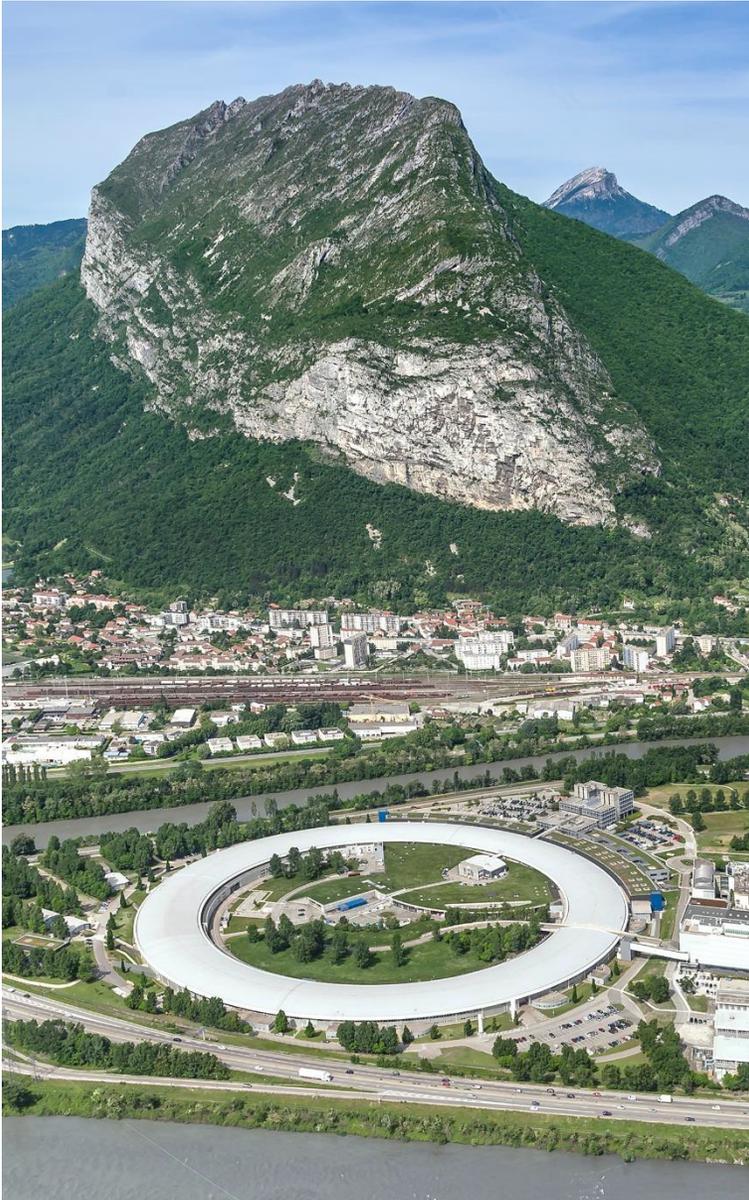




| The European Synchrotron



Data management at ESRF: what's new and what's next

Marjolaine Bodin
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OUTLINE: FROM THE EXPERIMENT PREPARATION TO THE PUBLICATION

- **Experiment preparation: sample tracking, experiment setup, sample metadata**
- **Tailored display: beamline, techniques**
- **ESRFET ontology**
- **DracBot: AI assistant**
- **Logbook/Notebook**
- **Invoicing, statistics**
- **DOIs**
- **Domain Portals**
- **Other ongoing & upcoming topics**

EXPERIMENT PREPARATION: SAMPLE TRACKING

Improvement of sample tracking (on-site parcel tracking), across all beamlines.

Transport organisation

Transport documents: All parcels sent to ESRF must have the ESRF label, the forwarder label and the proforma attached. The same documents required for the parcel's return must be put inside the parcel.

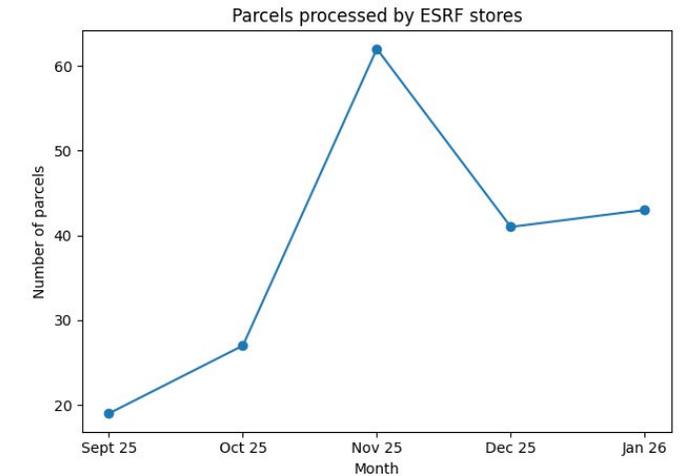
Transport (of samples only) paid by the ESRF

I will prepare the transport documents using the ESRF's forwarder account, and ESRF will organise the return using the return documents I prepared.

Transport paid by the User

I will prepare the transport documents using my forwarder account, and ESRF will organise the return using the return documents I prepared (daily pickups from ESRF exist for FEDEX, DHL express, UPS).

I will prepare the transport documents using my forwarder account, and I will organise the return directly with the forwarder (if not FEDEX, DHL express, UPS).

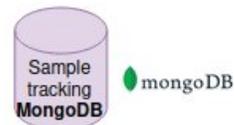


New sample transport organization section

Labels

Parcel status

- ESRF stores are better organized and standardized.
- Reduces loss or misplacement of parcels
- ISPyB sample tracking will be stopped in March



EXPERIMENT PREPARATION: EXPERIMENT SETUP

Experiment and processing plan managed in the Data Portal, configurable per beamline

Edit puck_1

Name * puck_1 Type * UNIPUCK

Processing Plan

Fullscreen

Same values have same color.

	Type	Short name	Name	Description	Comments	Number of positions	Collect second high dose	High dose factor	Force Space Group	Unit cell	Rec
1	SAMPLE	Uri	Uri1				<input type="checkbox"/>				
2	SAMPLE	Uri	Uri2				<input type="checkbox"/>				
3	SAMPLE	Uri	Uri3				<input type="checkbox"/>				
4	SAMPLE	Uri	Uri4				<input type="checkbox"/>				
5	SAMPLE	Uri	Uri5				<input type="checkbox"/>				
6	SAMPLE	Uri	Uri6				<input type="checkbox"/>				
7	SAMPLE	Uri	Uri7				<input type="checkbox"/>				
8	SAMPLE	Uri	Uri8				<input type="checkbox"/>				
9	SAMPLE	Uri	Uri9				<input type="checkbox"/>				
10	SAMPLE	Uri	Uri10				<input type="checkbox"/>				
11	SAMPLE	Uri	Uri11				<input type="checkbox"/>				
12	SAMPLE	Uri	Uri12				<input type="checkbox"/>				
13	SAMPLE	Uri	Uri13				<input type="checkbox"/>				
14	SAMPLE	Uri	Uri14				<input type="checkbox"/>				
15	SAMPLE	Uri	Uri15				<input type="checkbox"/>				
16	SAMPLE	Uri	Uri16				<input type="checkbox"/>				

NOTE: The short names of the samples are synchronized from the User Portal and are only available after the samples have been declared on a submitted A Form and have been evaluated by the safety group.

Save Cancel

Macromolecular X-ray crystallography

Experiment plan

Edit puck_1

Name * puck_1 Type * UNIPUCK

Processing Plan

Fullscreen

Same values have same color.

