

eBIC Session Report (EPU)

Report creation is in beta testing, report errors to kyle.morris@diamond.ac.uk

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DLS Visit: bi23047-106
BAG (institute): anonymous (anonymous)

EPU session name: Supervisor_20230919_140141_84_bi23047-106_grid1
EPU session created: 2023-09-19 14:03:40
Atlas session name: Supervisor_20230919_115905_Atlas_bi23047-106
Atlas session created: 2023-09-19 12:04:34
Session location: /Volumes/T7/eBIC_backup/dls_backup_visit/m07/data/2023/bi23047-106/raw/metadata_Supervisor_20230919_140141_84_bi23047-106_grid1
Movie location: /Volumes/T7/eBIC_backup/dls_backup_visit/m07/data/2023/bi23047-106/raw
Report creation time (user): 2023-12-21 11:51:51 (kyle)

Instrument:

Instrument name: Krios4 (m07)
Autoloader slot: 2
Autoloader slot name: grid1

Collection strategy:

Grid type: HoleyCarbon
Measured hole size / spacing (μm): 1.4 / 1.4
Shots per hole: 7
AFIS/Accurate: AFIS
Stage shift wait (s): 5
Beam Image shift wait (s): 0.5
Defocus list (μm): [-2.5, -2.0, -1.5, -1.0, -0.5]

Acquisition parameters:

Tilt (degrees): 0.0
Acquisition spot size: 5
Acquisition C2 (μm): 50
Acquisition Objective (μm): 100
Acquisition beam diameter (μm): 0.5
Acquisition magnification (X): 165000
Fraction no: 50
Filter slit width (eV) (inserted): 10 (true)

Dose calculations:

Acquisition pixel size ($\text{\AA}/\text{px}$): 0.508 (calibrated)
Measured vacuum dose rate (e/px/s): 17.2 (calibrated)
Sample dose rate (e/ $\text{\AA}^2/\text{s}$): 66.651 (calibrated)
Acquisition exposure time (sec): 0.75
Total dose / Fraction dose (e/ \AA^2): 50.0 / 1.0 (calibrated)

Collection statistics (calculated at time of report creation):

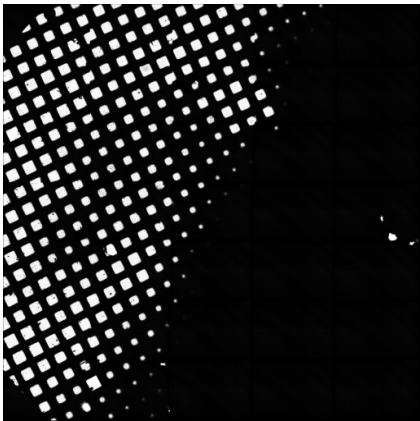
Setup time (hrs): 1.7
Collection time (hrs): 3.1
Number of squares total / targeted / collected: 272 / 3 / 3
Average FoilHoles selected per Square (+/-): 124 (+/- 18)
Total FoilHoles selected: 372.0
Number of micrographs acquired: 2597
Collection rate (exposure/hr): 856
Collection rate ($\mu\text{m}^2/\text{hr}$): 52

Parameter advisories: 0

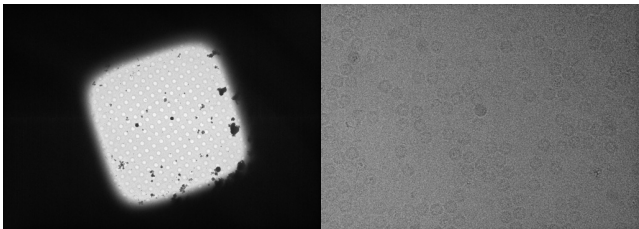
All Presets:

Preset	Mag (X)	apix	Probe	Spot	C2 (μm)	Beam (μm)	Defocus (μm)	Bin	Time (s)
Atlas	135	4824.7	MicroProbe	8	50	900.0	-1000.0	2	1.0
GridSquare	580	337.4	MicroProbe	6	50	300.0	-250.0	2	2.0
Hole	15000	12.6	NanoProbe	8	50	11.0	-75.0	2	2.0
Acquisition	165000	1.1	NanoProbe	5	50	0.5	-2.0	2	0.75
AutoFocus	0	0.0	NanoProbe	5	50	0.5	-3.0	2	1.0
DriftMeasurement	0	0.0	NanoProbe	5	50	0.5	-3.0	2	2.0
ZeroLoss	0	0.0	NanoProbe	3	50	0.5	-3.0	2	1.0
ThonRing	0	0.0	NanoProbe	5	50	0.5	-2.0	2	1.0

