

**Absorption Measurements
Coated Optics Sample Log**

		Front Illuminated Measurements on ($\lambda/4$) layers MO - ($\lambda/4$) layers SiO ₂ or Al ₂ O ₃					(10/26/0
		unless specified otherwise					
Receive Date	Return Date	Serial No.	Substrate	Coating Design	Anneal Temp.	PCI Loss (PPM)	Notes
COATINGS BY MLD							
	1/30/2004	5584	PL/PL	Ta₂O₅/SiO₂	250 °C	1.71	
	1/30/2004	5700	PL/PL	"	"	1.65	
	1/30/2004	0358	Curve	"	"	1.65	
	1/30/2004	5638	PL/PL	"	300 °C	1.24	
	1/30/2004	5698	PL/PL	"	"	1.30	
	1/30/2004	0321	Curve	"	"	1.15	
	1/30/2004	5721	PL/PL	"	350 °C	0.75	
	1/30/2004	5723	PL/PL	"	"	0.78	
	1/30/2004	0372	Curve	"	"	0.70	
	1/30/2004	8203		"	400 °C	0.65	
	Glasgow	8107		"	450 °C	0.44	
	1/30/2004	8174		"	450 °C	0.43	
	1/30/2004	8233		"	500 °C	0.40	
	1/30/2004	8118		"	Not annealed yet	11.50	
Nb₂O₅/SiO₂							
	1/30/2004	5601	PL/PL	"	300 °C	1.17	
	1/30/2004	Unknown-300	PL/PL	"	"	1.30	
	1/30/2004	0230	Curve	"	"	1.18	
	1/30/2004	5695	PL/PL	"	350 °C	0.78	
	1/30/2004	6366	PL/PL	"	"	0.76	
		Unknown-350	Curve	"	"	0.76	
	1/30/2004	5592	PL/PL	"	400°C	0.45	
	1/30/2004	6673	PL/PL	"	"	0.42	
	1/30/2004	Unknown-400	Curve	"	"	0.40	
	1/30/2004	8131	PL/PL	"	24 hrs, 450°C	0.29	
	1/30/2004	8145	PL/PL	"	24 hrs, 450°C	0.42	
	1/30/2004	8099	PL/PL	"	24 hrs, 500°C	0.26-0.28	Bumps to 0.35
	1/30/2004	8142	PL/PL	"	24 hrs, 500°C	0.32-0.37	
ZrO₂/SiO₂							
	1/30/2004	5624	PL/PL	"	300 °C	21.70	
	1/30/2004	5716	PL/PL	"	"	22.85	
	1/30/2004	0342	Curve	"	"	23.50	
	1/30/2004	5697	PL/PL	"	350 °C	19.95	
	1/30/2004	5046	PL/PL	"	"	19.80	
	1/30/2004	0363	Curve	"	"	19.20	
	1/30/2004	5635	PL/PL	"	400°C	11.60	
	1/30/2004	5696	PL/PL	"	"	12.03	
	1/30/2004	0290	Curve	"	"	11.60	
Ta₂O₅/Al₂O₃							
	1/30/2004	5564	PL/PL	"	300 °C	3.24	
	1/30/2004	5572	PL/PL	"	"	2.67	

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		FS	PL/PL	C04068/42		3.20	
			PL/PL				
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8/27/2004		SMA Sample 1A	75 mm dia	60 1/8SiO ₂ -1/8Ta ₂ O ₅			
8/27/2004		MLD Sample 3A	75 mm dia	30 1/4Al ₂ O ₃ -1/4Ta ₂ O ₅			
8/27/2004		MLD Sample 16	75 mm dia	30 1/4SiO ₂ -1/4 Nb ₂ O ₃	450C, 24 hrs		
8/27/2004		MLD Sample 17	75 mm dia	30 1/4SiO ₂ -1/4 Nb ₂ O ₃			
8/27/2004		SMA Sample 18	75 mm dia	30 1/4 Ti:Ta ₂ O ₅ - 1/4 SiO ₂			
8/27/2004		WP Sample 19	75 mm dia	30 1/4 Al ₂ O ₃ - 1/4 Ta ₂ O ₅			
8/27/2004		CSIRO Sample 32	75 mm dia	30 SiO ₂ - Ta ₂ O ₅			Variable O ₂ flow
8/27/2004		CSIRO Sample 32	75 mm dia	30 SiO ₂ - Ta ₂ O ₅			Variable O ₂ flow
MISC. COATED OPTICS							
		REO (HR+AR)	PL/PL	Ta ₂ O ₅ /SiO ₂ *	Front Illuminated	HR = 0.22	
					Front Illuminated	AR = ~3.6	Requires standard for calibration
		SMA (HR Ref. 01044/11)	Curve	Ta ₂ O ₅ /SiO ₂ *	Front Illuminated	HR = 1.1	0.95 by SMA
		Wave Precision (GO 5703)	PL/PL	Ta ₂ O ₅ /Al ₂ O ₃ *	Front Illuminated	HR = 1.7	
		HR/AR - Ref. E000718/7			Front Illuminated	AR = ~2.4	Requires standard for calibration
		Newport M/FS ND filter	FSQ-ND01 (79%)	Metal Coated FS PL/PL	Front Illuminated	18% **	Used as Primary Standard
		SMA (HR Ref. 01045/12, GO 5705)	PL/PL	Ta ₂ O ₅ /SiO ₂ *	Front Illuminated	HR = 0.72	1.2 by SMA, used as Secondary Standard
				* Structure of coating unknown		** Loss determined by photometric methods	