

MXCuBE 3 at the Brazilian Synchrotron Light Laboratory – LNLS/Sirius Status Report

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Control Software Group (SwC)

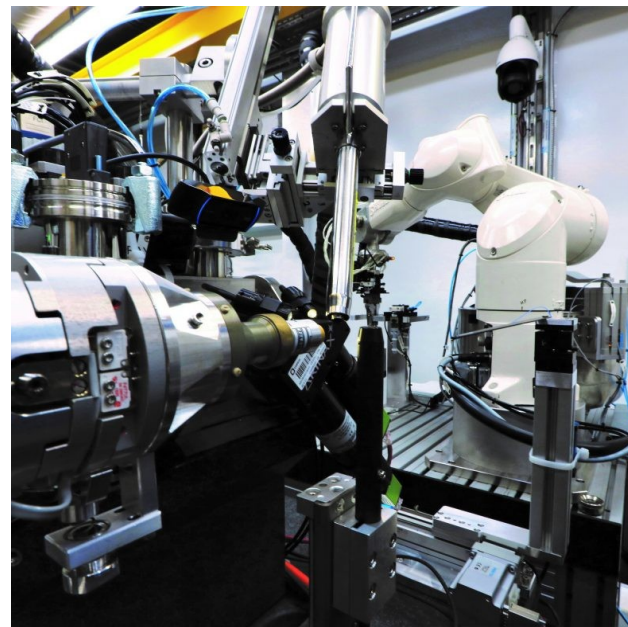
MXCuBE Meeting – SOLEIL, 25 May 2023



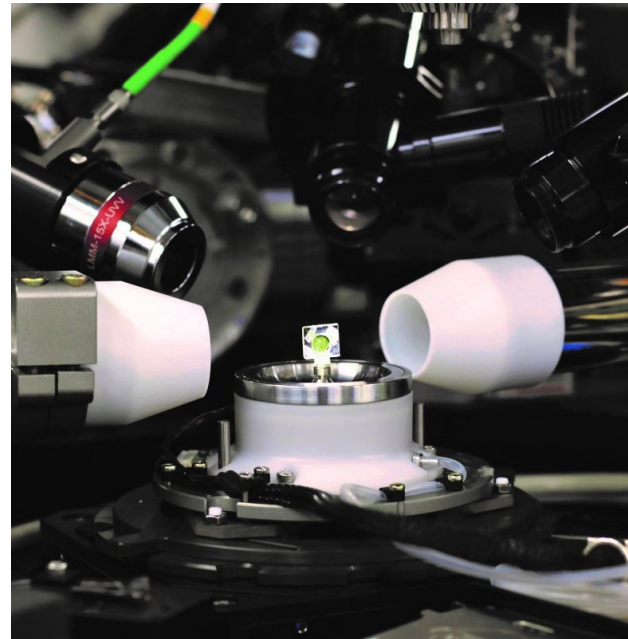
Sirius Beamlines

Open

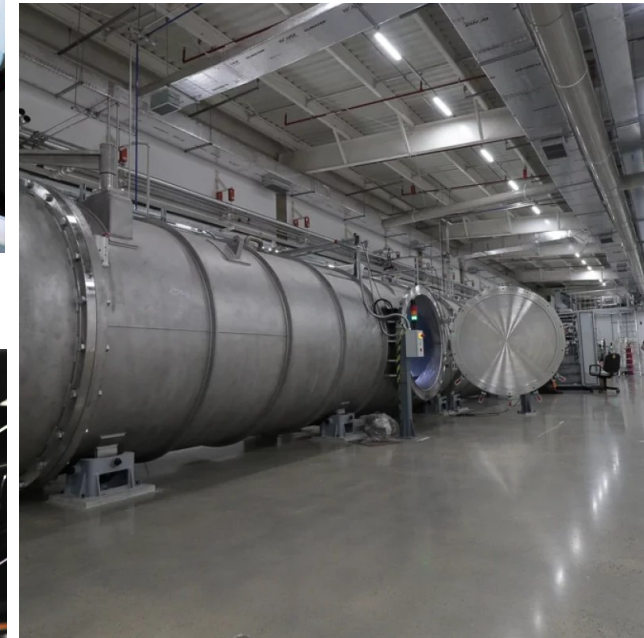
- CARNAÚBA – X-ray spectro-nanoscscopy and nano-diffraction
- CATERETÊ – Coherent and Time-resolved X-ray Scattering
- EMA – X-ray Spectroscopy e Diffraction in Extreme Conditions
- IMBUIA – Infrared Micro and Nanospectroscopy
- IPÊ – Resonant Inelastic X-ray scattering and Photoemission spectroscopy
- MANACÁ – Macromolecular Micro and Nanocrystallography
- CARCARÁ - Diagnostics



