

Supplementary Information

New triazole based hybrids as neurotropic agents

Samvel N. Sirakanyan,^a Domenico Spinelli,^b Athina Geronikaki,^{*c} Elmira K. Hakobyan,^{*a} Anti Petrou,^c Victor G. Kartsev,^d Hasmik A. Yegoryan,^a Ervand G. Paronikyan,^a Luca Zuppiroli,^e Hasmik V. Jughetsyan,^a Ruzanna G. Paronikyan,^a Tatevik A. Arakelyan^a and Anush A. Hovakimyan^a

^a Scientific Technological Center of Organic and Pharmaceutical Chemistry of National Academy of Science of Republic of Armenia, Institute of Fine Organic Chemistry of A.L.Mnjoyan, Armenia 0014, Yerevan, Ave. Azatutyun 26; shnmr@mail.ru

^b Dipartimento di Chimica G. Ciamician, Alma Mater Studiorum-Università di Bologna, Via F. Selmi 2, Bologna 40126, Italy; domenico.spinelli@unibo.it

^c Aristotle University of Thessaloniki, School of Pharmacy, Thessaloniki54124, Greece; geronik@pharm.auth.gr;

^d InterBioScreen, Moscow 119019, Russia; vkartsev@ibscreen.chg.ru

^e Department of Industrial Chemistry 'Toso Montanari', Alma Mater Studiorum-Università di Bologna, Viale del Risorgimento 4, 40136 Bologna, Italy; luca.zuppiroli@unibo.it

*Corresponding authors

Athina Geronikaki email: geronik@pharm.auth.gr;

Elmira Hakobyan email: hakobyan.elmira@mail.ru

The copies of ¹H, ¹³C NMR and MS spectra of all new synthesized compounds

20

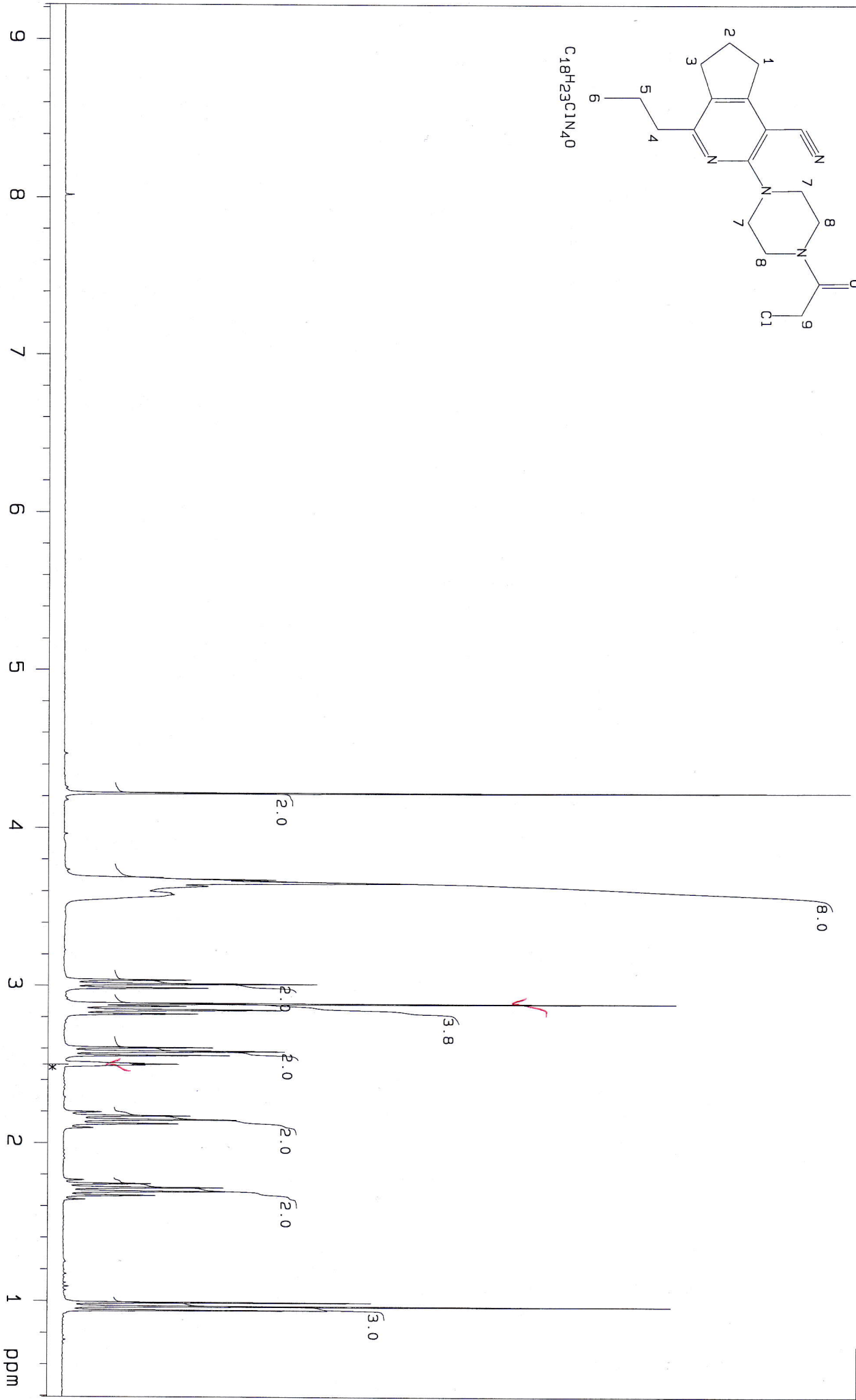
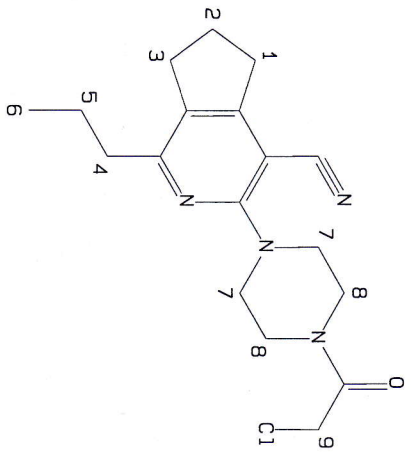
Molecular Structure Research Centre, Yerevan, Armenia, Varian Mercury-300VX
HE-458

H1 300.088 MHz, nt=16, np=32000, temp=30.0 C, lb=-0.2, solvent=DMSO/CCL4 1/3

NOCI_19 he-458

May 15 2019

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Prove

200

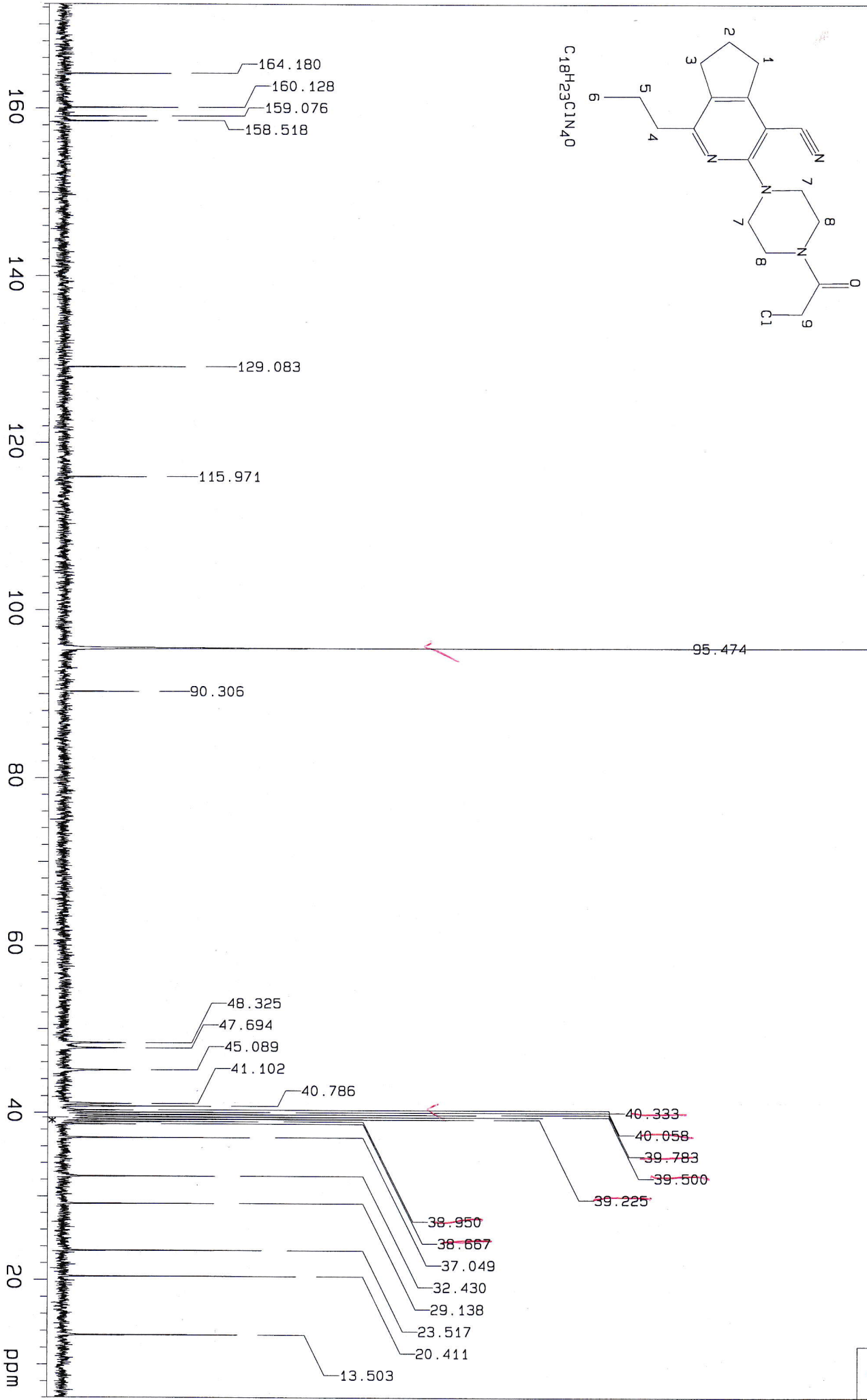
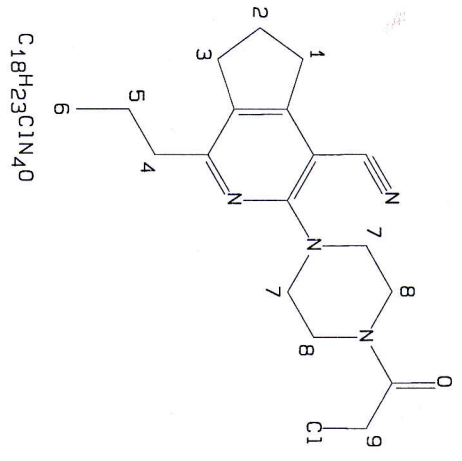
Molecular Structure Research Centre, Yerevan, Armenia, Varian Mercury-300VX

HE-458

C13 75.465 MHz, nt = 2144, np = 19998, temp = 30.0 C, lb = 1.0, solvent = DMSO/C4 1/3

NOCI_19 he-458

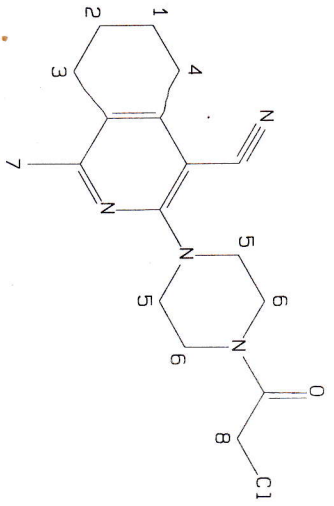
May 15 2019



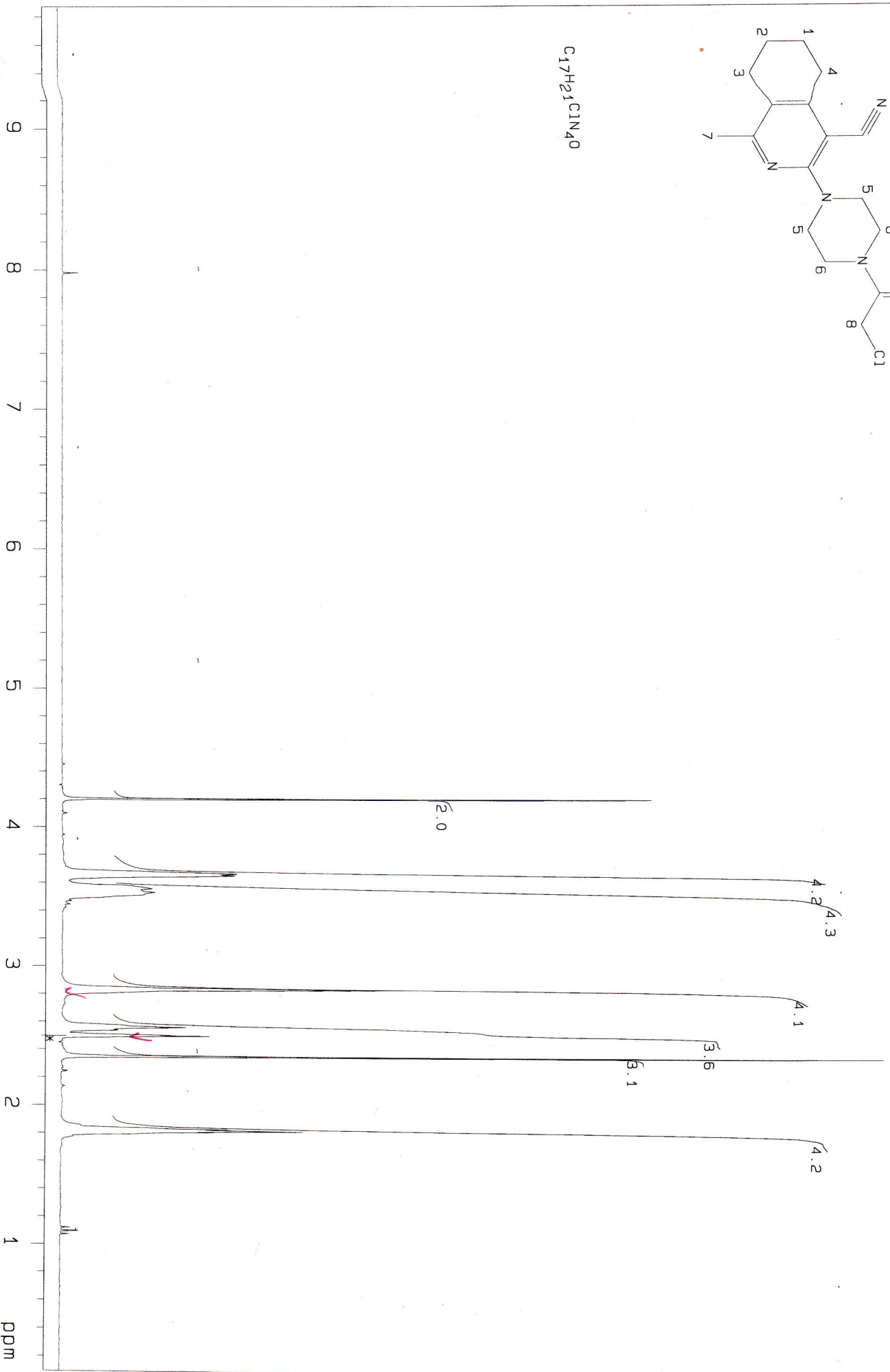
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S05-019

2c

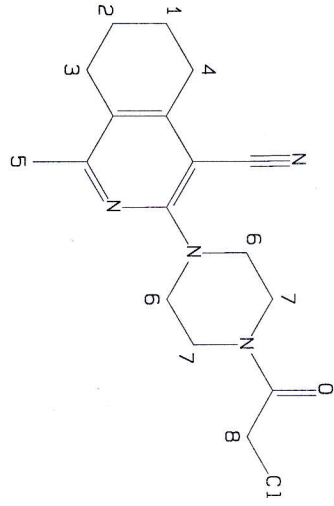


C₁₇H₂₁CIN₄O

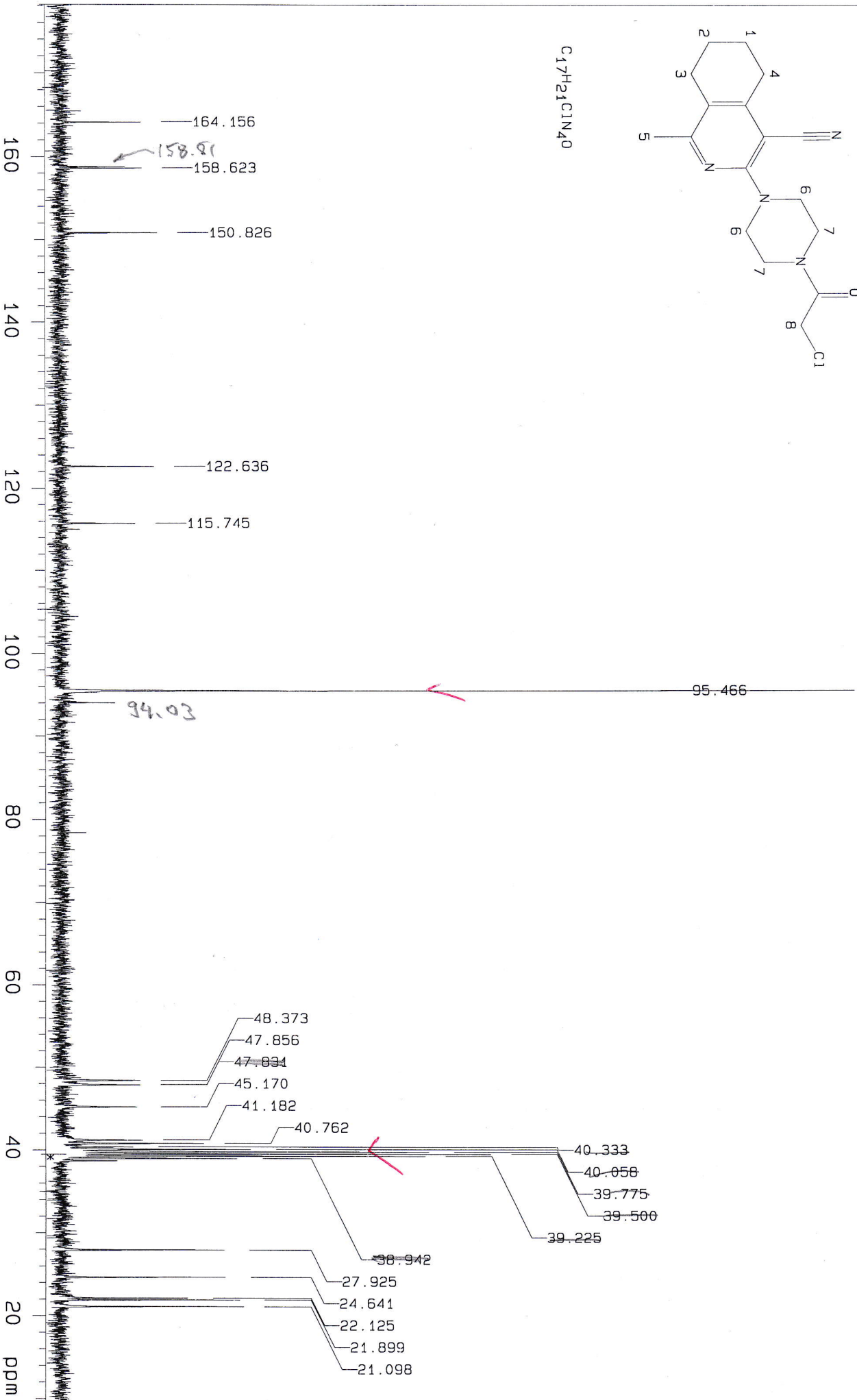


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T20-180



C₁₇H₂₁N₃O



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2d

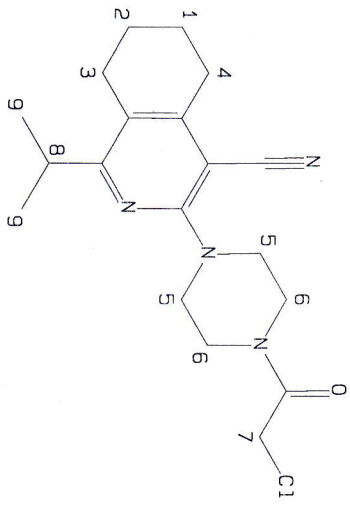
Molecular Structure Research Centre, Yerevan, Armenia, Varian Mercury-300VX
HE-574

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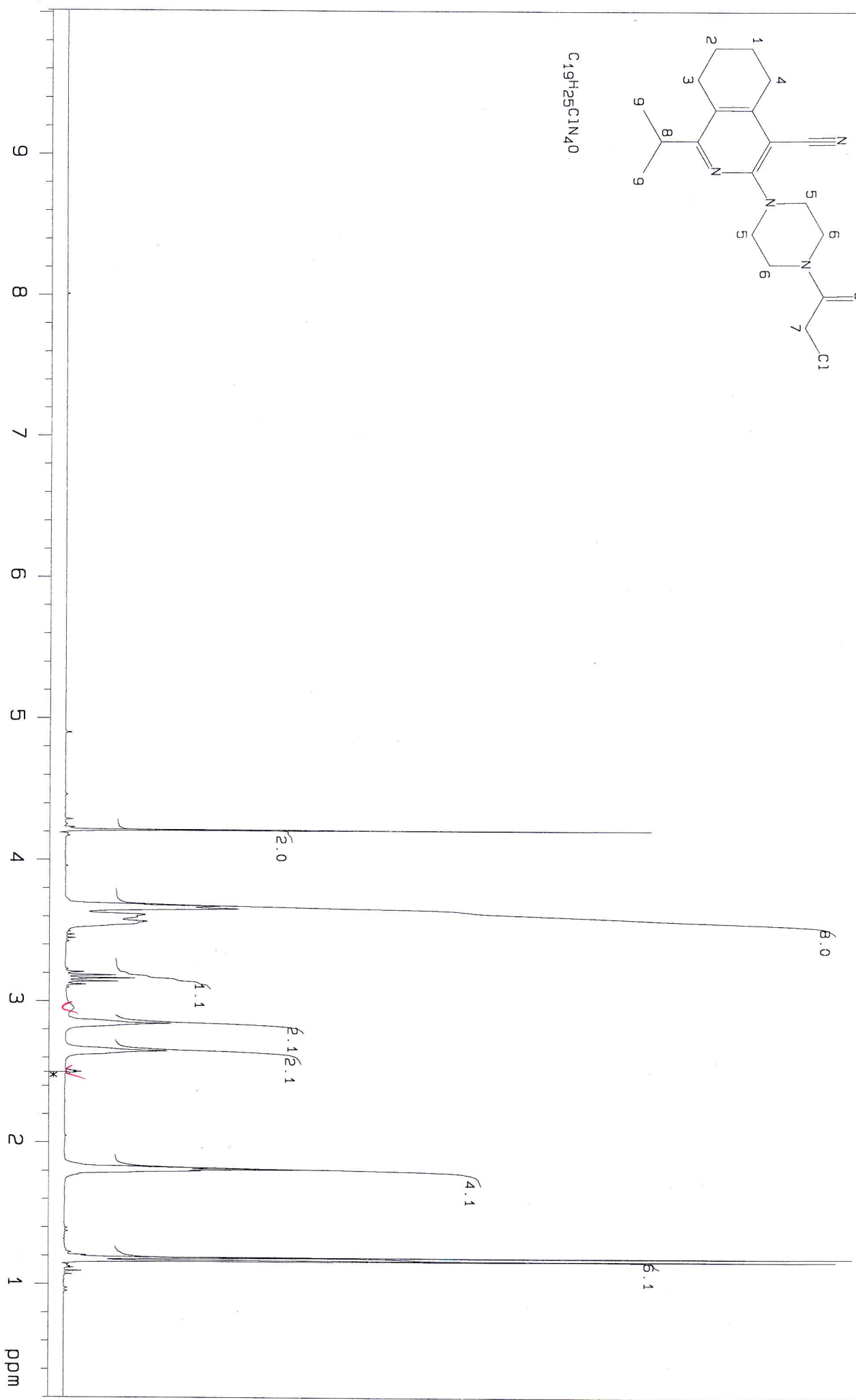
ANUSH_TEMA he-574

Mar 15 2021

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C₁₉H₂₅CIN₄O



28

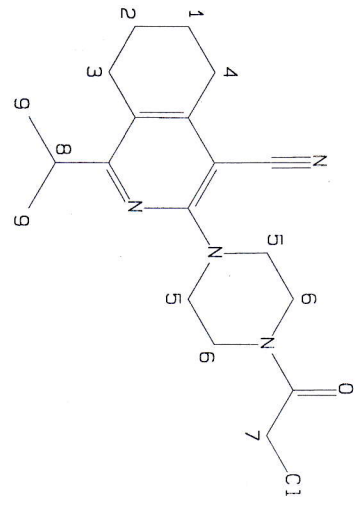
Molecular Structure Research Centre, Yerevan, Armenia, Varian Mercury-300VX
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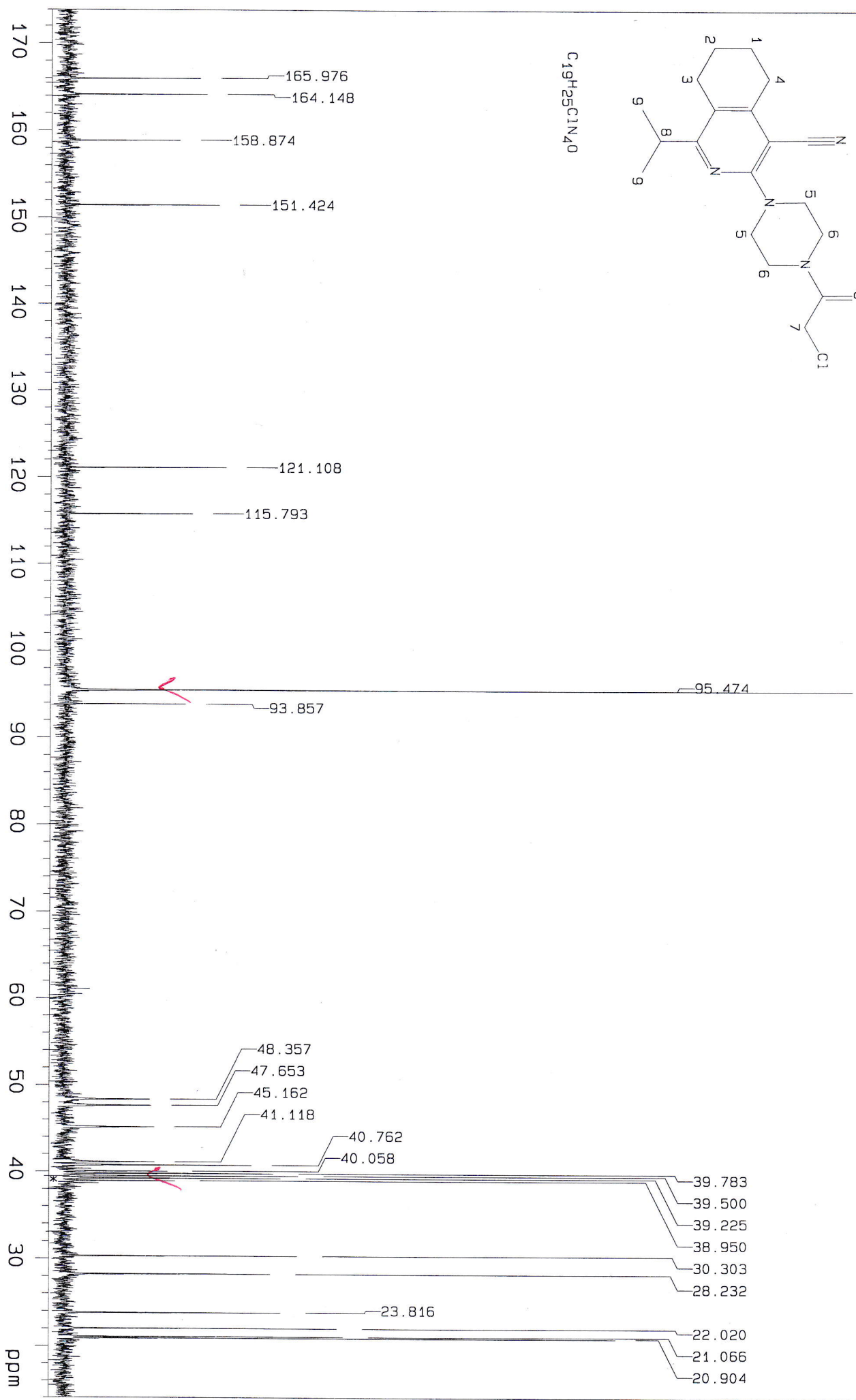
ANUSH_TEMA he-574

Mar 15 2021

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[Signature]



C₁₉H₂₅CIN₄O



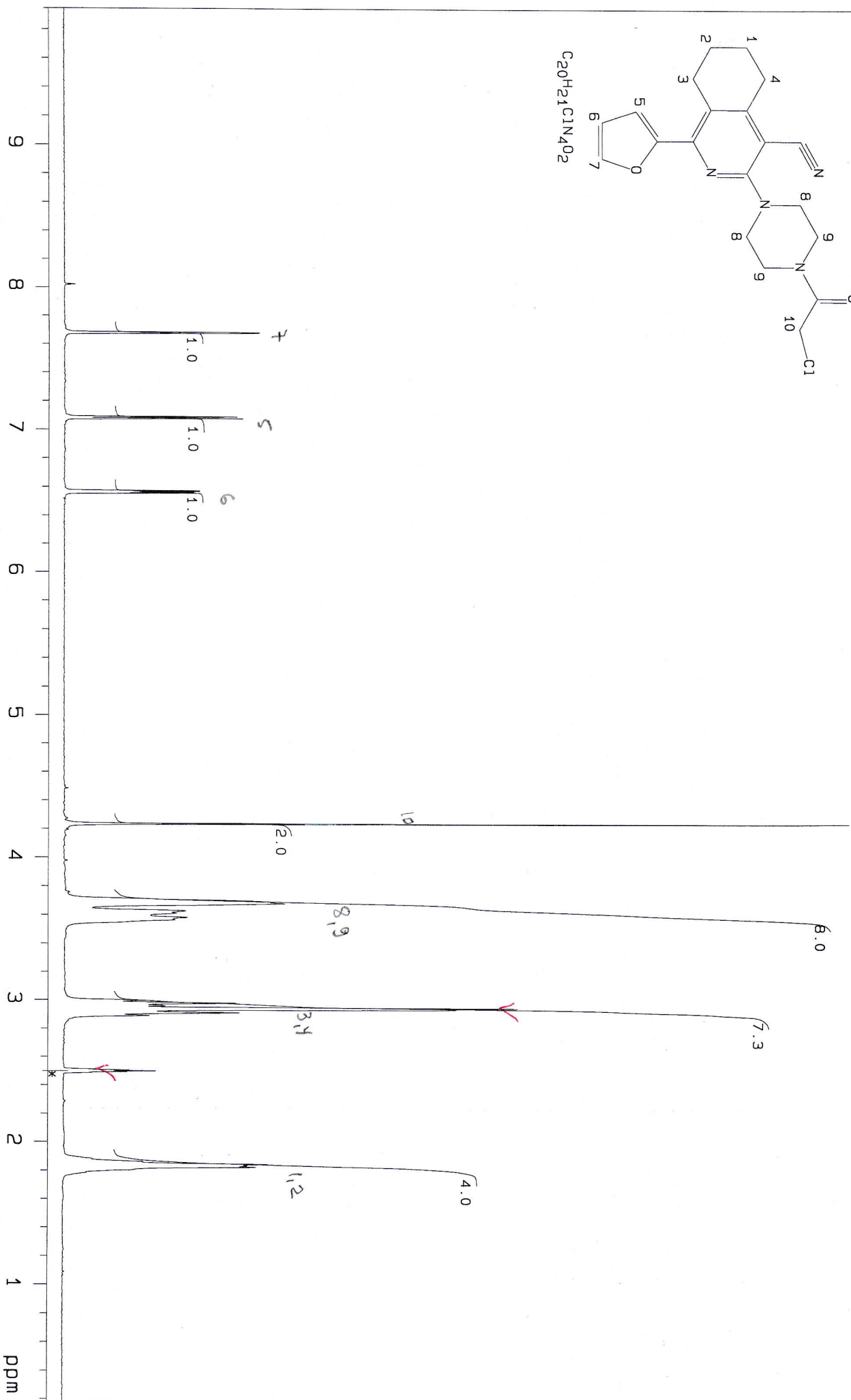
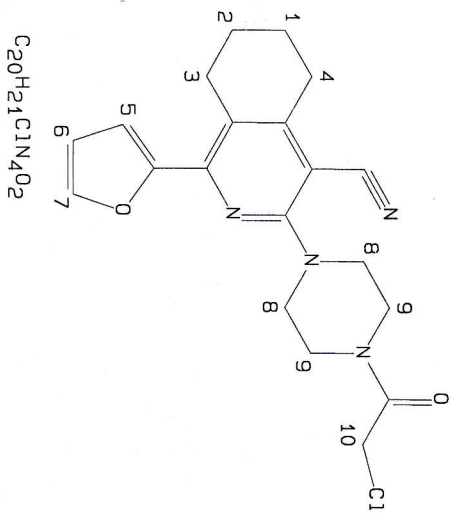
2e

Molecular Structure Research Centre, Yerevan, Armenia, Varian Mercury-300YX
HE-468

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NOCI_19 h = 468

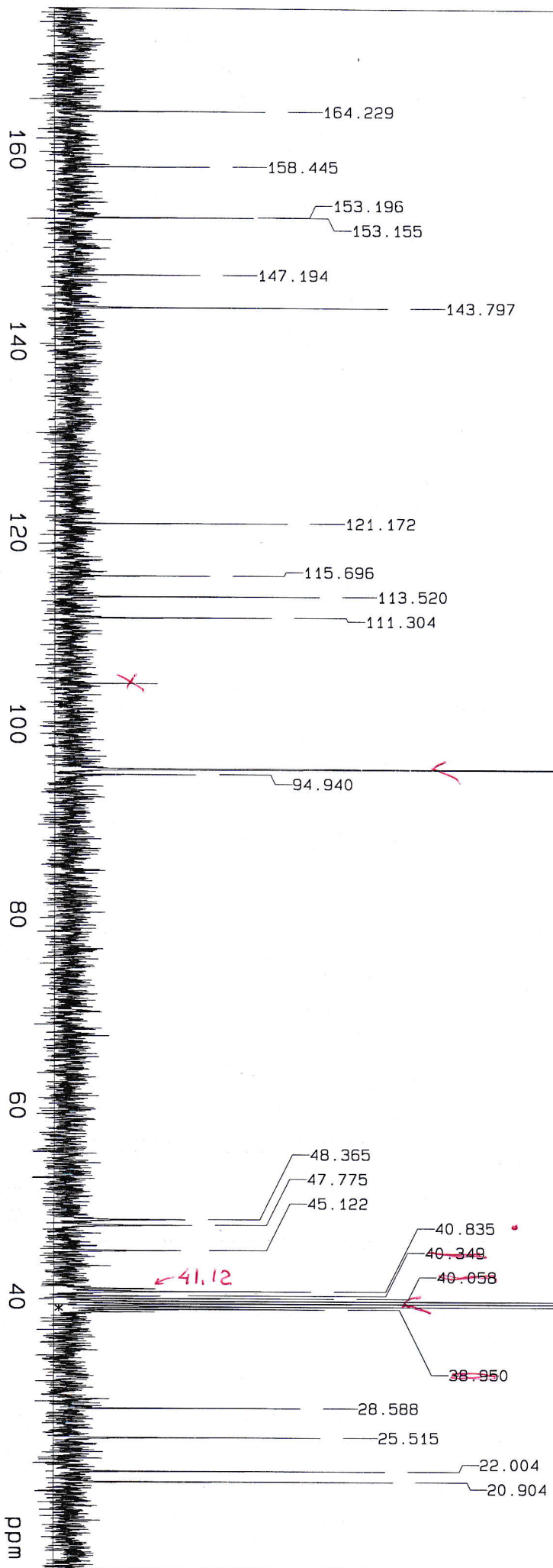
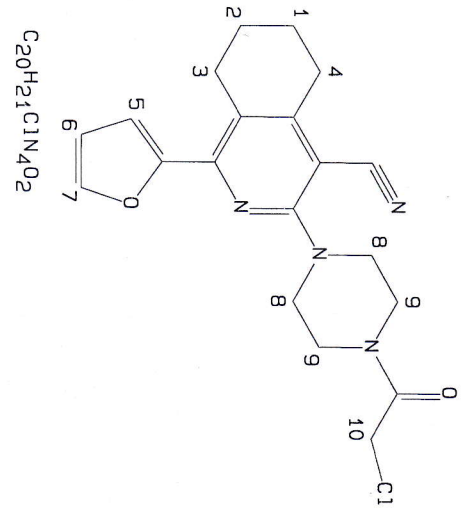
Jun 6 2019

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Phases

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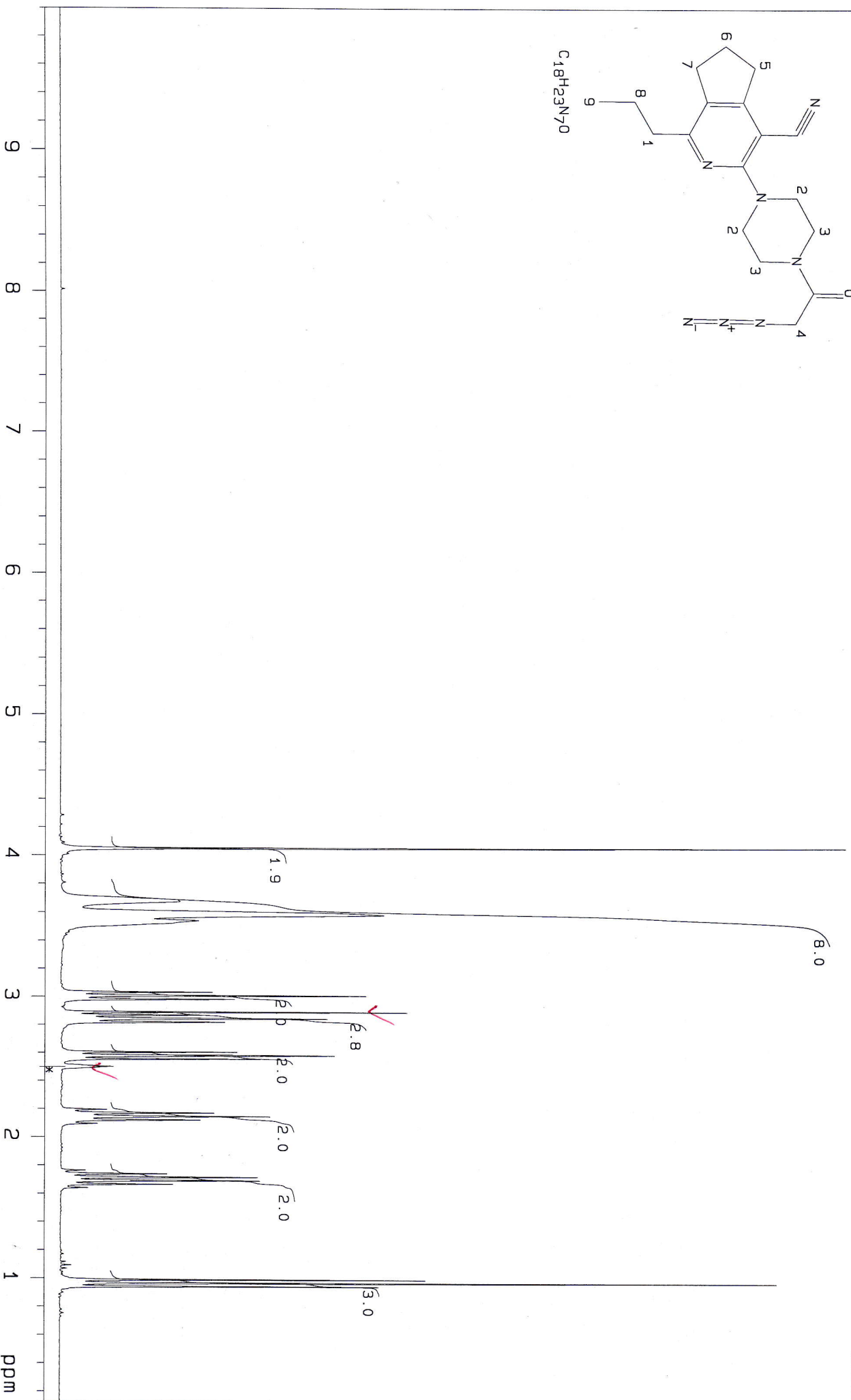
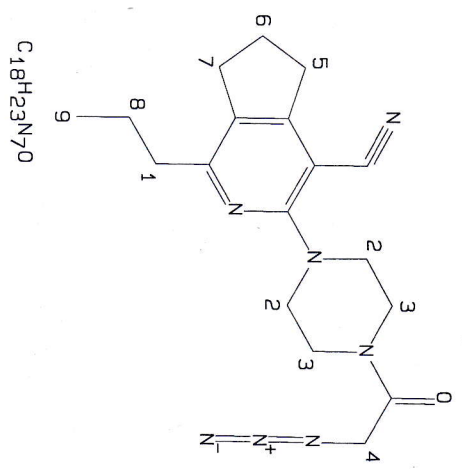
Molecular Structure Research Centre, Yerevan, Armenia, Varian Mercury-300VX
HA-1045

H1 300.088 MHz, nt = 16, np = 32000, temp = 30.0 C, lb = -0.2, solvent = DMSO/Cd4 1/3
SAMV_19 ha-1045

May 23 2019

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3a

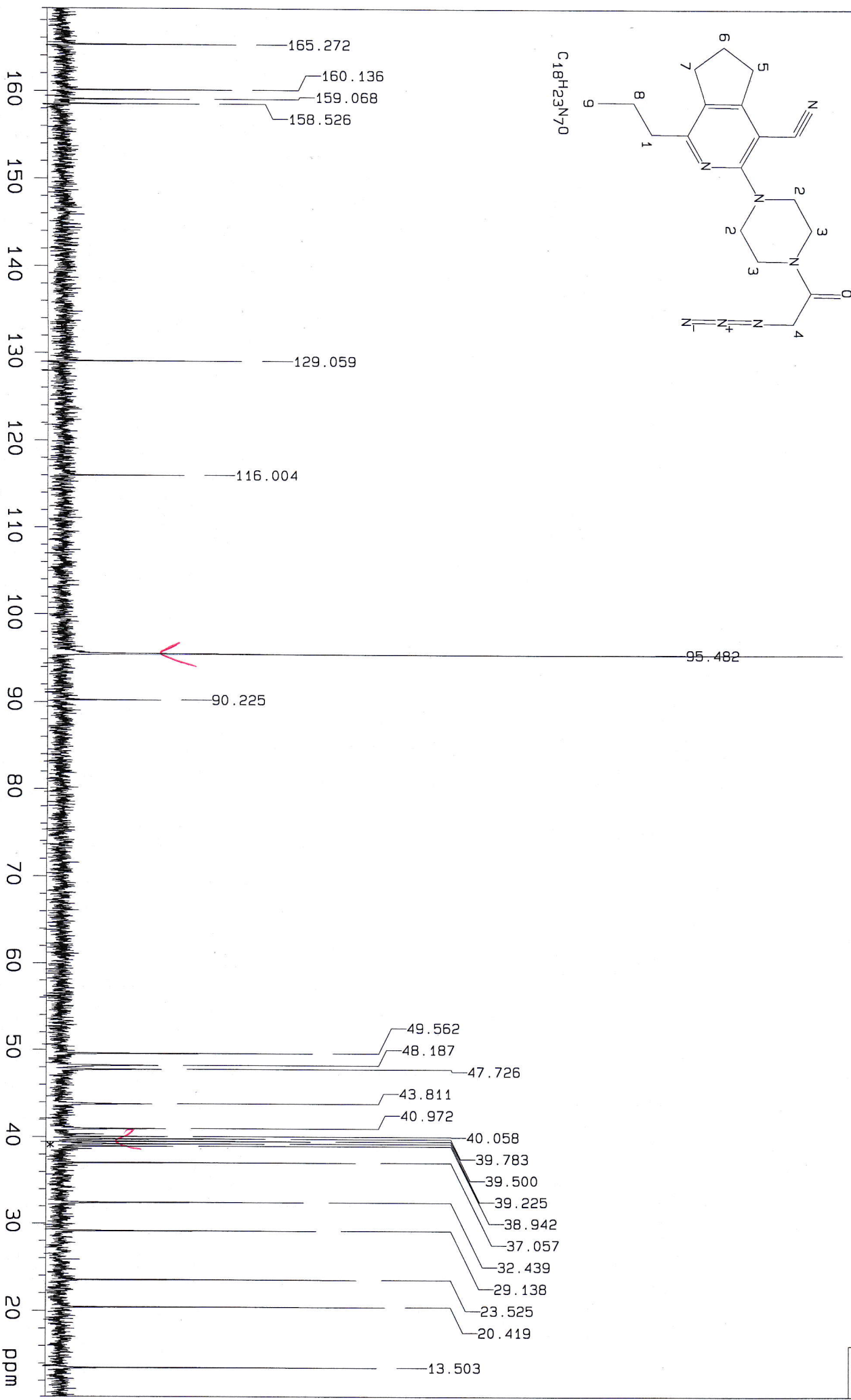
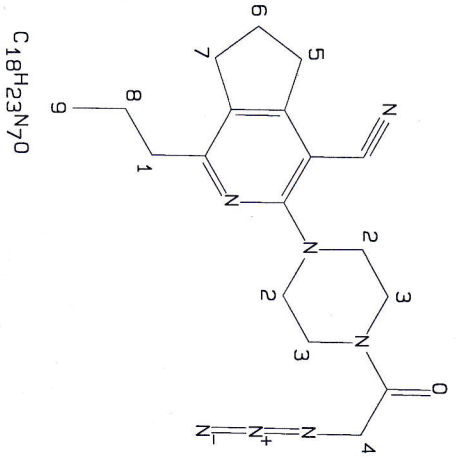
Molecular Structure Research Centre, Yerevan, Armenia, Varian Mercury-300VX
HA-1045

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SAMV_19 ha-1045

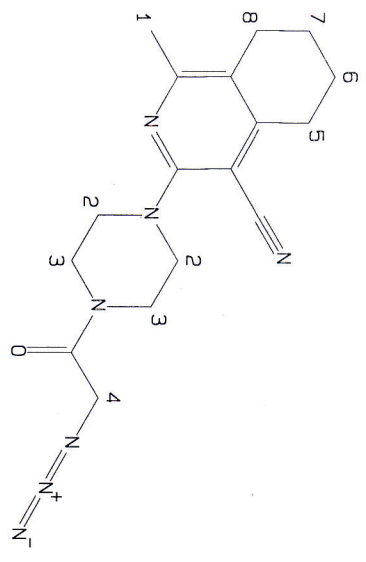
May 23 2019

+ *[Signature]*

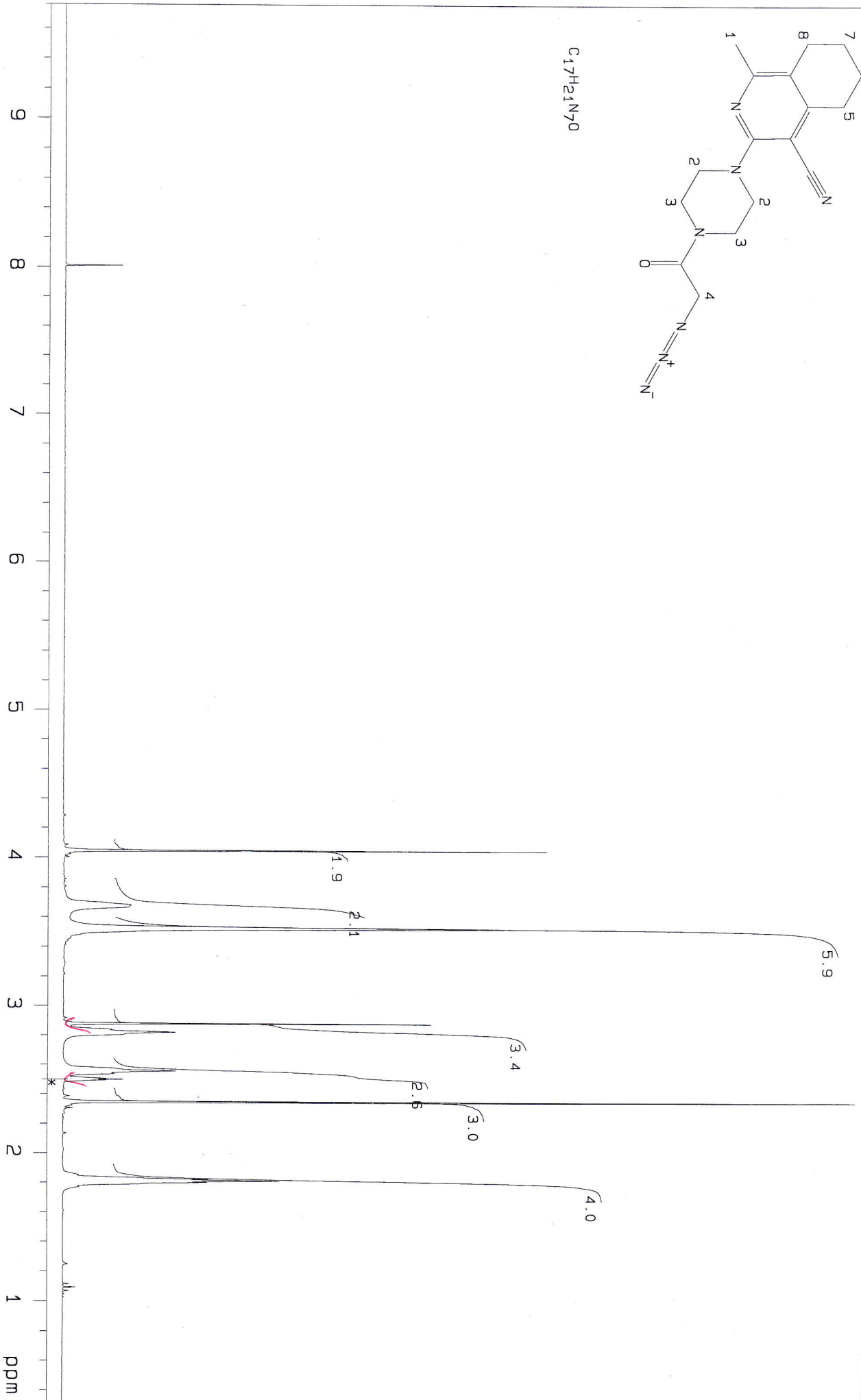


3c

T20-181



C₁₇H₂₁N₇O



+ Conf

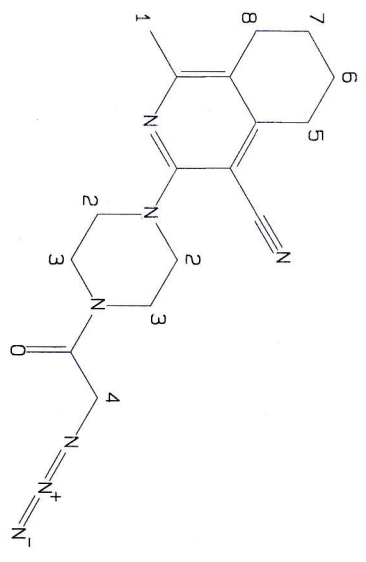
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T20-181

