

Certificate of Analysis

CEF Class I - 32 Control Peptide Pool

Catalog#: 13686-16 Lot#: P3514-1

Purity: Purity > 90% by HPLC

Format: Each vial contains 16 mgs lyophilized peptide - 32 individual peptides with 0.5 mgs each.

CEF	HLA Allele	Virus	Peptide Sequence	Molecular Weight	Mass Spectrum	Purity
CEF-1	A1	Influenza A	VSDGGPNLY	920.96	921.62	>90%
CEF-2		Influenza A	CTELKLSDY	1071.22	1071.38	>90%
CEF-3	A2	Influenza M	GILGFVFTL	966.18	967.08	>90%
CEF-4		Influenza A	FMYSDFHFI	1206.39	1206.58	>90%
CEF-5		EBV LMP2A	CLGGLTMTV	906.16	906.28	>90%
CEF-6		EBV BMLF1	GLCTLVAML	920.20	920.24	>90%
CEF-7	A0201	HCMV pp65	NLVPMVATV	943.17	943.5	>90%
CEF-8	AA68	Influenza NP	KTGGPIYKR	1019.22	1019.52	>90%
CEF-9	A3	Influenza NP	RVLSEFIKGTK	1148.42	1148.44	>90%
CEF-10		Influenza A	ILRGSAVHK	980.18	980.56	>90%
CEF-11		EBV	RVRAYTYSK	1143.33	1143.38	>90%
CEF-12		EBV	RLRAEAQVK	1070.28	1070.78	>90%
CEF-13	A3, A11, A6081	Influenza M	SIIPSGPLK	911.11	912.29	>90%
CEF-14	A11	EBV EBNA 4NP	AVFDRKSDAK	1136.30	1136.95	>90%
CEF-15		EBV	IVTDFSVIK	1021.22	1021.53	>90%
CEF-16		EBV	ATIGTAMYK	955.17	955.35	>90%
CEF-17	A24	EBV RTA	DYCNVLNKEF	1244.38	1244.37	>90%
CEF-18	B7	Influenza NP	LPFDKTTVM	1051.28	1051.59	>90%
CEF-19		EBV	RPPIFIRRL	1167.47	1167.64	>90%
CEF-20	B8	Influenza NP	ELRSRYWAI	1193.39	1194.52	>90%
CEF-21		EBV BZLF-1	RAKFKQLL	1003.27	1003.97	>90%
CEF-22		EBV EBNA 3A	FLRGRAYGL	1052.25	1052.52	>90%
CEF-23		EBV EBNA 3	QAKWRLQTL	1143.37	1143.17	>90%
CEF-24	B18	HCMV	SDEEEAIVAYTL	1339.45	1339.98	>90%
CEF-25	B27	Influenza NP	SRYWAIRTR	1208.41	1208.35	>90%
CEF-26		Influenza M	ASCMGLIY	857.06	857.05	>90%
CEF-27		EBV EBNA 3C	RRIYDLIEL	1190.41	1191.02	>90%
CEF-28	B35	EBV EBNA3A	YPLHEQHGM	1111.24	1111.92	>90%
CEF-29		CMV pp65	IPSINVHHY	1079.21	1080.12	>90%
CEF-30	B44	EBV	EENLLDFVRF	1281.43	1281.84	>90%
CEF-31		HCMV	EFFWDANDIY	1319.41	1319.45	>90%
CEF-32	B0702	HCMV	TPRVTGGGAM	946.10	946.86	>90%

Long-Term Storage: Store the peptide at -20°C. Keep container tightly

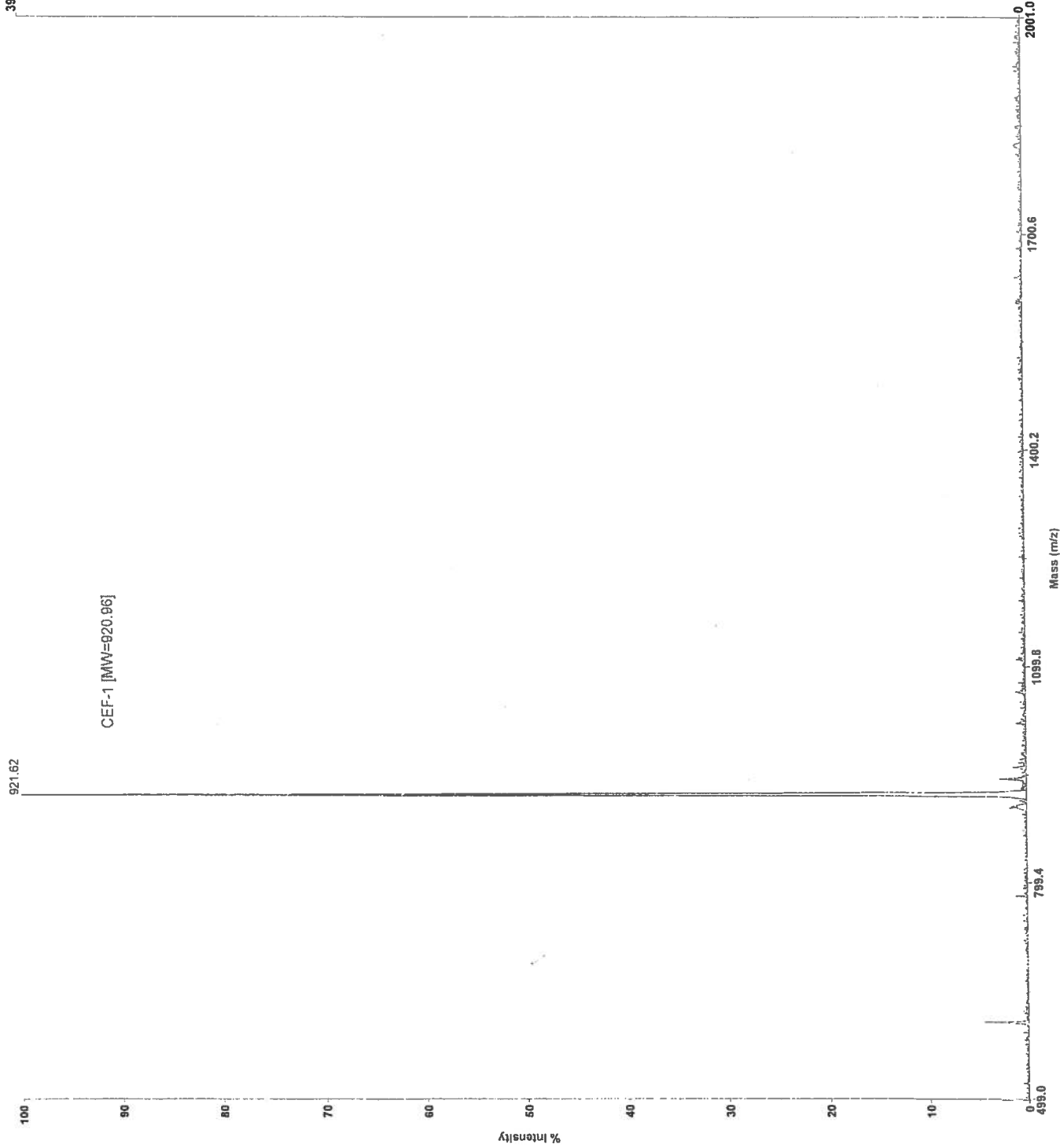
Prepared By: Lan Nguyen

Approved By: _____ Date: 1/13/2016

For research use only. Not for human or veterinary use.

Applied Biosystems Voyager System 1099

Voyager Spec #1=>SM3[BP = 921.7, 3953]



Mode of operation: Linear
Extraction mode: Delayed
Polarity: Negative
Acquisition control: Manual

Accelerating voltage: 20000 V
Grid voltage: 91%
Guide wire 0: 0.015%
Extraction delay time: 150 nsec

Acquisition mass range: 500 – 2000 Da
Number of laser shots: 100/spectrum
Laser intensity: 1585
Laser Rep Rate: 3.0 Hz
Calibration type: Default
Calibration matrix: a-Cyano-4-hydroxycinnamic ac
Low mass gate: Off

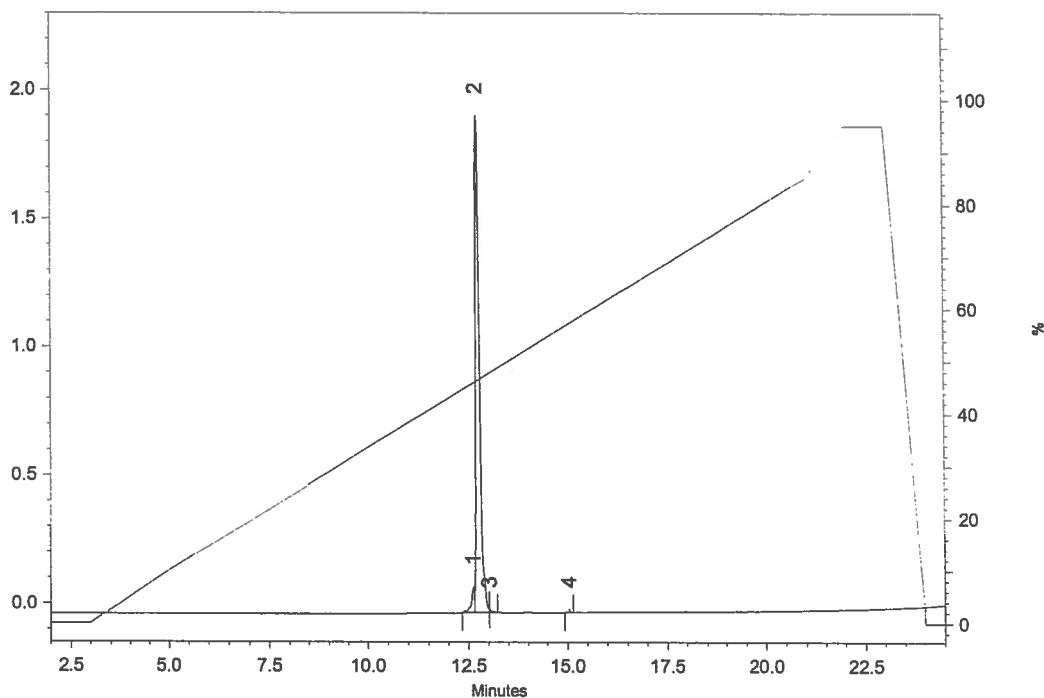
Digitizer start time: 14.632
Bin size: 4 nsec
Number of data points: 3634
Vertical scale: 200 mV
Vertical offset: 0%
Input bandwidth: 150 MHz

Sample well: 01
Plate ID: 100 WELL PLATE
Serial number: 1099
Instrument name: Voyager-DE
Plate type filename: C:\VOYAGER\100 well plate.pl
Lab name: BioSynthesis, Inc

Absolute x-position: 2012.79
Absolute y-position: 47887.9
Relative x-position: 425.292
Relative y-position: 580.351
Shots in spectrum: 19
Source pressure: 8.311e-008
Mirror pressure: 0
TC2 pressure: 0.001
TIS gate width: 30
TIS flight length: 940

HPLC Report

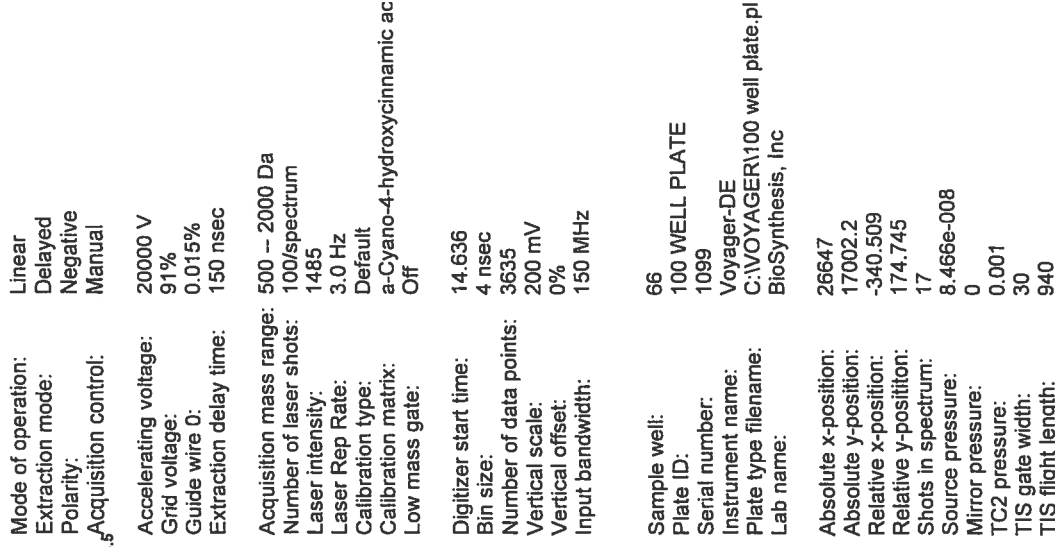
Sample ID: CEF-1
Date File: D:\32Karat\Projects\Default\Data\CEF-1
Method: D:\32Karat\Projects\Default\Methods\PEP-CD071-C18.met
Column: Onyx Monolithic C18, 100x3.0 mm 3u
Solvent: A: 0.05% TFA in H₂O; B: 0.05% TFA in ACN
Wavelength: 220 nm; Detector lamp: UV
HPLC ID#: CD-071, EQ-024



Det Results:

Pk #	Retention Time	Height	Height Percent	Area	Area Percent
1	12.617	101373	4.921	567257	3.982
2	12.733	1933811	93.870	13578643	95.313
3	13.017	11422	0.554	47328	0.332
4	15.033	13491	0.655	53100	0.373
Totals		2060097	100.000	14246328	100.000

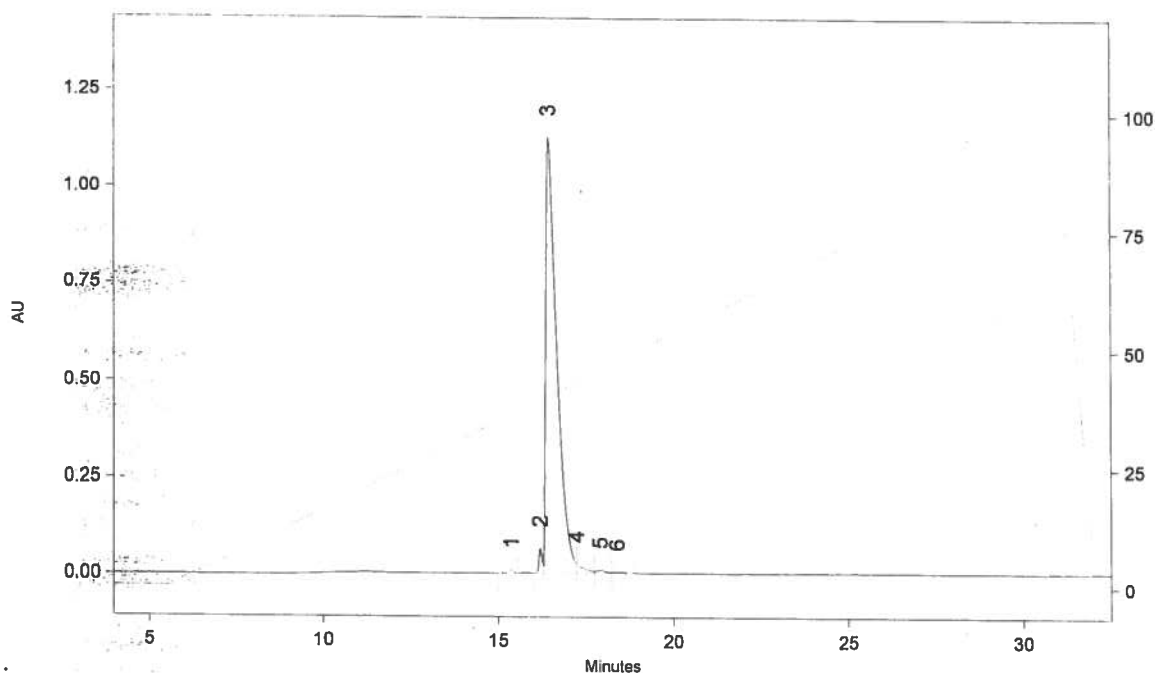
Voyager Spec #1=>SM5[BP = 1071.2, 1564]



Printed: 10:18, January 07, 2016

HPLC Report

Sample: CEF-2
 Method: C:\32Karat\Projects\Default\Methods\ANAPEP2.met
 File Name: C:\32Karat\Projects\Default\Data\CEF-2
 Solvent: A: 0.05 % TFA in H2O; B: 0.05 % TFA in ACN
 Column: Onyx Monolithic C18, 100x 3.00mm 3u Flow Rate: 1.0ml min.
 HPLC ID # CD-159

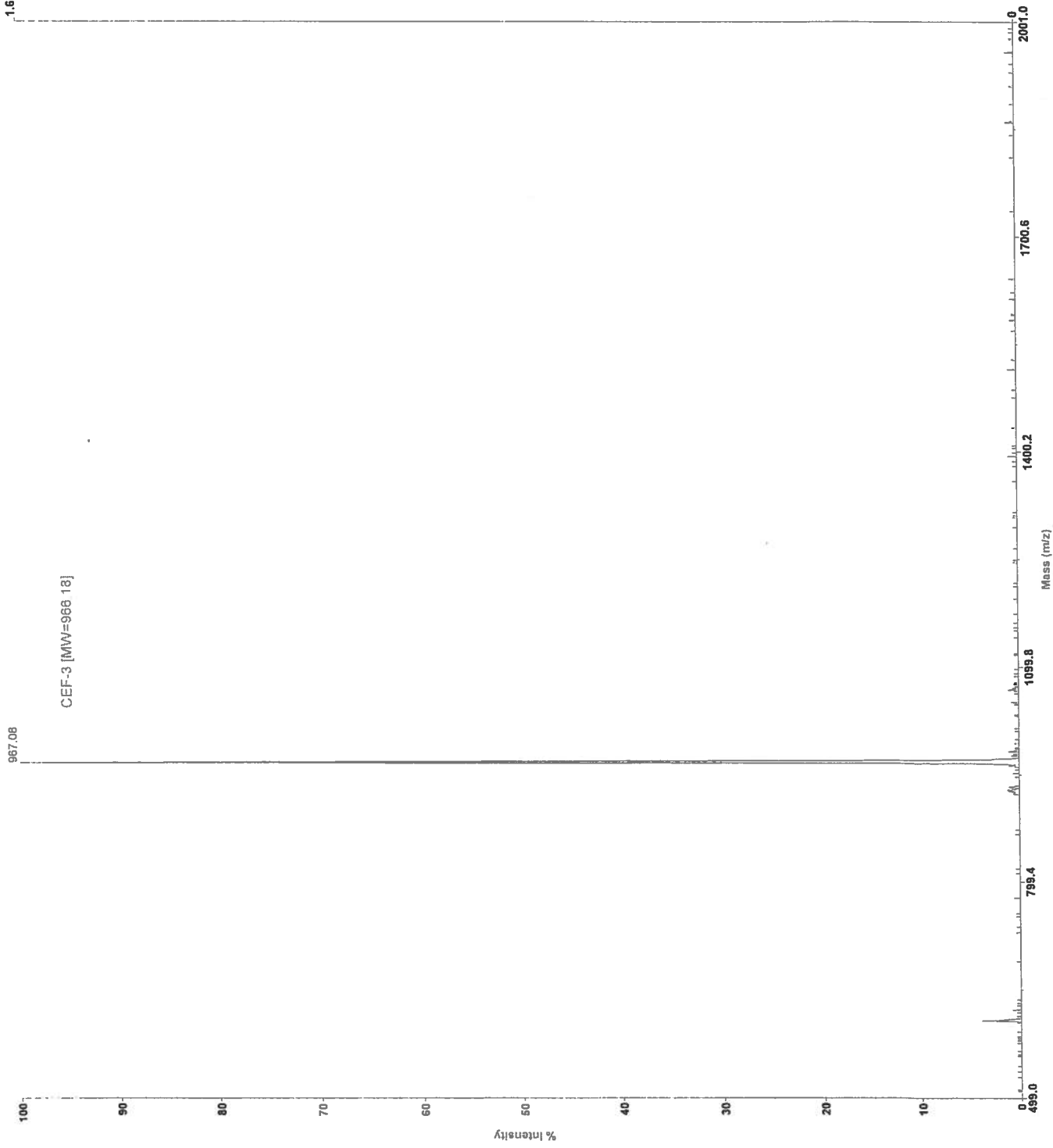


Det 166 Results

Pk #	Time	Area	Area %
1	15.367	81727	0.32
2	16.183	395583	1.57
3	16.442	24185903	95.98
4	17.217	341069	1.35
5	17.892	138869	0.55
6	18.375	54509	0.22
Totals		25197660	100.00

Applied Biosystems Voyager System 1099

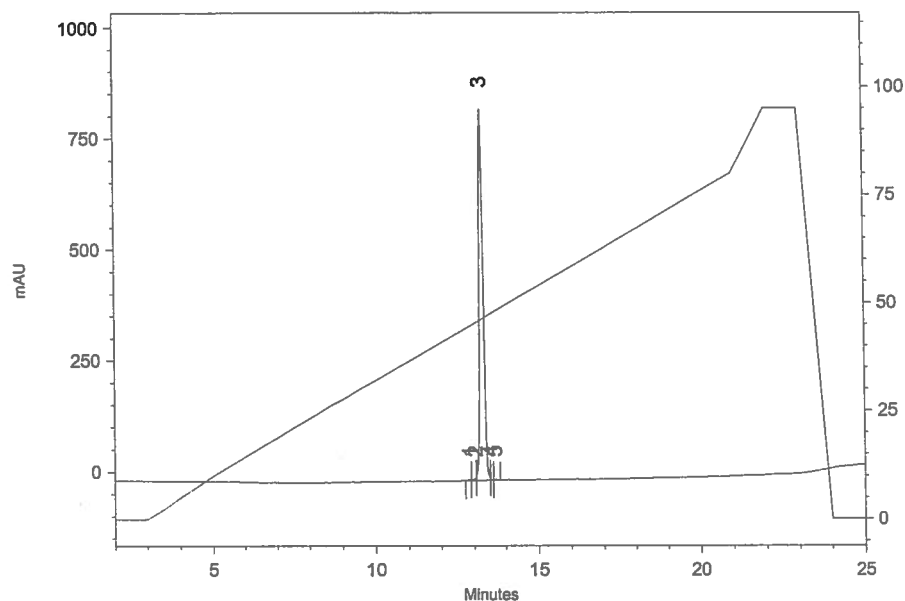
Voyager Spec #1=>SM3[BP = 966.7, 15776]



Mode of operation: Linear
Extraction mode: Delayed
Polarity: Negative
Acquisition control: Manual
Accelerating voltage: 20000 V
Grid voltage: 91%
Guide wire 0: 0.015%
Extraction delay time: 150 nsec
Acquisition mass range: 500 -- 2000 Da
Number of laser shots: 100/spectrum
Laser intensity: 1585
Laser Rep Rate: 3.0 Hz
Calibration type: Default
Calibration matrix: a-Cyano-4-hydroxycinnamic ac
Low mass gate: Off
Digitizer start time: 14.632
Bin size: 4 nsec
Number of data points: 3634
Vertical scale: 200 mV
Vertical offset: 0%
Input bandwidth: 150 MHz
Sample well: 02
Plate ID: 100 WELL PLATE
Serial number: 1099
Instrument name: Voyager-DE
Plate type filename: C:\VOYAGER\100 well plate.pl
Lab name: BioSynthesis, Inc
Absolute x-position: 5148.03
Absolute y-position: 47375.9
Relative x-position: -1519.47
Relative y-position: 68.411
Shots in spectrum: 2
Source pressure: 8.311e-008
Mirror pressure: 0
TC2 pressure: 0.001
TIS gate width: 30
TIS flight length: 940

HPLC Report

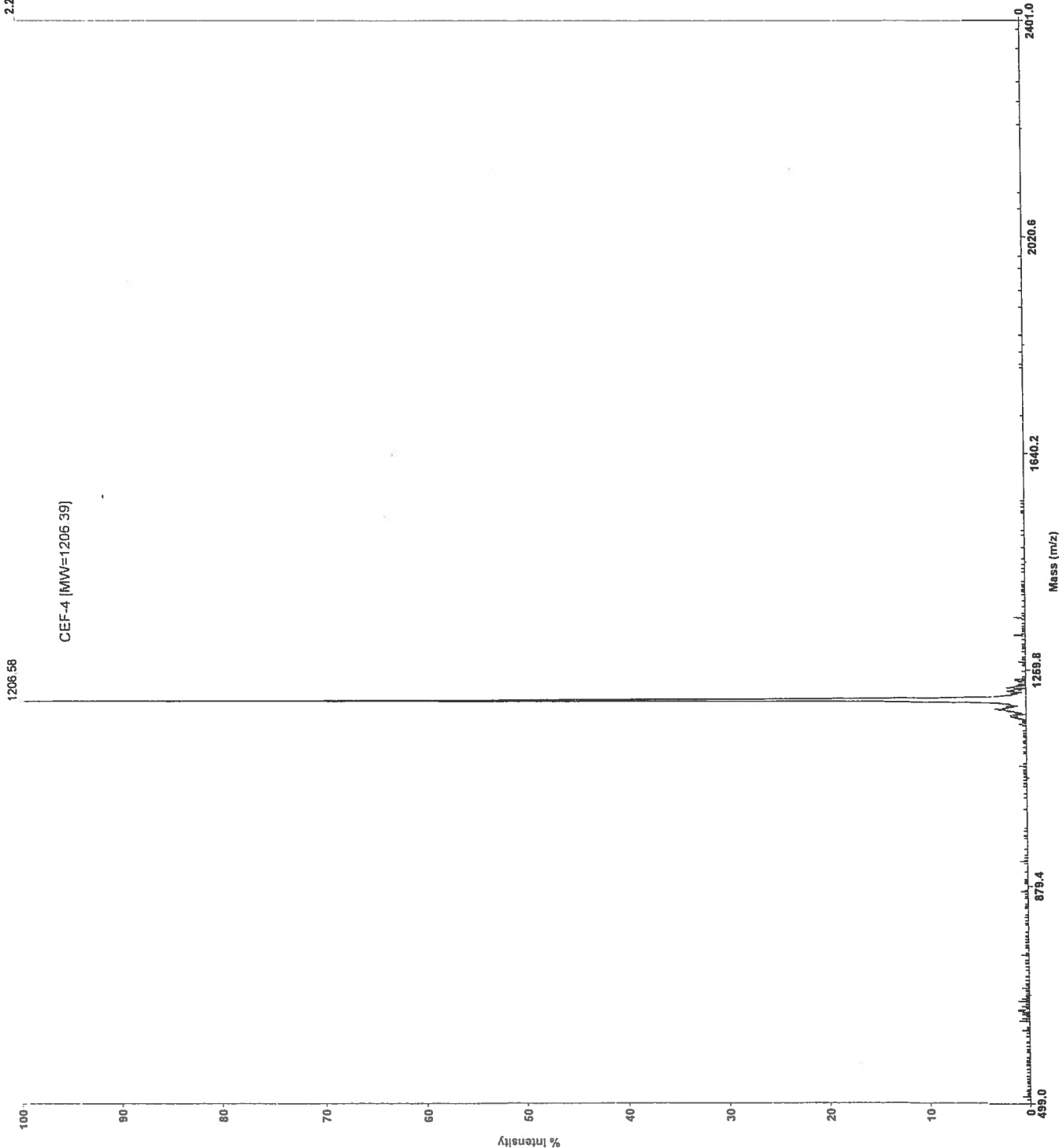
Sample ID: CEF-3
 Date File: D:\32Karat\Projects\Default\Data\CEF-3
 Method: D:\32Karat\Projects\Default\Methods\PEP-CD072-C18.met
 Column: Onyx Monolithic C18, 100x3.0 nm 3u; Flow Rate: 1.0 mL/min
 Solvent: A: 0.05% TFA in H₂O; B: 0.05% TFA in ACN
 Wavelength: 220 nm; Detector lamp: UV
 HPLC ID#: CD-072



Pk #	Retention Time	Height	Height Percent	Area	Area Percent
1	12.883	3928	0.460	21076	0.281
2	13.050	4734	0.554	32390	0.432
3	13.283	836776	97.949	7413107	98.782
4	13.517	5063	0.593	16431	0.219
5	13.667	3800	0.445	21502	0.287
Totals		854301	100.000	7504506	100.000

Applied Biosystems Voyager System 1099

Voyager Spec #1=>NF0.7[BP = 1206.2, 21589]



Mode of operation: Linear
Extraction mode: Delayed
Polarity: Negative
Acquisition control: Manual

Accelerating voltage: 20000 V
Grid voltage: 91%
Guide wire 0: 0.015%
Extraction delay time: 150 nsec

Acquisition mass range: 500 – 2400 Da
Number of laser shots: 100/spectrum
Laser intensity: 1647
Laser Rep Rate: 3.0 Hz
Calibration type: Default
Calibration matrix: a-Cyano-4-hydroxycinnamic acid
Low mass gate: Off

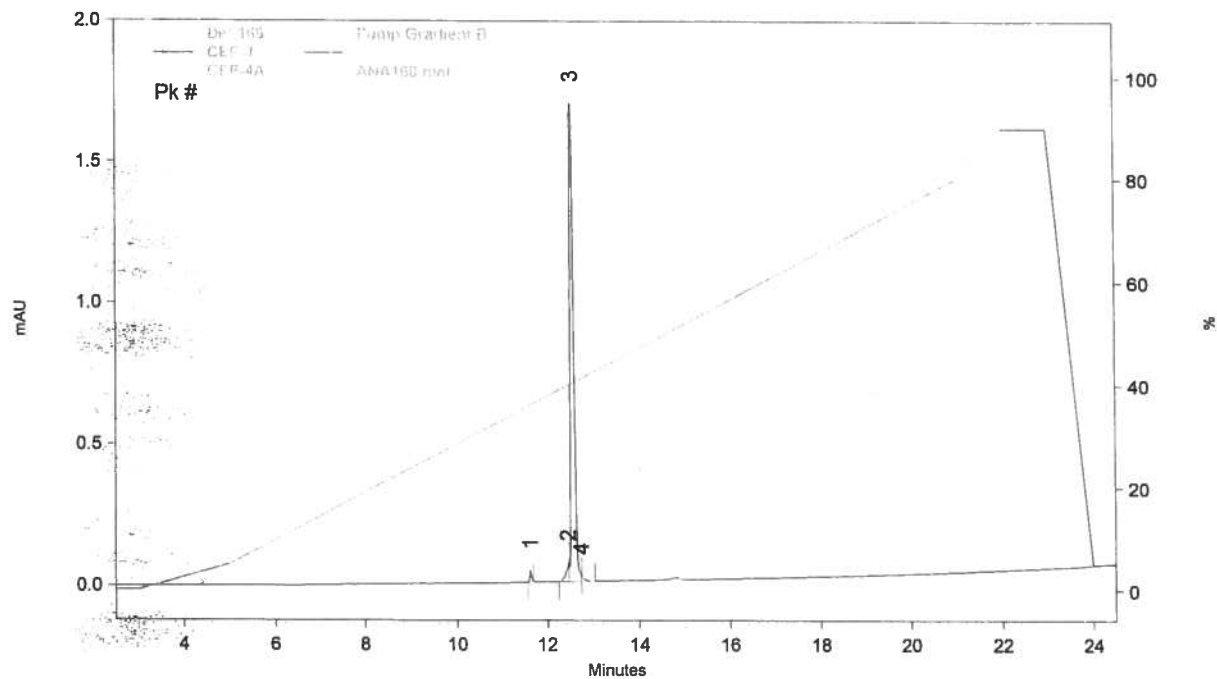
Digitizer start time: 14.624
Bin size: 4 nsec
Number of data points: 4326
Vertical scale: 200 mV
Vertical offset: 0%
Input bandwidth: 150 MHz

Sample well: 13
Plate ID: 100 WELL PLATE
Serial number: 1099
Instrument name: Voyager-DE
Plate type filename: C:\VOYAGER\100 well plate.plt
Lab name: BioSynthesis, Inc

Absolute x-position: 13977.6
Absolute y-position: 43032
Relative x-position: 2230.11
Relative y-position: 804.531
Shots in spectrum: 3
Source pressure: 1.327e-006
Mirror pressure: 0
TC2 pressure: 0.001
TIS gate width: 30
TIS flight length: 940

HPLC Report

Sample: CEF-4
 Method: C:\32Karat\Projects\Default\Methods\ANA168.met
 File Name: C:\32Karat\Projects\Default\Data\CEF-4A
 Solvent: Onyx Monolithic C18, 100x 3.00mm 3u Flow Rate: 1.0ml min.
 Wavelength: 220 nm
 HPLC ID#: CD-077

