Certificate Of Analysis

Analysis Date: 11-10-2023 **Re-test Date:** 11-10-2026

AZILSARTAN IMPURITY K

Identification

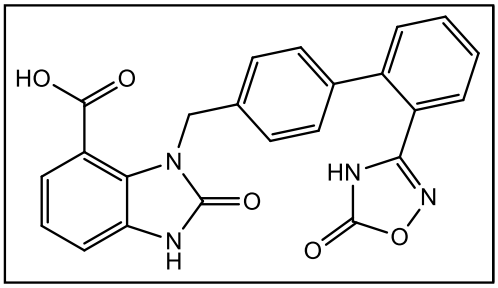
Chemical Name : 2-oxo-3-((2'-(5-oxo-4,5-dihydro-1,2,4-oxadiazol-3-yl)-[1,1'-biphenyl]-4-yl)methyl)-2,3-dihydro-1H-benzo[d]imidazole-4-carboxylic acid

CAT No : ALL-A04445

CAS No : 1442400-68-1

Molecular Formula : C23H16N4O5

Molecular Weight : 428.4



Analytical Information

Batch Code	: ALL-A04445	**HPLC Purity**	: 99.44 %
Solubility	: MeOH: ACN	**Potency**	: 98.17 %
Appearance of Product	: Off White Solid	**Mass**	: Confirm
Long Term Storage	: 2-8 ^{0}C	**IR Analysis**	: Confirm
Weight Loss By TGA	: 0.915 %	**1HNMR**	: Confirm
Residue Of Ignition	: 0.358 %		

Additional Information

%Potency = [100 - (Inorganic Impurities % + Water %) × Chromatographic Purity%]/100 =

[100 – (0.915+0.358) × 99.44]/100 = 98.17 %

Recommendation : Released

	Department	Name	Signature
Prepared and Reviewed by	Analytical	Mr. Vipul Khadse Jr. Executive	
Approved By	QA&QC	Dr. Ashish Keche Director QA&QC	

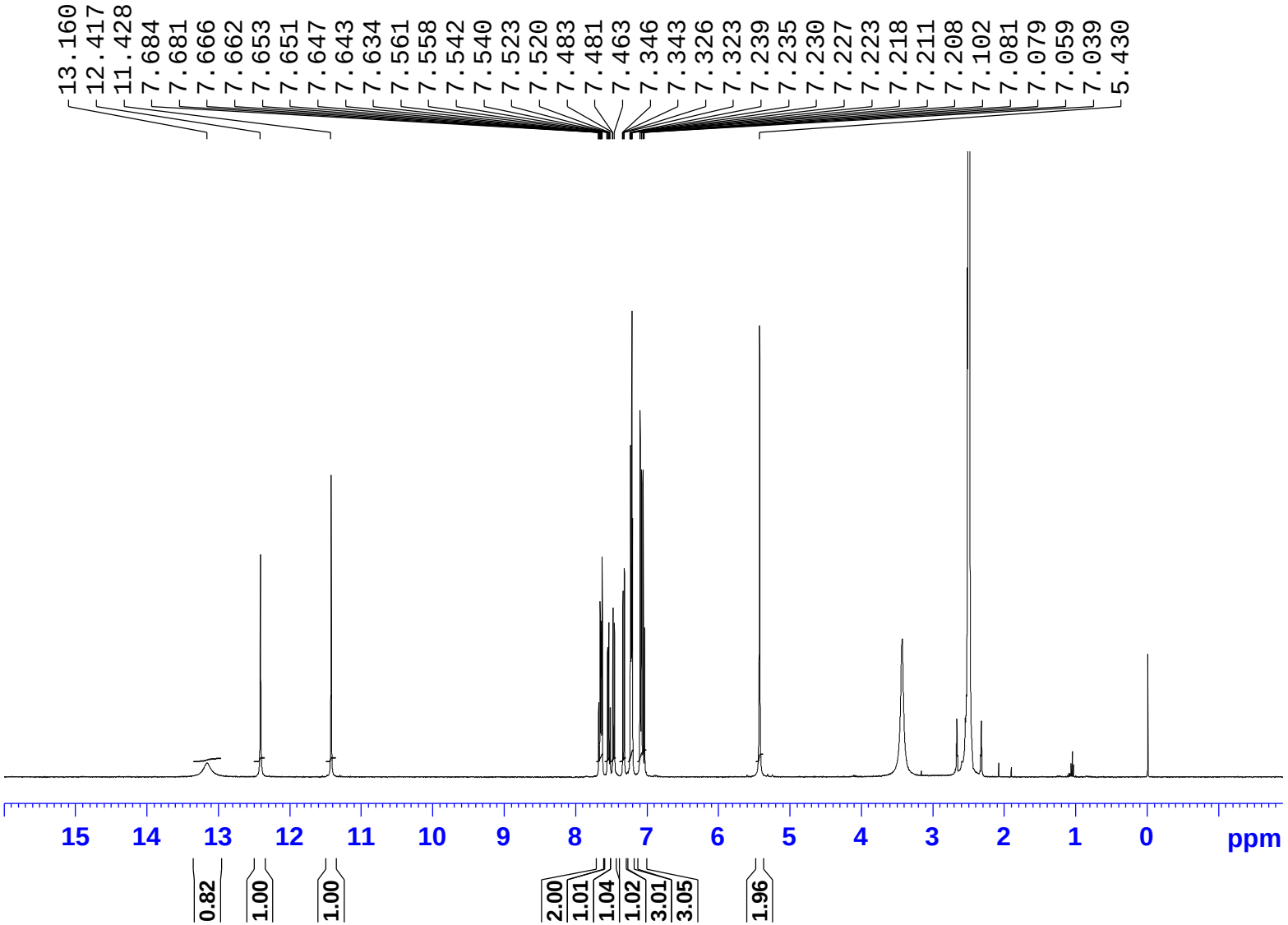
Attachment : HPLC, Mass, 1H NMR, IR, TGA

