASY BX-90 cells are much cheaper. Could this be a problem in distributing the cell to the community?

• "The portable viewing and pressure measurement setup will be essential for performing high-pressure experiments in non-high-pressure synchrotron beamlines, e.g. sector 34 at APS." How often do you need this? Not apparent from the report

• The subscription rate is barely over 1. Any activities to raise the awareness of the capability? Tutorial? Workshop? Do they have enough analytical software support for users?