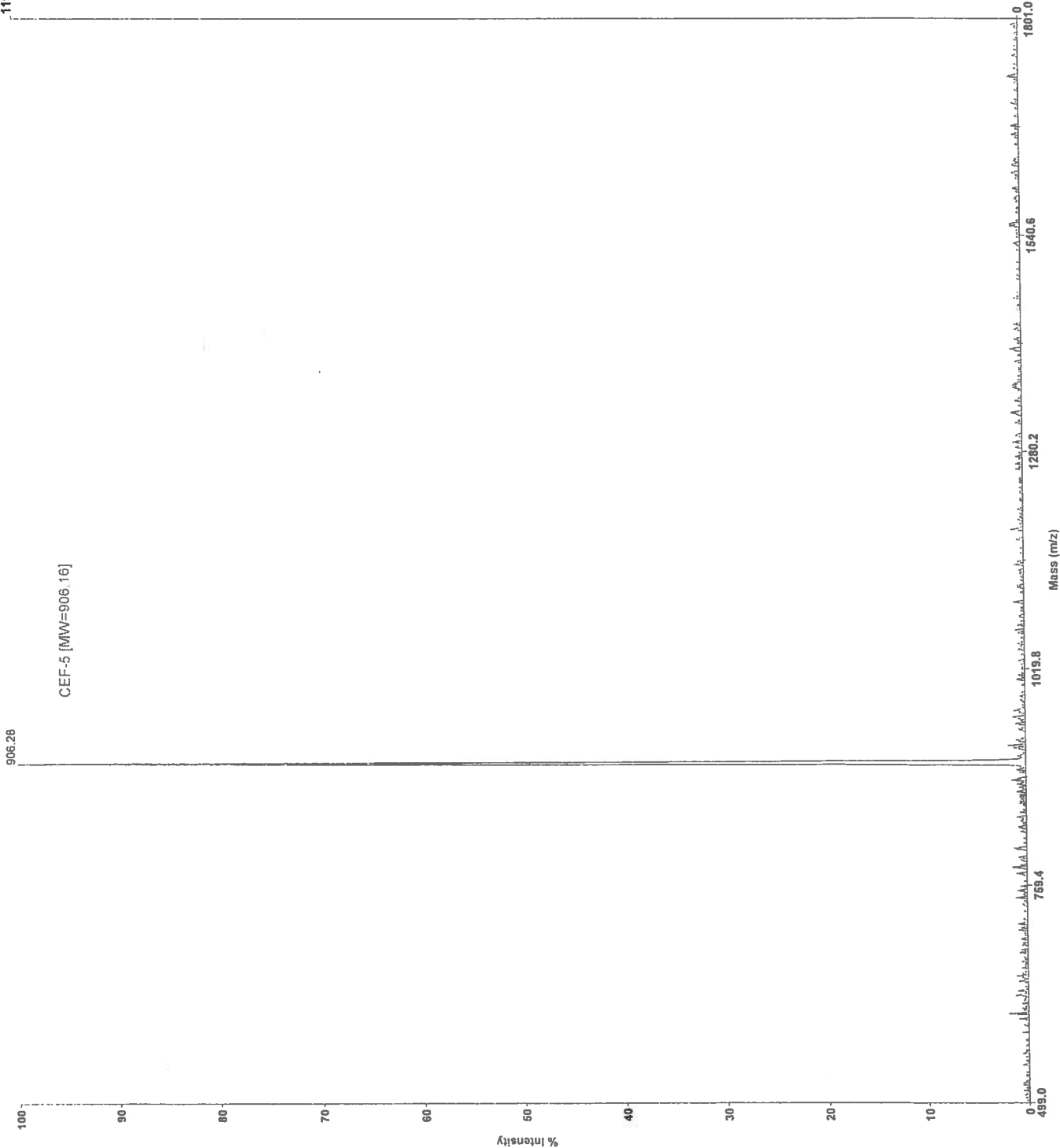


Det 166 Results

Pk #	Time	Area	Area %
1	11.617	106683	1.13
2	12.450	281774	2.97
3	12.550	9027794	95.27
4	12.733	59312	0.63
Totals		9475563	100.00

Applied Biosystems Voyager System 1099

Voyager Spec #1=>SM5[BP = 906.1, 1196]



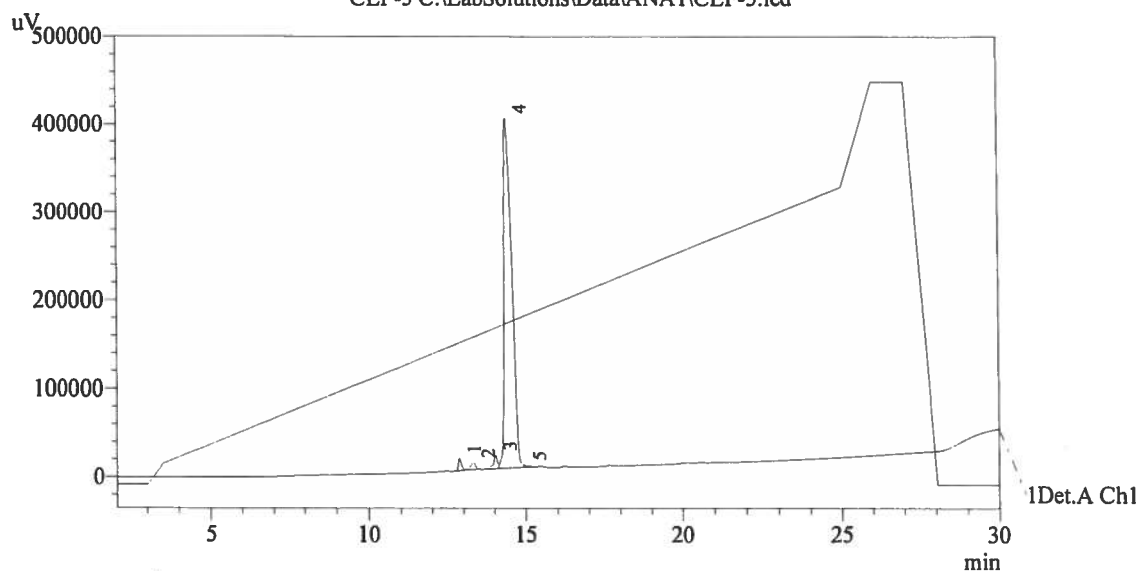
Mode of operation: Linear
Extraction mode: Delayed
Polarity: Negative
Acquisition control: Manual
Accelerating voltage: 20000 V
Grid voltage: 91%
Guide wire 0: 0.015%
Extraction delay time: 150 nsec
Acquisition mass range: 500 -- 1800 Da
Number of laser shots: 100/spectrum
Laser intensity: 1647
Laser Rep Rate: 3.0 Hz
Calibration type: Default
Calibration matrix: a-Cyano-4-hydroxycinnamic ac
Low mass gate: Off
Digitizer start time: 14.632
Bin size: 4 nsec
Number of data points: 3262
Vertical scale: 200 mV
Vertical offset: 0%
Input bandwidth: 150 MHz
Sample well: 22
Plate ID: 100 WELL PLATE
Serial number: 1099
Instrument name: Voyager-DE
Plate type filename: C:\VOYAGER\100 well plate.pl
Lab name: BioSynthesis, Inc
Absolute x-position: 6772.57
Absolute y-position: 37060.9
Relative x-position: 105.066
Relative y-position: -86.5971
Shots in spectrum: 13
Source pressure: 7.78e-007
Mirror pressure: 0
TC2 pressure: 0.001
TIS gate width: 30
TIS flight length: 940

Sample Information

Acquired by : Admin
 Sample Name : CEF-5
 Sample ID : CEF-5
 Data Filename : CEF-5.lcd
 Method Filename : ANAPEP1.lcm
 Date Acquired : 1/7/2016 12:00:05 PM
 Data Processed : 1/7/2016 12:39:47 PM
 Column: 250X4.6mm 5u C18 120A
 Solvent: A:0.05%TFA in Water; B: 0.05 % TFA in ACN

Chromatogram

CEF-5 C:\LabSolutions\Data\ANA1\CEF-5.lcd



1 Det.A Ch1 / 220nm

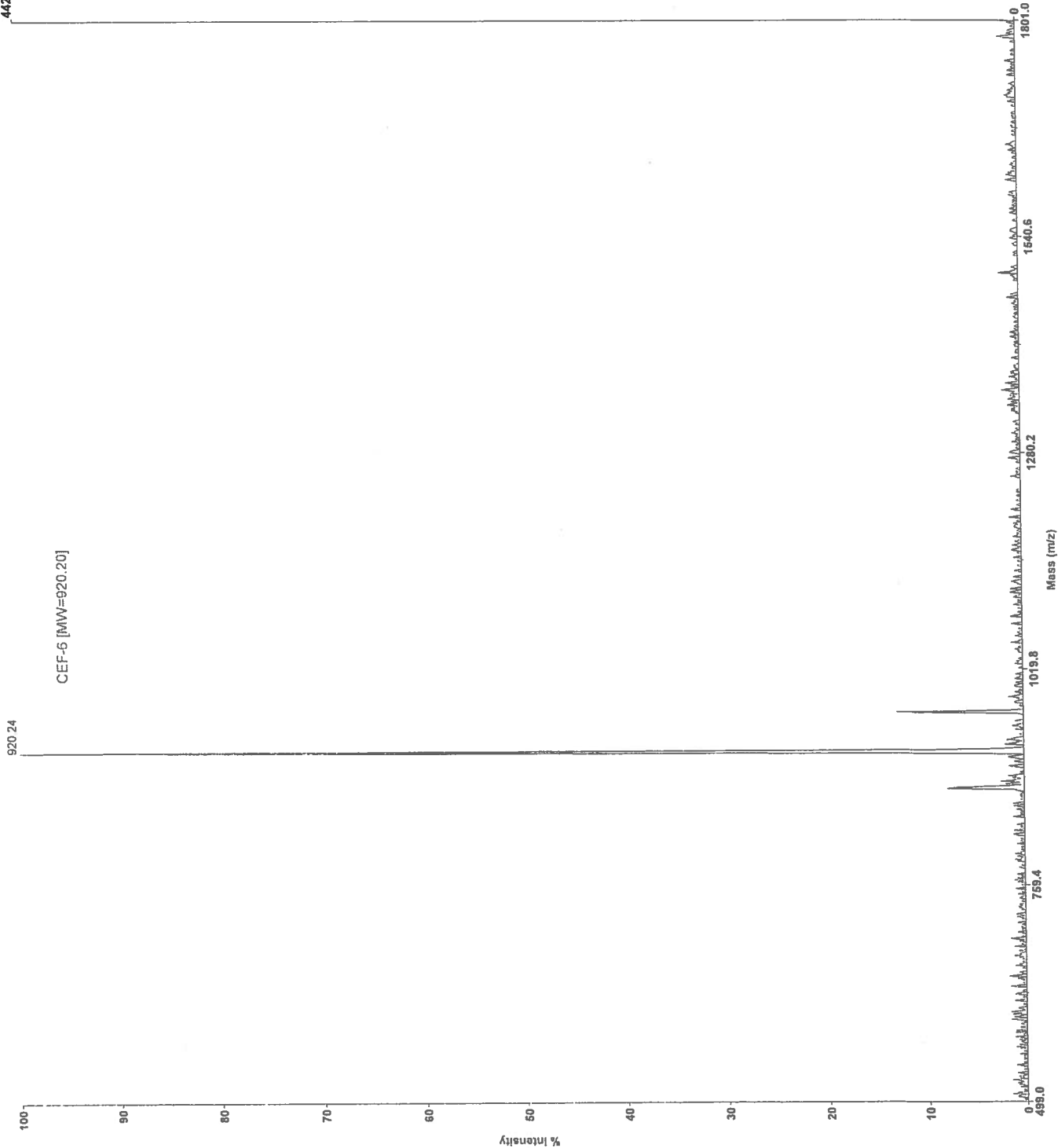
PeakTable

Detector A Ch1 220nm

Peak#	Ret. Time	Area	Height	Height %	Area %
1	12.865	96868	13918	3.194	1.352
2	13.315	86682	7822	1.795	1.210
3	14.034	129079	14892	3.418	1.802
4	14.415	6833335	396783	91.062	95.382
5	14.958	18249	2313	0.531	0.255
Total				100.000	100.000

Applied Biosystems Voyager System 1099

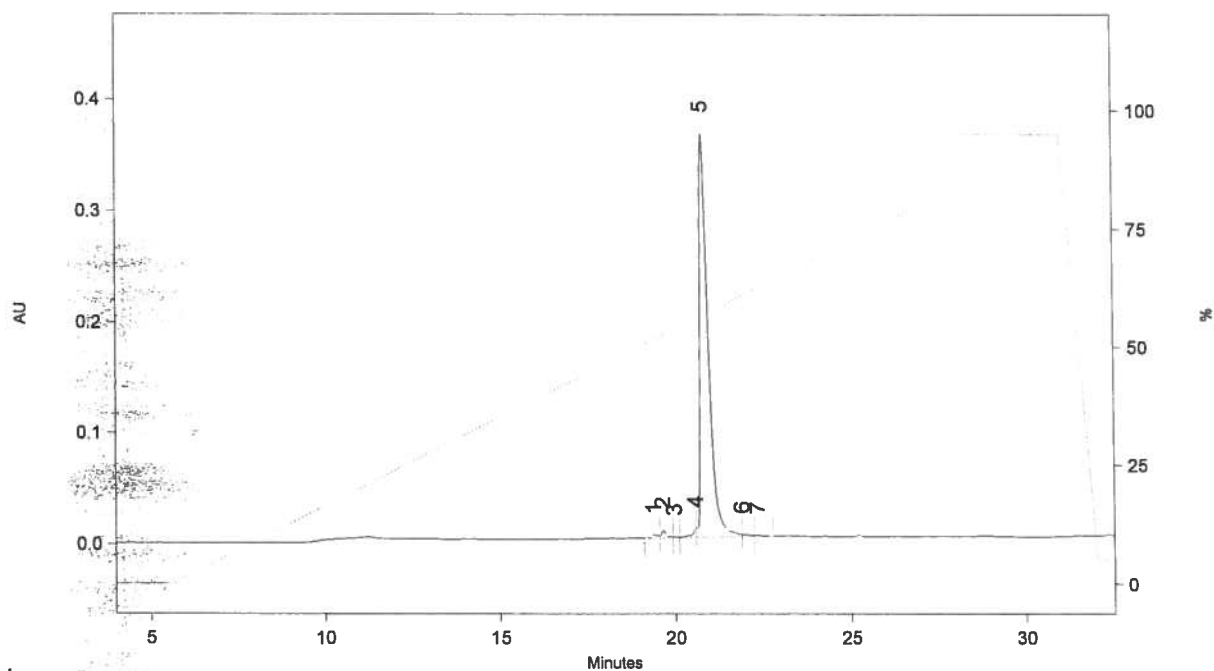
Voyager Spec #1=>SM5[BP = 920.2, 443]



Mode of operation: Linear
Extraction mode: Delayed
Polarity: Negative
Acquisition control: Manual
Accelerating voltage: 20000 V
Grid voltage: 91%
Guide wire 0: 0.015%
Extraction delay time: 150 nsec
Acquisition mass range: 500 -- 1800 Da
Number of laser shots: 100/spectrum
Laser intensity: 1647
Laser Rep Rate: 3.0 Hz
Calibration type: Default
Calibration matrix: a-Cyano-4-hydroxycinnamic aci
Low mass gate: Off
Digitizer start time: 14.632
Bin size: 4 nsec
Number of data points: 3262
Vertical scale: 200 mV
Vertical offset: 0%
Input bandwidth: 150 MHz
Sample well: 34
Plate ID: 100 WELL PLATE
Serial number: 1099
Instrument name: Voyager-DE
Plate type filename: C:\VOYAGER\100 well plate.plt
Lab name: BioSynthesis, Inc
Absolute x-position: 16720.8
Absolute y-position: 31884.5
Relative x-position: -106.73
Relative y-position: -183.016
Shots in spectrum: 29
Source pressure: 3.313e-007
Mirror pressure: 0
TC2 pressure: 0.001
TIS gate width: 30
TIS flight length: 940

HPLC Report

Sample: CEF-6
 Method: C:\32Karat\Projects\Default\Methods\ANAPEP2.met
 File Name: C:\32Karat\Projects\Default\Data\CEF-6
 Solvent: A: 0.05 % TFA in H₂O; B: 0.05 % TFA in ACN
 Column: Onyx Monolithic C18, 100x 3.00mm 3u Flow Rate: 1.0ml min.
 HPLC ID #: CD-159

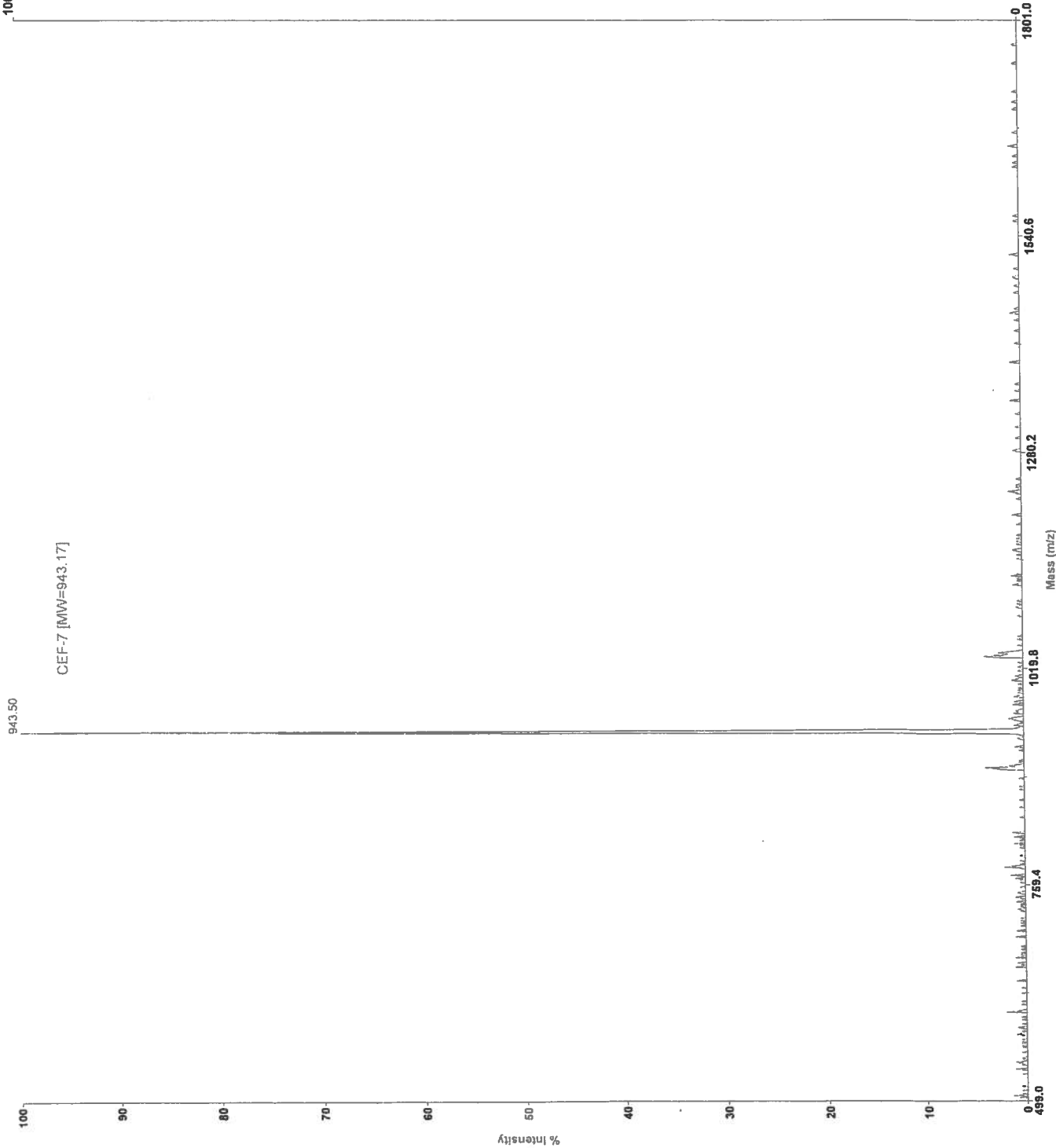


Det 166 Results

Pk #	Time	Area	Area %
1	19.408	35676	0.56
2	19.667	64044	1.01
3	19.983	8532	0.13
4	20.567	60487	0.95
5	20.792	6138650	96.57
6	21.875	30174	0.47
7	22.317	19317	0.30
Totals		6356880	100.00

Applied Biosystems Voyager System 1099

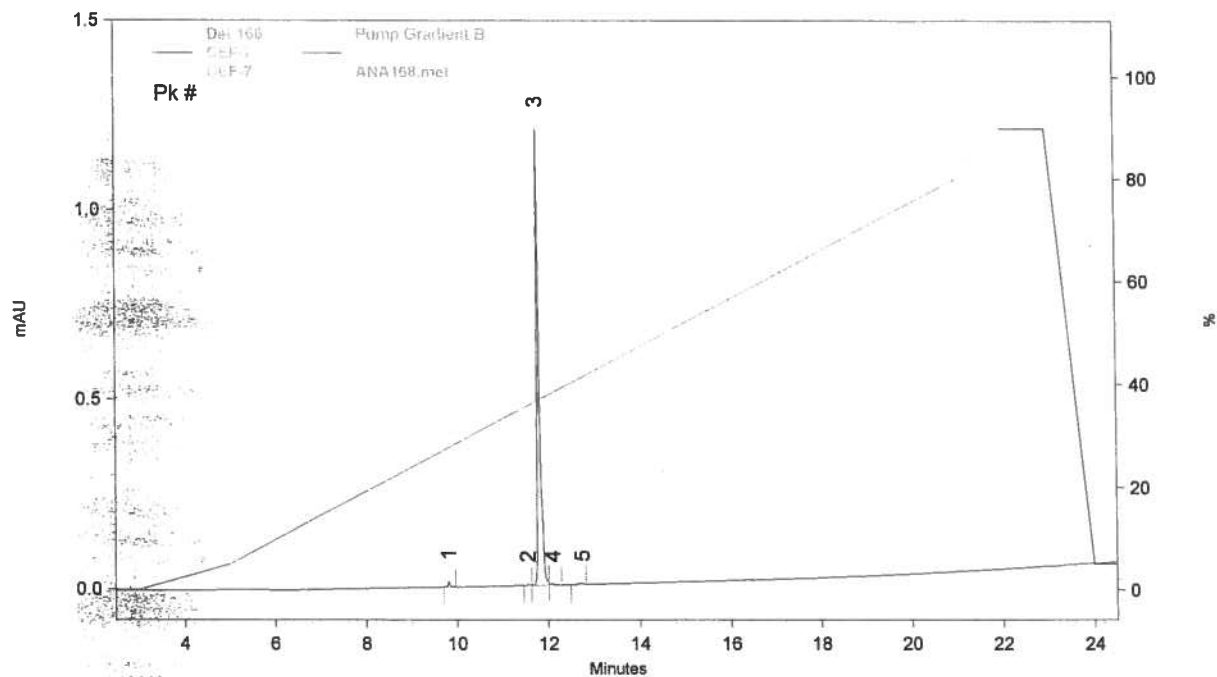
Voyager Spec #1=>SM5[BP = 943.5, 1065]



Mode of operation:	Linear
Extraction mode:	Delayed
Polarity:	Negative
Acquisition control:	Manual
Accelerating voltage:	20000 V
Grid voltage:	91%
Guide wire 0:	0.015%
Extraction delay time:	150 nsec
Acquisition mass range:	500 -- 1800 Da
Number of laser shots:	100/spectrum
Laser intensity:	1747
Laser Rep Rate:	3.0 Hz
Calibration type:	Default
Calibration matrix:	a-Cyano-4-hydroxycinnamic aci
Low mass gate:	Off
Digitizer start time:	14.632
Bin size:	4 nsec
Number of data points:	3262
Vertical scale:	200 mV
Vertical offset:	0%
Input bandwidth:	150 MHz
Sample well:	45
Plate ID:	100 WELL PLATE
Serial number:	1099
Instrument name:	Voyager-DE
Plate type filename:	C:\VOYAGER\100 well plate.plt
Lab name:	BioSynthesis, Inc
Absolute x-position:	22127.3
Absolute y-position:	27472.3
Relative x-position:	219.818
Relative y-position:	484.758
Shots in spectrum:	9
Source pressure:	2.843e-007
Mirror pressure:	0
TC2 pressure:	0.001
TIS gate width:	30
TIS flight length:	940

HPLC Report

Sample: CEF-7
 Method: C:\32Karat\Projects\Default\Methods\ANA168.met
 File Name: C:\32Karat\Projects\Default\Data\CEF-7
 Solvent: Onyx Monolithic C18, 100x 3.00mm 3u Flow Rate: 1.0ml min.
 Wavelength: 220 nm
 HPLC ID#: CD-077

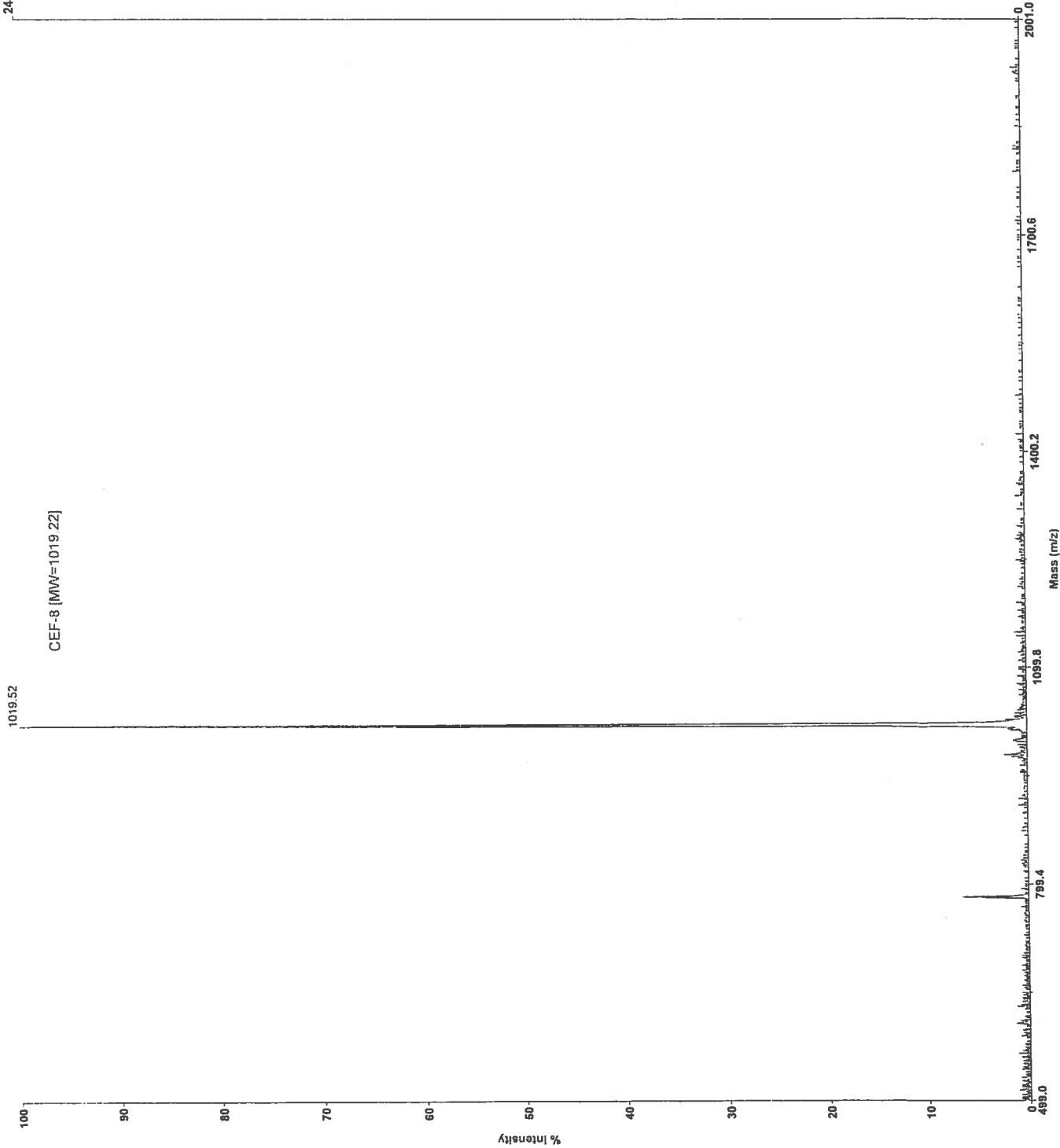


Det 166 Results

Pk #	Time	Area	Area %
1	9.817	43535	0.94
2	11.567	16232	0.35
3	11.800	4514349	97.36
4	12.100	33886	0.73
5	12.733	28662	0.62
Totals		4636664	100.00

Applied Biosystems Voyager System 1099

Voyager Spec #1=>SM3[BP = 1019.1, 2443]



Mode of operation: Linear
Extraction mode: Delayed
Polarity: Negative
Acquisition control: Manual

Accelerating voltage: 20000 V
Grid voltage: 91%
Guide wire 0: 0.015%
Extraction delay time: 150 nsec

Acquisition mass range: 500 – 2000 Da
Number of laser shots: 100/spectrum
Laser intensity: 1747
Laser Rep Rate: 3.0 Hz
Calibration type: Default
Calibration matrix: a-Cyano-4-hydroxycinnamic acid
Low mass gate: Off

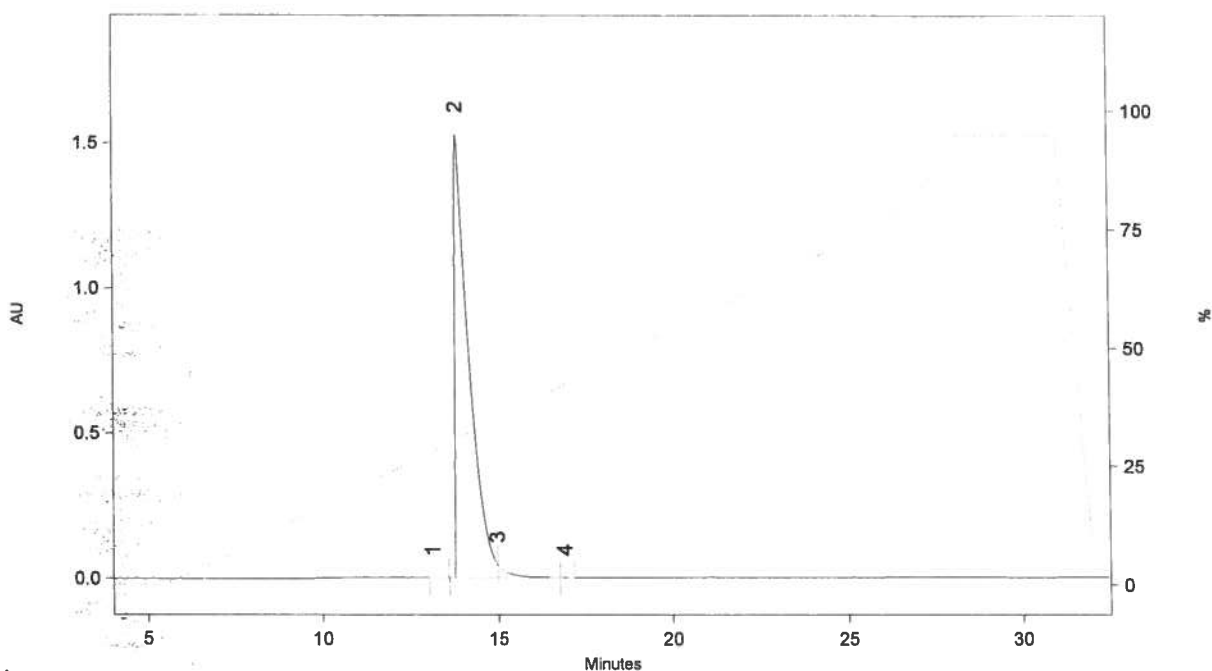
Digitizer start time: 14.632
Bin size: 4 nsec
Number of data points: 3634
Vertical scale: 200 mV
Vertical offset: 0%
Input bandwidth: 150 MHz

Sample well: 53
Plate ID: 100 WELL PLATE
Serial number: 1099
Instrument name: Voyager-DE
Plate type filename: C:\VOYAGER\100 well plate.plt
Lab name: BioSynthesis, Inc

Absolute x-position: 12507.6
Absolute y-position: 21819.5
Relative x-position: 760.116
Relative y-position: -88.0451
Shots in spectrum: 15
Source pressure: 2.598e-007
Mirror pressure: 0
TC2 pressure: 0.001
TIS gate width: 30
TIS flight length: 940

HPLC Report

Sample: CEF-8
Method: C:\32Karat\Projects\Default\Methods\ANAP2P2.met
File Name: C:\32Karat\Projects\Default\Data\CEF-8T
Solvent: A: 0.05 % TFA in H2O; B: 0.05 % TFA in ACN
Column: Onyx Monolithic C18, 100x 3.00mm 3u Flow Rate: 1.0ml min.
HPLC ID # CD-159