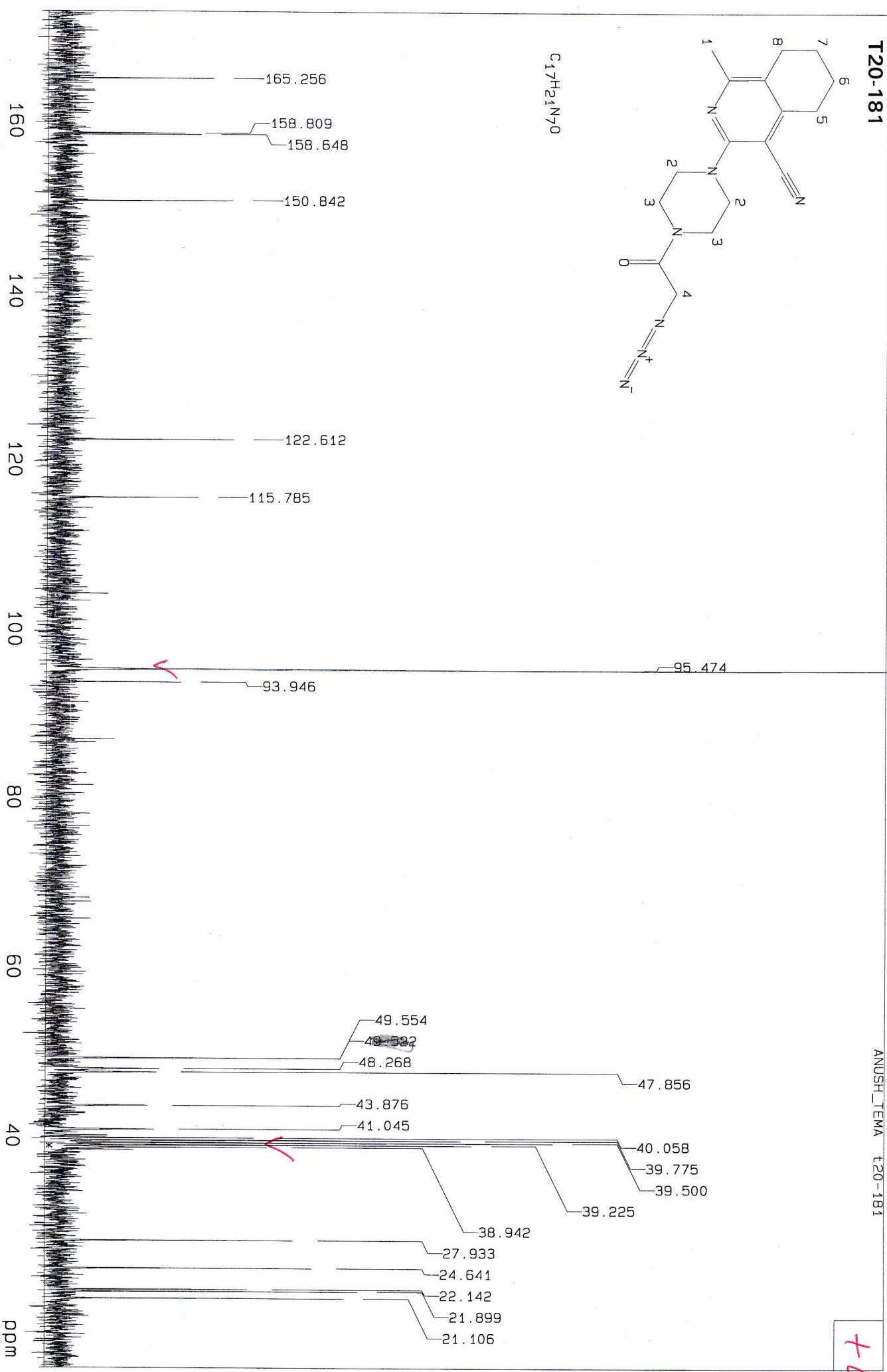
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ANUSH_TEMA t20-181

Mar 24 2022



C₁₇H₂₁N₇O



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3d

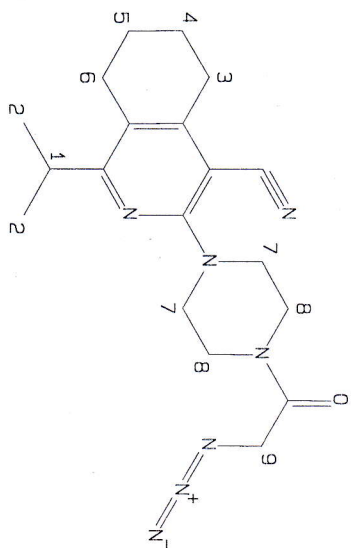
Molecular Structure Research Centre, Yerevan, Armenia, Varian Mercury-300VX

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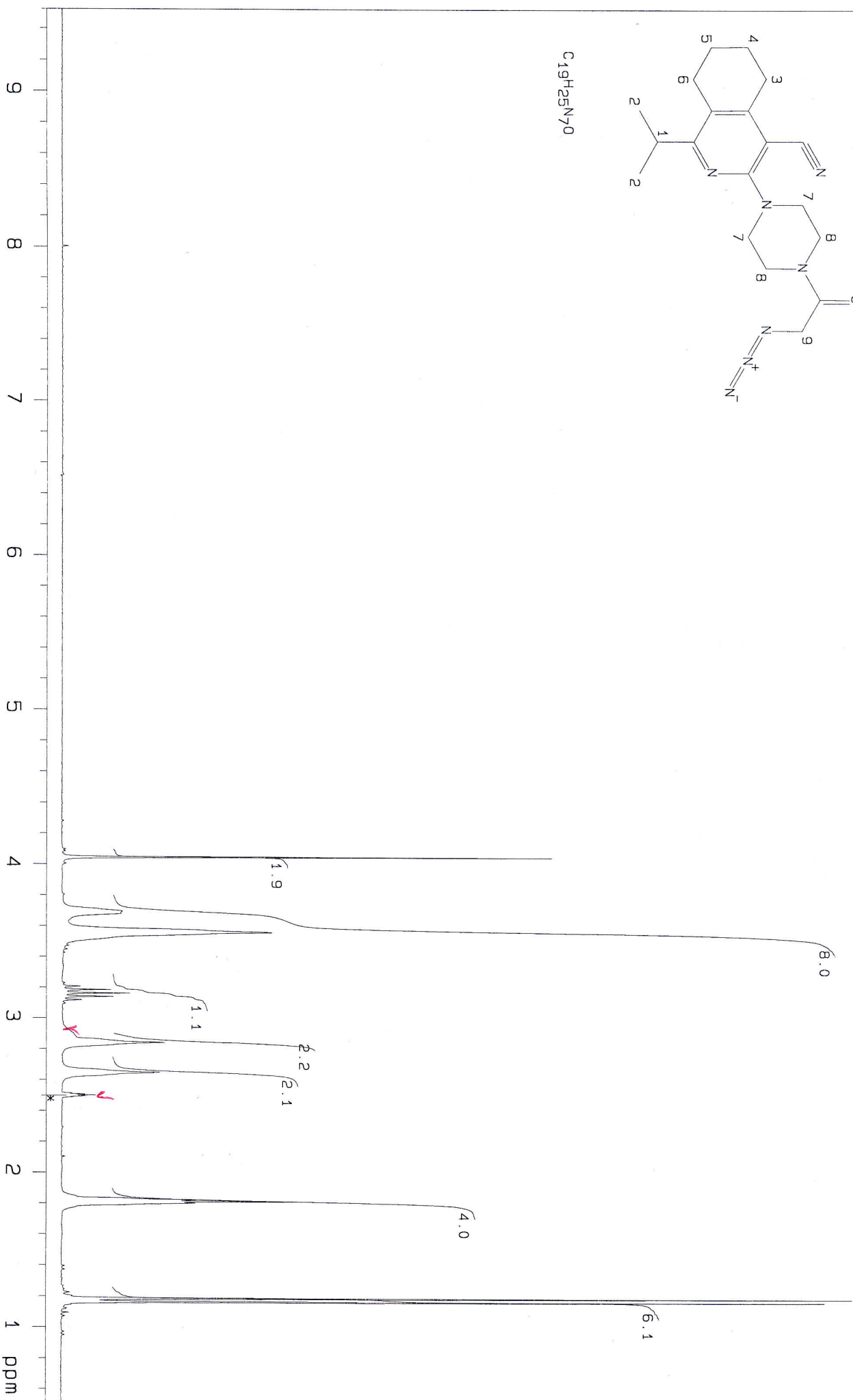
T20-051

ANUSH_TEMVA f20-051

Mar 22 2021



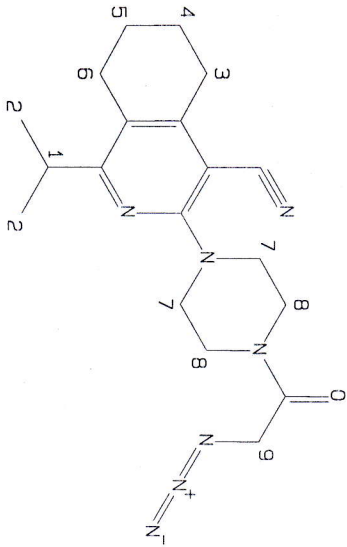
C₁₉H₂₅N₇O



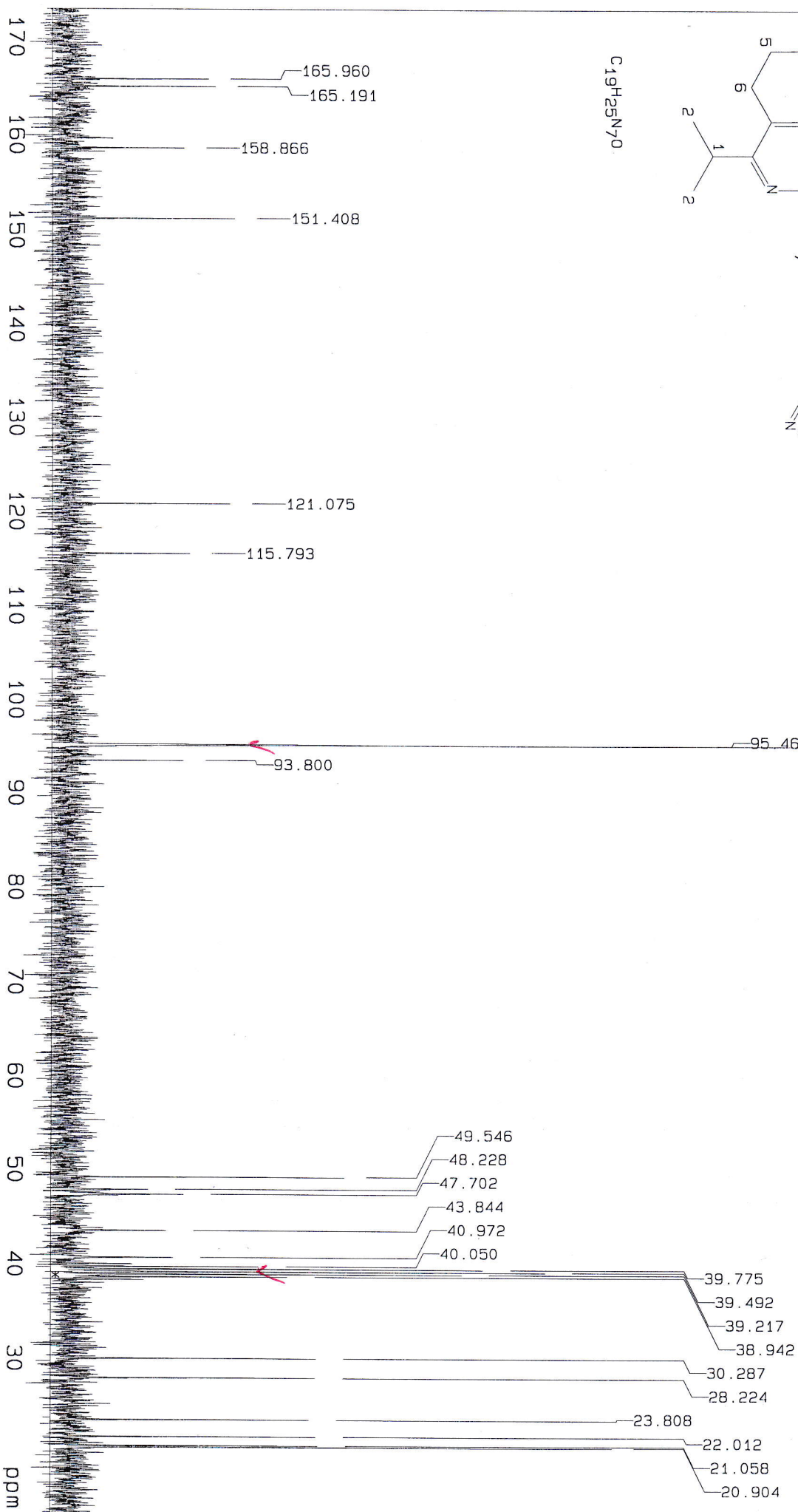
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3d

T20-051



C₁₉H₂₅N₇O



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3e

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Molecular Structure Research Centre, Yerevan, Armenia, Varian Mercury-300VX

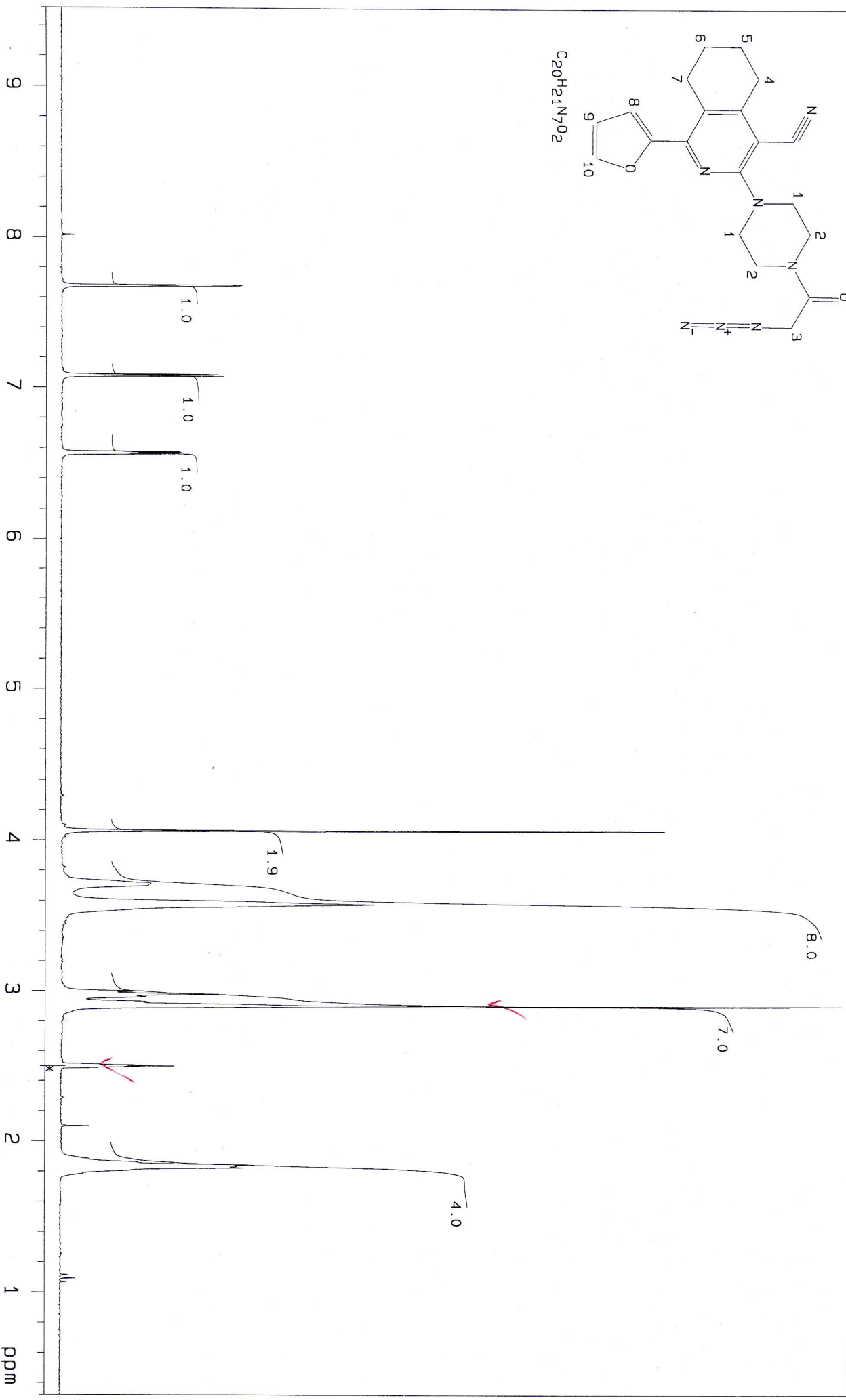
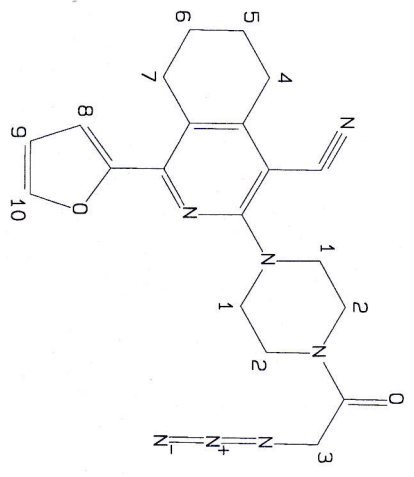
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Jun 28 2019

HA-1048-2

SAMV_19 ha-1048-2

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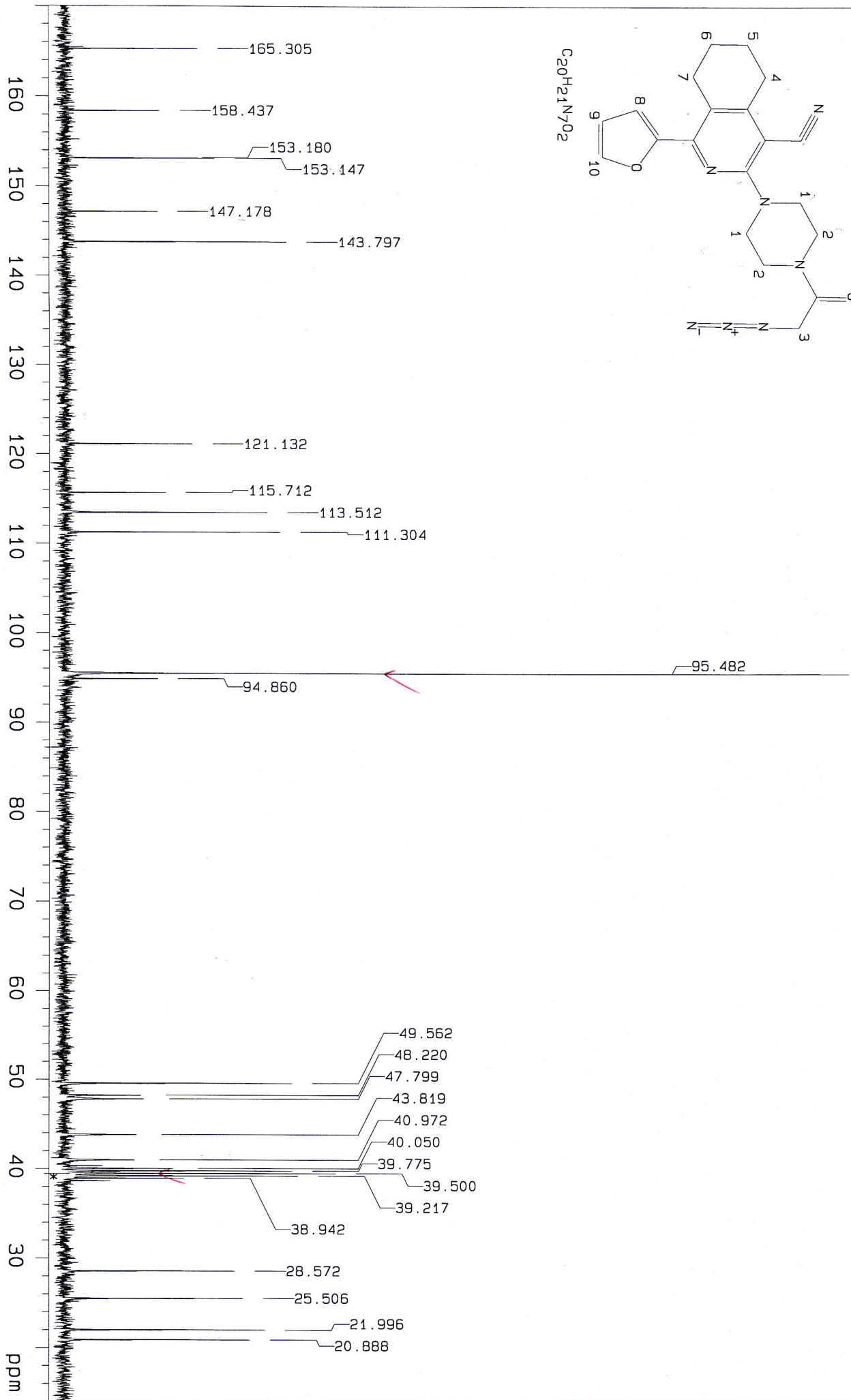
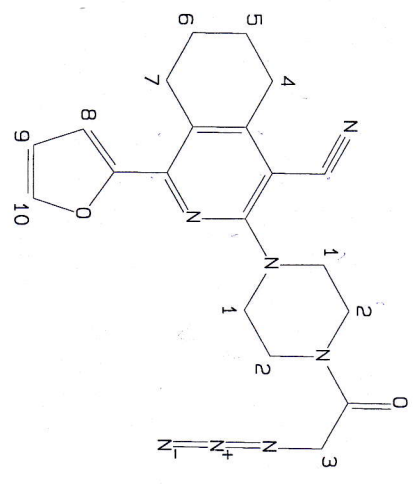
3e

Molecular Structure Research Centre, Yerevan, Armenia, Varian Mercury-300VX
HA-1048-2

C13 75.465 MHz, nt = 624, np = 19998, temp = 30.0 C, lb = 1.0, solvent = DMSO/CCL4 1/3

SAMV_19 ha-1048-2

Jun 28 2019



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Arpac

Molecular Structure Research Centre, Yerevan, Armenia, Varian Mercury-300VX

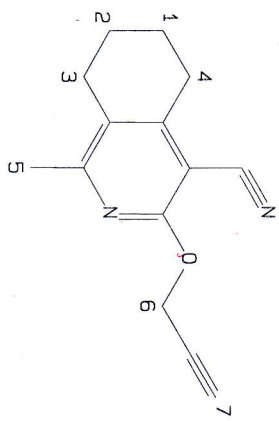
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May 17 2022

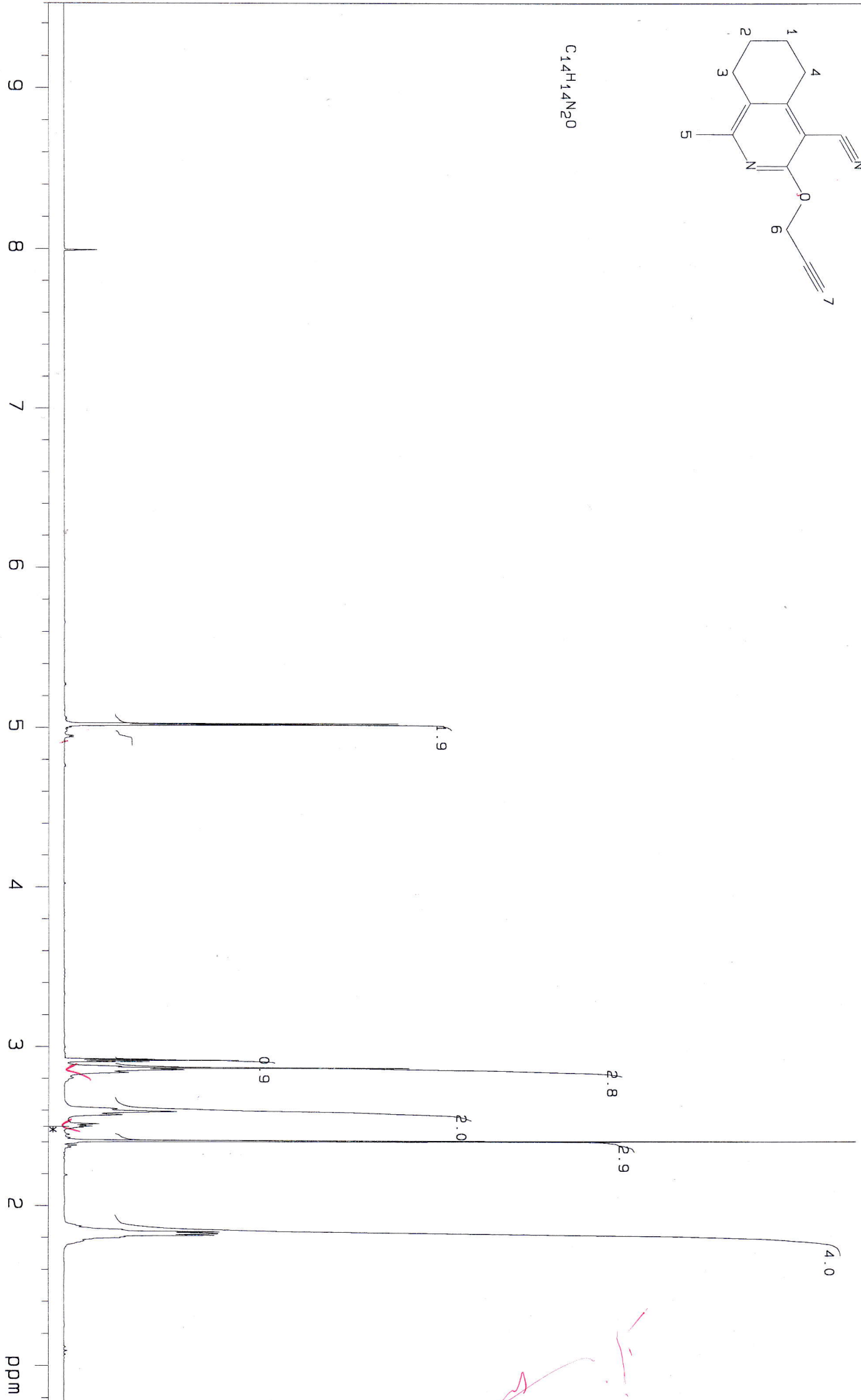
T20-145-3

ANUSH_TEMA t20-145-3

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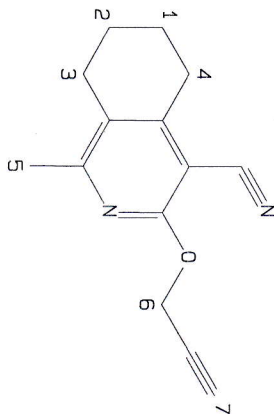
C₁₄H₁₄N₂O



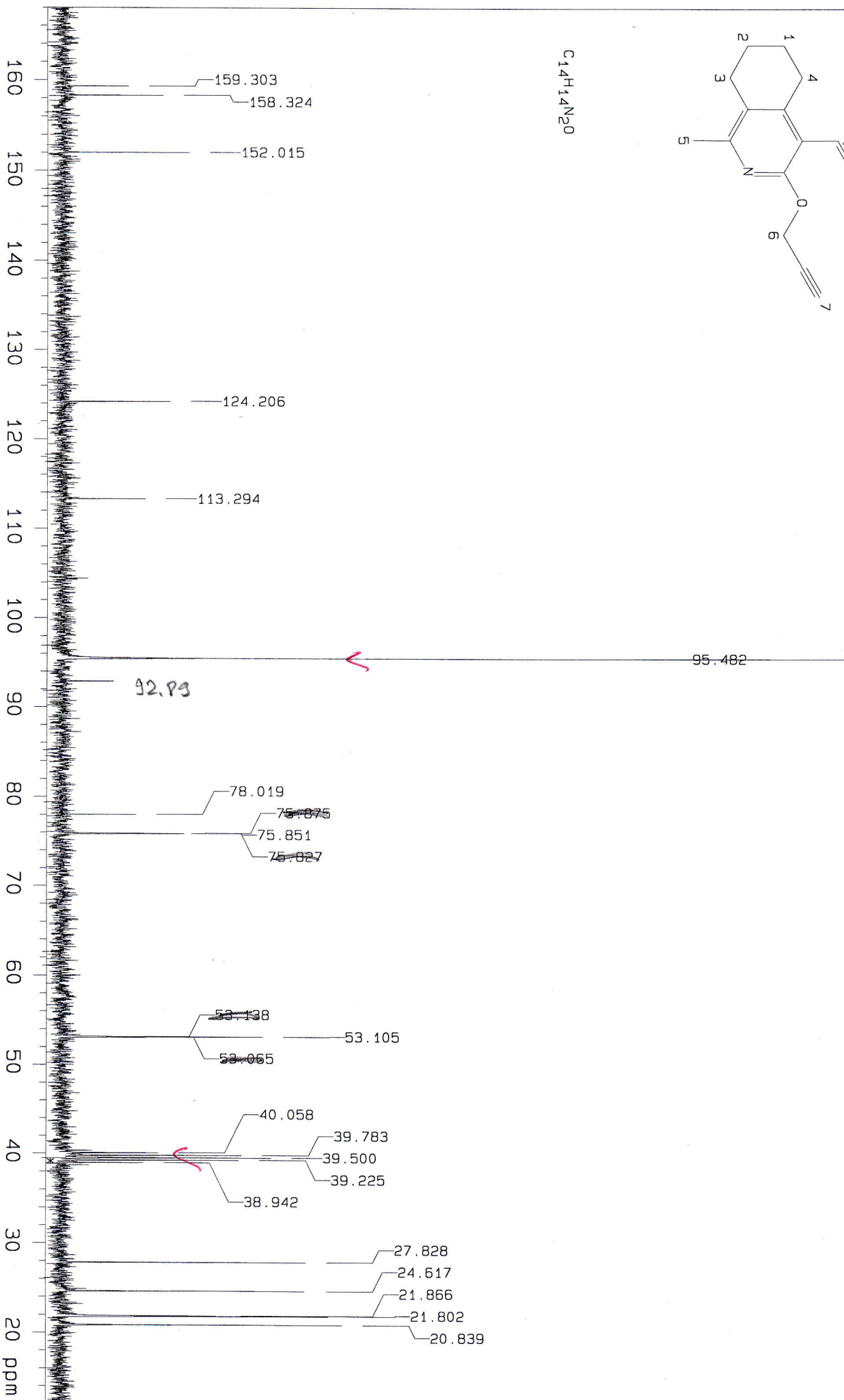
56

T20-145-3

ANUSH_TEMA T20-145-3



C₁₄H₁₄N₂O

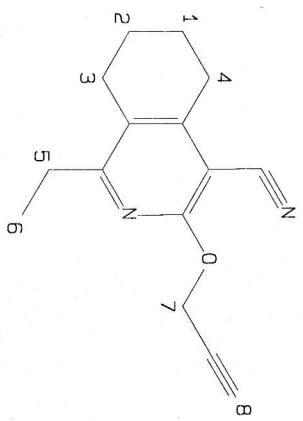


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[Signature]

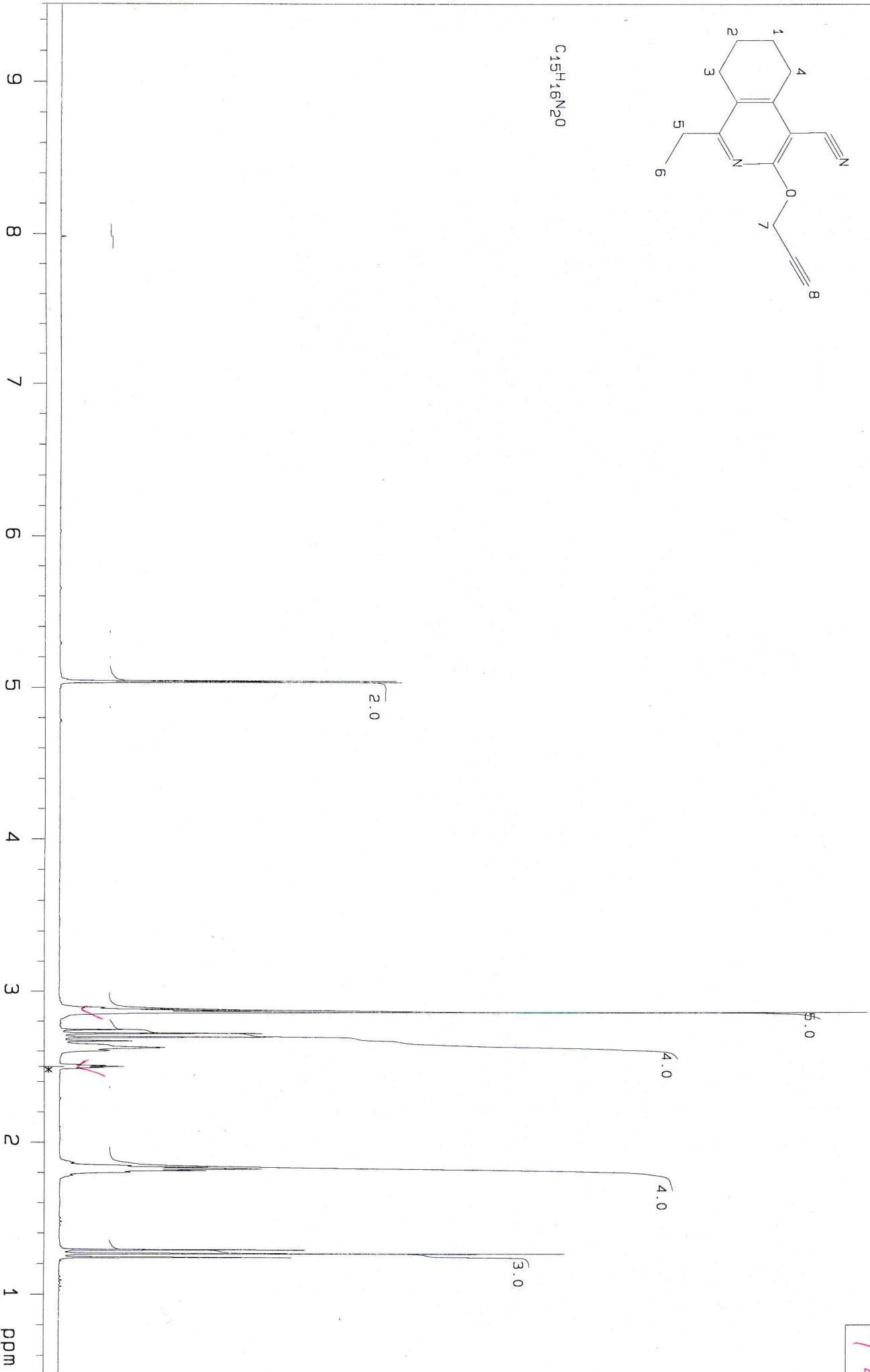
5c

HA-996

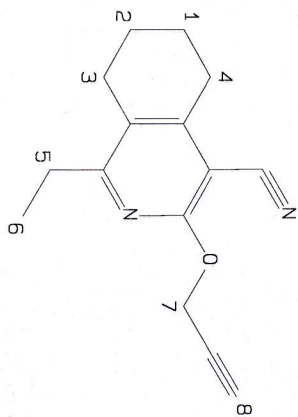
SAMV_18 ha-996



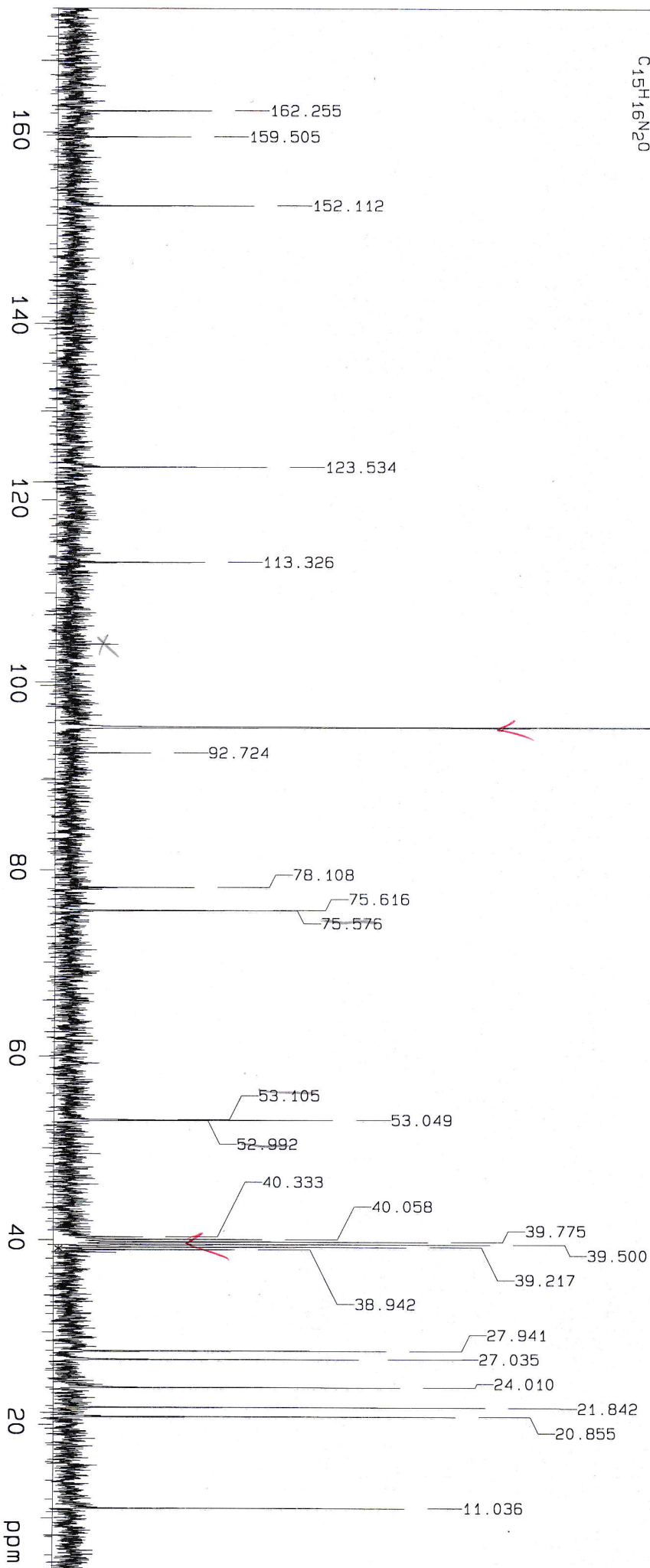
C₁₅H₁₄N₂O



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C₁₅H₁₆N₂O

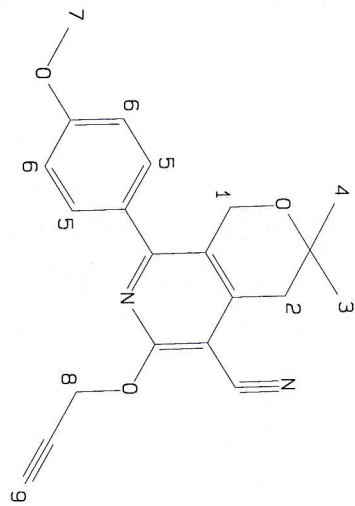


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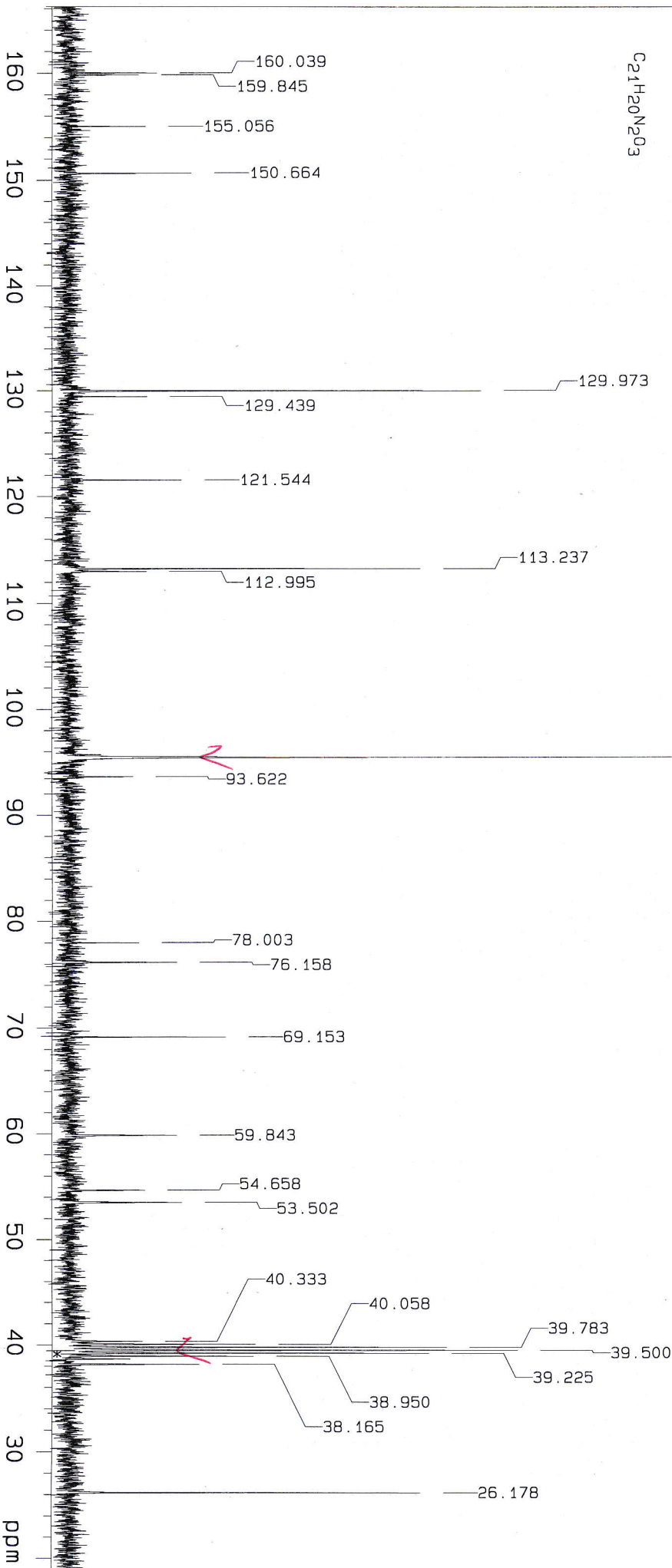
5h

HA-1011

SAMV_19 ha-1011



C₂₁H₂₀N₂O₃



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[Signature]

52

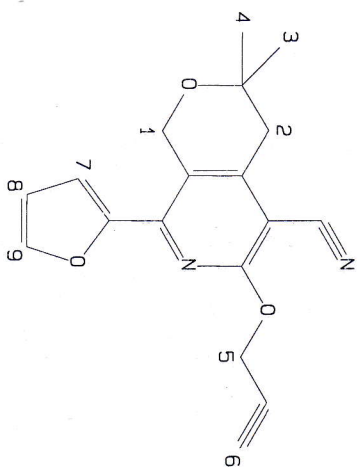
Molecular Structure Research Centre, Yerevan, Armenia, Varian Mercury-300VX

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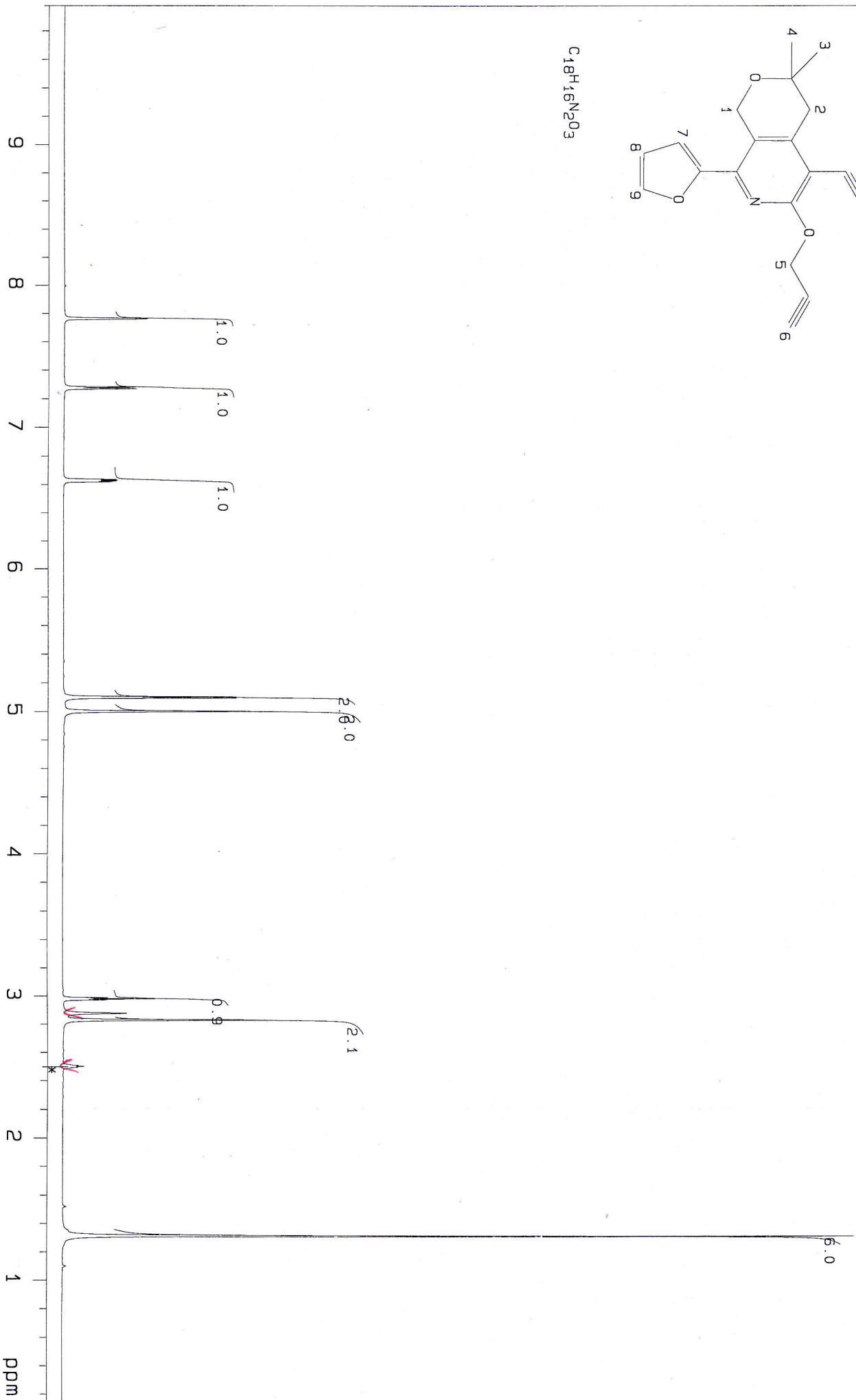
Dec 5 2018

HA-1000

SAMV_18 ha-1000



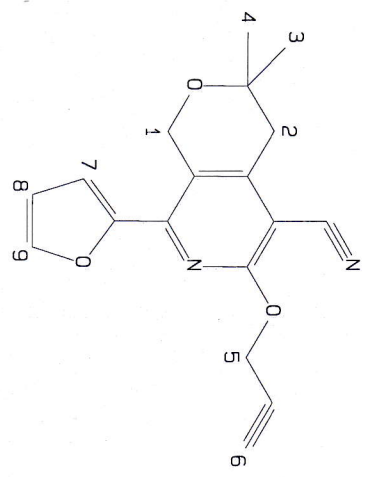
C₁₈H₁₆N₂O₃



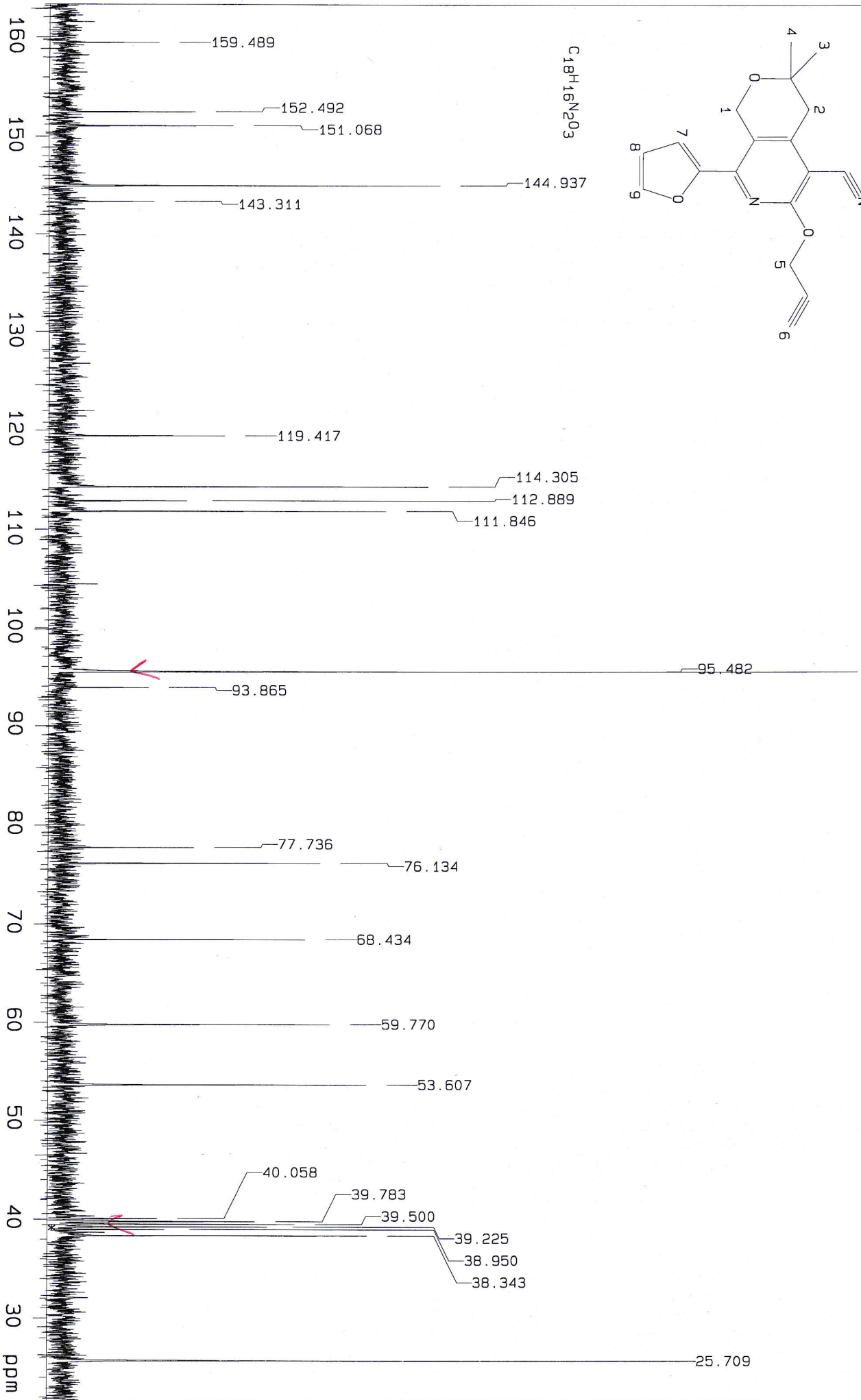
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5i

HA-1000



C₁₈H₁₆N₂O₃



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[Signature]

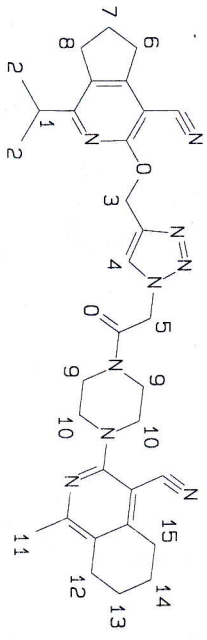
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Molecular Structure Research Centre, Yerevan, Armenia, Varian Mercury-300VX
HA-1004