	Type	Short name	Name	Description	Comments	h models	Smiles	Cutoffs	Force S.G	Unit cell	SAD	Reference reflection	UniProt IDs
1	SAMPLE	Uri	Uri1								<input type="checkbox"/>		
2	SAMPLE	Uri	Uri2								<input type="checkbox"/>		
3	SAMPLE	Uri	Uri3								<input type="checkbox"/>		
4	SAMPLE	Uri	Uri4								<input type="checkbox"/>		
5	SAMPLE	Uri	Uri5								<input type="checkbox"/>		
6	SAMPLE	Uri	Uri6								<input type="checkbox"/>		
7	SAMPLE	Uri	Uri7								<input type="checkbox"/>		
8	SAMPLE	Uri	Uri8								<input type="checkbox"/>		
9	SAMPLE	Uri	Uri9								<input type="checkbox"/>		
10	SAMPLE	Uri	Uri10								<input type="checkbox"/>		
11	SAMPLE	Uri	Uri11								<input type="checkbox"/>		
12	SAMPLE	Uri	Uri12								<input type="checkbox"/>		
13	SAMPLE	Uri	Uri13								<input type="checkbox"/>		
14	SAMPLE	Uri	Uri14								<input type="checkbox"/>		
15	SAMPLE	Uri	Uri15								<input type="checkbox"/>		
16	SAMPLE	Uri	Uri16								<input type="checkbox"/>		

NOTE: The short names of the samples are synchronized from the User Portal and are only available after the samples have been declared on a submitted A Form and have been evaluated by the safety group.

Processing plan (MX)

Content

Import file Export data Download template

Supported formats: CSV, XLS, XLSX

Columns should match the table below. You can download the template file to fill in the data. Import will overwrite the current table data.

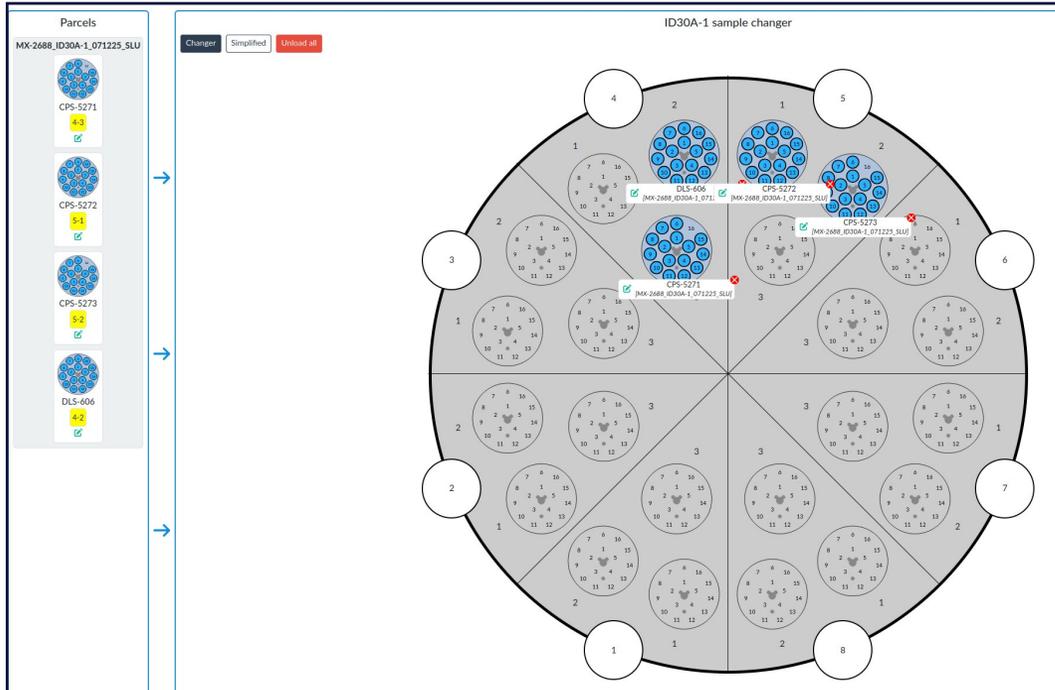
Save Discard changes Fullscreen No changes to save.

Same values have same color.

Container				Experiment															
Type	Name	Grid position	Item	Type	Short name	Name	Description	Comments	Clipped	Type of grid	Type of grid if other	Mesh size	Mesh size if other	Hole size/apacing	Hole size/apacing if other	Preferred loading order	Magnification (pixel size)	Total dose required	Defocus range
BOX	Box1	2	SAMPLE	BOS-CmRNA	SSJ-2				True	Quantifoil		300		2/1					
BOX	Box1	3	SAMPLE	BOS-CmRNA	SSJ-3				True	Quantifoil		300		2/1					
BOX	Box2	1	SAMPLE	Mmacei-rbo	Mm-1				True	Quantifoil		300		2/1					
BOX	Box2	2	SAMPLE	Mmacei-rbo	Mm-2				True	Quantifoil		300		2/1					
BOX	Box3-CM02	1	SAMPLE	ASH-J-305	ASH-1				True	Quantifoil		300		2/1					
BOX	Box3-CM02	2	SAMPLE	ASH-J-305	ASH-2				True	Quantifoil		300		2/1					
BOX	Box3-CM02	3	SAMPLE	ASH-J-305	ASH-3				True	Quantifoil		300		2/1					
BOX	Box3-CM02	4	SAMPLE	ASH-J-305	ASH-4				True	Quantifoil		300		2/1					

Cryo-electron microscopy

Configure and set up the sample changer via the Data Portal



Information synchronized in the data acquisition system MXCuBE

ID	Beamline Title	Start	End	Portal	User	Logbook
MX-2738	ID30A-1 Swiss consortium in macromolecular X-ray crystallography structure determination for academic researchers: EPFL, UNIL, UNIGE, Zurich and SLS	07-02-2026 09:30:00	09-02-2026 01:00:00	🔗	🔗	🔗
FX-23	ID30A-1 MXpress for GSK	06-02-2026 09:30:00	06-02-2026 17:00:00	🔗	🔗	🔗
MX-2695	ID30A-1 MX-2695	30-01-2026 10:23:33	--	🔗	🔗	🔗
BLC-16789	ID30A-1 BLC-16789	30-01-2026 09:36:14	--	🔗	🔗	🔗
FX-23	ID30A-1 MXpress for GSK	30-01-2026 09:30:00	30-01-2026 13:00:00	🔗	🔗	🔗
IHM-MX-602	ID30A-1 crystal structure determination of metalloproteins	29-01-2026 09:00:00	30-01-2026 23:30:00	🔗	🔗	🔗
FX-99	ID30A-1 Mail In SB data collection - Astra Therapeutics	28-01-2026 10:00:00	28-01-2026 18:00:00	🔗	🔗	🔗
		29-01-2026 09:50:00	29-01-2026 17:00:00	🔗	🔗	🔗
BLC-16803	ID30A-1 simulated data collections	16-01-2026 08:00:00	31-01-2026 23:30:00	🔗	🔗	🔗



- Data collection is guided by the predefined parameters
- Analysis is performed according to user-defined processing strategies

