

a

Diamond FastChip python3 v1.0

I24 - Fixed Target SSX

Nudge

Window

Block

Preset Positions

Move chip to origin

Collect position

Check beam

Load position

Backlight

In

Focus

IN x 3

IN

OUT

OUT x 3

Co-ordinate System Setup

Alignment type: Oxford

0

Home Stages

Set Fiducial 0

1

Goto Fiducial 1

Set Fiducial 1

2

Goto Fiducial 2

Set Fiducial 2

Make co-ordinate system

Block Check

Chip and Data Collection Setup

Visit: /ds/i24/data/2020/cm26462-4/

Sub dir: sampleABC/chip1

Chip: alblon

N. Shots Per Aperture: 1

Exposure time: 0.01

Transmission (fraction not %): 0.050000

Det Distance: 320

Map Type: Mapping Life

Chip Type: Oxford

Pump Probe: Repeat1

Test parameters and create shotlist

Data Collection

Start

Abort

Custom Chip

Lite launchers

Oxford

Oxford Inner

Pump probe

Pump probe

Beamline and System Status

Stage X: ON

Stage Y: ON

Stage Z: ON

P6M: ON

GR PV: ON

PMAC: ON

Requested: ON

Counter: ON

Initialise stages

Current filter transmission: ON

Expt hutch shutter: ON

Fast Shutter: ON

gui version: python3 1.0

b

Mapping Life

Mapping Life

Define Chip In PMAC

Load Map File

All on

All off

Save Screen Map

Upload Parameters

	1	2	3	4	5	6	7	8
A	01	16	17	32	33	40	40	64
B	02	15	18	31	34	37	50	63
C	03	14	19	30	35	46	51	62
D	04	13	20	29	36	45	52	61
E	05	12	21	28	37	44	53	60
F	06	11	22	27	38	43	54	59
G	07	10	23	26	39	42	55	58
H	08	09	24	25	40	41	56	57

c

Laser interface

Laser Excitation Control Centre

Pump Probe

Laser dwell at each aperture: 0.04 s

Notes

- Choose Short 1 and mapping life

Excite And Visit Again: EAVA

Laser dwell at each aperture: 0.04 s

X-ray exposure: ON

Based on requested dwell times the delay times will be calculated

Calculate

Calculated delays	
Repeat1	1.00 s
Repeat2	1.00 s
Repeat3	1.00 s
Repeat5	1.00 s
Repeat10	1.00 s

Notes

- The repeat is the number of pairs of lines in a repeat
- Currently X-ray shutter always open
- Timings assume apertures 125 um apart
- Mapping life will be used
- Repeat5 misses some chip rows

Pre-illumination

Laser 2 dwell: 0

Wait time in s at centre of chip block

Shutter control

Laser 1 control: OPEN CLOSE connected to BNC2

Laser 2 control: OPEN CLOSE connected to BNC3