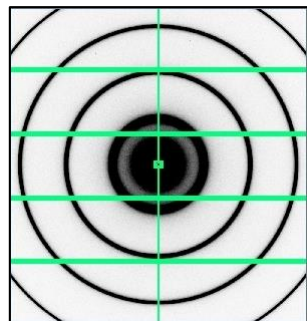


BL-6A: SAXS Detectable Area@PILATUS3 1M

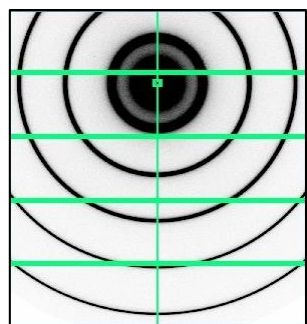
03/08/2018 updated

➤ Center



Camera Length (mm)	BS size (mm)	$2\theta_{\min}$ (°)	$2\theta_{\max}$ (°)	D_{\min} (Å)	D_{\max} (Å)	Q_{\min} (Å ⁻¹)	Q_{\max} (Å ⁻¹)
233*	3x5	0.72	27.92 [#]	3.1	119.7	0.0525	2.0209
523	4x5	0.30	13.31	6.5	284.9	0.0221	0.9710
523	3x5	0.23	13.30	6.5	379.7	0.0165	0.9700
1023	4x5	0.13	6.89	12.5	637.2	0.0099	0.5036
2021	4x6	0.07	3.50	24.5	1259.0	0.0050	0.2560
2524	4x6	0.05	2.80	30.7	1693.4	0.0037	0.2047

➤ Lower Offset



Camera Length (mm)	BS size (mm)	$2\theta_{\min}$ (°)	$2\theta_{\max}$ (°)	D_{\min} (Å)	D_{\max} (Å)	Q_{\min} (Å ⁻¹)	Q_{\max} (Å ⁻¹)
233*	3x5	0.72	34.77 [#]	2.5	119.7	0.0525	2.5030
523	4x5	0.28	17.24	5.0	303.9	0.0207	1.2556
523	3x5	0.25	17.23	5.0	350.5	0.0179	1.2547
1023	4x5	0.13	8.10	10.6	637.2	0.0099	0.5914
2021	4x6	0.07	3.80	22.6	1259.0	0.0050	0.2776
2524	4x6	0.05	3.00	28.7	1693.4	0.0037	0.2190

*The shortest-length nose is needed when measuring at this camera length.

[#]The shadow of the cell holder is imaged on the PILATUS data ($2\theta >$ about 19°) when using the PF standard cell holder.

BL-6A: SAXS/WAXD Detectable Area

07/17/2018 revised

➤ Type I (SAXS/WAXD)

Distance from sample to WAXD chamber: about 40 mm

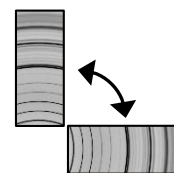
Distance from sample to WAXD detector: 279 mm

WAXD detector angle: 19°

WAXD detector: PILATUS 100K

● SAXS: Lower Offset

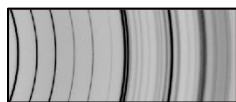
Camera Length (mm)	BS size (mm)	$2\theta_{\min}$ (°)	$2\theta_{\max}$ (°)	D_{\min} (Å)	D_{\max} (Å)	Q_{\min} (Å ⁻¹)	Q_{\max} (Å ⁻¹)
677	4x5	0.22	10.97	7.8	393.5	0.0160	0.8010
929	4x5	0.15	9.06	9.5	578.6	0.0109	0.6615
1427	4x5	0.09	5.55	15.5	957.6	0.0066	0.4054
2430	4x6	0.06	3.12	27.6	1513.6	0.0042	0.2278



The angle of WAXD detector can be set at 0° or 90°.

● WAXD

AgBh



Camera Slide position (mm)	$2\theta_{\min}$ (°)	$2\theta_{\max}$ (°)	D_{\min} (Å)	D_{\max} (Å)	Q_{\min} (Å ⁻¹)	Q_{\max} (Å ⁻¹)
0	9.66	27.72	3.1	8.9	0.7054	2.0072
63						

BL-10C: SAXS Detectable Area@PILATUS3 2M

03/08/2018 updated

It is not necessary to offset the detector location in this beamline.

➤ $\lambda = 1.5 \text{ \AA}$

Camera Length (mm)	BS size (mm)	$2\theta_{\min}$ (°)	$2\theta_{\max}$ (°)	D_{\min} (Å)	D_{\max} (Å)	Q_{\min} (Å ⁻¹)	Q_{\max} (Å ⁻¹)
237*	3x5	0.79	34.0 [#]	2.6	108.8	0.0577	2.4481
527	3x5	0.19	18.3	4.7	459.5	0.0137	1.3309
1029	4x5	0.12	8.03	10.7	690.4	0.0091	0.5865
2029	4x6	0.06	3.76	22.8	1361.3	0.0046	0.2751
3028	5x6	0.05	2.46	35.0	1886.5	0.0033	0.1797

➤ $\lambda = 1 \text{ \AA}$

Camera Length (mm)	BS size (mm)	$2\theta_{\min}$ (°)	$2\theta_{\max}$ (°)	D_{\min} (Å)	D_{\max} (Å)	Q_{\min} (Å ⁻¹)	Q_{\max} (Å ⁻¹)
237*	3x5	0.79	34.0 [#]	1.7	72.5	0.0866	3.6722
527	3x5	0.19	18.3	3.1	306.3	0.0205	1.9982
1029	4x5	0.12	8.03	7.1	460.3	0.0137	0.8798
2029	4x6	0.06	3.76	15.2	907.5	0.0069	0.4126
3028	5x6	0.05	2.46	23.3	1257.7	0.0050	0.2692

*The shortest-length nose is needed when measuring at this camera length.

[#]The shadow of the cell holder is imaged on the PILATUS data ($2\theta > \text{about } 19^\circ$) when using the PF standard cell holder.

BL-10C: SAXS/WAXD Detectable Area (1)

06/06/2018 updated

➤ Type I (SAXS/WAXD)

Distance from sample to WAXD chamber: about 40 mm

Distance from sample to WAXD detector: about 260 mm

WAXD detector angle: 19°

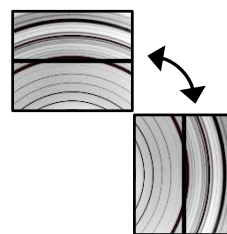
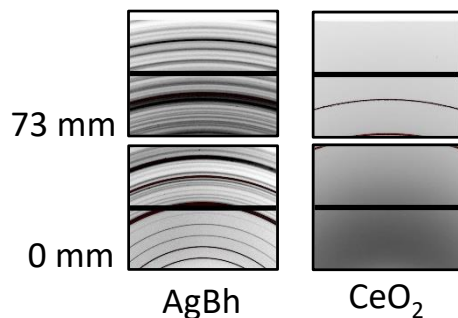
WAXD detector: PILATUS 3 200K

➤ $\lambda = 1.5 \text{ \AA}$

● SAXS

Camera Length (mm)	BS size (mm)	$2\theta_{\min}$ (°)	$2\theta_{\max}$ (°)	D_{\min} (Å)	D_{\max} (Å)	Q_{\min} (Å ⁻¹)	Q_{\max} (Å ⁻¹)
831	4x5	0.15	10.32	8.3	557.2	0.0113	0.7531
1081	4x5	0.13	7.59	11.3	673.1	0.00933	0.5544
1582	4x6	0.08	4.95	17.4	1061.2	0.0059	0.3615
2577	5x6	0.06	2.91	29.5	1404.8	0.0045	0.2131

● WAXD



The angle of WAXD detector can be set at 0° ~ 90°.

Camera Slide position (mm)	$2\theta_{\min}$ (°)	$2\theta_{\max}$ (°)	D_{\min} (Å)	D_{\max} (Å)	Q_{\min} (Å ⁻¹)	Q_{\max} (Å ⁻¹)
0	10.35	28.12	3.1	8.3	0.7559	2.0355
73	27.55	41.43	2.1	3.1	1.9950	2.9632

BL-10C: SAXS/WAXD Detectable Area (2)

06/06/2018 updated

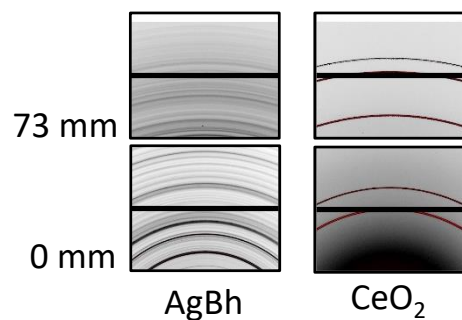
➤ Type I (SAXS/WAXD)