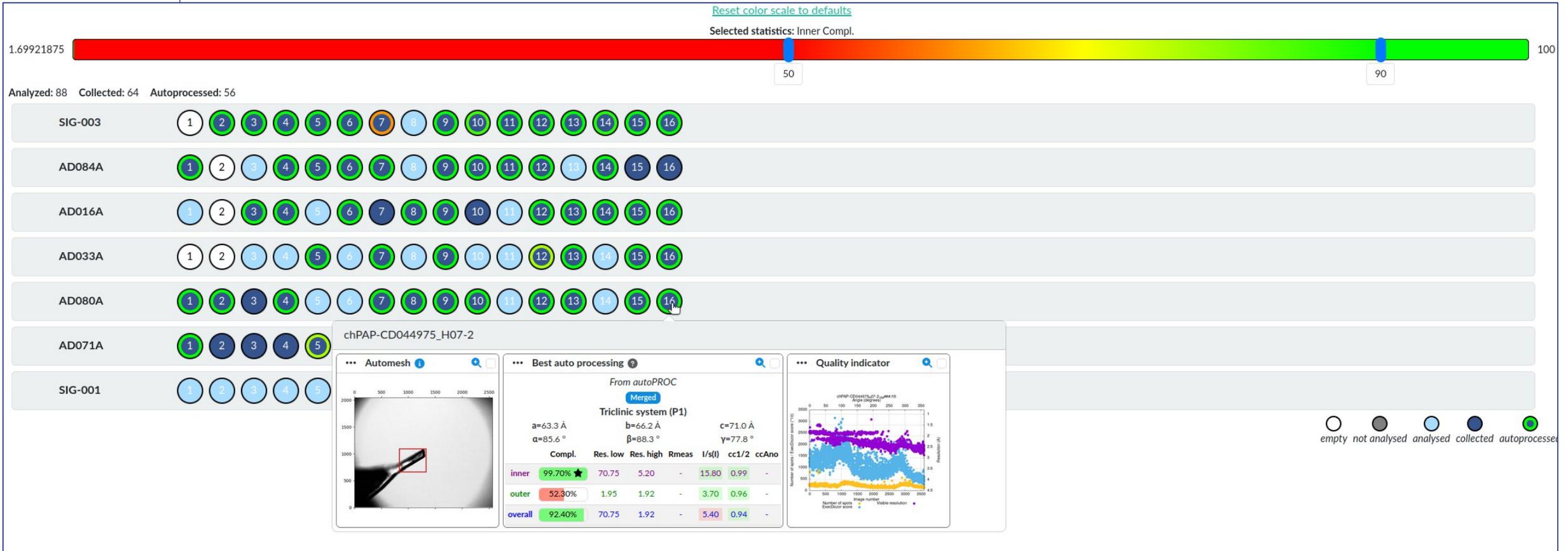
Oscarsson, M. et al. 2019. "MXCuBE2: The Dawn of MXCuBE Collaboration." Journal of Synchrotron Radiation 26 (Pt 2): 393–405.

METADATA-DRIVEN EXPERIMENT SUMMARY

From detailed experiment metadata => clear, concise summaries for easy access and review

Show progress in data processing

Could be extended to other techniques

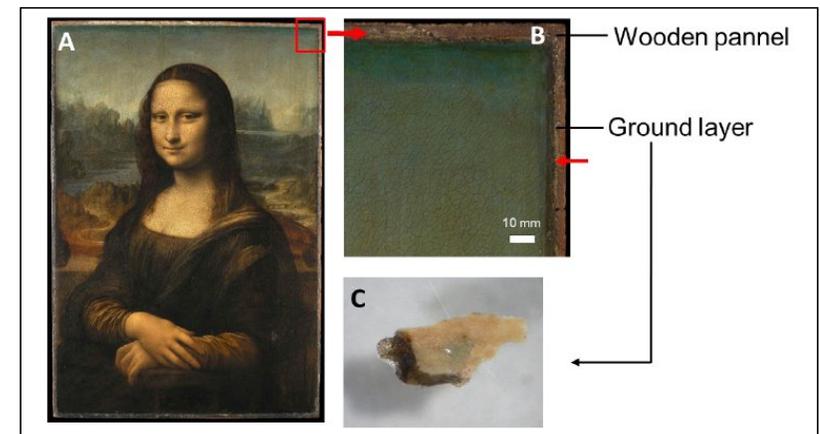


Context: OSCARS SHARE project : Synchrotron X-ray analysis of Heritage Accessible to and Reusable by Everyone (start date: 01/01/2025)



- Searchable database of art objects and model samples (Historical Materials BAG)
- Includes rare and precious samples
- Access to raw & processed data, with full metadata
- Links to museum databases
- Preserves valuable data, promotes FAIR/Open Science
- Enables global research, sharing, and reuse

Study of the ground of Mona Lisa
Credits: M. Cotte



Gonzalez, V.; Wallez, G.; Ravaud, E.; Eveno, M.; Fazlic, I.; Fabris, T.; Nevin, A.; Calligaro, T.; Menu, M.; Delieuvain, V.; Cotte, M. X-ray and Infrared Microanalyses of Mona Lisa's Ground Layer and Significance Regarding Leonardo da Vinci's Palette. *J. Am. Chem. Soc.* **2023**, 145 (42), 23205– 23213, DOI:10.1021/jacs.3c07000

EXPERIMENT PREPARATION: SAMPLE METADATA

AI_HP32_2

Link to sample in the A-Form*

[HP3] Green earth (celadonite/glaucophane) and Egyptian blue (cuprorivaite) paint layer, embedded in resin

Sample Type*

Historical Manufactured Material

Is this sample an object, or a fragment (e.g., a sample extracted from an object)?*

Fragment

Object

Description of your sample*

Green paint sample collected from Gallo-Roman wall painting from Limonum (Poitiers, France)

Brief description of the main objectives of the analysis*

Getting insight into mineral composition of green earth pigment

DOIs to relevant publications --- recommended

+ New DOI Clear all DOIs

Keywords --- recommended

pigment wall painting Gallo-Roman painted plaster green earth

Main type of materials*

Painting

From your list, select the object from which this fragment was extracted, or declare a new object if needed.*

Select...

Sampling date

11/2025

Institute owning the fragment --- recommended

Archéosciences-Bordeaux - Matériaux, temps, Images et Sociétés, Archéosciences-Bordeaux - Nouvelle-Aquitaine, France (https://ror.org/01wdgh03)

Fragment ID (institute inventory number, if any) --- recommended

HPy32_2

Multi-layer description (preferably numbered from inside to outside) --- recommended

Number*	Thickness (µm)*	Color*
1	30	yellow
Composition*		
yellow ochre		
Number*	Thickness (µm)*	Color*
2	50	green
Composition*		
green earth, cuprorivaite		

+ New layer Clear all layers

Fragment mounting for ESRF analyses --- recommended

Resin embedded and sliced from cross-section with a micro-tome, mounted on ID13 sample holder

Any comment related to the fragment

Daiquiri UR ID21

Sum + Snap Off Modulo Ref ROI LO Measure Pan Move Cursor Video Images

5.2396 01 30.107 01 70.9506 5 70.94 5 x12 Move 0 0.0 1 Live 0.5

BR_OU

#	Type	Size	Tags
9251	DC	60x60 µm	none

Data Collections

Id	Start	Took	Status	#DC	Type
107268	22-07-2024 17:03:33	2 min	finished	1	XRF map