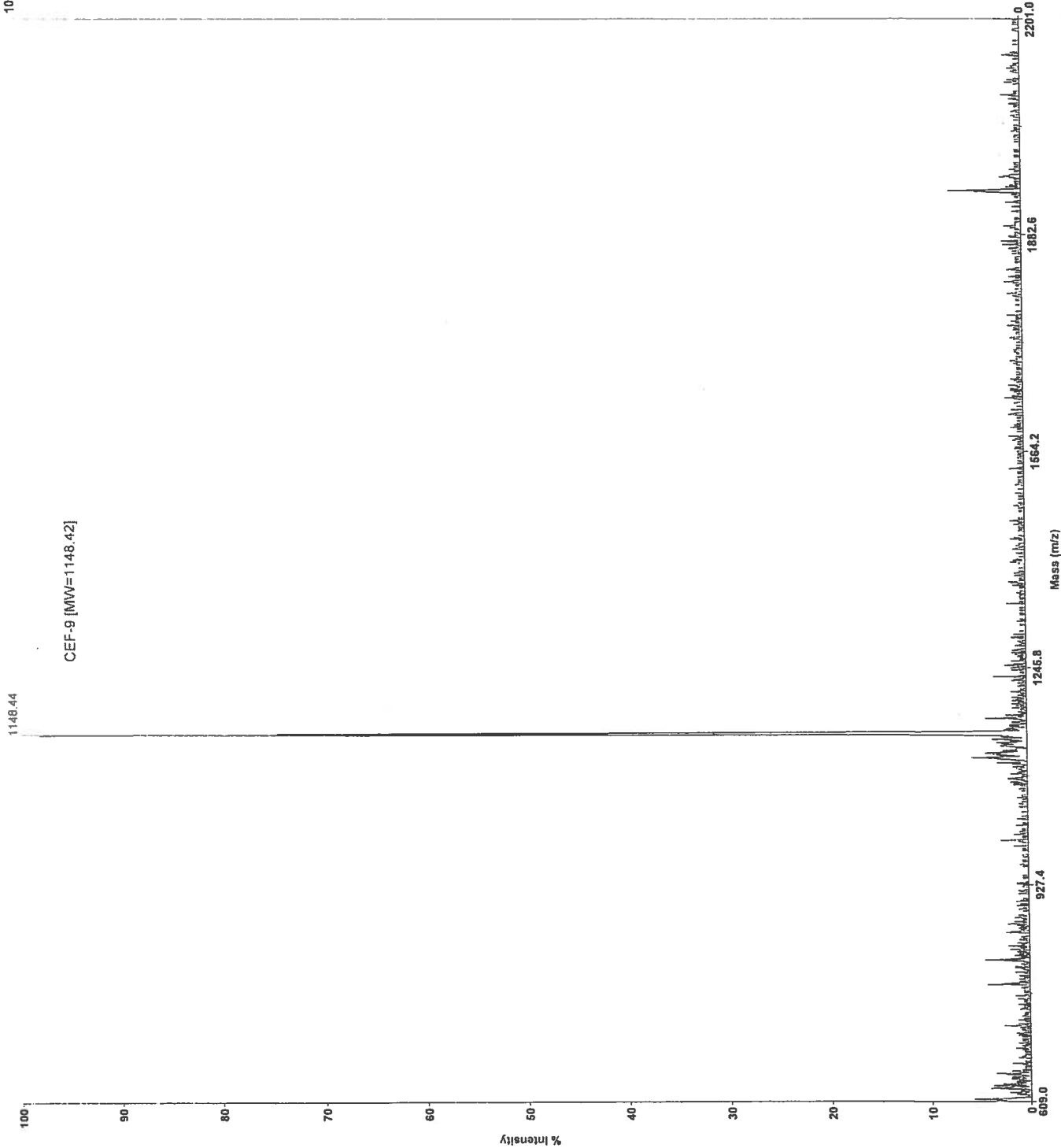
Det 166 Results

Pk #	Time	Area	Area %
1	13.125	816	0.00
2	13.858	42309930	98.05
3	14.975	833904	1.93
4	16.900	7291	0.02

Totals		43151941	100.00
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Applied Biosystems Voyager System 1099

Voyager Spec #1=>SM3[BP = 1148.3, 1004]



Mode of operation: Linear
Extraction mode: Delayed
Polarity: Negative
Acquisition control: Manual

Accelerating voltage: 20000 V
Grid voltage: 91%
Guide wire 0: 0.015%
Extraction delay time: 150 nsec

Acquisition mass range: 500 – 2200 Da
Number of laser shots: 100/spectrum
Laser intensity: 1747
Laser Rep Rate: 3.0 Hz
Calibration type: Default
Calibration matrix: a-Cyano-4-hydroxycinnamic aci
Low mass gate: Off

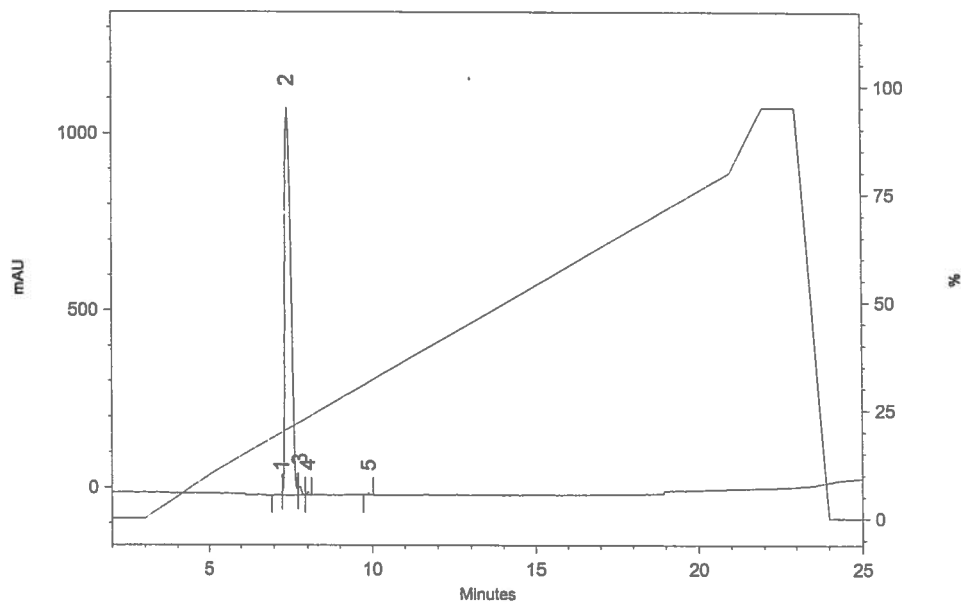
Digitizer start time: 14.632
Bin size: 4 nsec
Number of data points: 3989
Vertical scale: 200 mV
Vertical offset: 0%
Input bandwidth: 150 MHz

Sample well: 64
Plate ID: 100 WELL PLATE
Serial number: 1099
Instrument name: Voyager-DE
Plate type filename: C:\VOYAGER\100 well plate.plt
Lab name: BioSynthesis, Inc

Absolute x-position: 16687.5
Absolute y-position: 16248.9
Relative x-position: -140.04
Relative y-position: -578.586
Shots in spectrum: 23
Source pressure: 2.059e-007
Mirror pressure: 0
TC2 pressure: 0.001
TIS gate width: 30
TIS flight length: 940

HPLC Report

Sample ID: CEF-9
 Date File: D:\32Karat\Projects\Default\Data\CEF-9
 Method: D:\32Karat\Projects\Default\Methods\PEP-CD072-C18.met
 Column: Onyx Monolithic C18, 100x3.0 nm 3u; Flow Rate: 1.0 mL/min
 Solvent: A: 0.05% TFA in H₂O; B: 0.05% TFA in ACN
 Wavelength: 220 nm; Detector lamp: UV
 HPLC ID#: CD-072

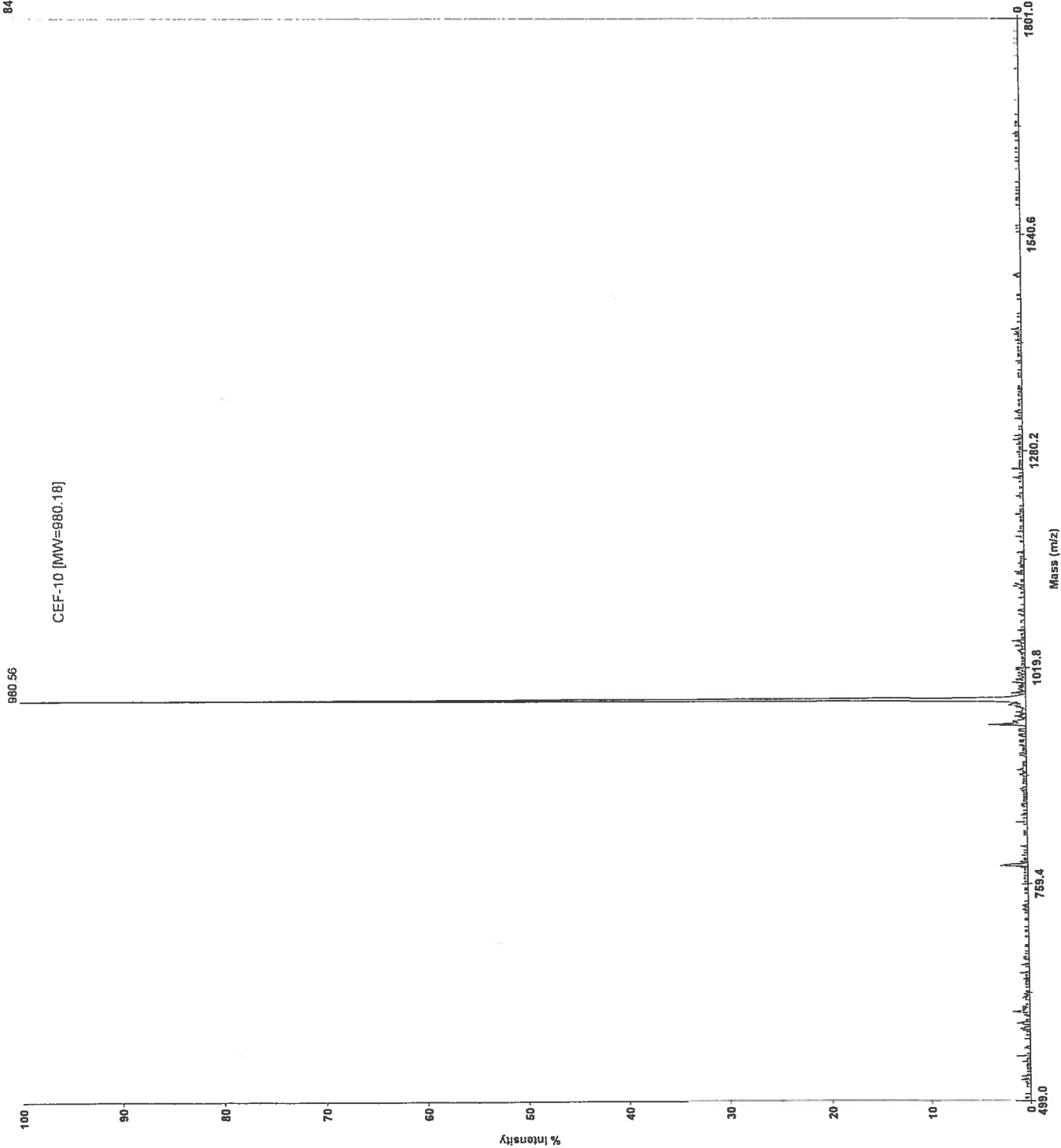


Pk #	Retention Time	Height	Height Percent	Area	Area Percent
1	7.233	7348	0.642	34938	0.249
2	7.417	1095203	95.711	13742375	98.099
3	7.783	25123	2.196	146697	1.047
4	8.017	10001	0.874	46765	0.334
5	9.883	6611	0.578	37870	0.270

Totals		1144286	100.000	14008645	100.000
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Applied Biosystems Voyager System 1099

Voyager Spec #1=>SM3[BP = 980.2, 8484]



Mode of operation: Linear
Extraction mode: Delayed
Polarity: Negative
Acquisition control: Manual

8484.3
Accelerating voltage: 20000 V
Grid voltage: 91%
Guide wire 0: 0.015%
Extraction delay time: 150 nsec

Acquisition mass range: 500 -- 1800 Da
Number of laser shots: 100/spectrum
Laser intensity: 1747
Laser Rep Rate: 3.0 Hz
Calibration type: Default
Calibration matrix: a-Cyano-4-hydroxycinnamic ac
Low mass gate: Off

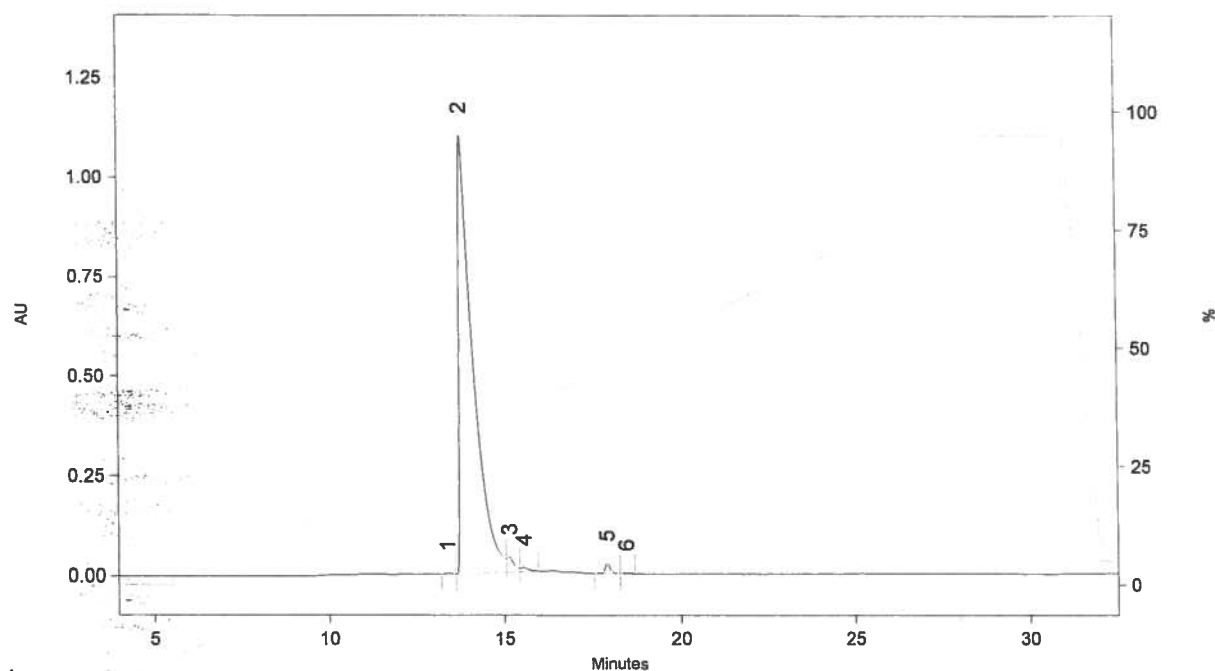
Digitizer start time: 14.632
Bin size: 4 nsec
Number of data points: 3262
Vertical scale: 200 mV
Vertical offset: 0%
Input bandwidth: 150 MHz

Sample well: 73
Plate ID: 100 WELL PLATE
Serial number: 1099
Instrument name: Voyager-DE
Plate type filename: C:\VOYAGER\100 well plate.pl
Lab name: BioSynthesis, Inc

Absolute x-position: 11480.3
Absolute y-position: 11343.4
Relative x-position: -267.203
Relative y-position: -404.092
Shots in spectrum: 4
Source pressure: 1.972e-007
Mirror pressure: 0
TC2 pressure: 0.001
TIS gate width: 30
TIS flight length: 940

HPLC Report

Sample: CEF-10
Method: C:\32Karat\Projects\Default\Methods\ANAPEP2.met
File Name: C:\32Karat\Projects\Default\Data\CEF-10
Solvent: A: 0.05 % TFA in H₂O; B: 0.05 % TFA in ACN
Column: Onyx Monolithic C18, 100x 3.00mm 3u Flow Rate: 1.0ml min.
HPLC ID # CD-159

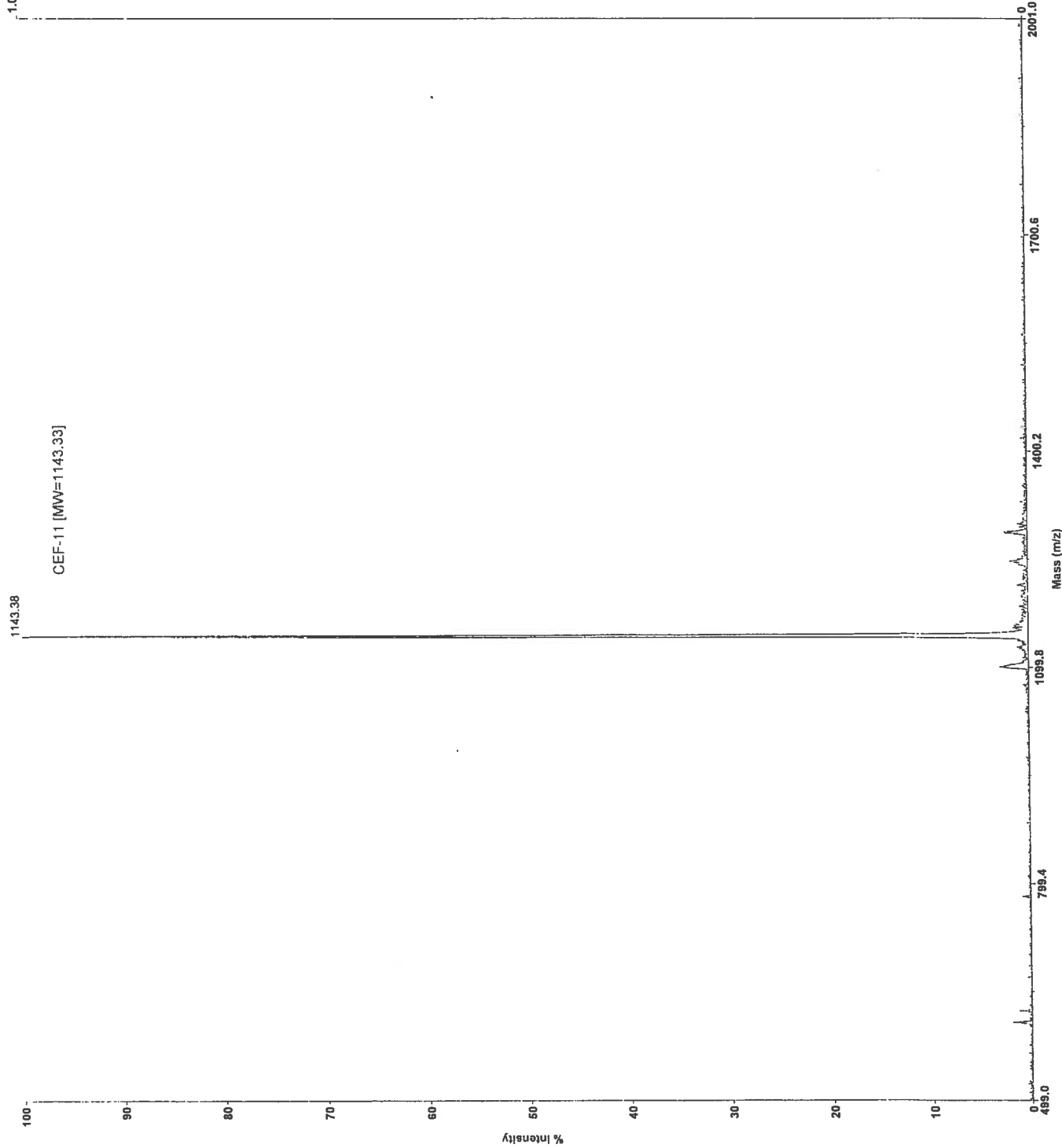


Det 166 Results

Pk #	Time	Area	Area %
1	13.425	37991	0.12
2	13.833	30176727	96.78
3	15.142	524396	1.68
4	15.533	157954	0.51
5	17.917	254348	0.82
6	18.467	28382	0.09
Totals		31179798	100.00

Applied Biosystems Voyager System 1099

Voyager Spec #1=>SM3[BP = 1142.9, 10300]



Mode of operation: Linear
Extraction mode: Delayed
Polarity: Negative
Acquisition control: Manual

Accelerating voltage: 20000 V
Grid voltage: 91%
Guide wire O: 0.015%
Extraction delay time: 150 nsec

Acquisition mass range: 500 -- 2000 Da
Number of laser shots: 100/spectrum
Laser intensity: 1585
Laser Rep Rate: 3.0 Hz
Calibration type: Default
Calibration matrix: a-Cyano-4-hydroxycinnamic acid
Low mass gate: Off

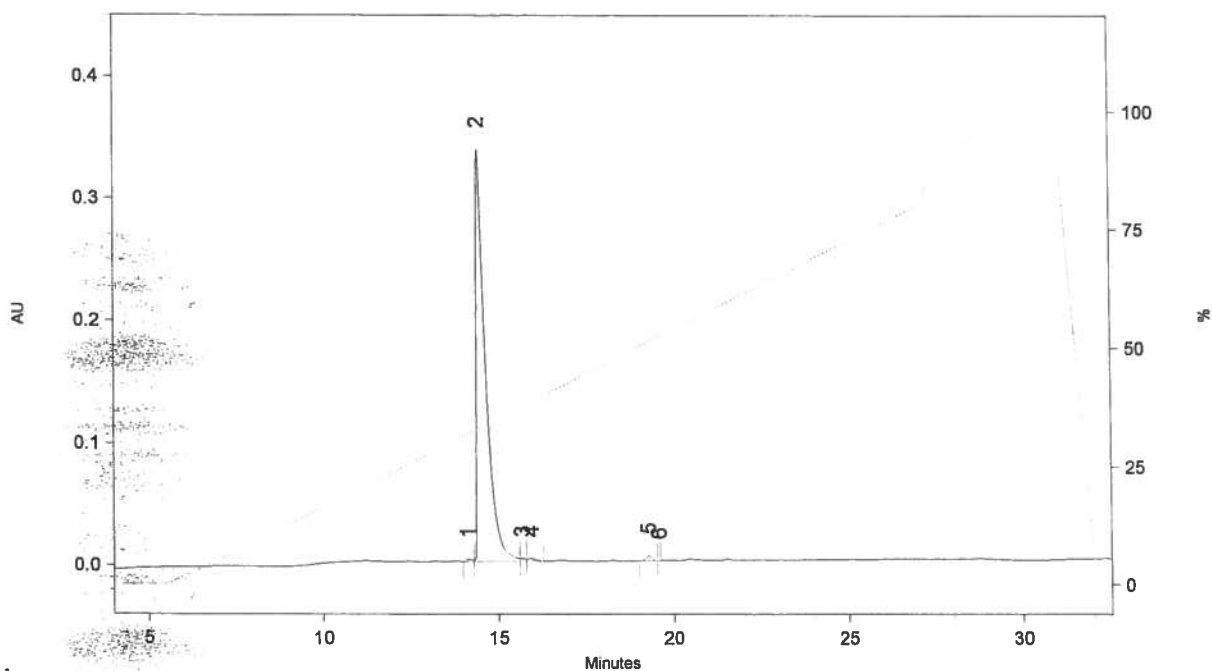
Digitizer start time: 14.632
Bin size: 4 nsec
Number of data points: 3634
Vertical scale: 200 mV
Vertical offset: 0%
Input bandwidth: 150 MHz

Sample well: 04
Plate ID: 100 WELL PLATE
Serial number: 1099
Instrument name: Voyager-DE
Plate type filename: C:\VOYAGER\100 well plate.plt
Lab name: BioSynthesis, Inc

Absolute x-position: 16751.1
Absolute y-position: 48038.8
Relative x-position: -76.4189
Relative y-position: 731.305
Shots in spectrum: 11
Source pressure: 8.165e-008
Mirror pressure: 0
TIC2 pressure: 0.001
TIS gate width: 30
TIS flight length: 940

HPLC Report

Sample: CEF-11
 Method: C:\32Karat\Projects\Default\Methods\ANAP2P2.met
 File Name: C:\32Karat\Projects\Default\Data\CEF-11
 Solvent: A: 0.05 % TFA in H2O; B: 0.05 % TFA in ACN
 Column: Onyx Monolithic C18, 100x 3.00mm 3u Flow Rate: 1.0ml min.
 HPLC ID # CD-159

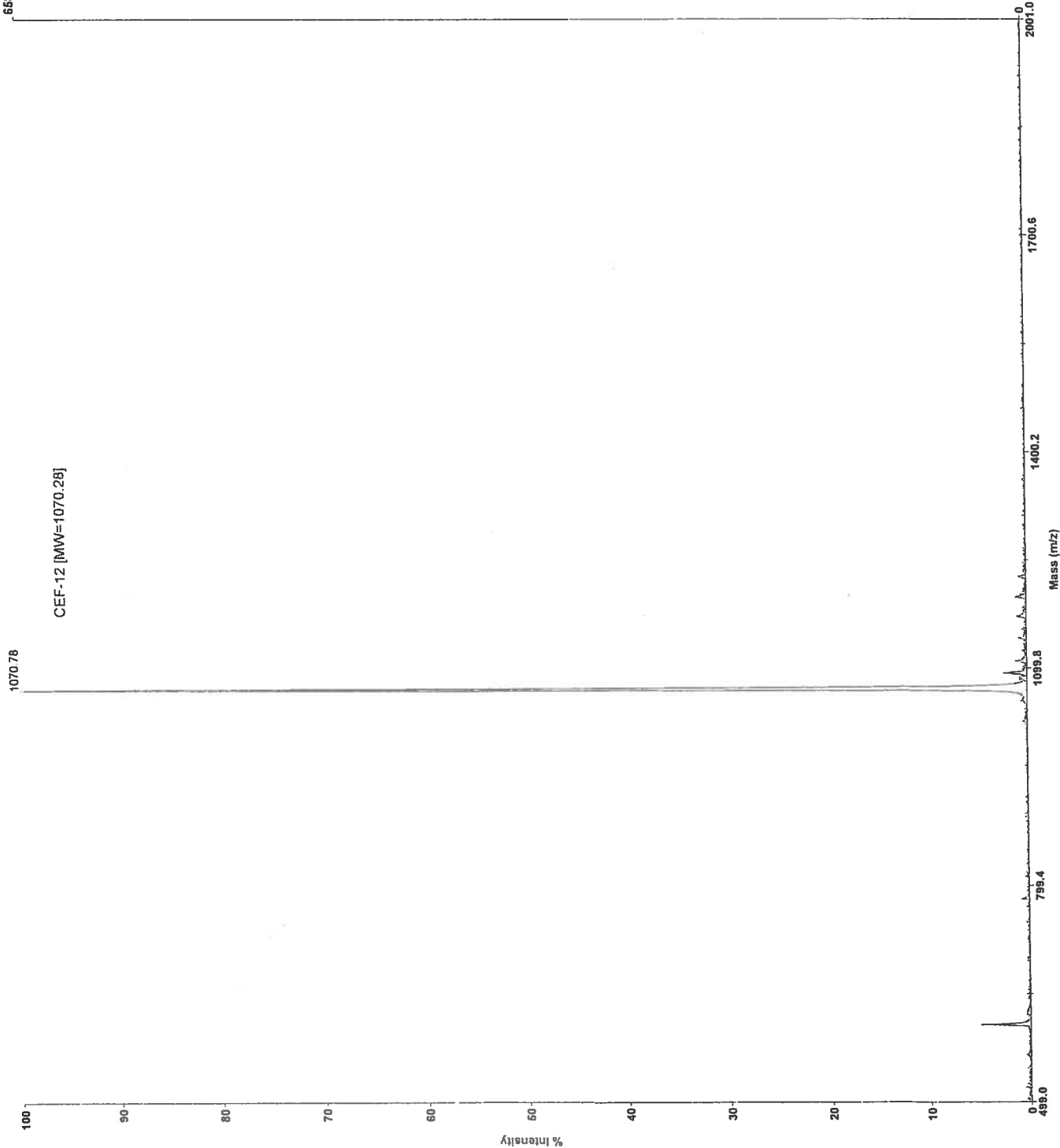


Det 166 Results

Pk #	Time	Area	Area %
1	14.142	19942	0.32
2	14.475	6054778	98.22
3	15.667	22902	0.37
4	15.933	33888	0.55
5	19.308	32747	0.53
6	19.600	177	0.00
Totals		6164434	100.00

Applied Biosystems Voyager System 1099

Voyager Spec #1=>SM3[BP = 1070.4, 6590]



Mode of operation: Linear
Extraction mode: Delayed
Polarity: Negative
Acquisition control: Manual

Accelerating voltage: 20000 V
Grid voltage: 91%
Guide wire 0: 0.015%
Extraction delay time: 150 nsec

Acquisition mass range: 500 -- 2000 Da
Number of laser shots: 100/spectrum
Laser intensity: 1685
Laser Rep Rate: 3.0 Hz
Calibration type: Default
Calibration matrix: a-Cyano-4-hydroxycinnamic acid
Low mass gate: Off

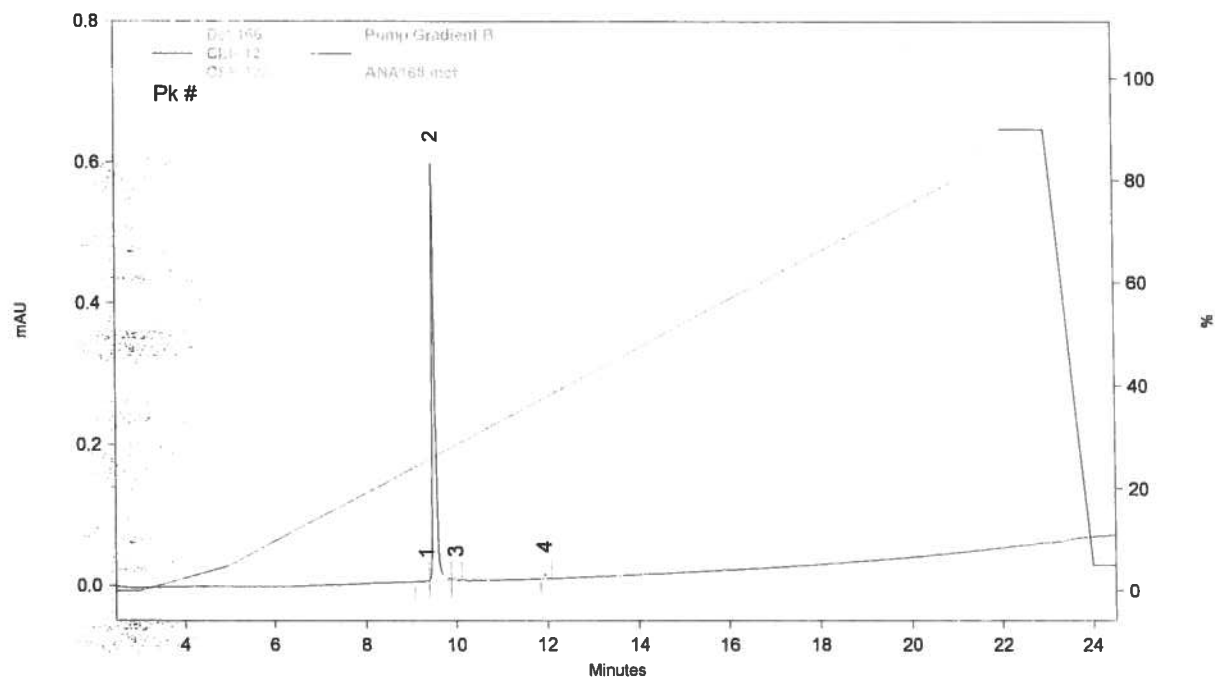
Digitizer start time: 14.632
Bin size: 4 nsec
Number of data points: 3634
Vertical scale: 200 mV
Vertical offset: 0%
Input bandwidth: 150 MHz

Sample well: 05
Plate ID: 100 WELL PLATE
Serial number: 1099
Instrument name: Voyager-DE
Plate type filename: C:\VOYAGER\100 well plate.plt
Lab name: BioSynthesis, Inc

Absolute x-position: 22254.1
Absolute y-position: 48777.1
Relative x-position: 346.551
Relative y-position: 1469.63
Shots in spectrum: 25
Source pressure: 8.273e-008
Mirror pressure: 0
TC2 pressure: 0.001
TIS gate width: 30
TIS flight length: 940

HPLC Report

Sample: CEF-12
 Method: C:\32Karat\Projects\Default\Methods\ANA168.met
 File Name: C:\32Karat\Projects\Default\Data\CEF-12A
 Solvent: Onyx Monolithic C18, 100x 3.00mm 3u Flow Rate: 1.0ml min.
 Wavelength: 220 nm
 HPLC ID#: CD-077