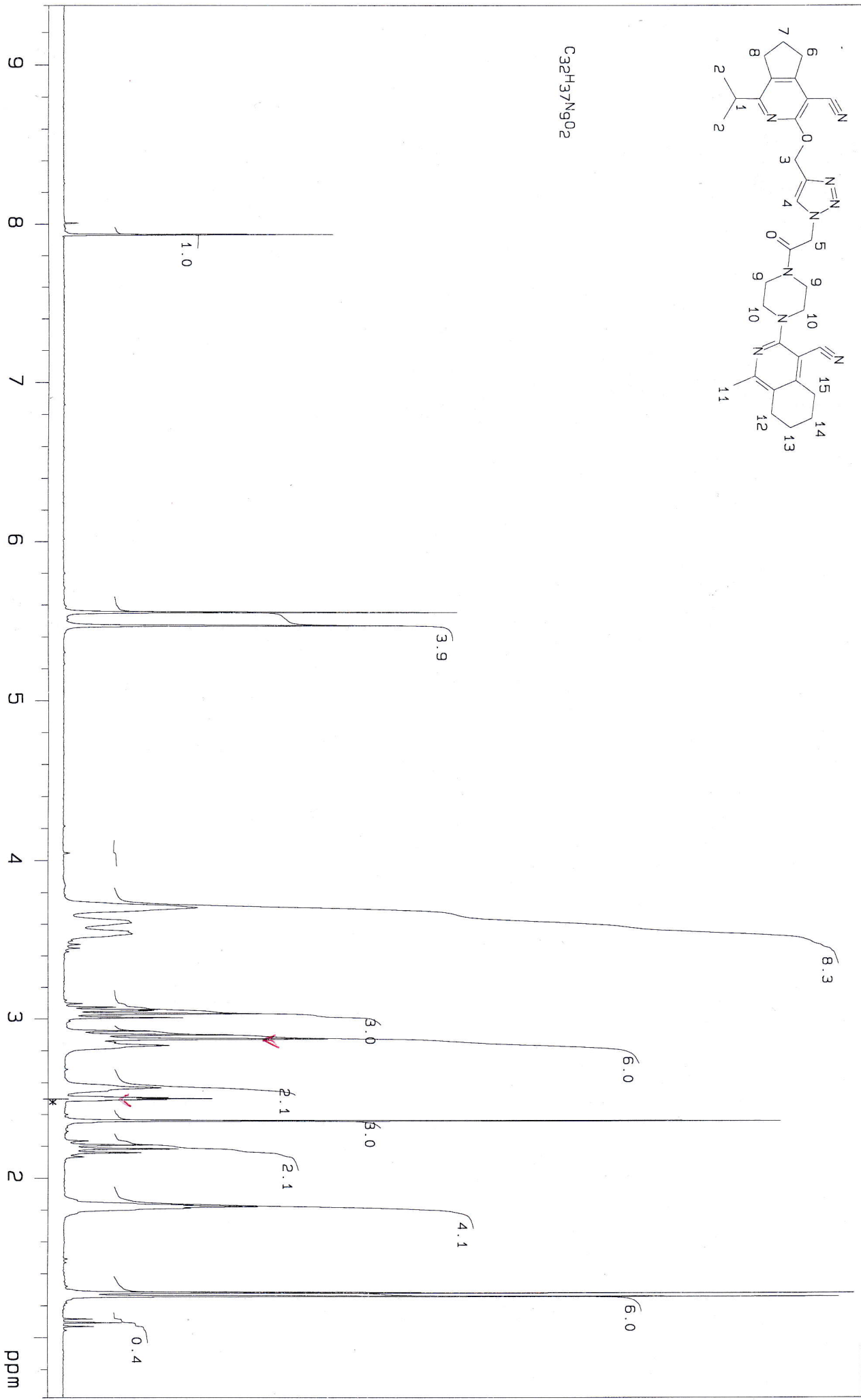
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SAMV_19 na-1004

Feb 1 2019



C₃₂H₃₇N₉O₂

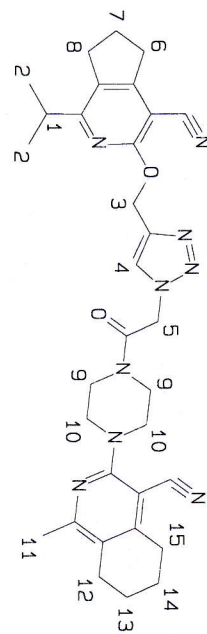


66

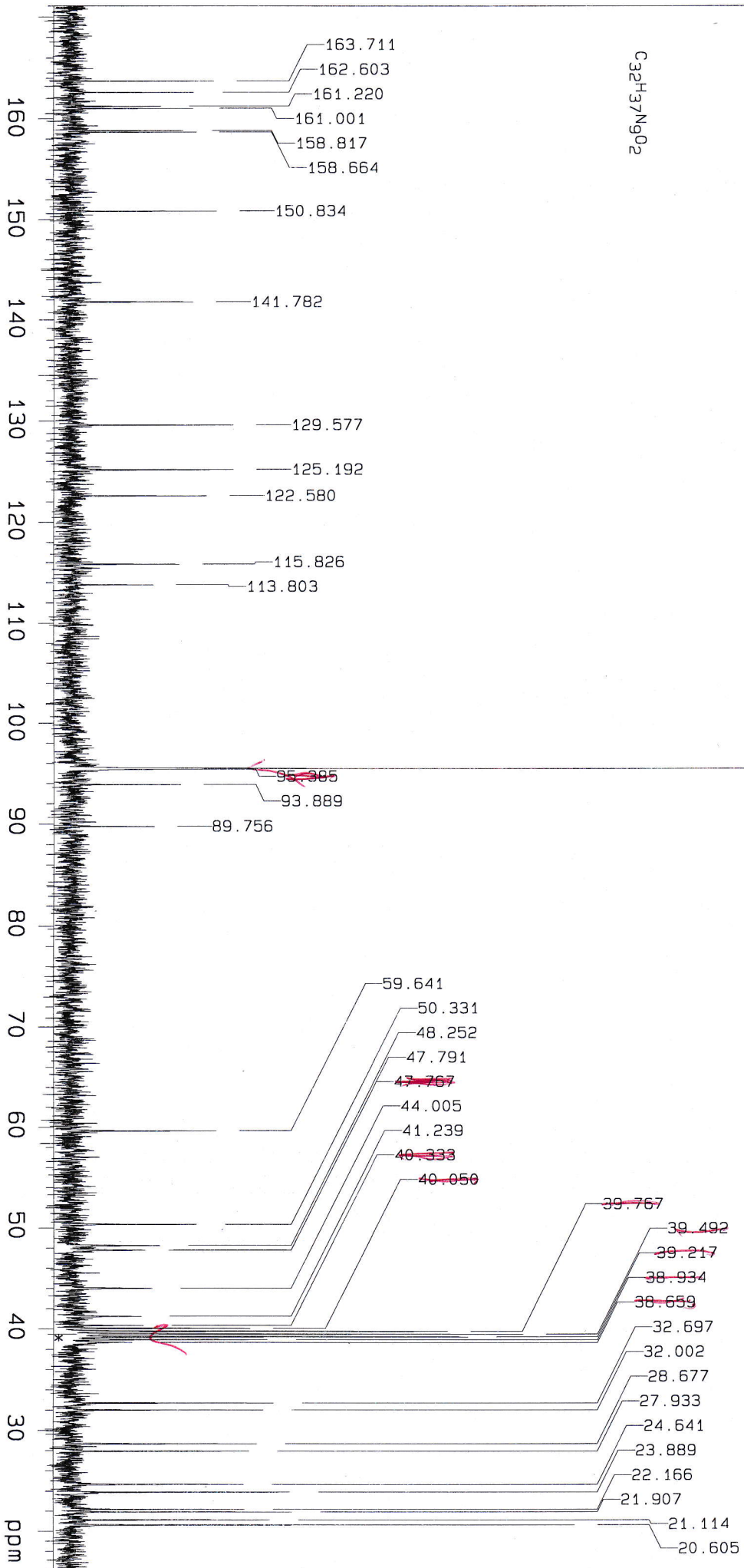
Molecular Structure Research Centre, Yerevan, Armenia, Varian Mercury-300VX
HA-1004

C13 75.465 MHz, nt = 368, np = 19998, temp = 30.0 C, lb = 1.0, solvent = DMSO/C14 1/3
SAMV_19 ha-1004

Feb 1 2019



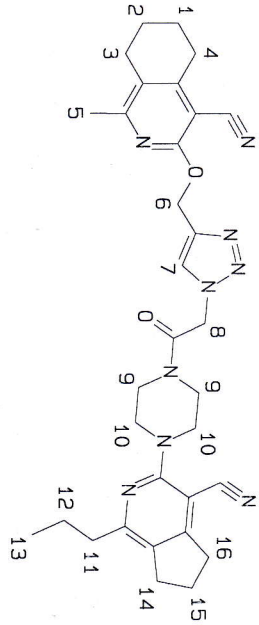
C₃₂H₃₇N₉O₂



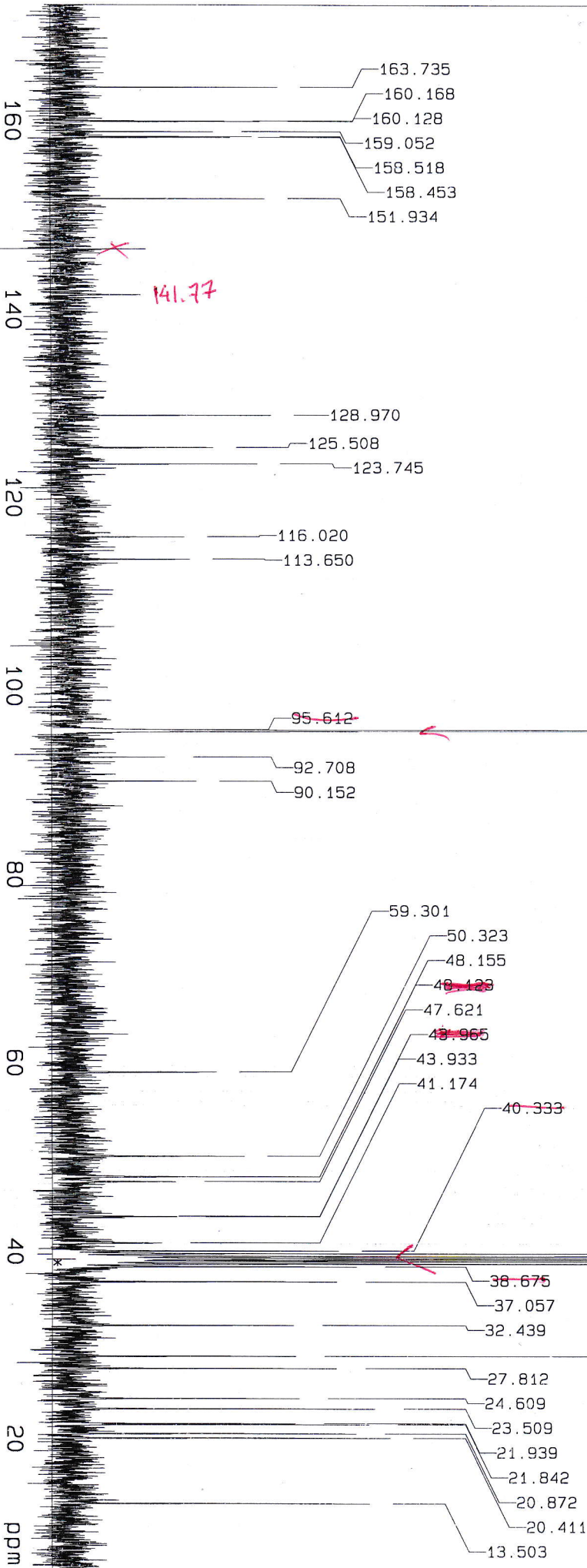
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6c Hybrid 021

Molecular Structure Research Centre, Yerevan, Armenia, Varian Mercury-300VX
T20-147



C₃₂H₃₇N₉O₂



C13 75.465 MHz, nt = 1408, np = 19998, temp = 30.0 C, lb = 1.0, solvent = DMSO-CCl4 1/3

ANUSH TEMA T20-147

Oct 20 2021

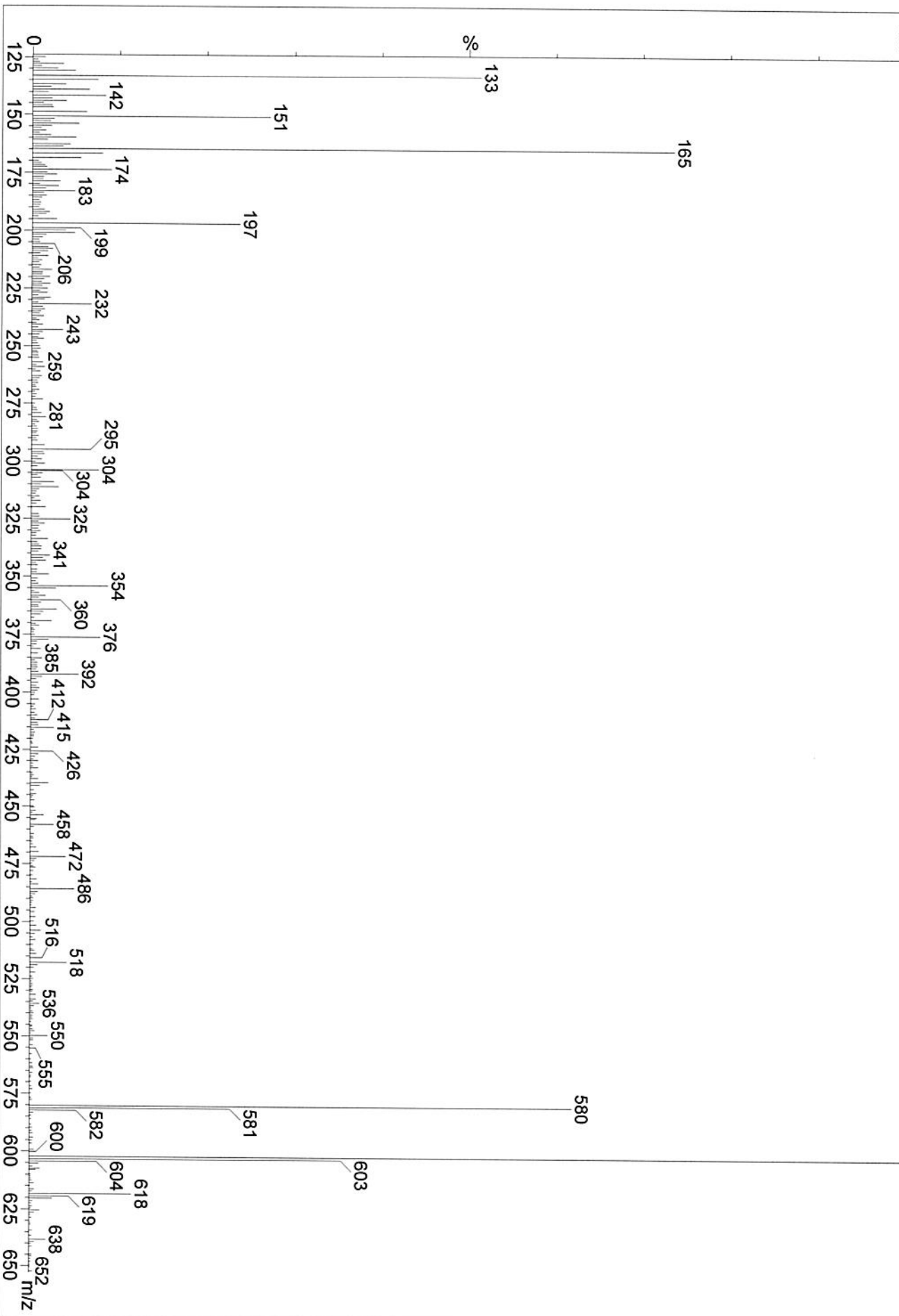
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Hybrid 021

SPIN42 3 (0.305)

100

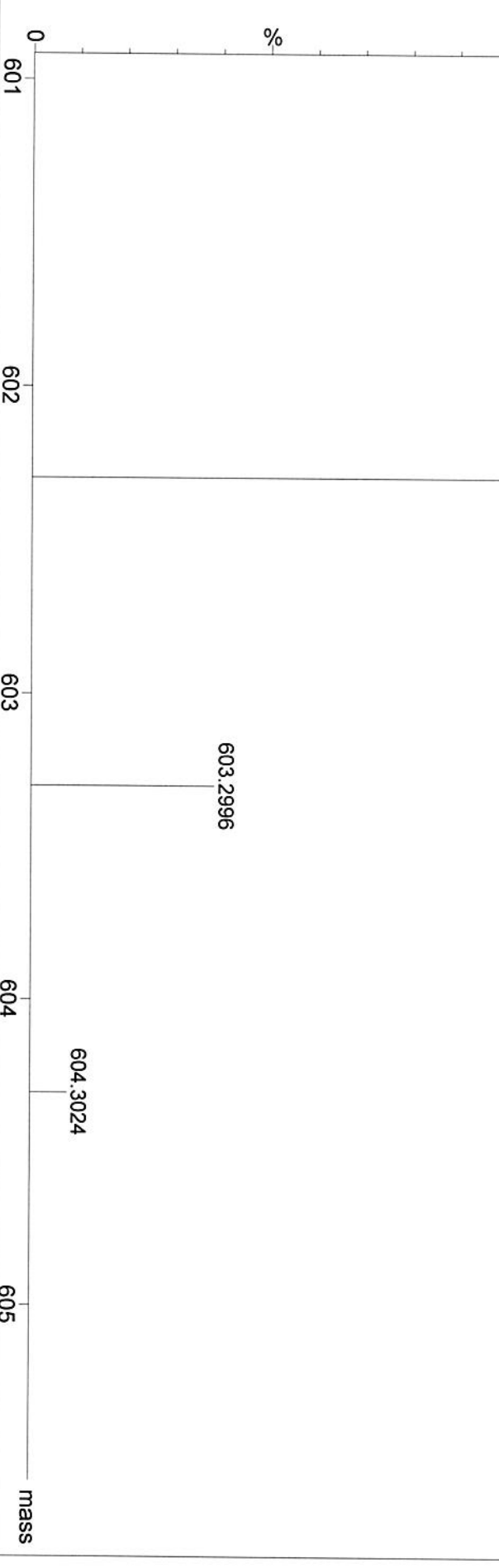
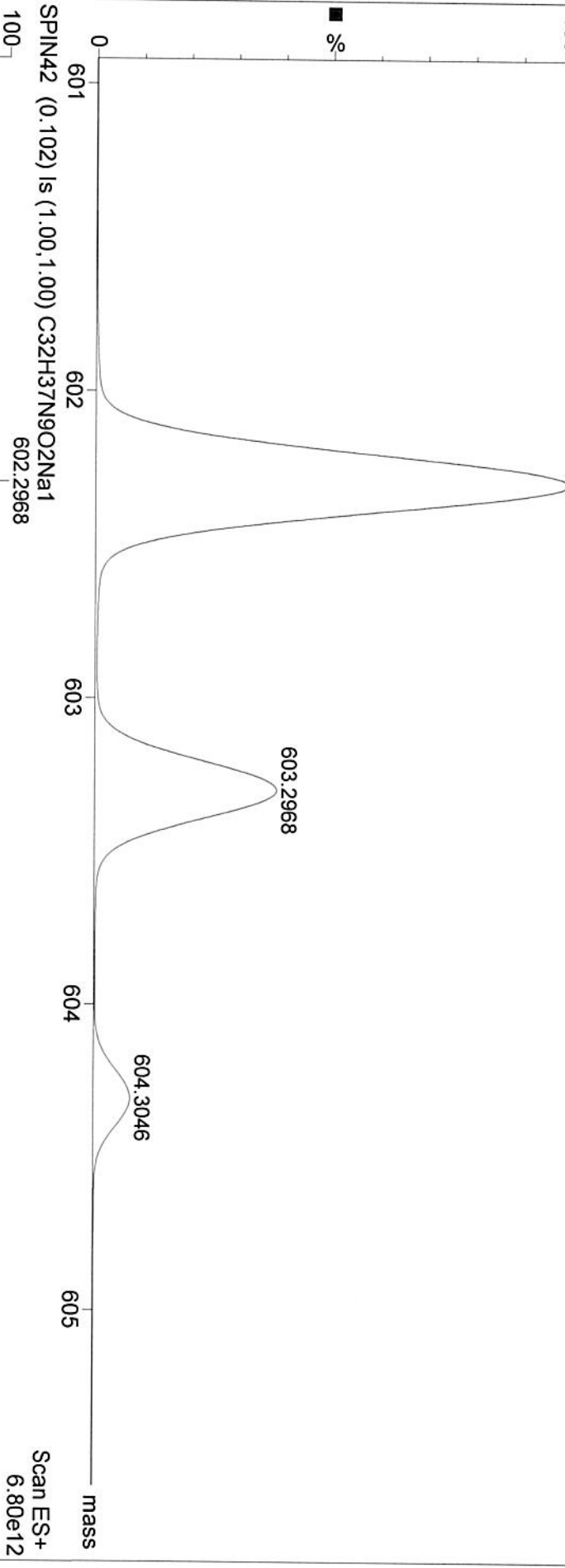
Scan ES+
6.13e6



Hybrid 021

SPIN42 (0.102) Cu (0.20); Is (1.00,1.00) C32H37N9O2Na1
602.2968

Scan ES+
6.80e12



Hybrid 020 6d

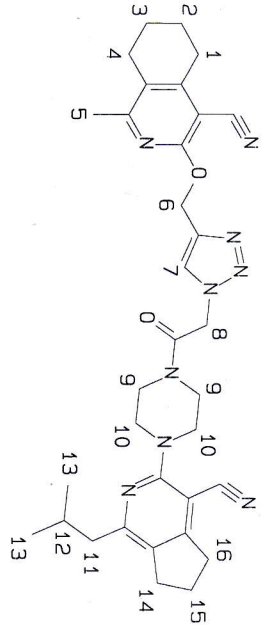
Molecular Structure Research Centre, Yerevan, Armenia, Varian Mercury-300VX

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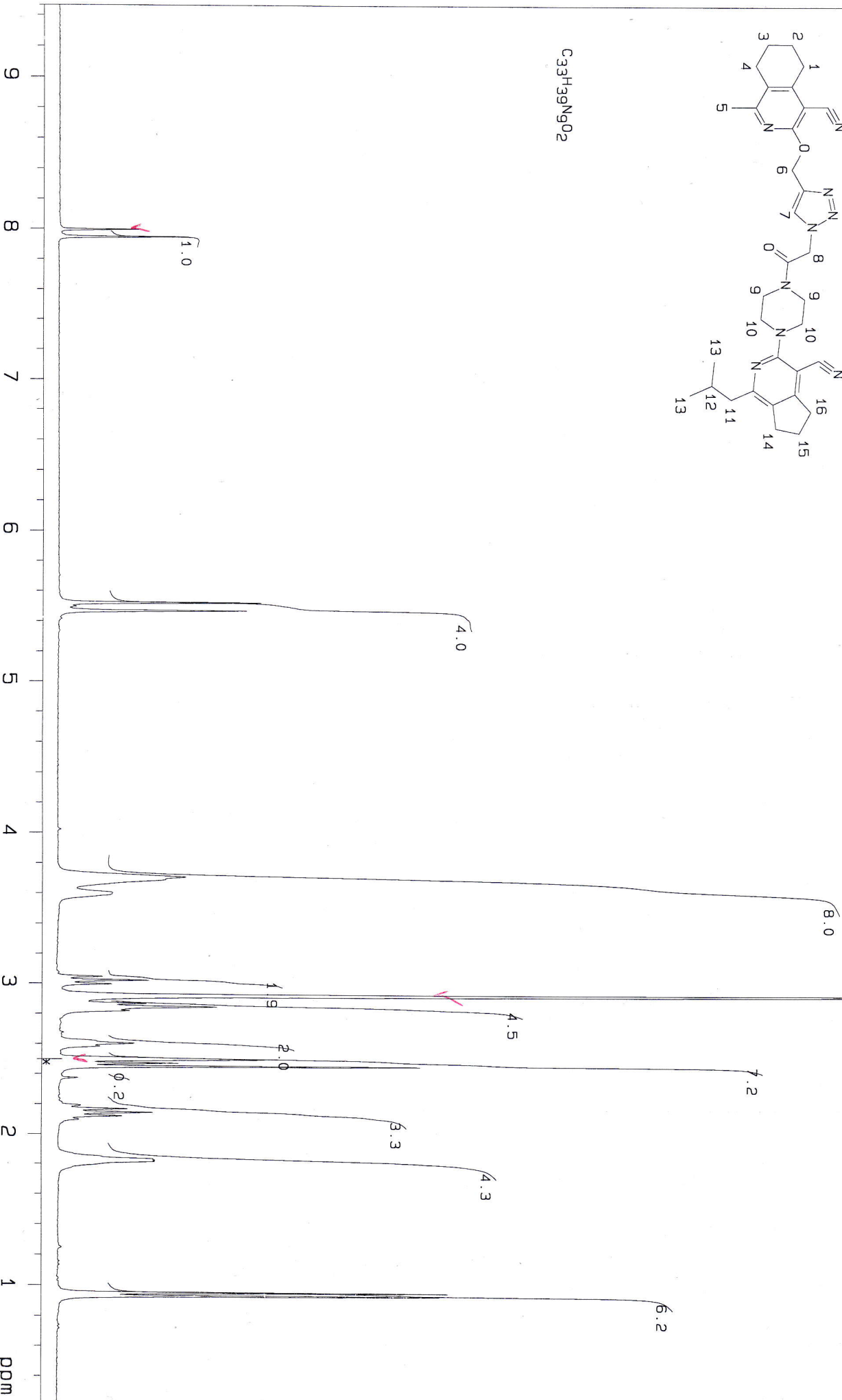
T20-146

ANDUSH_TEMMA t20-146

Oct 7 2021



C₂₃H₂₉N₉O₂



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[Signature]

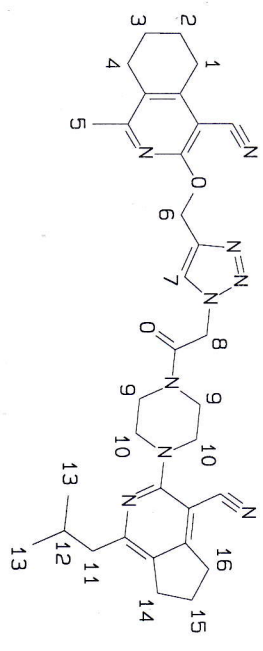
601 Hybrid 020

Molecular Structure Research Centre, Yerevan, Armenia, Varian Mercury-300VX
T20-146

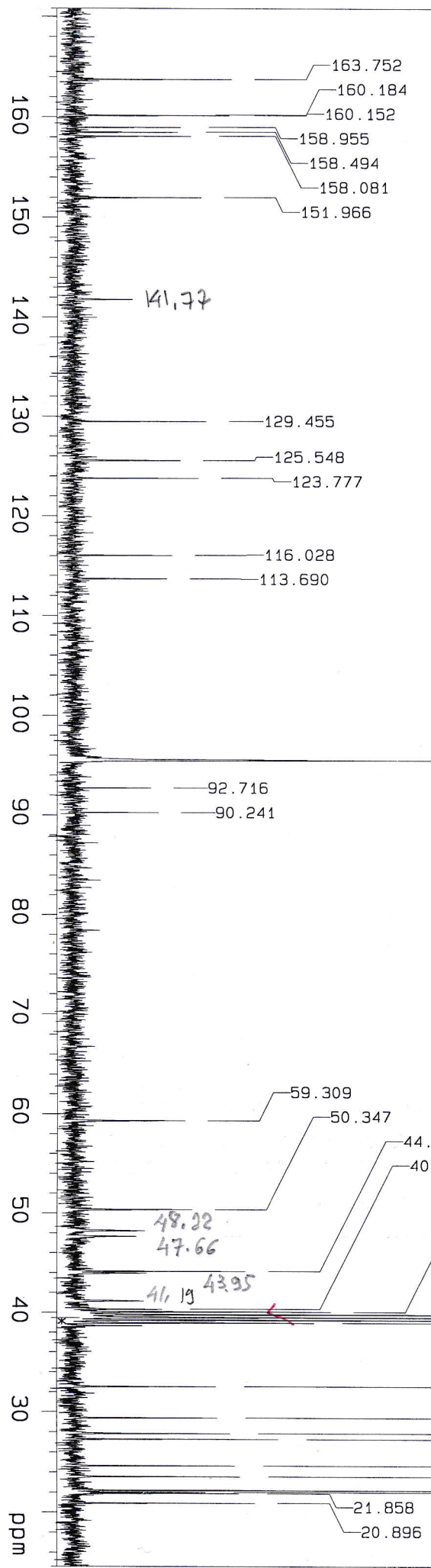
C13 75.465 MHz, n1 = 768, np = 19998, temp = 30.0 C, lb = 1.0, solvent = DMSO/Cd4 1/3

ANUSH_TEMA T20-146

Oct 7 2021



C₃₃H₃₉N₉O₂



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Hybrid 020

SPIN41 4 (0.407)

100

616

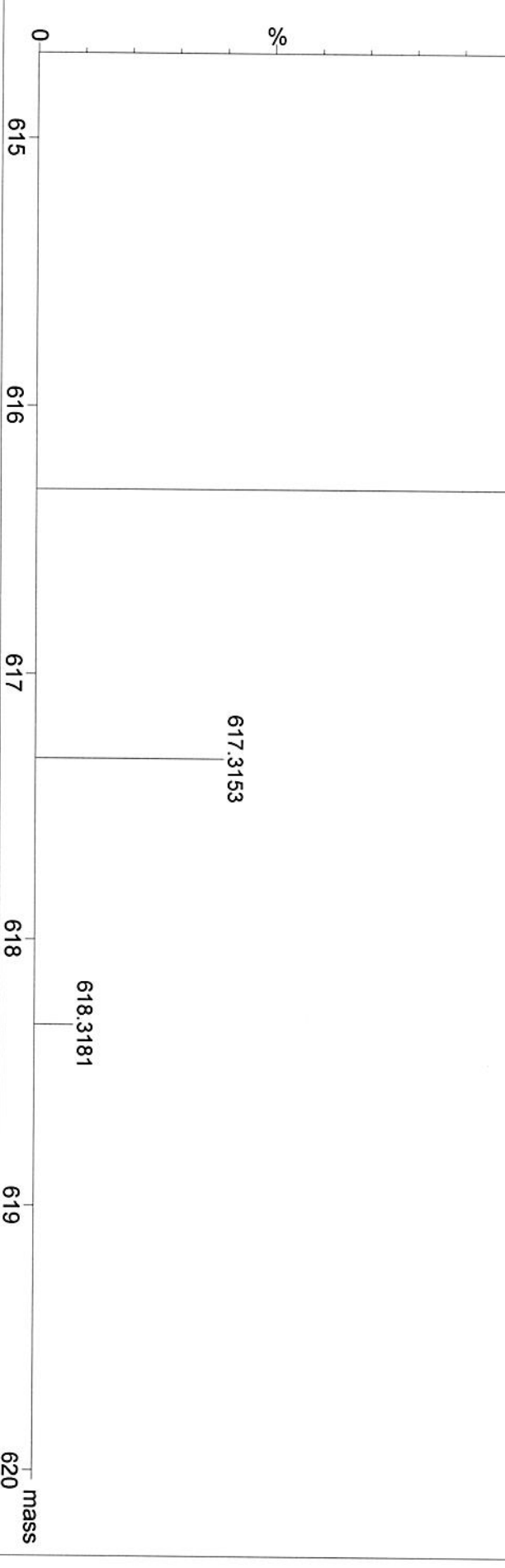
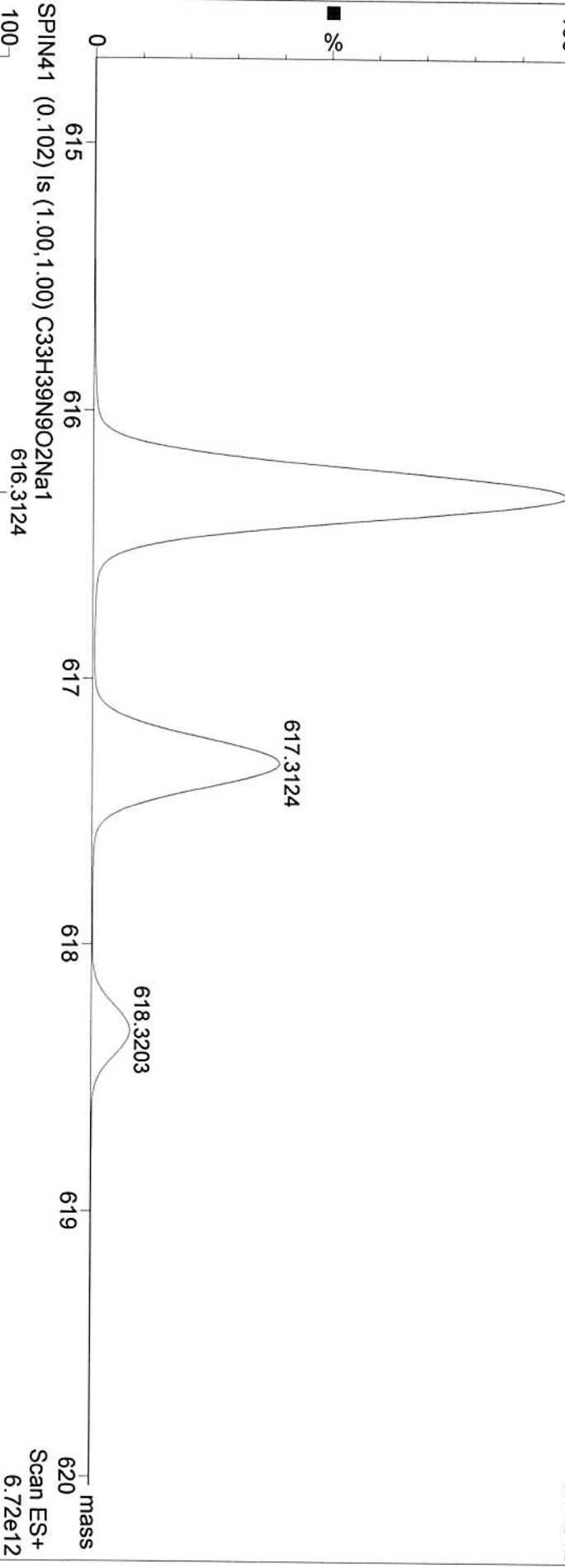
Scan ES+
1.18e7



Hybrid 020

SPIN41 (0.102) Cu (0.20); Is (1.00, 1.00) C33H39N9O2Na1
616.3124

Scan ES+
6.72e12



Hybrid 003 6e

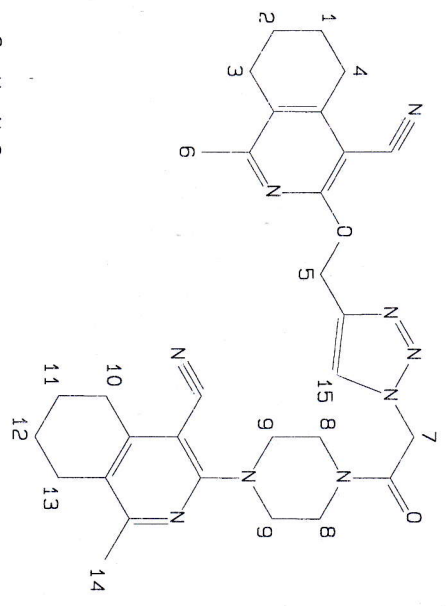
Molecular Structure Research Centre, Yerevan, Armenia, Varian Mercury-300VX

H1 300.088 MHz, nt=16, rp=32000, temp=30.0 C, lb=-0.2, solvent=DMSO/CD4 1/3

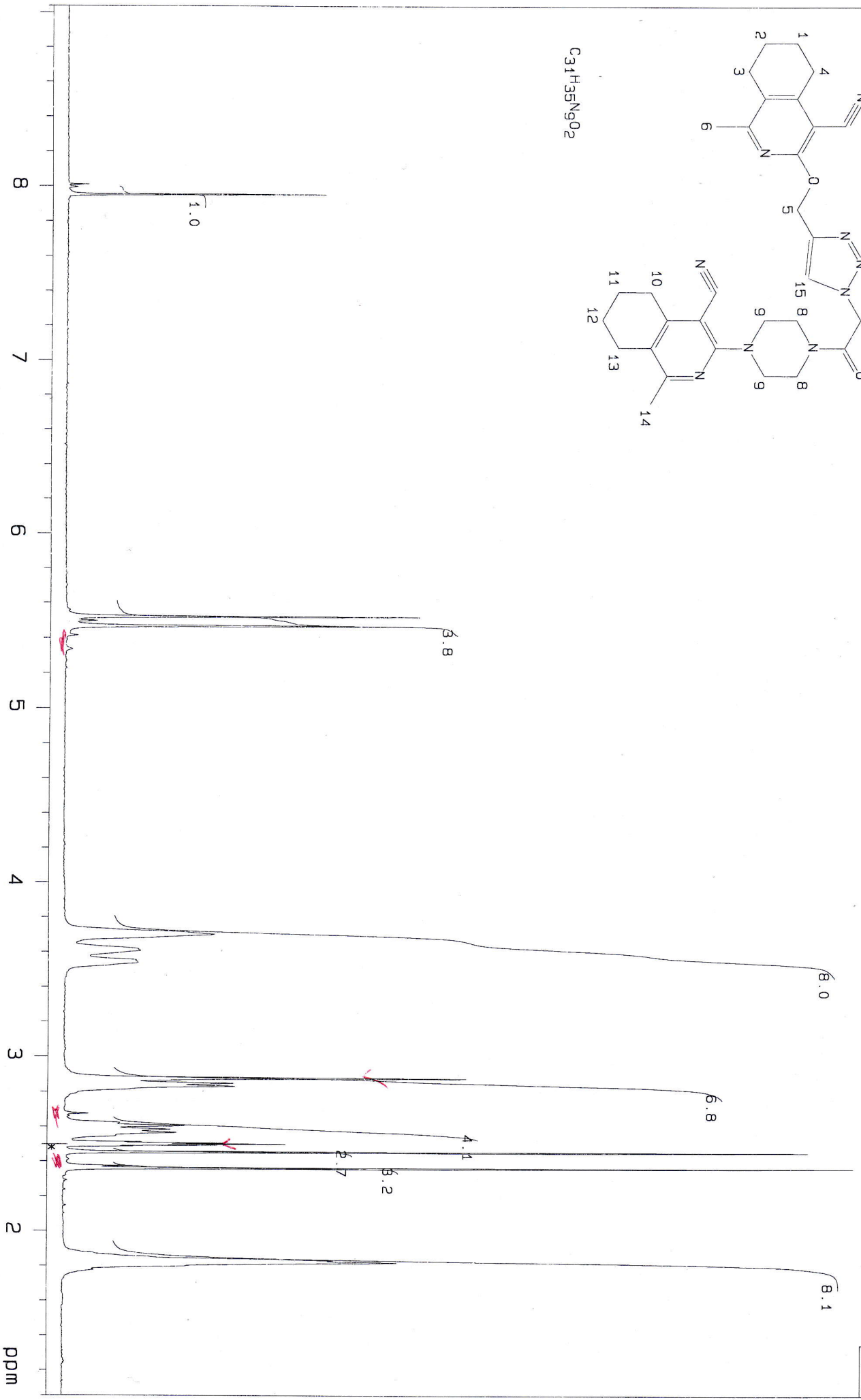
HA-1008

SAMV_19 ha-1008

Feb 15 2019



C₃₁H₃₅N₉O₂



Handwritten signature

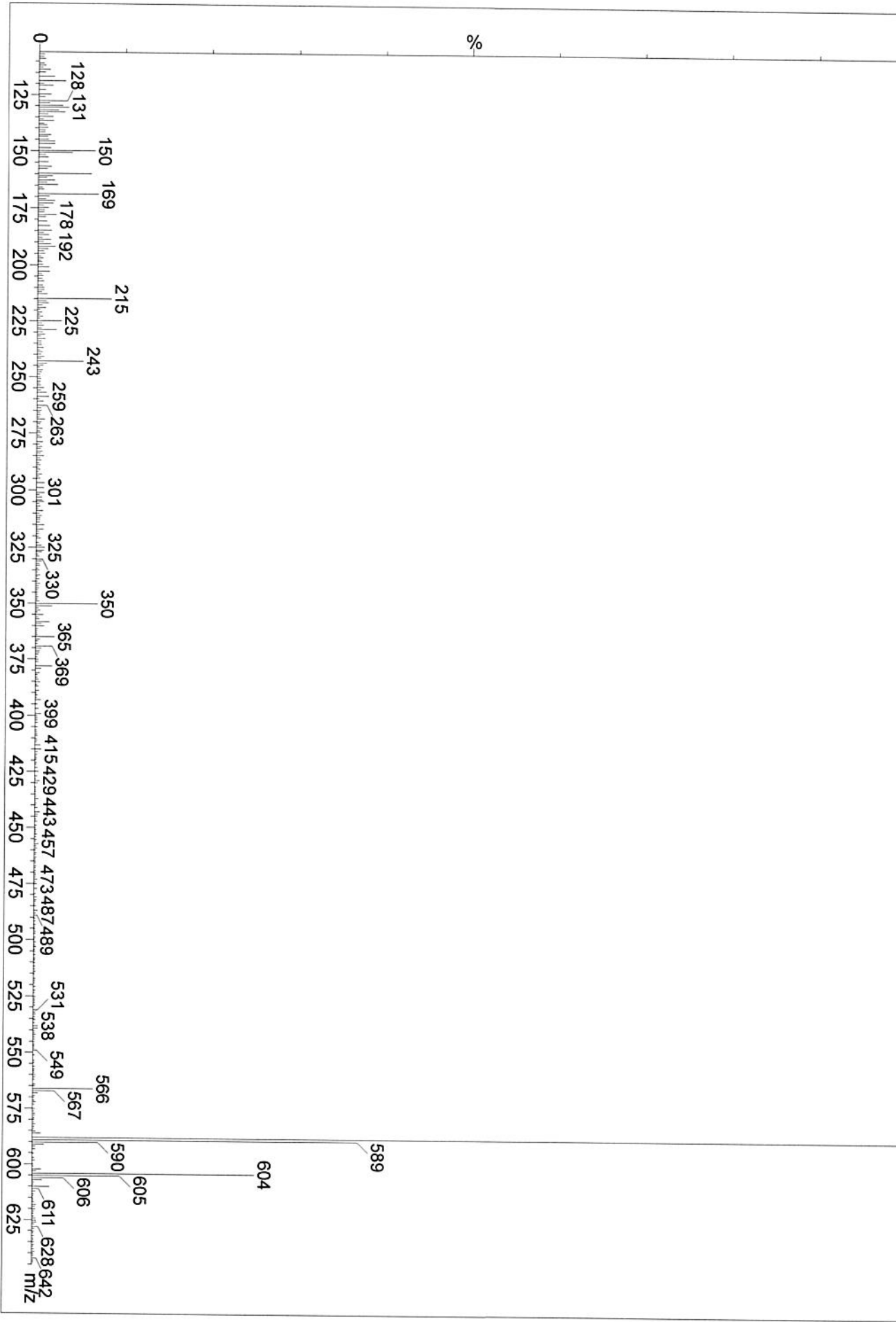
+

Hybrid 003

SPIN24 10 (1.018)

100

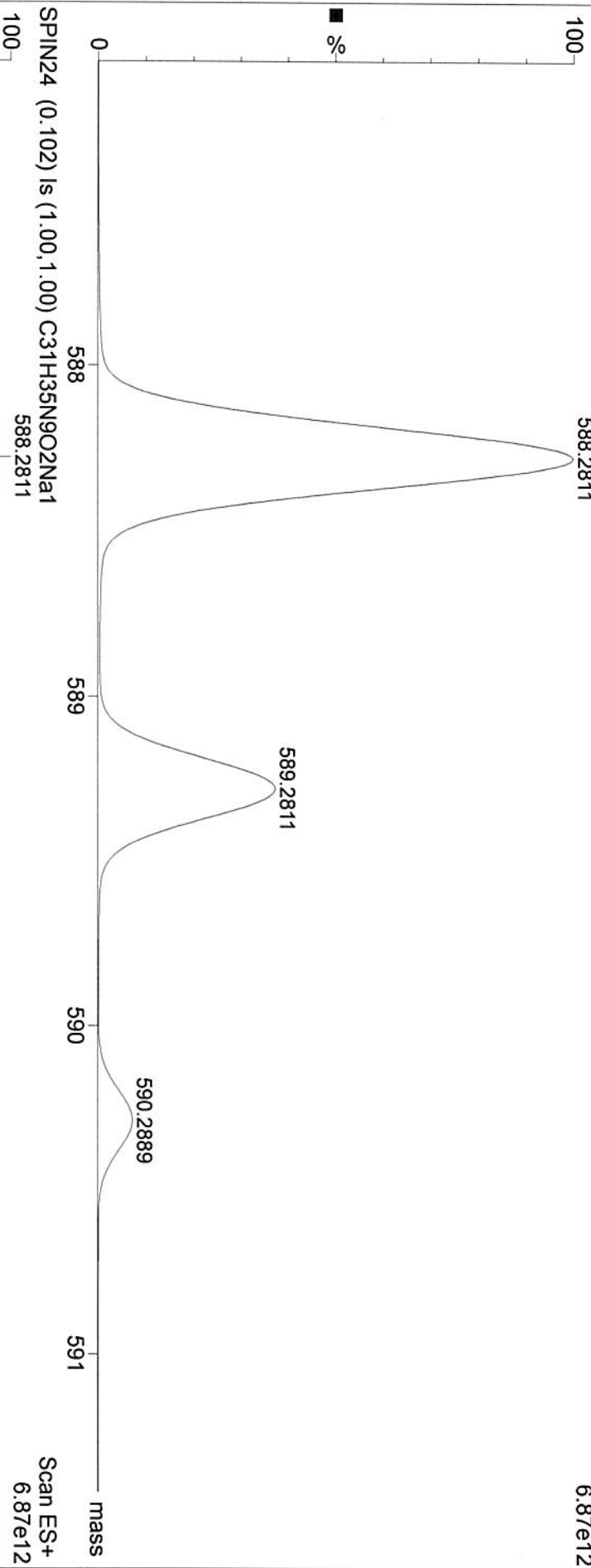
Scan ES+
2.42e7



Hybrid 003

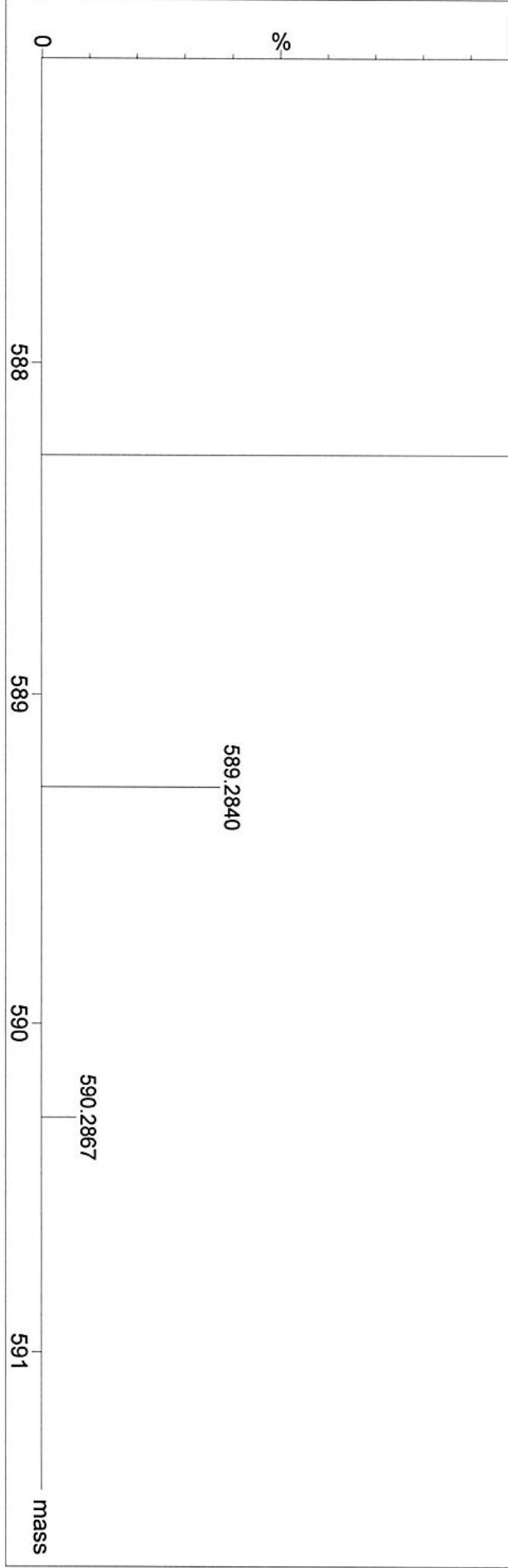
SPIN24 (0.102) Cu (0.20); Is (1.00,1.00) C31H35N9O2Na1

Scan ES+
6.87e12



SPIN24 (0.102) Is (1.00,1.00) C31H35N9O2Na1

Scan ES+
6.87e12



Hybrid 023 6F

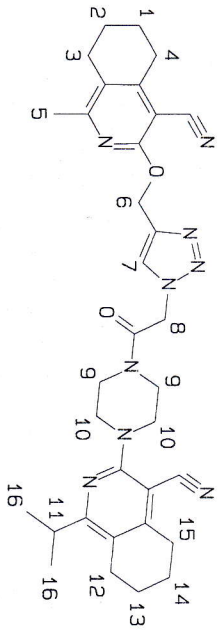
T20-149

Molecular Structure Research Centre, Yerevan, Armenia, Varian Mercury-300VX

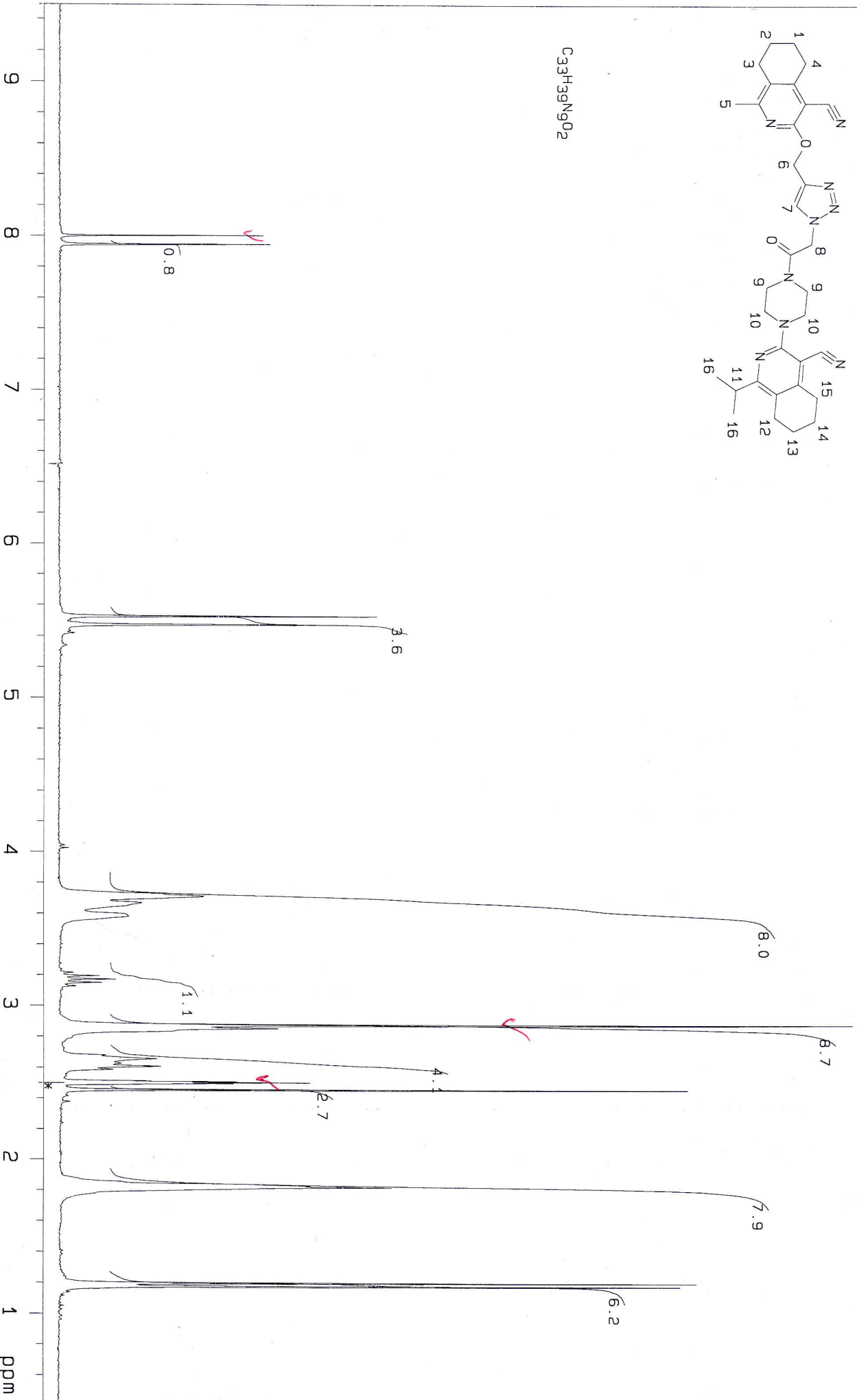
H1 300.088 MHz, nt = 16, np = 32000, temp = 30.0 C, lb = -0.2, solvent = DMSO-CD3 1/3