Maps

Id	DC	ROI	Px	Py
<input type="checkbox"/>	I3059	107268	Fe-1k1	20 20
<input type="checkbox"/>	I3060	107268	p20tct2_counters_controlleridct	20 20
<input type="checkbox"/>	I3061	107268	fx2MnKa_det0	20 20

id Red ROI Green ROI Blue ROI

No composite maps for this object

Daiquiri
Credits: S. Fischer



<https://doi.org/10.1107/S1600577521009851>

Used in production in the last run of 2025

- 3 experiment sessions
- > 200 samples created

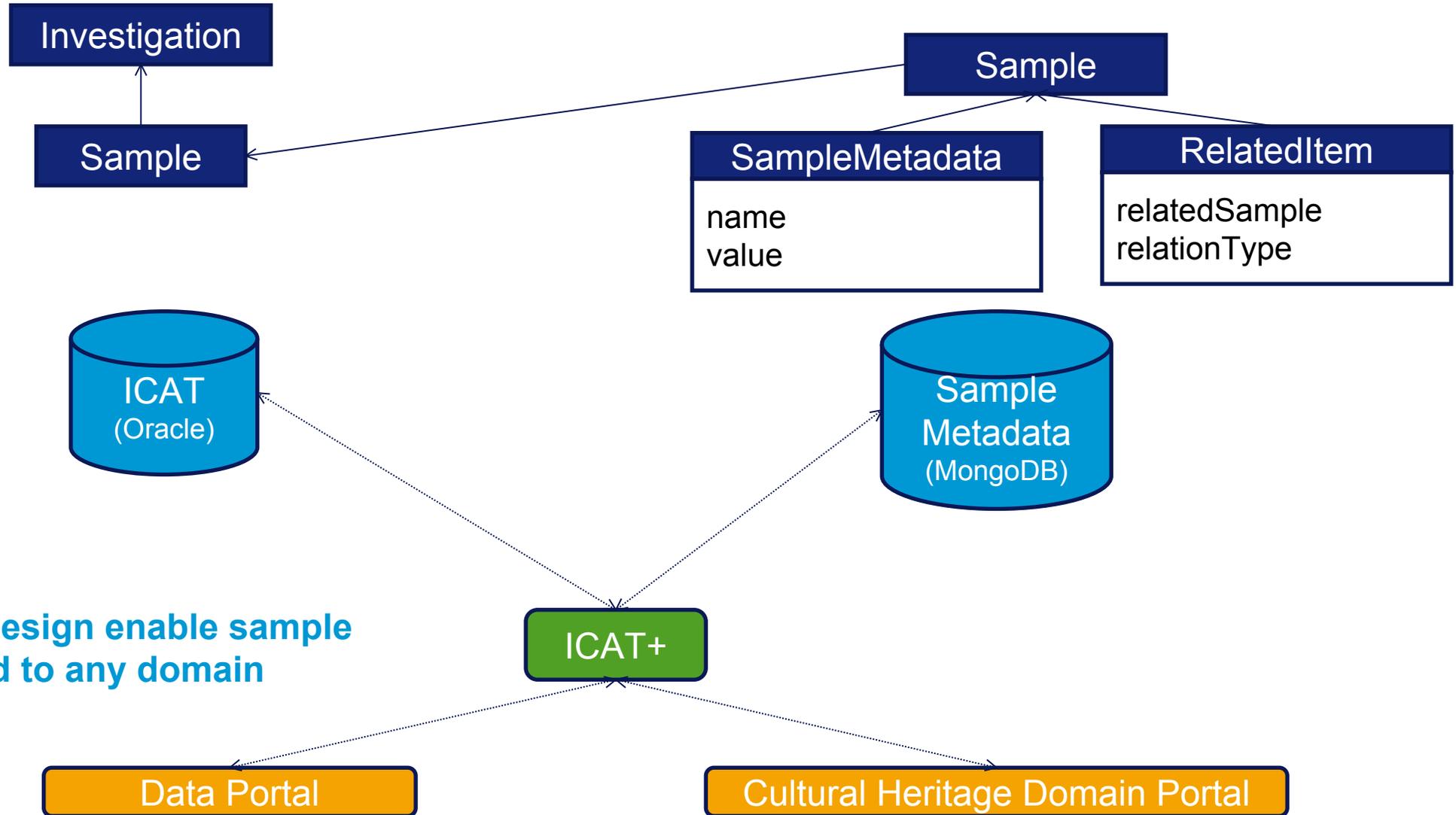
Sample metadata form for Cultural Heritage

Information synchronized in the data acquisition system Daiquiri

- Consistent, high-quality acquisition metadata

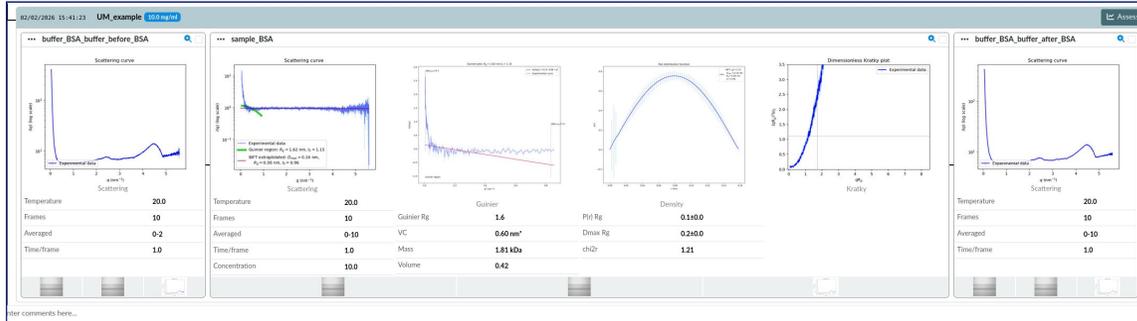
EXPERIMENT PREPARATION: SAMPLE METADATA - ARCHITECTURE OVERVIEW

★ High interest:
many-to-many
relation Sample-
Investigation



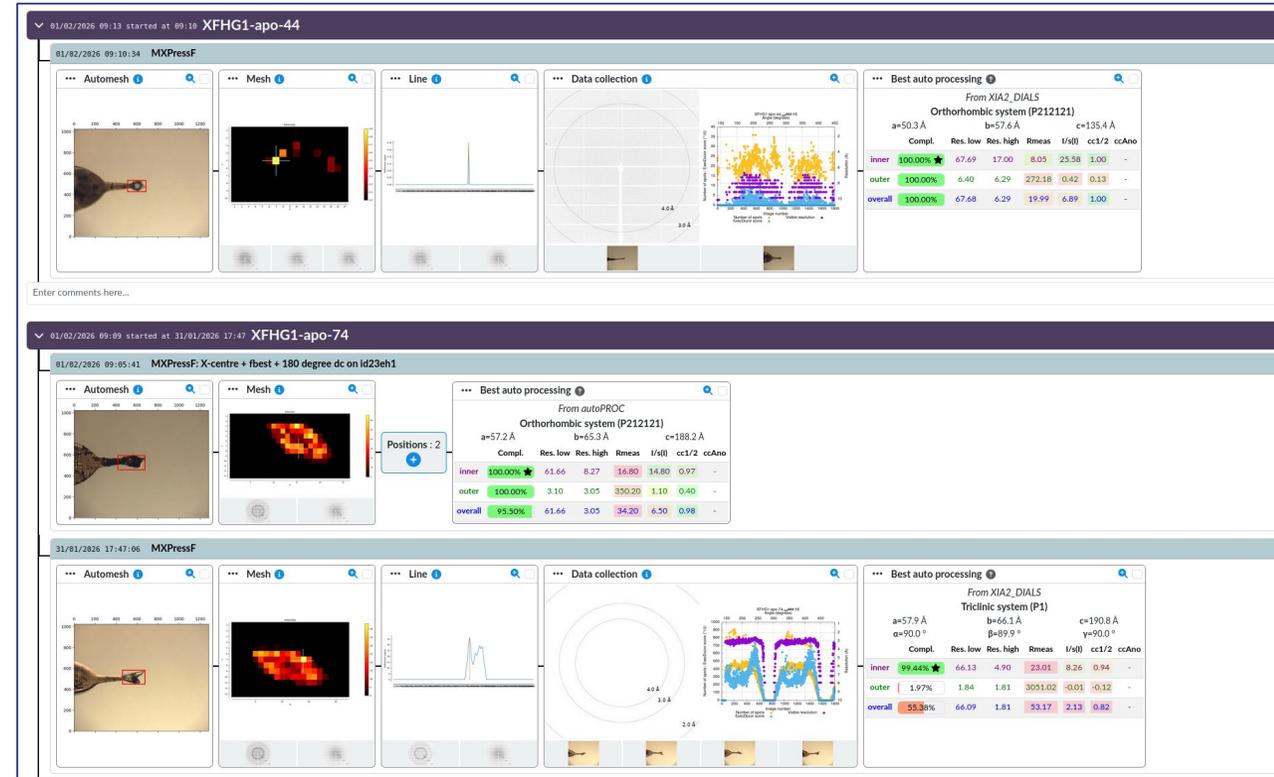
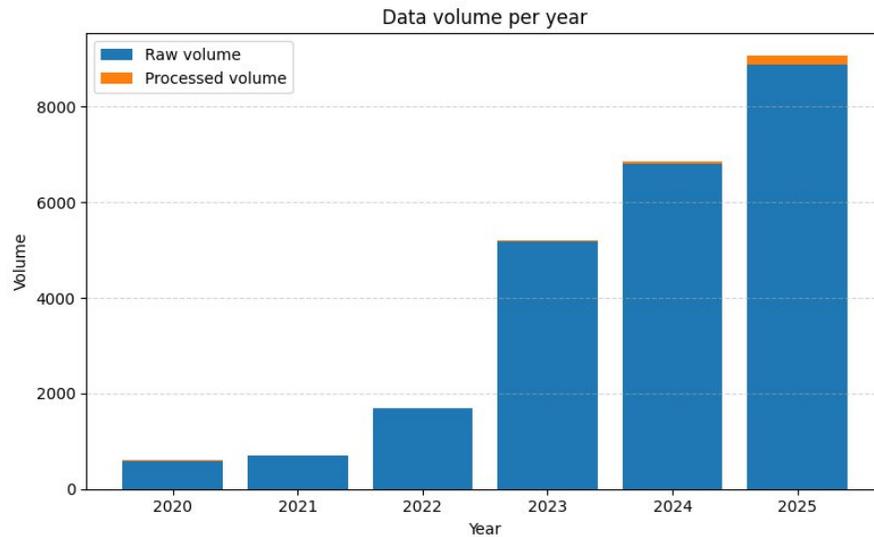
Architecture and design enable sample metadata to extend to any domain