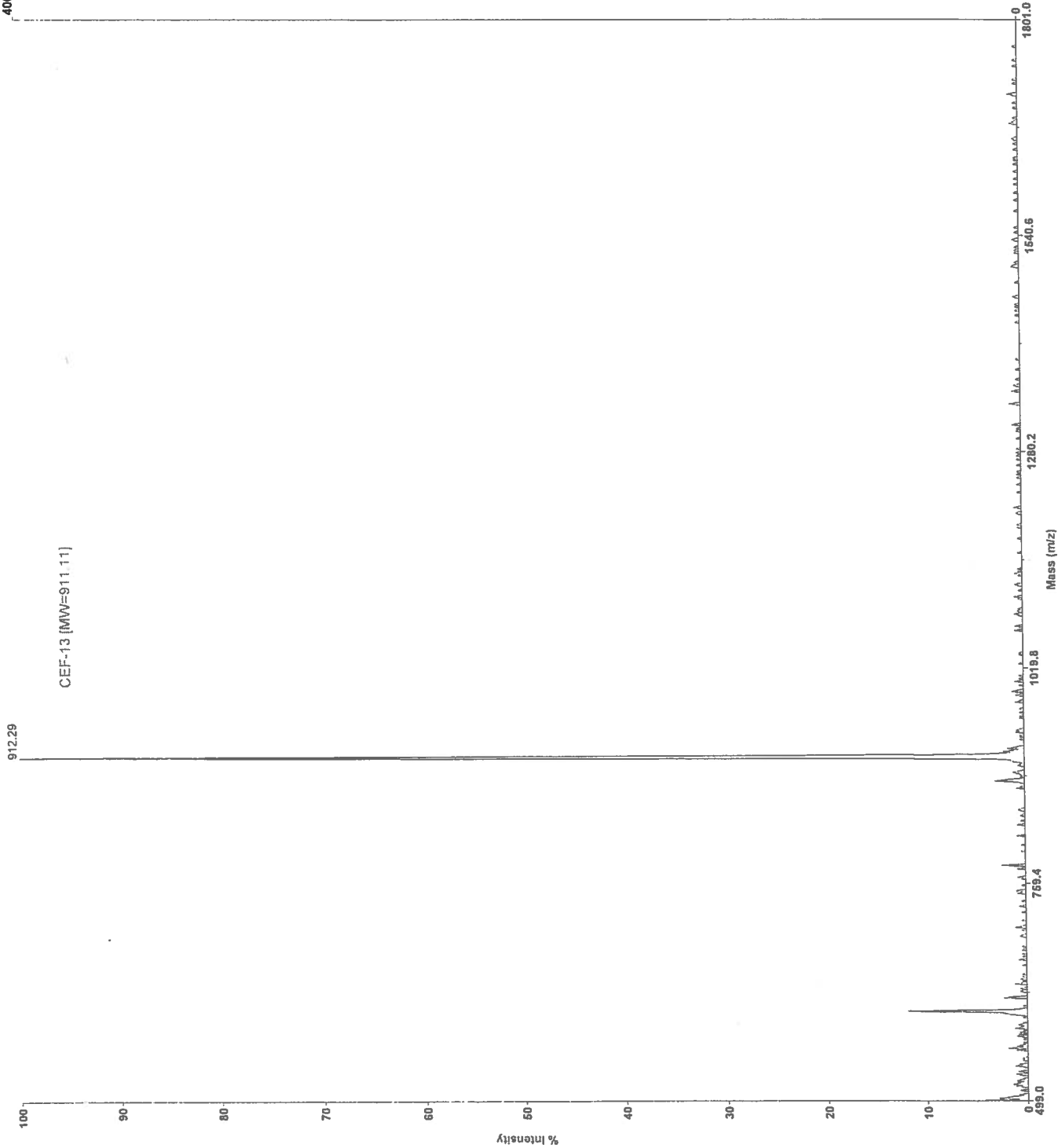


Det 166 Results

Pk #	Time	Area	Area %
1	9.333	12957	0.48
2	9.500	2638697	97.97
3	9.983	22742	0.84
4	11.933	18930	0.70
Totals		2693326	100.00

Applied Biosystems Voyager System 1099

Voyager Spec #1=>SM5[BP = 912.0, 4003]



Mode of operation: Linear
Extraction mode: Delayed
Polarity: Negative
Acquisition control: Manual

Accelerating voltage: 20000 V
Grid voltage: 91%
Guide wire O: 0.015%
Extraction delay time: 150 nsec

Acquisition mass range: 500 — 1800 Da
Number of laser shots: 100/spectrum
Laser intensity: 1747
Laser Rep Rate: 3.0 Hz
Calibration type: Default
Calibration matrix: a-Cyano-4-hydroxycinnamic aci
Low mass gate: Off

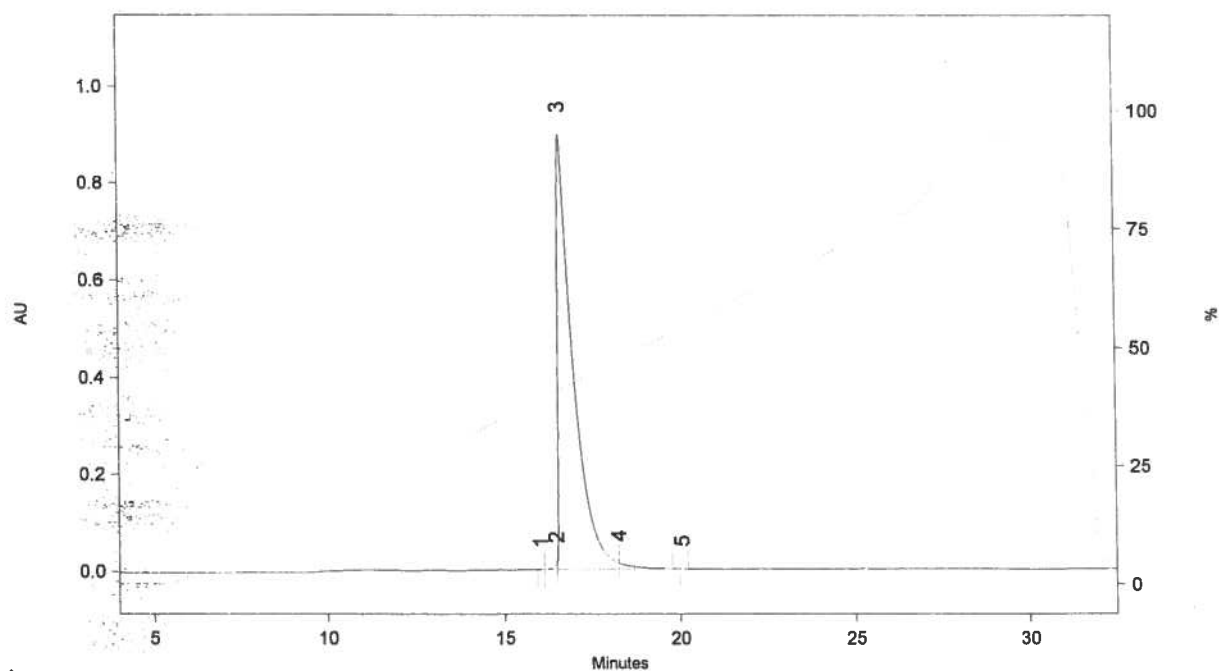
Digitizer start time: 14.624
Bin size: 4 nsec
Number of data points: 3261
Vertical scale: 200 mV
Vertical offset: 0%
Input bandwidth: 150 MHz

Sample well: 85
Plate ID: 100 WELL PLATE
Serial number: 1099
Instrument name: Voyager-DE
Plate type filename: C:\VOYAGER\100 well plate.plt
Lab name: BioSynthesis, Inc

Absolute x-position: 20274.7
Absolute y-position: 5540.47
Relative x-position: -1632.84
Relative y-position: -1127.03
Shots in spectrum: 3
Source pressure: 1.781e-007
Mirror pressure: 0
TC2 pressure: 0.001
TIS gate width: 30
TIS flight length: 940

HPLC Report

Sample: CEF-13
Method: C:\32Karat\Projects\Default\Methods\ANAPEP2.met
File Name: C:\32Karat\Projects\Default\Data\CEF-13
Solvent: A: 0.05 % TFA in H₂O; B: 0.05 % TFA in ACN
Column: Onyx Monolithic C18, 100x 3.00mm 3u Flow Rate: 1.0ml min.
HPLC ID # CD-159



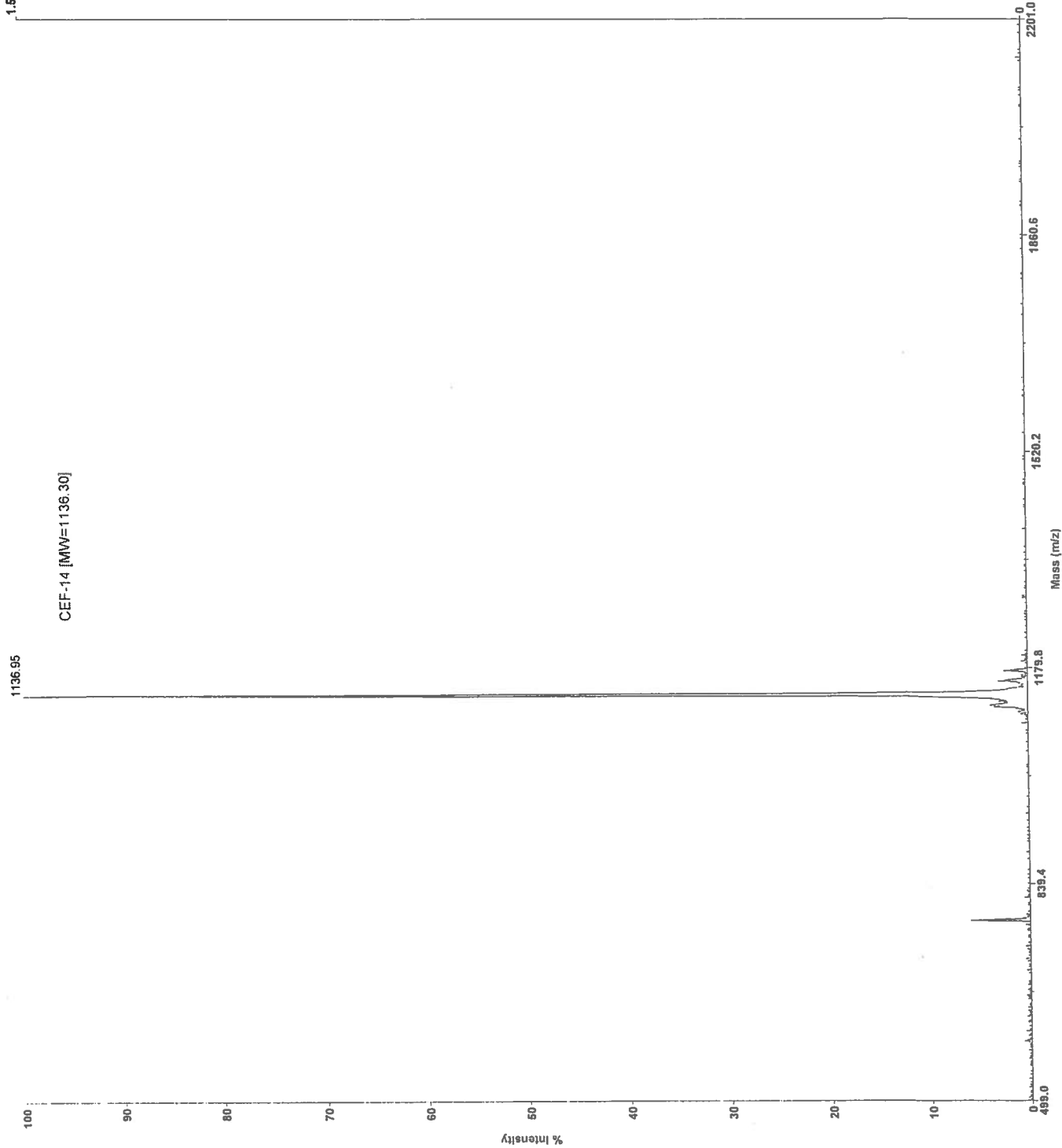
Det 166 Results

Pk #	Time	Area	Area %
1	16.050	1539	0.01
2	16.492	48227	0.18
3	16.642	26605516	98.68
4	18.242	304190	1.13
5	20.058	1623	0.01

Totals		26961095	100.00
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Applied Biosystems Voyager System 1099

Voyager Spec #1=>SM3[BP = 1136.3, 15495]



Mode of operation: Linear
Extraction mode: Delayed
Polarity: Negative
Acquisition control: Manual

Accelerating voltage: 20000 V
Grid voltage: 91%
Guide wire 0: 0.015%
Extraction delay time: 150 nsec

Acquisition mass range: 500 – 2200 Da
Number of laser shots: 100/spectrum
Laser intensity: 1647
Laser Rep Rate: 3.0 Hz
Calibration type: Default
Calibration matrix: a-Cyano-4-hydroxycinnamic acid
Low mass gate: Off

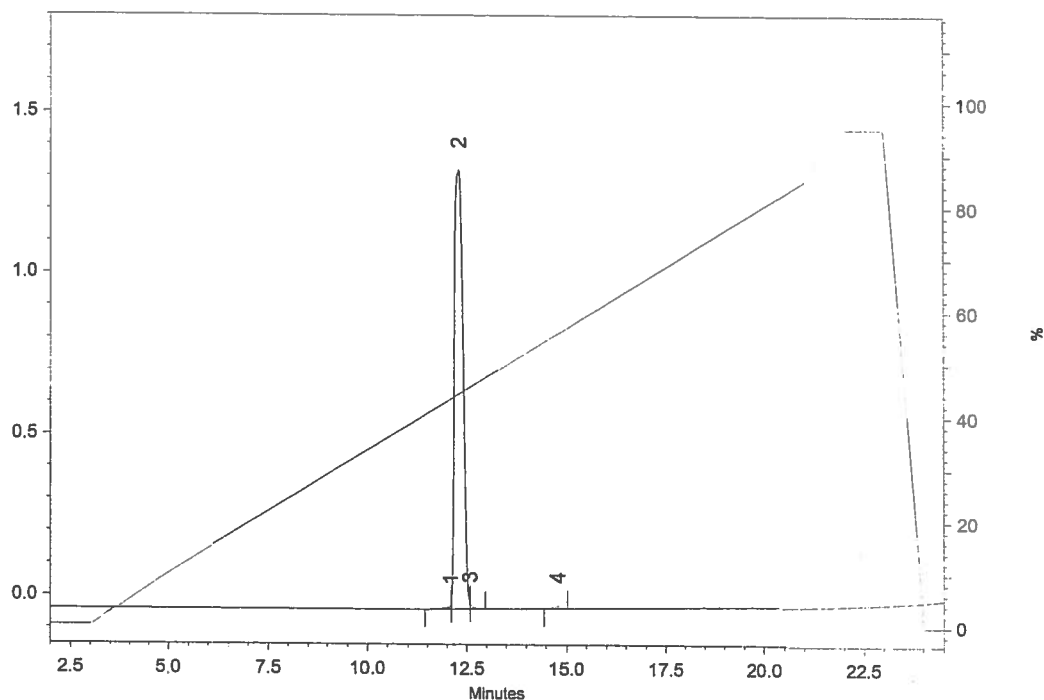
Digitizer start time: 14.624
Bin size: 4 nsec
Number of data points: 3988
Vertical scale: 200 mV
Vertical offset: 0%
Input bandwidth: 150 MHz

Sample well: 92
Plate ID: 100 WELL PLATE
Serial number: 1099
Instrument name: Voyager-DE
Plate type filename: C:\VOYAGER\100 well plate.plt
Lab name: BioSynthesis, Inc

Absolute x-position: 6129.1
Absolute y-position: 645.669
Relative x-position: -538.398
Relative y-position: -941.831
Shots in spectrum: 4
Source pressure: 1.738e-007
Mirror pressure: 0
TC2 pressure: 0.001
TIS gate width: 30
TIS flight length: 940

HPLC Report

Sample ID: CEF-14
 Date File: D:\32Karat\Projects\Default\Data\CEF-14
 Method: D:\32Karat\Projects\Default\Methods\PEP-CD071-C18.met
 Column: Onyx Monolithic C18, 100x3.0 mm 3u
 Solvent: A: 0.05% TFA in H₂O; B: 0.05% TFA in ACN
 Wavelength: 220 nm; Detector lamp: UV
 HPLC ID#: CD-071, EQ-024

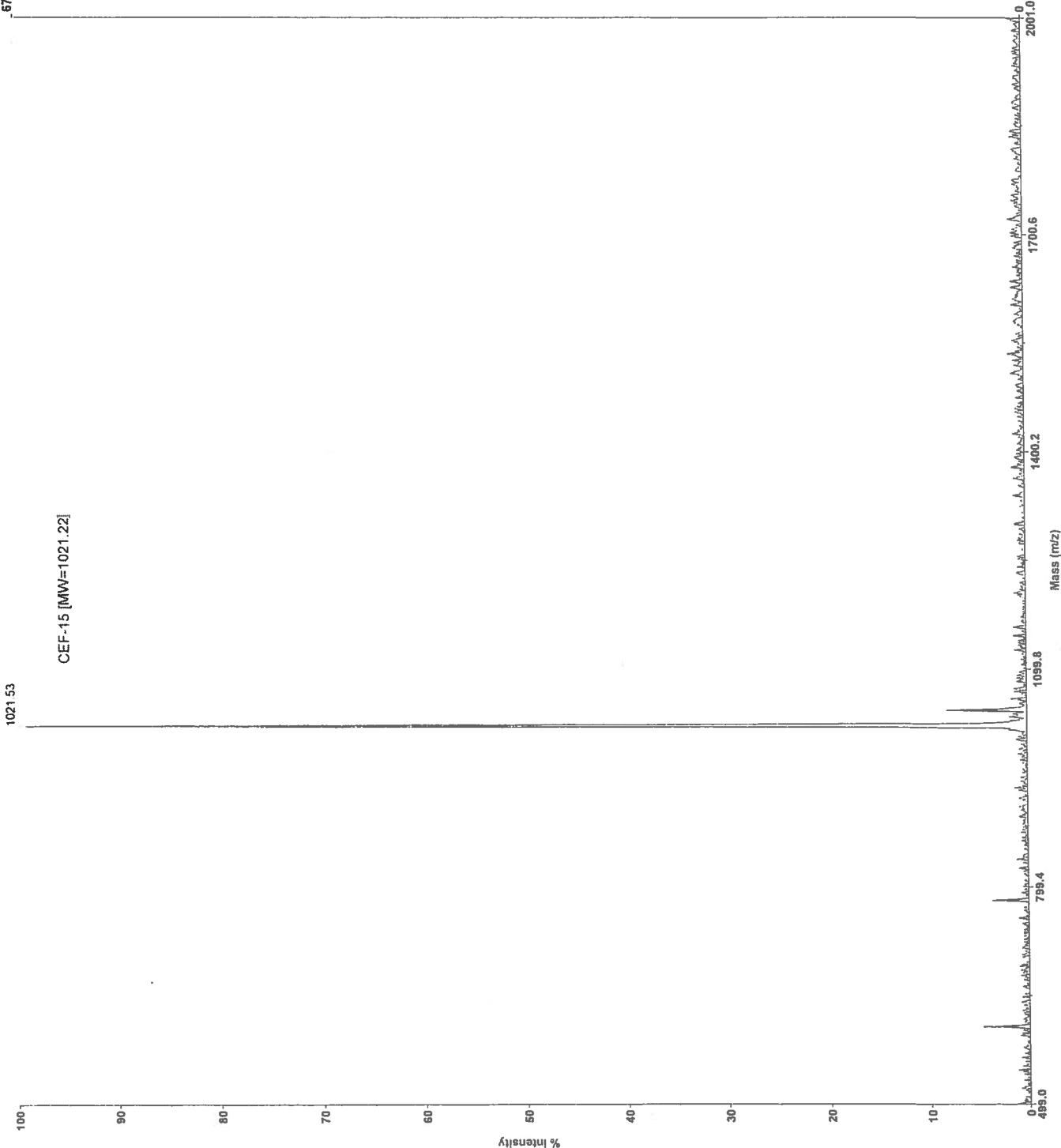


Det Results:

Pk #	Retention Time	Height	Height Percent	Area	Area Percent
1	12.083	8728	0.625	85194	0.415
2	12.317	1361874	97.460	20337499	98.969
3	12.583	14526	1.040	53064	0.258
4	14.783	12246	0.876	73570	0.358
Totals		1397374	100.000	20549327	100.000

Applied Biosystems Voyager System 1099

Voyager Spec #1=>SM5[BP = 1021.4, 672]

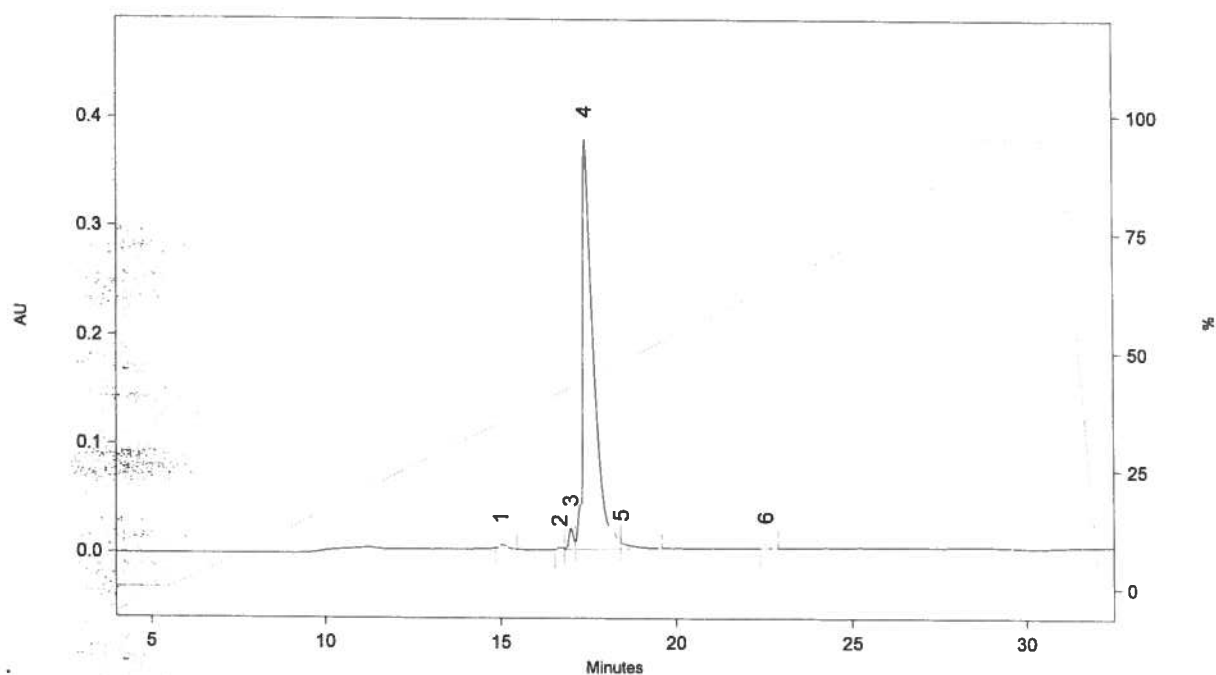


Mode of operation: Linear
Extraction mode: Delayed
Polarity: Negative
Acquisition control: Manual
672.4
Accelerating voltage: 20000 V
Grid voltage: 91%
Guide wire 0: 0.015%
Extraction delay time: 150 nsec
Acquisition mass range: 500 – 2000 Da
Number of laser shots: 100/spectrum
Laser intensity: 1449
Laser Rep Rate: 3.0 Hz
Calibration type: Default
Calibration matrix: a-Cyano-4-hydroxycinnamic aci
Low mass gate: Off
Digitizer start time: 14.636
Bin size: 4 nsec
Number of data points: 3635
Vertical scale: 200 mV
Vertical offset: 0%
Input bandwidth: 150 MHz

Sample well: 06
Plate ID: 100 WELL PLATE
Serial number: 1099
Instrument name: Voyager-DE
Plate type filename: C:\VOYAGER\100 well plate.plt
Lab name: BioSynthesis, Inc
Absolute x-position: 26963.1
Absolute y-position: 47699.6
Relative x-position: -24.3733
Relative y-position: 392.069
Shots in spectrum: 28
Source pressure: 5.548e-007
Mirror pressure: 0
TC2 pressure: 0.001
TIS gate width: 30
TIS flight length: 940

HPLC Report

Sample: CEF-15
Method: C:\32Karat\Projects\Default\Methods\ANAPEP2.met
File Name: C:\32Karat\Projects\Default\Data\CEF-15
Solvent: A: 0.05 % TFA in H₂O; B: 0.05 % TFA in ACN
Column: Onyx Monolithic C18, 100x 3.00mm 3u Flow Rate: 1.0ml min.
HPLC ID # CD-159

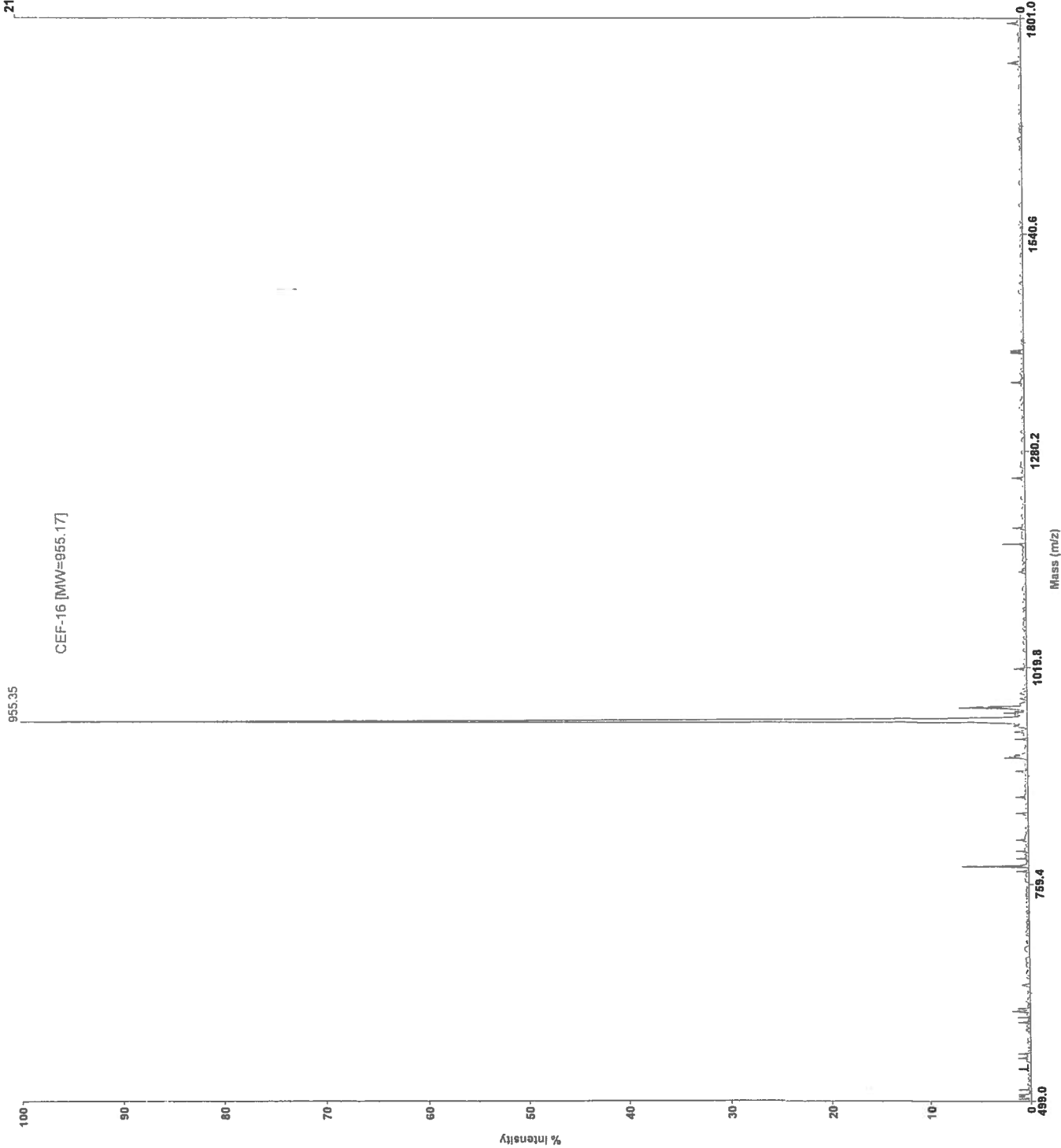


Det 166 Results

Pk #	Time	Area	Area %
1	15.033	51441	0.60
2	16.683	20101	0.23
3	17.000	183343	2.13
4	17.442	8194215	95.33
5	18.433	119765	1.39
6	22.558	27138	0.32
Totals		8596003	100.00

Applied Biosystems Voyager System 1099

Voyager Spec #1=>NF0.7[BP = 955.2, 2146]

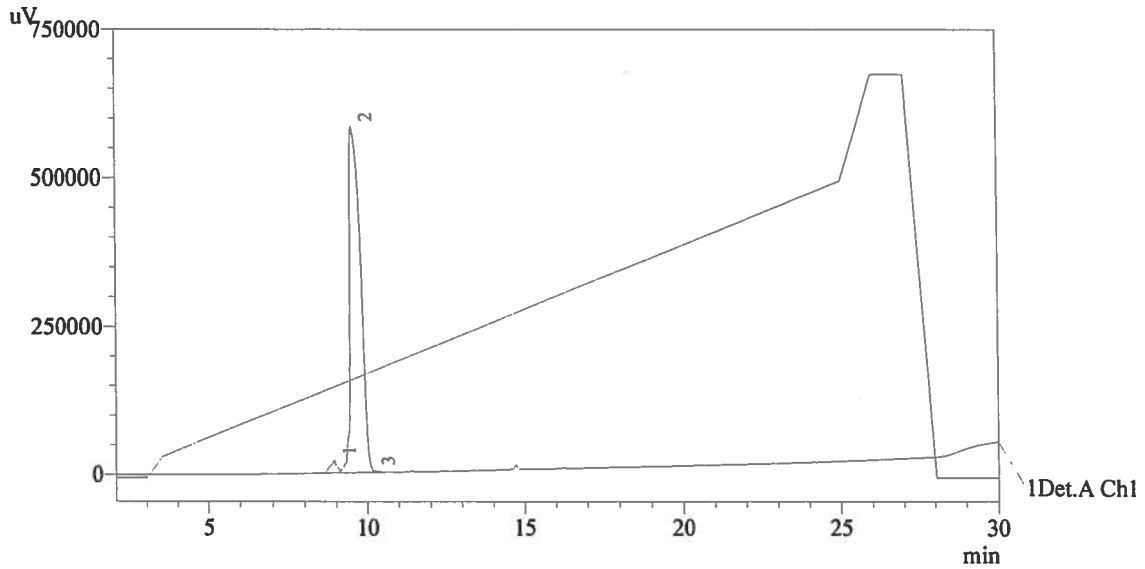


Mode of operation:	Linear
Extraction mode:	Delayed
Polarity:	Negative
Acquisition control:	Manual
Accelerating voltage:	20000 V
Grid voltage:	91%
Guide wire Q:	0.015%
Extraction delay time:	150 nsec
Acquisition mass range:	500 – 2000 Da
Number of laser shots:	100/spectrum
Laser intensity:	1548
Laser Rep Rate:	3.0 Hz
Calibration type:	Default
Calibration matrix:	a-Cyano-4-hydroxycinnamic ac
Low mass gate:	Off
Digitizer start time:	14.636
Bin size:	4 nsec
Number of data points:	3635
Vertical scale:	200 mV
Vertical offset:	0%
Input bandwidth:	150 MHz
Sample well:	14
Plate ID:	100 WELL PLATE
Serial number:	1099
Instrument name:	Voyager-DE
Plate type filename:	C:\VOYAGER\100 well plate.plt
Lab name:	BioSynthesis, Inc
Absolute x-position:	16970.6
Absolute y-position:	42352.6
Relative x-position:	143.06
Relative y-position:	125.075
Shots in spectrum:	11
Source pressure:	4.797e-007
Mirror pressure:	0
TC2 pressure:	0.001
TIS gate width:	30
TIS flight length:	940

Sample Information

Acquired by : Admin
Sample Name : CEF-16
Sample ID : CEF-16
Data Filename : CEF-16.lcd
Method Filename : ANAPEP1.lcm
Date Acquired : 1/7/2016 12:39:07 PM
Data Processed : 1/7/2016 1:14:02 PM
Column: 250X4.6mm 5u C18 120A
Solvent: A:0.05%TFA in Water; B: 0.05 % TFA in ACN