ANUSH_TEMA F20-149

Oct 25 2021



C₃₃H₃₉N₉O₂



+ [Signature]

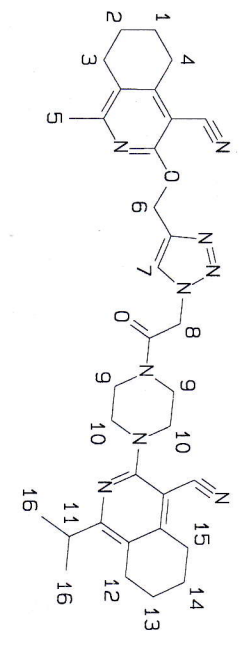
Molecular Structure Research Centre, Yerevan, Armenia, Varian Mercury-300VX
T20-149

C13 75.465 MHz, nt = 752, np = 19998, temp = 30.0 C, lb = 1.0, solvent = DMSO

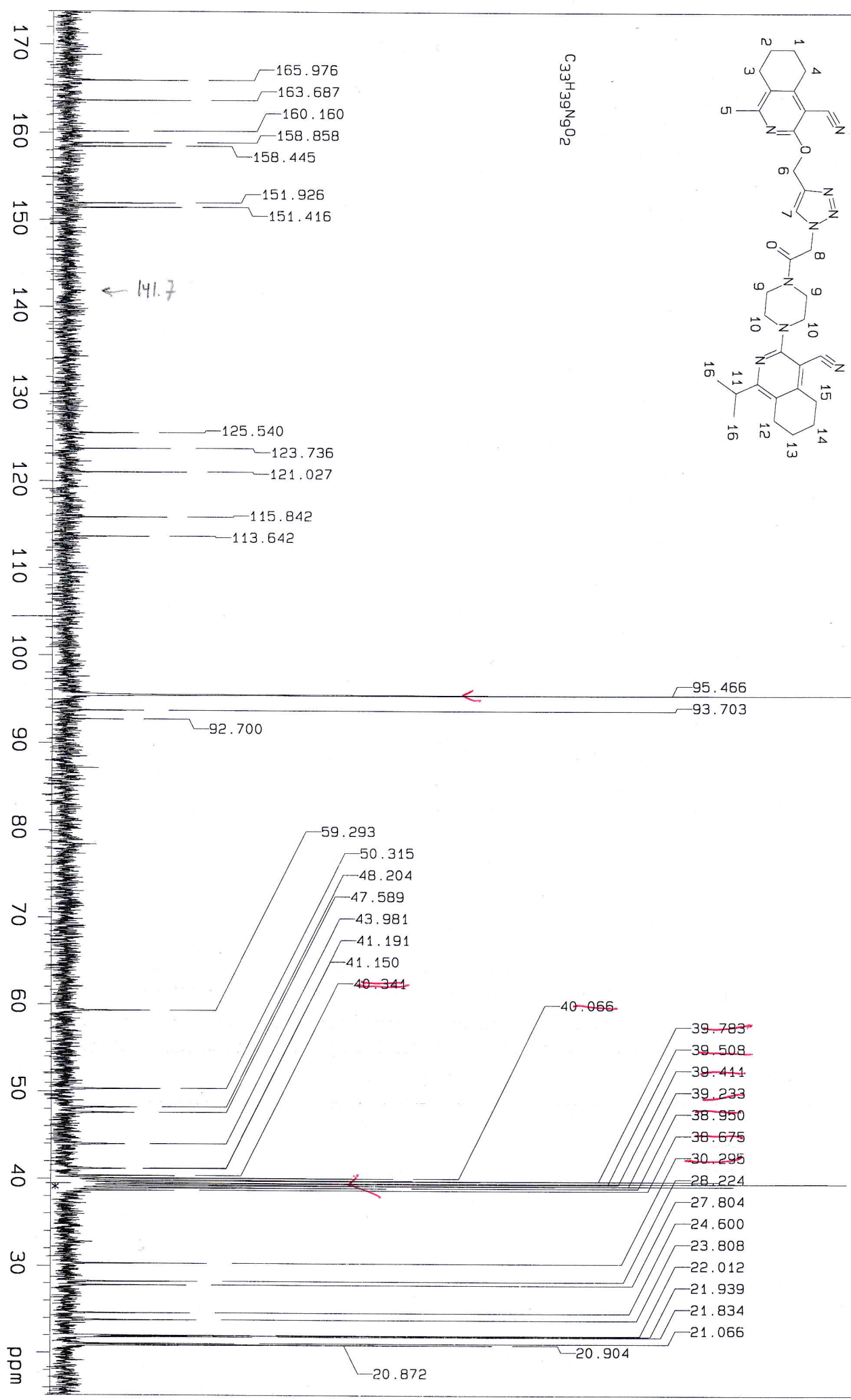
ANUSH_TEMA f20-149

Oct 25 2021

GF Hybrid-023



C₃₃H₃₉N₉O₂



+
[Signature]

Hybrid 023

SPIN44 7 (0.713)

100

616

Scan ES+
7.86e6

%

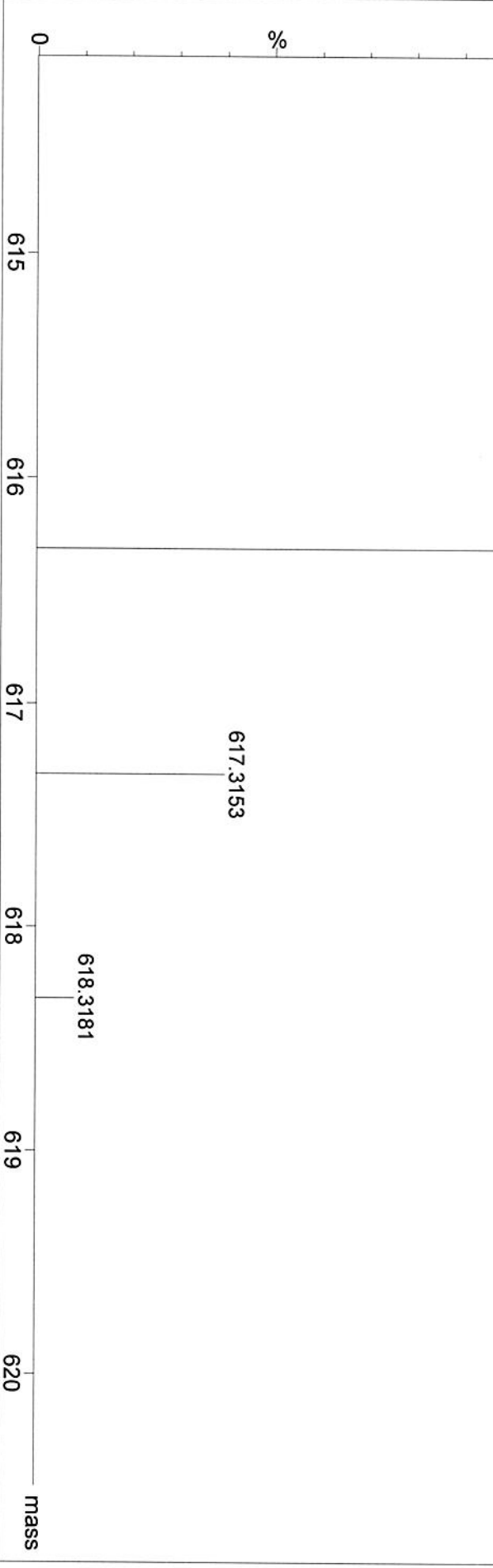
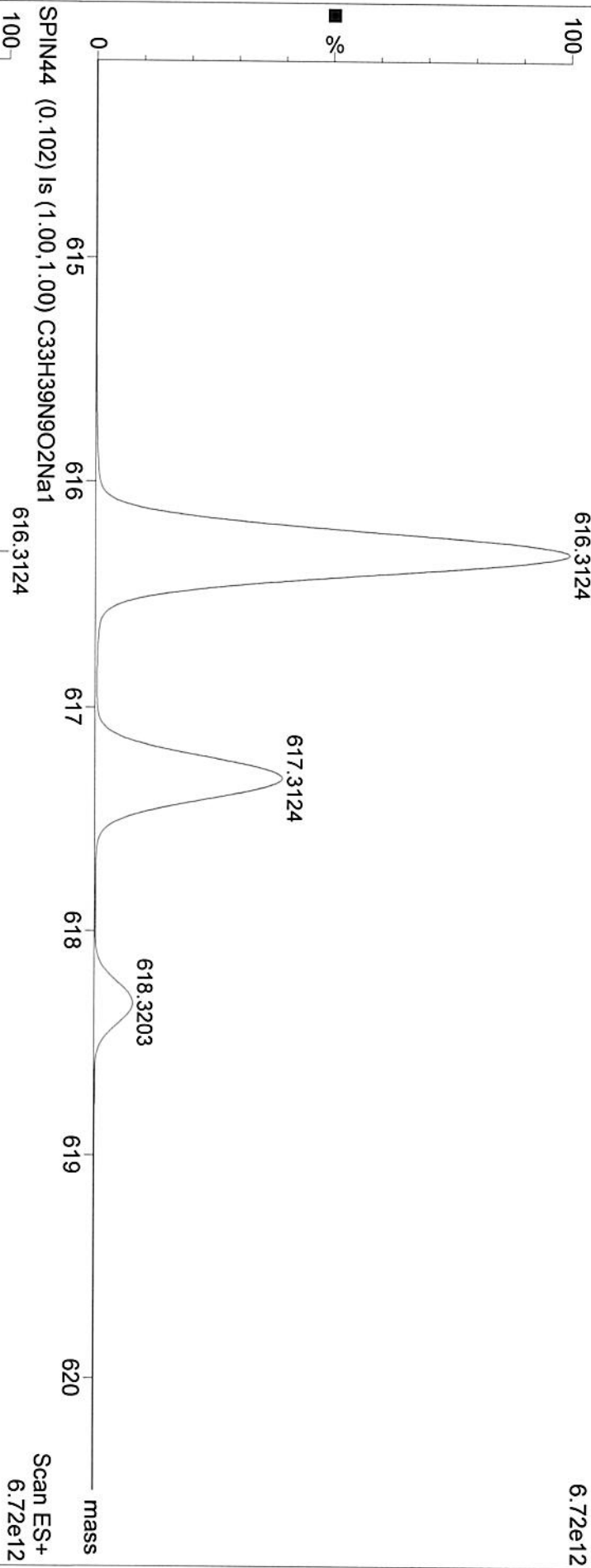


Hybrid 023

SPIN44 (0.102) Cu (0.20); Is (1.00,1.00) C33H39N9O2Na1

616.3124

Scan ES+
6.72e12



Hybrid 022 68

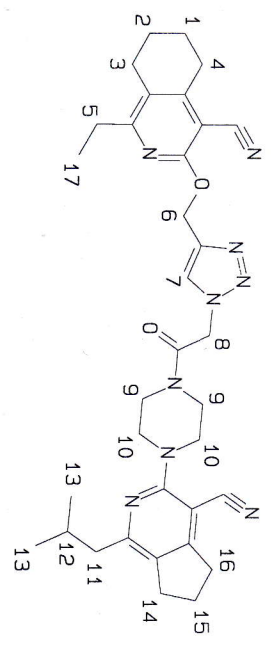
Molecular Structure Research Centre, Yerevan, Armenia, Varian Mercury-300VX

H1 300.088 MHz, nt=16, np=32000, temp=30.0 C, lb=-0.2, solvent=DMSO/CCL4 1/3

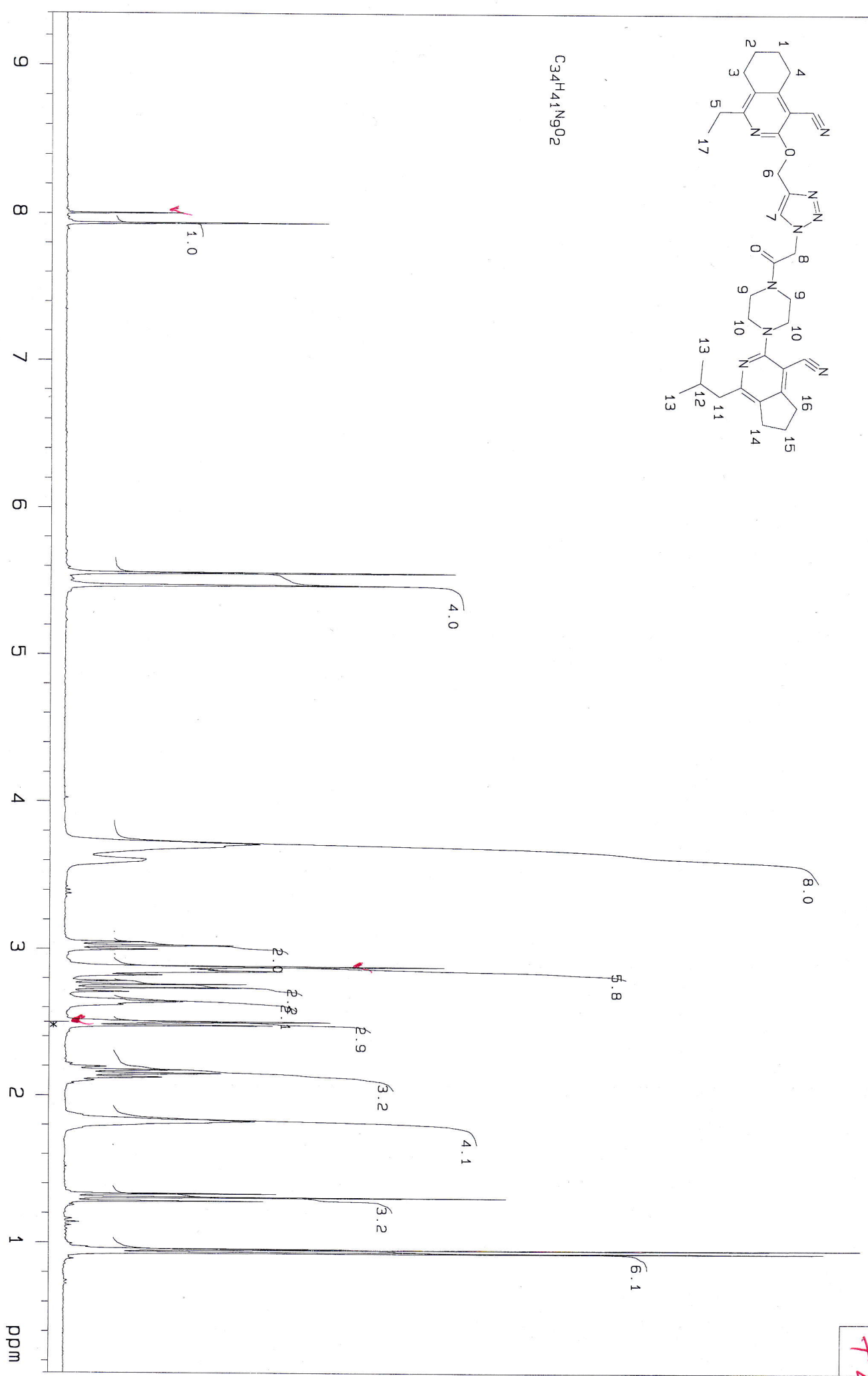
T20-148

ANUSH_TEMA t20-148

Oct 21 2021

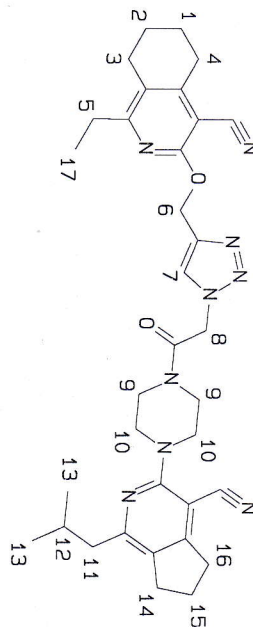


C₃₄H₄₁N₉O₂

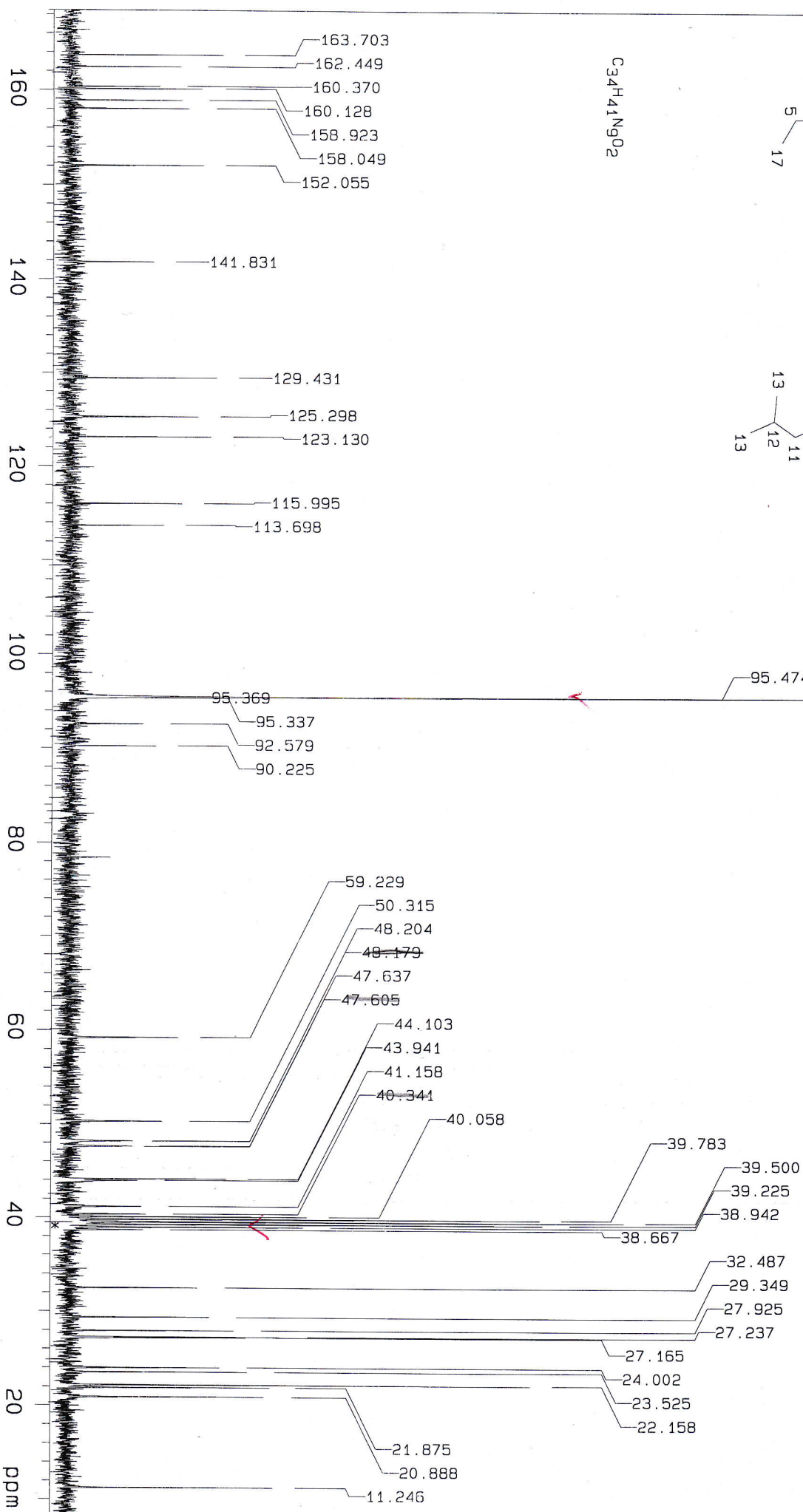


+

68 Hybrid 022



C₃₄H₄₁N₉O₂

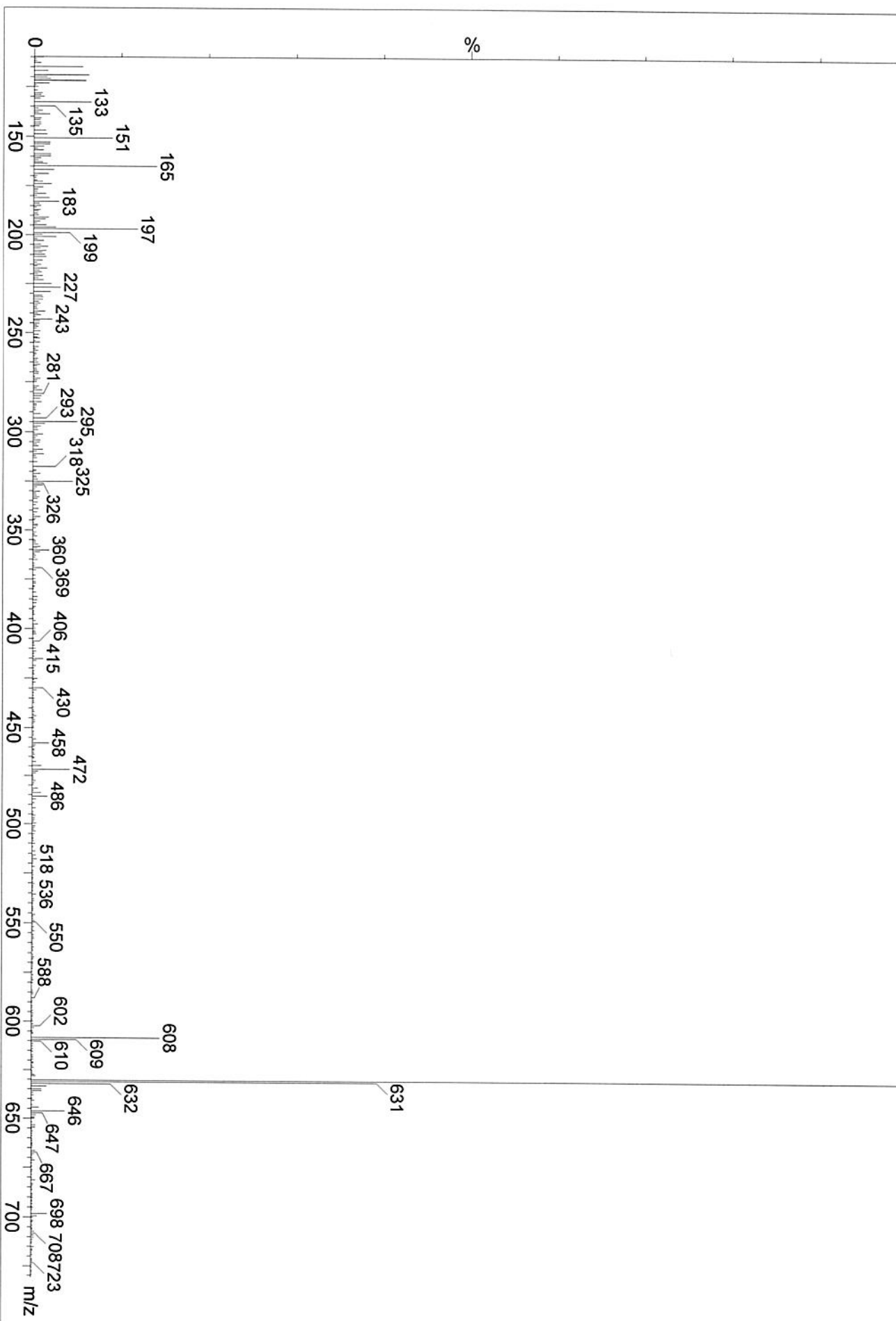


+ [Signature]

Hybrid 022
SPIN43 6 (0.611)

100

Scan ES+
6.56e6

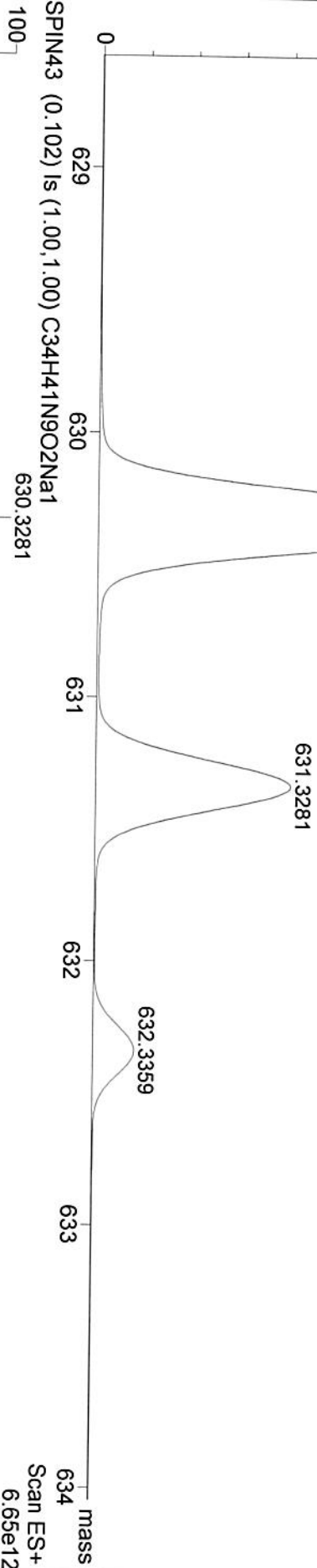


Hybrid 022

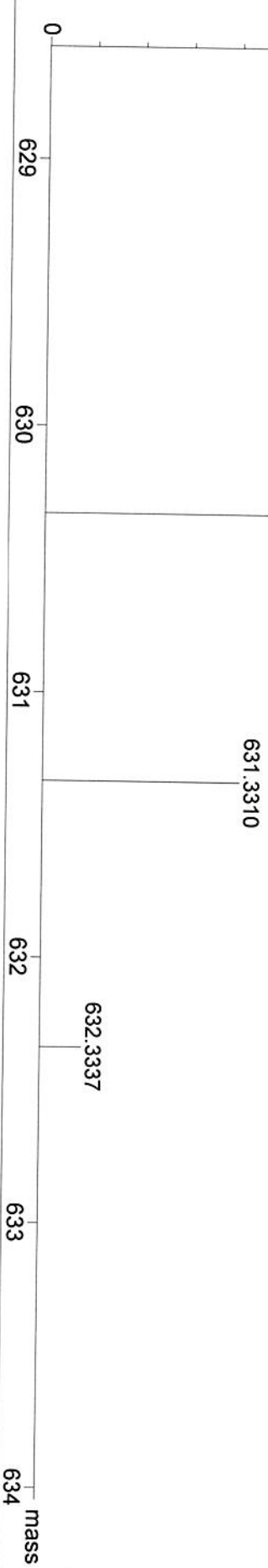
SPIN43 (0.102) Cu (0.20); Is (1.00,1.00) C34H41N9O2Na1

Scan ES+
6.65e12

%



%



Hybrid 001

6h

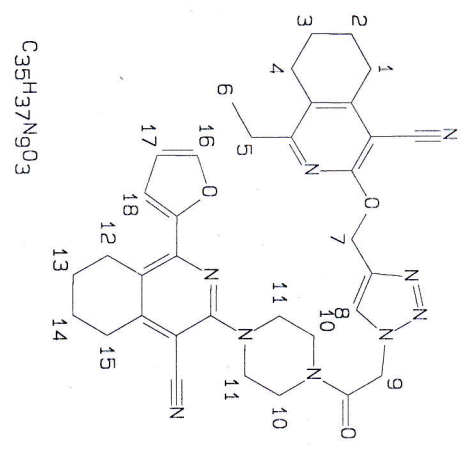
Molecular Structure Research Centre, Yerevan, Armenia, Varian Mercury-300VX

H1 300.088 MHz, nt = 16, np = 32000, temp = 30.0 C, lh = -0.2, solvent = DMSO-d6

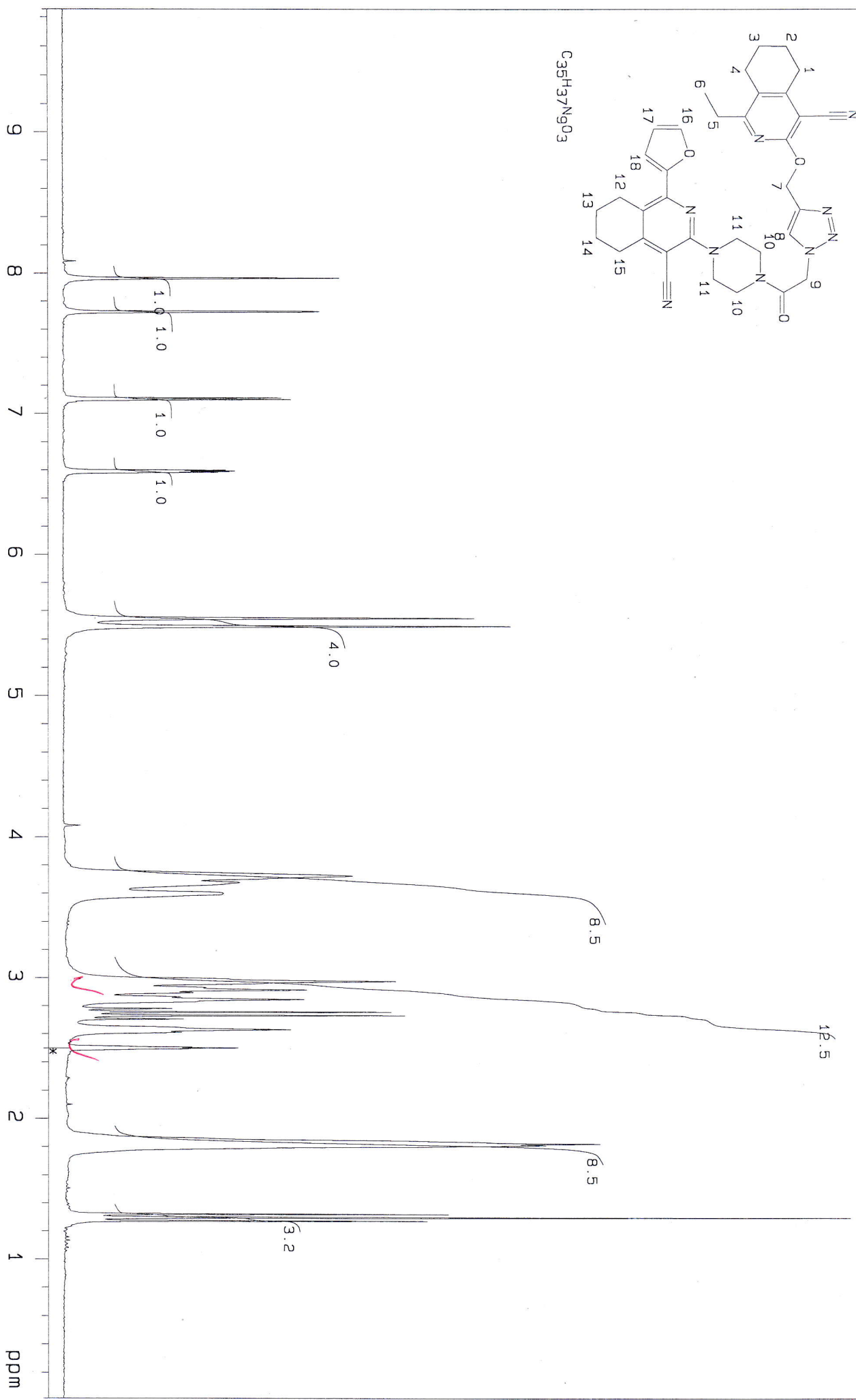
HA-1050

SAWV_19 ha-1050

Sep 30 2019



C₃₅H₃₇N₉O₃



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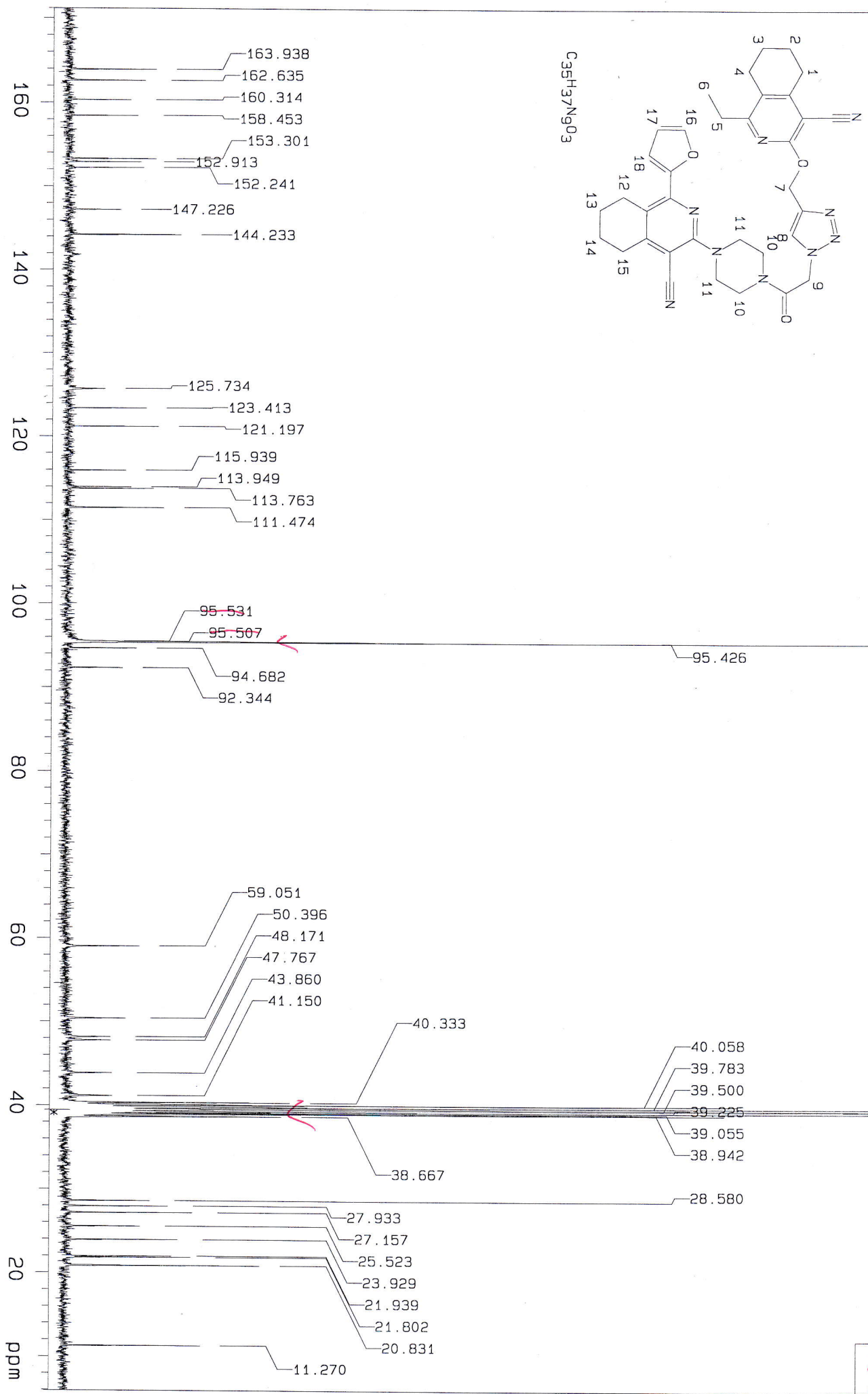
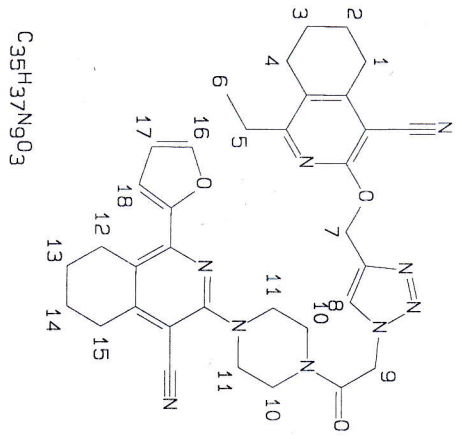
HA-1050
Molecular Structure Research Centre, Yerevan, Armenia, Varian Mercury-300VX

C13 75.465 MHz, nt = 2512, np = 19998, temp = 30.0 C, lb = 1.0, solvent = DMSO/CDCl4 1/3

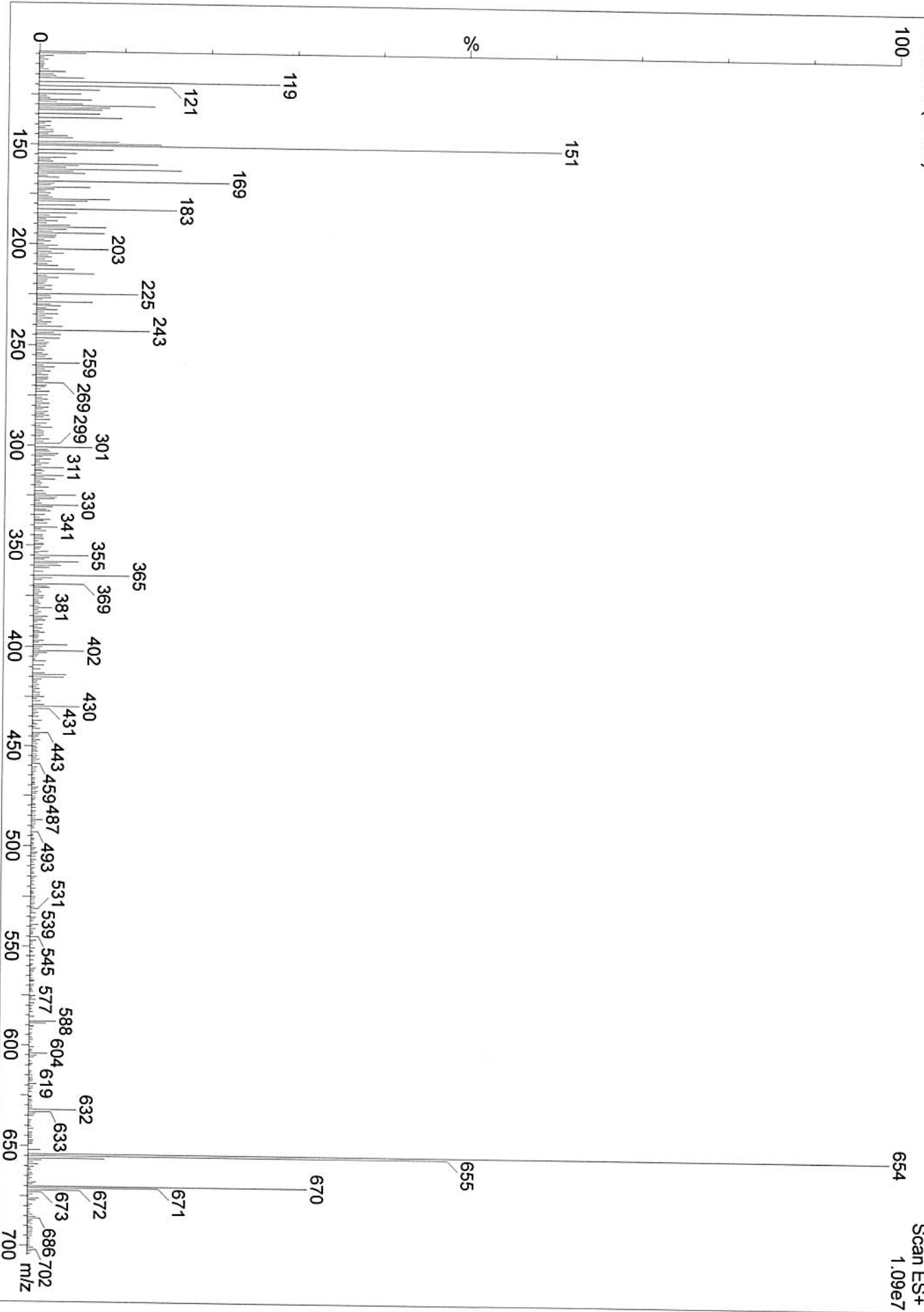
SAMV 19 ha-1050

Sep 30 2019

+ [Signature]



Hybrid 004
SPIN25 4 (0.407)

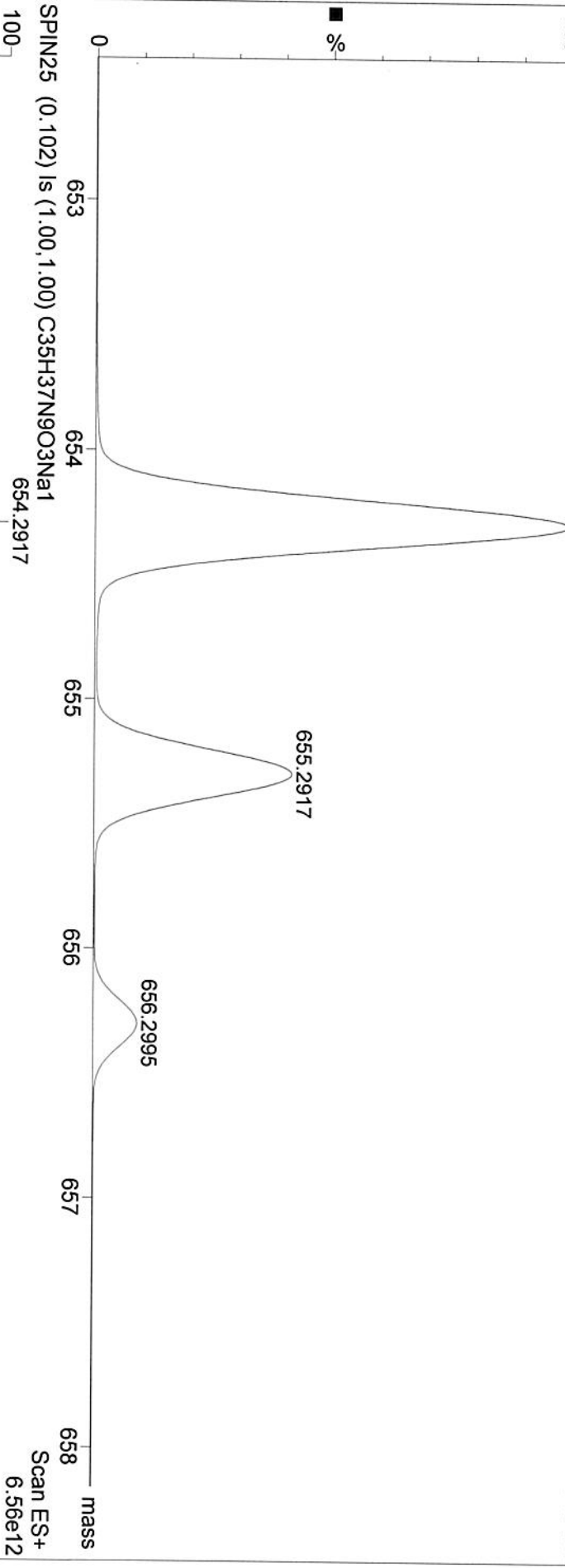


Scan ES+
1.09e7

Hybrid 004

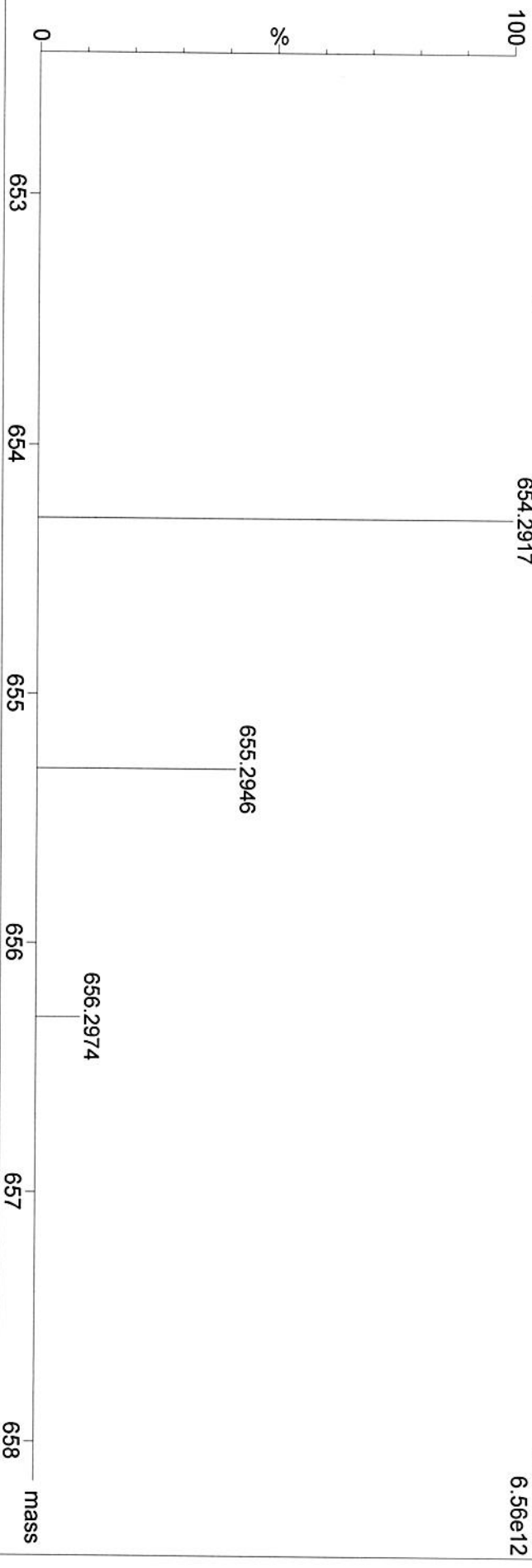
SPIN25 (0.102) Cu (0.20); Is (1.00, 1.00) C35H37N9O3Na1

Scan ES+
6.56e12



SPIN25 (0.102) Is (1.00, 1.00) C35H37N9O3Na1

Scan ES+
6.56e12

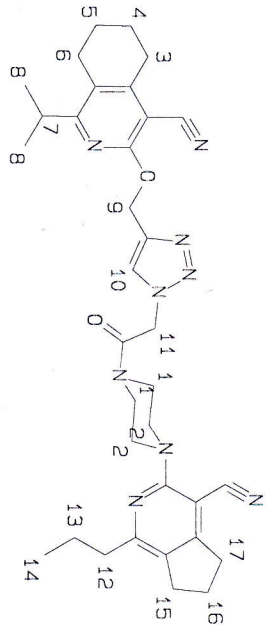


HA-1120

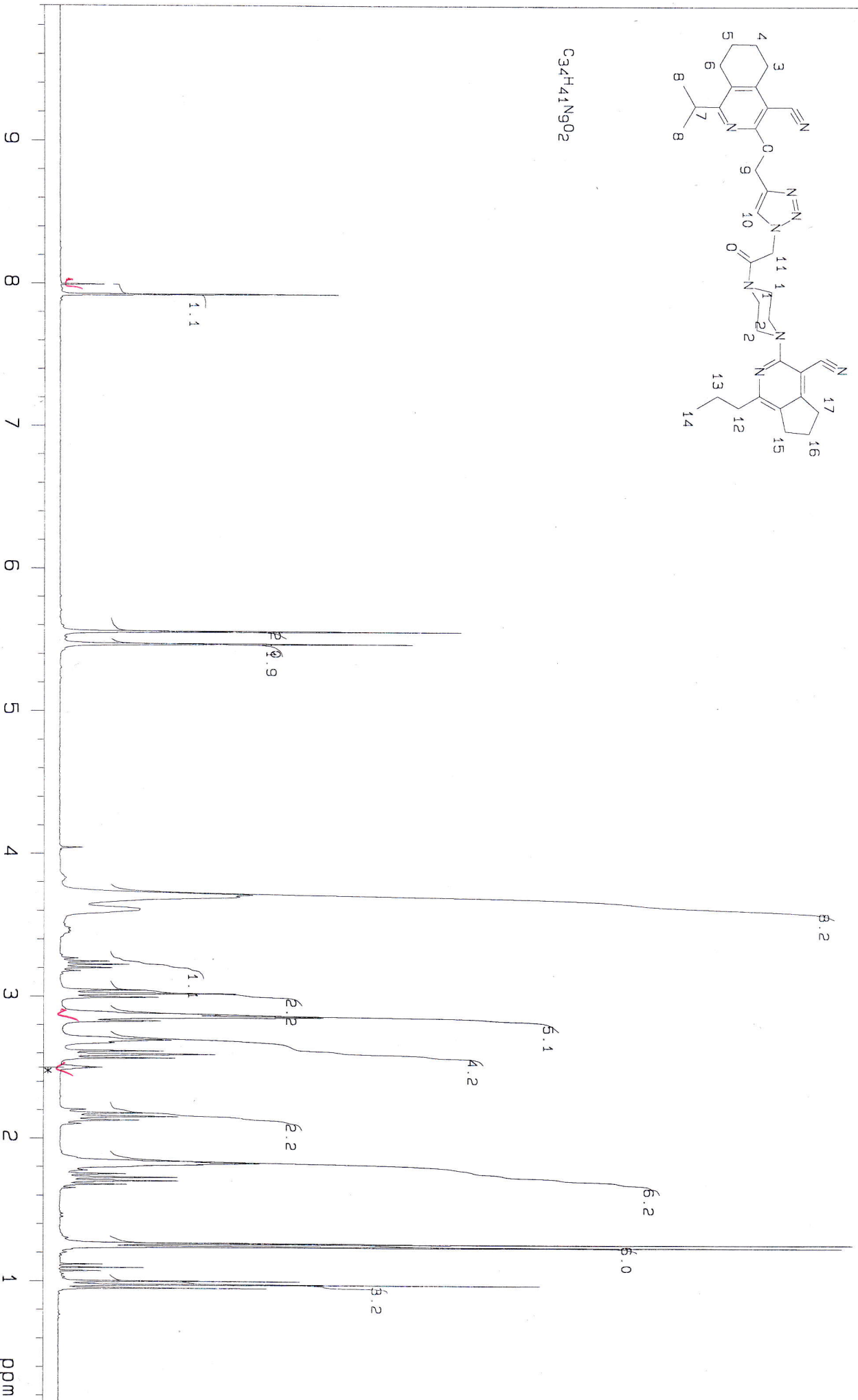
H1 300.088 MHz, nt = 16, np = 32000, temp = 30.0 C, lb = -0.2, solvent = DMSO-CD3 1/3

