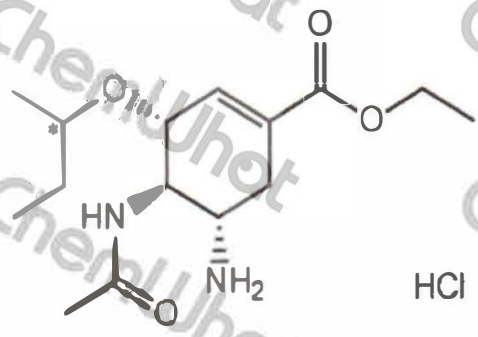




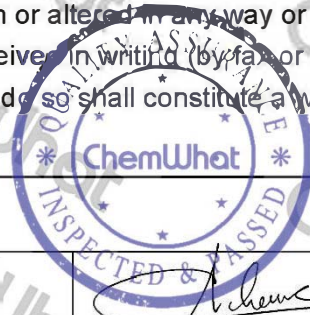
TECHNICAL DATA SHEET (TDS)

PRODUCT NAME	Oseltamivir EP impurity F	
PRODUCT NUMBER	1042566	
CAS NUMBER	1052063-37-2	
MOLECULAR FORMULA	C ₁₅ H ₂₆ N ₂ O ₄ HCl	
MOLECULAR WEIGHT	334.84	
STANDARD	Enterprise Standard	

TEST ITEMS	SPECIFICATIONS
APPEARANCE	White Solid
MS	Conform to structure
NMR	Conform to structure
PURITY	≥95%
ASSAY	≥90%
STORAGE	Store at 2~8 °C for long time, sealed and away from light.
%Potency=99.6(purity)* [100-3.078(TGA110°C)]/100=96.6%	

“ChemWhat” has been acquired by Watson and is now acting as a sub-brand under Watson International. WATSON INTERNATIONAL warrants material of said quality at the time of sale. It is the sole responsibility of the customers to determine the adequacy of all materials for any intended or specific purpose or use. WATSON's sole obligation is to replace the material up to the extent of the purchase price. This warranty applies only to products in original packaging and does not apply to a product which has been tampered with or altered in any way or which has been misused or damaged by accident or negligence. All claims must be received in writing (by fax or email) within 30 days from date when product arrive at the destination city and failure to do so shall constitute a waiver by customers for any and all such claims.

ANALYZER		SUPERVISOR	
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Analytical Report

Test Item: QNMR

Instrument: Bruker AVANCE III HD 400MHz

Sample ID: 2092526O-XF-01

MW: 334.84

Internal Standard(ISTD):1,3,5-Trimethoxybenzene (99.82%)

MW: 168.19

Solvent: DMSO-d6

Method: CAS-QMS-025.02

The peak for quantitative of sample: δ 1.897

3 H

The peak for quantitative of standard: δ 6.091

3 H

Results:

No.	W_{Sam} (mg)	W_{ISTD} (mg)	A_{Sam}/A_{ISTD}	W%
1	10.08	8.83	0.5303	92.32

Formula for calculation

$$W\% = \frac{W_{ISTD}}{W_{Sam}} \times \frac{A_{Sam}}{A_{ISTD}} \times \frac{MW_{Sam}}{MW_{ISTD}} \times \frac{n_{ISTD}}{n_{Sam}} \times W_{ISTD} \%$$

Among the formula:

W_{ISTD} is the weight of ISTD (mg);

W_{Sam} is the weight of sample (mg);

A_{Sam}/A_{ISTD} is the area ratio between sample and ISTD;

MW_{Sam} is the molecular weight of sample;