Chromatogram
CEF-16 C:\LabSolutions\Data\ANA1\CEF-16.lcd



1 Det.A Ch1 / 220nm

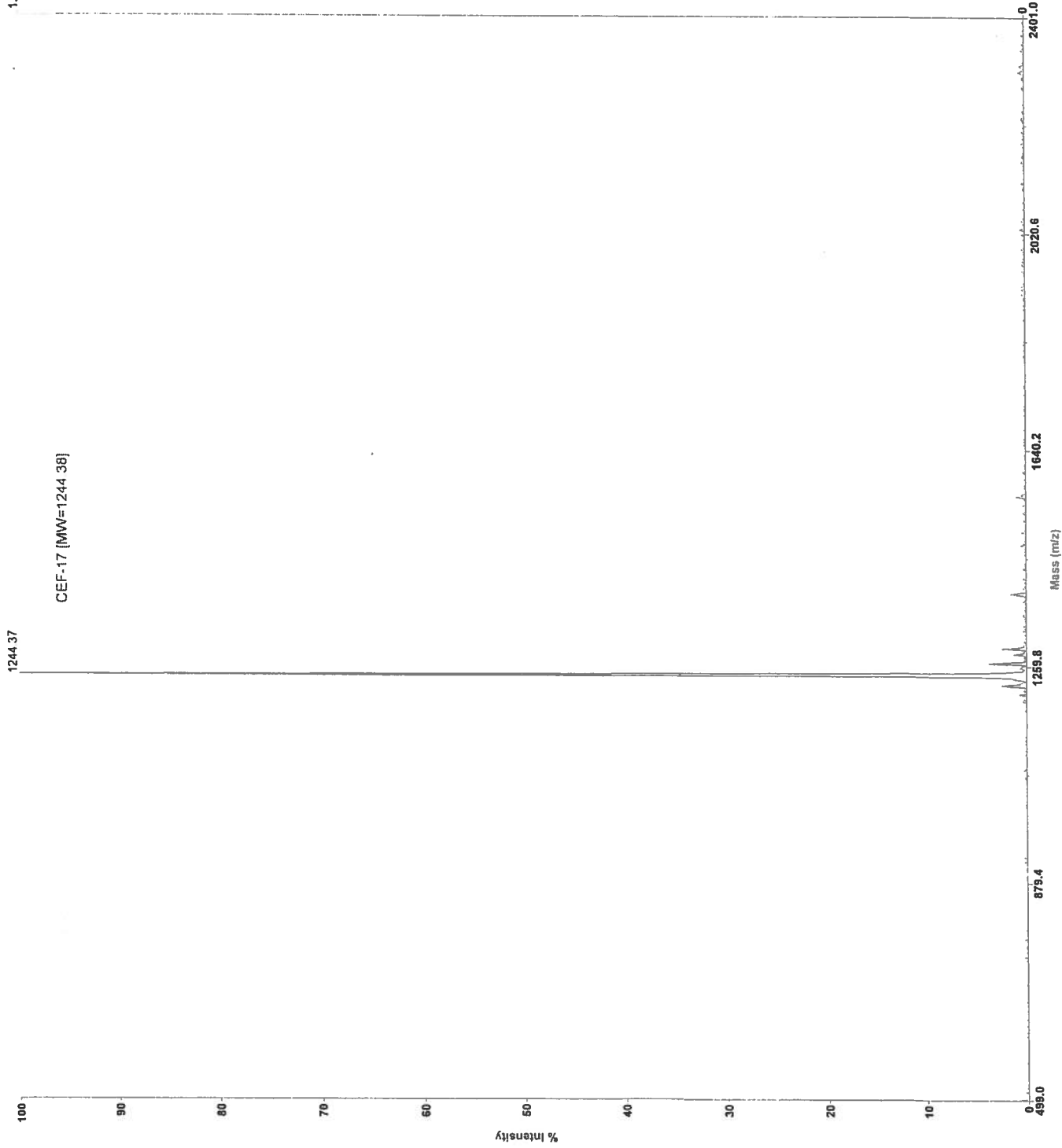
PeakTable

Detector A Ch1 220nm

Peak#	Ret. Time	Area	Height	Height %	Area %
1	8.932	300925	21597	3.552	2.085
2	9.533	14108040	582780	95.853	97.728
3	10.175	27050	3618	0.595	0.187
Total				100.000	100.000

Applied Biosystems Voyager System 1099

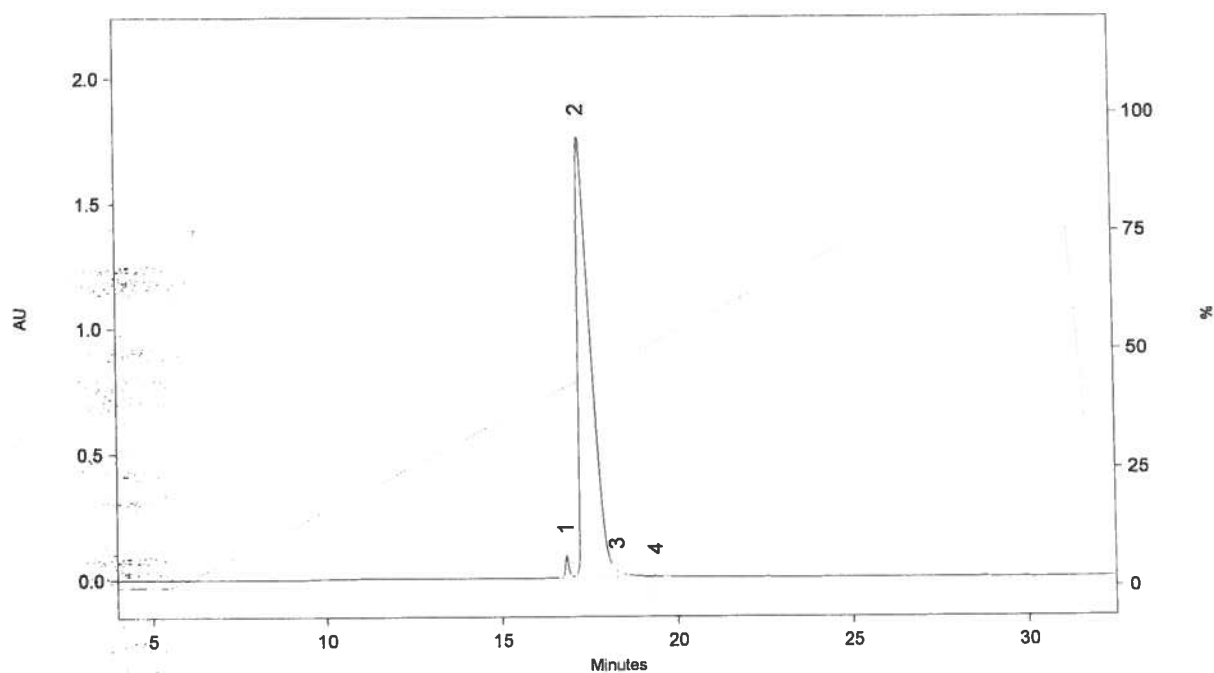
Voyager Spec #1=>SM5[BP = 1244.1, 10533]



Mode of operation: Linear
Extraction mode: Delayed
Polarity: Negative
Acquisition control: Manual
Accelerating voltage: 20000 V
Grid voltage: 91%
Guide wire 0: 0.015%
Extraction delay time: 150 nsec
Acquisition mass range: 500 – 2400 Da
Number of laser shots: 100/spectrum
Laser intensity: 1648
Laser Rep Rate: 3.0 Hz
Calibration type: Default
Calibration matrix: a-Cyano-4-hydroxycinnamic acid
Low mass gate: Off
Digitizer start time: 14.636
Bin size: 4 nsec
Number of data points: 4328
Vertical scale: 200 mV
Vertical offset: 0%
Input bandwidth: 150 MHz
Sample well: 23
Plate ID: 100 WELL PLATE
Serial number: 1099
Instrument name: Voyager-DE
Plate type filename: C:\VOYAGER\100 well plate.plt
Lab name: BioSynthesis, Inc
Absolute x-position: 12243.8
Absolute y-position: 37465.8
Relative x-position: 496.325
Relative y-position: 318.263
Shots in spectrum: 3
Source pressure: 4.158e-007
Mirror pressure: 0
TC2 pressure: 0.001
TIS gate width: 30
TIS flight length: 940

HPLC Report

Sample: CEF-17
Method: C:\32Karat\Projects\Default\Methods\ANAPEP2.met
File Name: C:\32Karat\Projects\Default\Data\CEF-17
Solvent: A: 0.05 % TFA in H₂O; B: 0.05 % TFA in ACN
Column: Onyx Monolithic C18, 100x 3.00mm 3u Flow Rate: 1.0ml min.
HPLC ID # CD-159



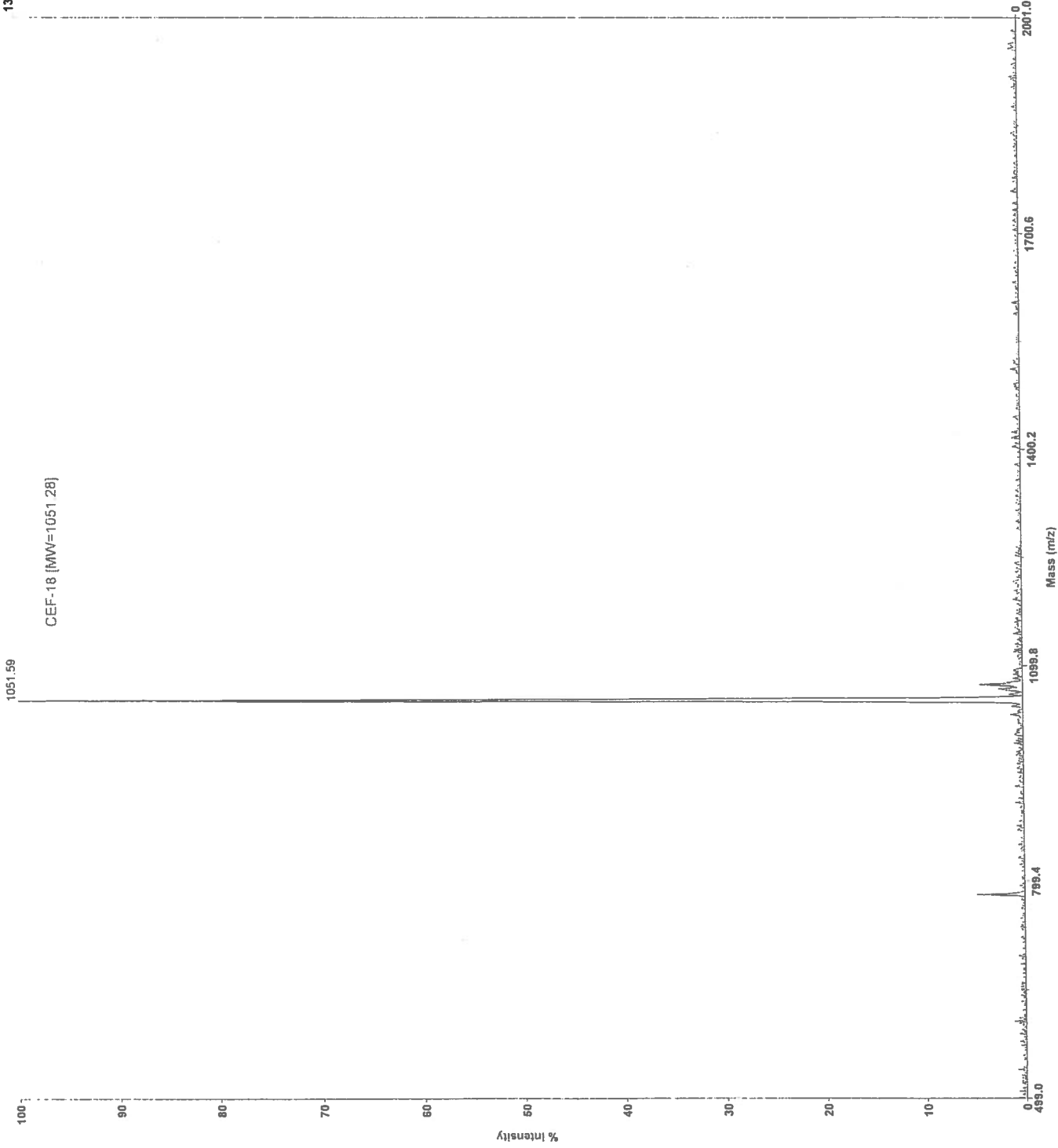
Det 166 Results

Pk #	Time	Area	Area %
1	16.825	577396	1.28
2	17.275	44013144	97.60
3	18.250	447703	0.99
4	19.342	56975	0.13

Totals		45095218	100.00
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Applied Biosystems Voyager System 1099

Voyager Spec #1=>SM5[BP = 1051.5, 1386]



Mode of operation: Linear
Extraction mode: Delayed
Polarity: Negative
Acquisition control: Manual

Accelerating voltage: 20000 V
Grid voltage: 91%
Guide wire 0: 0.015%
Extraction delay time: 150 nsec

Acquisition mass range: 500 – 2000 Da
Number of laser shots: 100/spectrum
Laser intensity: 1648
Laser Rep Rate: 3.0 Hz
Calibration type: Default
Calibration matrix: a-Cyano-4-hydroxycinnamic aci
Low mass gate: Off

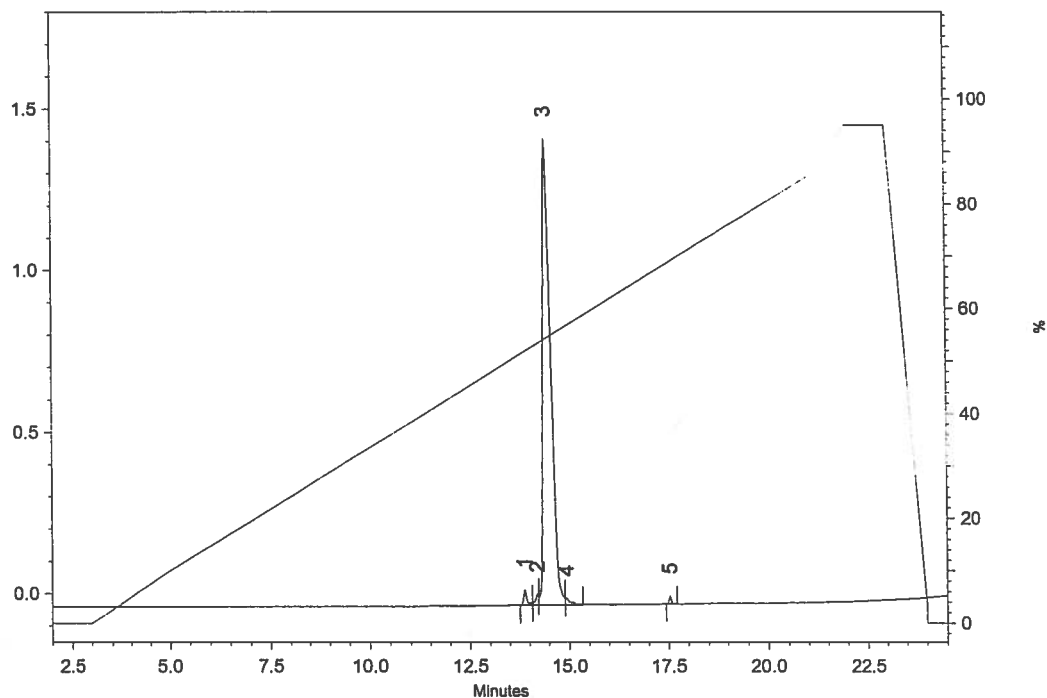
Digitizer start time: 14.632
Bin size: 4 nsec
Number of data points: 3634
Vertical scale: 200 mV
Vertical offset: 0%
Input bandwidth: 150 MHz

Sample well: 34
Plate ID: 100 WELL PLATE
Serial number: 1099
Instrument name: Voyager-DE
Plate type filename: C:\VOYAGER\100 well plate.plt
Lab name: BioSynthesis, Inc

Absolute x-position: 16872.5
Absolute y-position: 32067.8
Relative x-position: 45.0398
Relative y-position: 0.278754
Shots in spectrum: 15
Source pressure: 3.803e-007
Mirror pressure: 0
TC2 pressure: 0.001
TIS gate width: 30
TIS flight length: 940

HPLC Report

Sample ID: CEF-18
 Date File: D:\32Karat\Projects\Default\Data\CEF-18A
 Method: D:\32Karat\Projects\Default\Methods\PEP-CD071-C18.met
 Column: Onyx Monolithic C18, 100x3.0 mm 3u
 Solvent: A: 0.05% TFA in H₂O; B: 0.05% TFA in ACN
 Wavelength: 220 nm; Detector lamp: UV
 HPLC ID#: CD-071, EQ-024



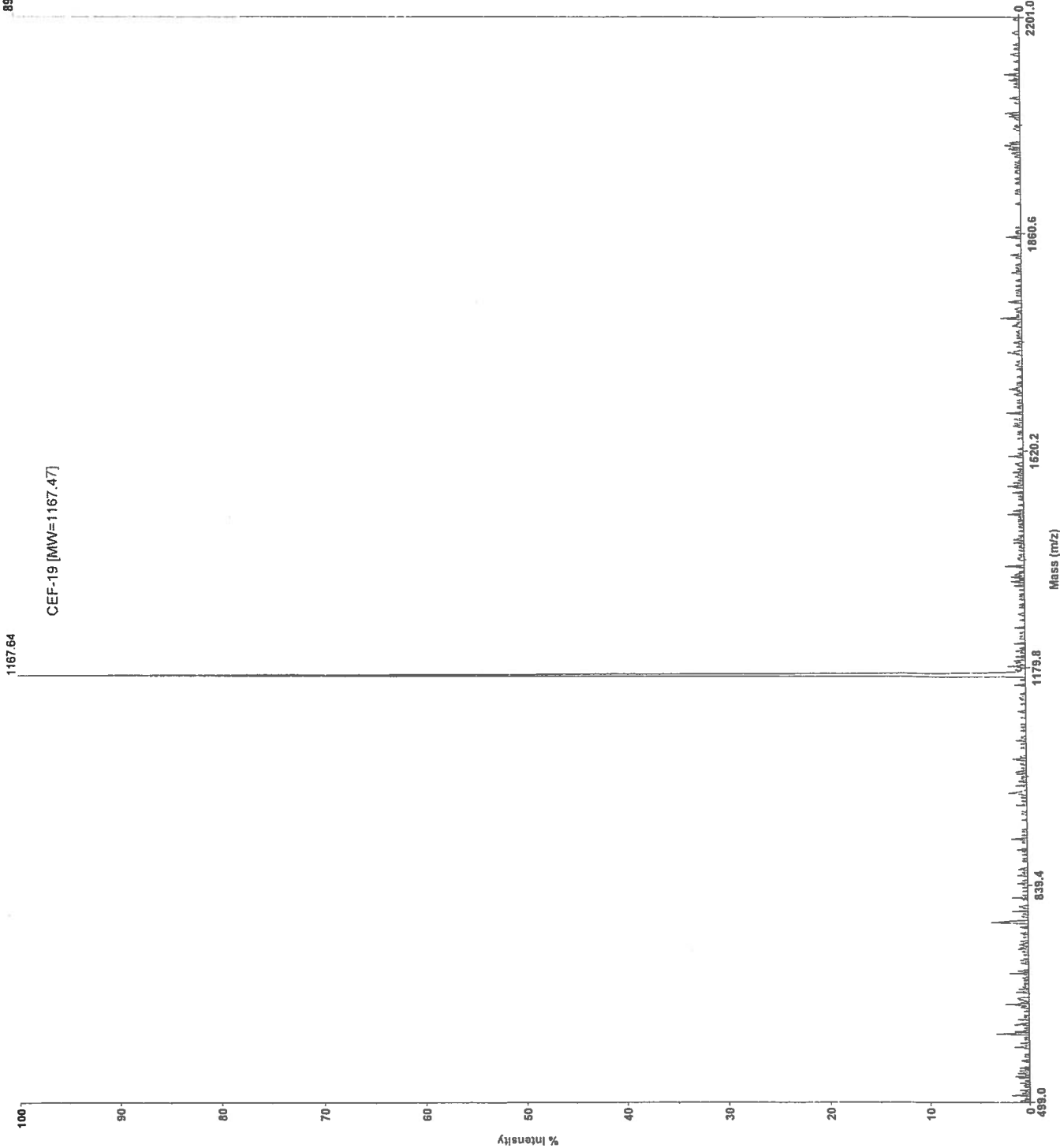
Det Results:

Pk #	Retention Time	Height	Height Percent	Area	Area Percent
1	13.883	48144	3.060	260090	1.278
2	14.200	35073	2.229	183275	0.901
3	14.450	1443532	91.736	19625390	96.469
4	14.933	21636	1.375	180406	0.887
5	17.533	25186	1.601	94469	0.464

Totals		1573571	100.000	20343630	100.000
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Applied Biosystems Voyager System 1099

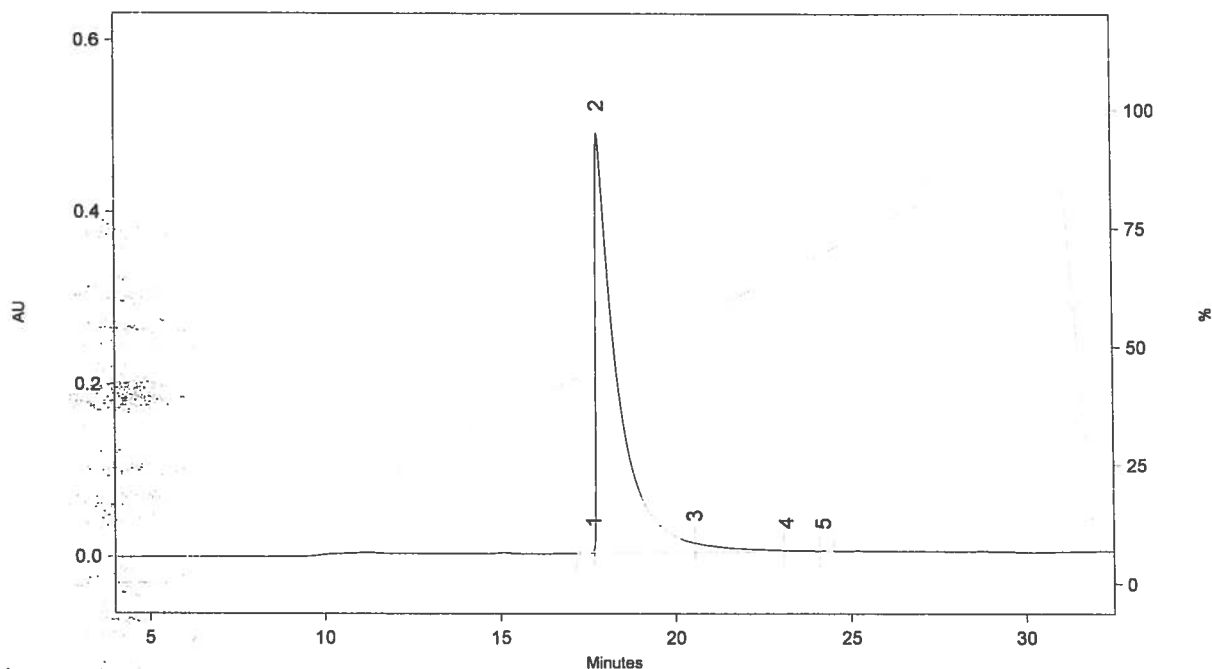
Voyager Spec #1=>SM5[BP = 1167.6, 898]



Mode of operation: Linear
Extraction mode: Delayed
Polarity: Negative
Acquisition control: Manual
Accelerating voltage: 20000 V
Grid voltage: 91%
Guide wire 0: 0.015%
Extraction delay time: 150 nsec
Acquisition mass range: 500 – 2200 Da
Number of laser shots: 100/spectrum
Laser intensity: 1548
Laser Rep Rate: 3.0 Hz
Calibration type: Default
Calibration matrix: a-Cyano-4-hydroxycinnamic ac
Low mass gate: Off
Digitizer start time: 14.636
Bin size: 4 nsec
Number of data points: 3991
Vertical scale: 200 mV
Vertical offset: 0%
Input bandwidth: 150 MHz
Sample well: 75
Plate ID: 100 WELL PLATE
Serial number: 1099
Instrument name: Voyager-DE
Plate type filename: C:\VOYAGER\100 well plate.pl
Lab name: BioSynthesis, Inc
Absolute x-position: 21253.3
Absolute y-position: 12089.3
Relative x-position: -654.154
Relative y-position: 341.797
Shots in spectrum: 11
Source pressure: 2.834e-007
Mirror pressure: 0
TC2 pressure: 0.001
TIS gate width: 30
TIS flight length: 940

HPLC Report

Sample: CEF-19
Method: C:\32Karat\Projects\Default\Methods\ANAP2P2.met
File Name: C:\32Karat\Projects\Default\Data\CEF-19
Solvent: A: 0.05 % TFA in H₂O; B: 0.05 % TFA in ACN
Column: Onyx Monolithic C18, 100x 3.00mm 3u Flow Rate: 1.0ml min.
HPLC ID # CD-159



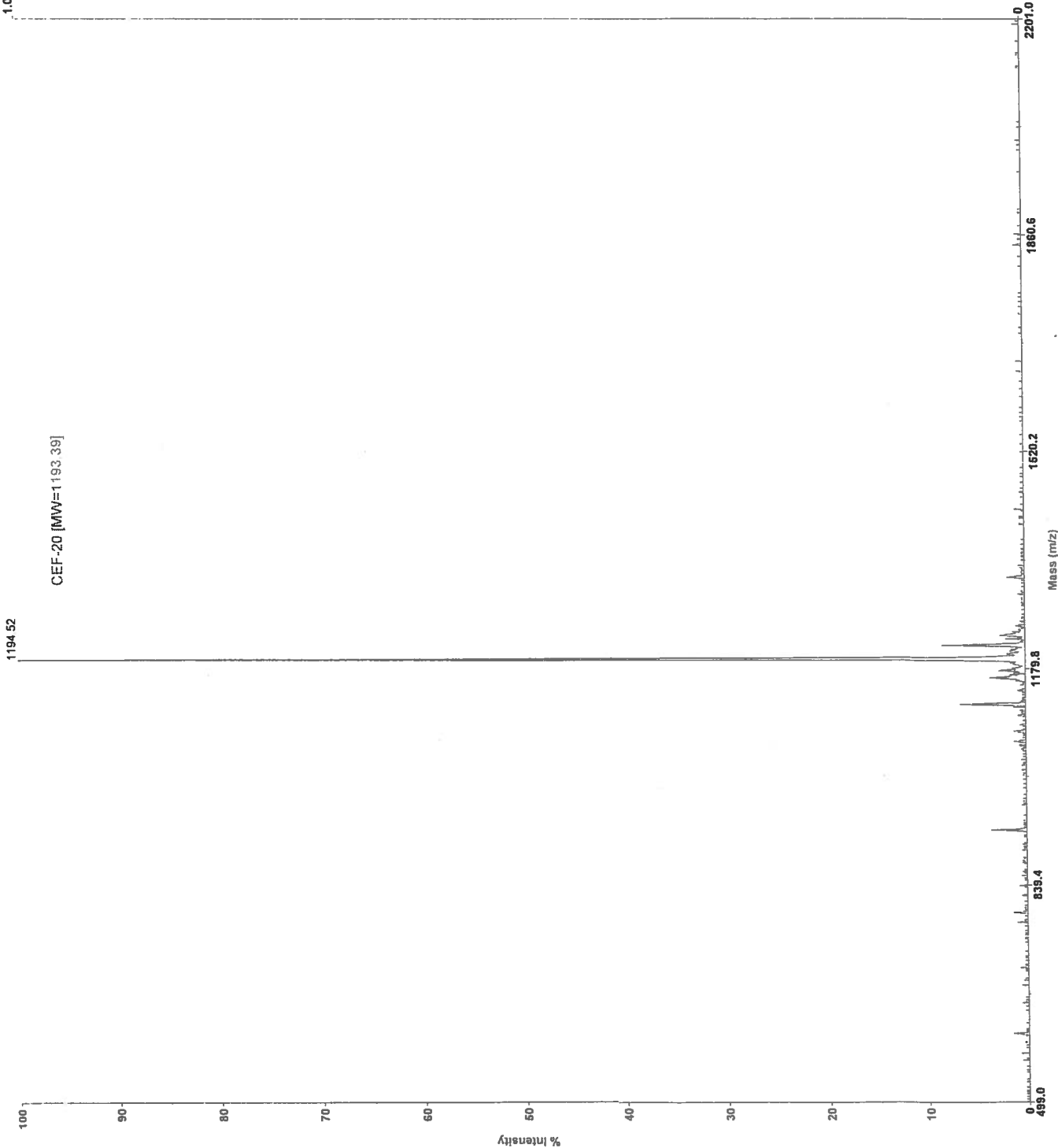
Det 166 Results

Pk #	Time	Area	Area %
1	17.700	15853	0.08
2	17.858	20269954	96.37
3	20.542	695184	3.31
4	23.142	48490	0.23
5	24.208	4820	0.02

Totals		21034301	100.00
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Applied Biosystems Voyager System 1099

Voyager Spec #1=>SM3[BP = 1194.1, 10202]

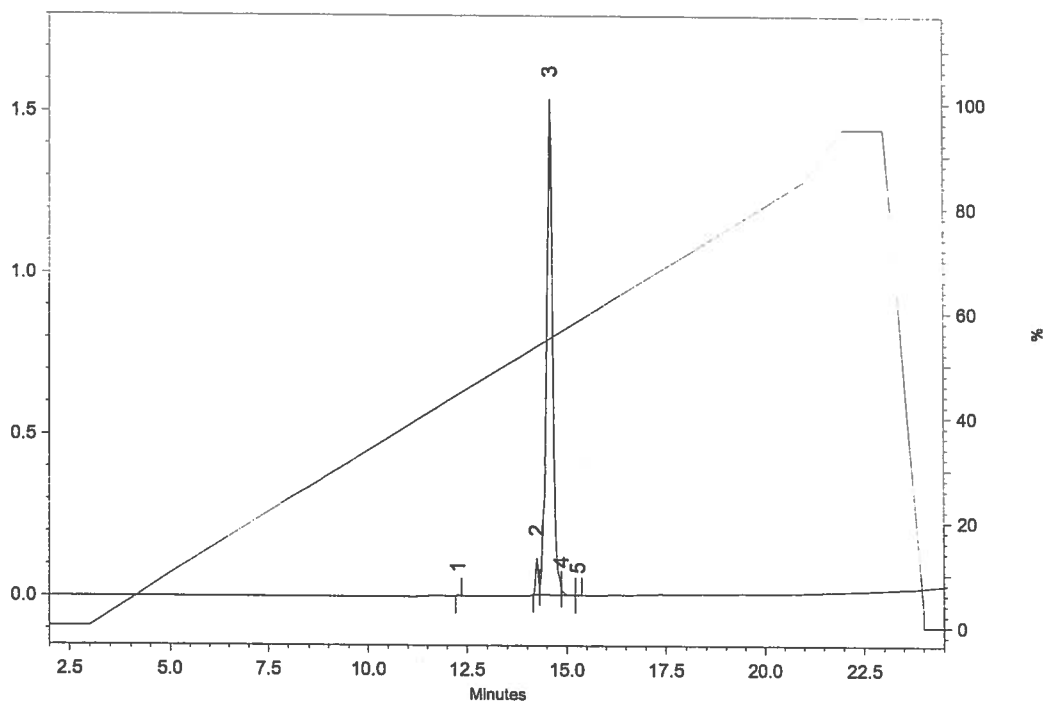


Mode of operation: Linear
Extraction mode: Delayed
Polarity: Negative
Acquisition control: Manual
Accelerating voltage: 20000 V
Grid voltage: 91%
Guide wire 0: 0.015%
Extraction delay time: 150 nsec
Acquisition mass range: 500 -- 2200 Da
Number of laser shots: 100/spectrum
Laser intensity: 1648
Laser Rep Rate: 3.0 Hz
Calibration type: Default
Calibration matrix: a-Cyano-4-hydroxycinnamic ac
Low mass gate: Off
Digitizer start time: 14.632
Bin size: 4 nsec
Number of data points: 3989
Vertical scale: 200 mV
Vertical offset: 0%
Input bandwidth: 150 MHz

Sample well: 95
Plate ID: 100 WELL PLATE
Serial number: 1099
Instrument name: Voyager-DE
Plate type filename: C:\VOYAGER\100 well plate.pl
Lab name: BioSynthesis, Inc
Absolute x-position: 22188.8
Absolute y-position: 1590.81
Relative x-position: 281.301
Relative y-position: 3.31302
Shots in spectrum: 4
Source pressure: 2.538e-007
Mirror pressure: 0
TC2 pressure: 0.001
TIS gate width: 30
TIS flight length: 940

