

CUSTOMER: BRUKER OPTIK

P.O.: 4500654266/PBRA

DATE 09/25/17

DETECTOR TEST REPORT

TEST CONDITIONS

Operating Temperature (K) 77
 Background Temperature (K) 298
 Blackbody Temperature (K) 500
 G Factor 2.0
 Flux Density 4.315 x 10 E-5 w/cm^2
 Chopping Frequency (hz) 1000
 Diode 1.055V at 500uA at 77K

DETECTOR/ DEWAR DESCRIPTION

Serial Number 17-63842
 Model Number ID316
 Detector Number 116454
 Element Length 1.0 mm
 Element Width 1.0 mm
 Active Area 1.0E-2 cm^2
 Field of View 60
 Dewar Model KR-163
 Window ZnSeW

Detector Test Data

PREAMP GAIN :

PREAMP SERIAL#:

DETECTOR RESISTANCE AT 298K: 12.3

ohms

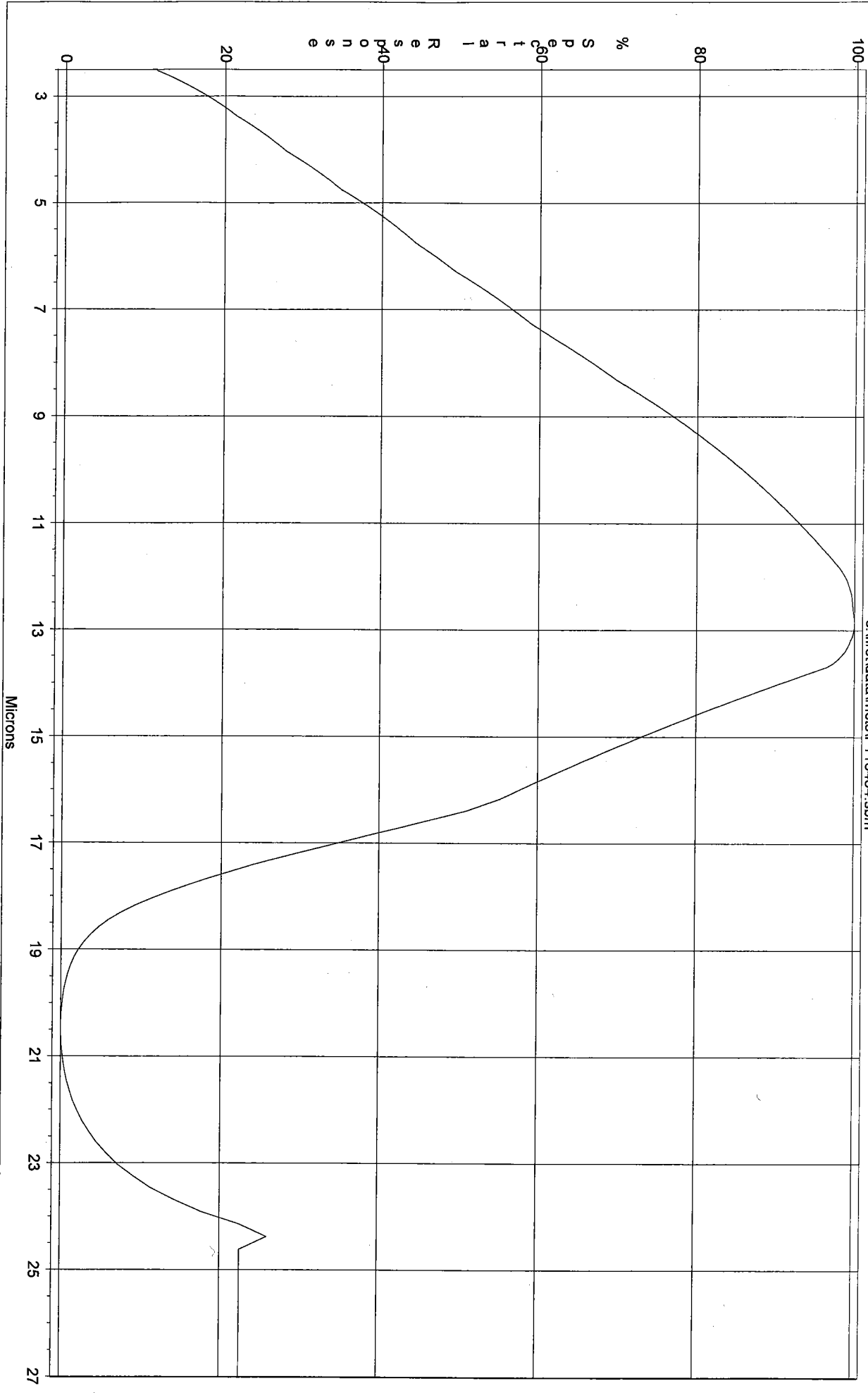
Current (mA)	Voltage (mV)	Resistance (ohms)	Responsivity (Peak V/W)	Noise (nV RMS/Hz ^{1/2})		D* (Pk, f,1) E9	
				1 khz	10 khz	1 khz	10 khz
26.4	1000	37.8	3244	9.32	8.75	34.80	37.06
13.3	500	37.5	1714	4.80	4.46	35.70	38.40
6.6	250	37.8	872	2.54	2.32	34.28	37.52

