

CALL FOR PROPOSAL 2024-II

The semester 2024-II will start on July 15, 2024 with a Multi Bunch week and will end on December 22, 2024 (week 29 - 51). It comprises 14 weeks of Multi Bunch, 1 week of Single Bunch, and 1 week of low-alpha. Please find the Operation Schedule online.

Deadline for proposal submission: 1 March 2024, 23:59 (CET)

Submission of proposals for Call 2024-II

GATE is available again. Please visit

https://www.helmholtz-berlin.de/pubbin/hzbgate

for submitting your proposal.

Please note:

HZB has implemented a 2FA (2 factor authentification) for GATE. You will receive an email with a single-use code for each login.

In case of any questions, suggestions or problems, please do not hesitate to contact us or our instrument scientists. The most relevant information on the recent call can be found below.

Transnational access support through NEPHEWS

NEPHEWS stand for **Ne**utrons and **Photons Elevating Worldwide Science**. We are pleased to inform you about the funding of a transnational access (TNA) proposal in response to the Horizon Europe call HORIZON-INFRA-2023-SERV-01-03. **NEPHEWS** will provide support for your travel and accommodation costs to facilitate TNA beamtime campaigns.

Strategic access for quantum technology (STRAQTECH)

In the framework the LEAPS-INNOV activity <u>STRAQTECH</u> we explicitly are inviting beamtime applications from the research field of **Quantum Technology** for the instruments GELEM Dipole (soft-x-ray photoemission and absorption) and SPEEM (photoemission electron microscopy with variable light polarization). Please contact Oliver Rader (<u>rader@helmholtz-berlin.de</u>) for more detailed information.

New Beamlines/Instruments

ENERGIZE

ENERGIZE is a dedicated beamline for beam-sensitive materials like, e.g., organic semiconductors, perovskites or any other sort of energy relevant materials. Five attenuation filters with different

thicknesses allow for a controlled reduction of the light flux. With energies from 20 to 1500 eV and a 2D detector, all sorts of photoelectron spectroscopy measurements, like XPS, ARPES and NEXAFS are possible. Sample preparation by argon ion sputtering, annealing or molecule evaporation can be conducted in a dedicated chamber and pre-characterization of the sample surface via an MCP-LEED is also possible. Please contact Thorsten Schultz (thorsten.schultz@helmholtz-berlin.de) for more detailed information.

UE52 SGM

AXSYS-NEXAFS is a fixed endstation for time-resolved soft X-ray absorption measurement in transmission geometry located at the high brilliance undulator beamline UE52-SGM. The experimental setup is equipped with a flatjet sample delivery system making it feasible for liquid experiments with a variety of commissioned solvents, also solid thin film experiments is possible. The pump laser (PHAROS) provides ~300 fs pulses with a tunable repetition rate at wavelengths of 515, 343 and 258 nm. Please contact Mattis Fondell (mattis.fondell@helmholtz-berlin.de) for more detailed information.

The new **AXSYS-TES** experimental setup under commissioning includes an array of transition edge sensors (TES) as an ultrasensitive and energy dispersive photon detector. It is dedicated to XAS, XES and RIXS experiments with a strong emphasis on impurity level concentrations and low dimensional systems. The sample chamber allows the study of solid systems with sample preparation capabilities as well as molecular systems in frozen solutions. Please contact Regis Decker (regis.decker@helmholtz-berlin.de) for more detailed information.

German-Eastern-European-Laboratory for Energy Materials Research (GELEM) (former Russian-German Laboratory)

As part of this call we explicitly encourage applications from Eastern European Countries for the beamlines GELEM Dipole and U125-PGM. These applications will be reviewed separately in the framework of GELEM Consortium. Travel funding through the EU Project NEPHWES will be available.

EMIL / Energy Materials In-Situ Laboratory Berlin

The soft and hard X-ray branches of EMIL are available to the user community. Please contact the responsible instrument scientists to discuss experimental details prior to proposal submission. In addition, it is possible to use off-line characterization and preparation tools within the EMIL laboratory.

SyncLab / Combined X-ray methods at BLiX and BESSY II

In the framework of SyncLab we offer the possibility to use laboratory setups for (confocal) micro-X-ray fluorescence spectroscopy (CµXRF) and transient X-ray absorption spectroscopy in the soft X-ray range (NEXAFS). This allows for an optimized preparation and post-processing of a beamtime. Please contact Ioanna Mantouvalou (<u>ioanna.mantouvalou@helmholtz-berlin.de</u>) for more information.

HZB CoreLab Instruments available in Adlershof and Wannsee

HZB offers a broad variety of off-line tools in the field of X-ray diffraction and microscopy as well as instruments and methods for the synthesis and the investigation of new energy materials. Please discuss the use of CoreLabs with your beamline scientist or contact the User Coordination.

Beamlines/Instruments with limited or no availability

UE56_2-SGM / U49-2 / U125-NIM / UE49_SGM

The beamlines are decommissioned and no longer available.

UE52_SGM

UE52_SGM is **no longer** available as **open port** beamline. The nmTransmission NEXAFS and the new TES set-up are both fixed endstations and will share the beamline in the future. Please contact Mattis Fondell (<u>mattis.fondell@helmholtz-berlin.de</u>) for more detailed information.

UE51_PGM-1 (replacement for U49/2 PGM-1)

Due to still ongoing construction work UE51_PGM-1 is not be available for the up-coming semester 2024-II. Please contact Ronny Golnak (ronny.golnak@helmholtz-berlin.de) and Jie Xiao (jie.xiao@helmholtz-berlin.de) for more detailed information.

SOL³PES

The update of the experimental station **SOL³PES** is ongoing and the station will not be available for 2024-II. Please contact Robert Seidel (robert.seidel@helmholtz-berlin.de) for more detailed information.

Remote access

PLEASE NOTE: In the aftermath of the Cyber attack the remote access functionality for BESSY II has still to be reestablished. Please contact the User Coordination or your respective instrument scientist for updates on the status of remote access for the respective beamline.

Save the date / BESSY@HZB User Meeting 2024

We are pleased to announce that the User Meeting 2024 will take place from December 11 to 12 on-site and live at the <u>WISTA conference center</u> in Berlin-Adlershof.

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