MANACÁ



CARNAÚBA



CATERETÊ



CNPq

Sirius Beamlines



CNPq

Comissioning

- CEDRO – Circular Dichroism
- MOGNO – X-ray Micro and Nanotomography
- PAINEIRA – Powder X-ray Diffraction (PXRD)
- SABIÁ - Soft x-ray Absorption spectroscopy and Imaging
- SAPÊ – Angle-Resolved Photoemission Spectroscopy

Designing

- JATOBÁ - Full X-ray Scattering and PDF Analysis



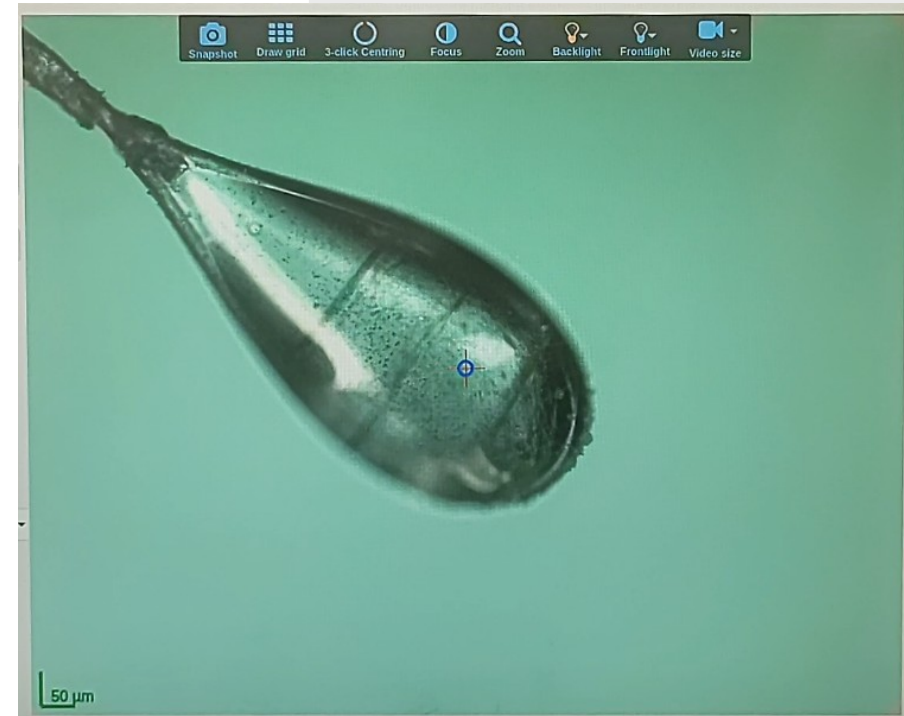
Assembling

- QUATI – X-ray Spectroscopy with Temporal Resolution
- SAPUCAIA – Small Angle X-ray Scattering

lnls.cnpem.br/beamlines

Work in progress

- MXCuBE Web in MANACÁ beamline
- Restructuring of computing group
- Improvements in scan procedures
 - Bluesky/Ophyd integration
- Investigation of MXCuBE freezing issue



What was done

- New LNLS EPICS class for flux measurement
 - In-house design and development of electronics
 - New EPICS IOC
- Replacing VMs with servers
- Update and maintenance of our MXCuBE container
- Upgraded Kappa and Phi axes in goniometer

To-do list

- Braggy in MANACÁ
 - Tool available for remote operation
- Update the mxcube core
- Microfluidic experiments

Thank you all !

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