Shipping Condition : All Product are stable to be shipped at room temperature, unless otherwise specified

Corporate Office

Allmpus Laboratories Pvt Ltd 38, Solitaire Industrial Estate, Plot No.TS-1, Near Nandi Palace Hotel, MIDC-Phase 1, Dombivli (E),Mumbai, Maharashtra 421203

ALLMPUS LABORATORIES PVT LTD
ALL-A04445
1H-NMR/DMSO
10-OCT-2023



Current Data Parameters

NAME	QC11231010017
EXPNO	1
PROCNO	1

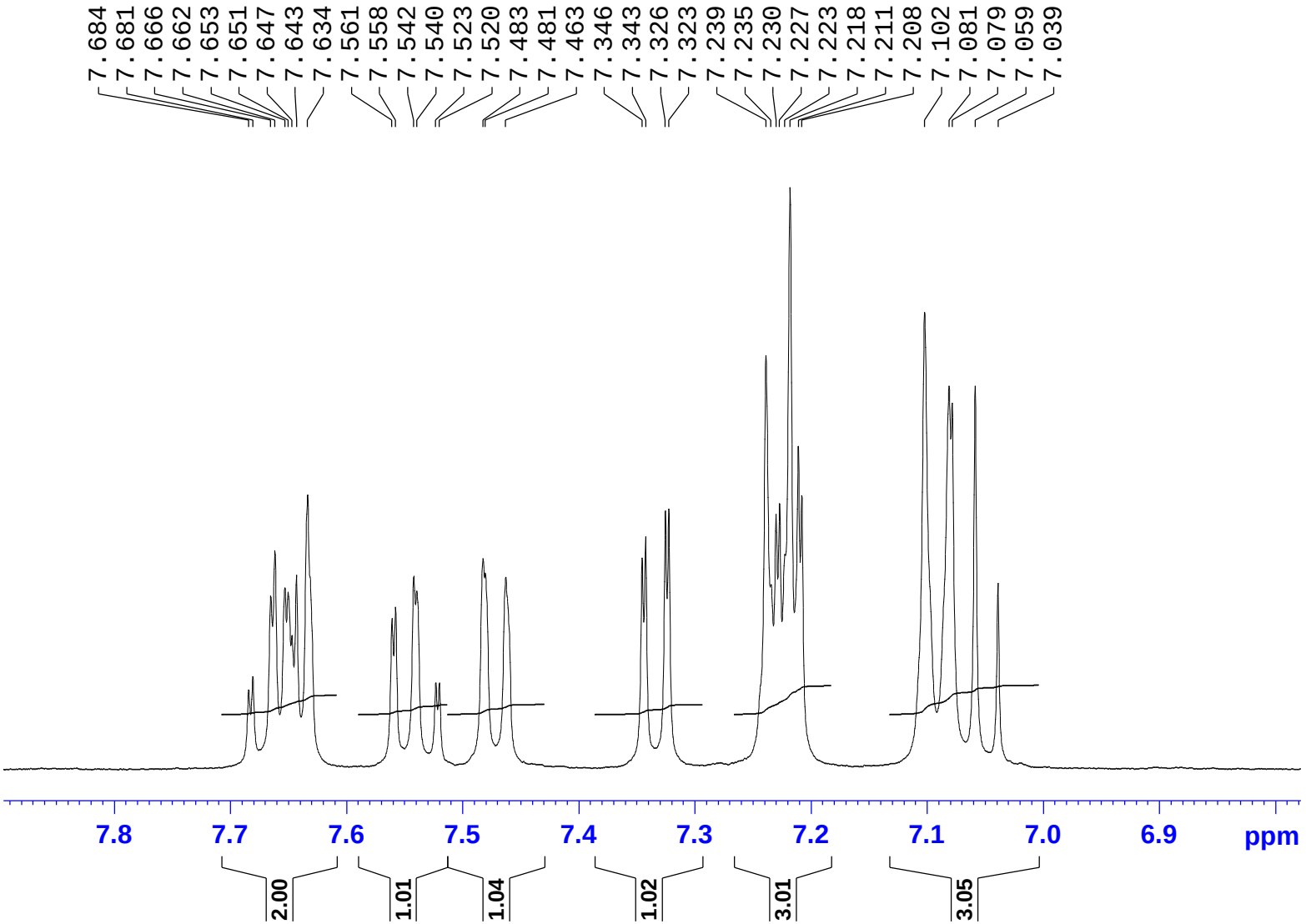
F2 - Acquisition Parameters

Date_	20231010
Time	12.39 h
INSTRUM	spect
PROBHD	Z108618_0828 (
PULPROG	zg30
TD	65536
SOLVENT	DMSO
NS	16
DS	2
SWH	8012.820 Hz
FIDRES	0.244532 Hz
AQ	4.0894465 sec
RG	195.98
DW	62.400 usec
DE	16.75 usec
TE	0 K
D1	1.00000000 sec
TD0	1
SFO1	400.0904705 MHz
NUC1	1H
P0	5.33 usec
P1	16.00 usec
PLW1	14.41399956 W

