

# eBIC Session Report (EPU)

Report creation is in beta testing, report errors to [kyle.morris@diamond.ac.uk](mailto:kyle.morris@diamond.ac.uk)

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DLS Visit: bi23047-106  
BAG (institute): Training (eBIC)

EPU session name: Supervisor\_20230919\_140141\_84\_bi23047-106\_grid1  
EPU session created: 2023-09-19 14:03:40  
Atlas session name: Supervisor\_20230921\_113720\_bi23047-106  
Atlas session created: 2023-09-21 11:38:07  
Session location: /dls/m07/data/2023/bi23047-106/raw/metadata\_Supervisor\_20230919\_140141\_84\_bi23047-106\_grid1/EpuSession.dm  
Movie location: /dls/m07/data/2023/bi23047-106/raw  
Report creation time (user): 2023-09-22 16:04:10 (vtn87135)

## Instrument:

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

## Collection strategy:

Grid type: HoleyCarbon  
Measured hole size / spacing ( $\mu\text{m}$ ): 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 ( $\mu\text{m}$ ): [-2.5, -2.0, -1.5, -1.0, -0.5]

## Acquisition parameters:

Tilt (degrees): 0.0  
Acquisition spot size: 5  
Acquisition C2 ( $\mu\text{m}$ ): 50  
Acquisition Objective ( $\mu\text{m}$ ): 100  
Acquisition beam diameter ( $\mu\text{m}$ ): 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 ( $\text{e}/\text{px}/\text{s}$ ): 17.2 (calibrated)  
Sample dose rate ( $\text{e}/\text{\AA}^2/\text{s}$ ): 66.651 (calibrated)  
Acquisition exposure time (sec): 0.75  
Total dose / Fraction dose ( $\text{e}/\text{\AA}^2$ ): 50.0 / 1.0 (calibrated)

## Collection statistics (calculated at time of report creation):

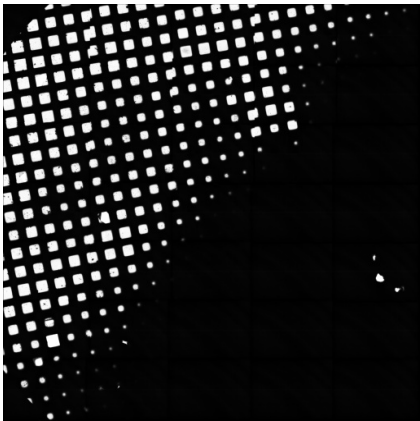
Setup time (hrs): 1.7  
Collection time (hrs): 3.1  
Number of squares total / targeted / collected: 272 / 3 / 3  
Average FoilHoles selected per Square (+/-): 124 (+/- 18)  
Total FoilHoles selected: 372.0  
Number of micrographs acquired: 2597  
Collection rate (exposure/hr): 856  
Collection rate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

Parameter advisories: 0

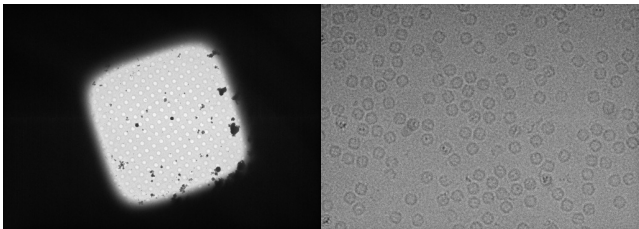
## All Presets:

Preset	Mag (X)	apix	Probe	Spot	C2 ( $\mu\text{m}$ )	Beam ( $\mu\text{m}$ )	Defocus ( $\mu\text{m}$ )	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

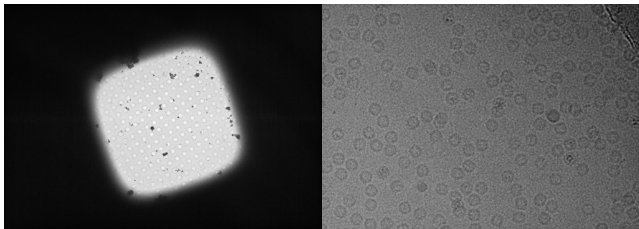
Atlas image of grid used for data collection:  
/dls/m07/data/2023/bi23047-106/atlas/Supervisor\_20230921\_113720\_bi23047-106/Sample2/Sample.dm



