Friendly users at MIRAS

BL01-MIRAS

MIRAS, the 8th ALBA beamline - devoted to infrared microspectroscopy - is in commissioning with friendly users and soon it will enter in official operation.

 MIRAS is dedicated to infrared microspectroscopy, covering far-IR and mid-IR regions, and is available for a wide range of scientific fields: surface and materials science, biochemistry, microanalysis, archaeology, geology, cell biology, biomedical diagnostics, environmental science, etc.

On 5th April 2016, MIRAS started commissioning with synchrotron light. That meant that in-tunnel transport mirrors were aligned until the first focus of synchrotron light was obtained outside the tunnel. This represented an important milestone in the construction of the beamline, which had been initiated in 2014, because all the in-tunnel installed components were validated. On May 2016, all the transport mirrors of the beamline have been aligned until the coupling of the synchrotron light with the beamline endstation. The first infrared spectrum was obtained, the full commissioning and performance tests were followed.

MIRAS is currently running with friendly users, three different groups working on (materials science, archeology and biomedicine) have performed successful measurements at MIRAS. The beamline will be open soon for official users on October 2016.



Figure 14: First measurement performed at MIRAS using synchrotron light: Glioma Cancer cell. MIRAS In-house Project. Aperture = 6x6µm2, 4cm-1 resolution. Synchrotron light, 256 scans = 40s. Courtesy of Immaculada Martinez-Rovira.



Figure 15: Chemical imaging on Epoxy blend nanocomposites using synchrotron infrared microspectroscopy at MIRAS beamline. Courtesy of Eduin González & Gary Ellis.