Tested by: *fr*

Date: 9/25/17

Approved by: *fr*

Date: 9/25/17



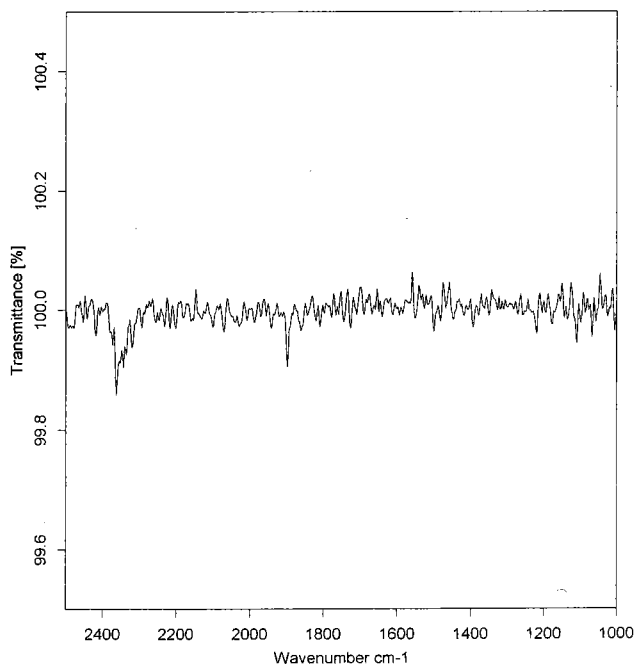
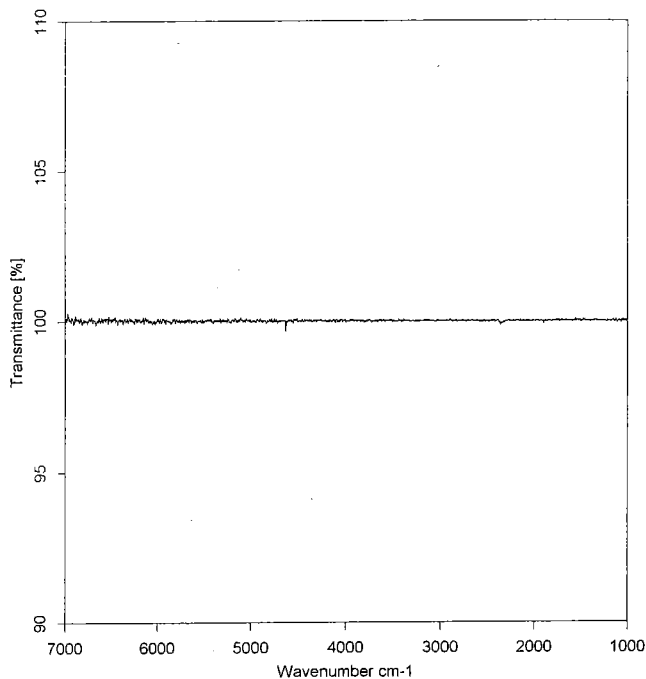
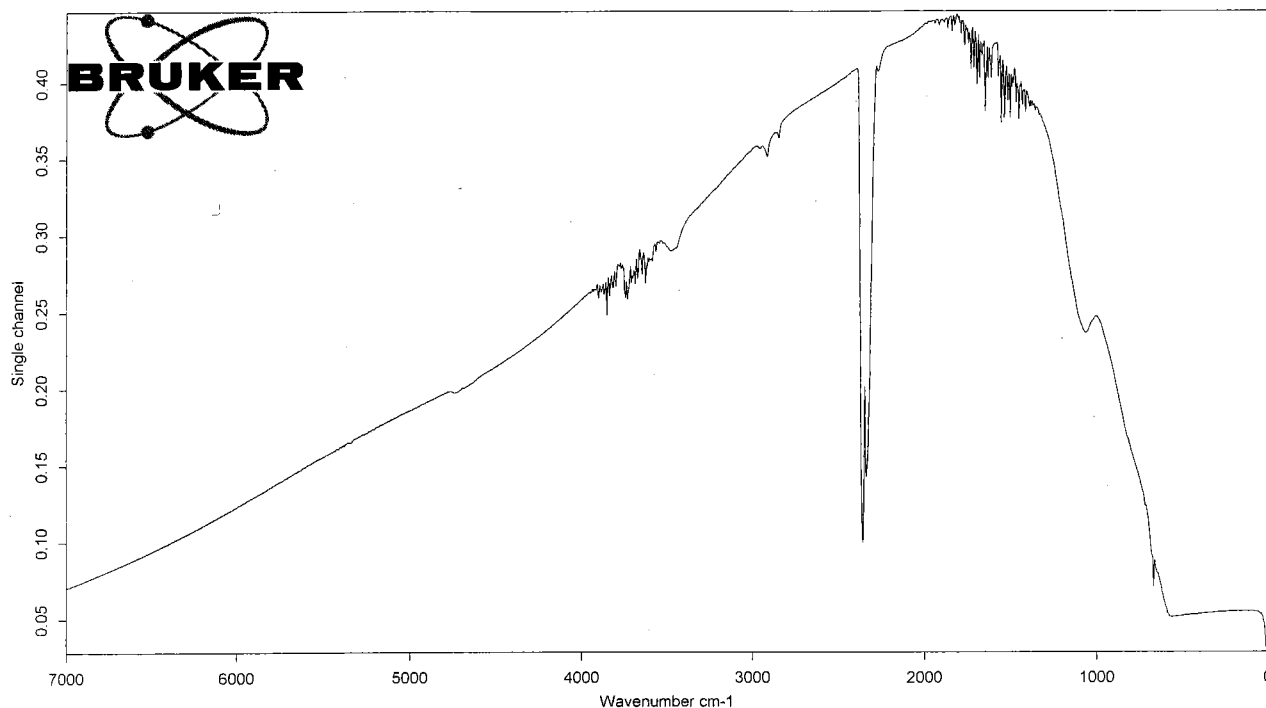
Operator: _____