ANUSH_TEMA ha-1120

Apr 28 2021



C₃₂H₄₁N₉O₂



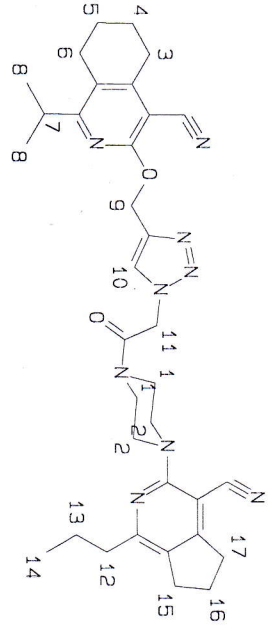
+ [Signature]

Bi Hybrid 005

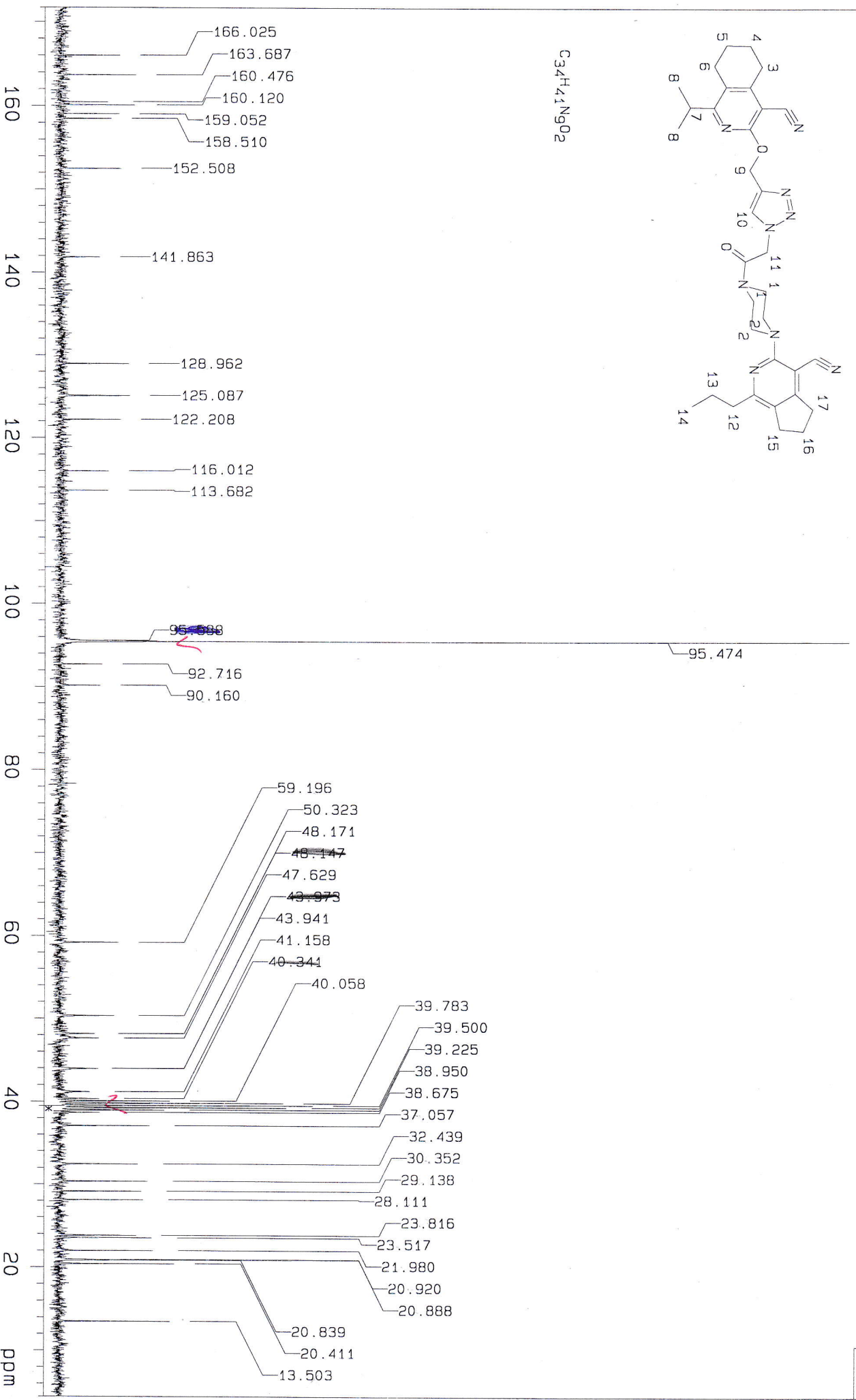
Molecular Structure Research Centre, Yerevan, Armenia, Varian Mercury-300VX
HA-1120

C13 75.465 MHz, $\eta = 784$, $\mu = 19998$, temp = 30.0 C, $\rho = 1.0$, solvent = DMSO- d_6 1/3
ANUSH_TEMA na-1120

Apr 28 2021



$C_{34}H_{41}N_9O_2$



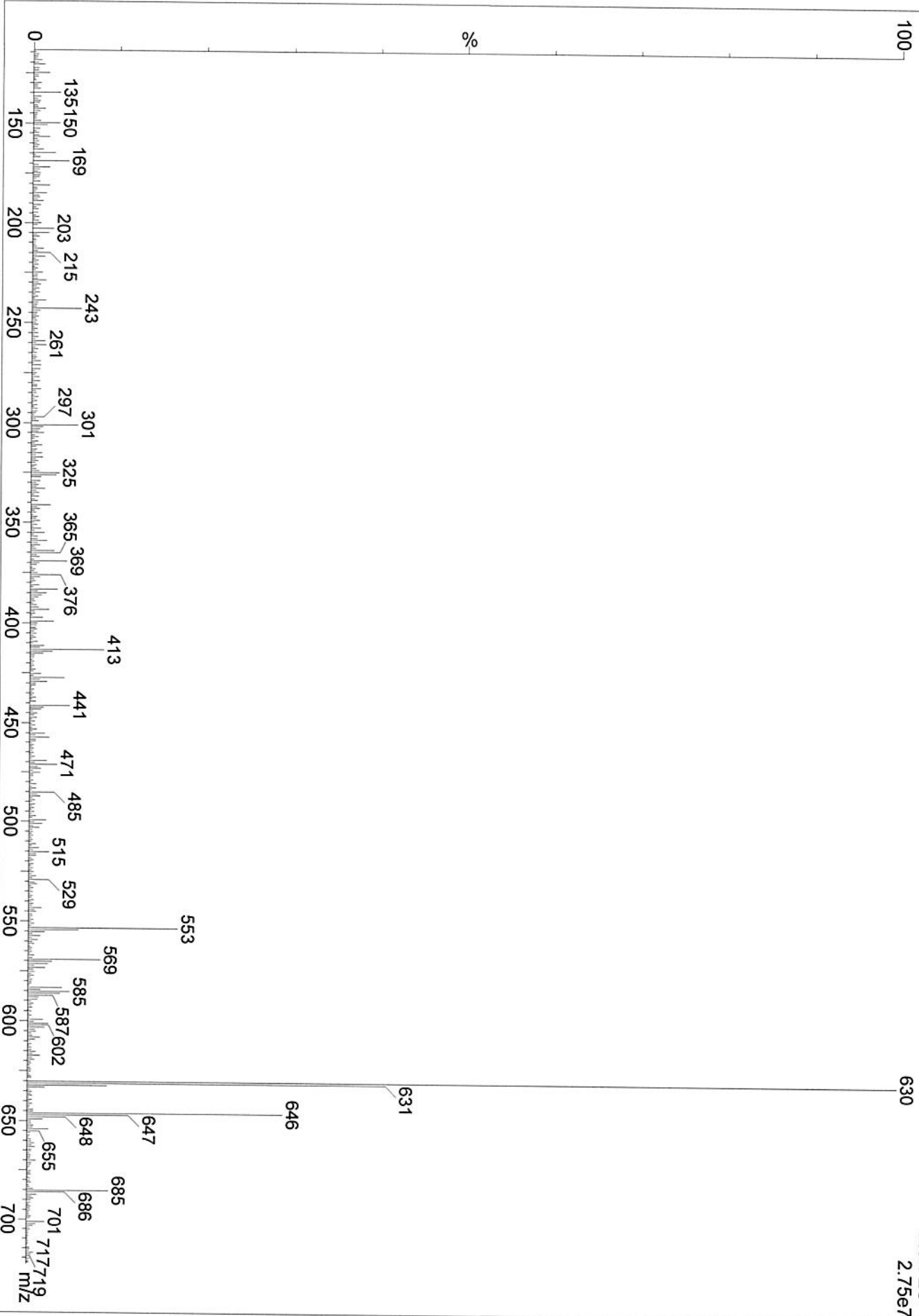
+ [Signature]

Hybrid 005

SPIN26 5 (0.509)

100

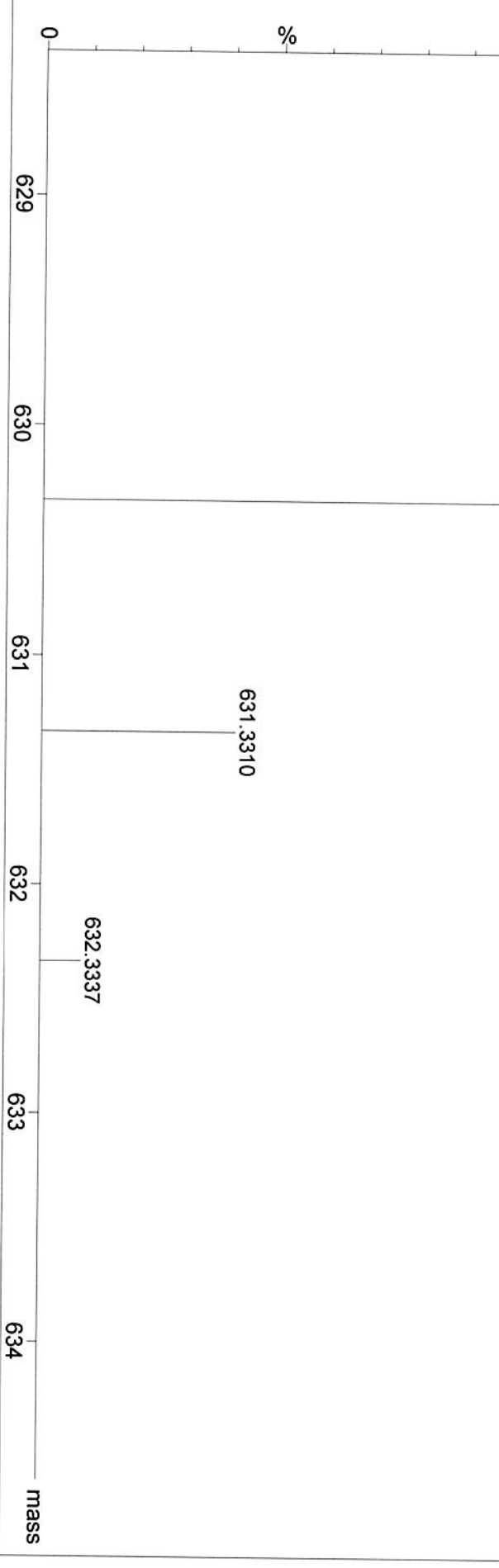
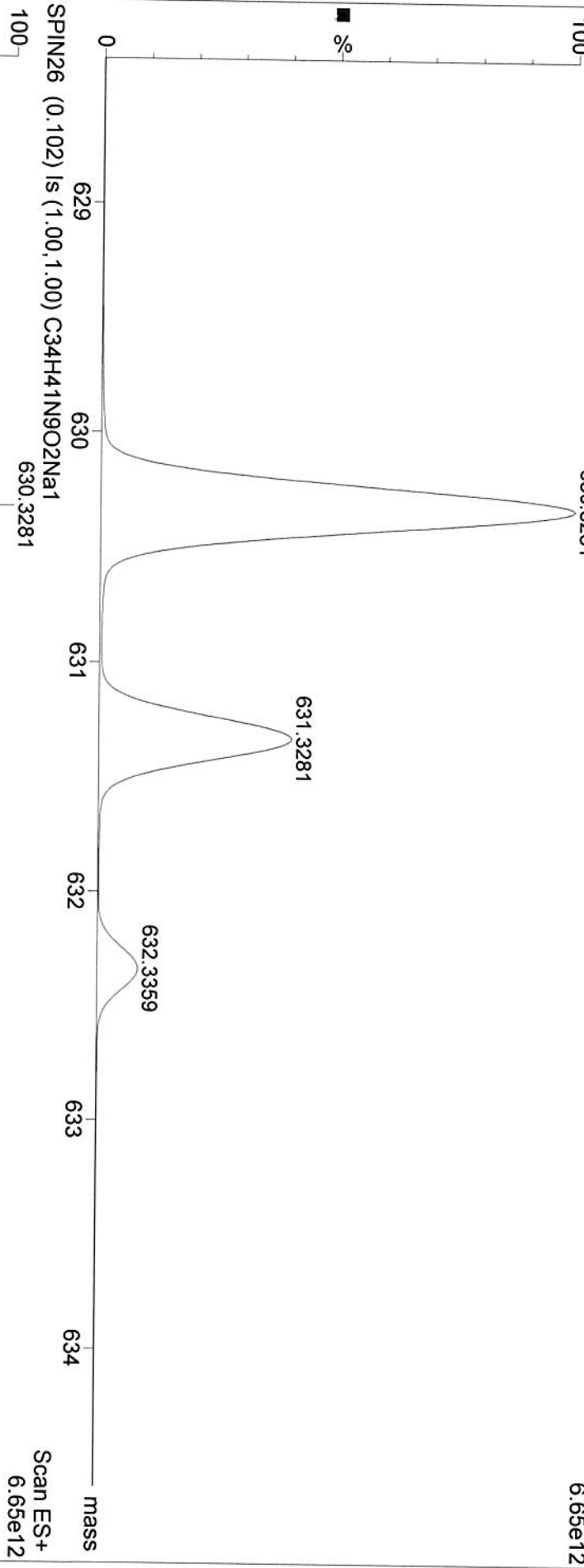
Scan ES+
2.75e7



Hybrid 005

SPIN26 (0.102) Cu (0.20); Is (1.00,1.00) C₃₄H₄₁N₉O₂Na₁

Scan ES+
6.65e12



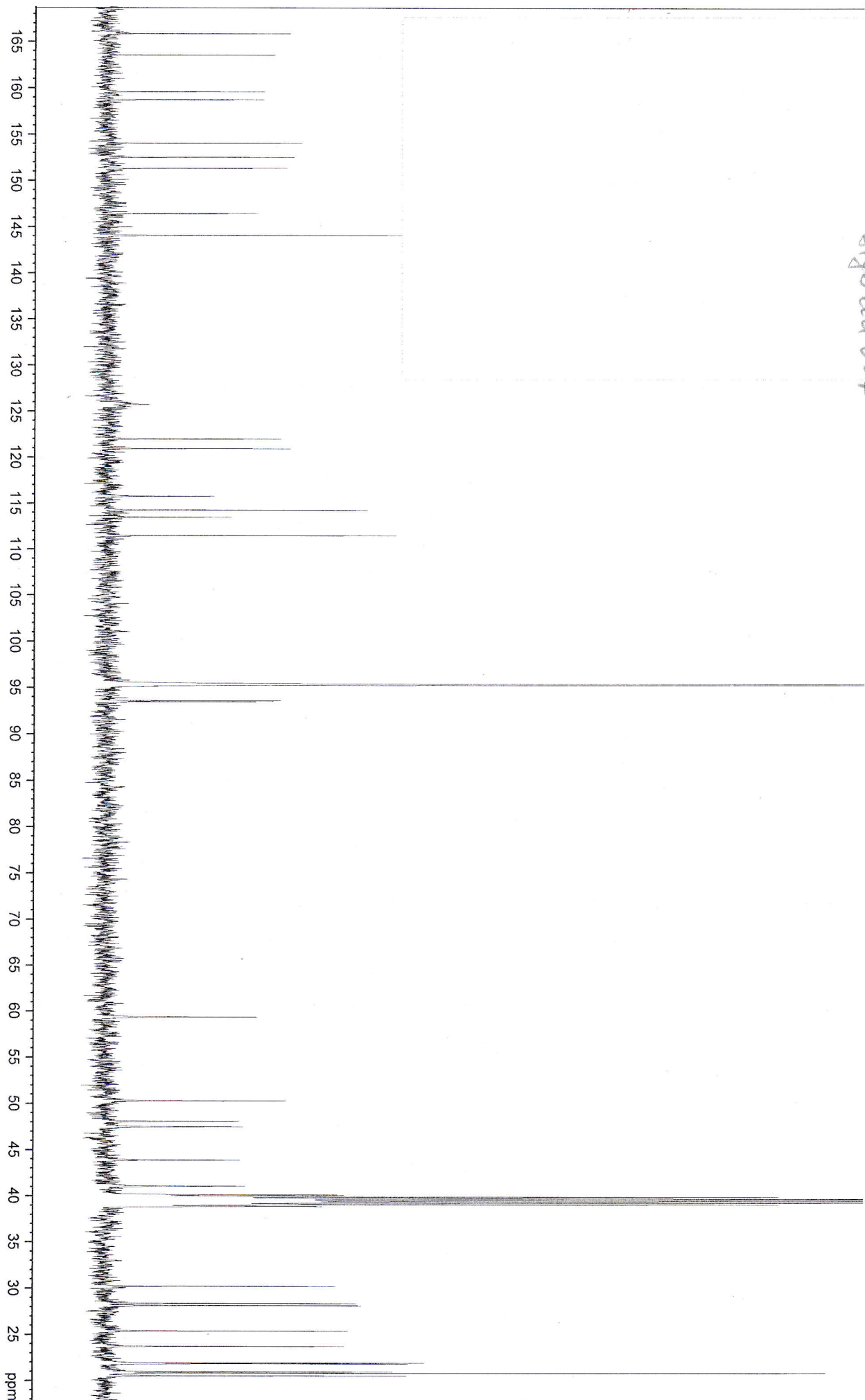
April 5, 2021 6:30:4

BRUKER
Avance 400 Neo
TopSpin 4.0.6

ha-1118 in DMSO/CCl4, 13C, 05/04,

Hybrid 007
GR

- 165.855
- 163.539
- 159.585
- 158.734
- 154.010
- 152.488
- 151.297
- 146.386
- 144.024
- 125.739
- 121.958
- 120.910
- 114.254
- 113.489
- 111.466
- 93.578
- 93.483
- 59.354
- 50.280
- 48.072
- 47.481
- 43.861
- 41.053
- 30.185
- 28.334
- 28.113
- 25.362
- 23.694
- 21.900
- 21.807
- 20.950

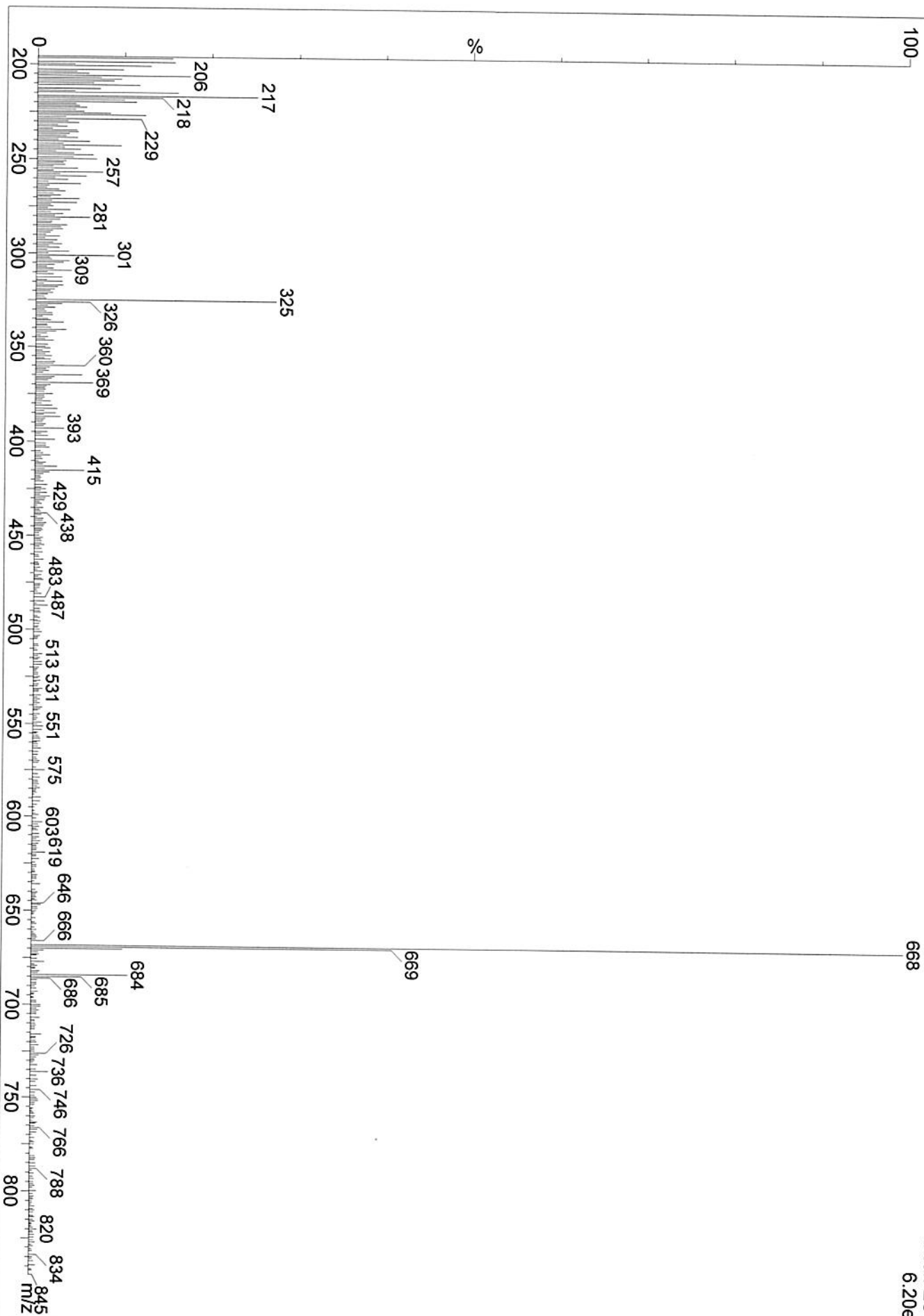


Hybrid 007

SPIN28 13 (1.324)

100

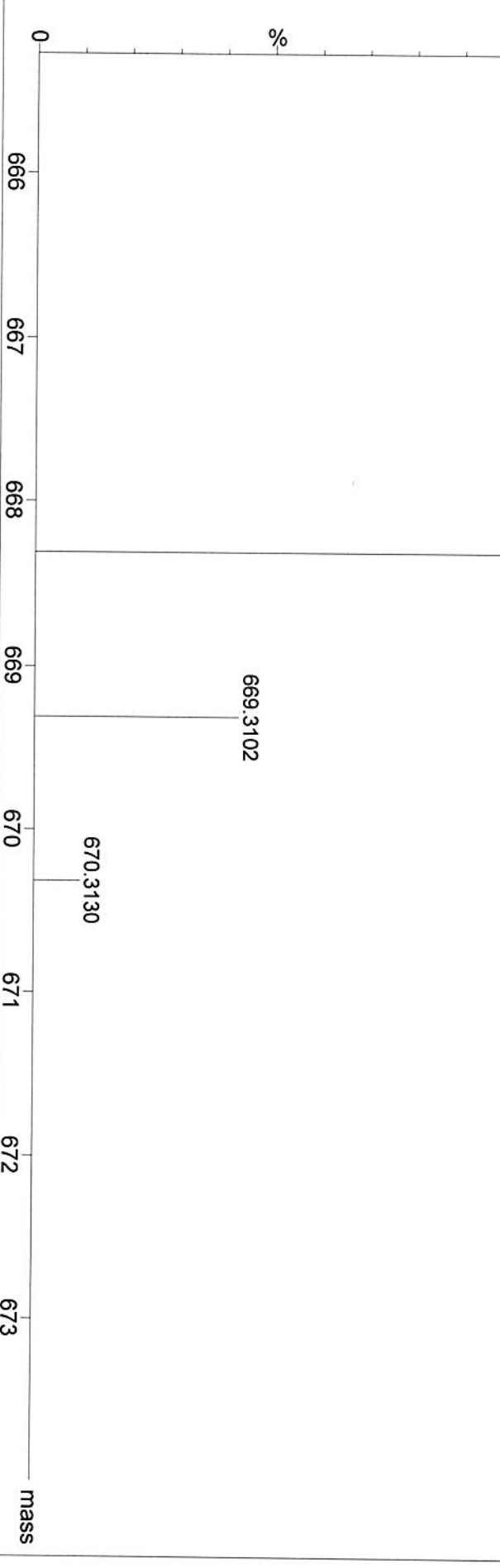
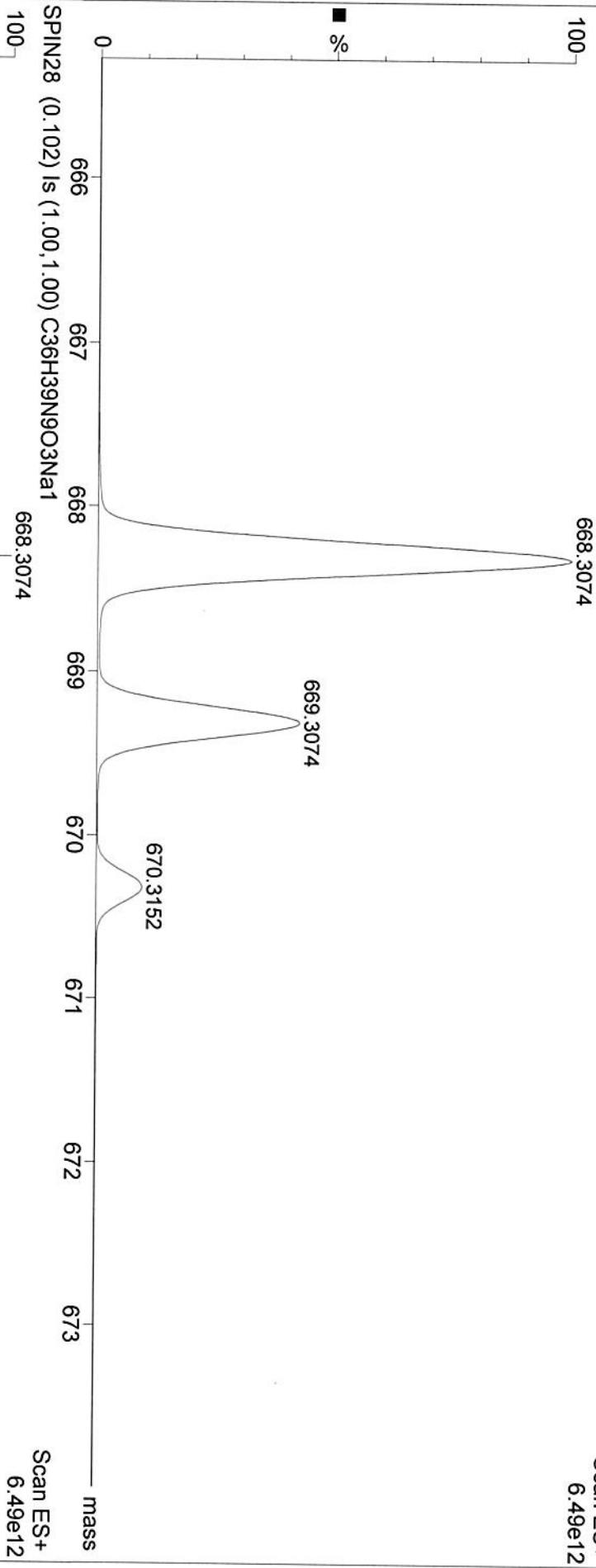
Scan ES+
6.20e6



Hybrid 007

SPIN28 (0.102) Cu (0.20); Is (1.00,1.00) C36H39N9O3Na1

Scan ES+
6.49e12



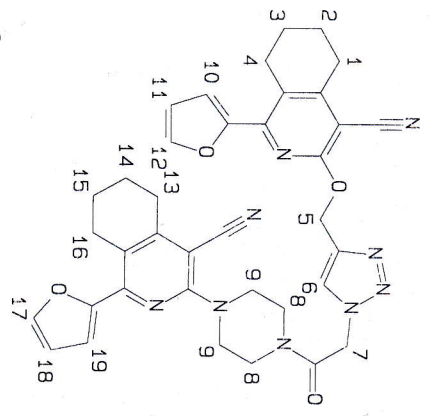
Hybrid 008 6e

Molecular Structure Research Centre, Yerevan, Armenia, Varian Mercury-300VX

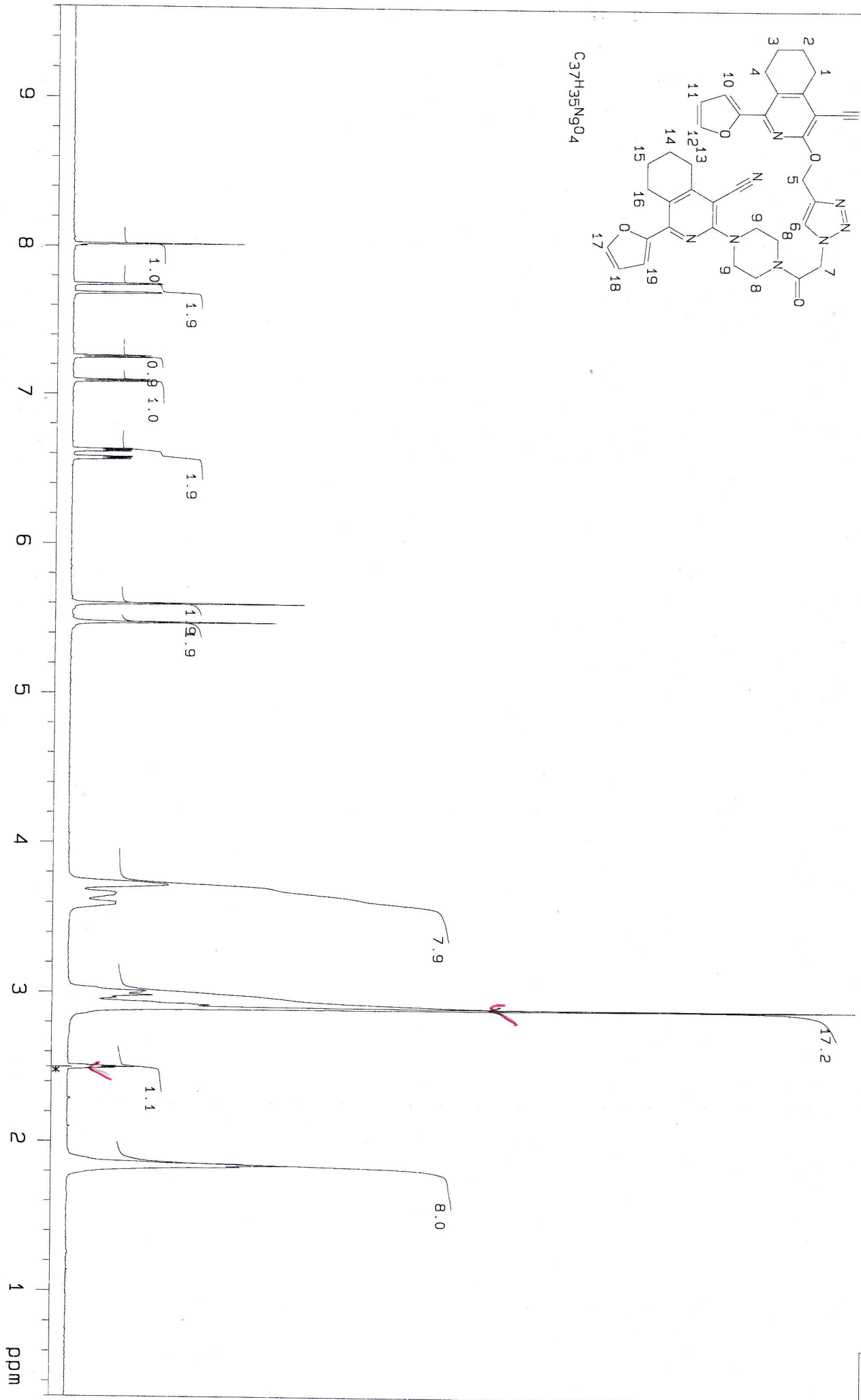
H1 300.088 MHz, $n^2 = 16$, $np = 32000$, $temp = 30.0$ C, $lp = -0.2$, solvent = DMSO- d_6 /C14 1/3

NOCI_20 ha-1108

Sep 28 2020



C₃₇H₃₅N₉O₄



+ Conf

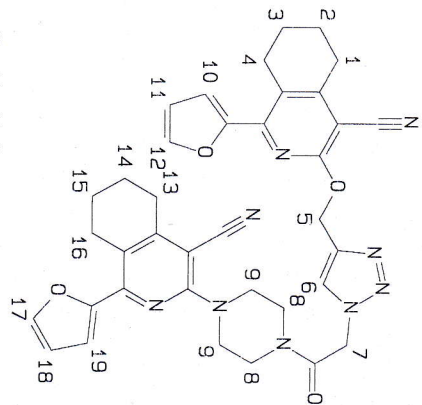
62 Hybrid 008

HA-1108

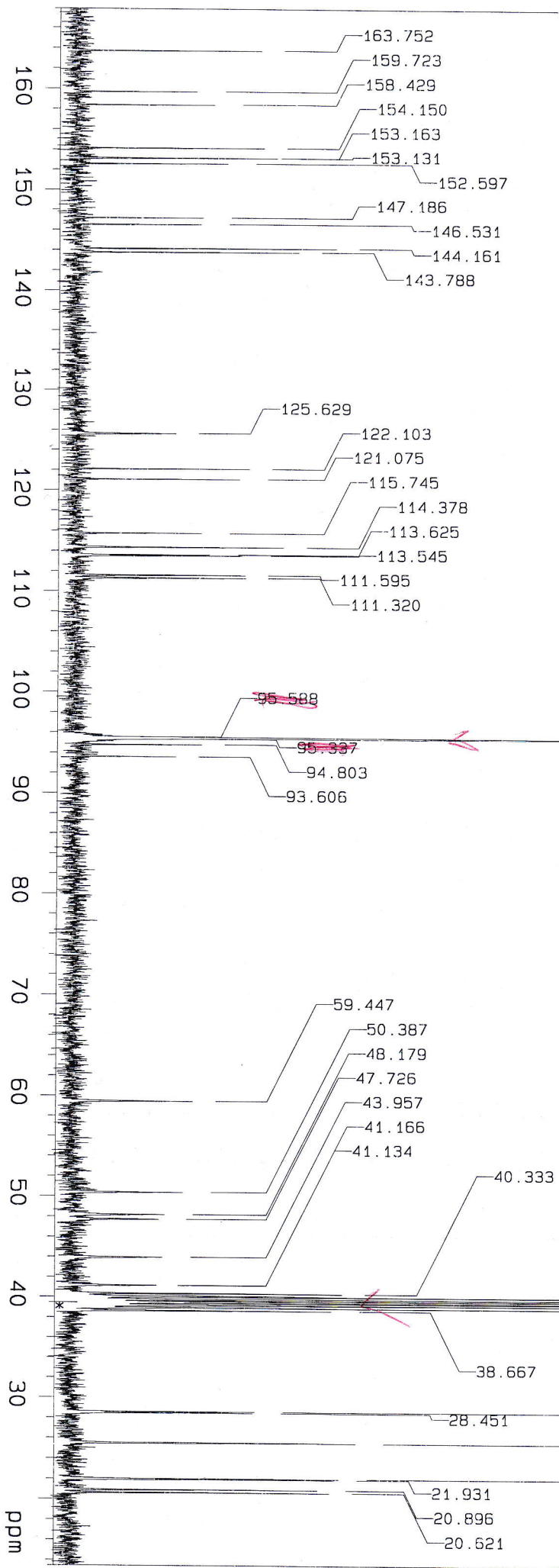
C13 75.465 MHz, nt=4128, np=19998, temp=30.0 C, lb=1.0, solvent=DMSO/CD14 1/3

NOCI_20 HA-1108

Sep 28 2020

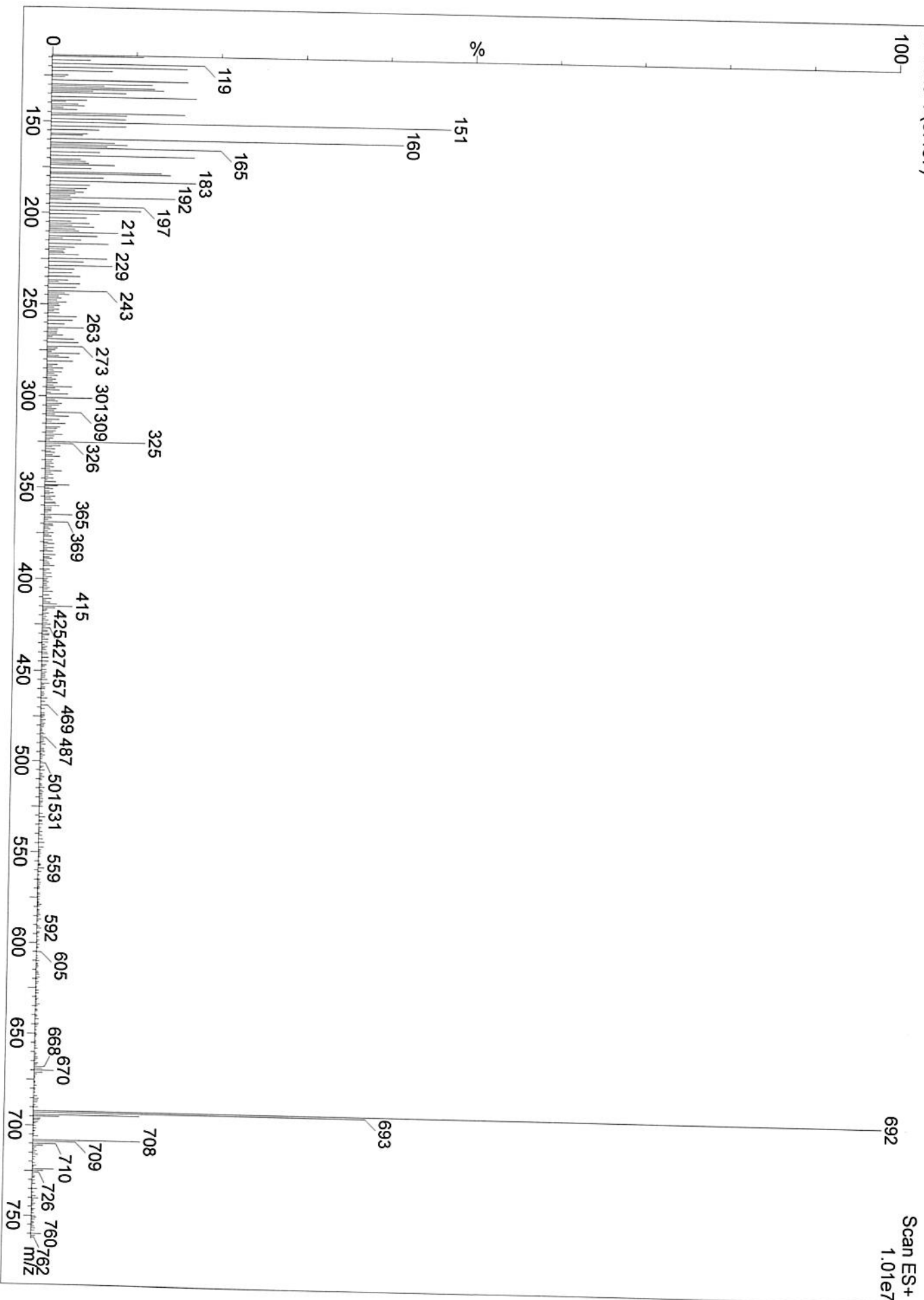


C₃₇H₃₅N₉O₄



+
[Handwritten signature]

Hybrid 008
SPIN29 4 (0.407)

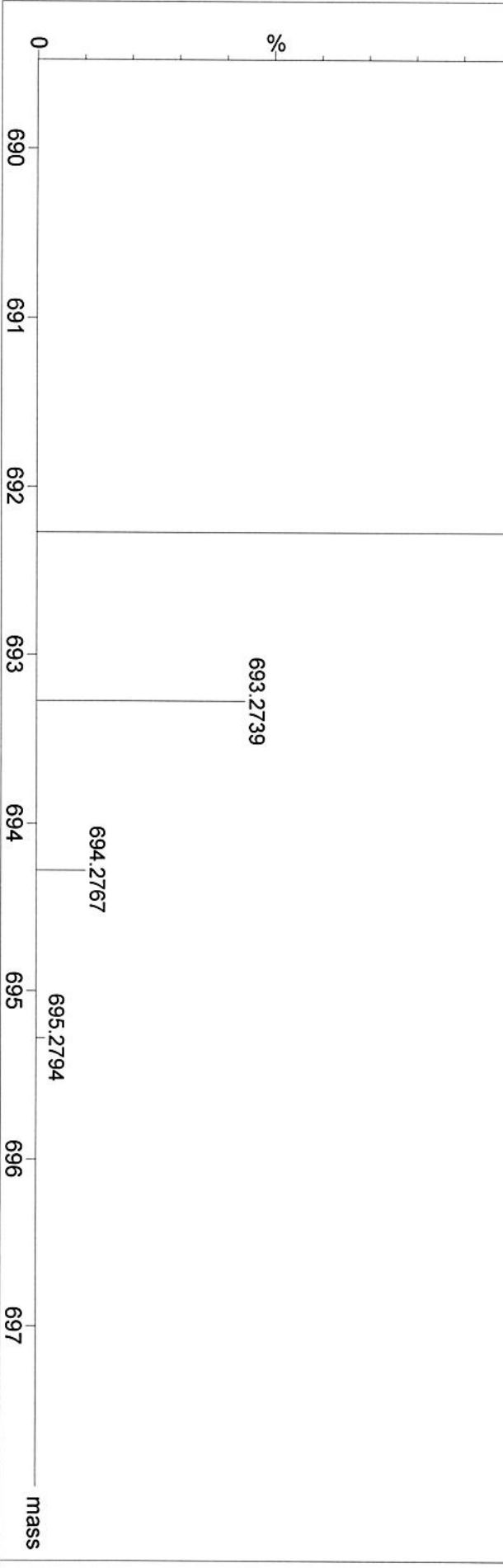
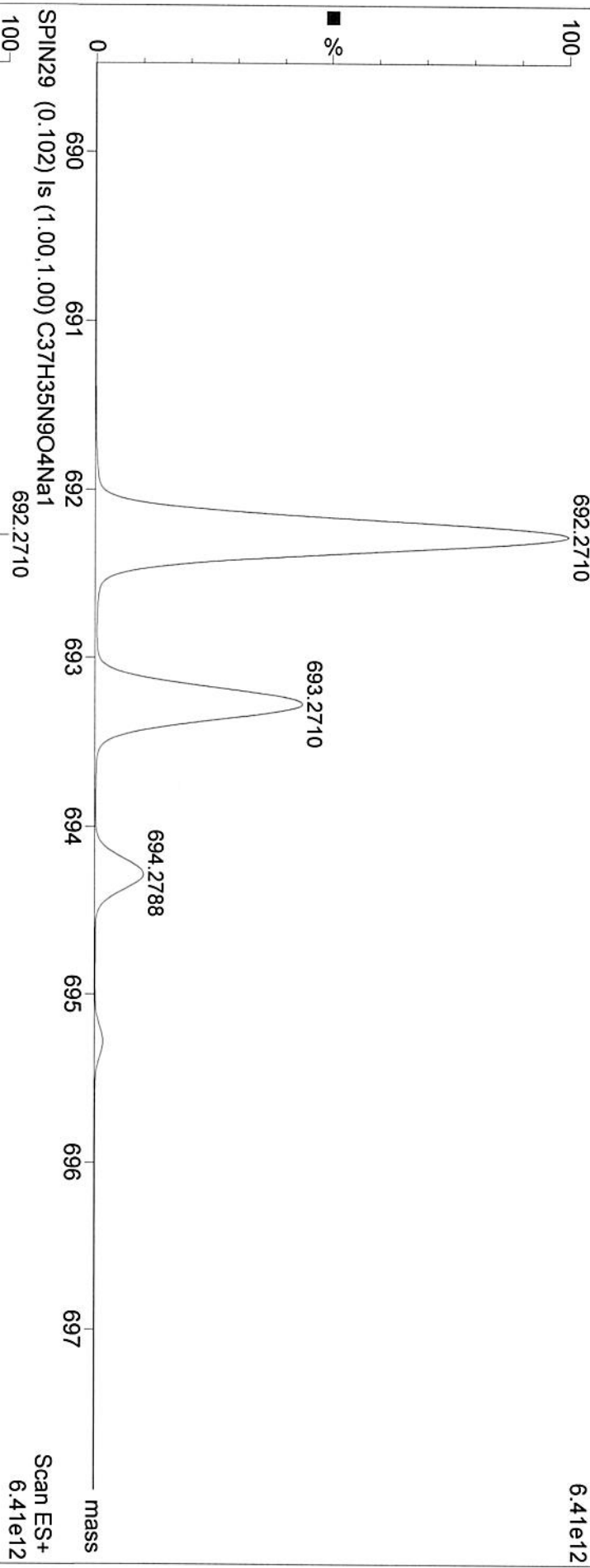


Scan ES+
1.01e7

Hybrid 008

SPIN29 (0.102) Cu (0.20); Is (1.00,1.00) C37H35N9O4Na1

Scan ES+
6.41e12



Hybrid 019 bn

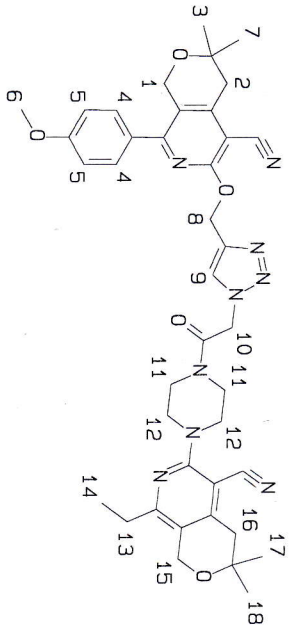
Molecular Structure Research Centre, Yerevan, Armenia, Varian Mercury-300VX

HA-1016

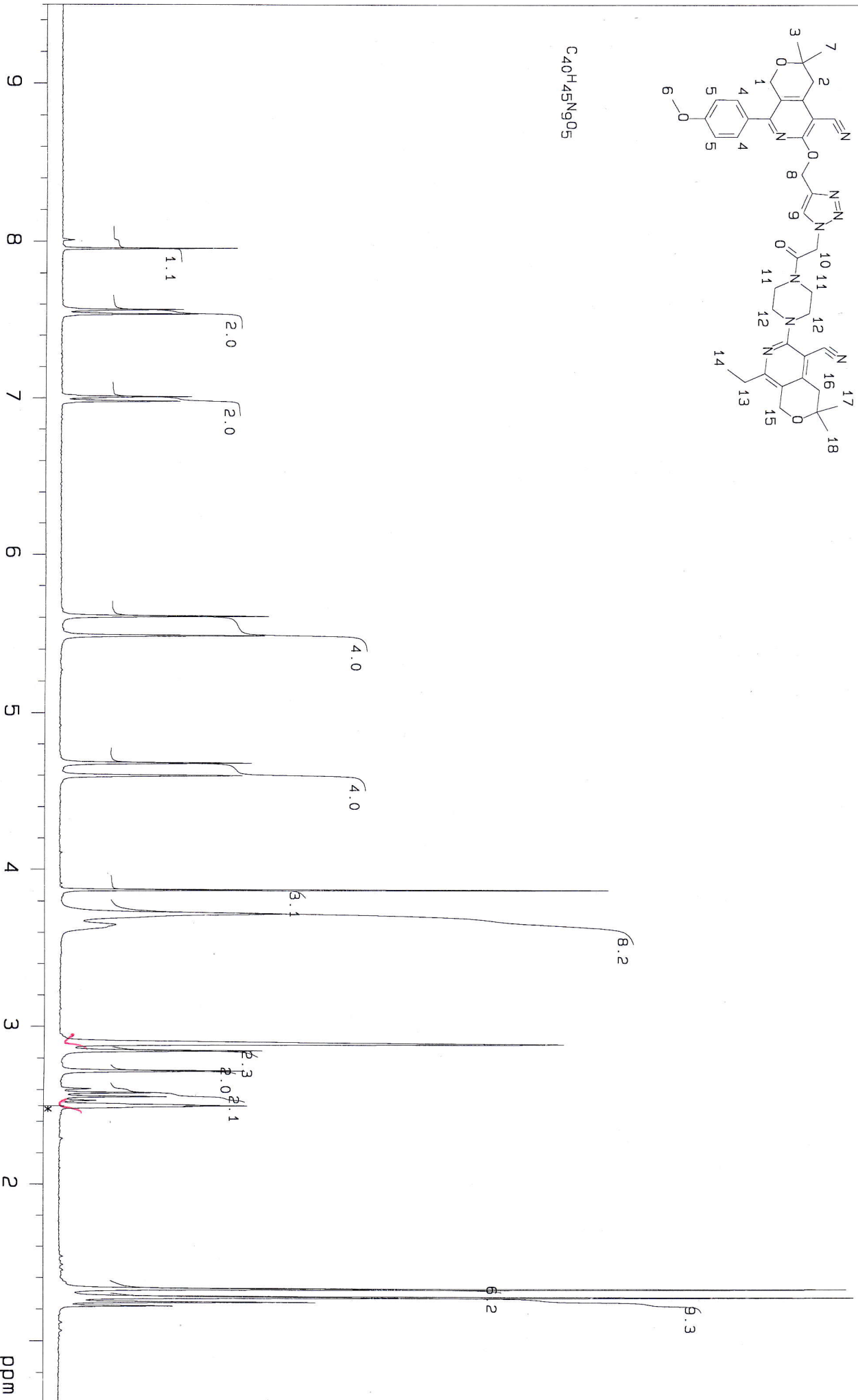
H1 300.088 MHz, nt = 16, np = 32000, temp = 30.0 C, lb = -0.2, solvent = DMSO/CDCl4 1/3

NOCT_19 ha-1016

Mar 4 2019



C₄₀H₄₅N₉O₅



+

HA-1016

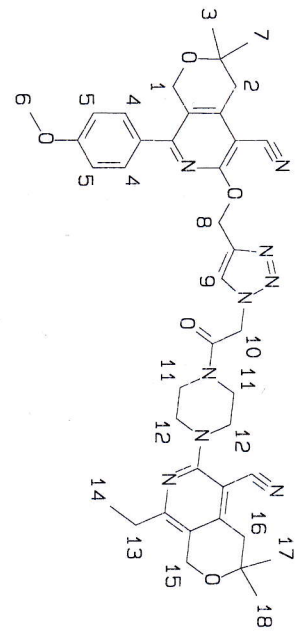
Molecular Structure Research Centre, Yerevan, Armenia, Varian Mercury-300VX

C-13 75.465 MHz, nt = 1024, np = 19998, temp = 30.0 C, lb = 1.0, solvent = DMSO/C4 1/3