HPLC Report

Sample ID: CEF-20
 Date File: D:\32Karat\Projects\Default\Data\CEF-20A
 Method: D:\32Karat\Projects\Default\Methods\PEP-CD071-C18.met
 Column: Onyx Monolithic C18, 100x3.0 mm 3u
 Solvent: A: 0.05% TFA in H₂O; B: 0.05% TFA in ACN
 Wavelength: 220 nm; Detector lamp: UV
 HPLC ID#: CD-071, EQ-024



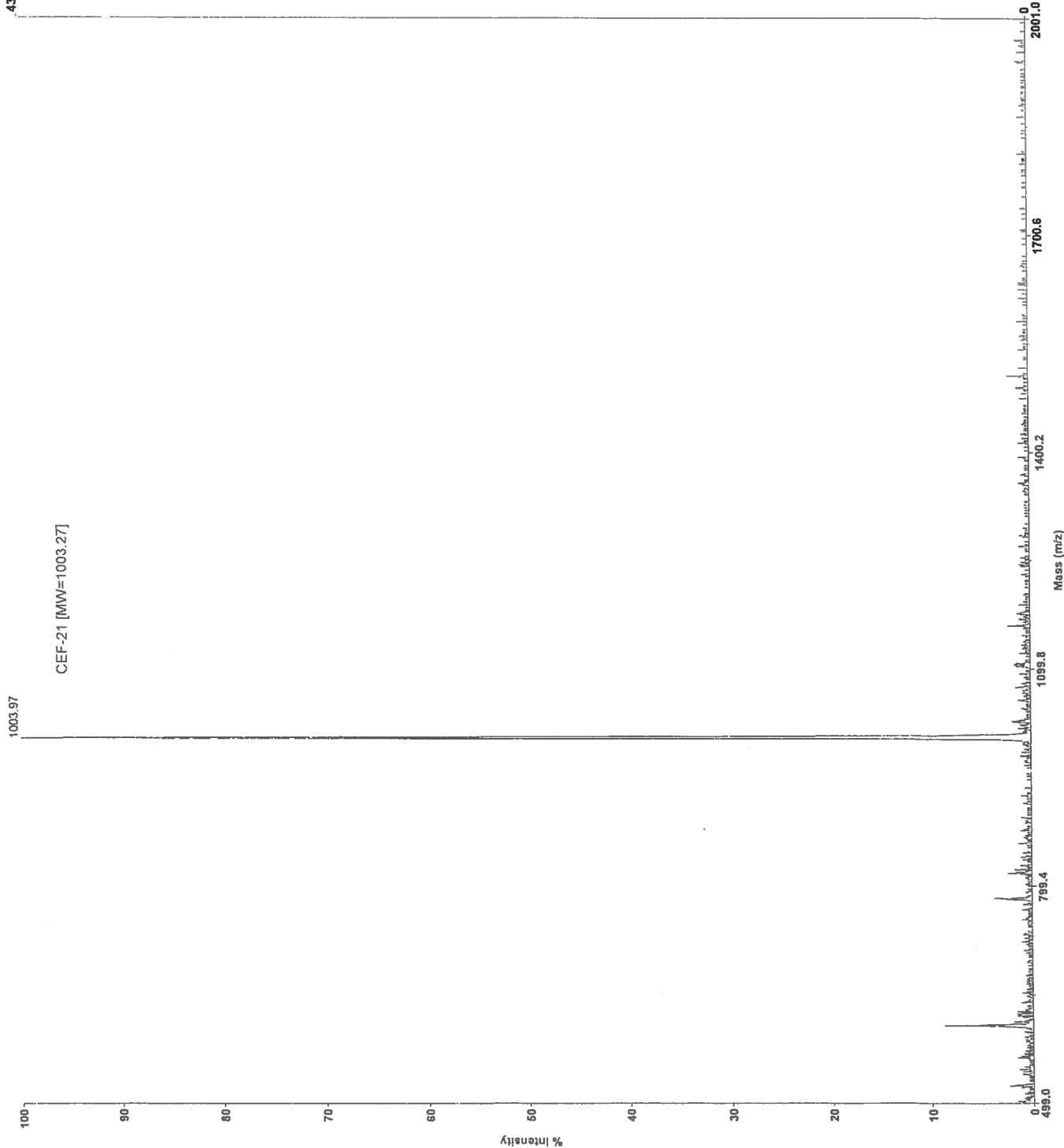
Det Results:

Pk #	Retention Time	Height	Height Percent	Area	Area Percent
1	12.283	6376	0.380	17783	0.104
2	14.250	114988	6.854	513305	3.004
3	14.617	1536264	91.567	16477771	96.435
4	14.867	18643	1.111	72626	0.425
5	15.283	1483	0.088	5402	0.032

Totals		1677754	100.000	17086887	100.000
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Applied Biosystems Voyager System 1099

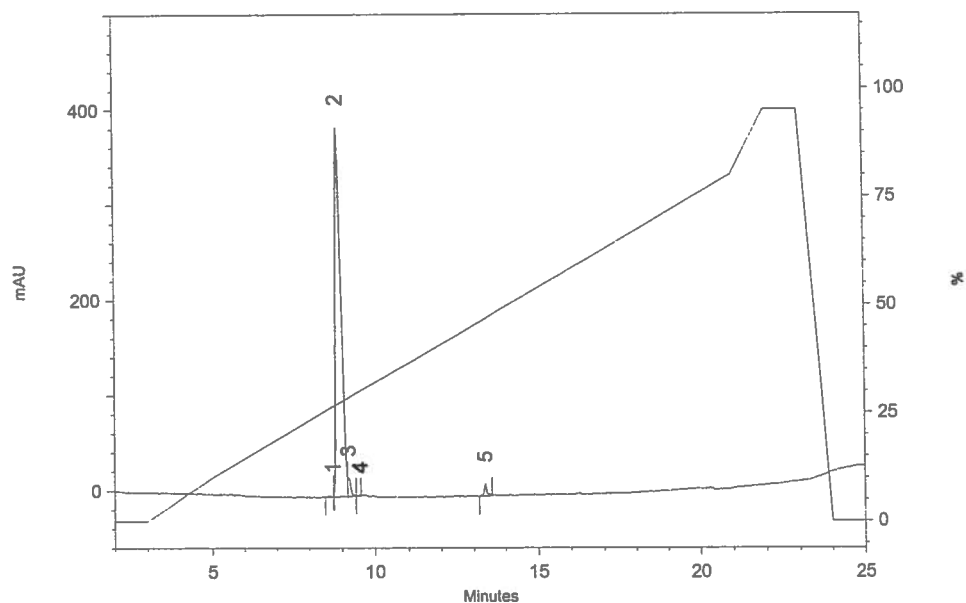
Voyager Spec #1=>SM3[BP = 1003.4, 4381]



Mode of operation: Linear
Extraction mode: Delayed
Polarity: Negative
Acquisition control: Manual
Accelerating voltage: 20000 V
Grid voltage: 91%
Guide wire 0: 0.015%
Extraction delay time: 150 nsec
Acquisition mass range: 500 – 2000 Da
Number of laser shots: 100/spectrum
Laser intensity: 1685
Laser Rep Rate: 3.0 Hz
Calibration type: Default
Calibration matrix: a-Cyano-4-hydroxycinnamic ac
Low mass gate: Off
Digitizer start time: 14.632
Bin size: 4 nsec
Number of data points: 3634
Vertical scale: 200 mV
Vertical offset: 0%
Input bandwidth: 150 MHz
Sample well: 06
Plate ID: 100 WELL PLATE
Serial number: 1099
Instrument name: Voyager-DE
Plate type filename: C:\VOYAGER\100 well plate.plt
Lab name: BioSynthesis, Inc
Absolute x-position: 28528
Absolute y-position: 48897.7
Relative x-position: 1540.54
Relative y-position: 1590.21
Shots in spectrum: 7
Source pressure: 8.099e-008
Mirror pressure: 0
TC2 pressure: 0.001
TIS gate width: 30
TIS flight length: 940

HPLC Report

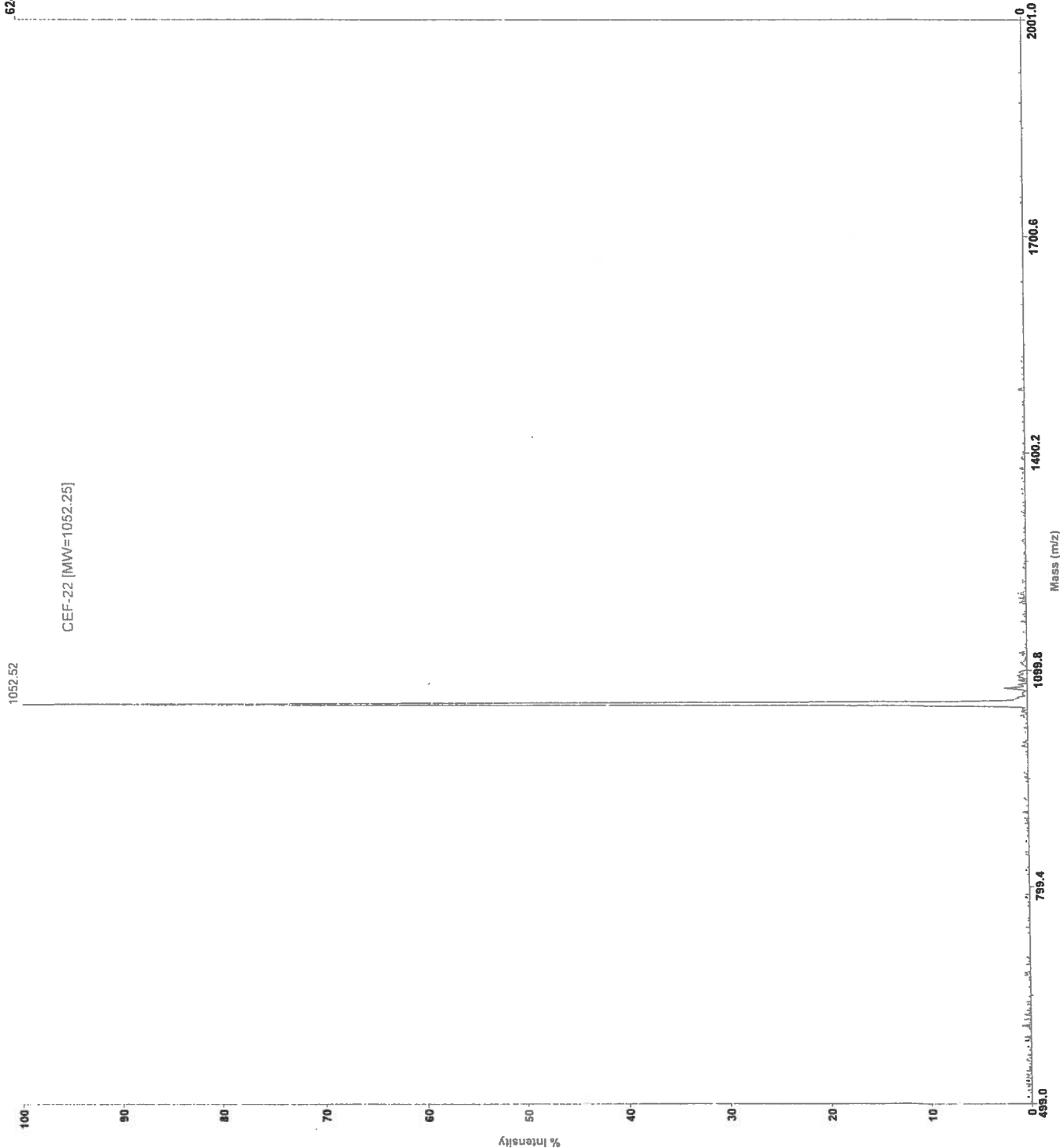
Sample ID: CEF-21
 Date File: D:\32Karat\Projects\Default\Data\CEF-21
 Method: D:\32Karat\Projects\Default\Methods\PEP-CD072-C18.met
 Column: Onyx Monolithic C18, 100x3.0 nm 3u; Flow Rate: 1.0 mL/min
 Solvent: A: 0.05% TFA in H₂O; B: 0.05% TFA in ACN
 Wavelength: 220 nm; Detector lamp: UV
 HPLC ID#: CD-072



Pk #	Retention Time	Height	Height Percent	Area	Area Percent
1	8.750	2534	0.597	16011	0.343
2	8.917	388273	91.459	4432128	95.041
3	9.217	19308	4.548	124276	2.665
4	9.567	1602	0.377	9030	0.194
5	13.367	12813	3.018	81947	1.757
Totals		424530	100.000	4663392	100.000

Applied Biosystems Voyager System 1099

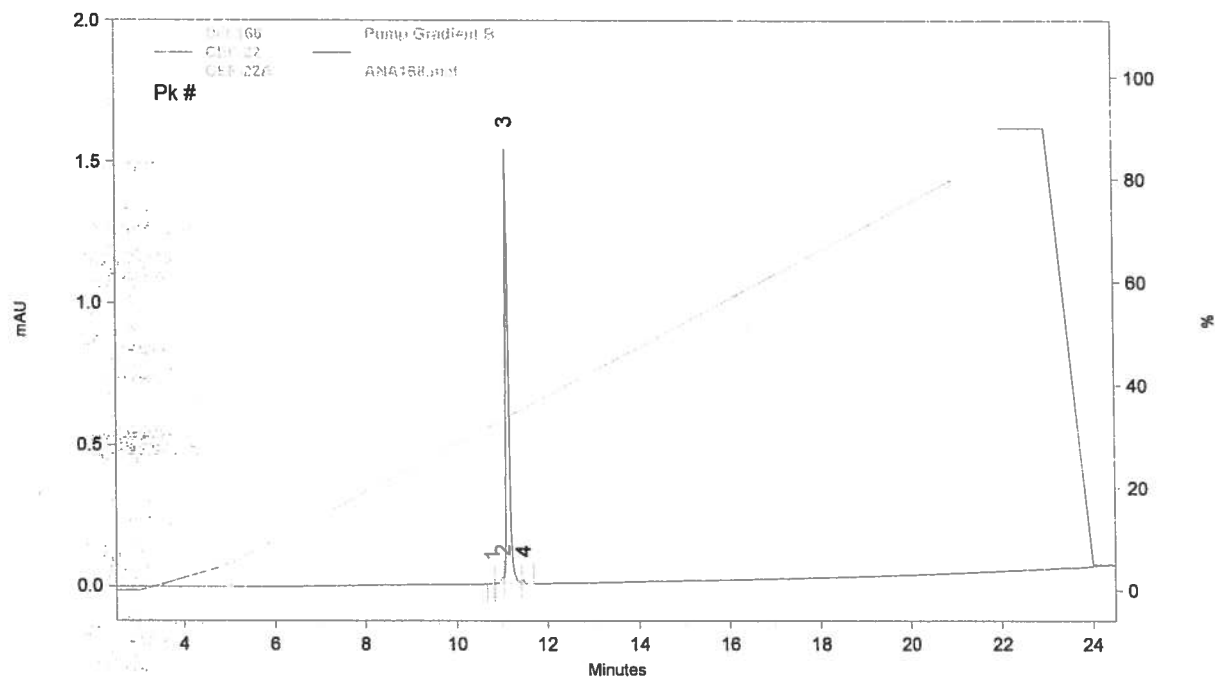
Voyager Spec #1=>SM5[BP = 1052.3, 6240]



Mode of operation: Linear
Extraction mode: Delayed
Polarity: Negative
Acquisition control: Manual
Accelerating voltage: 20000 V
Grid voltage: 91%
Guide wire 0: 0.015%
Extraction delay time: 150 nsec
Acquisition mass range: 500 -- 2000 Da
Number of laser shots: 100/spectrum
Laser intensity: 1648
Laser Rep Rate: 3.0 Hz
Calibration type: Default
Calibration matrix: a-Cyano-4-hydroxycinnamic ac
Low mass gate: Off
Digitizer start time: 14.636
Bin size: 4 nsec
Number of data points: 3636
Vertical scale: 200 mV
Vertical offset: 0%
Input bandwidth: 150 MHz
Sample well: 44
Plate ID: 100 WELL PLATE
Serial number: 1099
Instrument name: Voyager-DE
Plate type filename: C:\VOYAGER\100 well plate.pl
Lab name: BioSynthesis, Inc
Absolute x-position: 16387.4
Absolute y-position: 26987.1
Relative x-position: -440.125
Relative y-position: -0.365926
Shots in spectrum: 4
Source pressure: 3.589e-007
Mirror pressure: 0
TC2 pressure: 0.001
TIS gate width: 30
TIS flight length: 940

HPLC Report

Sample: CEF-22
 Method: C:\32Karat\Projects\Default\Methods\ANA168.met
 File Name: C:\32Karat\Projects\Default\Data\CEF-22A
 Solvent: Onyx Monolithic C18, 100x 3.00mm 3u Flow Rate: 1.0ml min.
 Wavelength: 220 nm
 HPLC ID#: CD-077



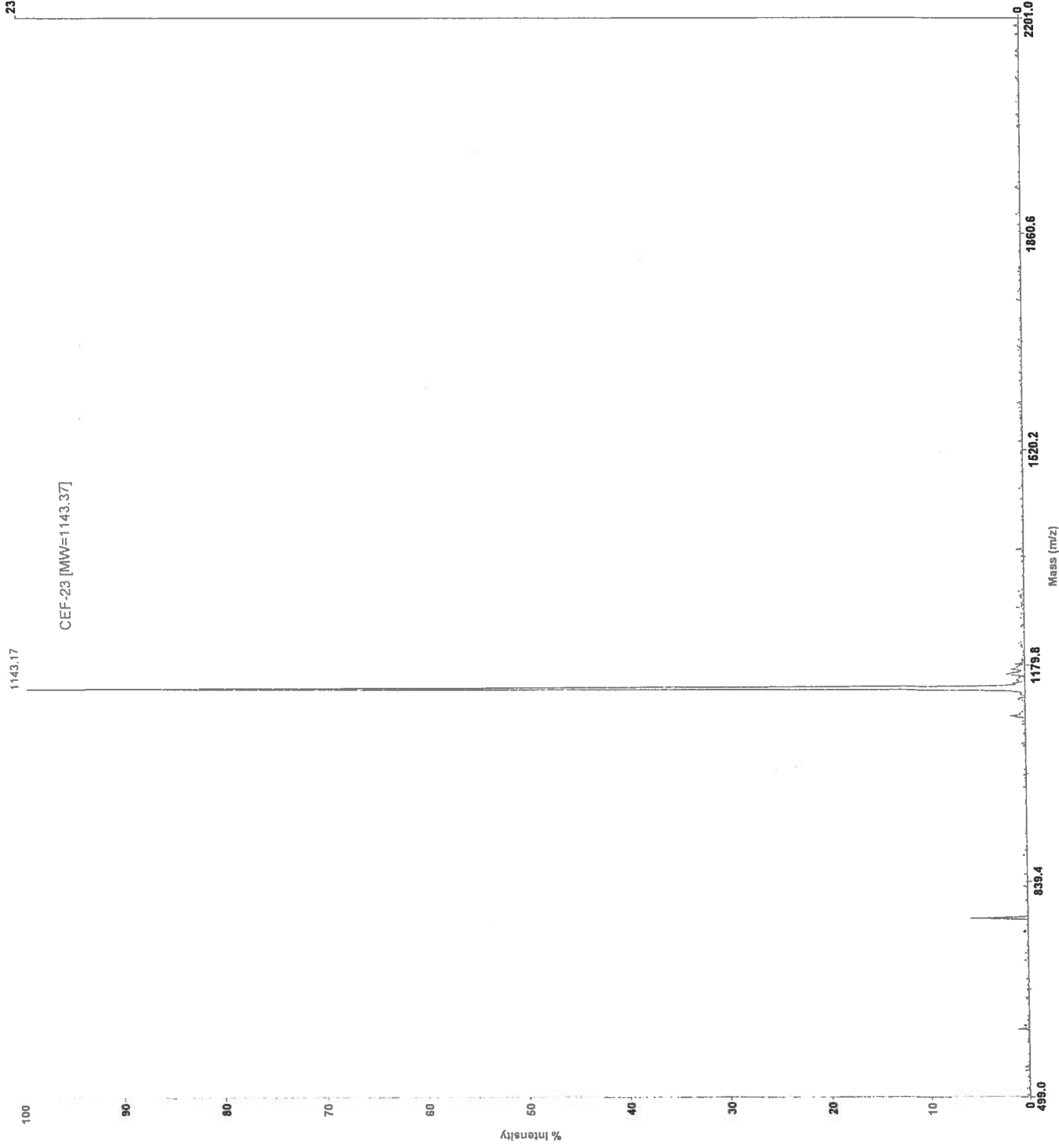
Det 166 Results

Pk #	Time	Area	Area %
1	10.783	18936	0.27
2	11.017	113915	1.62
3	11.117	6837170	97.42
4	11.467	48346	0.69

Totals		7018367	100.00
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Applied Biosystems Voyager System 1099

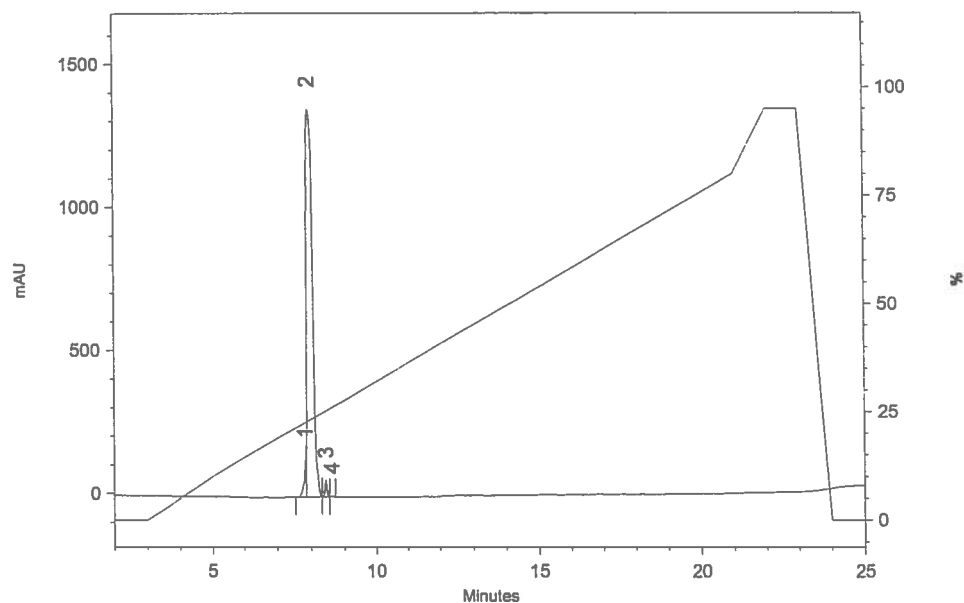
Voyager Spec #1=>SM5[BP = 1142.8, 2333]



Mode of operation: Linear
Extraction mode: Delayed
Polarity: Negative
Acquisition control: Manual
2332.g
Accelerating voltage: 20000 V
Grid voltage: 91%
Guide wire O: 0.015%
Extraction delay time: 150 nsec
Acquisition mass range: 500 – 2200 Da
Number of laser shots: 100/spectrum
Laser intensity: 1548
Laser Rep Rate: 3.0 Hz
Calibration type: Default
Calibration matrix: a-Cyano-4-hydroxycinnamic aci
Low mass gate: Off
Digitizer start time: 14.636
Bin size: 4 nsec
Number of data points: 3991
Vertical scale: 200 mV
Vertical offset: 0%
Input bandwidth: 150 MHz
Sample well: 55
Plate ID: 100 WELL PLATE
Serial number: 1099
Instrument name: Voyager-DE
Plate type filename: C:\VOYAGER\100 well plate.pl
Lab name: BioSynthesis, Inc
Absolute x-position: 21667.2
Absolute y-position: 21593.2
Relative x-position: -240.309
Relative y-position: -314.32
Shots in spectrum: 13
Source pressure: 3.285e-007
Mirror pressure: 0
TC2 pressure: 0.001
TIS gate width: 30
TIS flight length: 940

HPLC Report

Sample ID: CEF-23
 Date File: D:\32Karat\Projects\Default\Data\CEF-23A
 Method: D:\32Karat\Projects\Default\Methods\PEP-CD072-C18.met
 Column: Onyx Monolithic C18, 100x3.0 nm 3u; Flow Rate: 1.0 mL/min
 Solvent: A: 0.05% TFA in H₂O; B: 0.05% TFA in ACN
 Wavelength: 220 nm; Detector lamp: UV
 HPLC ID#: CD-072

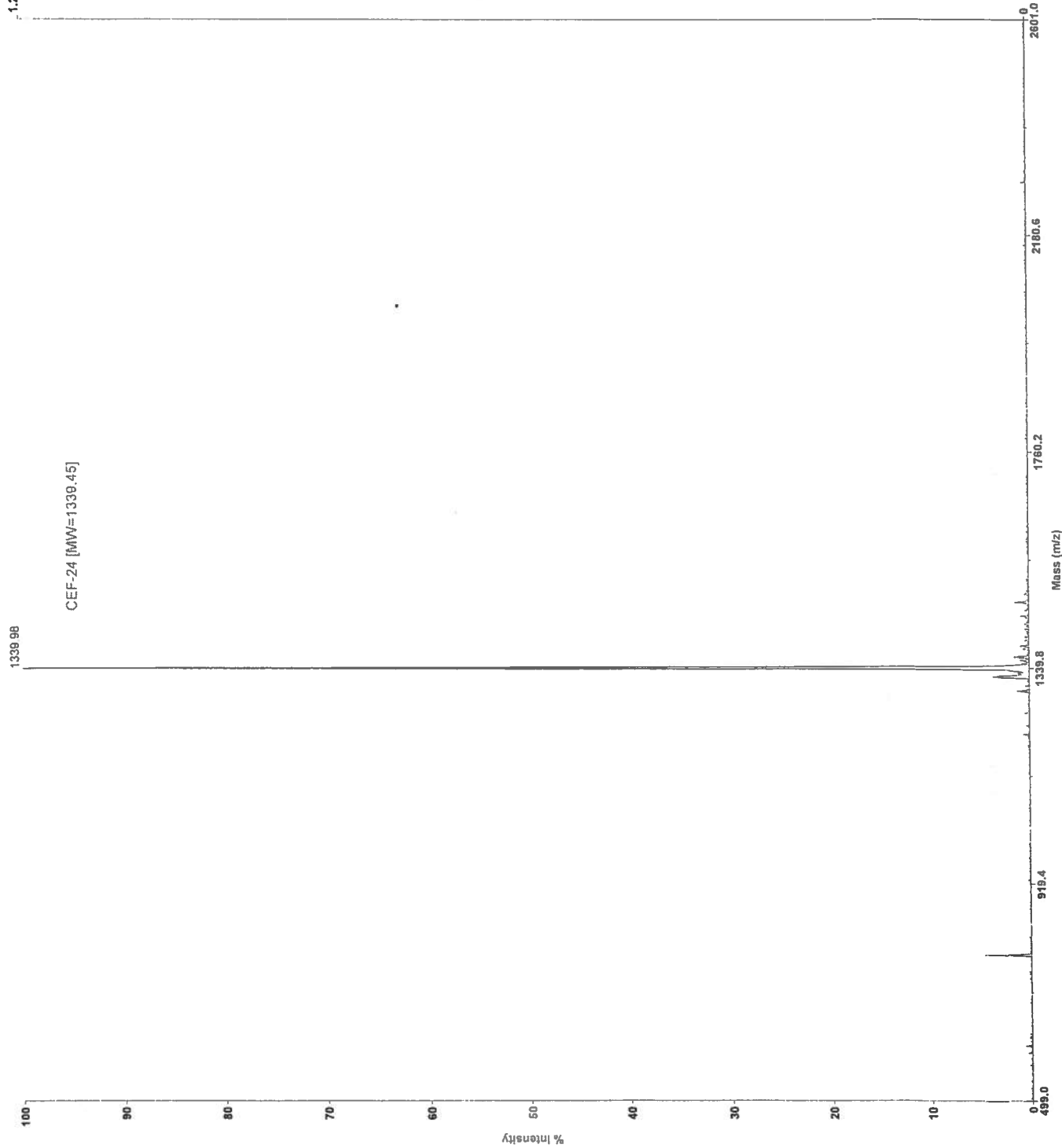


Pk #	Retention Time	Height	Height Percent	Area	Area Percent
1	7.833	129283	8.352	592819	3.279
2	7.950	1354891	87.527	17215400	95.212
3	8.450	58963	3.809	253875	1.404
4	8.633	4839	0.313	18962	0.105

Totals		1547976	100.000	18081056	100.000
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Applied Biosystems Voyager System 1099

Voyager Spec #1=>SM3[BP = 1339.4, 12107]



Mode of operation: Linear
Extraction mode: Delayed
Polarity: Negative
Acquisition control: Manual

Accelerating voltage: 20000 V
Grid voltage: 91%
Guide wire Q: 0.015%
Extraction delay time: 150 nsec

Acquisition mass range: 500 -- 2600 Da
Number of laser shots: 100/spectrum
Laser intensity: 1585
Laser Rep Rate: 3.0 Hz
Calibration type: Default
Calibration matrix: a-Cyano-4-hydroxycinnamic acid
Low mass gate: Off

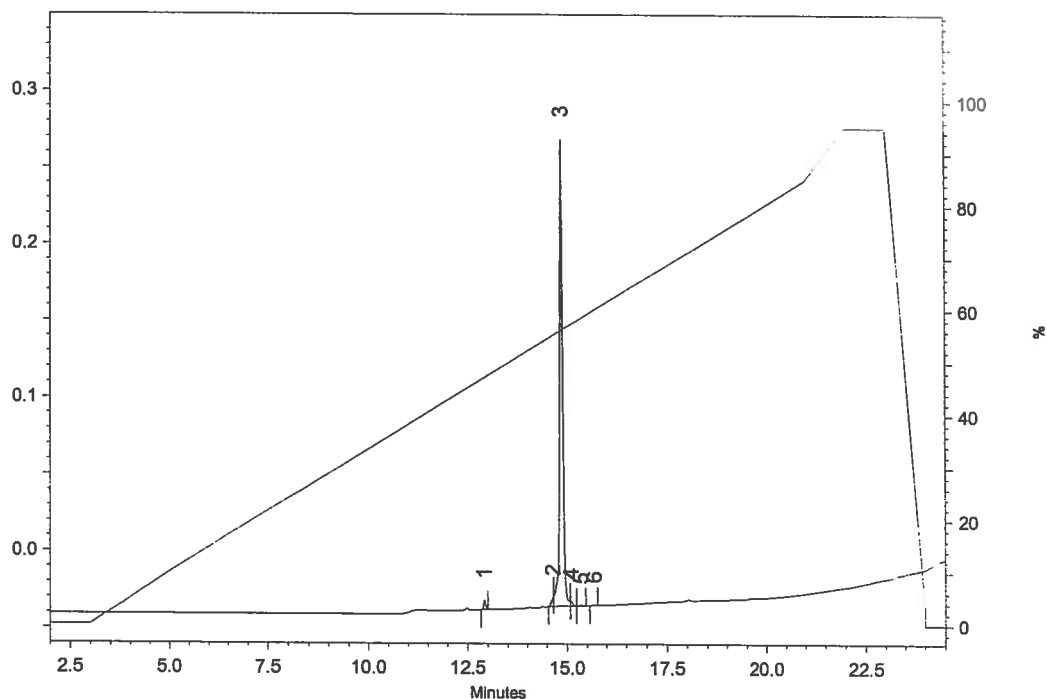
Digitizer start time: 14.632
Bin size: 4 nsec
Number of data points: 4652
Vertical scale: 200 mV
Vertical offset: 0%
Input bandwidth: 150 MHz

Sample well: 07
Plate ID: 100 WELL PLATE
Serial number: 1099
Instrument name: Voyager-DE
Plate type filename: C:\VOYAGER\100 well plate.plt
Lab name: BioSynthesis, Inc

Absolute x-position: 32465.7
Absolute y-position: 47054.5
Relative x-position: 398.167
Relative y-position: -252.99
Shots in spectrum: 9
Source pressure: 8.001e-008
Mirror pressure: 0
TC2 pressure: 0.001
TIS gate width: 30
TIS flight length: 940

HPLC Report

Sample ID: CEF-24
 Date File: D:\32Karat\Projects\Default\Data\CEF-24A
 Method: D:\32Karat\Projects\Default\Methods\PEP-CD071-C18.met
 Column: Onyx Monolithic C18, 100x3.0 mm 3u
 Solvent: A: 0.05% TFA in H₂O; B: 0.05% TFA in ACN
 Wavelength: 220 nm; Detector lamp: UV
 HPLC ID#: CD-071, EQ-024