Date: _____

Detector: _____

ID316/8 MCT 1 GITTER

Sn: 17-63842 Ecl: 04



File name: E:\ID316.0

Date: 19.10.2017
 Peak pos.: 18023
 Peak amplitude: 23419
 Nr. of scans: 12
 Scan time: 5.15255
 Nr. of reference scans: 12
 Laser wavenumber: 15798
 Source: Globar (MIR)
 Aperture: 2.0 mm
 Channel: Front
 Detector: MCT
 Velocity: 7

Resolution: 4
 Apodization: Blackman-Harris 3-Term
 Acquisition Mode: Double Sided, Forward-Backward
 Correlation Mode: NO
 Phase Correction Mode: Power Spectrum
 Zero Filling Factor: 2
 OPF=
 BMS= KBr
 HFL= 7899
 LFL= 0
 SGN= 1
 RGN= 1

PLL =
 SGP =
 SGW =
 HPF =
 LPF = 1

prot.txt
Automatic Acceptance Measurements
Equipment: IFS66
OPUS/NT-Version: 20090227
Firmware-Version: 1.86
Serial number of the Optik: 0194/1
Testversion: Vs: 2,998
Spectra: C:\Programme\OPUS_65\at\MEAS_LN-MCT_316_RES0_5
Experiments: C:\Programme\OPUS_65\at\XPM_LN-MCT_316_RES0_5

Test was done at : Date: 19.10.2017 Time: 09:59:39 by :ENZO

This Acceptance Protocol include the following Total pages : 2
Page 1 Page 3

This Acceptance Protocol is the Page 1

SENSITIVITY (see Page 3)

The signal to noise ratio is determined by the collection and analysis of a 100% line.