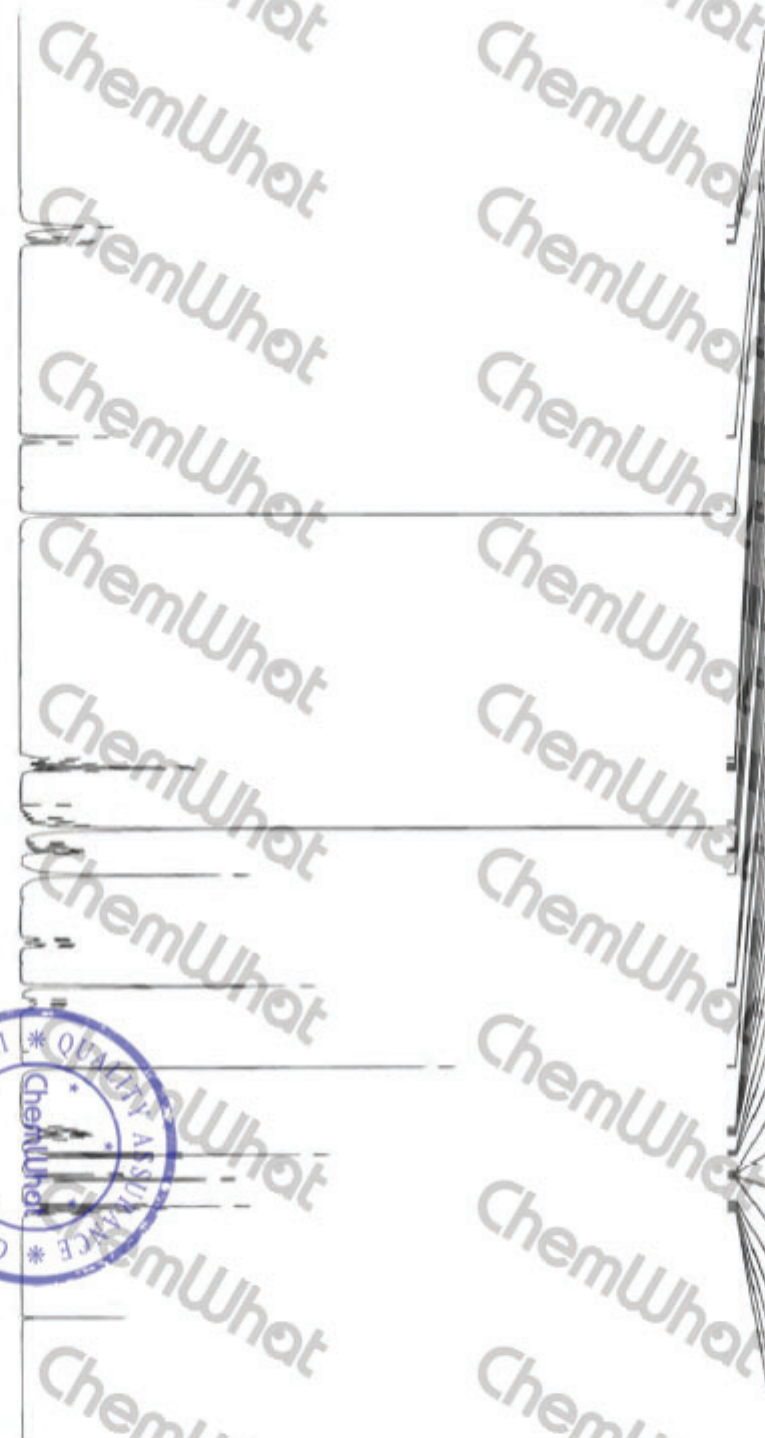
MW_{ISTD} is the molecular weight of ISTD;

n_{ISTD} and n_{Sam} are the number of protons in the respective functional groups;

$W_{ISTD}\%$ is the weight percentage of ISTD.

9
8
7
6
5
4
3
2
1
0 ppm

3.955
0.995
5.657
3.075
0.961
1.089
1.099
0.995
1.045
3.000
2.000
3.059
3.051
3.020



8.283
8.175
8.153
6.681
6.091
4.237
4.197
4.180
4.162
4.144
3.759
3.731
3.549
3.534
3.526
3.351
2.513
2.509
2.505
2.500
2.496
1.897
1.893
1.428
1.410
1.404
1.393
1.389
1.386
1.371
1.249
1.231
1.213
1.090
1.074
1.053
1.038
0.863
0.844
0.826
0.806
0.788