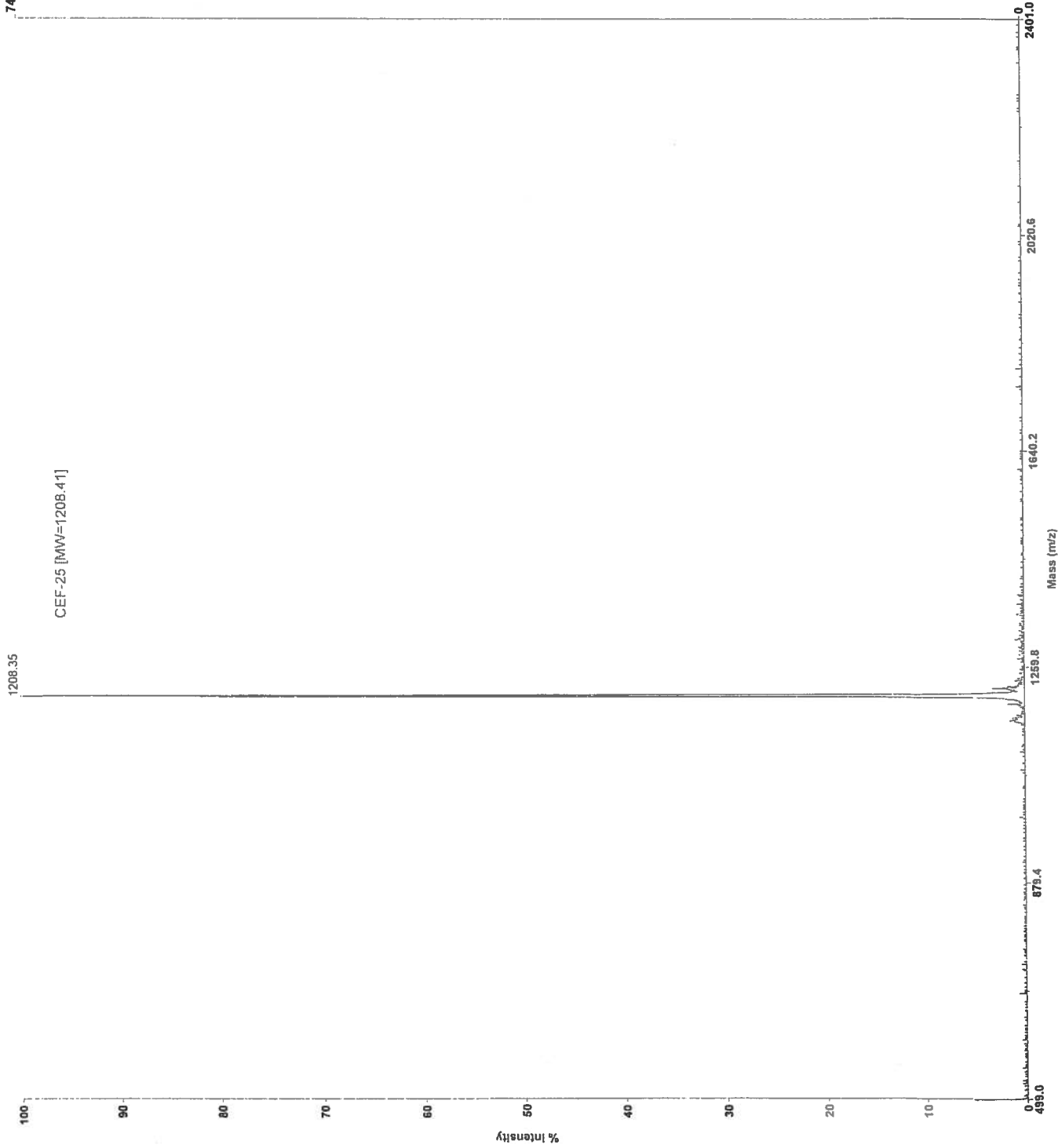
Det Results:

Pk #	Retention Time	Height	Height Percent	Area	Area Percent
1	12.917	6146	1.913	20711	1.218
2	14.650	6157	1.917	23613	1.389
3	14.883	304467	94.784	1638321	96.380
4	15.100	3352	1.044	11915	0.701
5	15.350	340	0.106	2235	0.131
6	15.683	761	0.237	3053	0.180

Totals		321223	100.000	1699848	100.000
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Applied Biosystems Voyager System 1099

Voyager Spec #1=>SM3[BP = 1207.7, 7472]



Mode of operation: Linear
Extraction mode: Delayed
Polarity: Negative
Acquisition control: Manual

Accelerating voltage: 20000 V
Grid voltage: 91%
Guide wire 0: 0.015%
Extraction delay time: 150 nsec

Acquisition mass range: 500 -- 2600 Da
Number of laser shots: 100/spectrum
Laser intensity: 1585
Laser Rep Rate: 3.0 Hz
Calibration type: Default
Calibration matrix: a-Cyano-4-hydroxycinnamic acid
Low mass gate: Off

Digitizer start time: 14.628
Bin size: 4 nsec
Number of data points: 4651
Vertical scale: 200 mV
Vertical offset: 0%
Input bandwidth: 150 MHz

Sample well: 08
Plate ID: 100 WELL PLATE
Serial number: 1099
Instrument name: Voyager-DE
Plate type filename: C:\VOYAGER\100 well plate.plt
Lab name: BioSynthesis, Inc

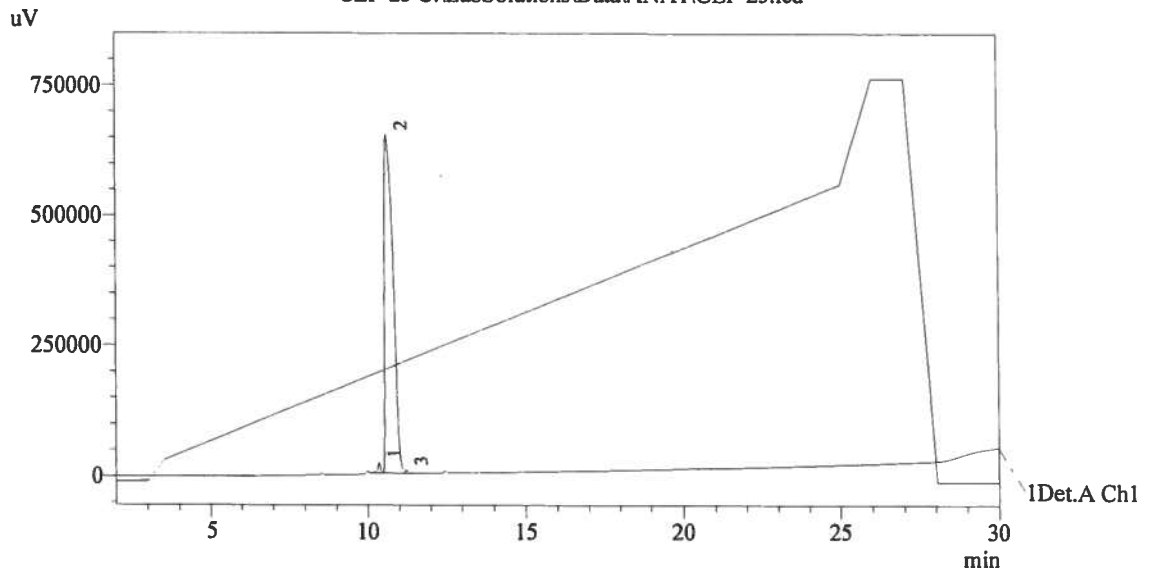
Absolute x-position: 38954.2
Absolute y-position: 46000.5
Relative x-position: 1806.71
Relative y-position: -1306.96
Shots in spectrum: 7
Source pressure: 7.395e-008
Mirror pressure: 0
TC2 pressure: 0.001
TIS gate width: 30
TIS flight length: 940

Sample Information

Acquired by : Admin
Sample Name : CEF-25
Sample ID : CEF-25
Data Filename : CEF-25.lcd
Method Filename : ANAPEP1.lcm
Date Acquired : 1/8/2016 9:32:42 AM
Data Processed : 1/8/2016 10:06:30 AM
Column: 250X4.6mm 5u C18 120A
Solvent: A:0.05%TFA in Water; B: 0.05 % TFA in ACN

Chromatogram

CEF-25 C:\LabSolutions\Data\ANA1\CEF-25.lcd



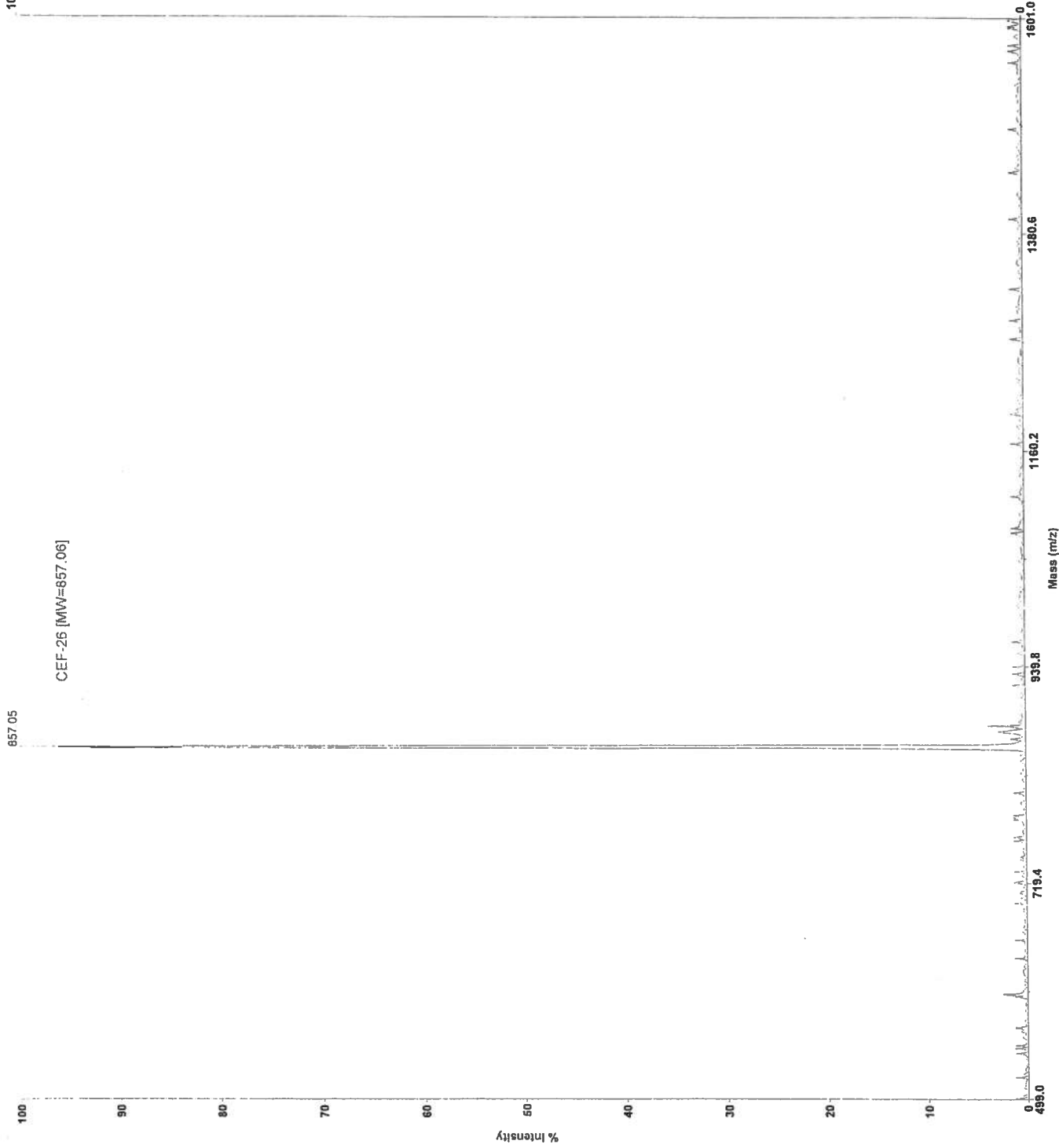
PeakTable

Detector A Ch1 220nm

Peak#	Ret. Time	Area	Height	Height %	Area %
1	10.353	128127	19587	2.907	1.064
2	10.624	11879807	648990	96.307	98.623
3	11.218	37737	5298	0.786	0.313
Total				100.000	100.000

Applied Biosystems Voyager System 1099

Voyager Spec #1=>NFO.7[BP = 857.5, 1092]



Mode of operation: Linear
Extraction mode: Delayed
Polarity: Negative
Acquisition control: Manual

Accelerating voltage: 20000 V
Grid voltage: 91%
Guide wire 0: 0.015%
Extraction delay time: 150 nsec

Acquisition mass range: 500 – 2200 Da
Number of laser shots: 100/spectrum
Laser intensity: 1548
Laser Rep Rate: 3.0 Hz
Calibration type: Default
Calibration matrix: a-Cyano-4-hydroxycinnamic acid
Low mass gate: Off

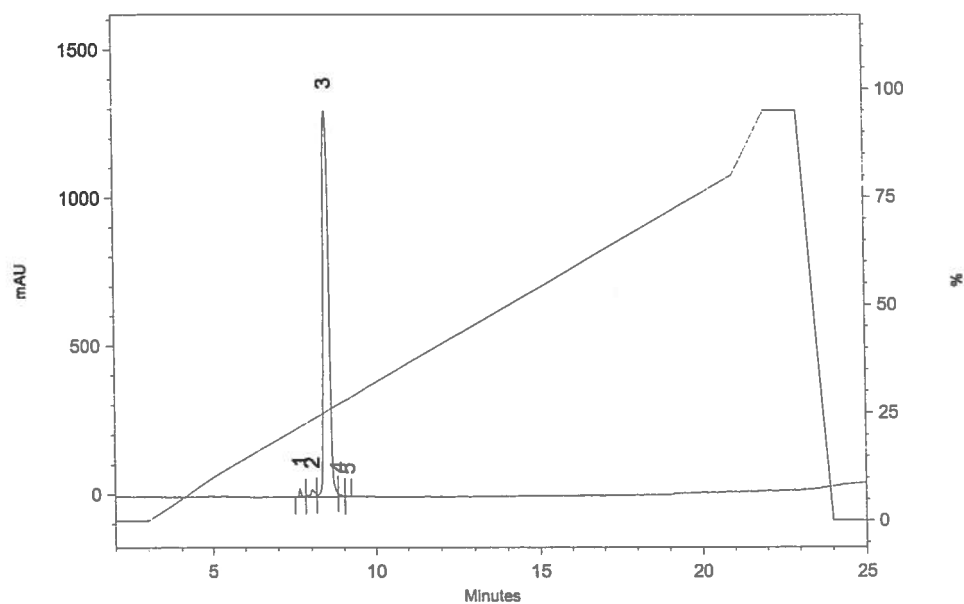
Digitizer start time: 14.636
Bin size: 4 nsec
Number of data points: 3991
Vertical scale: 200 mV
Vertical offset: 0%
Input bandwidth: 150 MHz

Sample well: 65
Plate ID: 100 WELL PLATE
Serial number: 1099
Instrument name: Voyager-DE
Plate type filename: C:\VOYAGER\100 well plate.plt
Lab name: BioSynthesis, Inc

Absolute x-position: 20960.8
Absolute y-position: 16482.9
Relative x-position: -946.73
Relative y-position: -344.631
Shots in spectrum: 19
Source pressure: 3.06e-007
Mirror pressure: 0
TC2 pressure: 0.001
TIS gate width: 30
TIS flight length: 940

HPLC Report

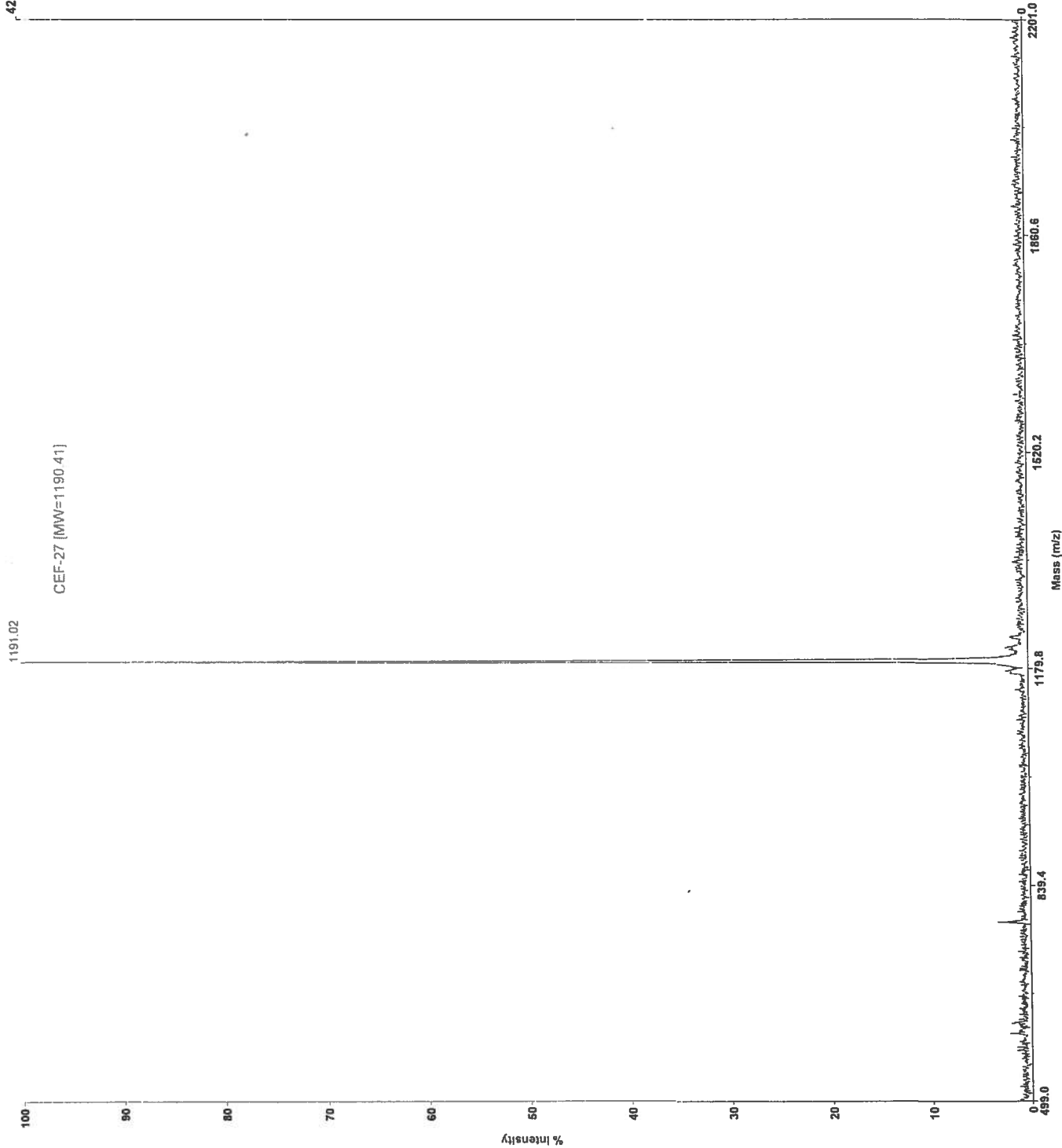
Sample ID: CEF-26
 Date File: D:\32Karat\Projects\Default\Data\CEF-26
 Method: D:\32Karat\Projects\Default\Methods\PEP-CD072-C18.met
 Column: Onyx Monolithic C18, 100x3.0 nm 3u; Flow Rate: 1.0 mL/min
 Solvent: A: 0.05% TFA in H₂O; B: 0.05% TFA in ACN
 Wavelength: 220 nm; Detector lamp: UV
 HPLC ID#: CD-072



Pk #	Retention Time	Height	Height Percent	Area	Area Percent
1	7.667	28595	2.089	131986	0.791
2	8.033	24418	1.784	215947	1.295
3	8.500	1303505	95.216	16254944	97.447
4	8.833	9041	0.660	58561	0.351
5	9.117	3438	0.251	19327	0.116
Totals		1368997	100.000	16680765	100.000

Applied Biosystems Voyager System 1099

Voyager Spec #1[=>SM3[BP = 1190.7, 4257]



Mode of operation: Linear
Extraction mode: Delayed
Polarity: Negative
Acquisition control: Manual

Accelerating voltage: 20000 V
Grid voltage: 91%
Guide wire O: 0.015%
Extraction delay time: 150 nsec

Acquisition mass range: 500 -- 2200 Da
Number of laser shots: 100/spectrum
Laser intensity: 1547
Laser Rep Rate: 3.0 Hz
Calibration type: Default
Calibration matrix: a-Cyano-4-hydroxycinnamic aci
Low mass gate: Off

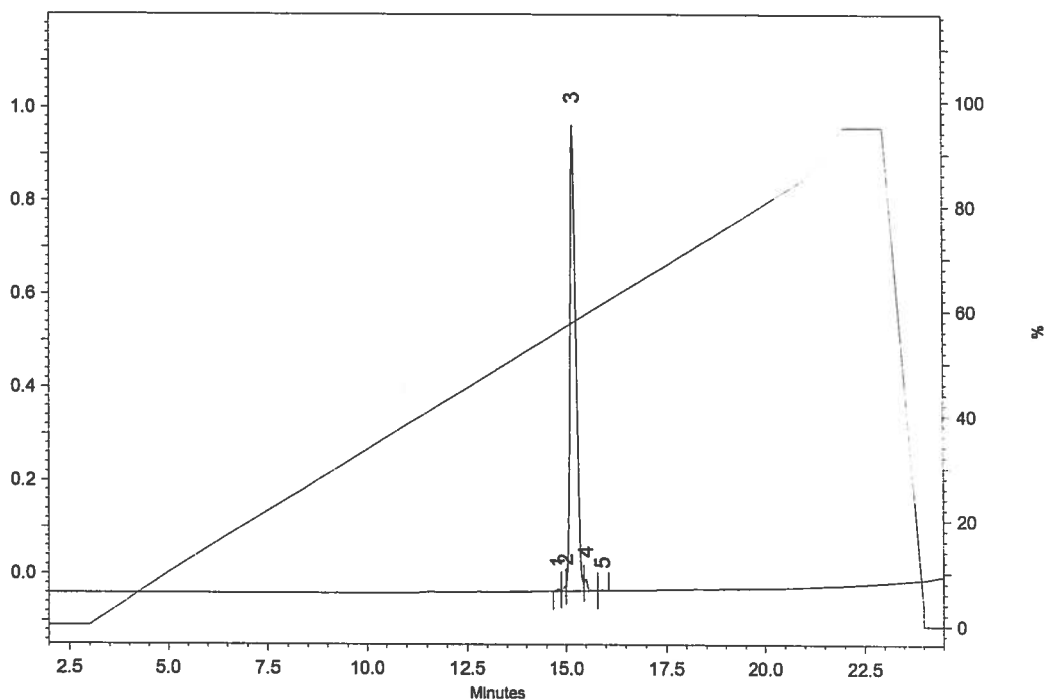
Digitizer start time: 14.636
Bin size: 4 nsec
Number of data points: 3989
Vertical scale: 200 mV
Vertical offset: 0%
Input bandwidth: 150 MHz

Sample well: 05
Plate ID: 100 WELL PLATE
Serial number: 1099
Instrument name: Voyager-DE
Plate type filename: C:\VOYAGER\100 well plate.plt
Lab name: BioSynthesis, Inc

Absolute x-position: 23442.3
Absolute y-position: 48224.8
Relative x-position: 1534.79
Relative y-position: 917.344
Shots in spectrum: 29
Source pressure: 2.802e-007
Mirror pressure: 0
TC2 pressure: 0.001
TIS gate width: 30
TIS flight length: 940

HPLC Report

Sample ID: CEF-27
 Date File: D:\32Karat\Projects\Default\Data\CEF-27A
 Method: D:\32Karat\Projects\Default\Methods\PEP-CD071-C18.met
 Column: Onyx Monolithic C18, 100x3.0 mm 3u
 Solvent: A: 0.05% TFA in H₂O; B: 0.05% TFA in ACN
 Wavelength: 220 nm; Detector lamp: UV
 HPLC ID#: CD-071, EQ-024



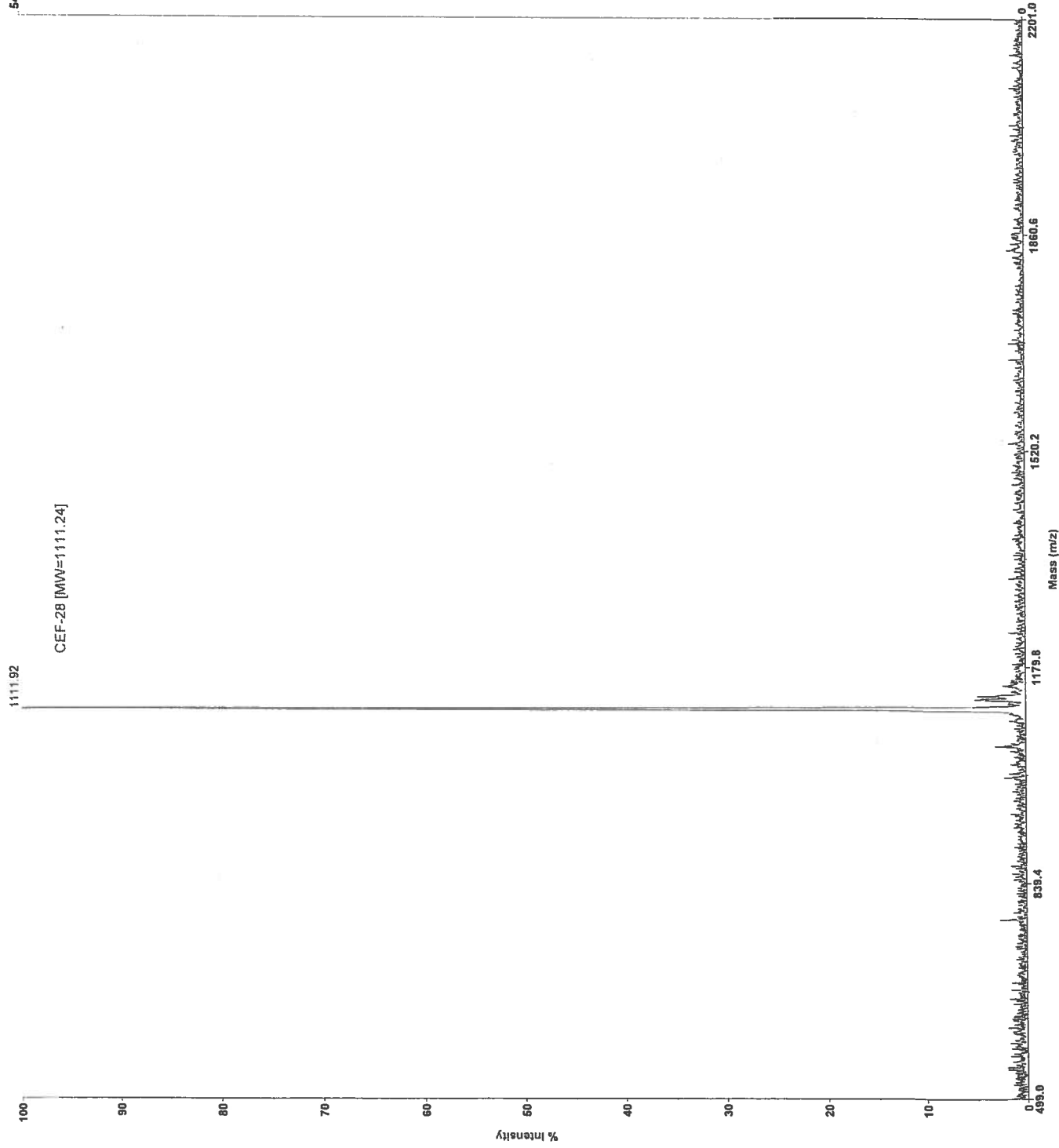
Det Results:

Pk #	Retention Time	Height	Height Percent	Area	Area Percent
1	14.783	4872	0.468	32383	0.315
2	14.983	9918	0.952	45639	0.444
3	15.200	999651	95.985	10045983	97.814
4	15.500	25289	2.428	138245	1.346
5	15.917	1736	0.167	8228	0.080

Totals		1041466	100.000	10270478	100.000
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Applied Biosystems Voyager System 1099

Voyager Spec #1=>SM3[BP = 1111.4, 5426]



Mode of operation: Linear
Extraction mode: Delayed
Polarity: Negative
Acquisition control: Manual

Accelerating voltage: 20000 V
Grid voltage: 91%
Guide wire O: 0.015%
Extraction delay time: 150 nsec

Acquisition mass range: 500 – 2200 Da
Number of laser shots: 100/spectrum
Laser intensity: 1547
Laser Rep Rate: 3.0 Hz
Calibration type: Default
Calibration matrix: a-Cyano-4-hydroxycinnamic acid
Low mass gate: Off

Digitizer start time: 14.636
Bin size: 4 nsec
Number of data points: 3989
Vertical scale: 200 mV
Vertical offset: 0%
Input bandwidth: 150 MHz

Sample well: 24
Plate ID: 100 WELL PLATE
Serial number: 1099
Instrument name: Voyager-DE
Plate type filename: C:\VOYAGER\100 well plate.plt
Lab name: BioSynthesis, Inc

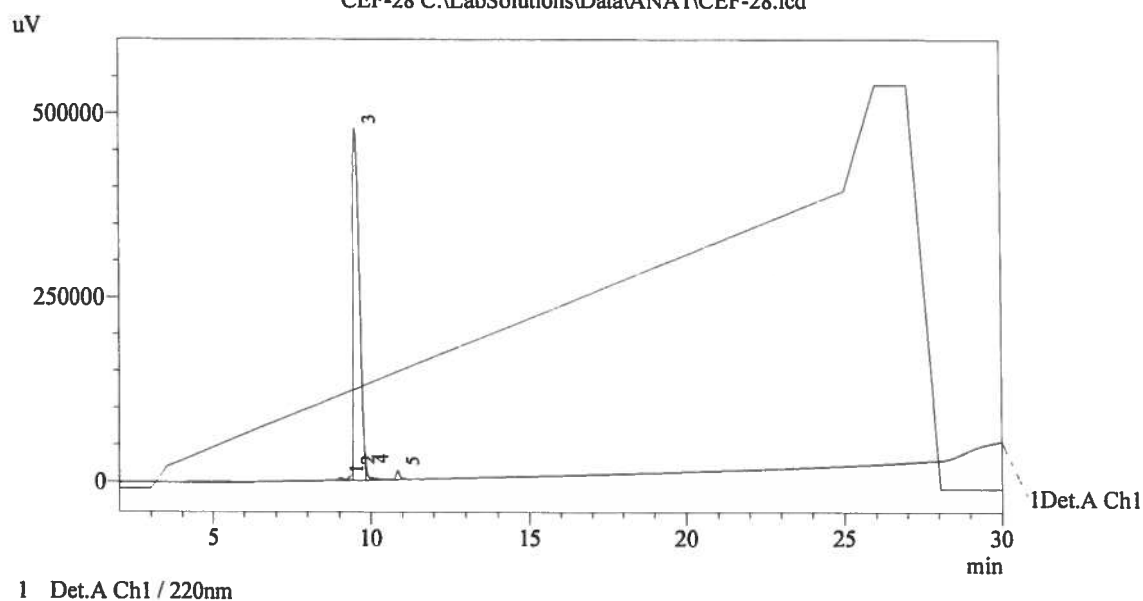
Absolute x-position: 16826.7
Absolute y-position: 37148.3
Relative x-position: -0.789927
Relative y-position: 0.781124
Shots in spectrum: 9
Source pressure: 2.629e-007
Mirror pressure: 0
TC2 pressure: 0.001
TIS gate width: 30
TIS flight length: 940

Sample Information

Acquired by : Admin
Sample Name : CEF-28
Sample ID : CEF-28
Data Filename : CEF-28.lcd
Method Filename : ANAPEP1.lcm
Date Acquired : 1/8/2016 10:05:51 AM
Data Processed : 1/8/2016 10:50:02 AM

