## **OQ Protocol**



Company:
Operator:
Instrument Type:
Optics Configuration:
Accessory:
Instrument Serial Number:
Instrument Firmw are Version:
OPUS/DB Version:
Overall Test Result
Test expires:
Test Date/Time:
Test Spectra Path:
Comment:

Moscow State University of Default Senterra Microscope 785 nm Grating 400 Microscope w ith: 785 nm, Grating 400, CCD None Result Result 20090227 / 6.5.9 PASS 2013/01/18 18:42:49 2012/01/18 18:42:49 C:\Program Files\OPUS\_65\Validation\Data\20120118\184249

## Wavelength Accuracy Test

1. Deak ana sifia du	201 E am 1	1. Dook maaauradu	201 1 am 1	
1. Peak specified:	391.5 cm -1	1. Peak measured:	391.4 cm -1	
Max. Deviation Limit:	3.00 cm -1	Measured Deviation:	0.11 cm-1	
2. Peak specified:	857.9 cm -1	2. Peak measured:	858.0 cm -1	
Max. Deviation Limit:	3.00 cm -1	Measured Deviation:	0.07 cm-1	
3. Peak specified:	1168.5 cm -1	3. Peak measured:	1168.7 cm-1	
Max. Deviation Limit:	3.00 cm -1	Measured Deviation:	0.16 cm-1	
4. Peak specified:	1323.9 cm -1	4. Peak measured:	1324.6 cm -1	
Max. Deviation Limit:	3.00 cm -1	Measured Deviation:	0.69 cm-1	
5. Peak specified:	1648.4 cm-1	5. Peak measured:	1648.7 cm-1	
Max. Deviation Limit:	3.00 cm -1	Measured Deviation:	0.26 cm - 1	
6. Peak specified:	2931.1 cm-1	6. Peak measured:		
Max. Deviation Limit:	3.00 cm -1	Measured Deviation:		

## Throughput Test

Throughput minimum requirement:	3700	Throughput measured:	7373						
Photometric Consistency Test									
1. Peak specified:	620.9 cm -1	1. Peak measured:	620.6 cm -1						
Max. Deviation Limit:	10.000 %	Measured Deviation:	2.218 %						
2. Peak specified:	1001.4 cm-1	2. Peak measured:	1001.1 cm-1						
Max. Deviation Limit:	10.000 %	Measured Deviation:	0.000 %						
3. Peak specified:	1602.3 cm -1	3. Peak measured:	1602.1 cm-1						
Max. Deviation Limit:	10.000 %	Measured Deviation:	4.884 %						
4. Peak specified:	Not determined.	4. Peak measured:	Not determined.						
Max. Deviation Limit:		Measured Deviation:							
5. Peak specified:	Not determined.	5. Peak measured:	Not determined.						
Max. Deviation Limit:		Measured Deviation:							

Dark Noise Test				
Dark Noise Limit:	100	Dark Noise measured:	15	

## **Overall Test Result = PASS**

Date and Signature

Date and Signature