F2 - Processing parameters

SI	65536
SF	400.0880057 MHz
WDW	EM
SSB	0
LB	0.30 Hz
GB	0
PC	1.00

ALLMPUS LABORATORIES PVT LTD
ALL-A04445
1H-NMR/DMSO
10-OCT-2023



Current Data Parameters

NAME	QC11231010017
EXPNO	1
PROCNO	1

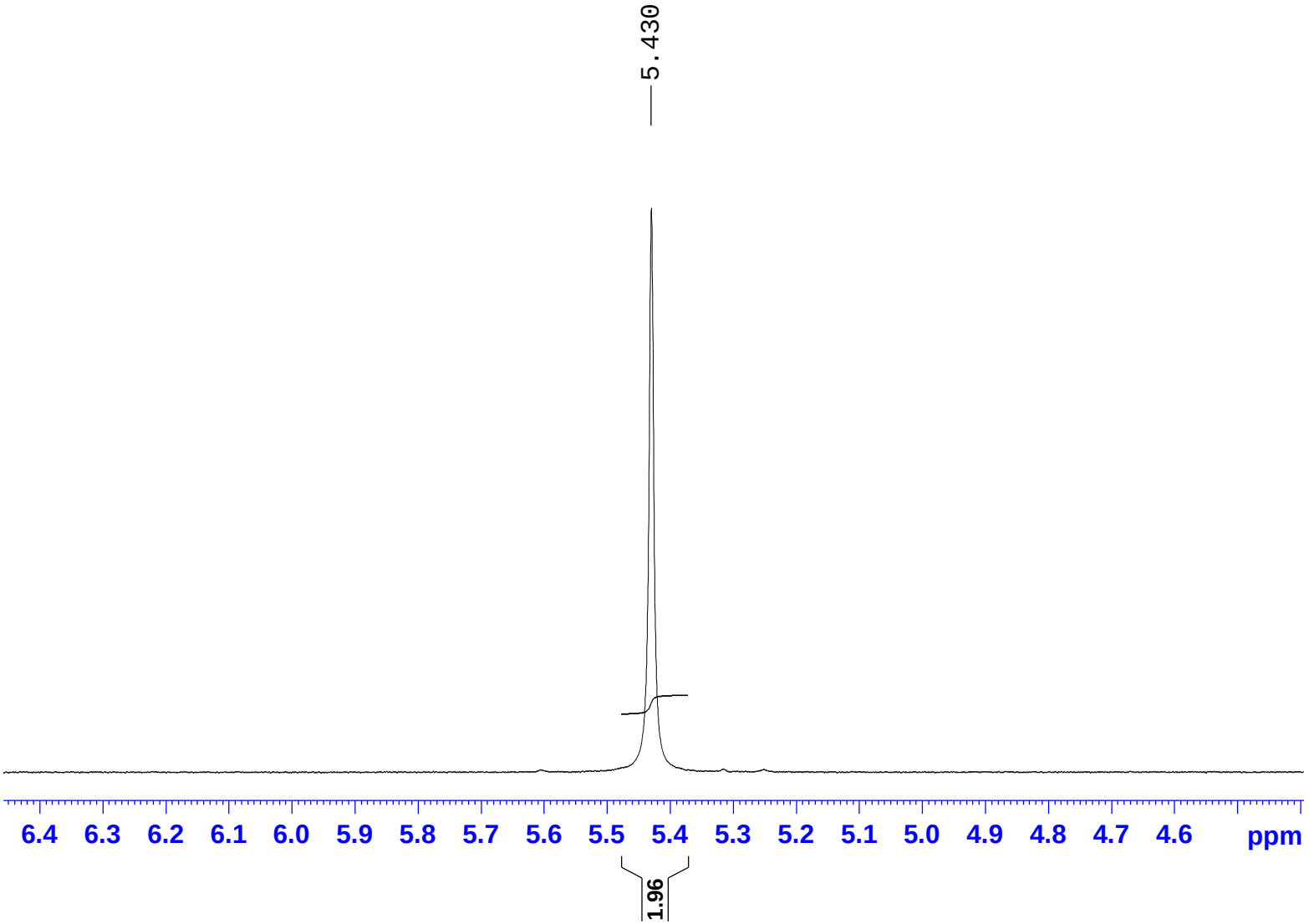
F2 - Acquisition Parameters

Date_	20231010
Time	12.39 h
INSTRUM	spect
PROBHD	Z108618_0828 (
PULPROG	zg30
TD	65536
SOLVENT	DMSO
NS	16
DS	2
SWH	8012.820 Hz
FIDRES	0.244532 Hz
AQ	4.0894465 sec
RG	195.98
DW	62.400 usec
DE	16.75 usec
TE	0 K
D1	1.00000000 sec
TD0	1
SFO1	400.0904705 MHz
NUC1	1H
P0	5.33 usec
P1	16.00 usec
PLW1	14.41399956 W