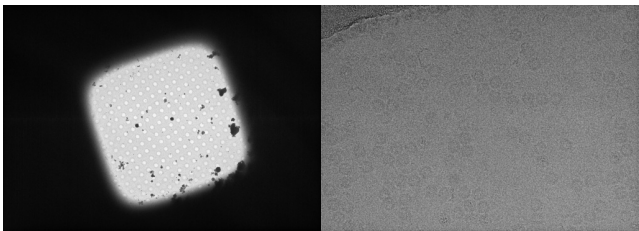
Randomly selected square and acquisition images:



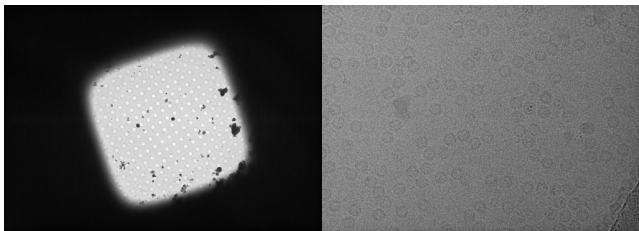
GridSquare\_20230919\_143436  
FoilHole\_19509046\_Data\_19508496\_19508498\_20230919\_173557



GridSquare\_20230919\_143559  
FoilHole\_19510079\_Data\_19508519\_19508521\_20230919\_163807

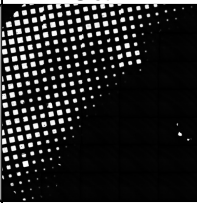
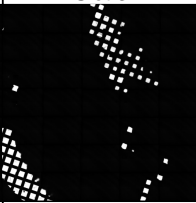
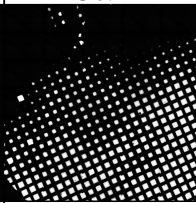
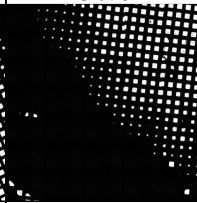


GridSquare\_20230919\_143436  
FoilHole\_19509156\_Data\_19508496\_19508498\_20230919\_182212

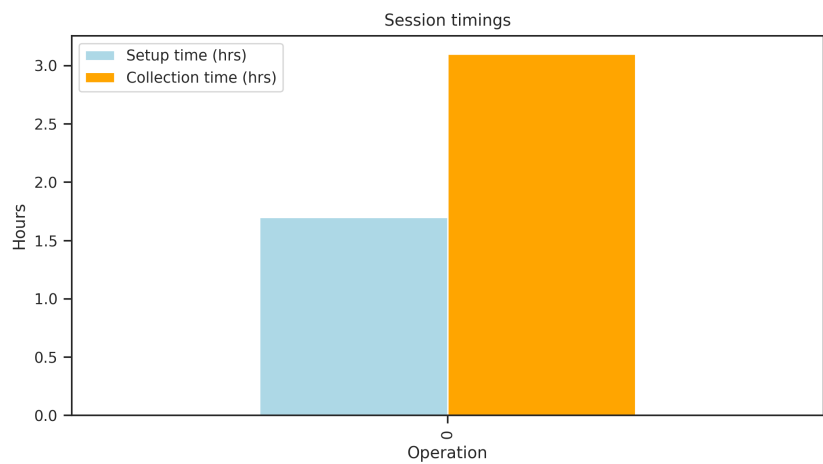


GridSquare\_20230919\_143436  
FoilHole\_19509098\_Data\_19508540\_19508542\_20230919\_182429

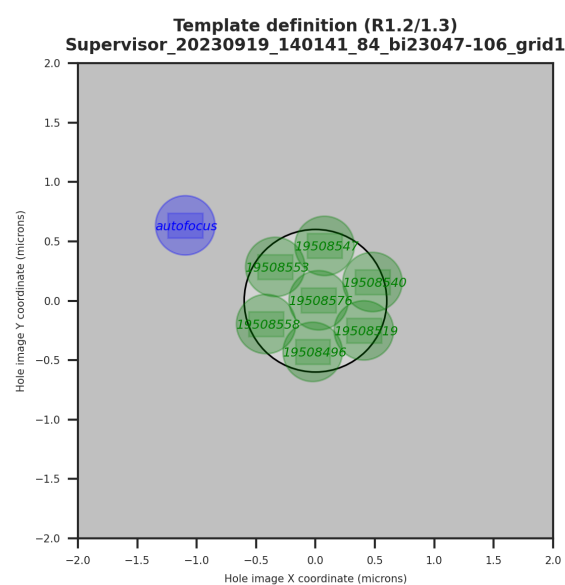
Autoloader cassette atlases:

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:

