Part III

Calibration Data and Products

Section 8

Calibration Data

8.1 Synchrotron Data

The synchrotron data are archived in directory `/nfs/wiwaxia/d4/ASC/data/SYNCHROTRON` at MIT. The table below lists the archive subdirectories for the different data sets. The directory structure is such that the synchrotron runs are categorized by date and facility. The synchrotron facility is denoted by daresbury, bnl (the National Synchrotron Light Source at Brookhaven National Labs), als (Advanced Light Source) or BESSY (Physikalisch–Technische Bundesanstalt at BESSY).

The data have been collected and analyzed over the years by many individuals who are no longer available for consultation, so the archive directories contain notes, software and working files that may be useful. In each case there will be a subdirectory, RAW_DATA, which houses the unrefined data. The subdirectory NOTES contains publications, email correspondance, memos and pertinent information. A write-up of the results, if available, will be placed here. Finally, if the data are reanalyzed, this will be reflected in a subdirectory (i.e., `BESSY_95oct/KAF_ANALYSIS_98oct`). These archived directories will be updated as appropriate.

Table 8.1: Summary of HETG synchrotron radiation tests and archive of data

Date	Facility	Sample	Energy	Comments	Archive
July '93	NSLS	HX101	2.03 - 4	preliminary tests	
Nov '93	Daresbury	HX101	8.442	period variations (UL)	daresbury_nov93
Jan. '94	NSLS	HX101	0.7 - 6	first tests	bnl_94jan
Feb. '94	NSLS	1Au	2.03 - 6.04	new gold optical constants	bnl_94feb
Jun. '94	NSLS	HA04	2.03 - 6		bnl_94jun
"	"	HX101	2 - 3.5		"
"	"	MA12	0.7 - 5	± 1 order assymetry	"
Feb. '95	NSLS	HX220	0.5 - 6.4	X-GEF reference grating	bnl_95feb
"	"	MX078	0.5 - 3.5	X-GEF reference grating	"
May '95	NSLS	HX220	1.05 - 1.95	X-GEF reference grating	bnl_95may
"	"	poly	0.4 - 1.83	poly transmission	"
Oct. '95	NSLS	HA2021	2.03 - 6.5	flight lot 2, dense 0&1 orders	bnl_95oct
"	"	MA1047	2.1 - 5.0	flight lot 3, dense 0&1 orders	"
Oct. '95	PTB	HA2021	0.4 - 1.9	flight lot 2	BESSY_95oct
"	"	MA1047	0.4 - 1.5	flight lot 3	"
"	"	HA2049	0.2 - 1.5	polyimide sample, flight lot 2	"
"	"	MA1066	0.2 - 1.5	polyimide sample, flight lot 3	"
"	"	HX507	0.05 - 1.9	gold foil transmission	"
Mar. '96	NSLS	HD2338	2.0 - 6.4	flight lot 4; ± 1, higher orders	bnl_96mar
"	"	MB1148	2.1 - 4.9	flight lot 9; ± 1, higher orders	"
Aug. '96	ALS	poly	0.06 - .940	poly transmission, R. Blake	als_96aug
Nov. '96	NSLS	1Au	2.01 - 7.0	gold transmission, R. Blake	bnl_96nov

8.2 HETG Facet Data

8.3 LR Data

8.4 X-GEF Data

8.5 HESS Design and Metrology Data

8.6 Alignment Data

8.7 XRCF Data