

December 2010 Alba mini newsletter

Beamlines:

<http://www.cells.es/Beamlines>

* BL04-MSPD: Materials Science and Powder Diffraction.

- MSPD has received the mechanical components for the fast position sensitive Strip-detector (SLS Mythen 2 design). The covered angular range is 40 ° at a geometric resolution of about 0.005 °.

* BL09-MISTRAL: X-Ray Microscopy.

- The commissioning of the beamline has been postponed to January-February. Final motor testing of all equipment and equipment protection system (EPS) testing are being done with the controls software.

* BL11-NCD: Non-Crystalline Diffraction.

- Fluids interfaces between beamline components and Alba supply of compressed air, nitrogen gas, and cooling circuits have been installed.

- In-house design of lead shielding, so called shadow shielding, is completed and will be introduced into the optics hutch (OH) layout as soon as we have the lead delivered.

- Reply from commercial companies supplying two-dimensional X-ray detectors have come in from a total of 5 in response to two call for tenders sent out in August 2010. We are now ready to open the technical offers.

* BL13-XALOC: Macromolecular Crystallography.

- The metrology of the Laue monochromator has been carried out.

- Currently in the detailed design review phase of the main data collection detector (PILATUS 6M).

- The vacuum vessels of the fast shutter and the x-ray beam position monitor of the end station are being assembled.

- The second cable campaign has been completed.

- The horizontal focusing mirror and bender system are currently being installed in their vacuum chamber.

* BL22-CLÆSS: Core Level Absorption & Emission Spectroscopies.

- Internal cabling of the CLEAR spectrometer is progressing.

- Optical metrology/calibration of the collimating mirror has started.

* BL24-CIRCE: Photoemission Spectroscopy and Microscopy.

- Three gratings and one mirror have been installed.

* BL29-BOREAS: Resonant Absorption and Scattering.

- The offers for the high Tc magnet for the MARES end station have been received.

- The cable length recalculation was finished and cabling is expected to start in a few weeks

IDs:

http://www.cells.es/Divisions/Accelerators/Insertion_Devices/Ids/

- First in-vacuum undulator has been already finished at Bruker, the factory acceptance tests have been passed successfully on November 20th and it will be delivered to CELLS within the first week of December.

Accelerators:

<http://www.cells.es/Divisions/Accelerators>

- The Accelerator Division is ready to start commissioning of the Storage Ring (SR). The Booster Ring (BO) has been well characterized, the tests on the SR have been completed, and we are now waiting to get the approval from the Nuclear Safety Council (CSN) to start injecting into the SR.

- In any case, the BO will be run on a daily basis to check the stability and reproducibility of the beam and to provide, as well, some extra training for the future operators of the accelerators.



Figure 1. The fast position sensitive strip-detector (SLS Mythen 2 design) of BL04-MSPD.