F2 - Processing parameters

SI	65536
SF	400.0880057 MHz
WDW	EM
SSB	0
LB	0.30 Hz
GB	0
PC	1.00

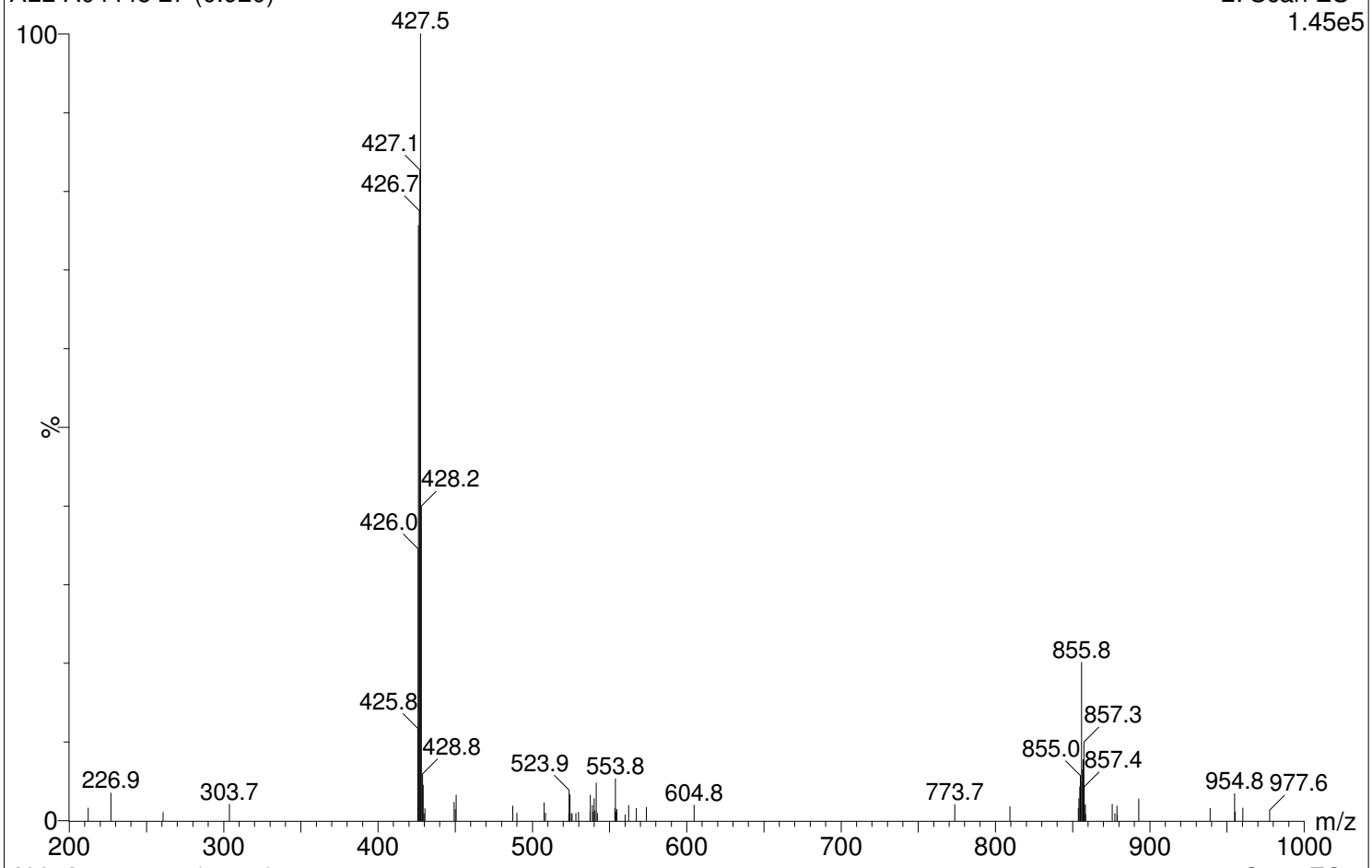
ALLMPUS LABORATORIES PVT LTD
ALL-A04445
1H-NMR/DMSO
10-OCT-2023

