

Reflectivity measurement - before, after CO2 washing

Equipment:	uscan reflectometer	
Mirror:	WHT Primary mirror - right & left side, telescope in AP3	
Person:	Neil O'Mahony, Tibor Agocs	
Date:	08/01/2007	
Lambda (micron):	0.67	
Incident angle (degree):	25	
BW (Bandwidth) limits:	1	0.1

BEFORE

No#	BPDF - 0°,0° detector position	BPDF - 50°,180° detector position	reflectivity	rms (Ångstrom)	time	date
4	5.90E-03	1.26E-03	0.825	64	10:11:05	01/08/1907
5	6.58E-03	2.00E-03	0.786	64.4	10:11:15	01/08/1907
6	3.21E-03	1.21E-03	0.81	43.1	10:11:24	01/08/1907
7	7.86E-03	2.30E-03	0.814	69.6	10:11:33	01/08/1907
8	9.91E-03	2.40E-03	0.819	80.7	10:11:43	01/08/1907
9	6.13E-03	1.36E-03	0.782	66.3	10:12:12	01/08/1907
10	8.34E-03	4.57E-03	0.776	69.2	10:12:20	01/08/1907
11	5.53E-03	1.86E-03	0.829	56.7	10:12:29	01/08/1907
12	8.01E-03	1.91E-03	0.842	71.7	10:12:40	01/08/1907
average	6.829E-03	2.096E-03	0.809	65.078		
standard dev	1.950E-03	1.022E-03	0.023	10.498		

AFTER

No#	BPDF - 0°,0° detector position	BPDF - 50°,180° detector position	reflectivity	rms (Ångstrom)	time	date
13	3.46E-03	4.67E-04	0.791	59.4	11:33:50	01/08/1907
14	6.66E-03	9.60E-04	0.786	80.1	11:33:59	01/08/1907
15	4.27E-03	6.37E-04	0.789	63	11:34:07	01/08/1907
16	2.20E-03	2.67E-04	0.79	50	11:34:17	01/08/1907
17	3.24E-03	4.92E-04	0.807	53.9	11:34:25	01/08/1907
18	9.75E-03	2.35E-03	0.847	78.8	11:34:40	01/08/1907
19	4.37E-03	6.34E-04	0.85	62.1	11:34:48	01/08/1907
20	3.61E-03	5.29E-04	0.861	55.8	11:34:57	01/08/1907
21	4.21E-03	6.11E-04	0.793	63.1	11:38:31	01/08/1907
22	8.59E-03	1.58E-03	0.788	82.6	11:38:39	01/08/1907
23	4.79E-03	8.26E-04	0.832	61.3	11:38:47	01/08/1907
24	8.04E-03	1.38E-03	0.796	81.4	11:38:55	01/08/1907
25	5.09E-03	7.54E-04	0.796	68.7	11:39:03	01/08/1907
26	5.99E-03	1.04E-03	0.835	68.3	11:39:17	01/08/1907
27	5.65E-03	8.85E-04	0.855	68.2	11:39:25	01/08/1907
28	4.67E-03	8.43E-04	0.871	58.2	11:39:32	01/08/1907
29	3.74E-03	6.58E-04	0.898	51.7	11:39:40	01/08/1907
average	5.196E-03	8.768E-04	0.823	65.094		
standard dev	2.043E-03	5.009E-04	0.036	10.455		

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 normalized by the incident power and $\cos\theta$