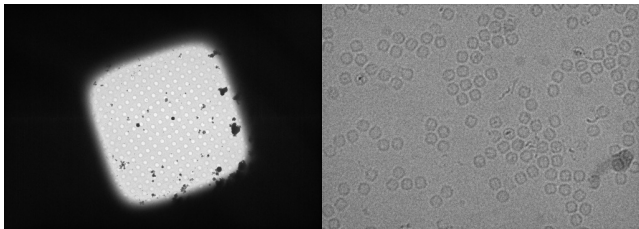
Atlas image of grid used for data collection:
/Volumes/T7/eBIC_backup/dls_backup_visit/m07/data/2023/bi23047-106/atlas/Supervisor_20230919_115905_Atlas_bi23047-106/Sample2/Sample.dm



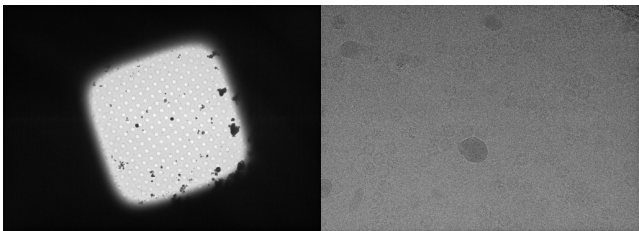
Randomly selected square and acquisition images:



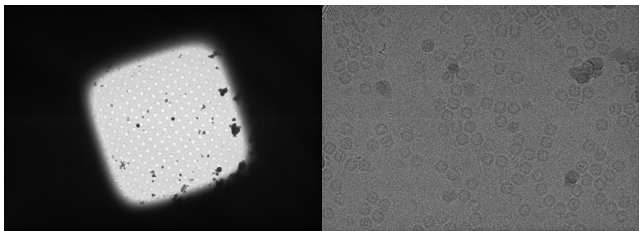
GridSquare_20230919_143436
FoilHole_19509089_Data_19508519_19508521_20230919_175420



GridSquare_20230919_143436
FoilHole_19509120_Data_19508576_19508578_20230919_175720



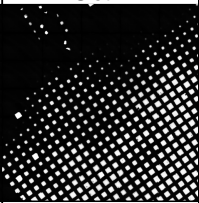



GridSquare_20230919_143436
FoilHole_19509181_Data_19508496_19508498_20230919_184006



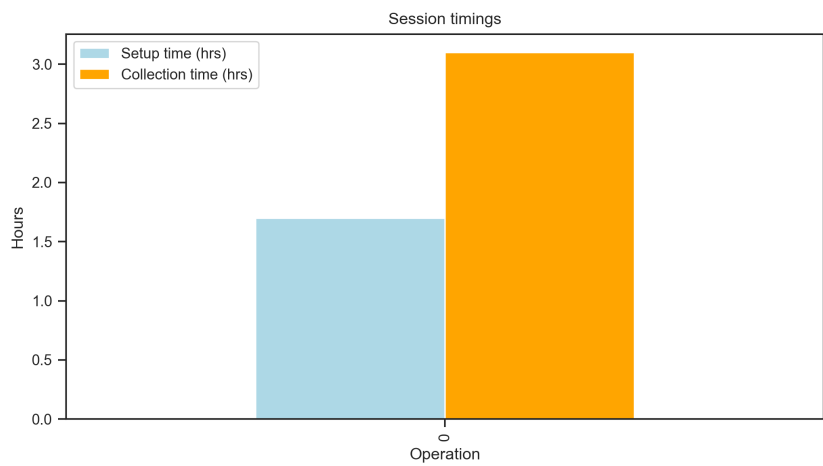
GridSquare_20230919_143436
FoilHole_19509227_Data_19508496_19508498_20230919_183254

Autoloader cassette atlases:

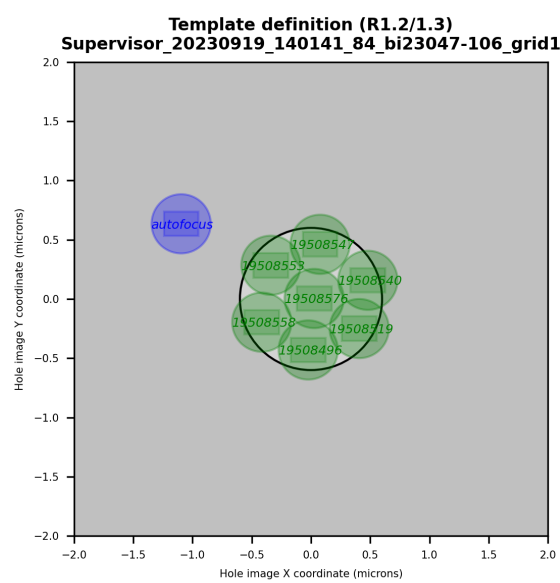
Slot 1	Slot 2	Slot 3	Slot 4	Slot 5	Slot 6
Empty					Empty

Slot 7	Slot 8	Slot 9	Slot 10	Slot 11	Slot 12
Empty	Empty	Empty	Empty	Empty	Empty

The following plot shows the sessions timings:



The following plot and table show the calibrated hole and template sizes and location:



The following plot shows the exposures over time:

