

SBRC beamline list in the Photon Factory

updated on

2015/11/12

Beamline	BL-1A	BL-5A	BL-17A	AR-NW12A	AR-NE3A
Starting year	2010	2004	2006	2003	2009
Status	Operational	Operational	Operational	Operational	Operational
Synchrotron Ring	PF 2.5GeV			PF-AR 6.5GeV	
Injection	Top-up			Twice a day (8:30,20:30)	
Light Source	Short-gap undulator	Multipole wiggler	Short-gap undulator	Undulator	Undulator
Wavelength available (Å)	0.96 - 1.1 2.7 - 3.3	0.75 - 1.9	0.9 - 2.1	0.75 - 1.9	0.75 - 1.9
Energy resolution ($\Delta E/E$)	-	2.5×10^{-4}	2.5×10^{-4}	2.5×10^{-4}	2.5×10^{-4}
Typical beam size (H x V) (mm)	0.013 x 0.013	0.20 x 0.20	0.040 x 0.016	0.20 x 0.20	0.20 x 0.08
Photon flux (photons/sec)	0.9×10^{11} (@ 1.1 Å)	2×10^{11} (@ 1.0 Å)	3.1×10^{11} (@ 0.98 Å)	3.9×10^{11} (@ 1.0 Å)	1.2×10^{12} (@ 1.0 Å)
Detector	Eiger X4M	Quantum 315r	Pilatus3 S6M	Quantum 270	Pilatus 2M-F
Type	PAD	CCD	PAD	CCD	PAD
Active area (mm ²)	155.2 x 162.5	315 x 315	423.6 x 434.6	270 x 270	254 x 289
Pixel size (μm ²)	75 x 75	102 x 102*	172 x 172	64.8 x 64.8	172 x 172
Pixel number	2070 x 2167	3072 x 3072*	2463 x 2527	4168 x 4168	1475 x 1679
Frame data size (MByte)	2	19*	6.2	34	2.5
Readout time (sec.)	0.000003	0.25*	0.00203	1.1	0.003
Max. frame rate (Hz)	750	-	25	-	60
Detector distance (mm)	60 - 450	60 - 950	185 - 750	60 - 950	80 - 500
Detector vertical offset (mm)	-	0 - 150	-	0 - 120	0 - 150
Sample exchanger	PAM-HC	PAM			
Software for image processing	HKL2000, iMosflm, XDS				

* "binning" mode (default).