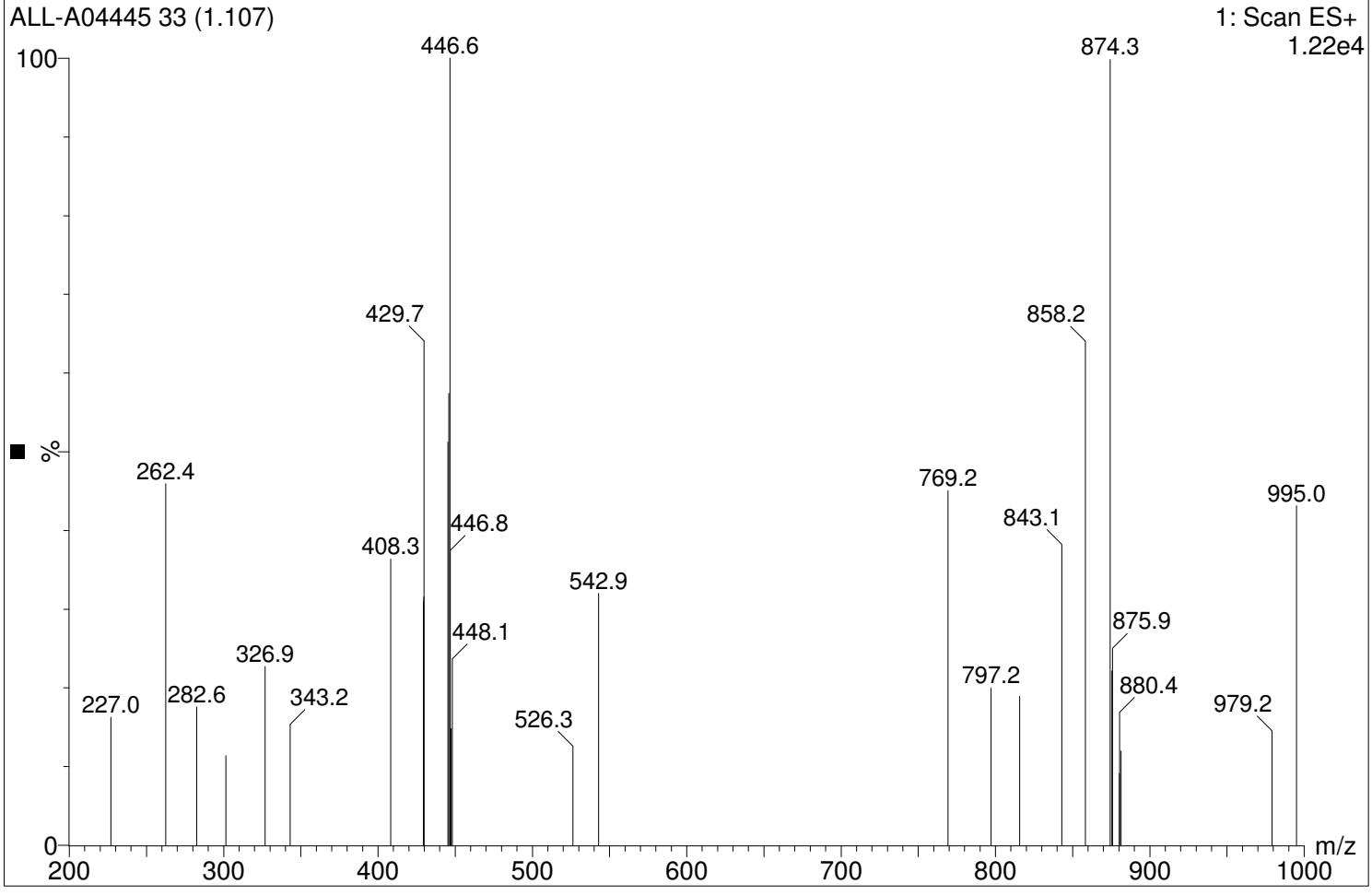


Current Data Parameters
NAME QC11231010017
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters
Date_ 20231010
Time 12.39 h
INSTRUM spect
PROBHD Z108618_0828 (
PULPROG zg30
TD 65536
SOLVENT DMSO
NS 16
DS 2
SWH 8012.820 Hz
FIDRES 0.244532 Hz
AQ 4.0894465 sec
RG 195.98
DW 62.400 usec
DE 16.75 usec
TE 0 K
D1 1.00000000 sec
TD0 1
SFO1 400.0904705 MHz
NUC1 1H
P0 5.33 usec
P1 16.00 usec
PLW1 14.41399956 W

F2 - Processing parameters
SI 65536
SF 400.0880057 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00


ALL-A04445 27 (0.920)
2: Scan ES-
1.45e5
100
%
0
427.5
427.1
426.7
428.2
426.0
425.8
428.8
855.8
857.3
855.0
857.4
226.9
303.7
523.9
553.8
604.8
773.7
954.8
977.6
200
300
400
500
600
700
800
900
1000
m/z


ALL-A04445 33 (1.107)
1: Scan ES+
1.22e4
100
%
0
446.6
874.3
429.7
858.2
262.4
769.2
995.0
843.1
446.8
408.3
542.9
875.9
448.1
326.9
797.2
880.4
227.0
282.6
343.2
526.3
979.2
200
300
400
500
600
700
800
900
1000
m/z

Allmpus Laboratories Private Ltd 38, Solitaire Industrial Estate, Plot No.TS-1, Near Nandi Palace Hotel, MIDC-Phase 1, Dombivali (E),Mumbai, Maharashtra 421203 www.allmpus.com	
HPLC ANALYSIS	
METHOD OF ANALYSIS	
Product Name:	AZILSARTAN IMPURITY K
Batch/Lot No:	ALL-A04445
Instrument:	

Mobile phase A : 1% TFA in Water

Mobile phase B : Acetonitrile

Diluent : Methanol

Column : Waters xtera C18 250x4.6 mm 5µ

Flow Rate : 1ml/min

UV Detection : 254 nm

Injection : 20 µL

Time	Mobile phase A	Mobile phase B
0	70	30
5	70	30
15	50	50
25	65	45
30	10	90
34	10	90
35	70	30
36	70	30
38	70	30

==== Shimadzu LCsolution Analysis Report ====

D:\DATA\DATA 2023\GENERAL\10-11-2023\BLANK.lcd

Acquired by	: Admin
Sample Name	: BLANK
Sample ID	: BLANK
Tray#	: 1
Vail #	: 11
Injection Volume	: 20 uL
Data File Name	: BLANK.lcd
Method File Name	: GENERAL.lcm
Batch File Name	:
Report File Name	: Default.lcr
Data Acquired	: 10/11/2023 11:56:18 AM
Data Processed	: 10/11/2023 12:34:35 PM

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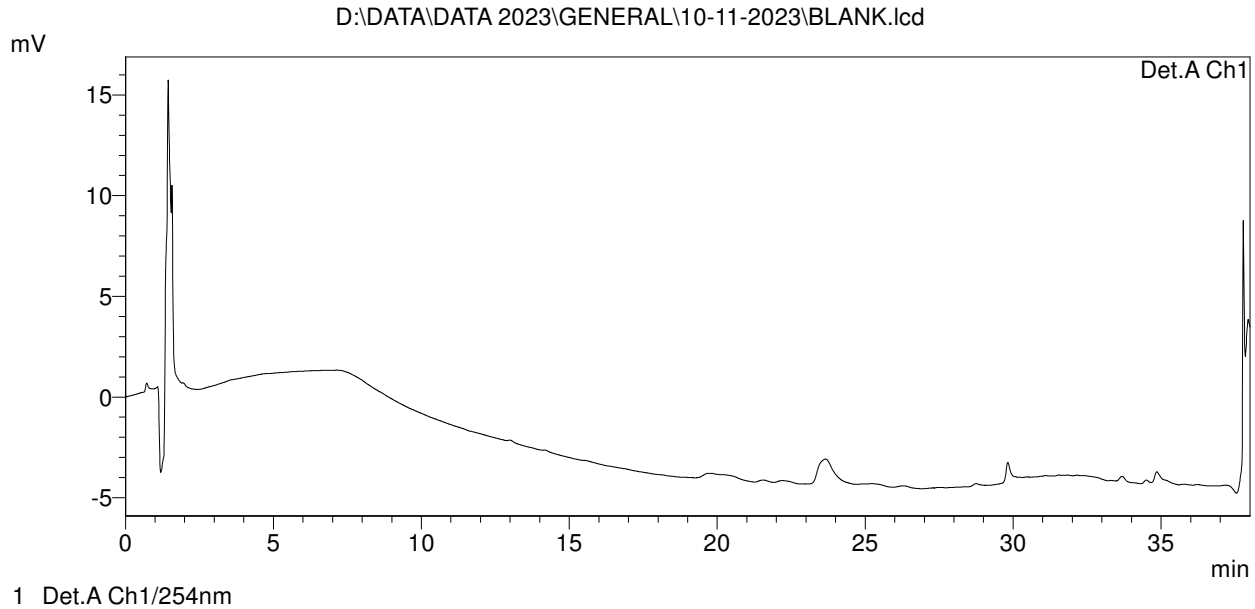