Current Data Parameters
NAME 20975260-XE-01
EXPNO 10
PROCNO 1
F2 - Acquisition Parameters
Date_ 20220413
Time_ 22.10 h
INSTRUM spect
PROBHD zll6098 0564
PULPROG zgpg30
TD 65536
FIDRES 0.244532 Hz
SOLVENT DMSO
NS 64
DS 2
SWH 8012.820 Hz
FIDRES 0.244532 Hz
AQ 4.0894465 sec
RG 32.03
DE 62.400 usec
TE 300.0 K
D1 25.00000000 sec
T1 420.1318006 MHz
SFO1 400.1300014 MHz
P1 10.35 usec
PL1 14.56099987 W
F2 - Processing parameters
SI 65536
SF 400.1300014 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00





171.08
171.05
165.57
165.54

139.30
138.60
127.45

77.47
76.64
74.35
74.30
61.14
52.65
52.52
49.25
48.93
40.62
40.41
40.21
40.00
39.79
39.58
39.37
29.72
29.26
28.62
23.74
23.71
20.61
19.81

Current Data Parameters
NAME 20925260-XF 01
EXENO 20
PROCNO 1

F2 - Acquisition Parameters
Date 20220413
Time 15.22 h

INSTRUM spect
PROBHD 2116098-0564-1
PULPROG zgpg30

TD 65536
SOLVENT DMSO
NS 473

DS 4
SWH 24038.461 Hz
FIDRES 0.733596 Hz

AQ 1.3631488 sec
RG 198.68
DE 20.800 usec

DW 6.50 usec
TE 300.0 K
D1 2.00000000 sec

DL 0.03000000 sec
DO 1
SFO1 100.6228298 MHz