➤ $\lambda = 1 \text{ \AA}$

● SAXS

Camera Length (mm)	BS size (mm)	$2\theta_{\min}$ (°)	$2\theta_{\max}$ (°)	D_{\min} (Å)	D_{\max} (Å)	Q_{\min} (Å ⁻¹)	Q_{\max} (Å ⁻¹)
831	4x5	0.15	10.32	5.6	371.5	0.0169	1.1297
1081	4x5	0.13	7.59	7.6	448.8	0.014	0.8316
1582	4x6	0.08	4.95	11.6	707.5	0.0089	0.5423
2577	5x6	0.06	2.91	19.7	936.5	0.0067	0.3196

● WAXD



The angle of WAXD detector can be set at $0^\circ \sim 90^\circ$.

Camera Slide position (mm)	$2\theta_{\min}$ (°)	$2\theta_{\max}$ (°)	D_{\min} (Å)	D_{\max} (Å)	Q_{\min} (Å ⁻¹)	Q_{\max} (Å ⁻¹)
0	10.35	28.12	2.1	5.5	1.1339	3.0533
73	27.55	41.43	1.4	2.1	2.9925	4.4448

BL-15A2: SAXS Detectable Area @PILATUS3 2M (1)

07/05/2018 updated

It is not necessary to offset the detector location in this beamline.

➤ $\lambda = 1.716 \text{ \AA}$ (7226 eV, 5th harmonic of Undulator)

Camera Length (mm)	BS size (mm)	$2\theta_{\min}$ (°)	$2\theta_{\max}$ (°)	D_{\min} (Å)	D_{\max} (Å)	Q_{\min} (Å ⁻¹)	Q_{\max} (Å ⁻¹)
293*	3	0.77	30.56 [#]	3.3	127.1	0.0494	1.9303
583	3	0.22	17.76	5.6	447.6	0.0140	1.1304
1084	3	0.10	8.11	12.1	982.7	0.0064	0.5180
1585	3	0.06	5.20	18.9	1581.2	0.0040	0.3320
2585	3	0.04	3.02	32.6	2579.0	0.0024	0.1928
3585	3	0.03	2.13	46.0	3576.2	0.0018	0.1364

➤ $\lambda = 1.213 \text{ \AA}$ (10222 eV, 7th harmonic of Undulator, BL standard energy)

Camera Length (mm)	BS size (mm)	$2\theta_{\min}$ (°)	$2\theta_{\max}$ (°)	D_{\min} (Å)	D_{\max} (Å)	Q_{\min} (Å ⁻¹)	Q_{\max} (Å ⁻¹)
293*	3	0.77	30.56 [#]	2.3	89.8	0.0699	2.7306
583	3	0.22	17.76	3.9	316.4	0.0199	1.5991
1084	3	0.10	8.11	8.6	695.1	0.0090	0.7324
1585	3	0.06	5.20	13.4	1117.7	0.0056	0.4696
2585	3	0.04	3.02	23.0	1823.1	0.0034	0.2727
3585	3	0.03	2.13	32.6	2528.0	0.0025	0.1928

BL-15A2: SAXS Detectable Area @PILATUS3 2M (2)

07/05/2018 updated

➤ $\lambda = 0.9374 \text{ \AA}$ (13227 eV , 9th harmonic of Undulator)

Camera Length (mm)	BS size (mm)	$2\theta_{\min}$ (°)	$2\theta_{\max}$ (°)	D_{\min} (Å)	D_{\max} (Å)	Q_{\min} (Å ⁻¹)	Q_{\max} (Å ⁻¹)
293*	3	0.77	30.56 [#]	1.8	69.4	0.0905	3.5333
583	3	0.22	17.76	3.0	244.5	0.0257	2.0692
1084	3	0.10	8.11	6.6	536.9	0.0117	0.9482
1585	3	0.06	5.20	10.3	863.8	0.0073	0.6077
2585	3	0.04	3.02	17.8	1408.9	0.0045	0.3528
3585	3	0.03	2.13	25.2	1953.7	0.0032	0.2494

*The shortest-length nose is needed when measuring at this camera length.

#The shadow of the cell holder is imaged on the PILATUS data ($2\theta > \text{about } 19^\circ$) when using the PF standard cell holder.