Beamline-specific



BioSAXS beamline - BM29

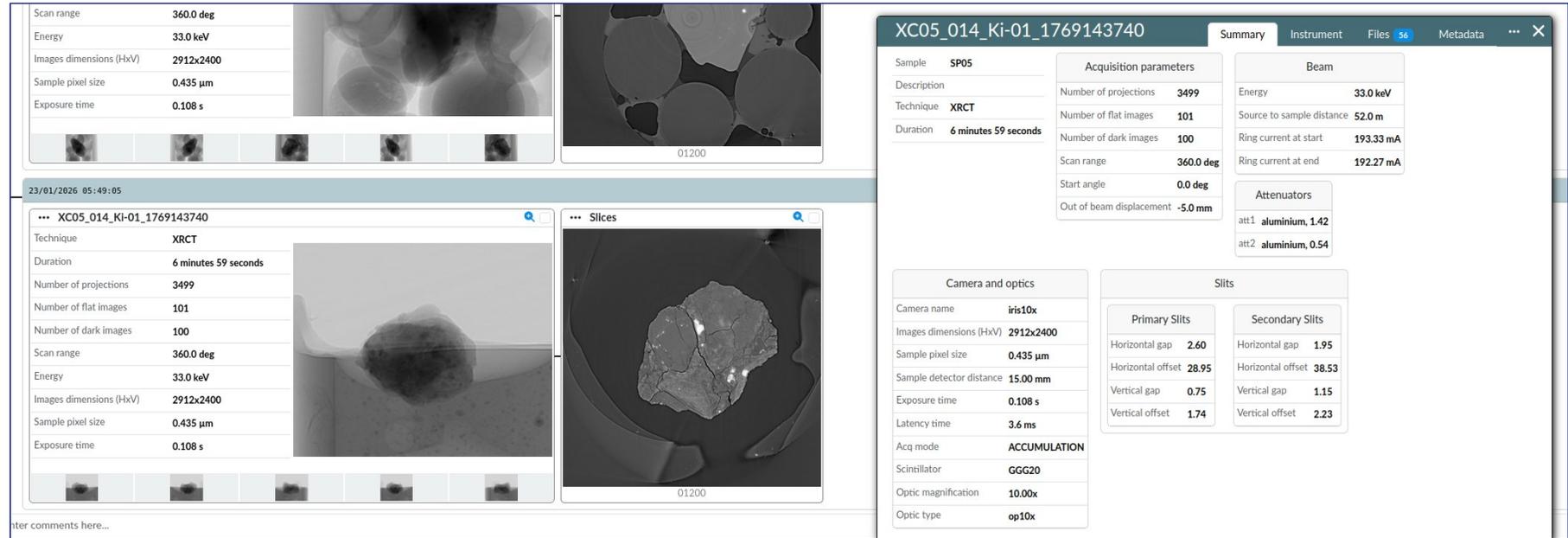
Processed data is progressively increasing in ICAT.



MX beamlines

Technique-specific

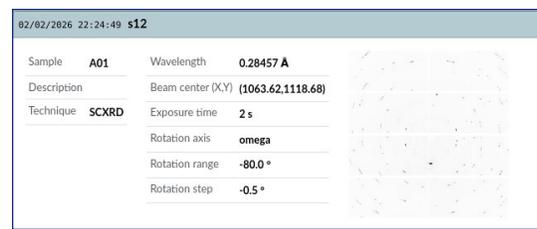
- Immediate data quality assessment
- Early detection of issues (e.g. scintillator problems)



X-ray Computed Tomography (XRCT)



X-ray Powder Diffraction (XRPD)



Single Crystal X-ray Diffraction (SCXRD)

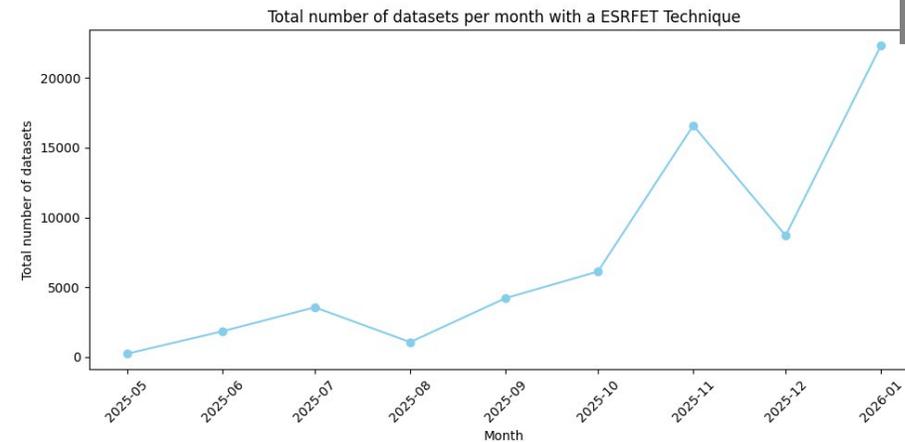
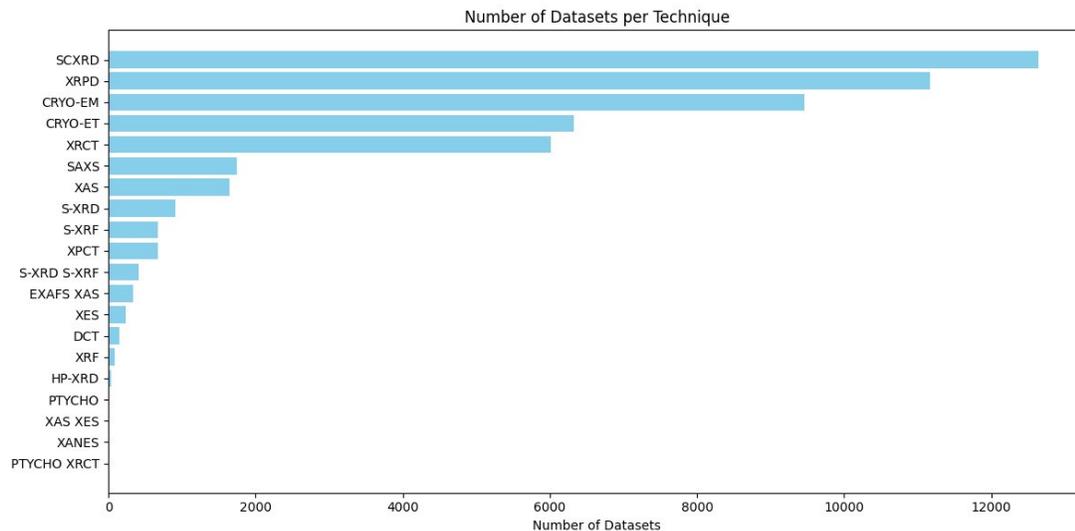
Next steps