1 Det.A Ch1/254nm

==== Shimadzu LCsolution Analysis Report ====

D:\DATA\DATA 2023\GENERAL\10-11-2023\ALL-A04445.lcd

Acquired by	: Admin
Sample Name	: ALL-A04445
Sample ID	: ALL-A04445
Tray#	: 1
Vail #	: 14
Injection Volume	: 20 uL
Data File Name	: ALL-A04445.lcd
Method File Name	: GENERAL.lcm
Batch File Name	:
Report File Name	: Default.lcr
Data Acquired	: 10/11/2023 2:07:43 PM
Data Processed	: 10/11/2023 2:45:56 PM

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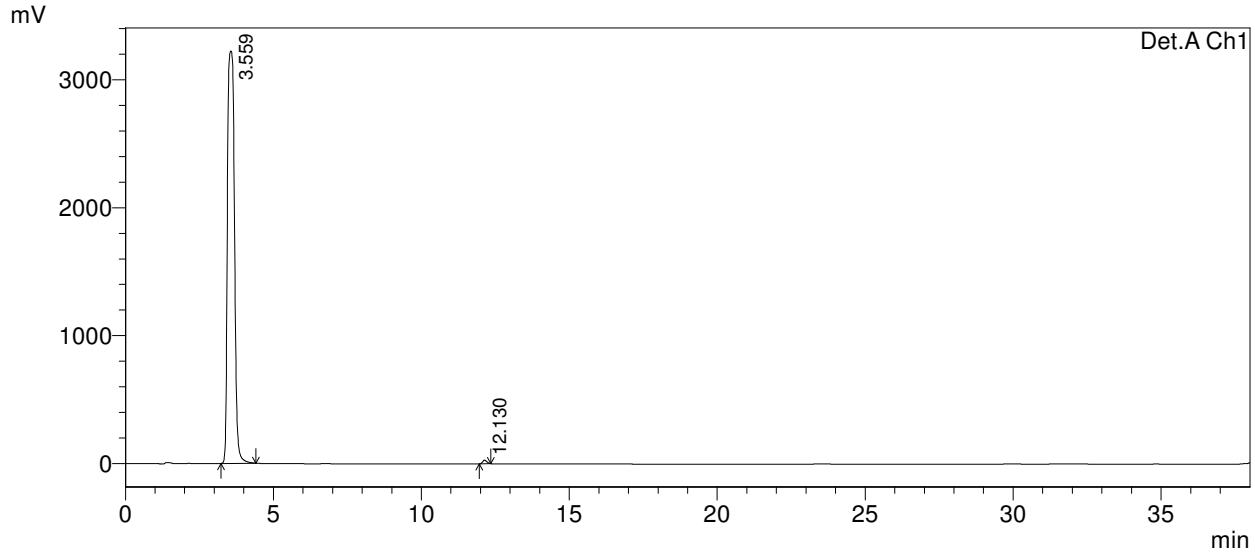
D:\DATA\DATA 2023\GENERAL\10-11-2023\ALL-A04445.lcd