NUC1 13C
P1 10.53 usec
PLM1 69.16899872 W

SFO2 400.1316005 MHz
NUC2 1H
WALT16

PCPD2 90.00 usec
PLM2 14.56099987 W
PLM12 0.119267000 W

PLM13 0.09666100 W

F2 - Processing parameters
SI 32768
SF 100.6127685 MHz

WDW EM
SSB 0
LB 1.00 Hz

GB 0
EC 1.40



200
180
160
140
120
100
80
60
40
20
0 ppm



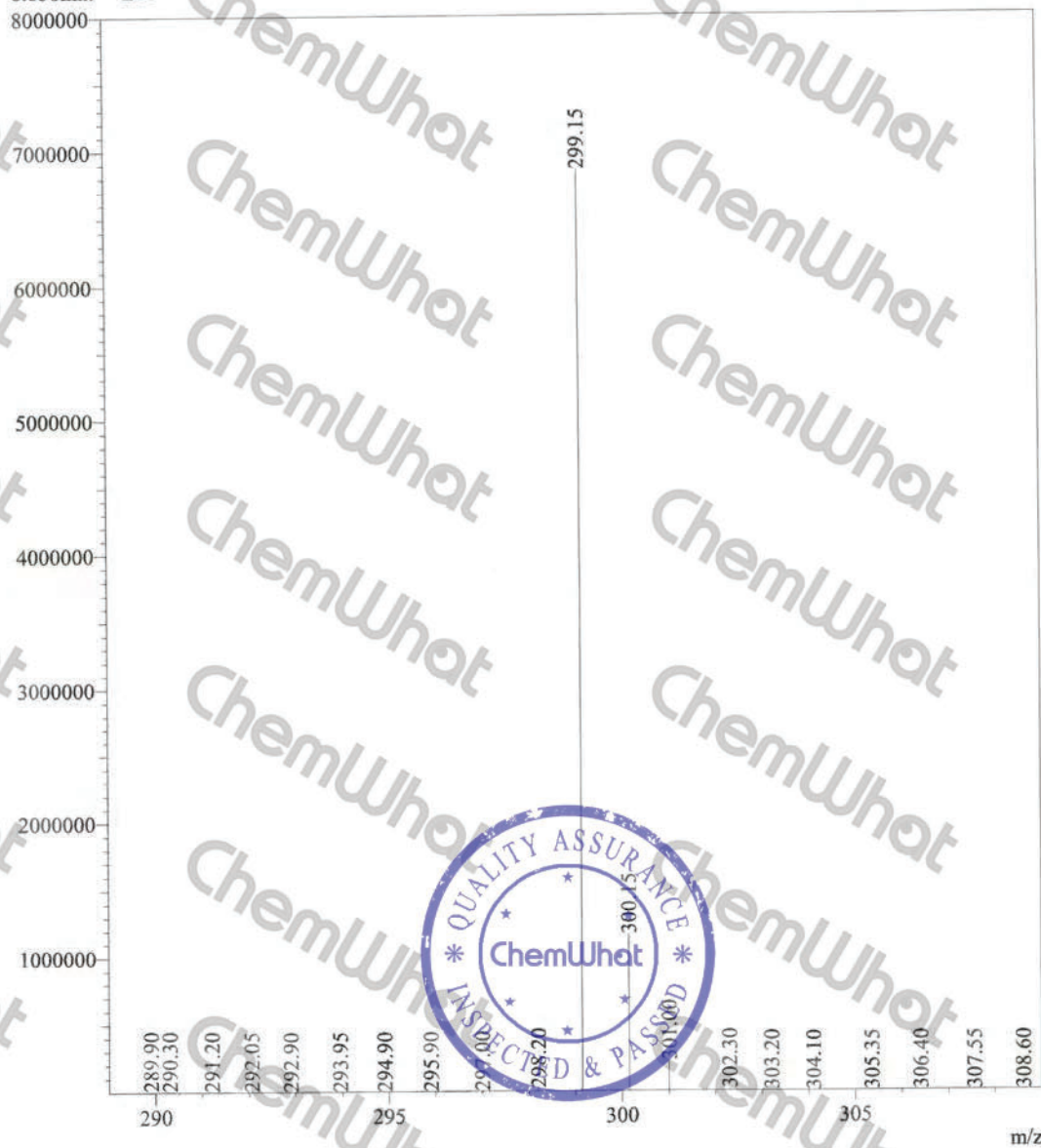
MS Report

<Sample Information>

Sample Name :2092526O-XF-01
Date File Name :2092526O-XF-01.lcd
Method File Name :H111ACN-30-90-A-50-01.lcm
Sample Vial# :1-13
Injection Volume :5 µL
Date Acquired
Date Processed

<MS Spectrum>

0.658min ESI+
8000000





SHIMADZU
LabSolutions

Analysis Report

<Sample Information>

Sample Name : 2092526O-XF-01
Date File Name : 2092526O-XF-01.lcd
Method File Name : H111ACN-30-90-A-50-01.lcm
Batch File Name :
Sample Vial# : 1-13
Injection Volume : 5 uL
Date Acquired :
Date Processed :

<Method Information>

Column : C18 4.6*50mm 5.0um Temperature: 40°C Flow: 1.500ml/min
Mobile Phase A: 0.05%TFA Mobile Phase B: ACN
Gradient program: Time (min) : 0.01 1.00 2.50 4.00 5.00
B%: 30 90 90 30 30