The experiment settings are defined in the file N_1.XPM.

The S/N ratio is calculated in the peak to peak modus with the option fit parabola in a specify frequency range.

The result is given by an average of 10 measurements.

Minimum of S/N = 1200.00

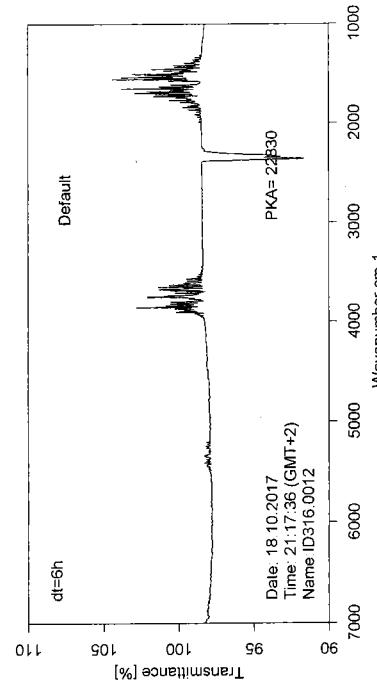
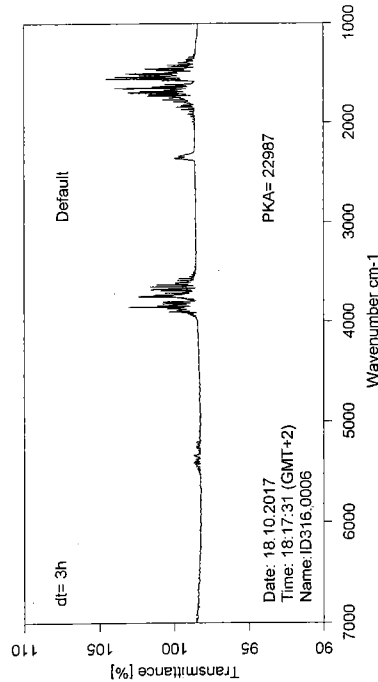
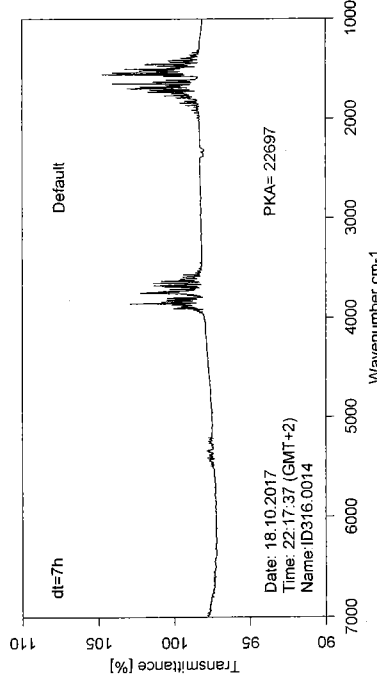
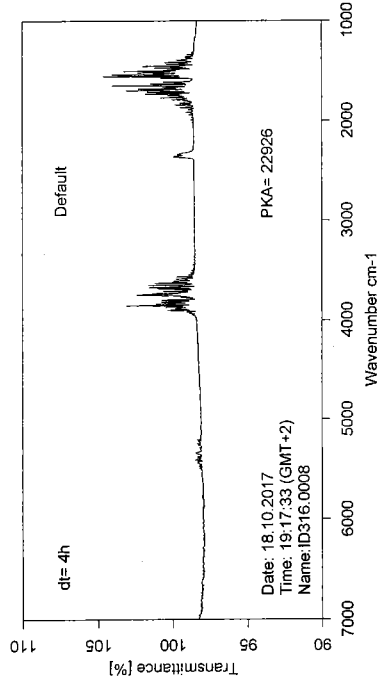
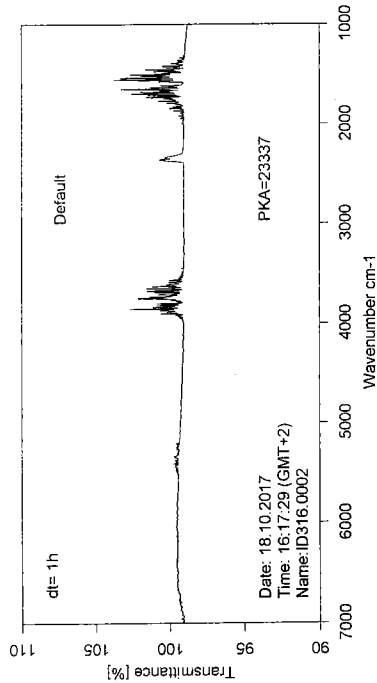
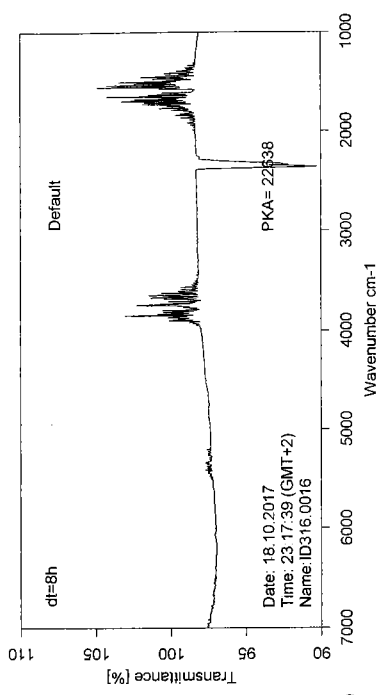
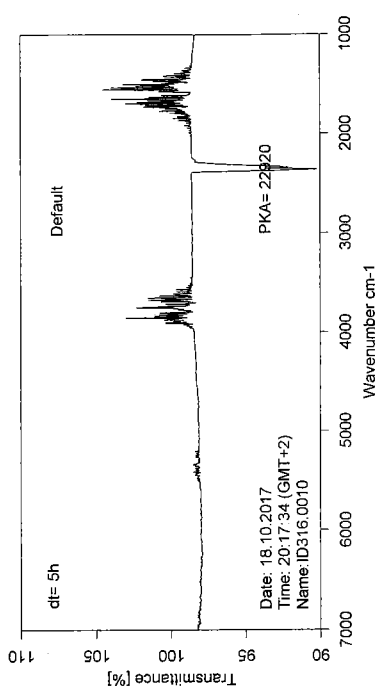
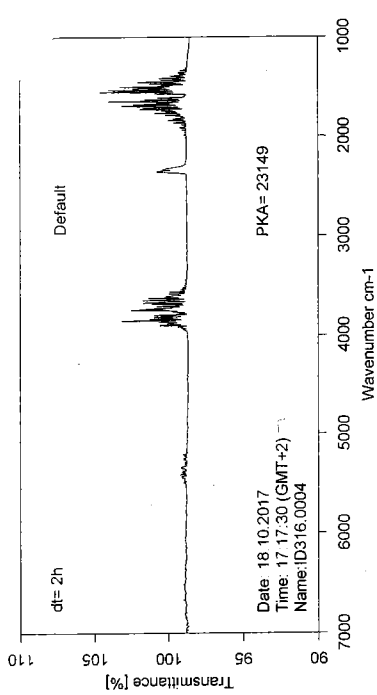
Measured S/N = 5340.17 -> OK

Reference spektrum

Date: ^DAT
Time: ^TIM
Name: ^NAM

Last sample spektrum

Date: ^DAT
Time: ^TIM
Name: ^NAM



^INS

Test information:

Source: Globar (MIR)
Channel: Front
Detector: MCT
Reference Scans: 12
Sample Scans: 12
Resolution: 4
Zero Filling Faktor: 2
Apodisation: Blackman-Harris 3-Term
Acq. Mode: Double Sided, Forward-Backward
Phase Correction Mode: Power Spectrum

BRUKER OPTIK GMBH

FT-IR FT-NIR FT-Raman Software

LONG TIME STABILITY TEST:

Measurement time: 8 hours; Room temperature deviations: max. 1°C
Measurement range: cm-1; specified: max. 3%

Gain Switch Gain: 1
Laser Wavenumber: 15798
Velocity: 7
Aperture: 2.0 mm
Peak distance: 18023