

Instrument/Property	Available for users	Comments
BOREAS - OPTICS (contact: M. Valvidares for questions related to bl optics)		
Energy range: 100-4000 eV	YES	
Step-by-step energy scans	YES	
On-the-fly ID energy scans (gap+mono scans)	YES	linear horizontal or vertical polarization; circular polarization pure or partial
Full control of linear polarization	YES	control of linear polarization angle only available in step scans
Variable beam size at sample (VxH): from 50umx80um up to 1mm x 2mm, approx for the XMCD endstation. About 2.5x these numbers for the scattering endstation	YES	(only if strictly required, and KB operated by bl staff)
Motorized reference sample arm for parallel XAS collection (energy shift correction)	YES	User samples should be made available with at least two month of advance ; various reference samples provided by beamline
HECTOR , High-field vECTOR magnet endstation for XMCD (contact: J. Herrero, P. Gargiani for questions related to XMCD endstation)		
Temperature range: 1.7 - 370 K	YES	
Magnetic field along Y (x-ray beam direction): ±6 T	YES	
Magnetic field along X (horizontal, perpendicular to x-ray beam direction): ±2 T	YES	
Magnetic field along Z (vertical): ±2 T	YES	
Control of the temperature via beamline software	YES	
Control of a single-axis magnetic field via beamline software	YES	
Control of vectorial magnetic field (2-T sphere) via beamline software	YES	
Base pressure: approx. 1×10^{-10} mbar	YES	
Detection: Total Electron Yield (TEY) through sample drain current	YES	
Detection: Total Fluorescence Yield (TFY) through photo-diode	YES	
Detection: Transmission through photo-diode	YES	
Detection: Partial Fluorescence Yield (Silicon Drift Detector)	TO BECOME AVAILABLE	SDD provision foreseen for 2nd half 2018
Standard sample holder (Au-plated Cu)	YES	
Half-size sample holder (Au-plated Cu), with Cernox temperature sensor on the back	YES	
temperature control feedback loop, temperature probe sample holder	YES	
Sample holder (Au-plated Cu and Al) with receptacle for Omicron/SPECS-type plate/ LEED	YES	
Sample holder for in-situ azimuthal rotation of samples	YES	
Four-electrical contacts to the sample	YES	
Optical access to sample (for small laser or optical sources)	YES	Reduced bore (30mm), limited geometries with beam and side optical access
Fast sample entry system with garage for up to four samples	YES	
Sample bias	YES	up to +/- 400 V
sample preparation at Hector endstation or off-line preparation chamber (surface satellite chamber) (contact P. Gargiani , H. B. Vasili for in-situ surface preparation)		
Sample cleaver (KRATOS)	YES	In preparation chamber
Sample scraper (diamond file)	YES	In preparation chamber
e-beam evaporator (SPECS EBE-4)	YES	In preparation chamber
Knudsen cell (DODECON)	YES	In preparation chamber
mini LEED/AES	YES	In preparation chamber
Ar+ sputtering (ion gun+gas line)	YES	In preparation chamber
Sample heater (e-beam heating up to 2300K)	YES	In preparation chamber
Ports for installing user equipment	POSSIBLE	Various in preparation chamber, one DN40CF (30mm clear bore) at 90 degrees of beam at magnet chamber.

MaReS SCATTERING ENDSTATION (contact: M. Valvidares)		
Reflectometry experiments	YES	
Transmission experiments	YES	
multiaxis manipulator with azimuthal and tilt degrees of freedom	YES	
Temperature range: 20 - 340 K	YES	At highest temperatures a slight parasitic light arises from the heater, which has been blocked but a small amount might still show as a background increase particularly if using CCD
Magnetic field	YES	
In Vacuum CCD	YES	
Fast sample entry system	YES	
Sample preparation capabilities: heating stage (900C) and ion sputtering.	YES	Take note No file or cleaver is available for now.
SAMPLE TRANSFER, VACUUM SUITCASE (contact: P. Gargiani)		
Connection available for user's STM/SPM or UHV preparation chamber	NO	This is no longer possible for 2018-2 round. It may become possible in the future once a radial distribution chamber becomes installed at the beamline.
Sample transfer between Hector endstation, user's chamber, MaReS endstation	YES	transfer to MARES hardware is under final installation and testing. Transfer is possible for compatible sample holders (STM plates)
ALBA UHV sample suitcase	YES	for local labs, CIRCE, UHV compatible SPM systems at ALBA or nearby LABS
LOW TEMPERATURE UHV STM / AFM SYSTEM - This equipment is offered on a collaboration basis. Contact M.Valvidares to agree details before submitting your proposal.		
AFM q plus (tuning fork) operation	YES	
STM operation	YES	