

## June 2010 Alba mini newsletter

### Beamlines:

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

- \* Core Level Absorption & Emission Spectroscopies (CLÆSS)
  - Installation of fluid circuits and manifolds is in progress.
  - Mechanical design of the sample support stage is actively progressing.
  - The engineering integration of the end station is in the detailed phase.
  - The design of gas infrastructure of the end station is in progress.
  
- \* Materials Science and Powder Diffraction (MSPD)
  - Monochromator and mirror have been installed and aligned.
  - Cryogenic (LN2) pipes have been installed.
  - The Superconducting Wiggler SCW31 has arrived at ALBA.
  
- \* Macromolecular Crystallography (XALOC)
  - Metrology of the diffractometer/sample table is currently being carried out.
  - Metrology/characterization of the vertical focusing mirror is being performed.
  
- \* Non-Crystalline Diffraction (NCD)
  - Attenuators and fluorescence screens have been installed.
  - Motion tests of the mirror system have been performed successfully (SAT).
  
- \* Photoemission Spectroscopy and Microscopy (CIRCE)
  - Optics metrology of two grating and 4 mirrors have been performed.
  
- \* Resonant Absorption and Scattering (BOREAS)
  - 2nd round of the installation of the optics (monochromator and mirrors) has finalized.
  
- \* X-Ray Microscopy (MISTRAL)
  - Currently performing the factory acceptance tests in XRADIA (Concord, CA), where the resolution (30 nm) and cryogenic system of the TXM are currently evaluated with a plasma source at E=430 eV.
  - Mirrors and grating monochromator have been installed in their vacuum vessels and aligned.

### IDs:

[http://www.cells.es/Divisions/Accelerators/Insertion\\_Devices/Ids/](http://www.cells.es/Divisions/Accelerators/Insertion_Devices/Ids/)

- In-vacuum undulators (IVU21): Second in-vacuum undulator has passed the magnetic Factory Acceptance Test at Bruker Supercon (former Accel) and it will be assembled in few weeks. Delivery to CELLS is expected in July.
  
- Superconducting wiggler SCW30. It is now passing the Site Acceptance Test at CELLS. Last week it was reassembled and pumped down and the present week the cool down has started. It is foreseen to finish the tests at the end of June.

- Out vacuum undulators (EU62, EU71, MPW80) are ready to be placed inside the tunnel, despite the commissioning of storage ring will be done first without IDs.

**Accelerators:**

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

- The injection straight has been installed and will be bake-out during the coming weeks. In any case the Storage Ring is, from the point of view of vacuum, a closed system.

- The installation and testing of the 12 inductive output tubes (IOTs) of the RF plants is ongoing. Unfortunately the Linac operation has been delayed until end of June 2010, but still on time for the Booster ring commissioning in July.

Photo: Superconducting wiggler SCW30 for the MSPD beamline being assembled at ALBA.