Column: 250X4.6mm 5u C18 120A
Solvent: A:0.05%TFA in Water; B: 0.05 % TFA in ACN

Chromatogram CEF-28 C:\LabSolutions\Data\ANA1\CEF-28.lcd



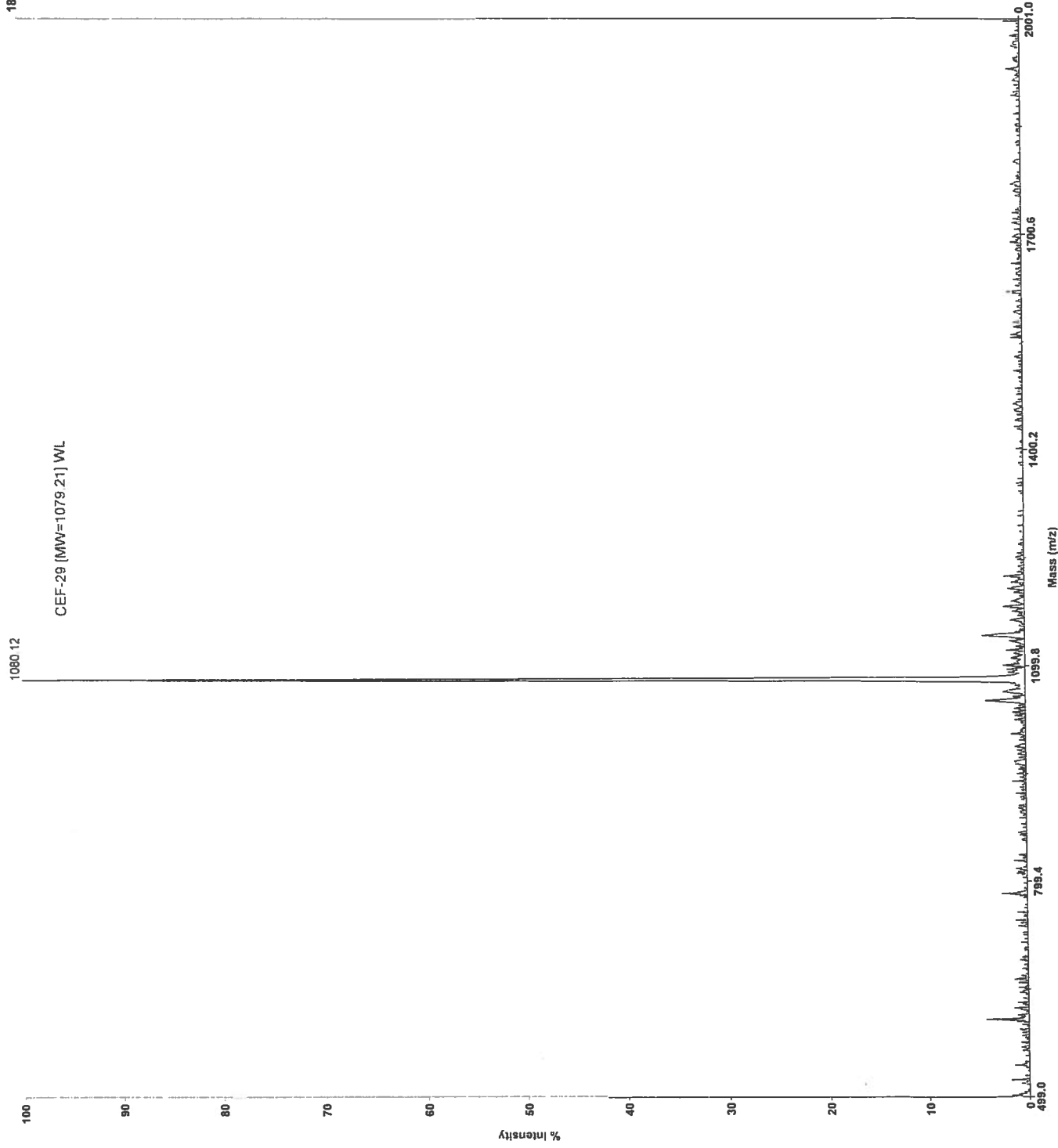
PeakTable

Detector A Ch1 220nm

Peak#	Ret. Time	Area	Height	Height %	Area %
1	9.062	30796	2771	0.532	0.451
2	9.433	76976	14435	2.771	1.127
3	9.532	6553524	476179	91.403	95.978
4	9.867	78351	15993	3.070	1.147
5	10.855	88514	11587	2.224	1.296
Total				100.000	100.000

Applied Biosystems Voyager System 1099

Voyager Spec #1=>SM5=>AdvBC(32.0,5.0.1)[BP = 1080.1, 1839]



Mode of operation: Linear
Extraction mode: Delayed
Polarity: Negative
Acquisition control: Manual

Accelerating voltage: 20000 V
Grid voltage: 91%
Guide wire O: 0.015%
Extraction delay time: 150 nsec

Acquisition mass range: 500 -- 2000 Da
Number of laser shots: 100/spectrum
Laser intensity: 1747
Laser Rep Rate: 3.0 Hz
Calibration type: Default
Calibration matrix: a-Cyano-4-hydroxycinnamic aci
Low mass gate: Off

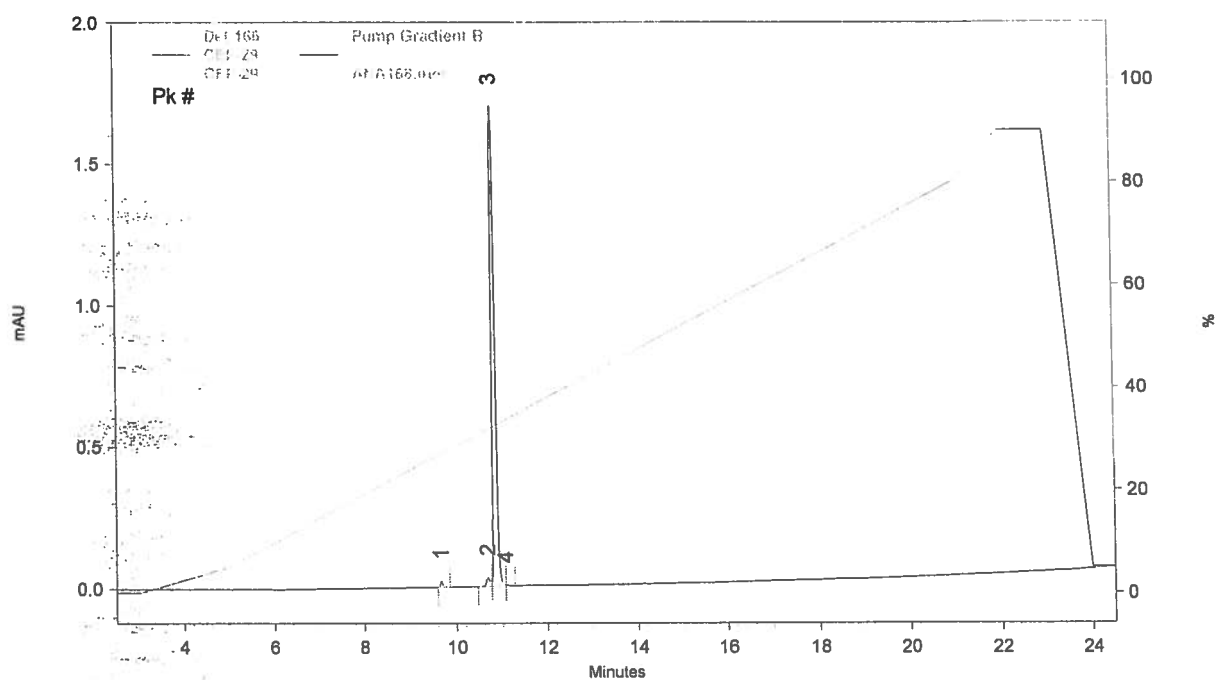
Digitizer start time: 14.616
Bin size: 4 nsec
Number of data points: 3631
Vertical scale: 200 mV
Vertical offset: 0%
Input bandwidth: 150 MHz

Sample well: 82
Plate ID: 100 WELL PLATE
Serial number: 1099
Instrument name: Voyager-DE
Plate type filename: C:\VOYAGER\100 well plate.plt
Lab name: BioSynthesis, Inc

Absolute x-position: 6380.76
Absolute y-position: 6957.34
Relative x-position: -286.741
Relative y-position: 289.836
Shots in spectrum: 17
Source pressure: 2.852e-007
Mirror pressure: 0
TC2 pressure: 0.001
TIS gate width: 30
TIS flight length: 940

HPLC Report

Sample: CEF-29
 Method: C:\32Karat\Projects\Default\Methods\ANA168.met
 File Name: C:\32Karat\Projects\Default\Data\CEF-29
 Solvent: Onyx Monolithic C18, 100x 3.00mm 3u Flow Rate: 1.0ml min.
 Wavelength: 220 nm
 HPLC ID#: CD-077

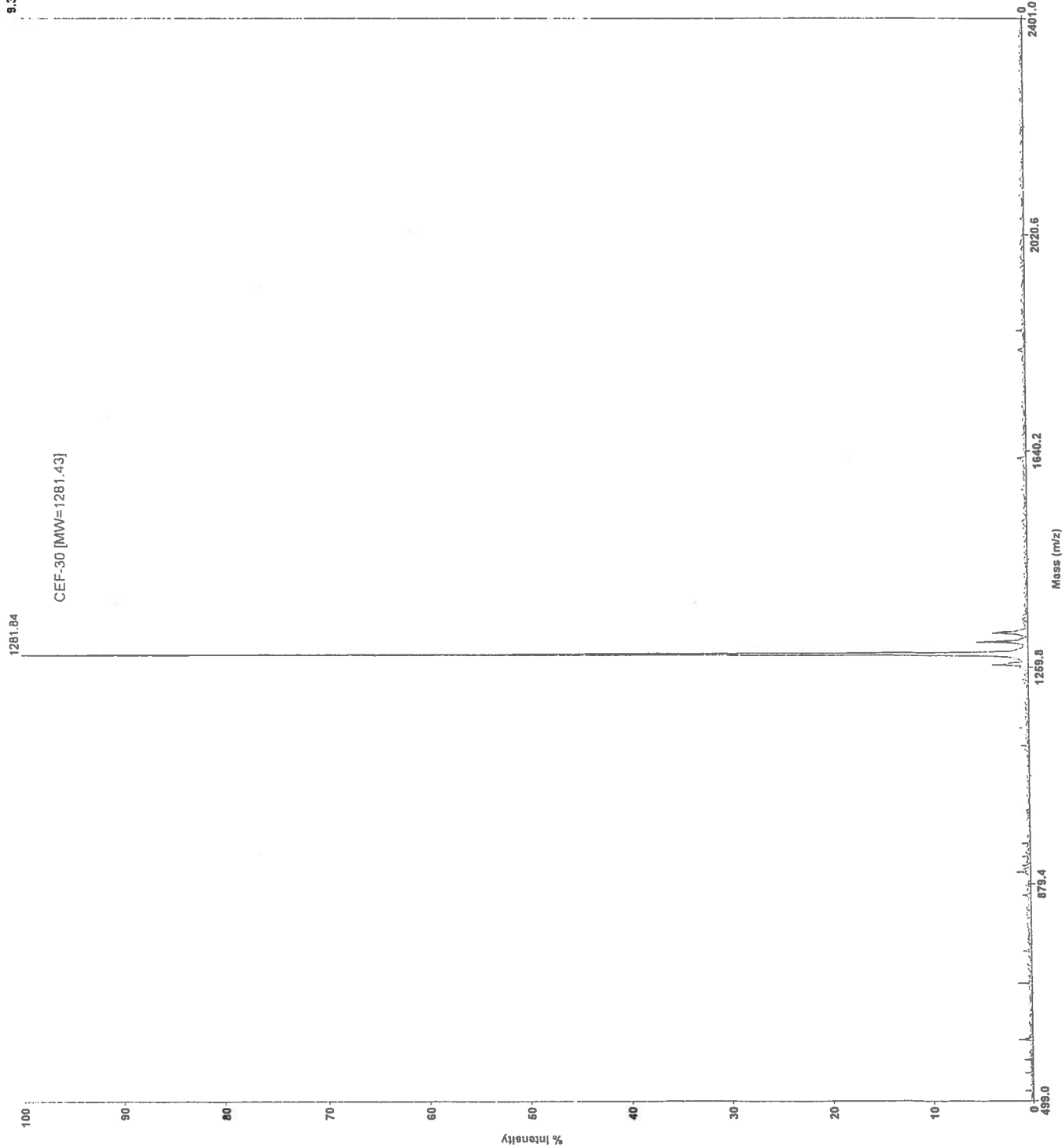


Det 166 Results

Pk #	Time	Area	Area %
1	9.667	74286	0.80
2	10.683	199556	2.15
3	10.833	8975517	96.80
4	11.067	22434	0.24
Totals		9271793	100.00

Applied Biosystems Voyager System 1099

Voyager Spec #1=>NF0.7[BP = 1281.6, 9348]



Mode of operation: Linear
Extraction mode: Delayed
Polarity: Negative
Acquisition control: Manual

Accelerating voltage: 20000 V
Grid voltage: 91%
Guide wire 0: 0.015%
Extraction delay time: 150 nsec

Acquisition mass range: 500 -- 2400 Da
Number of laser shots: 100/spectrum
Laser intensity: 1547
Laser Rep Rate: 3.0 Hz
Calibration type: Default
Calibration matrix: a-Cyano-4-hydroxycinnamic acid
Low mass gate: Off

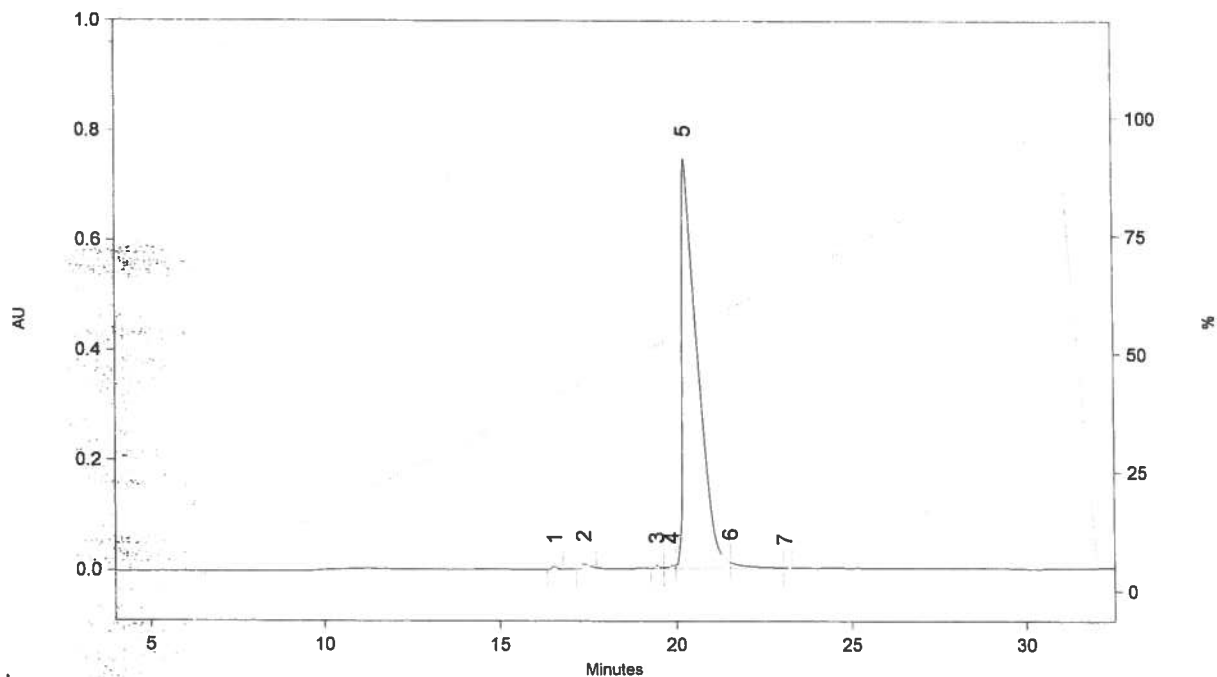
Digitizer start time: 14.636
Bin size: 4 nsec
Number of data points: 4328
Vertical scale: 200 mV
Vertical offset: 0%
Input bandwidth: 150 MHz

Sample well: 34
Plate ID: 100 WELL PLATE
Serial number: 1099
Instrument name: Voyager-DE
Plate type filename: C:\VOYAGER\100 well plate.plt
Lab name: BioSynthesis, Inc

Absolute x-position: 16310
Absolute y-position: 32111.5
Relative x-position: -517.547
Relative y-position: 43.9576
Shots in spectrum: 5
Source pressure: 2.003e-007
Mirror pressure: 0
TC2 pressure: 0.001
TIS gate width: 30
TIS flight length: 940

HPLC Report

Sample: CEF-30
Method: C:\32Karat\Projects\Default\Methods\ANAP2P2.met
File Name: C:\32Karat\Projects\Default\Data\CEF-30
Solvent: A: 0.05 % TFA in H₂O; B: 0.05 % TFA in ACN
Column: Onyx Monolithic C18, 100x 3.00mm 3u Flow Rate: 1.0ml min.
HPLC ID # CD-159



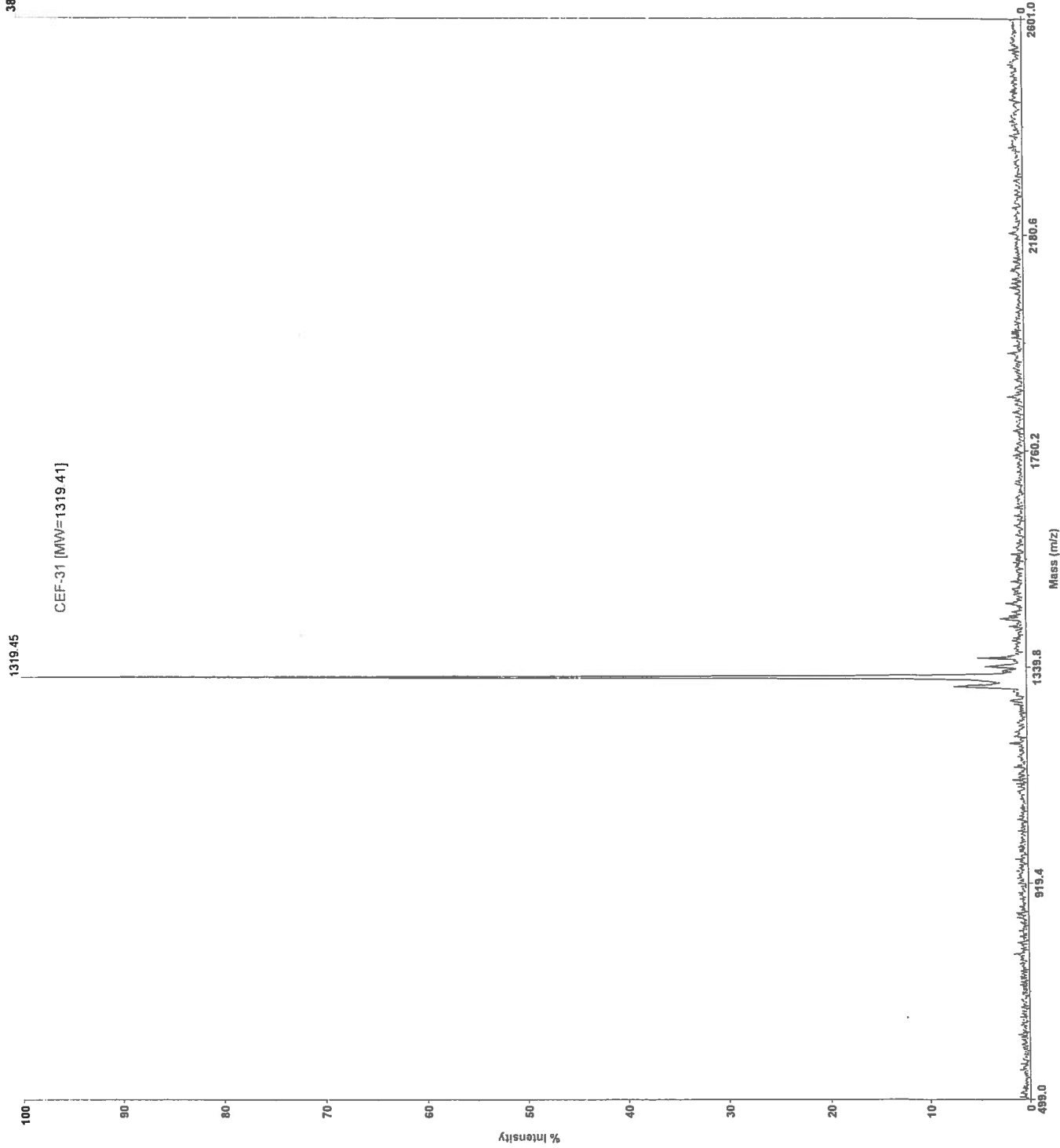
Det 166 Results

Pk #	Time	Area	Area %
1	16.575	58077	0.25
2	17.417	133951	0.58
3	19.467	52343	0.23
4	19.875	60602	0.26
5	20.283	22449814	97.43
6	21.533	284410	1.23
7	23.100	3427	0.01

Totals		23042624	100.00
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Applied Biosystems Voyager System 1099

Voyager Spec #1=>SM5[BP = 1319.3, 3879]



Mode of operation: Linear
Extraction mode: Delayed
Polarity: Negative
Acquisition control: Manual

Accelerating voltage: 20000 V
Grid voltage: 91%
Guide wire 0: 0.015%
Extraction delay time: 150 nsec

Acquisition mass range: 500 -- 2600 Da
Number of laser shots: 100/spectrum
Laser intensity: 1547
Laser Rep Rate: 3.0 Hz
Calibration type: Default
Calibration matrix: a-Cyano-4-hydroxycinnamic aci
Low mass gate: Off

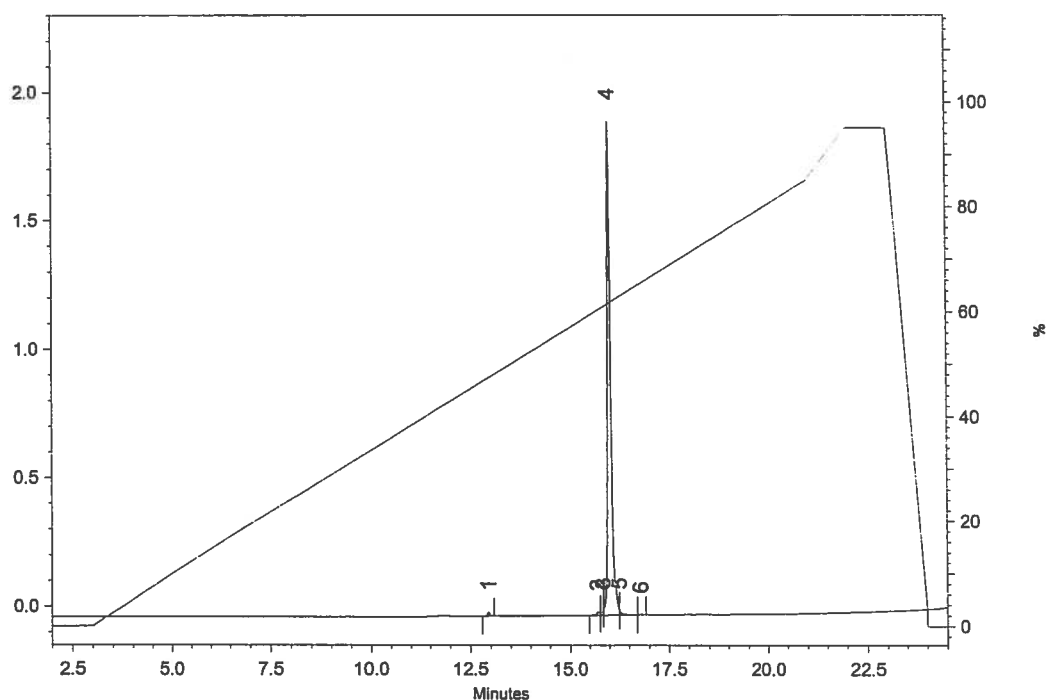
Digitizer start time: 14.636
Bin size: 4 nsec
Number of data points: 4653
Vertical scale: 200 mV
Vertical offset: 0%
Input bandwidth: 150 MHz

Sample well: 53
Plate ID: 100 WELL PLATE
Serial number: 1099
Instrument name: Voyager-DE
Plate type filename: C:\VOYAGER\100 well plate.plt
Lab name: BioSynthesis, Inc

Absolute x-position: 10740.9
Absolute y-position: 22088.3
Relative x-position: -1006.62
Relative y-position: 180.841
Shots in spectrum: 11
Source pressure: 1.88e-007
Mirror pressure: 0
TC2 pressure: 0.001
TIS gate width: 30
TIS flight length: 940

HPLC Report

Sample ID: CEF-31
Date File: D:\32Karat\Projects\Default\Data\CEF-31
Method: D:\32Karat\Projects\Default\Methods\PEP-CD071-C18.met
Column: Onyx Monolithic C18, 100x3.0 mm 3u
Solvent: A: 0.05% TFA in H₂O; B: 0.05% TFA in ACN
Wavelength: 220 nm; Detector lamp: UV
HPLC ID#: CD-071, EQ-024



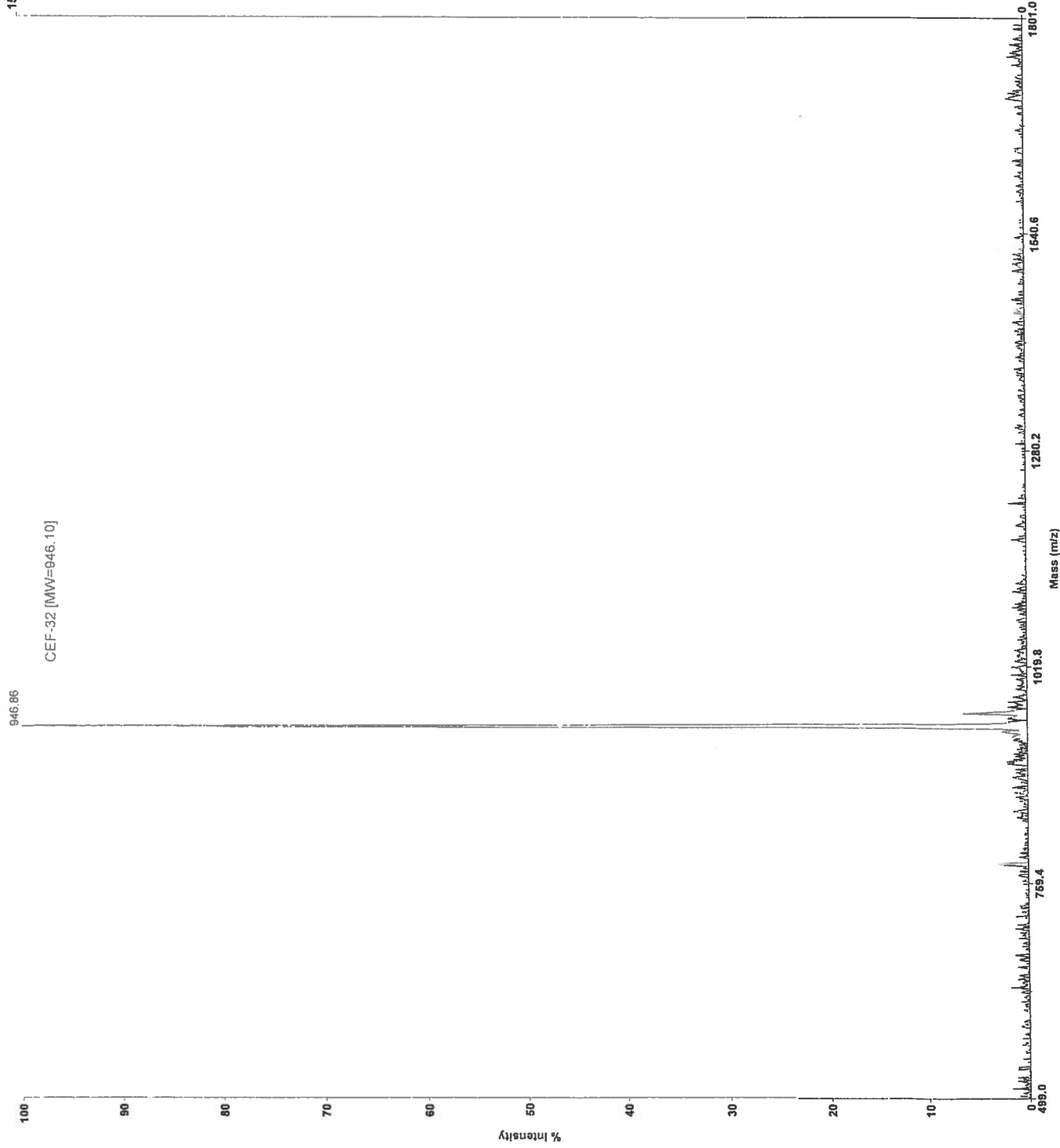
Det Results:

Pk #	Retention Time	Height	Height Percent	Area	Area Percent
1	12.950	15569	0.783	59683	0.525
2	15.700	12858	0.647	72226	0.635
3	15.833	18804	0.946	61838	0.544
4	16.017	1921685	96.702	11083752	97.514
5	16.250	17036	0.857	82354	0.725
6	16.783	1267	0.064	6442	0.057

Totals		1987219	100.000	11366295	100.000
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Applied Biosystems Voyager System 1099

Voyager Spec #1=>SM5=>AdvBC(32,0.5,0.1)[BP = 946.5, 1518]



Mode of operation: Linear
Extraction mode: Delayed
Polarity: Negative
Acquisition control: Manual

Accelerating voltage: 20000 V
Grid voltage: 91%
Guide wire 0: 0.015%
Extraction delay time: 150 nsec

Acquisition mass range: 500 – 1800 Da
Number of laser shots: 100/spectrum
Laser Intensity: 1547
Laser Rep Rate: 3.0 Hz
Calibration type: Default
Calibration matrix: a-Cyano-4-hydroxycinnamic aci
Low mass gate: Off

Digitizer start time: 14.604
Bin size: 4 nsec
Number of data points: 3255
Vertical scale: 200 mV
Vertical offset: 0%
Input bandwidth: 150 MHz

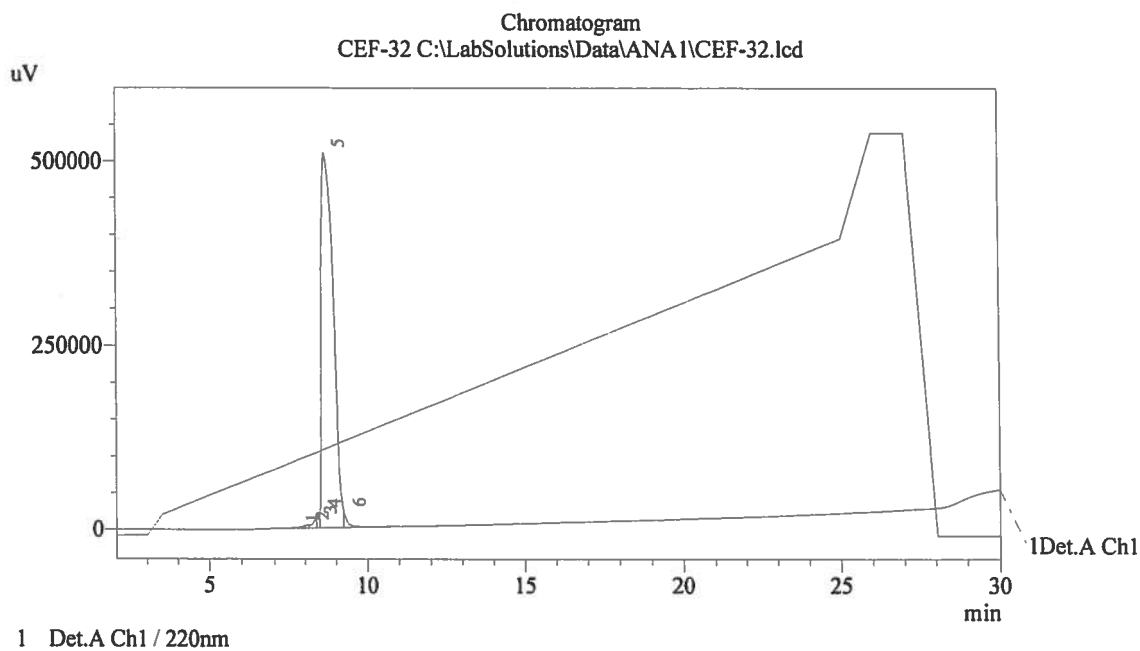
Sample well: 02
Plate ID: 100 WELL PLATE
Serial number: 1099
Instrument name: Voyager-DE
Plate type filename: C:\VOYAGER\100 well plate.plt
Lab name: BioSynthesis, Inc

Absolute x-position: 6848.59
Absolute y-position: 47754.3
Relative x-position: 181.088
Relative y-position: 446.79
Shots in spectrum: 18
Source pressure: 4.914e-007
Mirror pressure: 0
TC2 pressure: 0.001
TIS gate width: 30
TIS flight length: 940

Sample Information

Acquired by : Admin
Sample Name : CEF-32
Sample ID : CEF-32
Data Filename : CEF-32.lcd
Method Filename : ANAPEP1.lcm
Date Acquired : 1/8/2016 10:58:12 AM
Data Processed : 1/8/2016 11:47:21 AM

Column: 250X4.6mm 5u C18 120A
Solvent: A:0.05%TFA in Water; B: 0.05 % TFA in ACN



PeakTable

Detector A Ch1 220nm

Peak#	Ret. Time	Area	Height	Height %	Area %
1	7.754	28434	1334	0.234	0.199
2	8.058	55144	4036	0.709	0.387
3	8.321	104412	12448	2.186	0.732
4	8.458	108127	20959	3.680	0.758
5	8.655	13820082	509015	89.376	96.920
6	9.242	143042	21731	3.816	1.003
Total				100.000	100.000