

Reflectivity measurement - before, after CO2 cleaning INT primary mirror

Equipment:	uscan reflectometer		
Mirror:	INT Primary mirror		
Person:	Neil O'Mahony		
Date:	02/09/2008		
Lambda (micron):	0.67		
Incident angle (degree):	25		
BW (Bandwidth) limits:	1	0.1	

INT mirror - before CO2

No#	BPDF - 0°,0° detector position	BPDF - 50°,180° detector position	reflectivity	rms (Ångstrom)	time	date
1	4.04E-03	2.52E-03	0.788	47.7	10:51:31	09/02/2008
2	7.85E-03	6.22E-03	0.783	66.5	10:51:44	09/02/2008
3	8.52E-03	6.32E-03	0.816	67.8	10:51:55	09/02/2008
4	1.12E-02	7.28E-03	0.785	79.4	10:52:03	09/02/2008
5	9.63E-03	6.83E-03	0.81	72.4	10:52:15	09/02/2008
6	8.90E-03	6.43E-03	0.765	71.6	10:52:23	09/02/2008
7	8.54E-03	6.35E-03	0.767	70.1	10:52:36	09/02/2008
8	8.33E-03	5.71E-03	0.825	66.8	10:52:47	09/02/2008
9	9.27E-03	7.01E-03	0.761	73.3	10:52:59	09/02/2008
10	9.35E-03	6.75E-03	0.776	72.9	10:53:12	09/02/2008
11	8.04E-03	5.94E-03	0.768	68	10:53:25	09/02/2008
12	8.71E-03	5.71E-03	0.752	71.6	10:53:41	09/02/2008
13	9.76E-03	6.79E-03	0.796	73.6	10:53:55	09/02/2008
average	8.625E-03	6.142E-03	0.784	69.362		
standard dev	1.632E-03	1.190E-03	0.022	7.387		

INT mirror - after CO2

No#	BPDF - 0°,0° detector position	BPDF - 50°,180° detector position	reflectivity	rms (Ångstrom)	time	date
21	2.47E-03	7.83E-04	0.869	37.3	11:21:17	09/02/2008
22	2.72E-03	1.05E-03	0.818	39.4	11:21:25	09/02/2008
23	4.68E-03	2.06E-03	0.793	51.9	11:21:34	09/02/2008
24	1.61E-03	6.00E-04	0.816	30.5	11:21:42	09/02/2008
25	2.19E-03	7.64E-04	0.859	34.8	11:21:49	09/02/2008
26	2.08E-03	9.49E-04	0.819	33.9	11:21:58	09/02/2008
27	2.01E-03	9.42E-04	0.799	33.8	11:22:06	09/02/2008
28	1.64E-03	5.58E-04	0.855	30.4	11:22:33	09/02/2008
29	2.26E-03	8.55E-04	0.813	36.1	11:22:41	09/02/2008
30	1.96E-03	6.40E-04	0.854	33.4	11:22:52	09/02/2008
31	2.52E-03	9.64E-04	0.843	37.4	11:23:00	09/02/2008
32	2.59E-03	1.06E-03	0.838	37.8	11:23:12	09/02/2008
33	2.31E-03	1.08E-03	0.843	35.3	11:23:21	09/02/2008
average	2.387E-03	9.470E-04	0.832	36.308		
standard dev	7.675E-04	3.791E-04	0.024	5.397		

Notes:

RMS - Root Mean Square surface roughness in Angstrom,
 BPDF - Bidirectional scatter distribution function, it is equal to the scattered power per unit solid angle