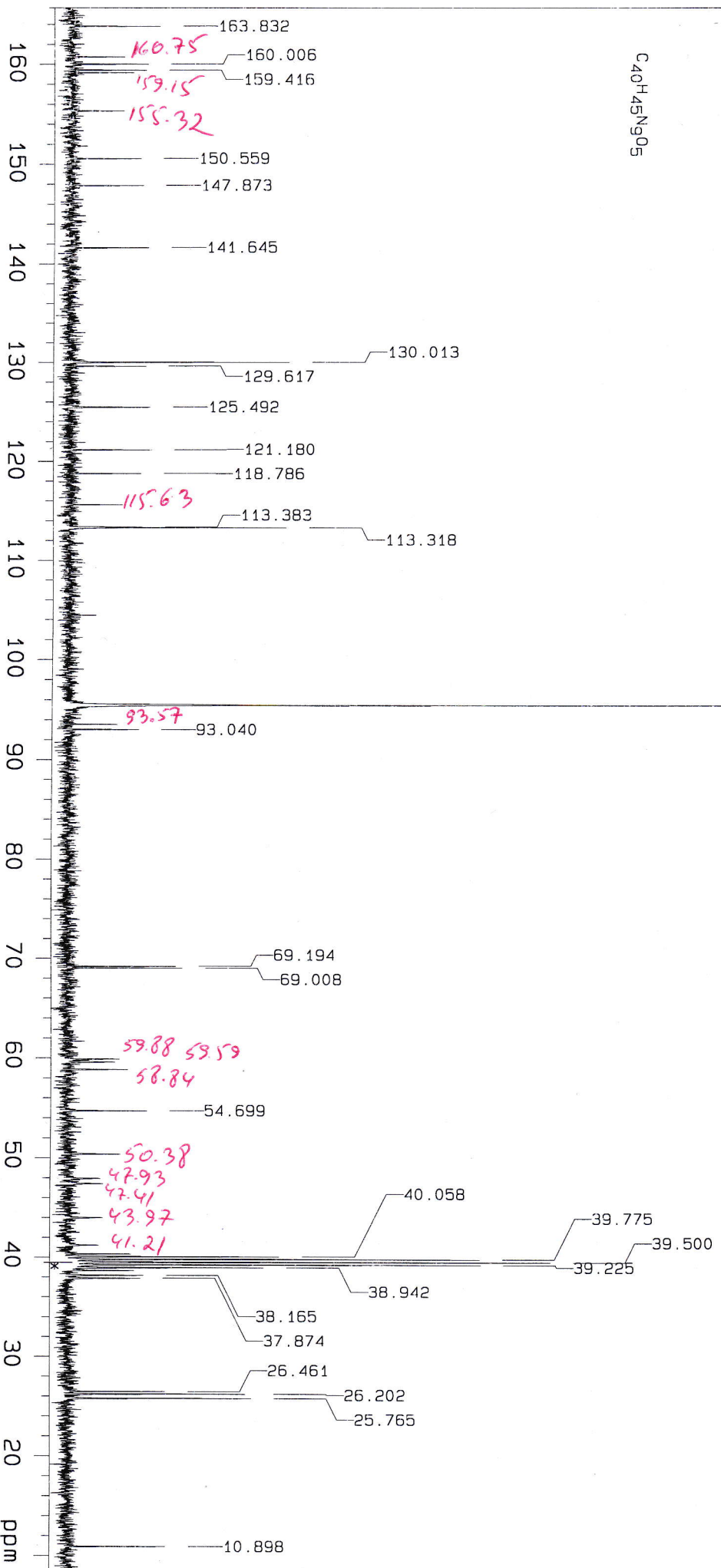
NOCI_19 ha-1016

Mar 4 2019

Gr hybrid 013



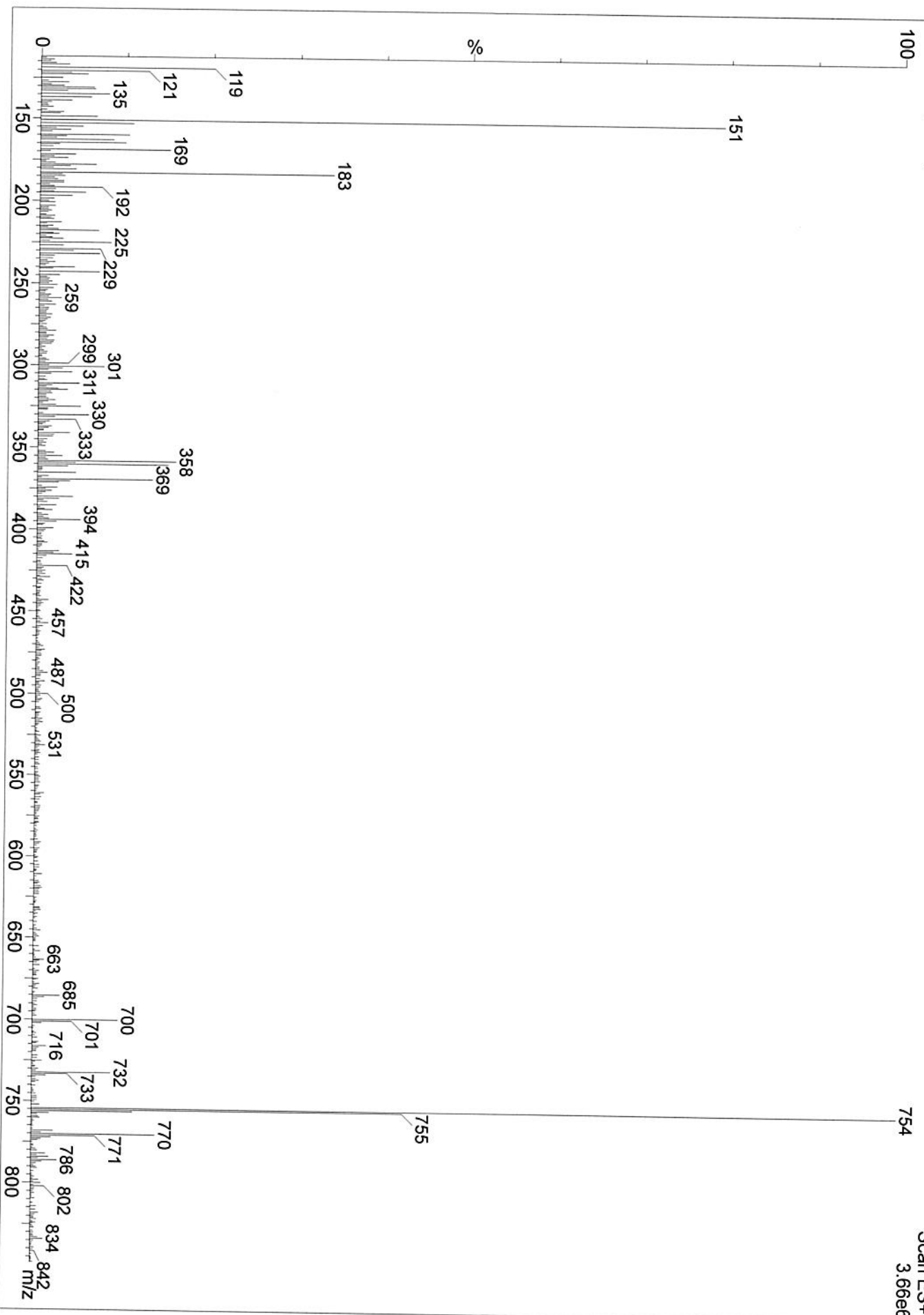
C₄₀H₄₅N₉O₅



+
[Signature]

Hybrid 019
SPIN40 4 (0.407)

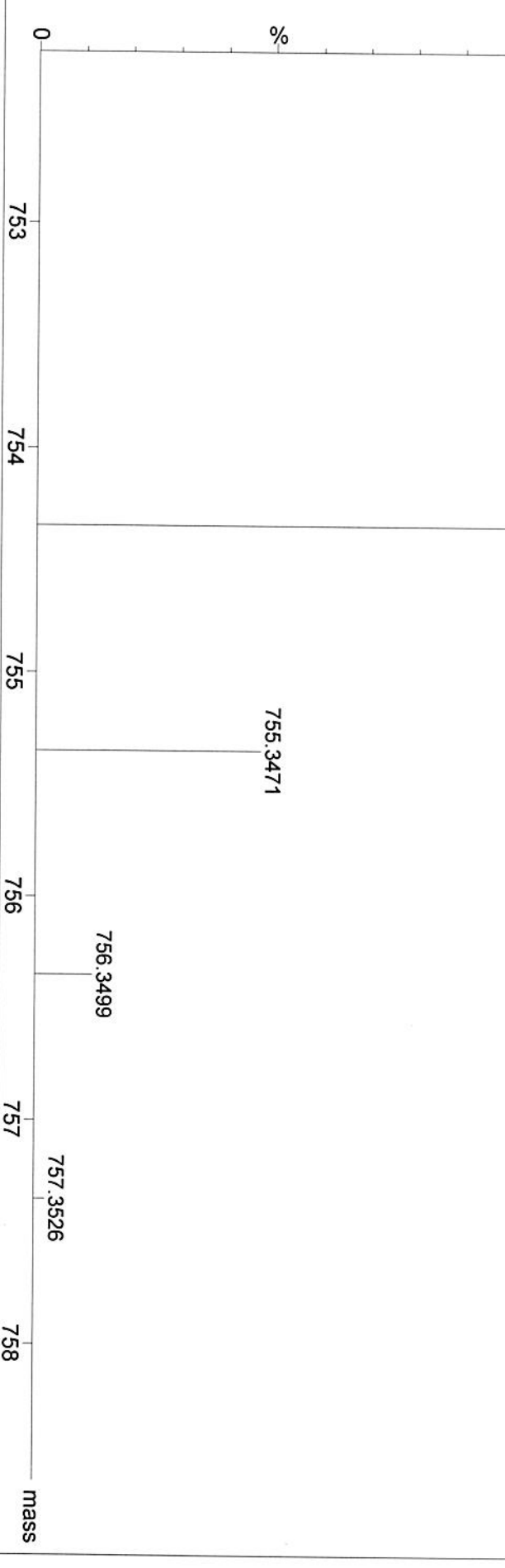
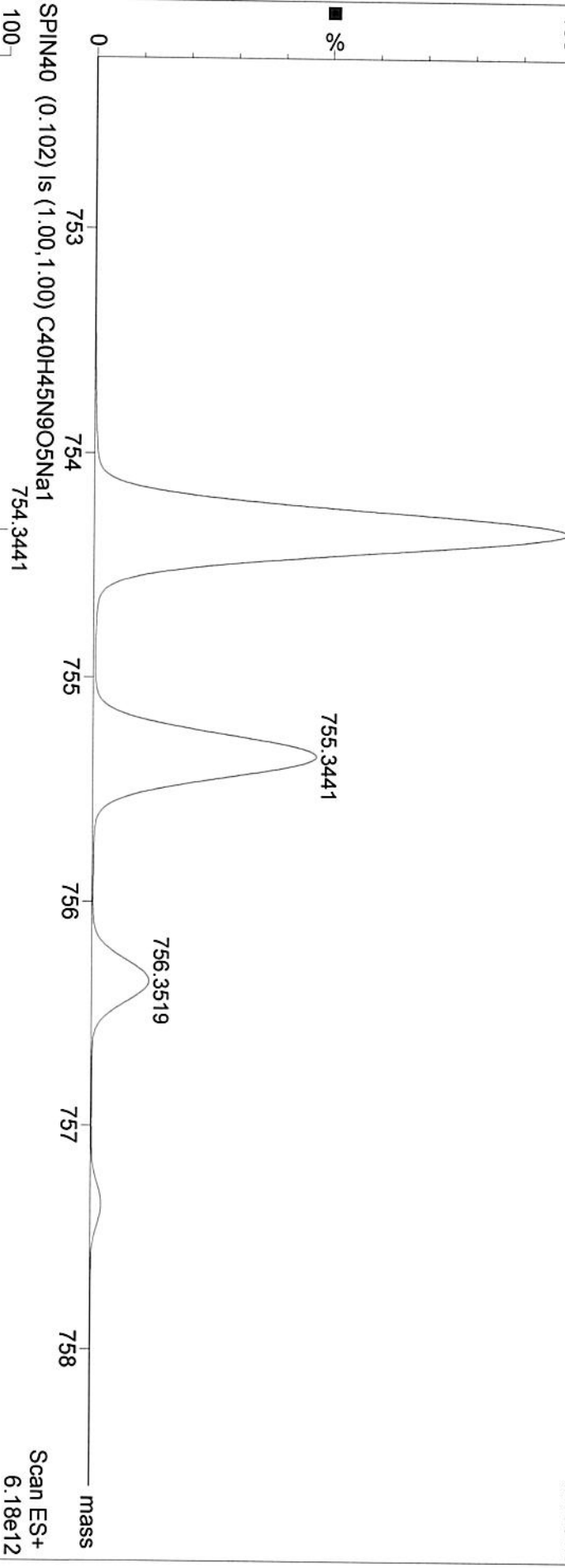
Scan ES+
3.66e6



Hybrid 019

SPIN40 (0.102) Cu (0.20); Is (1.00,1.00) C40H45N9O5Na1

Scan ES+
6.19e12



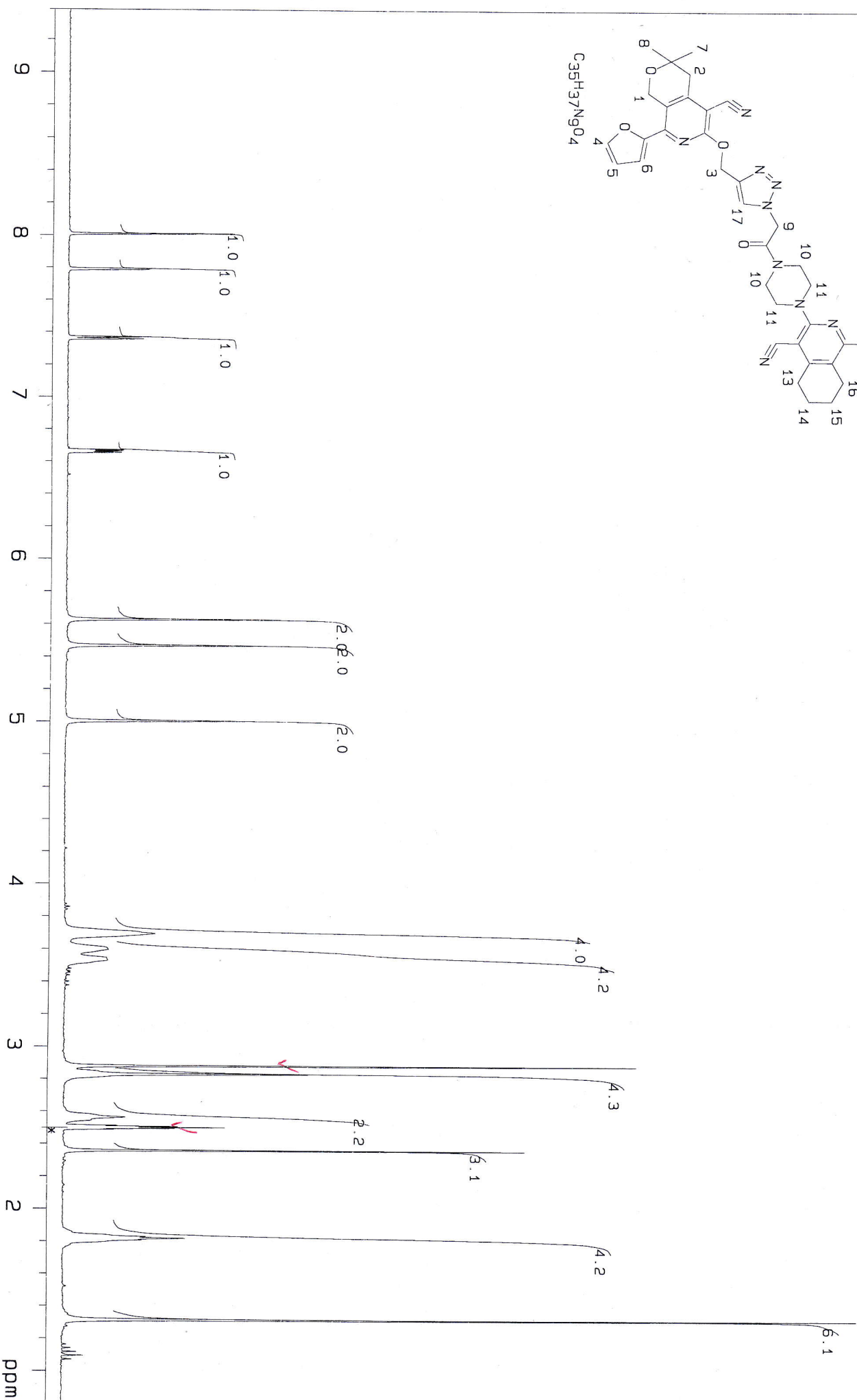
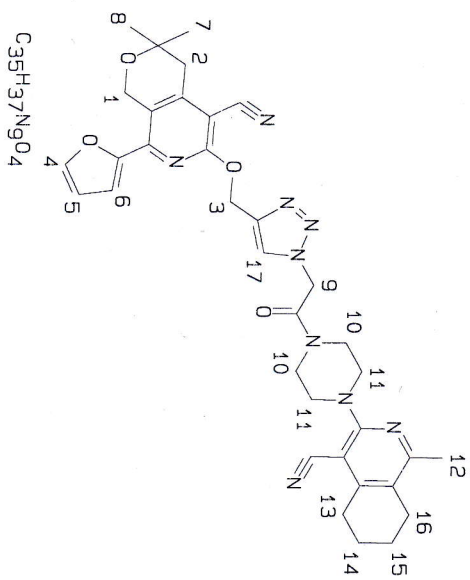
Hybrid 016 60

Molecular Structure Research Centre, Yerevan, Armenia, Varian Mercury-300VX
HA-1005

H1 300.088 MHz, nt = 16, np = 32000, temp = 30.0 C, lb = -0.2, solvent = DMSO/CDCl4 1/3

SAMV_19 ha-1005

Feb 8 2019



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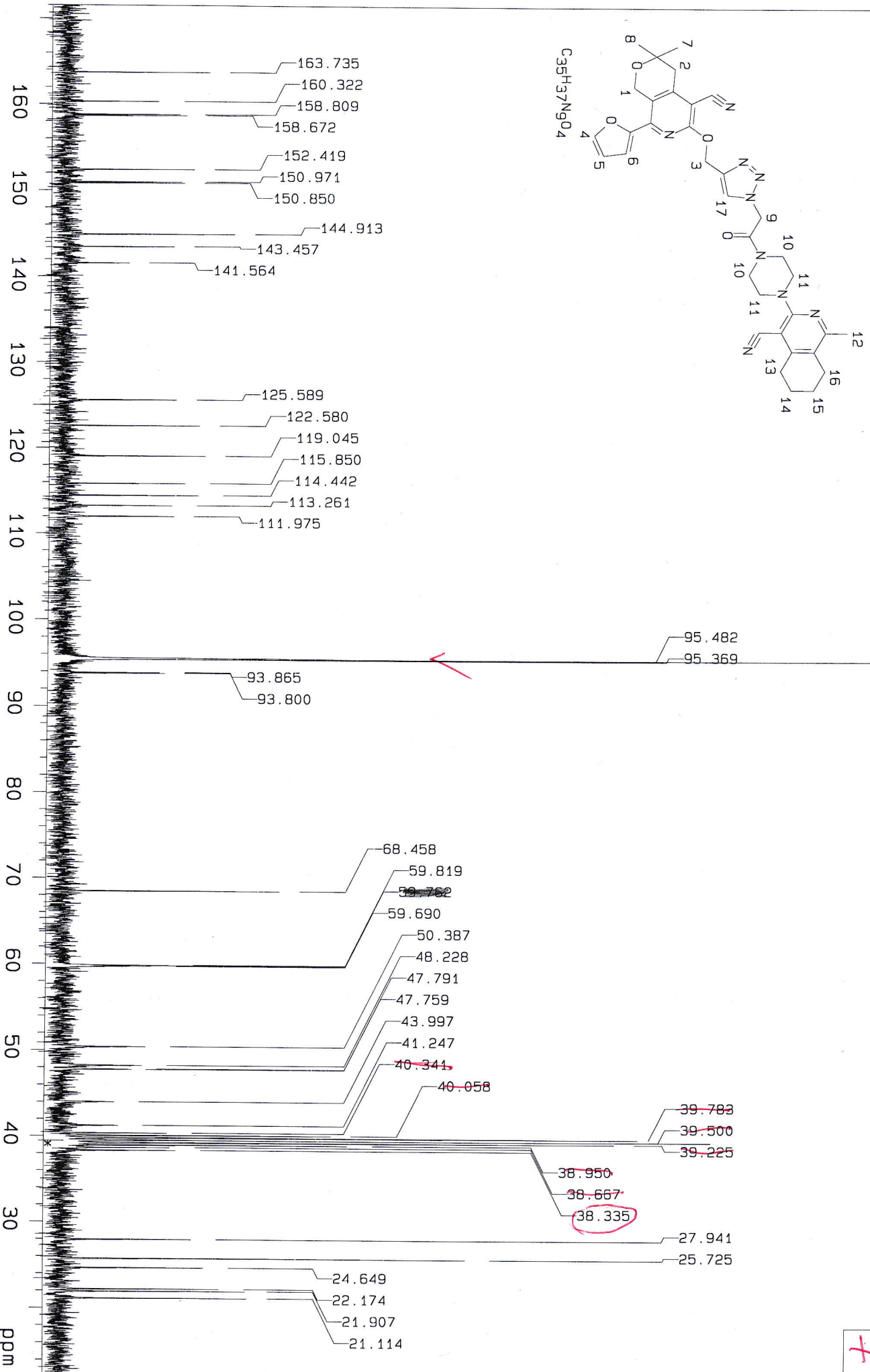
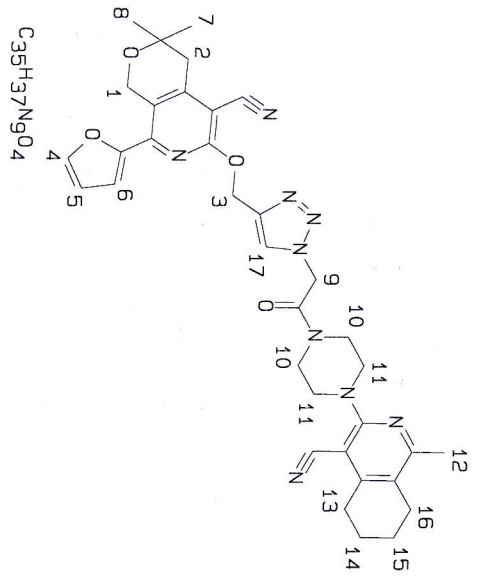
HA-1005

60 Hybrid 016

C13 75.465 MHz, nt = 640, np = 19998, temp = 30.0 C, lb = 1.0, solvent = DMSO-CD4 1/3

SAWV_19 ha-1005

Feb 8 2019



+ [Signature]

Hybrid 016

SPIN37 7 (0.713)

100

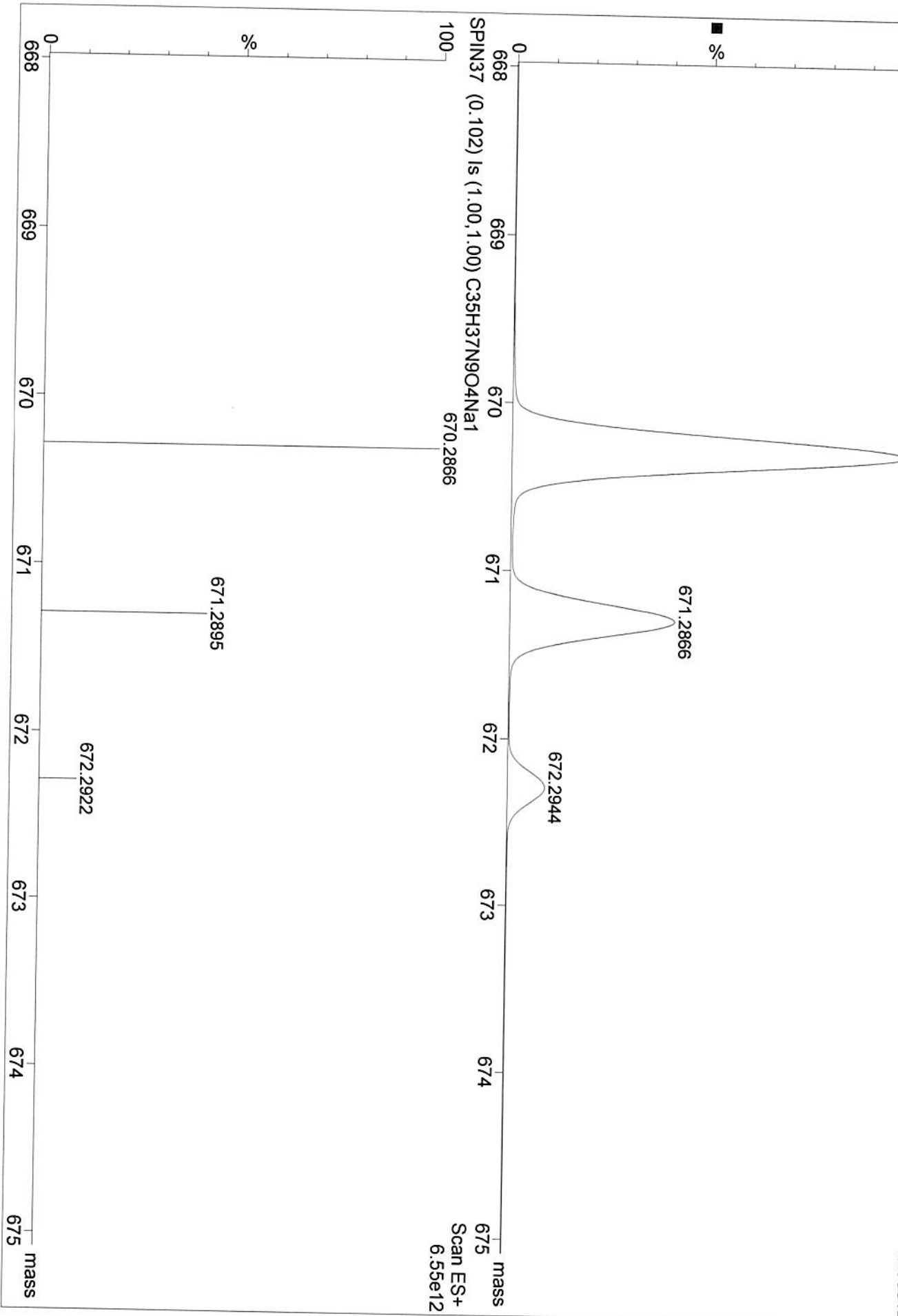
Scan ES+
5.99e6



Hybrid 016

SPIN37 (0.102) Cu (0.20); Is (1.00,1.00) C35H37N9O4Na1

Scan ES+
6.55e12



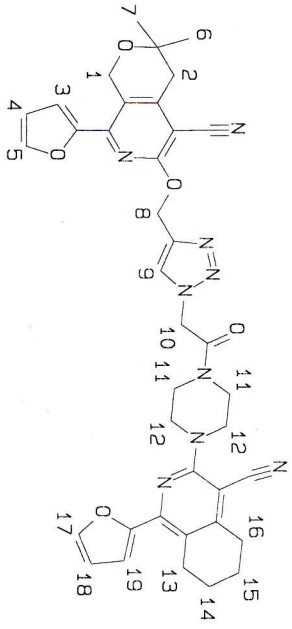
Hybrid 017
6P

Molecular Structure Research Centre, Yerevan, Armenia, Varian Mercury-300VX
HA-1116

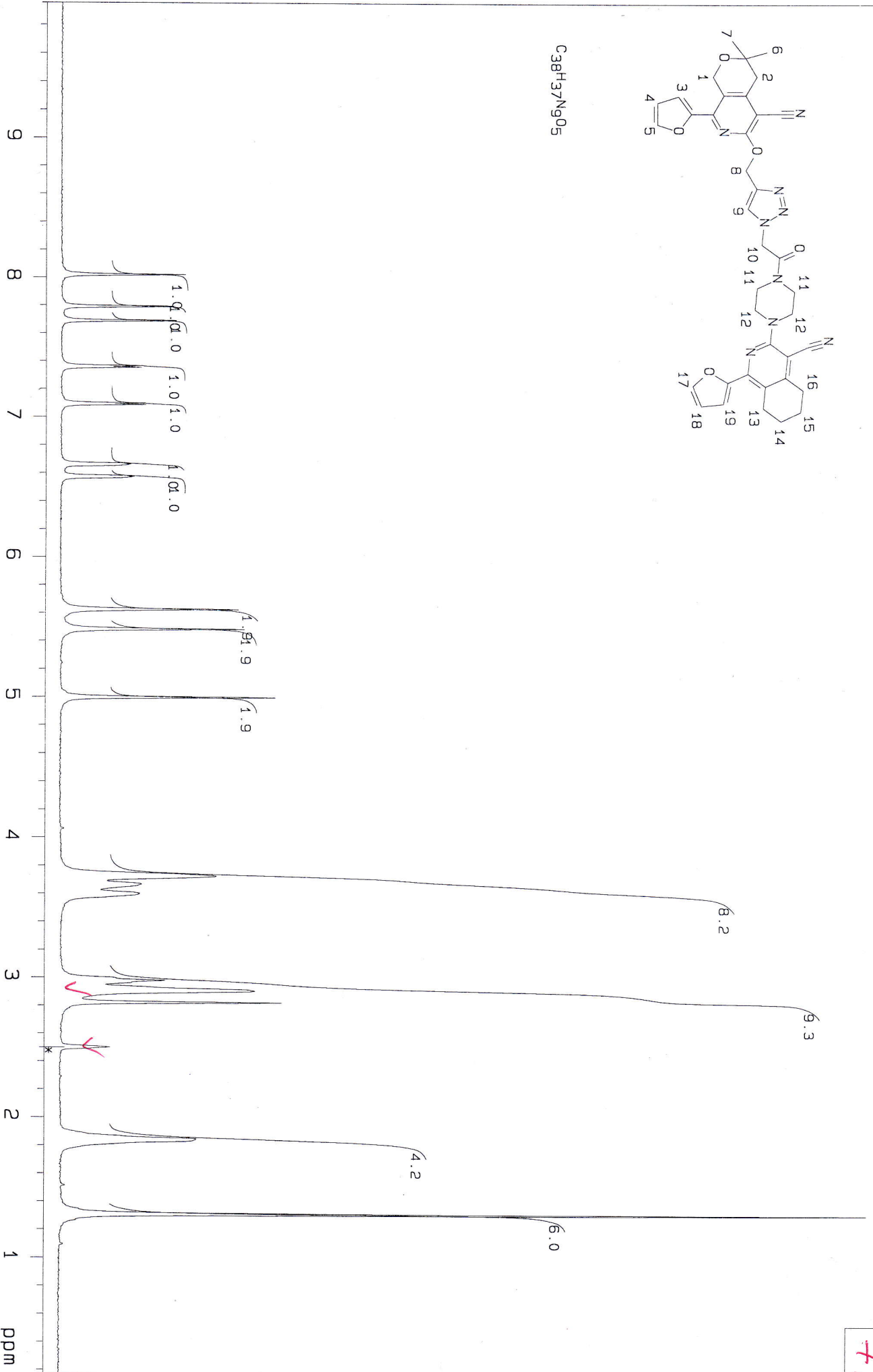
H1 300.088 MHz, nt = 16, mp = 32000, temp = 30.0 C, lb = -0.2, solvent = DMSO

ANUSH_TEMA ha-1116

Mar 11 2021



C₃₈H₃₇N₉O₅



+

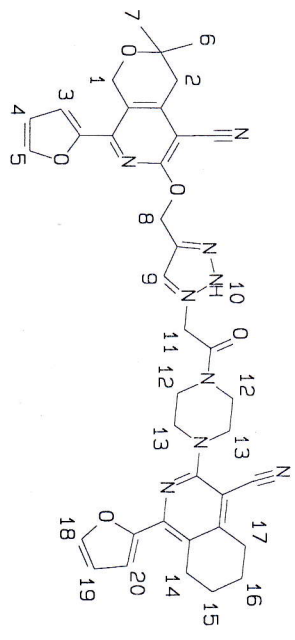
HA-1116

C 13 75.465 MHz, rt = 848, mp = 19998, temp = 30.0 C, lb = 1.0, solvent = DMSO/CDCl4 1/3

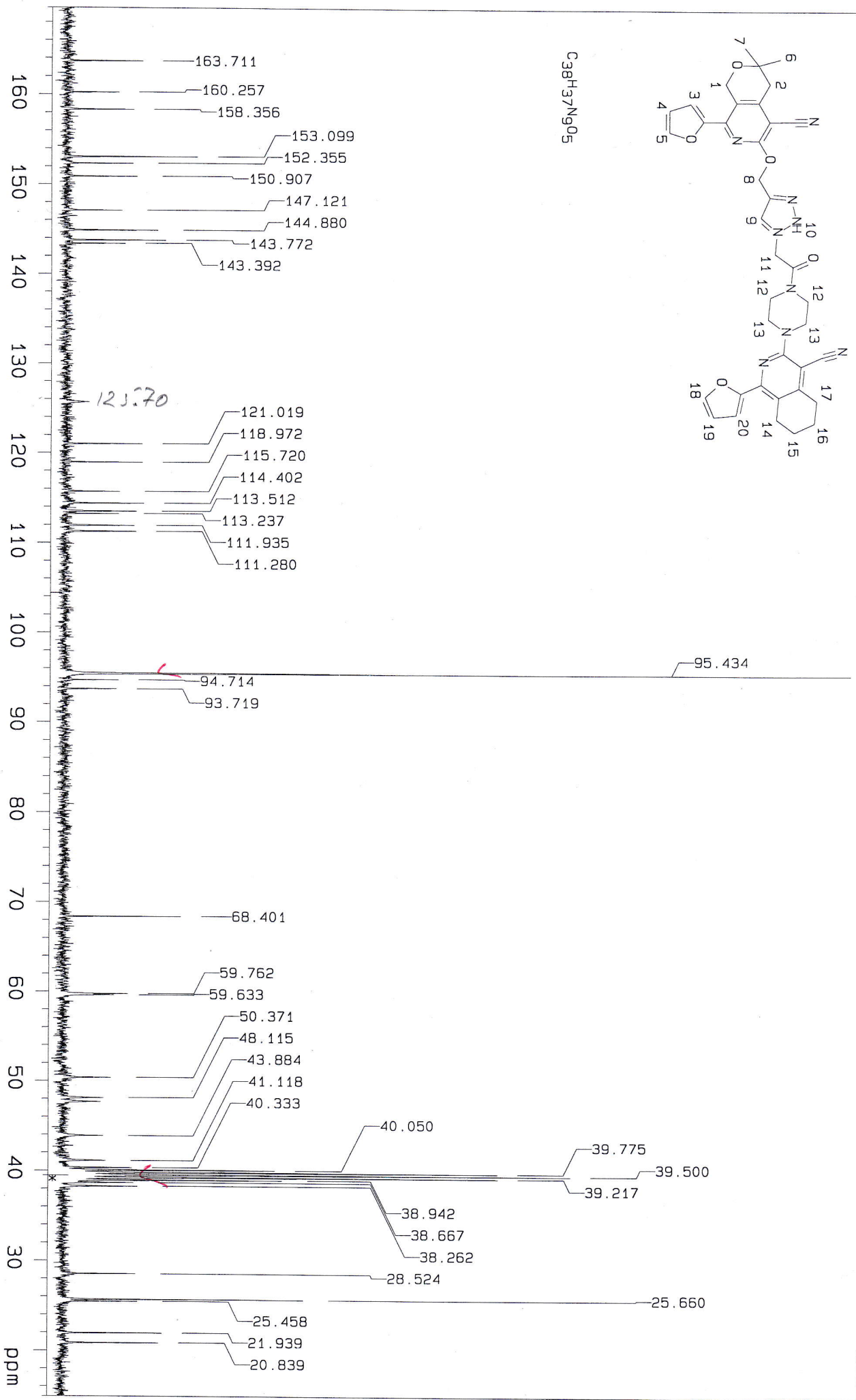
ANUSH_TEMA ha-1116

Mar 11 2021

GP Hybrid 017



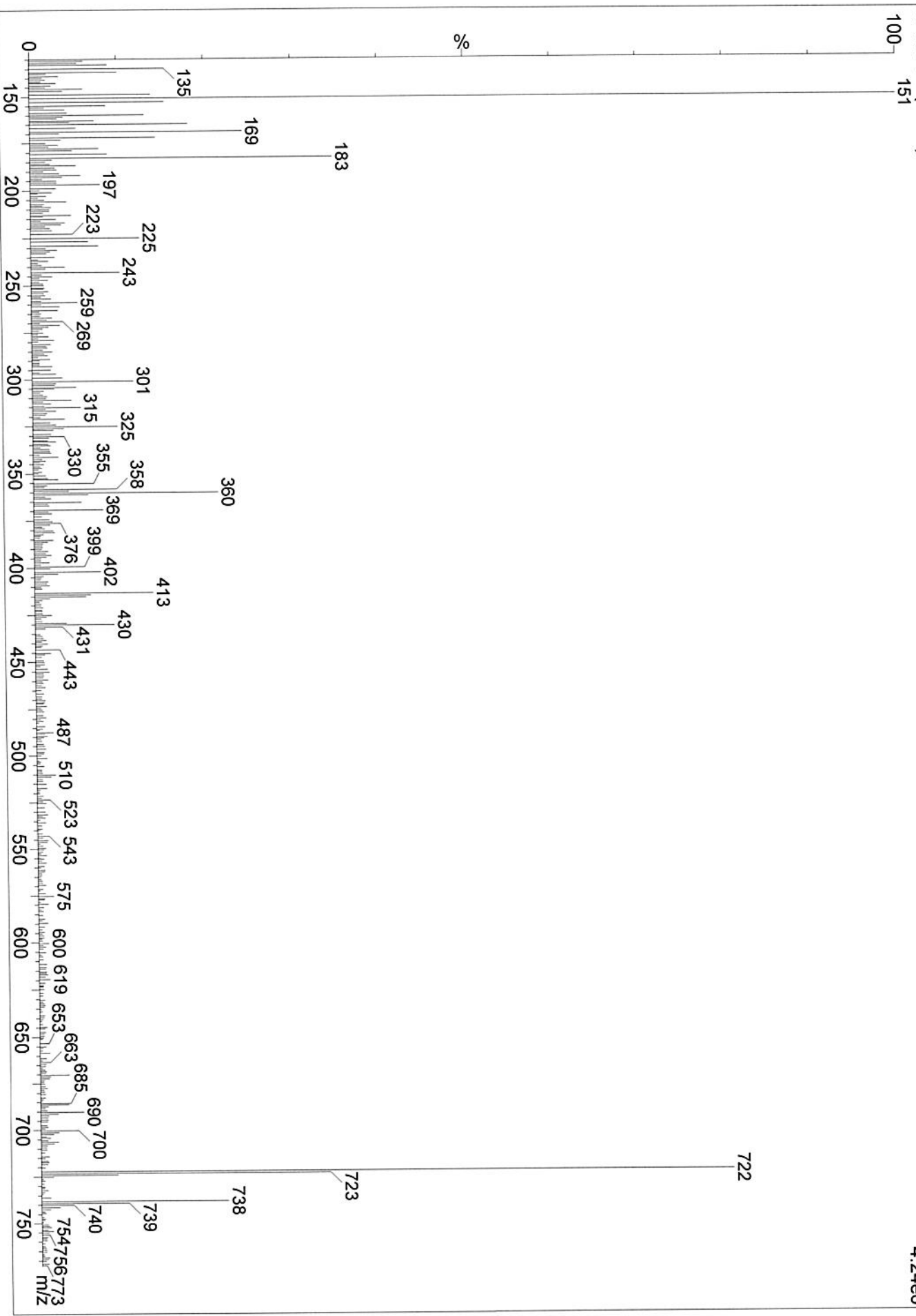
C₃₈H₃₇N₉O₅



+ [Signature]

Hybrid 017
SPIN38 4 (0.407)

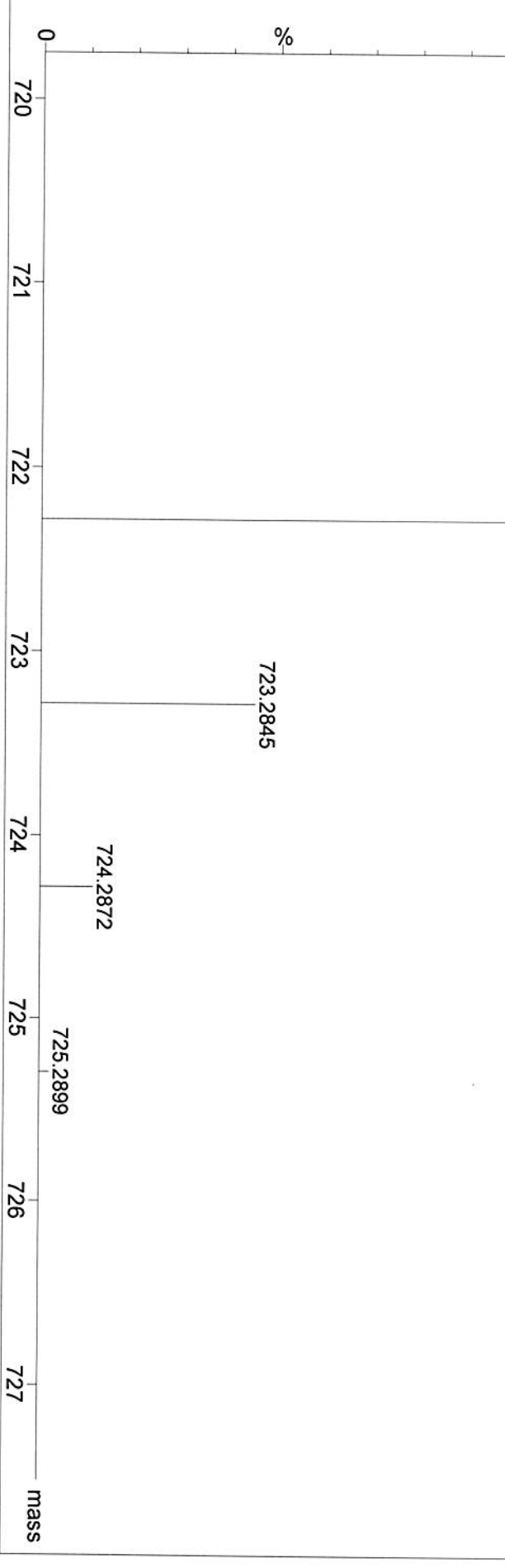
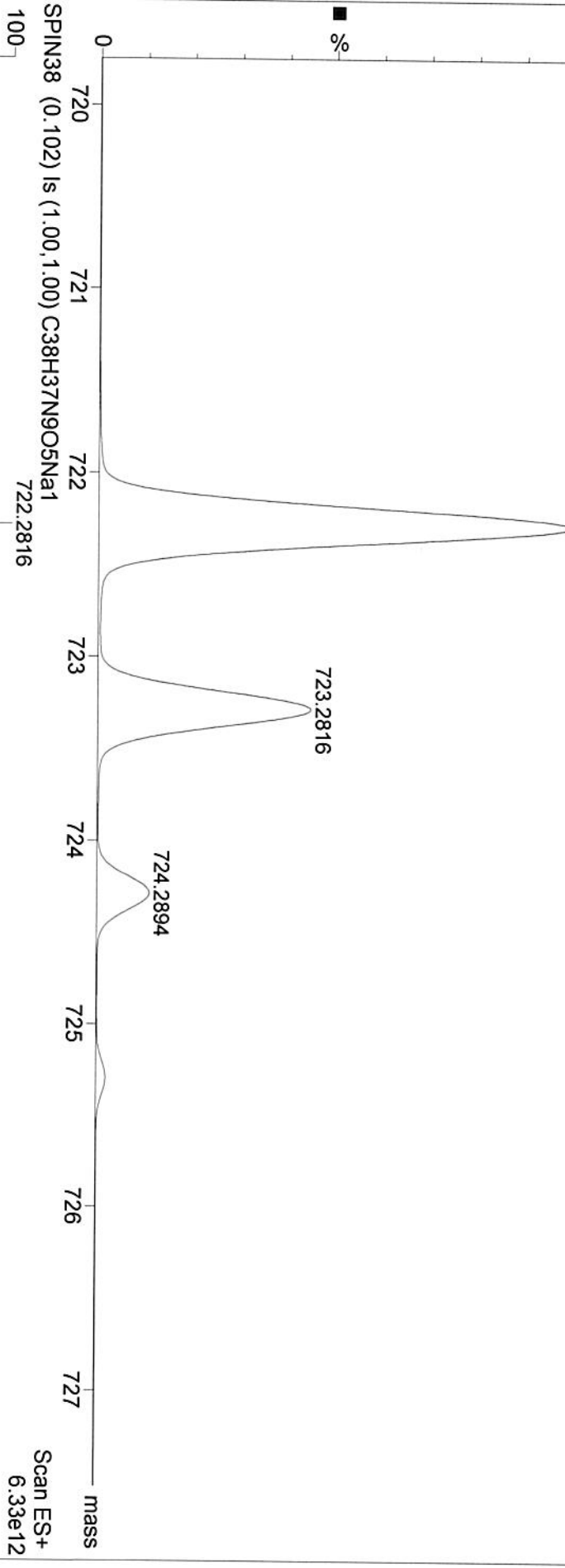
Scan ES+
4.24e6



Hybrid 017

SPIN38 (0.102) Cu (0.20); Is (1.00, 1.00) C38H37N9O5Na1

Scan ES+
6.33e12



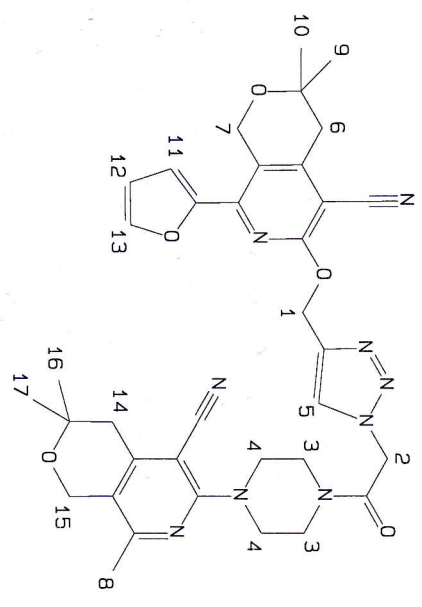
69 Hybrid 018

HA-1047 Molecular Structure Research Centre, Yerevan, Armenia, Varian Mercury-300VX

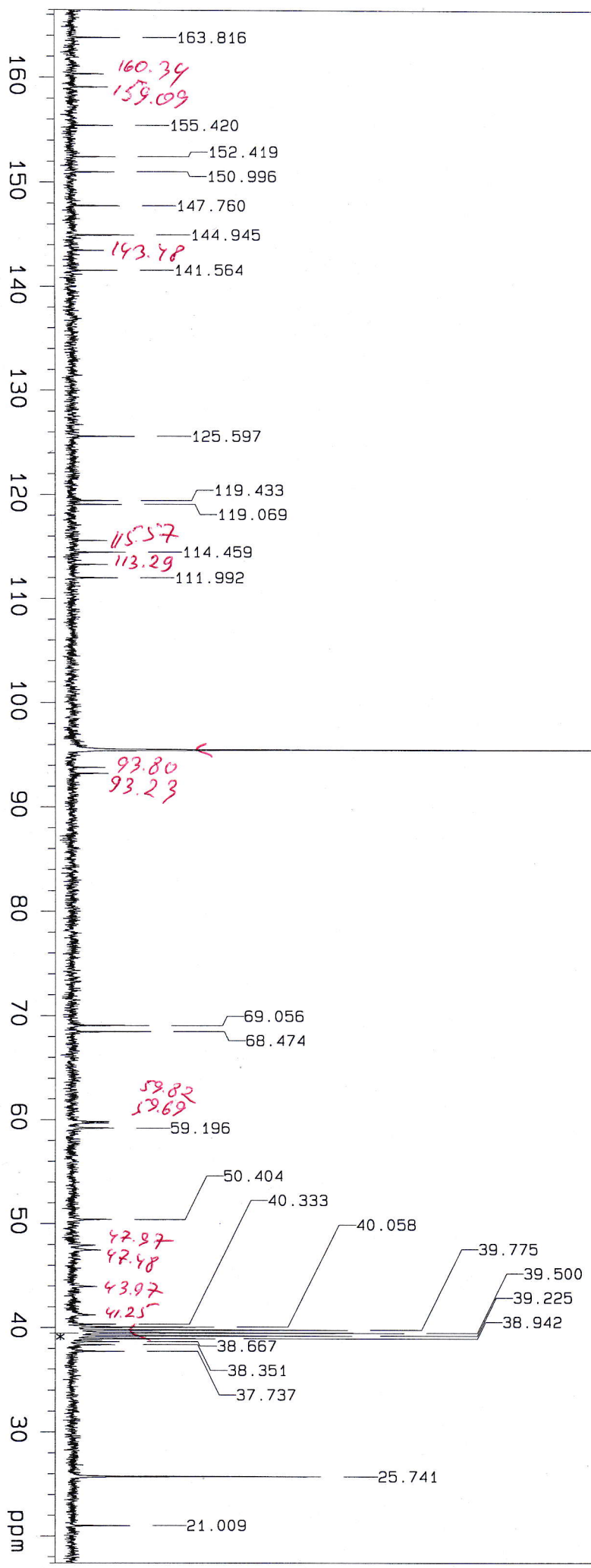
C13 75.465 MHz, nt=1440, mp=19998, temp=30.0 C, lb=1.0, solvent=DMSO/CDCl3

SAMV_19 na=1047

Jun 19 2019



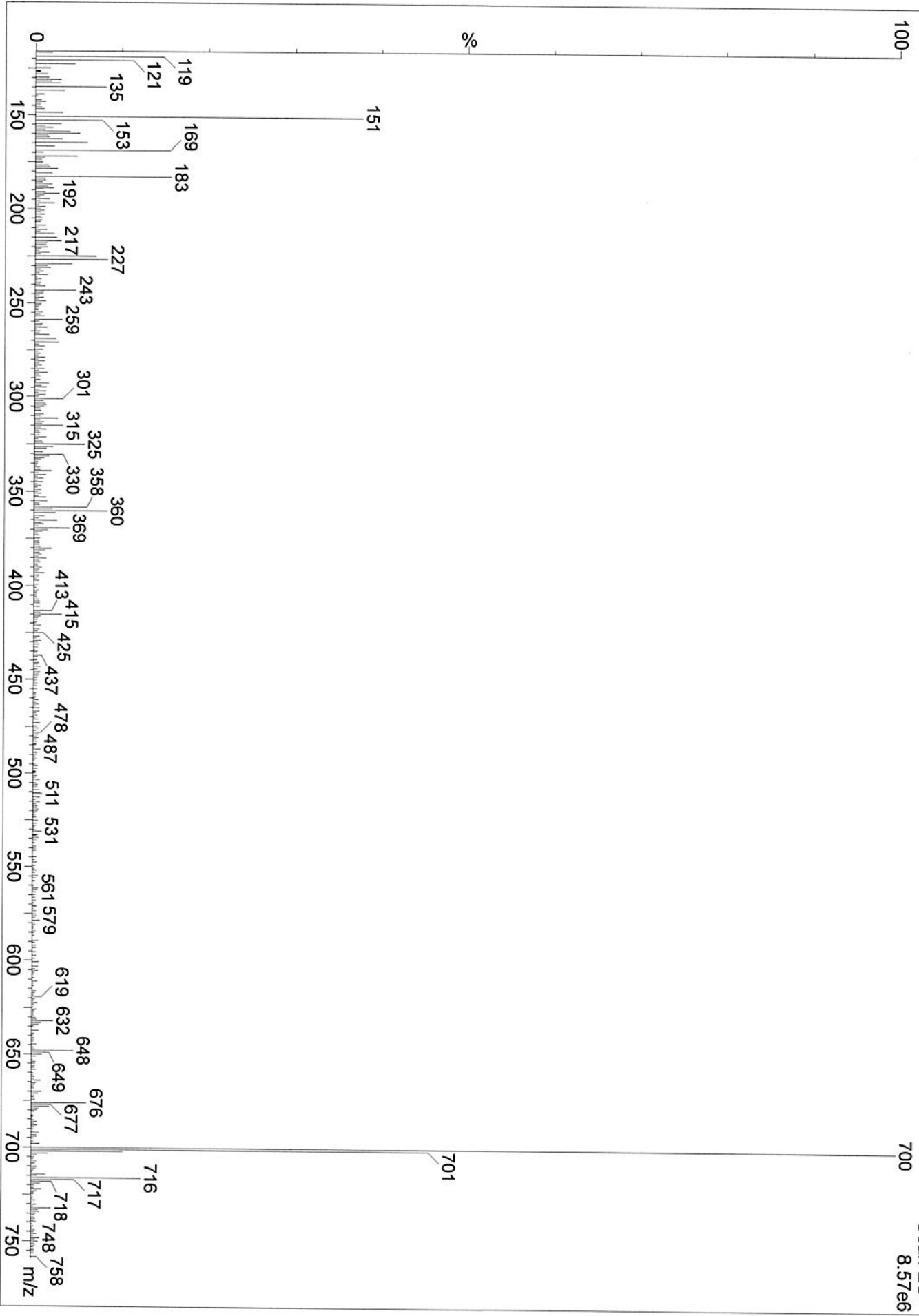
C₃₆H₃₉N₉O₅



+

Hybrid 018

SPIN39 7 (0.713)