New techniques to be included

- Cryo-Electron Tomography (Cryo-ET)
- Cryo-Electron Microscopy (Cryo-EM)
- Serial Macromolecular Crystallography (SSX)

ESRFET is an ontology of experimental techniques used at the ESRF connected to the **PaNET** ontology.

- Python API's: generate technique metadata for ESRF data producers (BLISS, etc.) to save in **NeXus-compliant HDF5 and ICAT**.
- > 120 techniques defined



Next steps

- Tag more datasets with techniques
- purl replaced by w3id
- Add techniques metadata in DOI
- Search and filter by technique
- Monitoring tool

ESRFET Techniques in the Data Portal

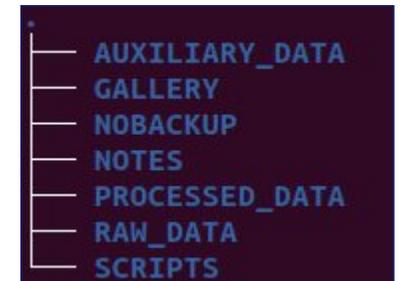


Koumoutsos, G., De Nolf, W. *The ESRF Experimental Techniques Ontology.*

Integrate

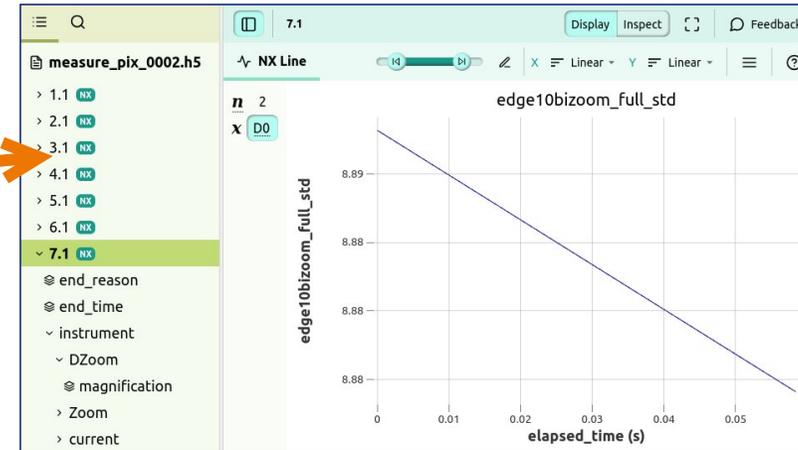
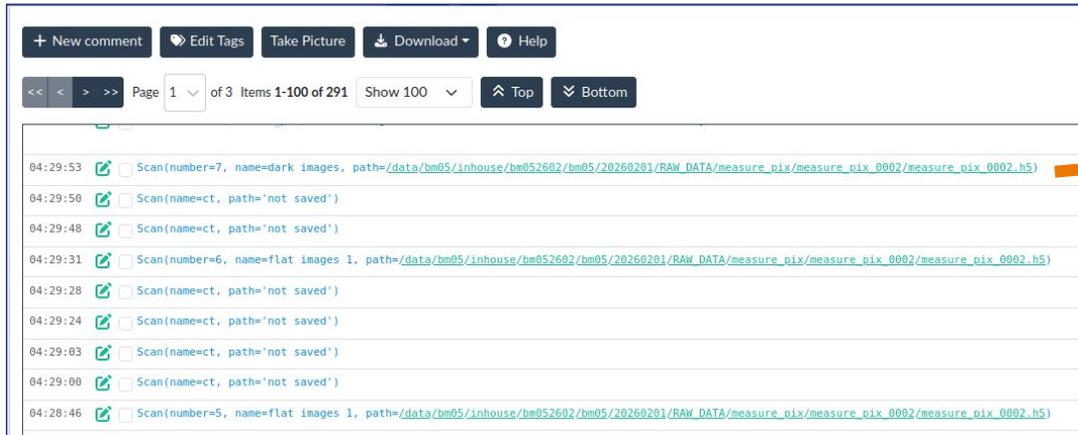
- **Auxiliary data (ESRF data policy: *refers to data that provide contextual information regarding the experiment, such as information regarding the sample (images, provenance and preparation) or the software used for data processing*),**
- **scripts,**
- **experiment gallery (setup photos).**

How should these data be catalogued in ICAT, especially when they are not linked to a specific sample?

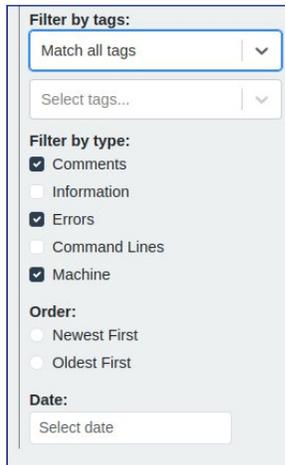


ESRF Data folder structure

Log scan entries with links to HDF5: easy tracking of data acquisition for users



Advanced tag filtering for efficient logbook navigation: faster access to relevant logbook entries



Next steps

- Notebook: “Google Doc”-like document
- E-logbook: view contextualized by dataset or sample

MineDRAC tool to extract statistics and figures for invoicing (MX industrial experiments)



MineDRAC
Invoicing

Navigation

- Installation
- Quick Start
- Command Line Interface
 - Statistics
 - **Invoicing**

Invoicing

Generates a report for invoicing for each investigation

Usage

Invoicing [OPTIONS]