BL-15A2: SAXS/WAXD Detectable Area (1)

07/04/2018 updated

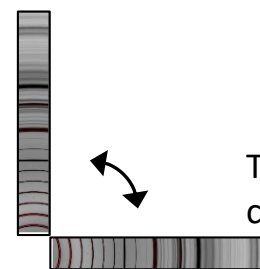
➤ Type I (SAXS/WAXD)

Distance from sample to WAXD chamber: about 40 mm

Distance from sample to WAXD detector: about 440 mm

WAXD detector angle: 23°

WAXD detector: PILATUS 3 300K-W



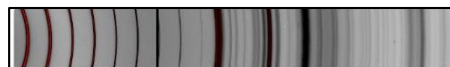
The angle of WAXD detector can be set at 0° ~ 90°.

➤ $\lambda = 1.716 \text{ \AA}$ (7226 eV)

● SAXS

Camera Length (mm)	BS size (mm)	$2\theta_{\min}$ (°)	$2\theta_{\max}$ (°)	D_{\min} (Å)	D_{\max} (Å)	Q_{\min} (Å ⁻¹)	Q_{\max} (Å ⁻¹)
975	3	0.12	9.26	10.6	810.4	0.0078	0.5911
1225	3	0.09	7.00	14.1	1111.1	0.0057	0.4468
1724	3	0.06	4.72	20.8	1719.7	0.0037	0.3018
2225	3	0.04	3.56	27.6	2219.4	0.0028	0.2273
3227	3	0.03	2.37	41.4	3598.1	0.0017	0.1516

● WAXD



AgBh



CeO₂

0 mm

Camera Slide position (mm)	$2\theta_{\min}$ (°)	$2\theta_{\max}$ (°)	D_{\min} (Å)	D_{\max} (Å)	Q_{\min} (Å ⁻¹)	Q_{\max} (Å ⁻¹)
0	6.12	40.22	2.5	16.1	0.3907	2.5181
311						

BL-15A2: SAXS/WAXD Detectable Area (2)

07/04/2018 updated

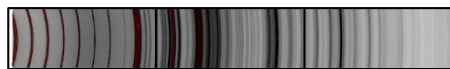
➤ Type I (SAXS/WAXD)

➤ $\lambda = 1.213 \text{ \AA}$ (10222 eV)

● SAXS

Camera Length (mm)	BS size (mm)	$2\theta_{\min}$ (°)	$2\theta_{\max}$ (°)	D_{\min} (Å)	D_{\max} (Å)	Q_{\min} (Å ⁻¹)	Q_{\max} (Å ⁻¹)
975	3	0.12	9.26	7.5	572.9	0.0110	0.8362
1225	3	0.09	7.00	9.9	785.4	0.0080	0.6320
1724	3	0.06	4.72	14.7	1215.7	0.0052	0.4269
2225	3	0.04	3.56	19.5	1568.9	0.0040	0.3215
3227	3	0.03	2.39	29.1	2528.8	0.0025	0.2157

● WAXD



AgBh



CeO₂

0 mm

Camera Slide position (mm)	$2\theta_{\min}$ (°)	$2\theta_{\max}$ (°)	D_{\min} (Å)	D_{\max} (Å)	Q_{\min} (Å ⁻¹)	Q_{\max} (Å ⁻¹)
0	6.12	40.22	1.8	11.4	0.5527	3.5621
311						

BL-15A2: SAXS/WAXD Detectable Area (3)

07/04/2018 updated

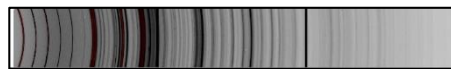
➤ Type I (SAXS/WAXD)

➤ $\lambda = 0.9374 \text{ \AA}$ (13227 eV)

● SAXS

Camera Length (mm)	BS size (mm)	$2\theta_{\min}$ (°)	$2\theta_{\max}$ (°)	D_{\min} (Å)	D_{\max} (Å)	Q_{\min} (Å ⁻¹)	Q_{\max} (Å ⁻¹)
975	3	0.12	9.26	5.8	442.7	0.0142	1.0821
1225	3	0.09	7.00	7.7	607.0	0.0104	0.8179
1724	3	0.06	4.72	11.4	939.5	0.0067	0.5524
2225	3	0.04	3.56	15.1	1212.5	0.0052	0.4160
3227	3	0.03	2.39	22.5	1954.3	0.0032	0.2792

● WAXD



AgBh



CeO₂

Camera Slide position (mm)	$2\theta_{\min}$ (°)	$2\theta_{\max}$ (°)	D_{\min} (Å)	D_{\max} (Å)	Q_{\min} (Å ⁻¹)	Q_{\max} (Å ⁻¹)
0	6.12	40.22	1.4	8.8	0.7151	4.6092
311						

0 mm