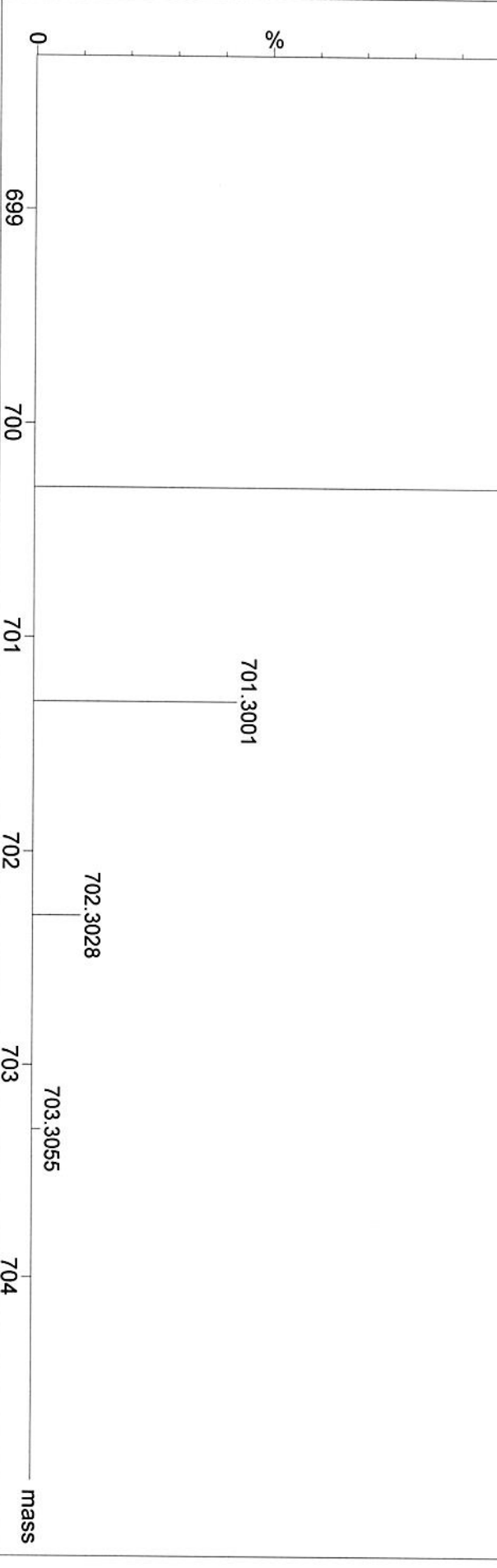
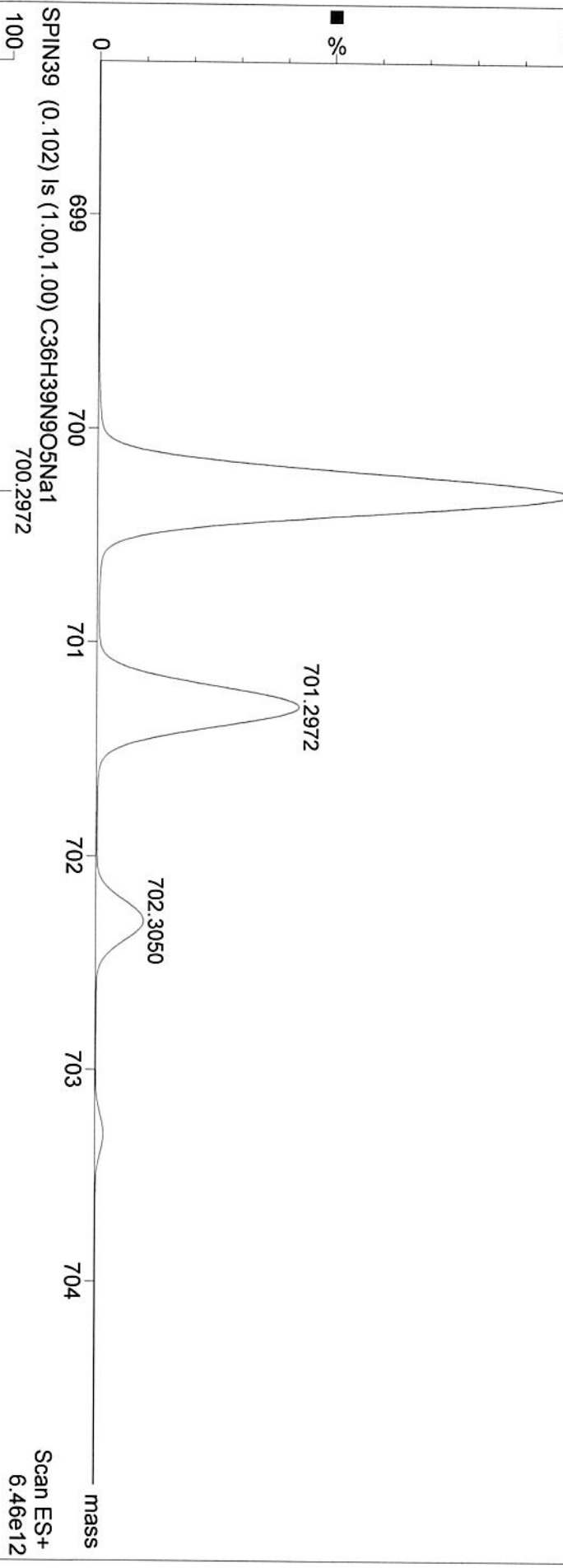


Scan ES+
8.57e6

Hybrid 018

SPIN39 (0.102) Cu (0.20): Is (1.00, 1.00) C₃₆H₃₉N₉O₅Na₁
700.2972

Scan ES+
6.46e12



8a

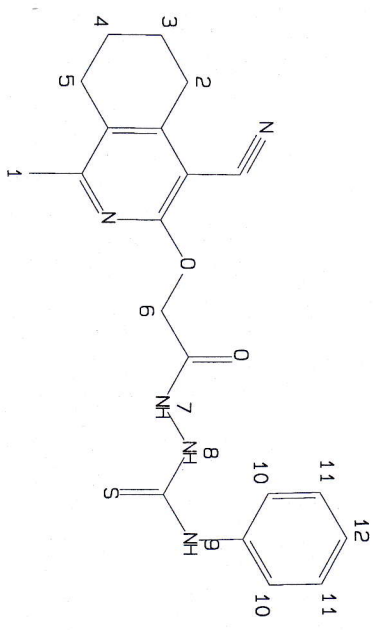
Molecular Structure Research Centre, Yerevan, Armenia, Varian Mercury-300VX

H1 300.088 MHz, $\tau = 16$, $\eta = 32000$, $\text{temp} = 30.0$ C, $\text{lb} = -0.2$, solvent = DMSO/C14 1/3

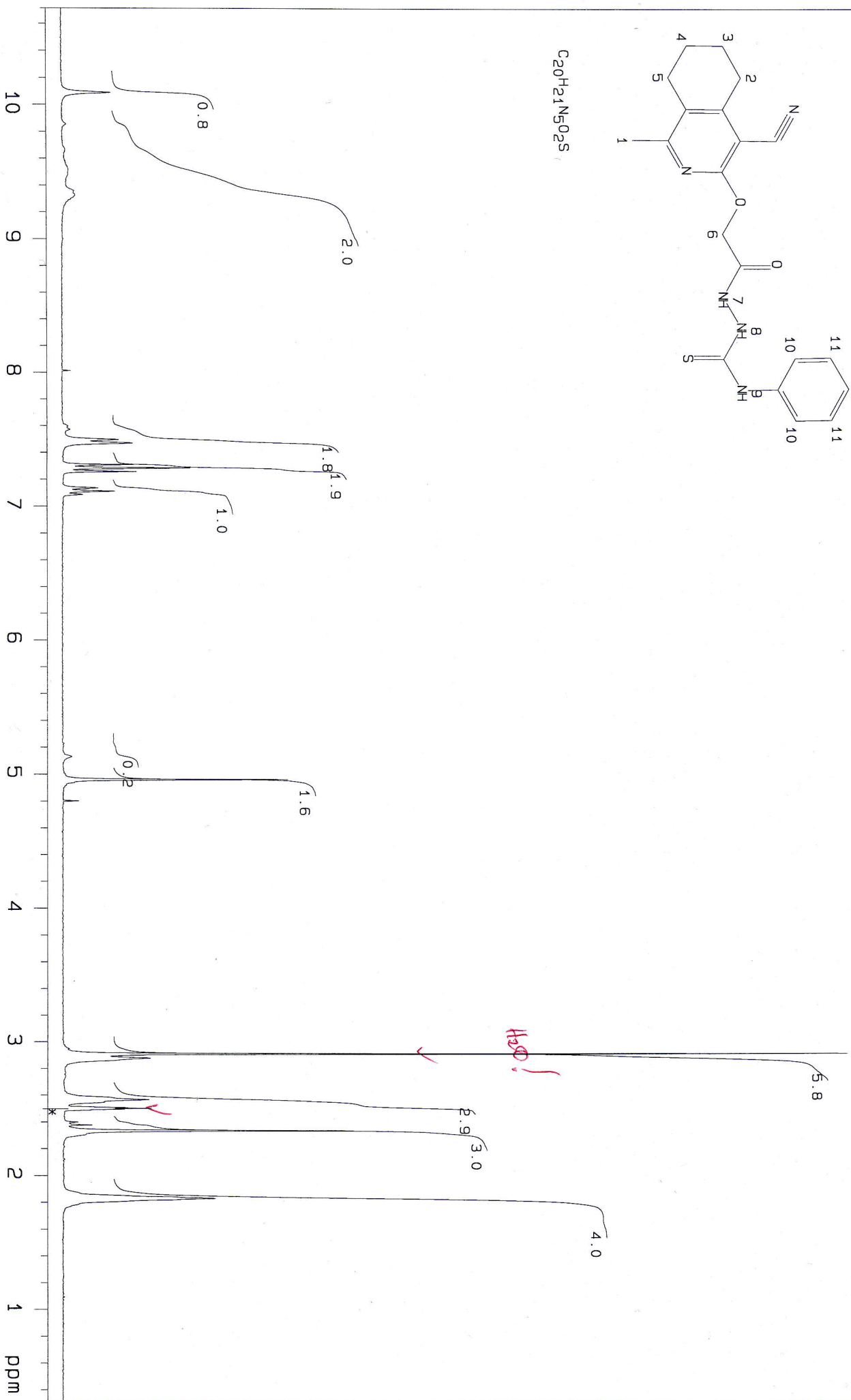
SAMV_19 he-472

Jun 28 2019

+ *[Signature]*



C₂₀H₂₁N₅O₂S



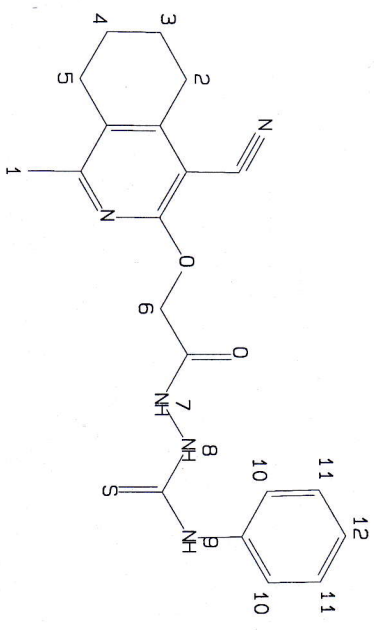
8a

HE-472
Molecular Structure Research Centre, Yerevan, Armenia, Varian Mercury-300VX

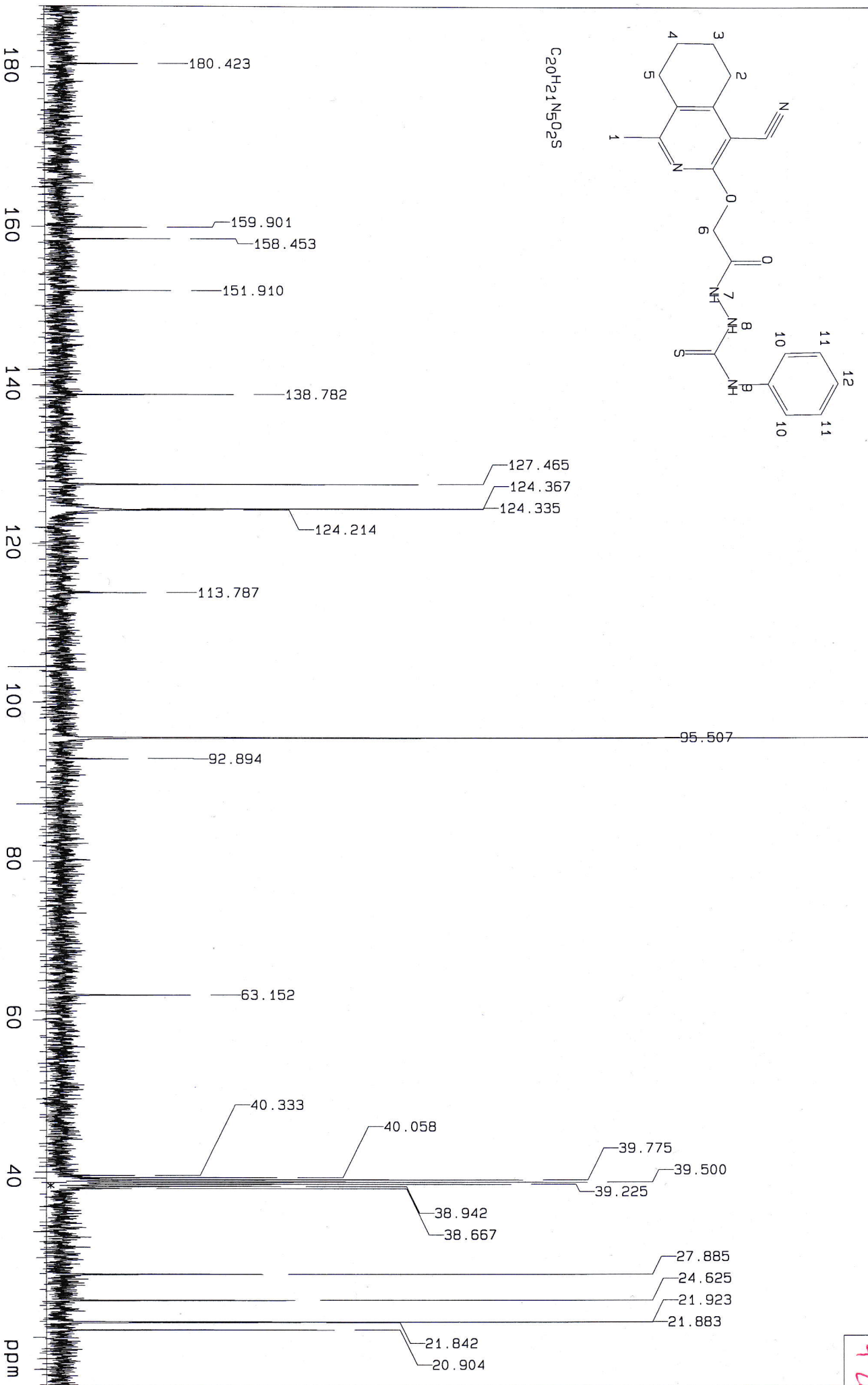
C13 75.465 MHz, nt = 576, np = 19998, temp = 30.0 C, lb = 1.0, solvent = DMSO/CCL4 1/3

SAMV_19 he-472

Jun 28 2019



C₂₀H₂₁N₅O₂S



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88

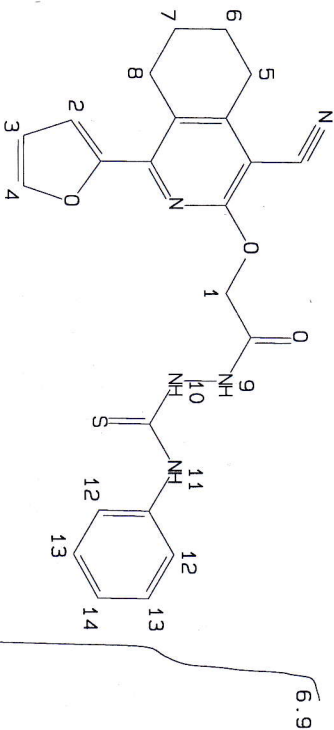
Molecular Structure Research Centre, Yerevan, Armenia, Varian Mercury-300VX

H1 300.088 MHz, nt = 16, np = 16000, temp = 30.0 C, lb = -0.2, solvent = DMSO/CD4 1/3

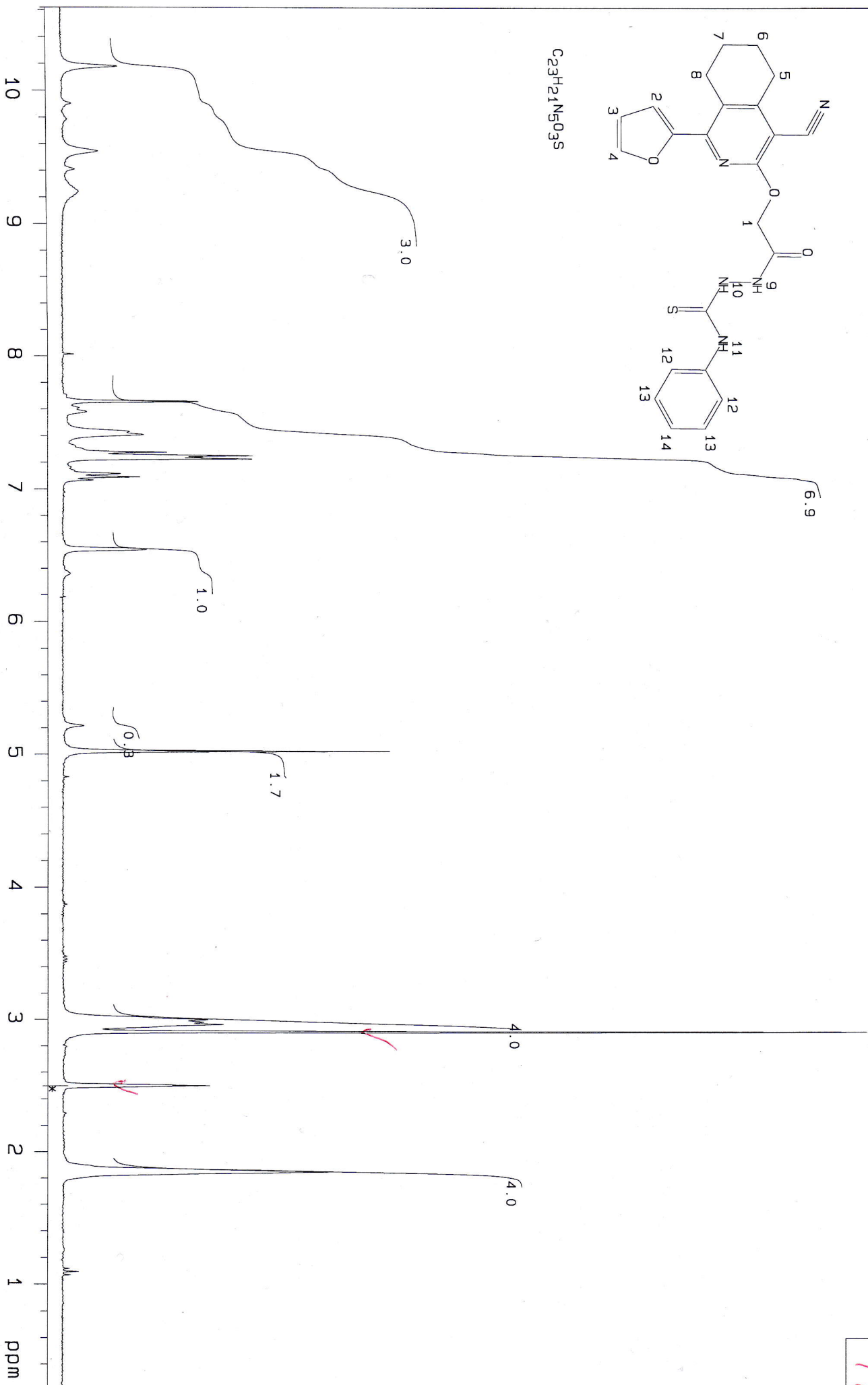
SAMV_19 he-461

May 29 2019

HE-461



C₂₃H₂₁N₅O₃S



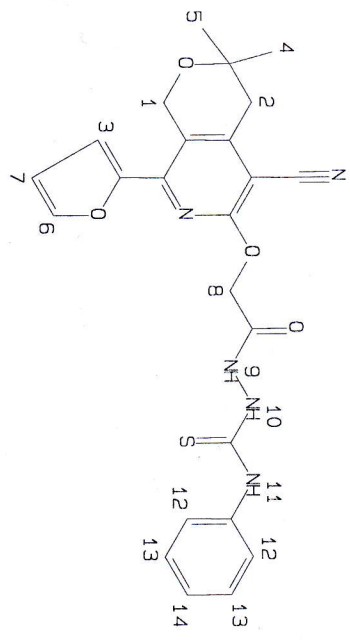
Handwritten signatures and initials in red ink.

8c

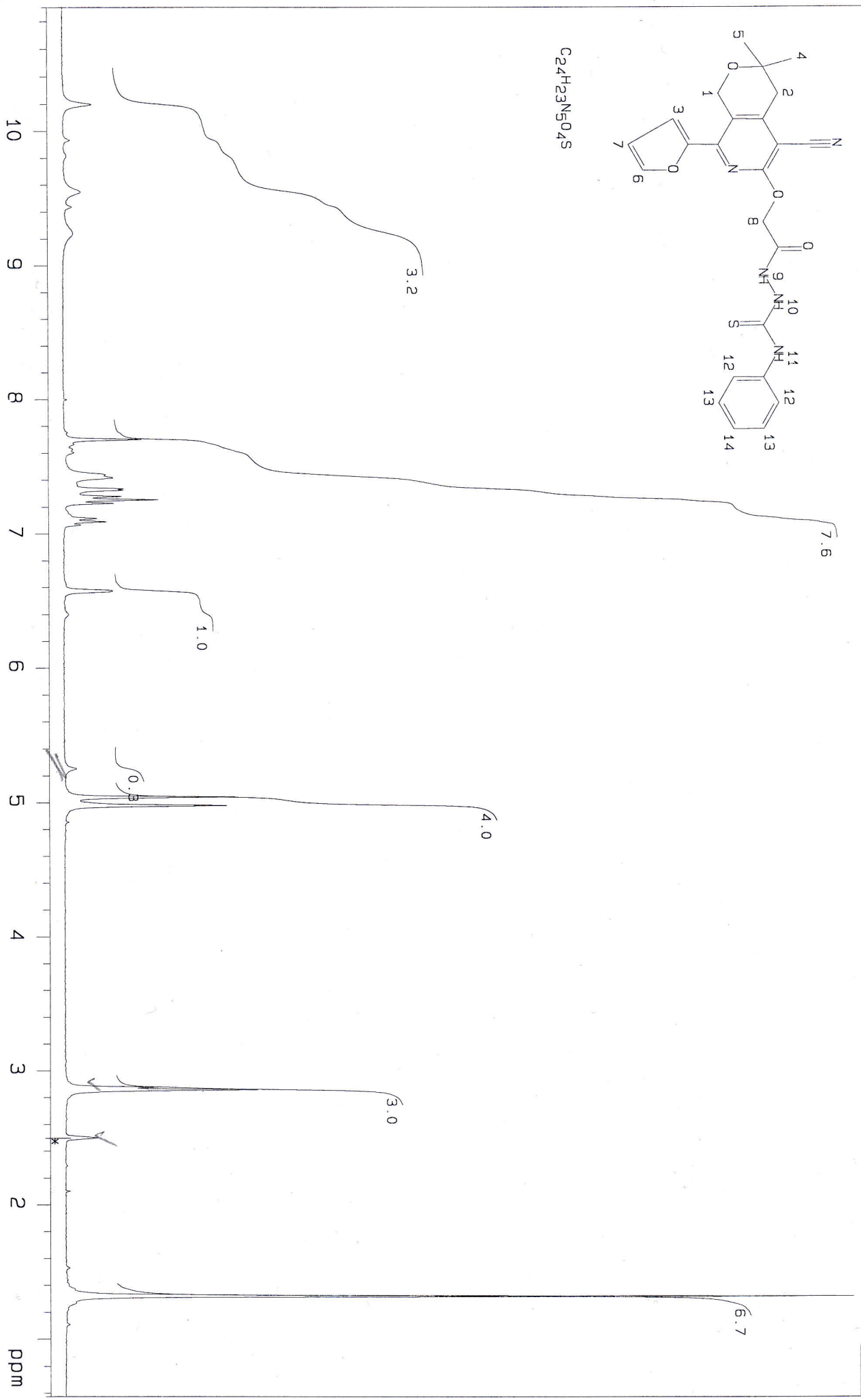
Molecular Structure Research Centre, Yerevan, Armenia, Varian Mercury-300VX
T20-048-1

H1 300.088 MHz, nt = 16, np = 32000, temp = 30.0 C, lb = -0.2, solvent = DMSO/CDCl4 1/3
ANUSH_TEMA t20-048-1

Mar 17 2021



C₂₄H₂₃N₅O₄S



+ *[Signature]*

9e

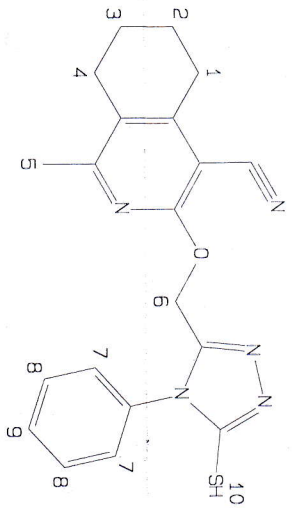
Molecular Structure Research Centre, Yerevan, Armenia, Varian Mercury-300VX

H1 300.088 MHz, nt = 16, np = 32000, temp = 30.0 C, lb = 0.2, solvent = DMSO/Cl4 1/3

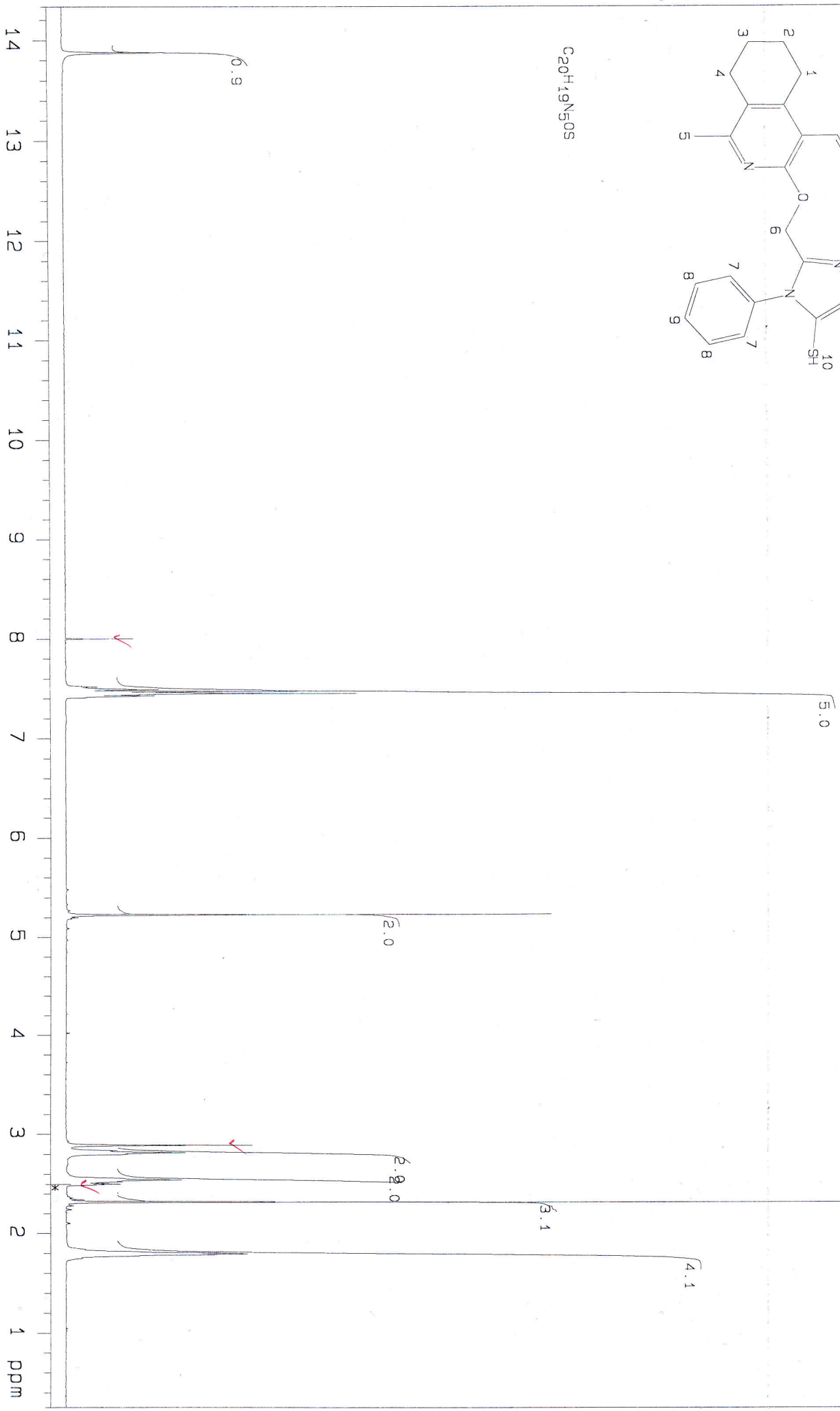
NOCI_24 he-473

Jan 23 2024

HE-473



C₂₀H₁₄N₅O₂S



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[Signature]

9a

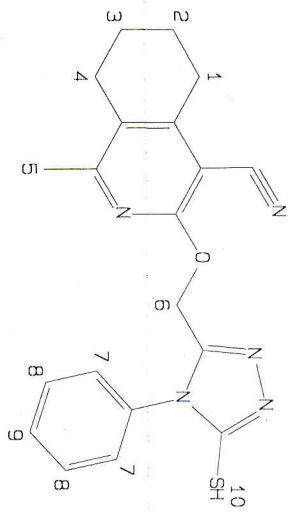
Molecular Structure Research Centre, Yerevan, Armenia, Varian Mercury-300VX

C13 75.465 MHz, nt = 528, np = 19998, temp = 30.0 C, lb = 1.0, solvent = DMSO(C14 1/3

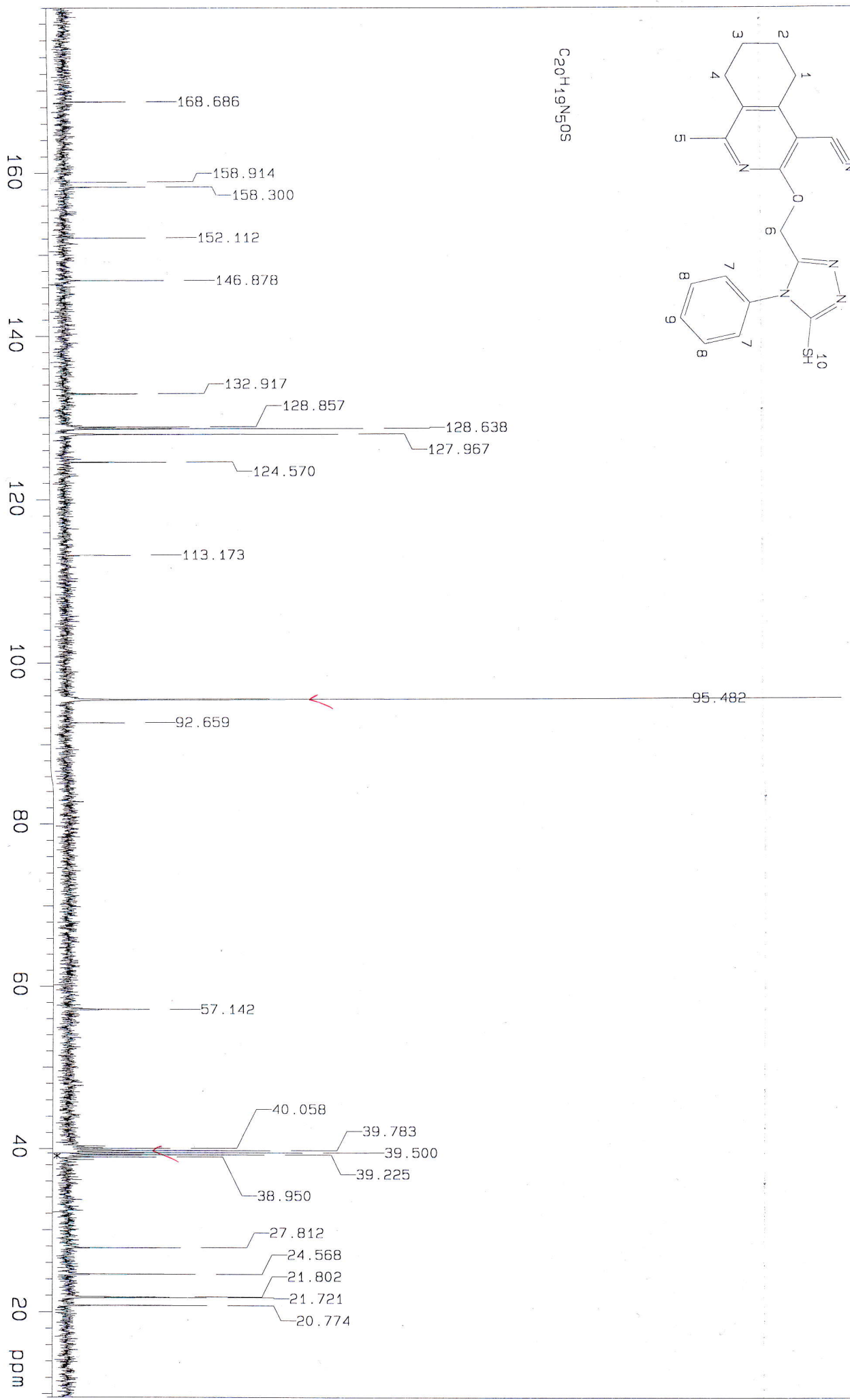
NOCI_24 he-473

Jan 23 2024

HE-473



C₂₀H₁₉N₅O₅



+ [Signature]

98

Molecular Structure Research Centre, Yerevan, Armenia, Varian Mercury-300VX

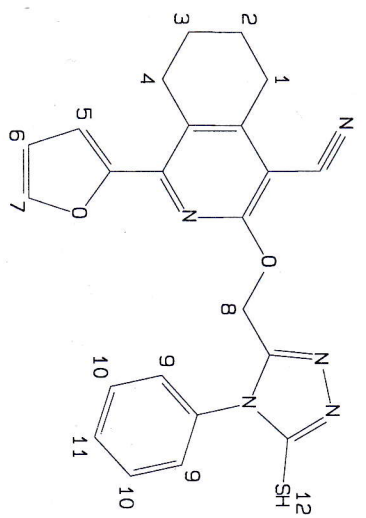
H1 300.088 MHz, nt = 16, np = 32000, temp = 30.0 C, lb = -0.2, solvent = DMSO/Cd4 1/3

SAMV_19 he-466

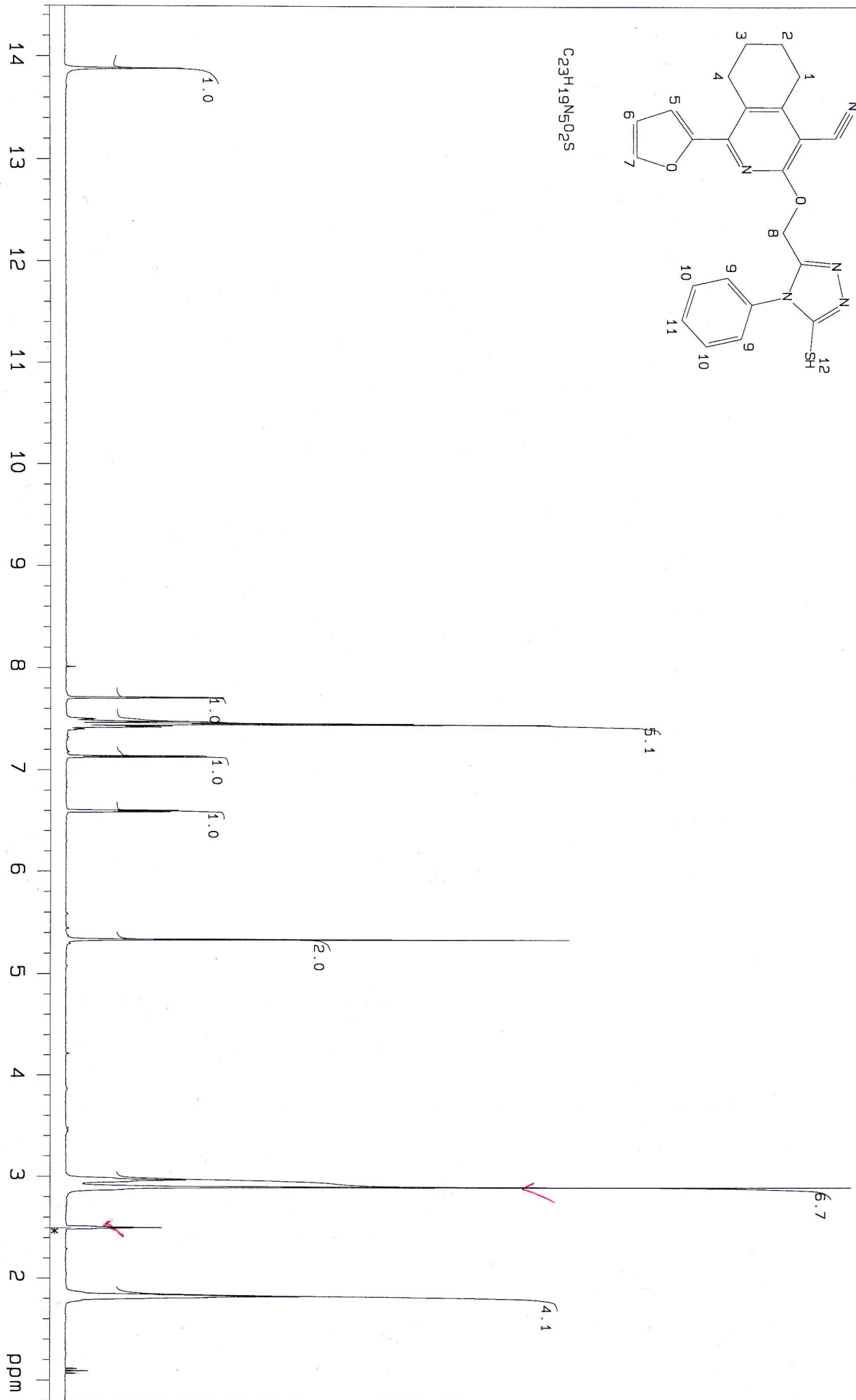
May 31 2019

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HE-466



C₂₃H₁₉N₅O₂S



Handwritten signature

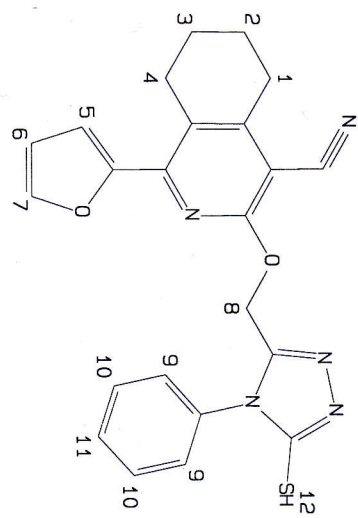
96

Molecular Structure Research Centre, Yerevan, Armenia, Varian Mercury-300VX
HE-466

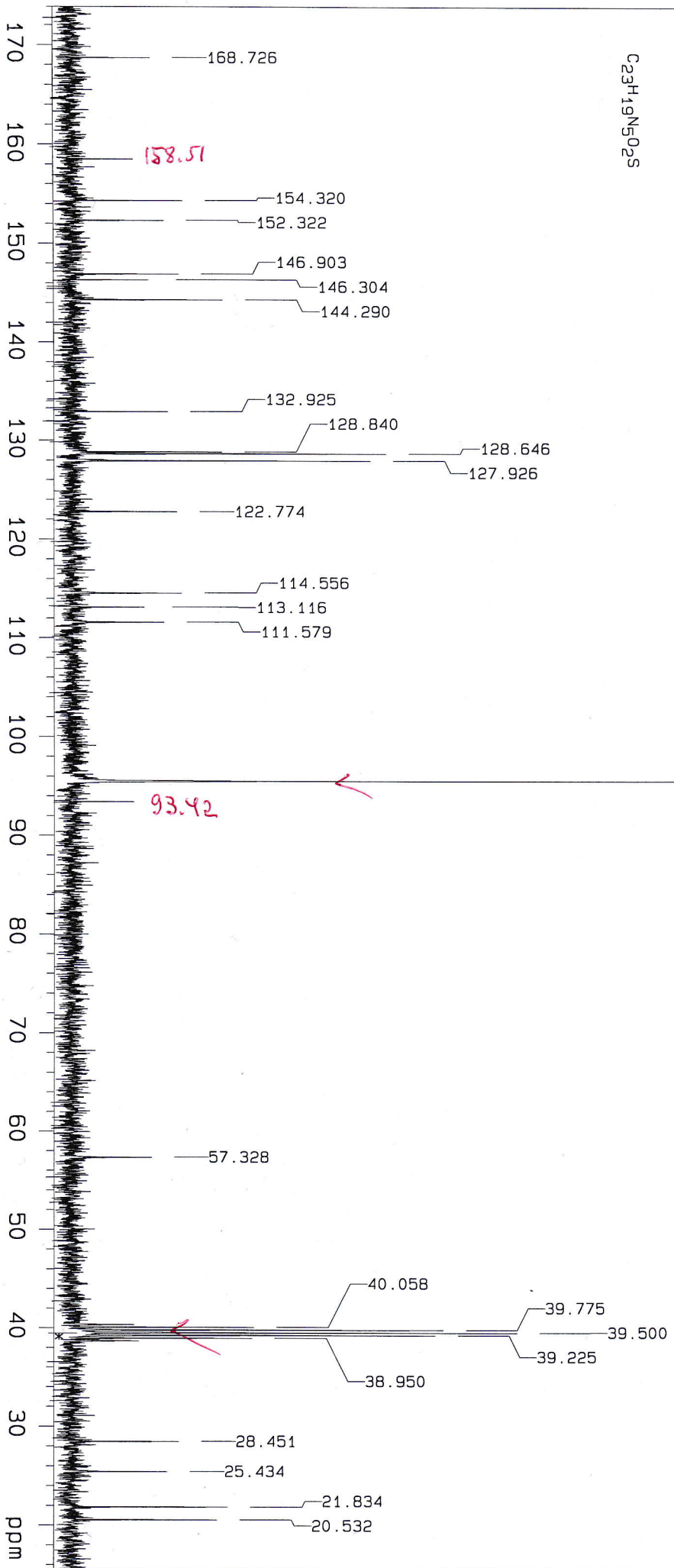
C13 75.465 MHz, nt=544, np=19998, temp=30.0 C, lb=1.0, solvent=DMSO/C4 1/3

SAMV_19 he-466

May 31 2019



C₂₃H₁₉N₅O₂S



f

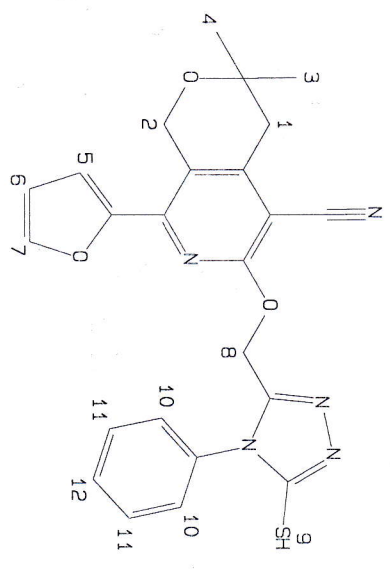
Handwritten signature

9c

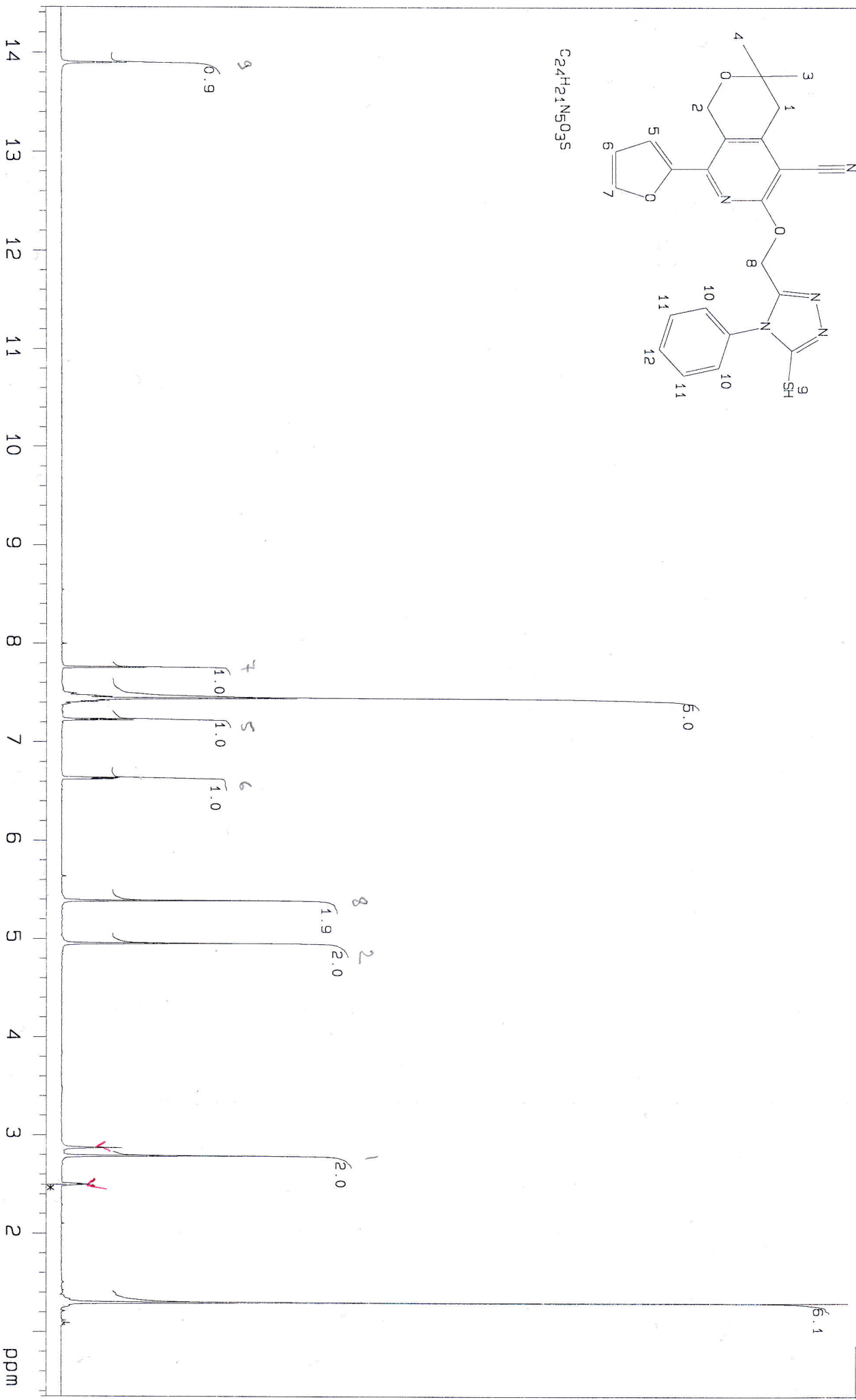
Molecular Structure Research Centre, Yerevan, Armenia, Varian Mercury-300VX
T20-049-1

H1 300.088 MHz, nt = 16, mp = 32000, temp = 30.0 C, lb = -0.2, solvent = DMSO/CdA 1/3
ANUSH_TEMMA t20-049-1

Mar 25 2021



C₂₄H₂₁N₅O₃S



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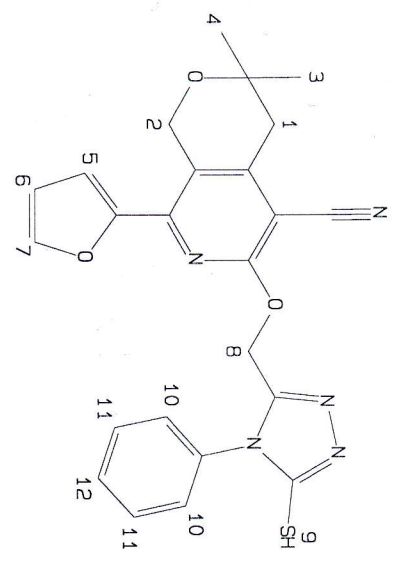
Armen

