

Reflectivity measurement - WHT Primary, before and after CO2

Equipment:	uscan reflectometer		
Mirror:	WHT Primary mirror		
Person:	Neil O'Mahony		
Date:	7/4/2009		
Lambda (micron):	0.67		
Incident angle (degree):	25		
BW (Bandwidth) limits:	1	0.1	

WHT Primary mirror before CO2

No#	BSDF - 0°,0° detector position	BSDF - 50°,180° detector position	reflectivity	rms (Ångstrom)	time	date
1	7.81E-03	4.06E-03	0.79	66.6	09:52:57	4/7/2009
2	6.83E-03	3.02E-03	0.792	62.8	09:53:12	4/7/2009
3	6.77E-03	3.01E-03	0.789	62.6	09:53:17	4/7/2009
4	7.67E-03	4.46E-03	0.788	65.8	09:53:29	4/7/2009
5	7.65E-03	4.45E-03	0.793	65.5	09:53:33	4/7/2009
6	7.65E-03	4.44E-03	0.792	65.5	09:53:39	4/7/2009
7	7.38E-03	3.69E-03	0.796	64.6	09:53:50	4/7/2009
8	7.35E-03	3.67E-03	0.81	63.9	09:53:56	4/7/2009
9	7.33E-03	3.66E-03	0.782	65	09:54:01	4/7/2009
10	1.13E-02	5.05E-03	0.768	81.7	09:54:16	4/7/2009
11	1.13E-02	5.05E-03	0.769	81.7	09:54:21	4/7/2009
12	1.13E-02	5.05E-03	0.769	81.7	09:54:26	4/7/2009
13	7.73E-03	3.82E-03	0.794	66.2	09:54:38	4/7/2009
14	7.66E-03	3.81E-03	0.794	65.9	09:54:43	4/7/2009
15	7.66E-03	3.81E-03	0.794	65.9	09:54:48	4/7/2009
16	1.16E-02	4.99E-03	0.781	82.5	09:54:59	4/7/2009
17	1.16E-02	4.99E-03	0.78	82.6	09:55:04	4/7/2009
18	1.16E-02	4.99E-03	0.776	82.8	09:55:09	4/7/2009
19	6.32E-03	2.93E-03	0.798	60	09:55:23	4/7/2009
20	6.44E-03	3.07E-03	0.787	60.9	09:55:27	4/7/2009
21	6.41E-03	3.01E-03	0.776	61.2	09:55:32	4/7/2009
22	9.14E-03	4.37E-03	0.798	72	09:55:51	4/7/2009
23	9.12E-03	4.35E-03	0.791	72.2	09:55:56	4/7/2009
average	8.498E-03	4.076E-03	0.787	69.548		
standard dev	1.906E-03	7.482E-04	0.011	8.173		

WHT Primary mirror after CO2

No#	BSDF - 0°,0° detector position	BSDF - 50°,180° detector position	reflectivity	rms (Ångstrom)	time	date
1	3.62E-03	8.66E-04	0.833	48.5	11:02:44	4/7/2009
2	3.62E-03	8.68E-04	0.825	48.7	11:02:50	4/7/2009
3	3.62E-03	8.65E-04	0.831	48.6	11:02:55	4/7/2009
4	4.78E-03	1.48E-03	0.809	53.9	11:03:11	4/7/2009
5	4.80E-03	1.48E-03	0.81	54	11:03:17	4/7/2009
6	4.81E-03	1.47E-03	0.811	54.2	11:03:22	4/7/2009
7	5.86E-03	1.34E-03	0.825	62.6	11:03:34	4/7/2009
8	5.83E-03	1.34E-03	0.822	62.5	11:03:39	4/7/2009
9	5.85E-03	1.33E-03	0.817	62.9	11:03:44	4/7/2009
10	3.27E-03	6.73E-04	0.782	49.4	11:03:55	4/7/2009

11	3.30E-03	6.80E-04	0.811	48.6	11:04:01	4/7/2009
12	3.29E-03	6.80E-04	0.815	48.5	11:04:06	4/7/2009
13	4.06E-03	9.49E-04	0.837	51.5	11:04:18	4/7/2009
14	4.05E-03	9.53E-04	0.814	52.1	11:04:24	4/7/2009
15	4.05E-03	9.54E-04	0.813	52.1	11:04:29	4/7/2009
16	2.79E-03	4.55E-04	0.821	48.1	11:04:41	4/7/2009
17	2.78E-03	4.49E-04	0.818	48.3	11:04:46	4/7/2009
18	2.78E-03	4.52E-04	0.82	48.2	11:04:51	4/7/2009
19	4.73E-03	1.25E-03	0.819	54.7	11:05:02	4/7/2009
20	4.72E-03	1.25E-03	0.776	56.2	11:05:07	4/7/2009
21	4.70E-03	1.24E-03	0.802	55.2	11:05:11	4/7/2009
average	4.158E-03	1.001E-03	0.815	52.800		
standard dev	9.886E-04	3.523E-04	0.015	4.922		

Notes:

RMS - Root Mean Square surface roughness in Angstrom,

BSDF - Bidirectional scatter distribution function, it is equal to the scattered power per unit solid angle