1 Det.A Ch1/254nm

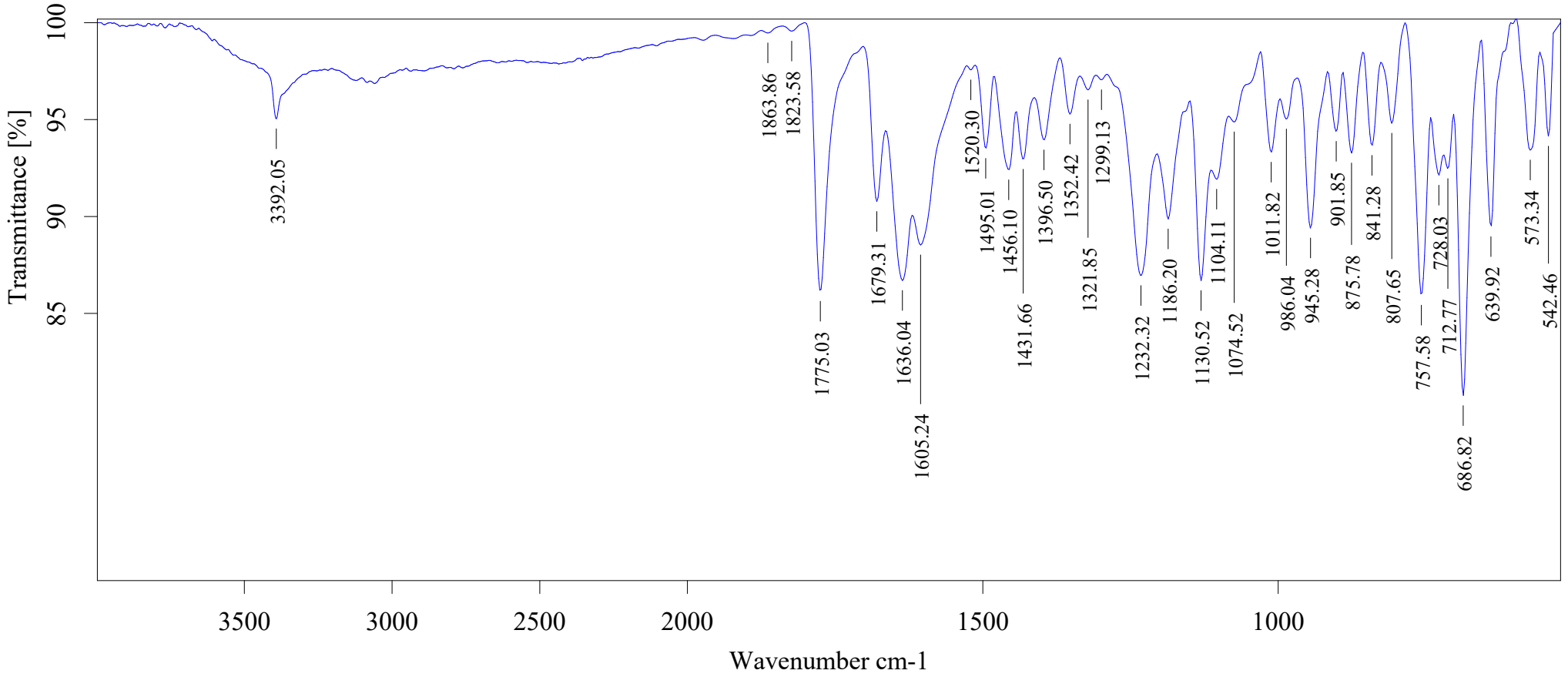
PeakTable

Detector A Ch1 254nm

Peak#	Ret. Time	Area	Height	Area %	Height %
1	3.559	52882072	3224376	99.444	99.121
2	12.130	295826	28587	0.556	0.879
Total		53177898	3252963	100.000	100.000

Instrument ID No: AA-ID-002

Accu Analytical



Sample Name:ALL-A04445

Lot No./Batch No:

Date & Time:10-10-2023,11:31:26

Operator Name:Accu Chemist

Experiment:IR-08.xpm

Resolution:4

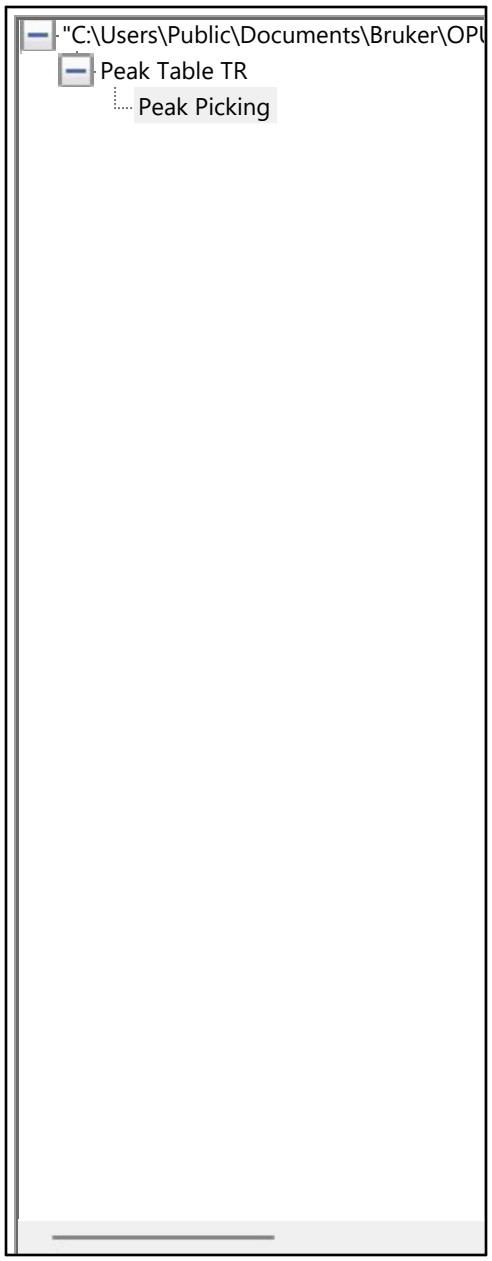
Sample Scans:16

Frequency Range:4000 to 500

Analysed by:
Date:

10-10-2023 11:33:29

Checked by:
Date:



Peak Picking	Values
Method:	Standard
Searched for minima:	Yes
Number of peaks:	34
Sensitivity > [%]:	1.000000
From:	4000.000000
to:	400.000000
Absolute peak height >	0.000000
Relative peak height < [%]	0.000000
Absolute peak height <	0.000000

Wavenumber	Abs. intensity	Rel. intensity	Width	Found if threshold <	Shoulder
3392.0450	0.950	0.050	161.3764	25.549860	0
1823.5800	0.996	0.003	17.3807	1.341195	0
1775.0311	0.861	0.139	25.1266	71.394508	0
1679.3117	0.908	0.054	634.3708	18.897238	0
1636.0434	0.867	0.120	74.2374	59.208126	0
1605.2444	0.885	0.020	19.8345	7.936844	0
1520.3049	0.976	0.002	7.0175	1.146578	0
1495.0088	0.935	0.040	14.8031	19.362045	0
1456.1011	0.924	0.056	26.0766	27.819994	0
1431.6622	0.929	0.029	14.5561	12.838902	0
1396.4956	0.939	0.030	101.0213	11.265733	0
1352.4184	0.953	0.027	17.8074	10.588229	0
1321.8472	0.965	0.007	13.1426	3.656575	0
1299.1327	0.971	0.003	9.5809	1.213589	0
1232.3243	0.870	0.099	34.2588	46.489925	0
1186.1954	0.899	0.043	21.5355	17.343592	0
1130.5181	0.867	0.128	45.2301	62.228394	0
1104.1095	0.919	0.012	46.6221	2.456370	0
1074.5244	0.949	0.009	77.7309	1.538144	0
1011.8160	0.933	0.048	22.2488	19.747778	0
986.0435	0.950	0.014	43.5640	5.383964	0

