

Status of the MX Beamlines at BESSY II

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on behalf of the HZB-MX group

ISPyB/MXCuBE Joint Meeting, 28./29.05.2024,
Hybrid Meeting, MAX IV Laboratory, Lund



MX experimental floor at BESSY II

BL 14.1 MAD

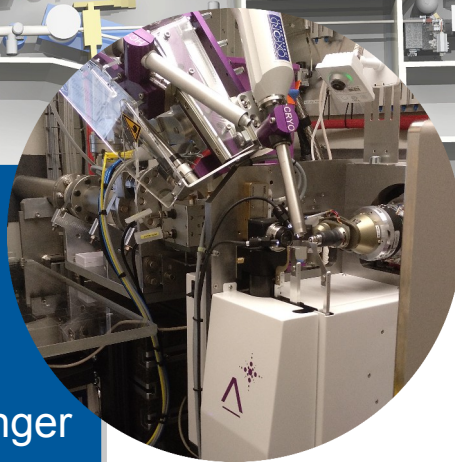
- MD2 with MK3
- Pilatus3 6M 25 Hz
- CATS: 144 UNIPUCK samples
- MXCuBE Qt4, HWR 2.2



- standard user operation schedule:
24/5 (Tuesday to Saturday)

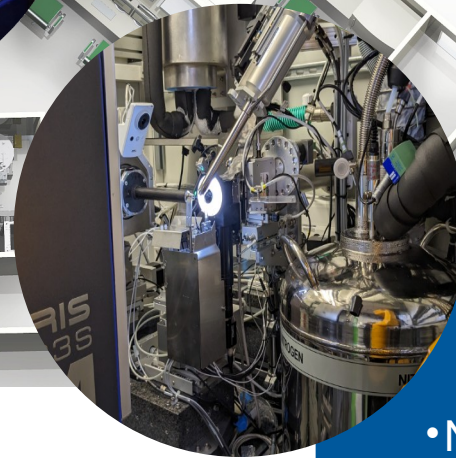
BL 14.3 13.8 keV

- MD2S with MK3
- Pilatus2 6M 12 Hz
- HClab & REX nozzle changer
- MXCuBE Qt4, HWR 2.2



BL 14.2 MAD

- Nanodiff goniometer
- Pilatus3 2M
- ISARA2: 464 UNIPUCK samples
- MXCuBE Qt4, HWR 2.2



- network reconfiguration in January 2024
 - isolated control-system/beamline network
 - network relocation of all IT infrastructure services & storage to beamline network
- user-operation restart in February 2024
 - GATE user office remotely available
 - on-site experiments only
- on-going relaunch and restore of IT services (backup etc.) by HZB central IT
- limited remote access to HZB resources using Apache Guacamole with 2FA
 - HZB staff only
 - access to control-systems inside control-system network via additional SSH jump host
- access scheme for user remote operation not yet decided

MXCuBE development plans

- restart of MXCuBE (& ISPyB) activities after the meeting
 - update mxcube-core to latest revision on Github
- first milestone: migration of all hardware objects to abstract-class implementations of mxcube-core

BL14.1

Arinax MD2
Sample Video/Centring
Pilatus3 6M
Sample distance (Arinax)
Irelec CATS SC
Beamline control (Energy)

BL14.2

DESY Nanodiff
Sample Video/Centring
Pilatus3 2M
Sample Distance
(Aerotech)
Irelec Isara2 SC
Beamline Control (Energy)

BL14.3

Arinax MD2S
Sample Video/Centring
Pilatus2 6M
Sample Distance
(Aerotech)
Beamline Control

Shutterless data collection, Characterization, Energy Scan, XRF energy-dispersive spectrum

- validation with Qt user interface, migration to MXCuBE-Web as new production version

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The MXCuBE collaboration