Options

- t, --token** <token>
Required ICAT session ID
- i, --investigation-ids** <investigation_ids>
Comma separated list of investigation IDs (optional)
- instrument-name** <instrument_name>
Filter by instrument name
- investigation-name** <investigation_name>
Filter by instrument name
- s, --start-date** <start_date>
Start date range. Format is YYYY-MM-DD. Example: 2019-01-01
- e, --end-date** <end_date>
End date range. Format is YYYY-MM-DD. Example: 2019-01-01
- u, --unit** <unit>
It can be MB, GB or TB (otherwise will return in GB)
Default: 'GB'
- g, --gap** <merge_gap_minutes>
Gap in minutes to merge datasets. Less than 'gap' minutes the datasets time will be merged
Default: 20
- o, --output** <output>
CSV output file path. Example: myfile.csv

proposal	investigation_id	beamline	start_date	end_date	booked_time	samples_collected	samples_declared	parcels	volume	raw_volume	processed_volume	effective_time	total_time
MX-##	22920936	ID30A-3	2025-12-06 09:30:00	2025-12-06 17:00:00	7:30:00	87	90		1160 GB	140 GB	20 GB	3:55:58.806000	19:36:25.457000
FX-##	22995581	ID30A-1	2025-12-06 09:30:00	2025-12-06 17:00:00	7:30:00	37	37		1192 GB	189 GB	3 GB	2:41:49.020000	7:40:34.842000
MX-##	23004685	ID30B	2025-12-06 09:30:00	2025-12-06 17:00:00	7:30:00	193	16		1424 GB	420 GB	4 GB	5:54:02.654000	0:00:39.868000
MX-##	23039195	ID30A-1	2025-12-06 09:30:00	2025-12-06 17:00:00	7:30:00	43	0		0242 GB	224 GB	17 GB	4:30:37.512000	12:20:27.169000
MX-##	22233712	ID23-2	2025-12-05 09:30:00	2025-12-06 08:00:00	22:30:00	40	46		1685 GB	681 GB	3 GB	3:08:28.800000	18:26:56.858000
QA-##	22296784	ID23-1	2025-12-05 09:30:00	2025-12-05 17:00:00	7:30:00	58	0		0693 GB	644 GB	49 GB	1:38:22.530000	10:12:49.566000
FX-##	22892252	ID30B	2025-12-05 09:30:00	2025-12-05 17:00:00	7:30:00	111	0		0202 GB	198 GB	4 GB	2:42:17.204000	11:51:31.742000
MX-##	22954669	ID30A-3	2025-12-05 09:30:00	2025-12-05 17:00:00	7:30:00	64	0		0272 GB	243 GB	28 GB	3:24:33.339000	21:28:42.532000
MX-##	22322136	ID30A-3	2025-12-04 17:00:00	2025-12-05 08:00:00	15:00:00	43	45		1200 GB	173 GB	27 GB	1:52:39.490000	10:58:38.632000

Invoicing report

– Saves time for beamline staff and administrative teams

- Enhance DOI minting/reservation: keywords, publication DOI, external references added
- Autodiscovering citations using **OpenAlex**

You can only mint a DOI for datasets which are linked to experiment sessions where you are a user.

Minting the DOI makes the datasets public immediately.

Title*
A minimum of 40 characters is required.

Abstract*
A minimum of 400 characters is required.

Authors*
Select an author to add... + New author Clear all authors

Keywords
+ New keyword Clear all keywords

Publication DOI

External reference URLs (PDB...)
+ New external reference urls (pdb,...) Clear all external reference urls (pdb,...)js

Next Clear

Mint bespoke DOI in the Data Portal

Data Collection Open access

From Pharmacophore to Warhead: NAD⁺-Targeting Triazoles as Mechanism-Based Sirtuin Inhibitors

Florian Friedrich

Sirtuins (SIRT) are nicotinamide adenine dinucleotide (NAD⁺)-dependent lysine deacetylases linked to key physiological and disease processes. Here, we report a new class of mechanism-based 1,2,3-triazole inhibitors that hijack SIRT catalysis by forming stalled triazolium- or triazole-ADP-ribose (ADPRI) adducts derived from the cofactor NAD⁺. These trapped adducts inhibit the enzyme without covalent protein modification, prompting us to term the compounds 'Sirtuin Trapping Ligands' (SirTraps). X-ray crystallography and kinetics, together with mass spectrometry confirming adduct formation both in vitro and in cellulo, reveal that the triazole N3 of peptide- and small-molecule-based SirTraps triggers nucleophilic attack at C1' of the nicotinamide riboside moiety of NAD⁺, mimicking the first deacylation step. Adduct formation critically depends on precise triazole positioning within the acyl-hyline channel and can be tuned through scaffold design, enabling potent and isoform-selective inhibition. Unlike thioacetyl-based NAD⁺-targeting SIRT inhibitors, which may suffer from instability and off-target effects, SirTraps combine high stability, synthetic accessibility, and structural tunability, while demonstrating nanomolar cellular target engagement confirmed by NanoBRET assays. Beyond SIRTs, this inhibition strategy may extend to other NAD⁺-dependent enzymes, including ADP-ribosyltransferases, opening new avenues for mechanism-driven drug discovery.

Covalent adduct, Drug discovery, Inhibitors, Sirtuins, Triazoles

Experimental data
Data can be accessed by clicking on the link below
Access data

Experimental report
The reports for MX-2638 are confidential until the end of the data embargo period. Until then, they are only accessible to the proposers and session participants via the [ESRF User Portal](#).
The reports for MX-2446 are confidential until the end of the data embargo period. Until then, they are only accessible to the proposers and session participants via the [ESRF User Portal](#).
No report was found for MX-2550. Proposers and session participants may submit it via the [ESRF User Portal](#).
No report was found for MX-2446. Proposers and session participants may submit it via the [ESRF User Portal](#).
No report was found for MX-2446. Proposers and session participants may submit it via the [ESRF User Portal](#).

Reference
Researchers must acknowledge the source of the data and cite its unique identifier as well as any publications linked to the same raw data. Below is the recommended format for citing this work in a research publication.
Friedrich, F. (2026). From Pharmacophore to Warhead: NAD⁺-Targeting Triazoles as Mechanism-Based Sirtuin Inhibitors (Version 1) [Dataset]. European Synchrotron Radiation Facility. doi.org/10.15151/ESRF-DC-2324015771

Cited by
Author-provided citation
Friedrich, F., Meleshin, M., Popenkort, N., Galtzsch, L., Prucker, I., Borso, M., Ruprecht, J., Vorreiter, C., Rast, S., Zhang, L., Schiedel, M., Sippl, W., Imhof, A., Jessen, H. J., Einsle, O., Schutkowski, M., & Jung, M. (2025). From Pharmacophore to Warhead: NAD⁺-Targeting Triazoles as Mechanism-Based Sirtuin Inhibitors. *Angewandte Chemie International Edition*, 64(52). doi.org/10.1002/anie.202516782

Metadata
Identifier
DOI 10.15151/ESRF-DC-2324015771
Proposals
MX-2638 ID2322
MX-2550 ID2308
MX-2446 BM07
Beamlines
ID2322
ID2308
BM07
Public release year
2026
Publisher
European Synchrotron Radiation Facility
License (for files)
Creative Commons Attribution 4.0 International
Deposit date
2026-01-28
Related Resources
https://www.rcsb.org/structure/951Z
https://www.rcsb.org/structure/9520
https://www.rcsb.org/structure/9521
https://www.rcsb.org/structure/9522
https://www.rcsb.org/structure/9523
https://www.rcsb.org/structure/9524
https://www.rcsb.org/structure/9525
https://www.rcsb.org/structure/9526
https://www.rcsb.org/structure/9527

DOI landing page

Data Collection Open access

Bragg Coherent Modulation Imaging of Highly-Strained Nanocrystals

jiangtao zhao; Ewen Bellec; Marie-Ingrid Richard; Linus Pithan; Ivan Vartanyants; Fucal Zhang; Tobias Schilli; Steven Leake

These selected dataset are used for publication of 'Bragg Coherent Modulation Imaging of Highly-Strained Nanocrystals: BCDI_0051 and BCDI_0054 are the raw data of BCMI and BCDI scan for low-strain Platinum nanocrystal. The corresponding modulator calibration dataset is stored in PTYCHO_0020. BCDI_0033 and BCDI_0036 are the raw data of BCMI and BCDI scan for high-strain Platinum nanocrystal. PTYCHO_0014 is the corresponding ptychography dataset for modulator calibration.