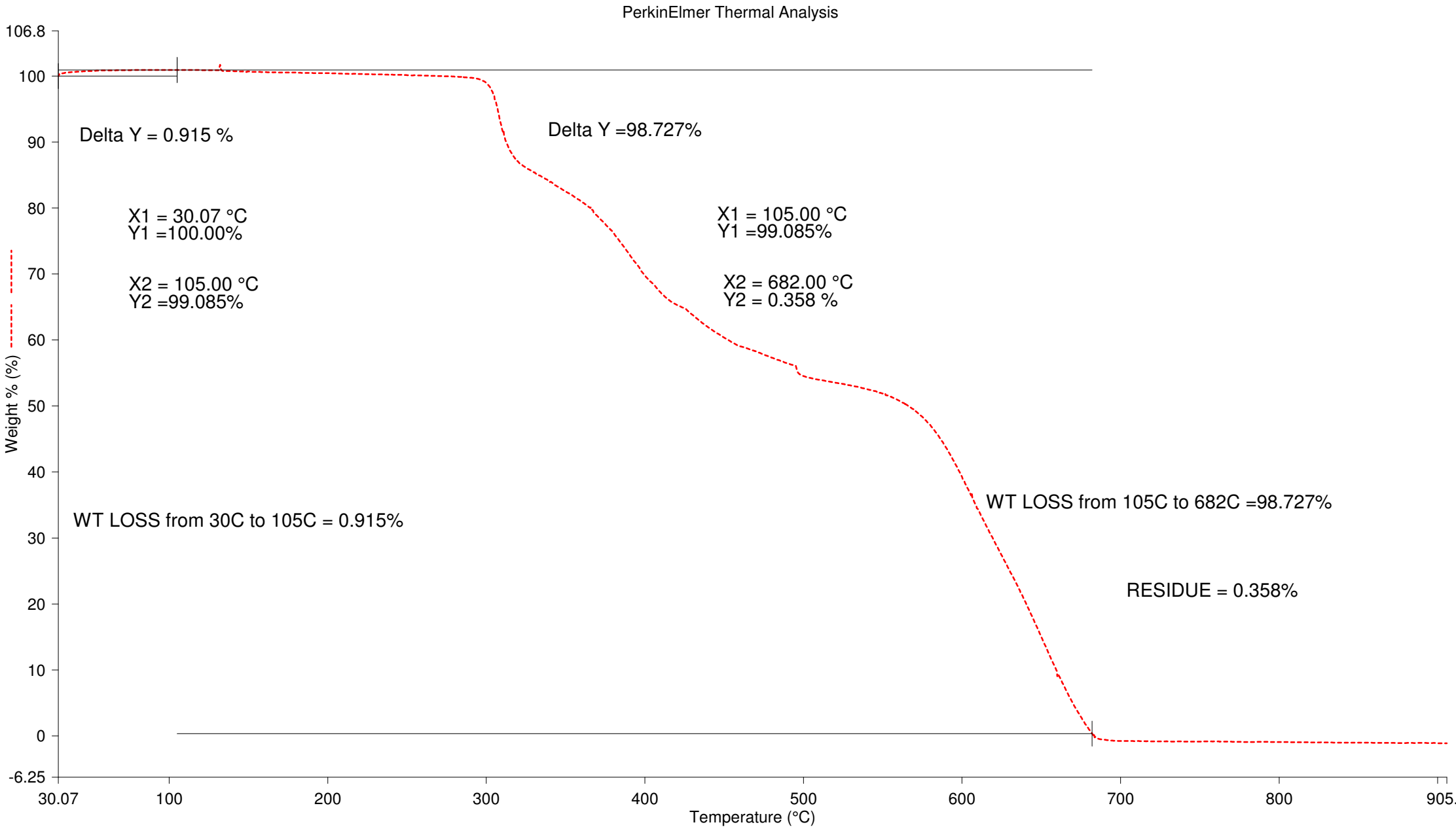
C:\Users\Public\Documents\Bruker\OPUS_8.7.31\MEAS\ALL-A04445.0 ALL-A04445

Peak Picking Values

Wavenumber	Abs. intensity	Rel. intensity	Width	Found if threshold <	Shoulder
945.2836	0.894	0.096	21.8209	46.874092	0
901.8512	0.944	0.031	13.8575	15.813062	0
875.7846	0.933	0.050	16.6602	21.726816	0
841.2756	0.937	0.051	16.2901	24.860201	0
807.6451	0.948	0.041	19.4822	16.216568	0
757.5814	0.859	0.125	20.9340	48.112144	0
728.0316	0.921	0.030	28.3863	15.397983	0
712.7657	0.925	0.016	56.3907	3.699244	0
686.8233	0.807	0.194	20.3862	99.150009	0
639.9219	0.895	0.100	15.9798	49.834930	0
573.3387	0.934	0.067	22.4218	32.934532	0
542.4562	0.941	0.050	11.1689	22.346581	0
1863.8577	0.995	0.002	65.9071	5.090176	0

C:\Users\Public\Documents\Bruker\OPUS_8.7.31\MEAS\ALL-A04445.0 ALL-A04445

Filename:	D:\TGA Data\ALL-A04445.t6d
Operator ID:	BHARAT
Sample ID:	ALL-A04445
Sample Weight:	2.949 mg
Comment:	



10/11/2023 9:15:36 AM

1) Heat from 30.00°C to 150.00°C at 20.00°C/min

2) Heat from 150.00°C to 800.00°C at 20.00°C/min