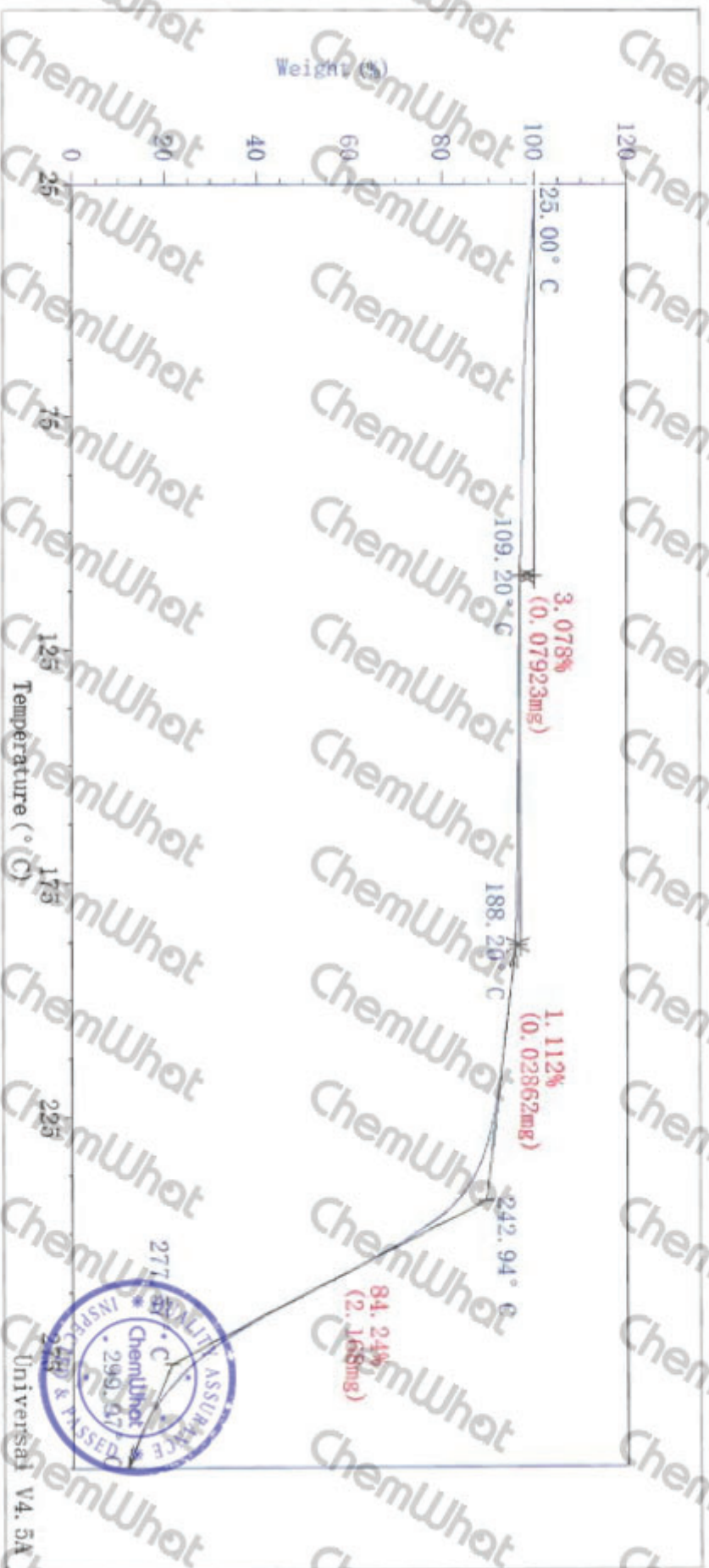
<Chromatogram>



<Peak Table>

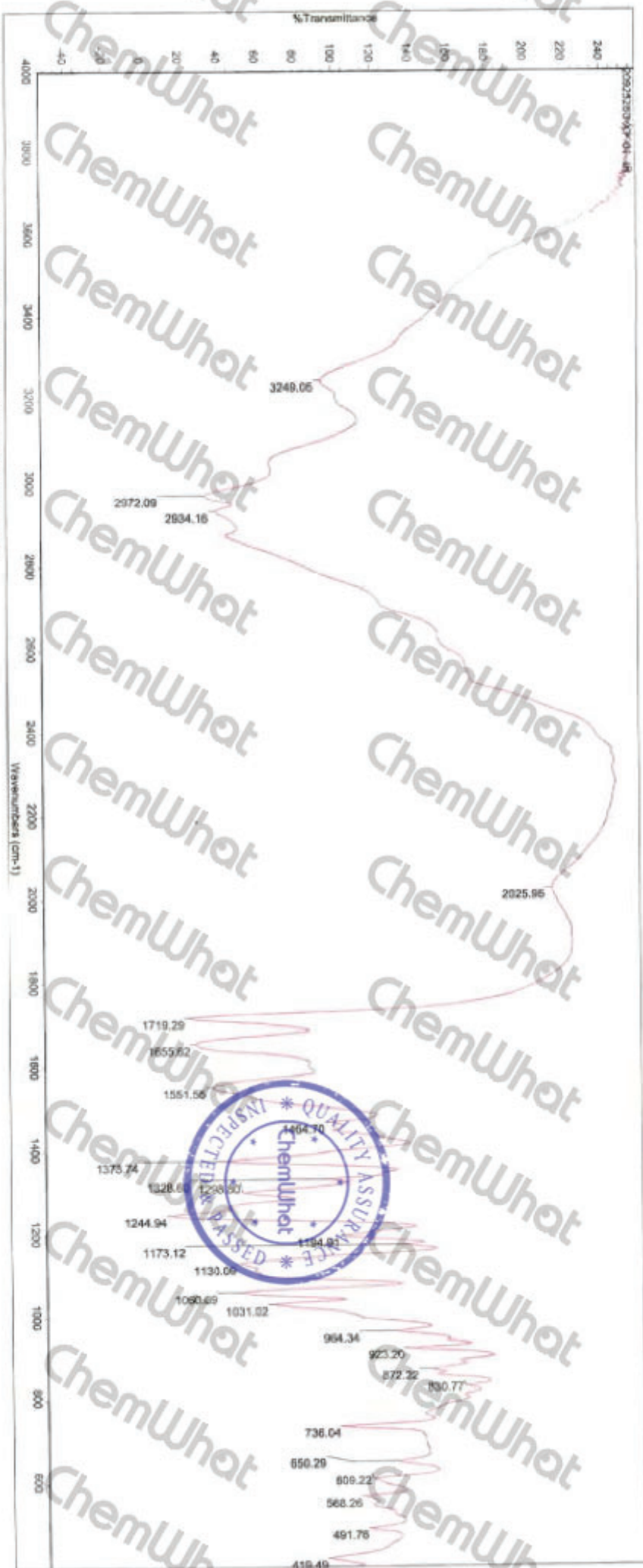
PDA Ch1 220nm

Peak#	Retention Time	Height	Area	Area%
1	0.508	6804	15121	0.174
2	0.590	1926615	8663979	99.581
3	0.961	12299	21365	0.246
Total		1945718	8700465	100.000



Instrument : TGA Q5000		File : C:\TGAdata\TGA\20925260-XF-01		Method : TG-220416	
Sample :	20925260-XF-01	Instrument:	TGA Q5000 V3.17 Build 265	Atmosphere :	N2 / N2
Date/Time :	2022/4/16 15:06:29	Crucible :	Al2O3	Size :	2.574mg
Range :	25 °C/5 °C/min/300 °C	Model/type of meas :	TG/Sample	Pretreatment Cycles :	0xVac

Collection time: Wed Apr 13 14:39:51 2022 (GMT+08:00)



Wed Apr 13 14:40:25 2022 (GMT+08:00)

Wed Apr 13 14:40:16 2022 (GMT+08:00)

FIND PEAKS:

Spectrum: 2092526O-XF-01 IR

Region: 4000.00 400.00

Absolute threshold: 223.355

Sensitivity: 50

Peak list:

Position:	419.49	Intensity:	93.861
Position:	491.76	Intensity:	115.631
Position:	568.26	Intensity:	113.514
Position:	609.22	Intensity:	118.647
Position:	650.29	Intensity:	130.263
Position:	736.04	Intensity:	102.151
Position:	830.77	Intensity:	166.462
Position:	872.22	Intensity:	147.979
Position:	923.20	Intensity:	136.656
Position:	964.34	Intensity:	130.956
Position:	1031.02	Intensity:	65.858
Position:	1060.69	Intensity:	49.078
Position:	1130.09	Intensity:	49.094
Position:	1173.12	Intensity:	135.760
Position:	1194.91	Intensity:	103.381
Position:	1244.94	Intensity:	13.551
Position:	1298.80	Intensity:	51.828
Position:	1328.60	Intensity:	96.052
Position:	1373.74	Intensity:	42.921
Position:	1464.70	Intensity:	96.102
Position:	1551.55	Intensity:	34.353
Position:	1655.62	Intensity:	25.754
Position:	1719.29	Intensity:	23.218
Position:	2025.95	Intensity:	212.569
Position:	2934.16	Intensity:	37.972
Position:	2972.09	Intensity:	32.681
Position:	3249.05	Intensity:	93.298