Experimental data
Data can be accessed by clicking on the link below
Access data

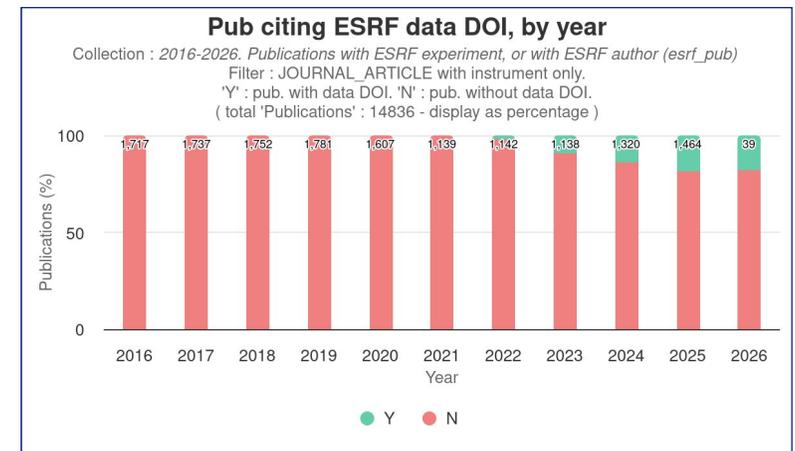
Experimental report
No report was found for IH-MI-1534. Proposers and session participants may submit it via the [ESRF User Portal](#).

Reference
Researchers must acknowledge the source of the data and cite its unique identifier as well as any publications linked to the same raw data. Below is the recommended format for citing this work in a research publication.
zhao, jiangtao, Bellec, E., Richard, M.-I., Pithan, L., Vartanyants, I., Zhang, F., Schilli, T., & Leake, S. (2025). Bragg Coherent Modulation Imaging of Highly-Strained Nanocrystals (Version 1) [Dataset]. European Synchrotron Radiation Facility. doi.org/10.15151/ESRF-DC-2270287529

Cited by
Automatically discovered citations
Zhao, J., Bellec, E., Richard, M.-I., Pithan, L., Vartanyants, I. A., Zhang, F., Schilli, T., & Leake, S. J. (2025). Bragg Coherent Modulation Imaging of Highly Strained Nanocrystals. *Physical Review Letters*, 135(25). doi.org/10.1103/PhysRevLett.135.25

Metadata
Identifier
DOI 10.15151/ESRF-DC-2270287529
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IH-MI-1534
Beamline
ID01
Public release year
2025
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Deposit date
2025-10-30

Autodiscover citation



PUMA

New data in both paleo and human organ atlas projects

Tool to extract and monitor statistics from Matomo

Paleontology database EXPLORE SEARCH HELP ← BACK TO RESULTS

Spider *Orchestina* CPT-4100

← VIEW OTHER DATASETS OF SIMILAR SAMPLES

Description
3D reconstruction for Spider *Orchestina* CPT-4100. For further details regarding samples, measurements and data analysis, refer to the files and the article.

Scientific domain	Invertebrate paleontology
DOI	DOI 10.15151/ESRF-DC-1634312045 Copy DOI
Reference	Soriano, C., Archer, M., Azar, D., Creaser, P., Delclòs, X., Godthelp, H., Hand, S., Jones, A., Nel, A., Néraudeau, D. and Ortega-Blanco, J., 2010. Synchrotron X-ray imaging of inclusions in amber. <i>Comptes Rendus Palevol</i> , 9(6-7), pp.361-368.
Instrument	ID19, ESRF



Download files with Globus

These datasets are made freely available under the [CC-BY-NC 4.0 licence](https://creativecommons.org/licenses/by-nc/4.0/). Publications using these datasets are required to [cite the DOI](#).

« Show 20 Page 1 »

1-20 of 22 results

- JPG gallery/Spider_Orchestina — 73.2 kB
- ZIP org_slices/1.406_Orchestina_sjust — 1.8 GB
- AVI pic_mov/Spider_Orchestina_1_jpeg — 30.5 MB
- AVI pic_mov/Spider_Orchestina_1_xvid_HQ — 5.9 MB
- AVI pic_mov/Spider_Orchestina_1_xvid_LQ — 1.6 MB
- AVI pic_mov/Spider_Orchestina_2_jpeg — 34.4 MB
- AVI pic_mov/Spider_Orchestina_2_xvid_HQ — 7.5 MB
- AVI pic_mov/Spider_Orchestina_2_xvid_LQ — 1.9 MB

Left click: rotate | Right click: pan | Scroll: zoom | Reset position

Location

3D viewer in the Paleo portal

HOA EXPLORE SEARCH HELP

The Human Organ Atlas

Imaging the body from micron to whole organ scale

25 donors 56 organs 307 datasets

Human tissue is inherently hierarchical with cells, tissues and organs organised into intricate structures at many levels.

The Human Organ Atlas bridges cellular and whole organ scales with **Images of whole intact organs at 8-20 µm resolution** and region of interest **zooms at 1 µm**.

These images are released openly to allow exploration and reuse, with the hope that they will provide new insights into our biological makeup in health and disease.

Want to learn more about the technique, the wider project or project related opportunities? Visit the [Hierarchical Phase-Contrast Tomography project page](#). Want to learn more about access to scan your own samples? Visit the [Human Organ Atlas Hub](#).

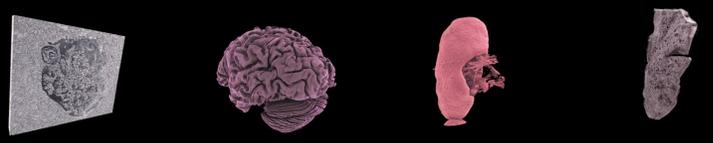
Latest news

COVID-19 affected lung data release
[Go to article](#) | published the 19/06/2025

Today we have released more datasets from the lungs of donors affected by COVID-19. These datasets complement those used in previous studies using data in the Human Organ Atlas, showing how COVID-19 affects the lungs (Ackermann et al. 2021, Ackermann et al. 2022). The new datasets come from 6 different donors, and add over 6TB [...]

[View more](#)

The Atlas in images



FAIR principles

The Human Organ Atlas project is dedicated to sharing its results with the community by making the data findable, accessible, interoperable, and re-usable - the FAIR principles formalised by Wilkinson et al. (2016).

Each dataset available on this portal is described with metadata about the donor, the organ scanned and the scanning conditions, has a bespoke DOI that will redirect to the ESRF data portal, and is distributed under the permissive [CC-BY 4.0 licence](https://creativecommons.org/licenses/by/4.0/). To carry on the spirit of the FAIR principles publications that make use of datasets in this portal must in turn cite the DOIs of each dataset used.

Team Acknowledgements

Number of visits per day



paleo

Human Organ Atlas Portal



hoa

Next steps

- Cultural Heritage portals (violins, painting, mummies)
- Connection to other databases

- PaN-Finder (Nadine talk)
- ICAT upgrade to be planned
- High interest in ICAT-Lucene
- Download and data restoration
- Data retention: long-term retention, criteria to be defined
- Performance issues:
 - users may experience up to 4× slower resource access than admins
 - Large-scale dataset ingestion/update may impact DB performance
- Instrument PIDs
- Sample PIDs
- D3A: Direct DOI Data Access (Tycho, Nadine and Andy)

DAU team, especially

Alejandro De Maria

Axel Bocciarelli

Guillaume Gaisné

Simon Delcamp

Nadine Fischer

Andy Götz (unit leader)

Ludovic Broche

Olof Svensson

Pierre-Olivier Autran

Wout De Nolf

+ BCU, ITS group + beamline scientists

ICAT Collaboration team

Thank you for your attention!
Discussion, questions?