9c

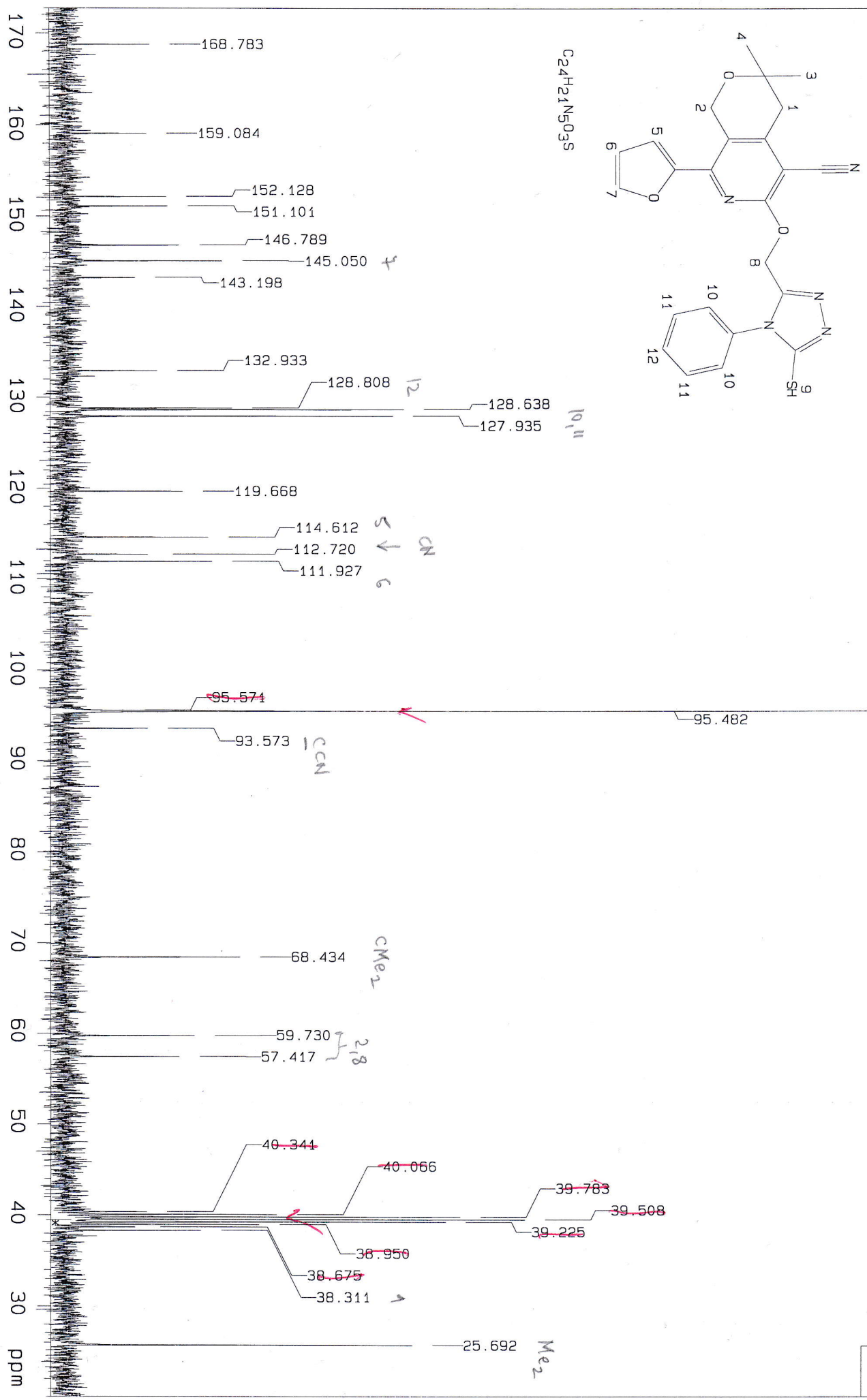
Molecular Structure Research Centre, Yerevan, Armenia, Varian Mercury-300VX
T20-049-1

C13 75.465 MHz, nt = 57.6, np = 19998, temp = 30.0 C, lb = 1.0, solvent = DMSO-C14 1/3
ANUSH_TEMA t20-049-1

Mar 25 2021



C₂₄H₂₁N₅O₃S



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10a

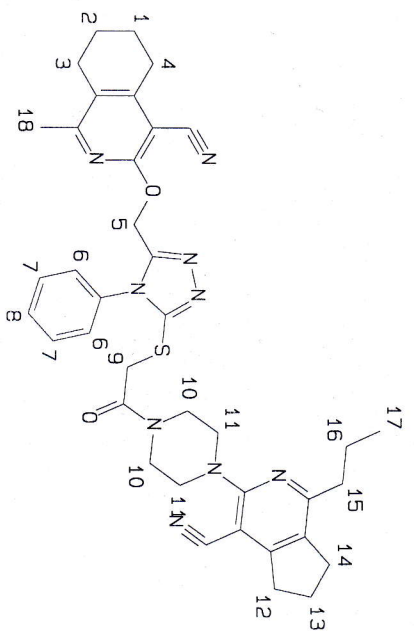
Molecular Structure Research Centre, Yerevan, Armenia, Varian Mercury-300VX
HE-555

H1 300.088 MHz, nt = 16, np = 32000, temp = 30.0 C, lb = -0.2, solvent = DMSO/CDCl₄ 1/3
NOCI_20 he-555

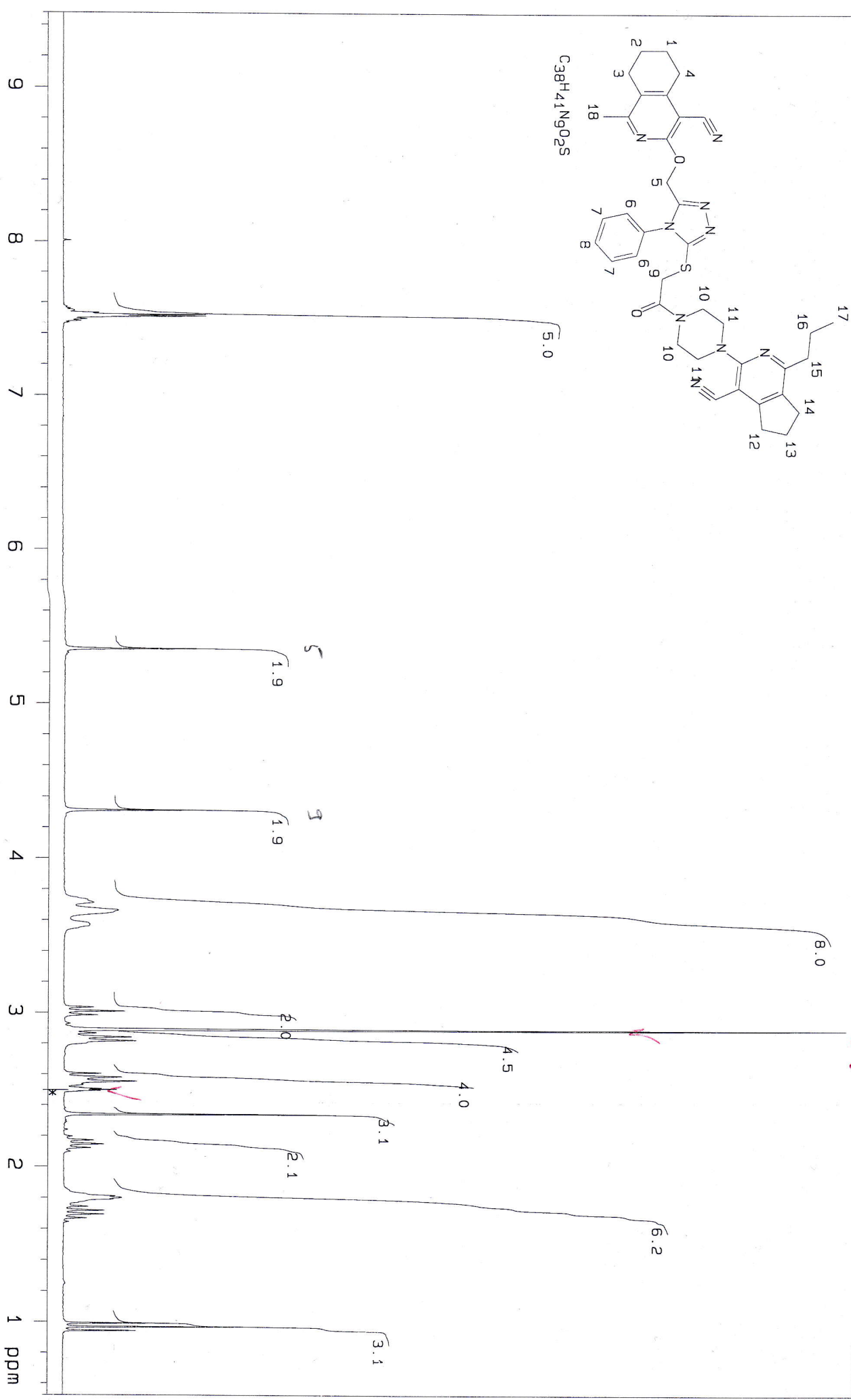
Sep 24 2020

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C₃₈H₄₁N₉O₂S



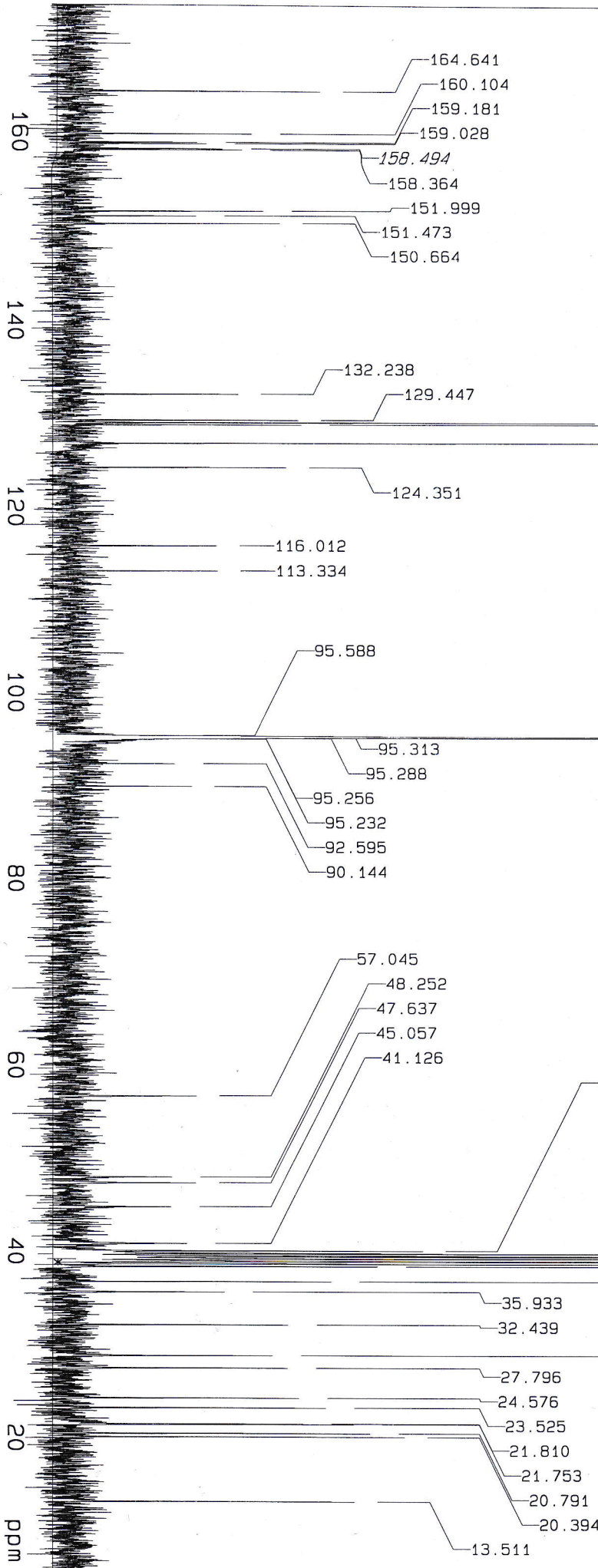
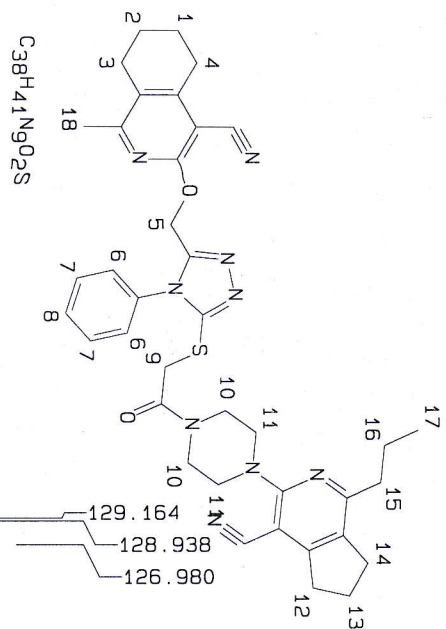
10a

Molecular Structure Research Centre, Yerevan, Armenia, Varian Mercury-300VX
HE-555

C13 75.465 MHz, nt = 3424, np = 19998, temp = 30.0 C, lb = 1.0, solvent = DMSO/CDCl3

NOCI 20 he-555

Sep 24 2020



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106

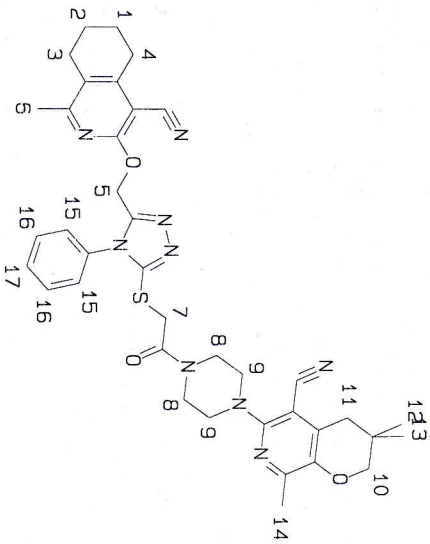
Molecular Structure Research Centre, Yerevan, Armenia, Varian Mercury-300VX
HE-556

H1 300.088 MHz, nt = 16, np = 32000, temp = 30.0 C, lb = -0.2, solvent = DMSO/CdCl₄ 1/3

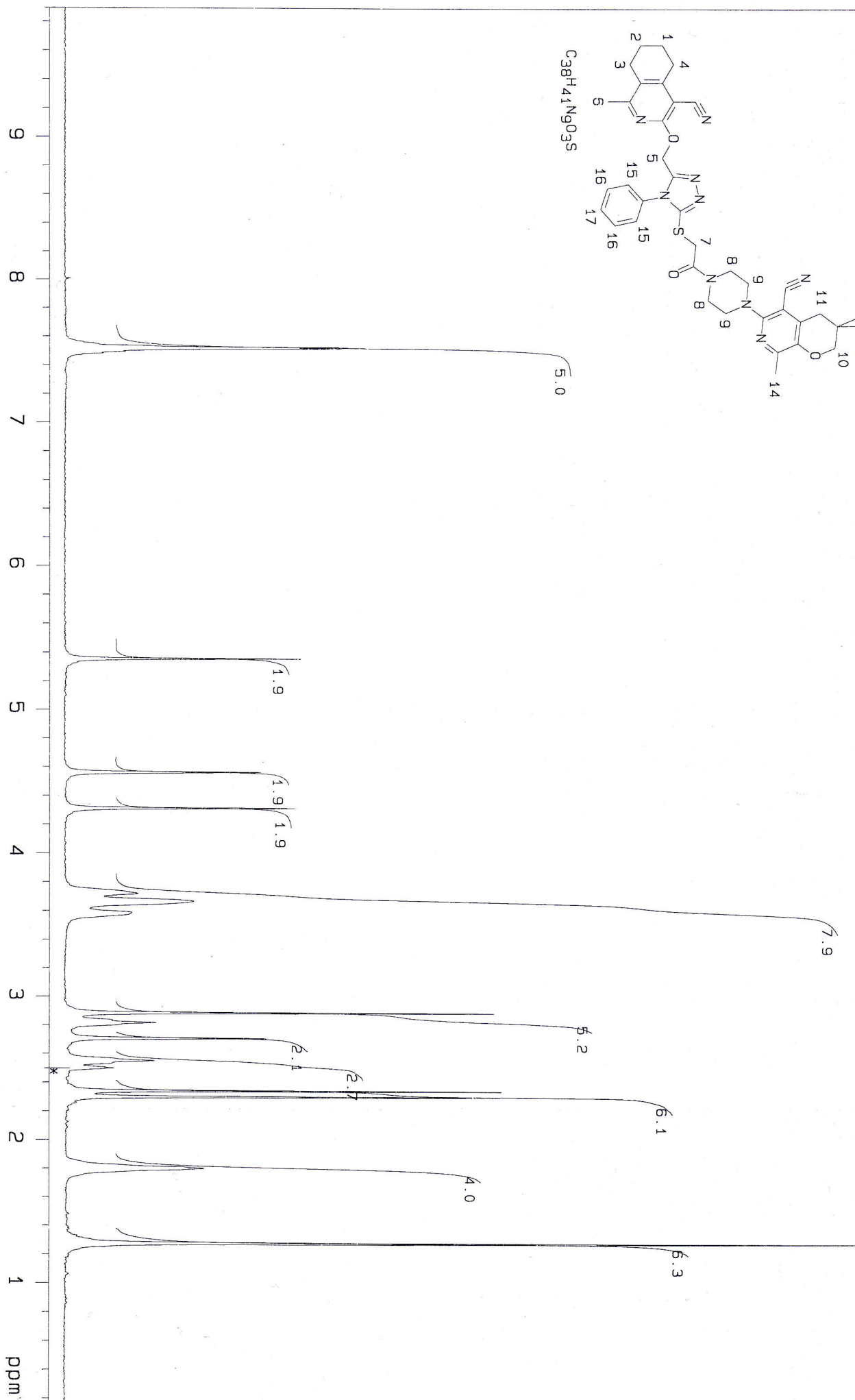
NOCI_20 he-556

Sep 30 2020

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Cur



C₃₈H₄₁N₉O₃S

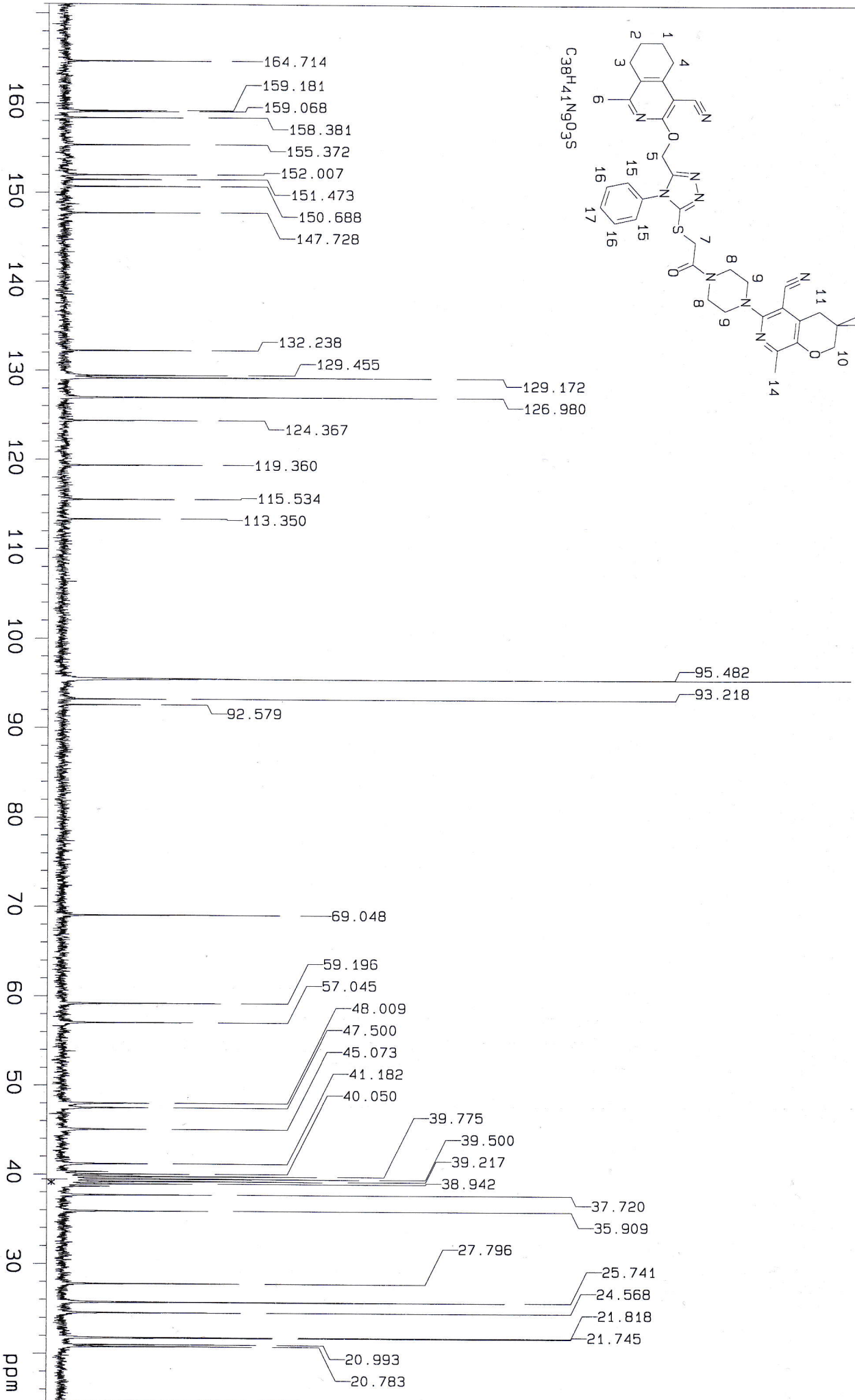
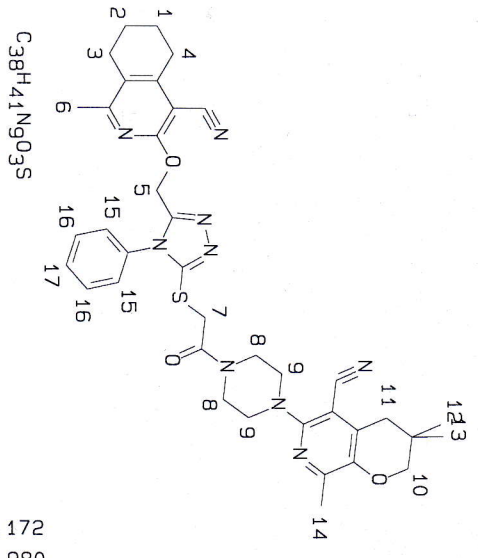


HE-556

C13 75.465 MHz, nt = 1664, np = 19998, temp = 30.0 C, lb = 1.0, solvent = DMSO-C4 1/3

NOCI_20 he-556

Sep 30 2020



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[Signature]

106

31.01.2024

HE-5567 (0.141) Cm (4:10)

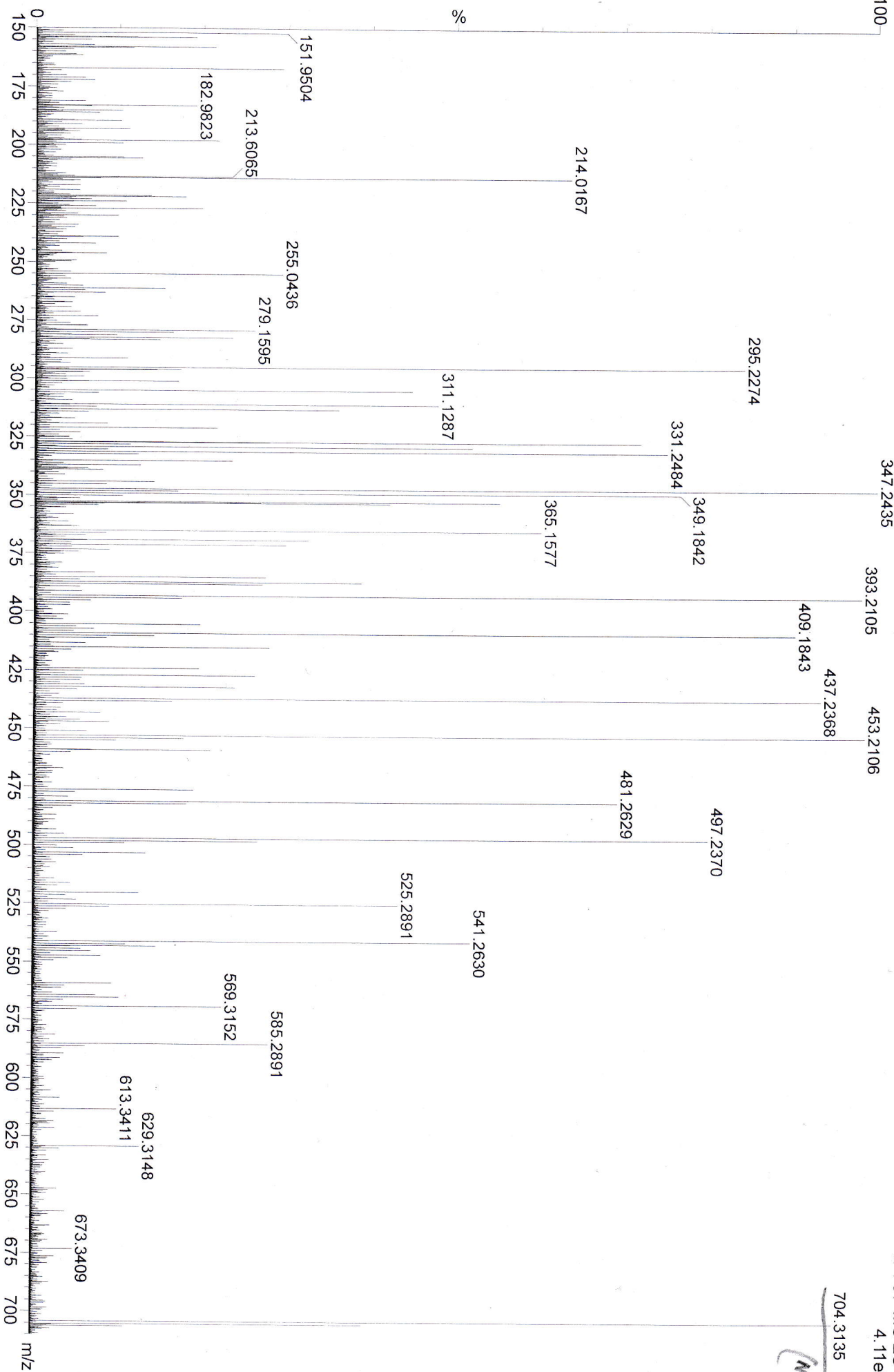
6.00000000

1: TOF MS ES+

4.11e6

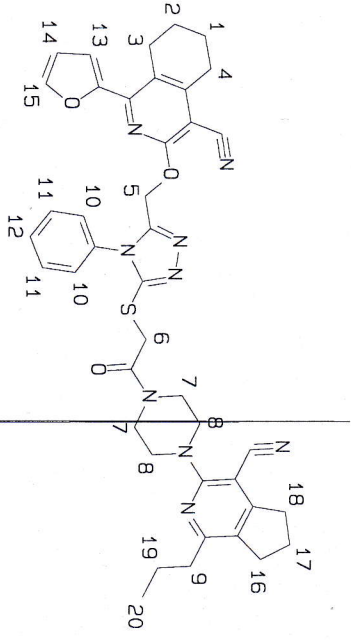
704.3135

CMV

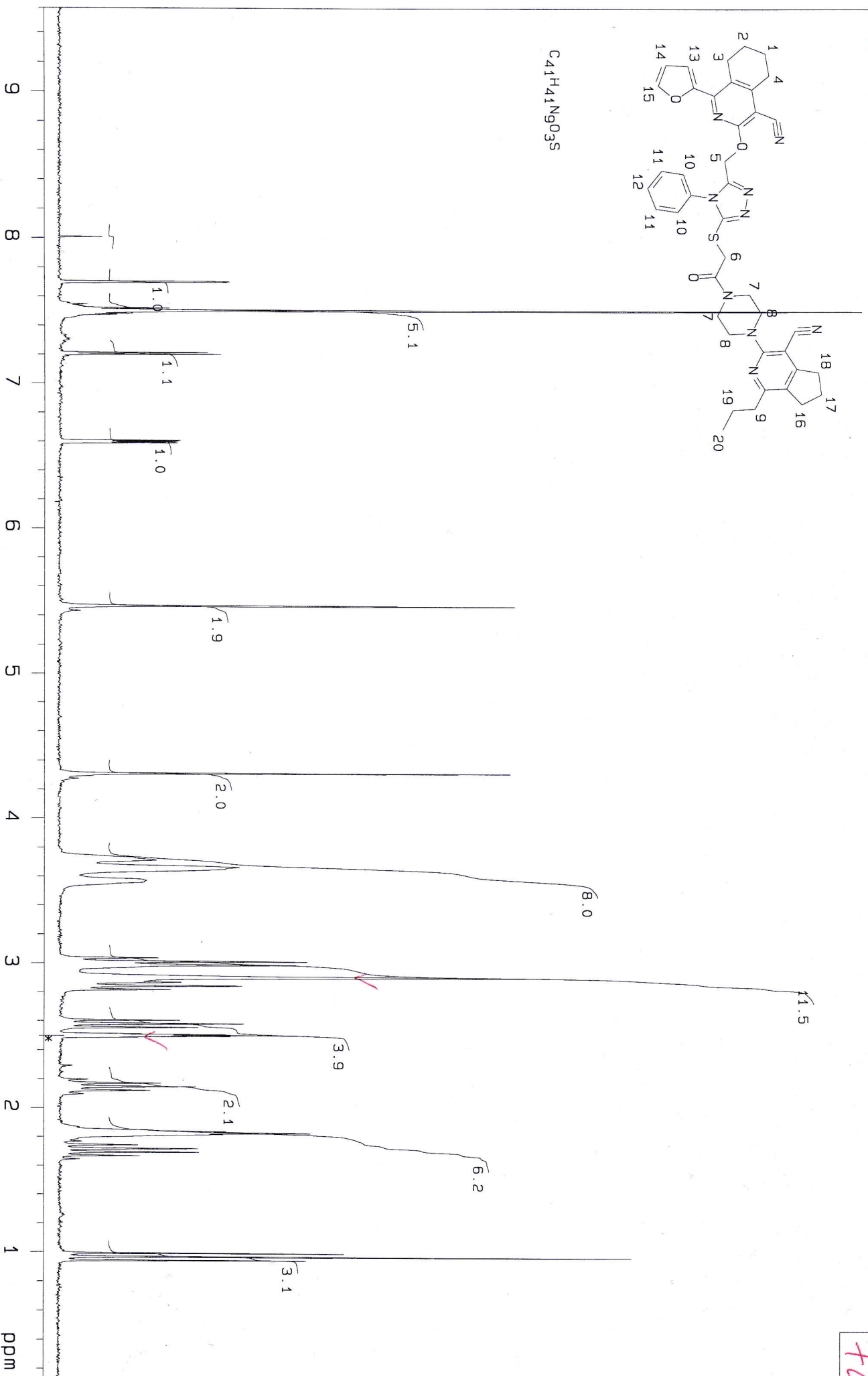


HE-558

NOCI_20 he-558



C₄₁H₄₁N₉O₃S



+ Prof

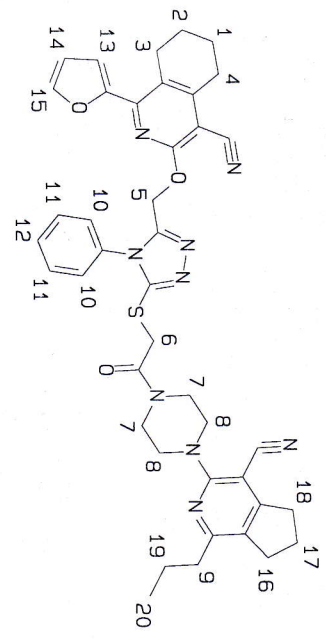
10e

HE-558
Molecular Structure Research Centre, Yerevan, Armenia, Varian Mercury-300VX

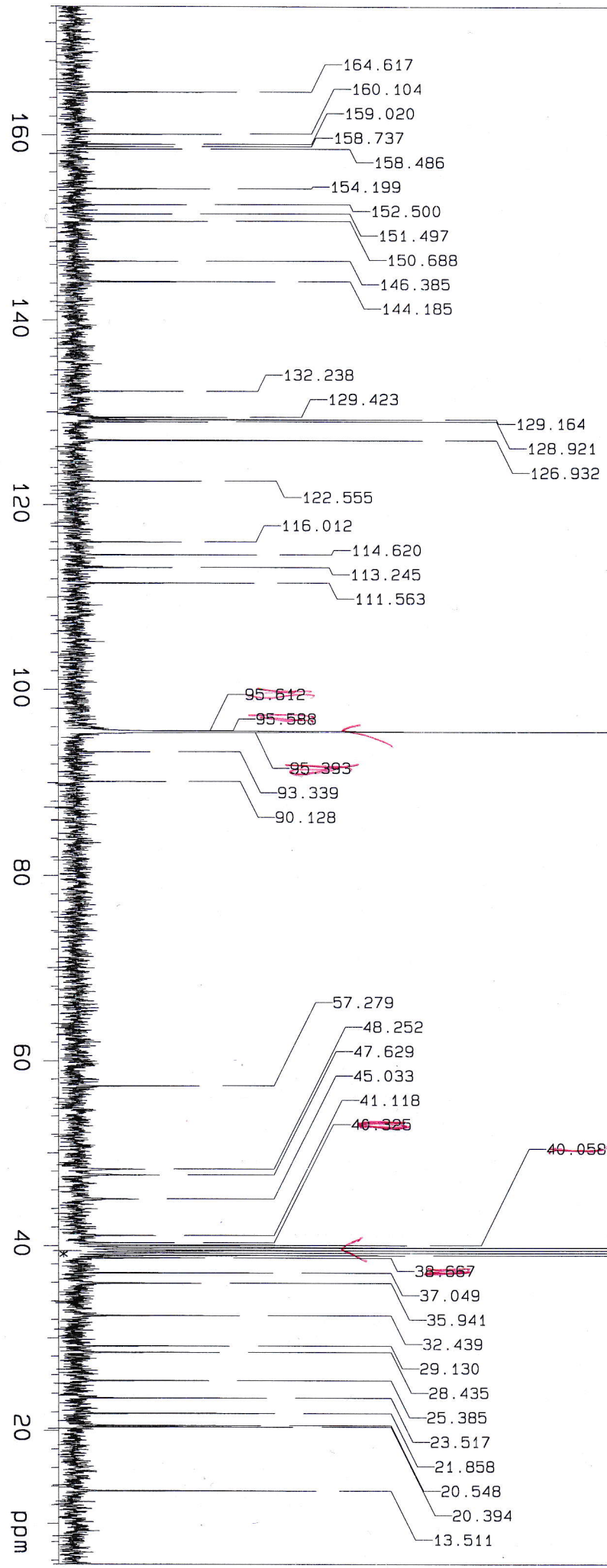
C13 75.464 MHz, nt = 1632, np = 19998, temp = 30.0 C, lb = 1.0, solvent = DMSO/CDCl4 1/3
NOCI_20 he-558

Oct 6 2020

+ Conf



C₄₁H₄₁N₉O₃S



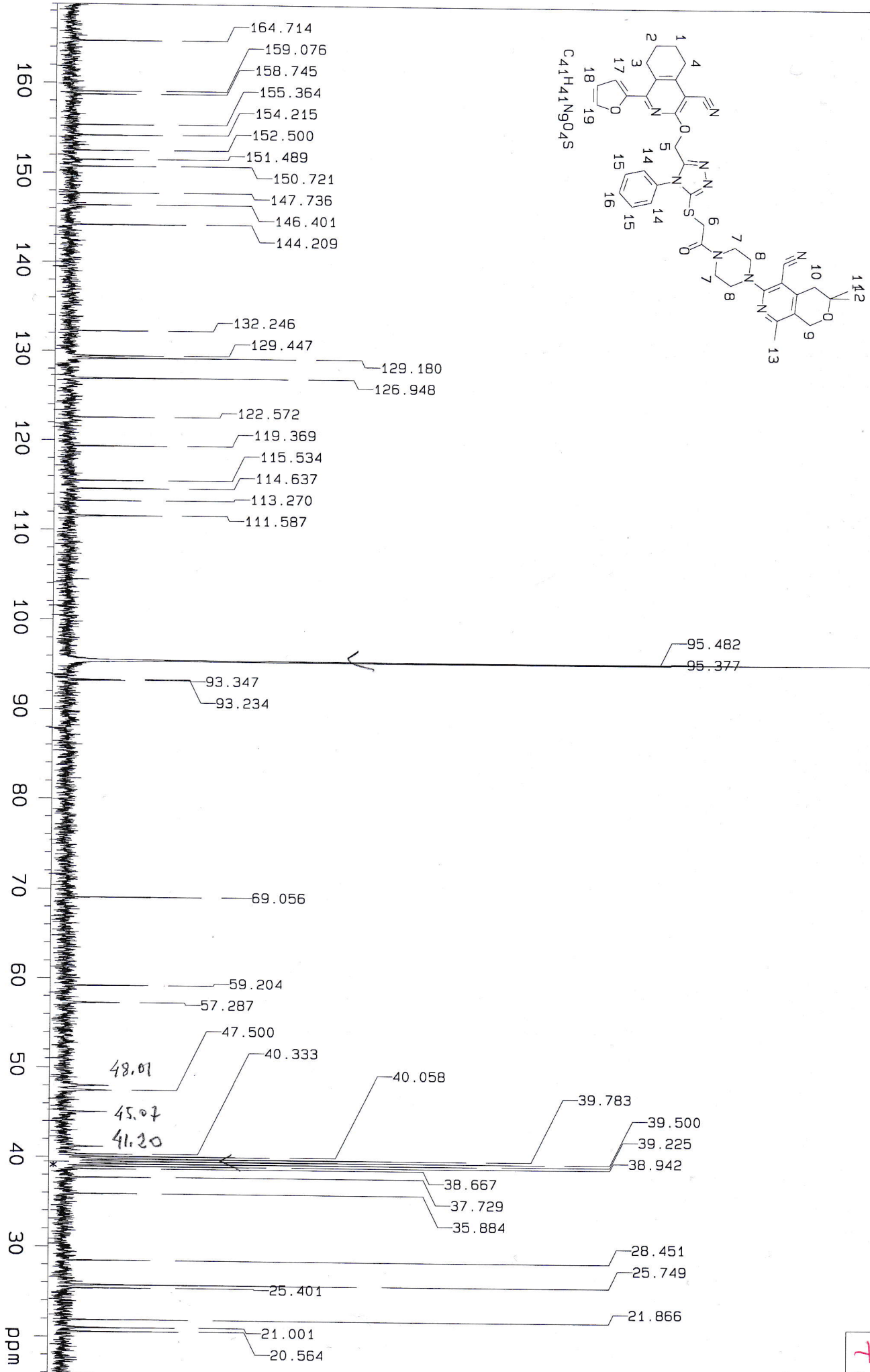
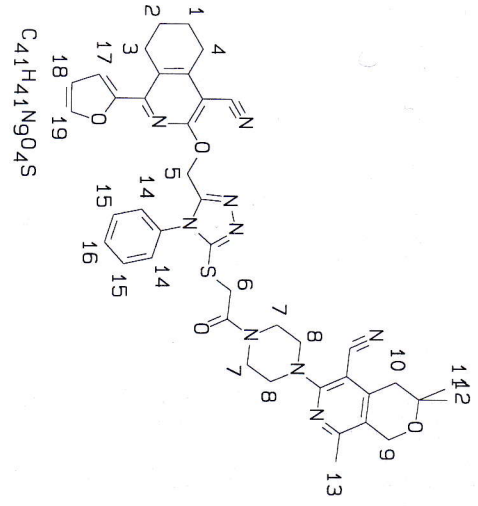
104

Molecular Structure Research Centre, Yerevan, Armenia, Varian Mercury-300VX
HE-557

C13 75.465 MHz, nt = 1392, np = 19938, temp = 30.0 C, lb = 1.0, solvent = DMSO/C14 1/3

NOCI_20 he-557

Oct 2 2020



7
[Signature]

10d

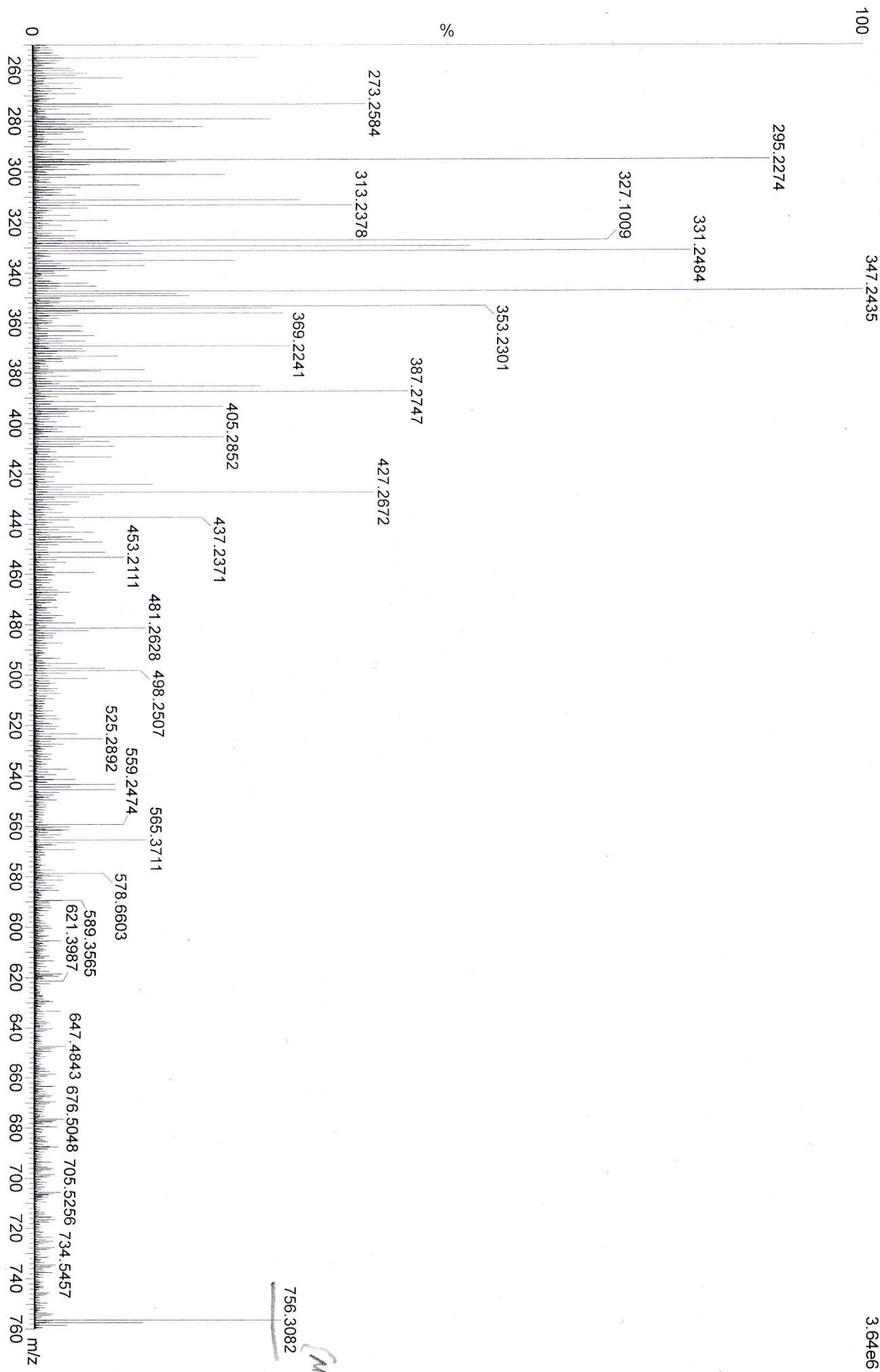
31.01.2024

HE-557 7 (0.141) Cm (5:10)

6.00000000

1: TOF MSES+

3.64e6



CMH

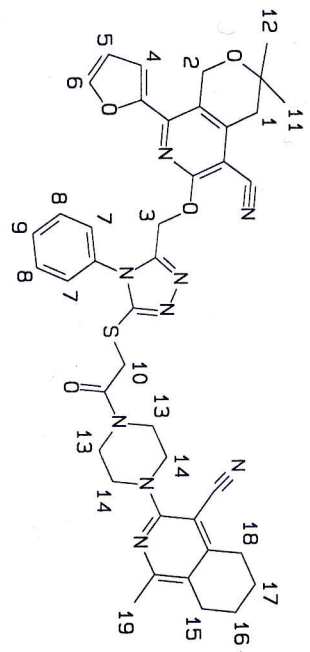
10e

Molecular Structure Research Centre, Yerevan, Armenia, Varian Mercury-300VX
T20-216

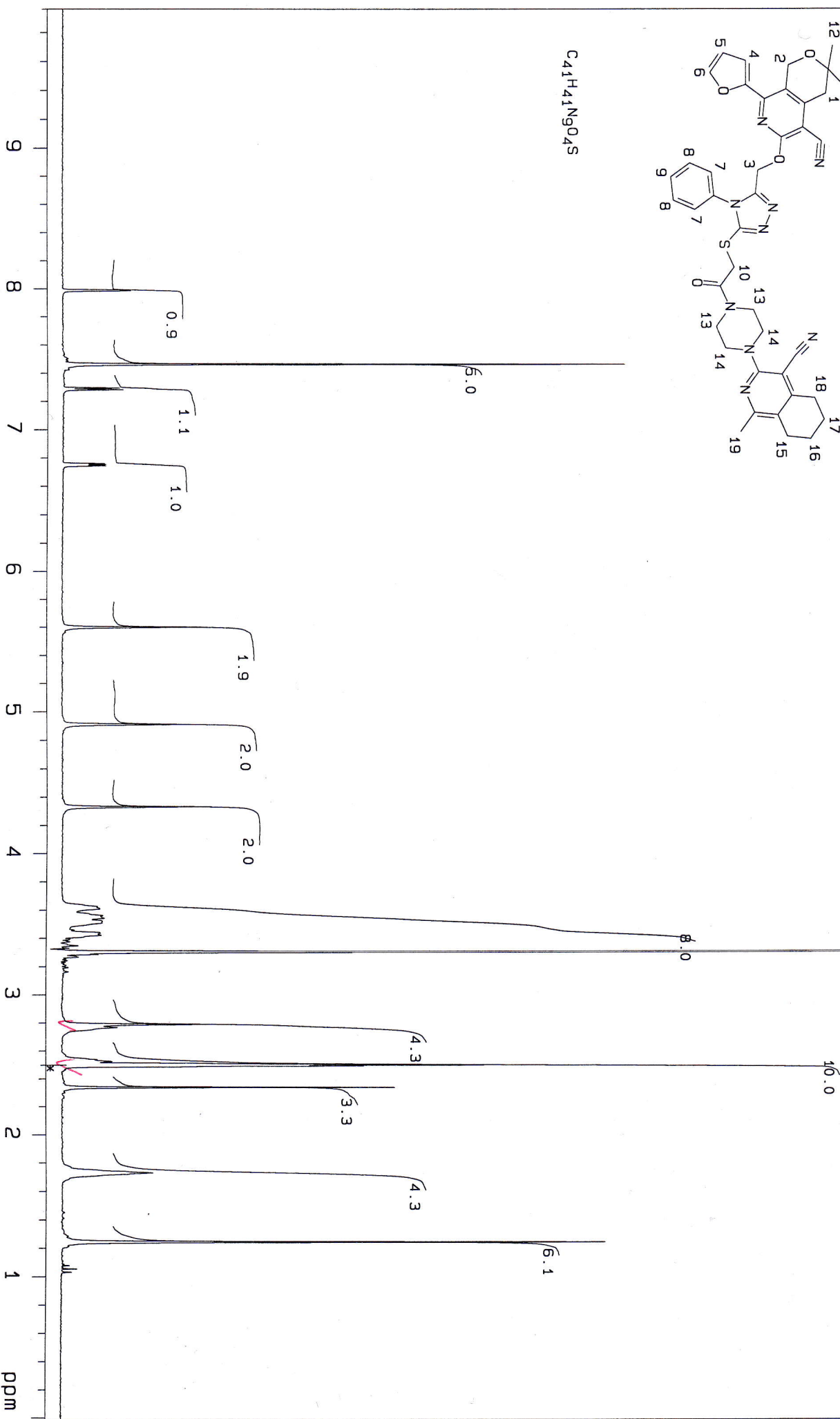
H1 300.088 MHz, nt = 16, np = 32000, temp = 30.0 C, lb = 0.2, solvent = DMSO

ANUSH_TEMA t20-216

Jan 20 2023



C41H41NgO4S



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[Signature]

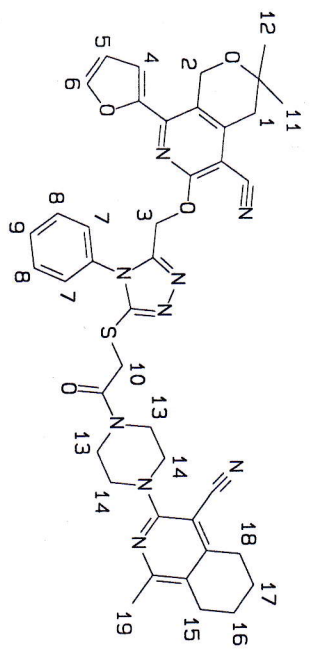
10e

Molecular Structure Research Centre, Yerevan, Armenia, Varian Mercury-300VX
T20-216

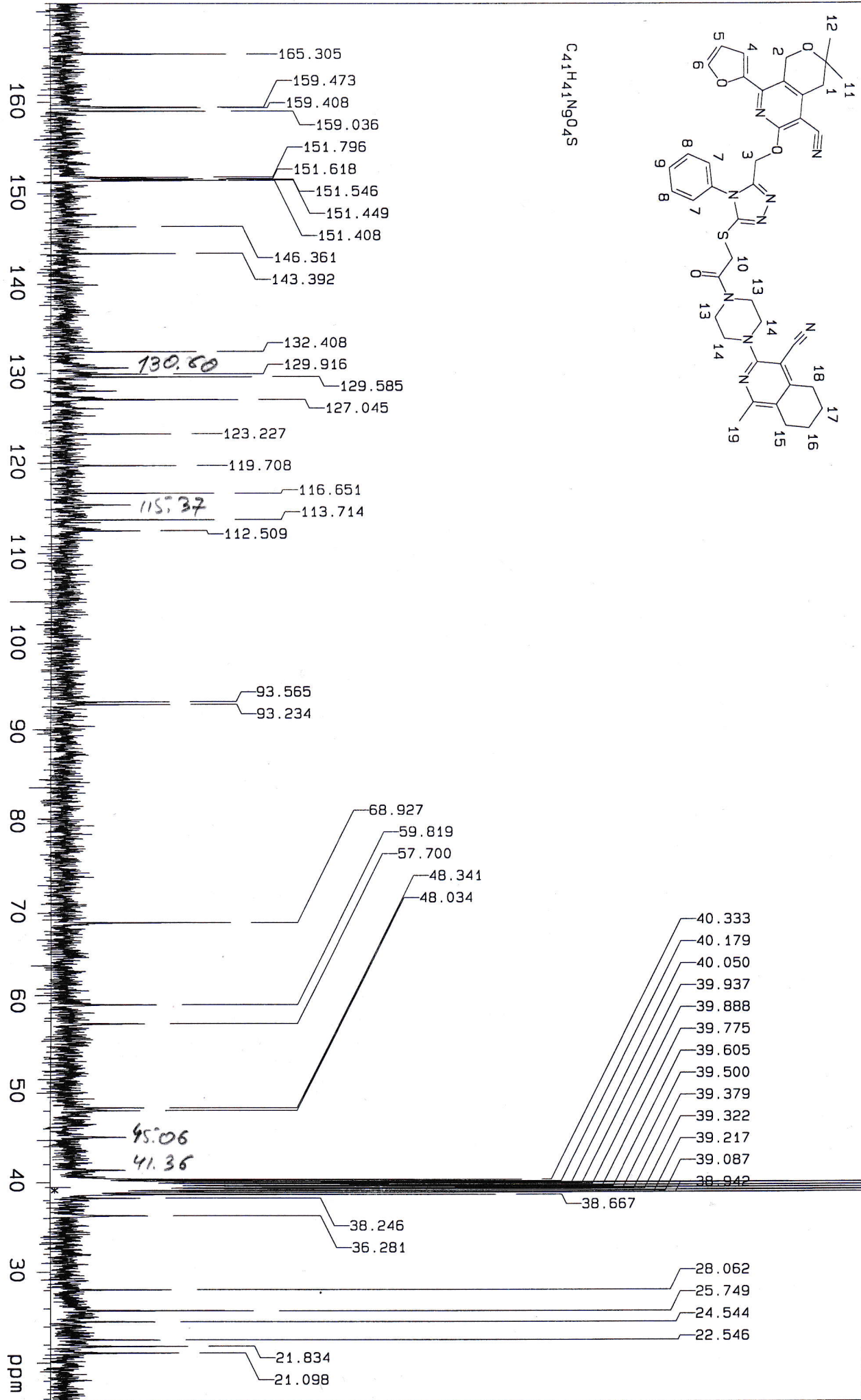
C13 75.465 MHz, nt = 768, np = 19998, temp = 30.0 C, lb = 1.0, solvent = DMSO

ANUSH_TEMA
T20-216

Jan 20 2023



C₄₁H₄₁N₉O₄S



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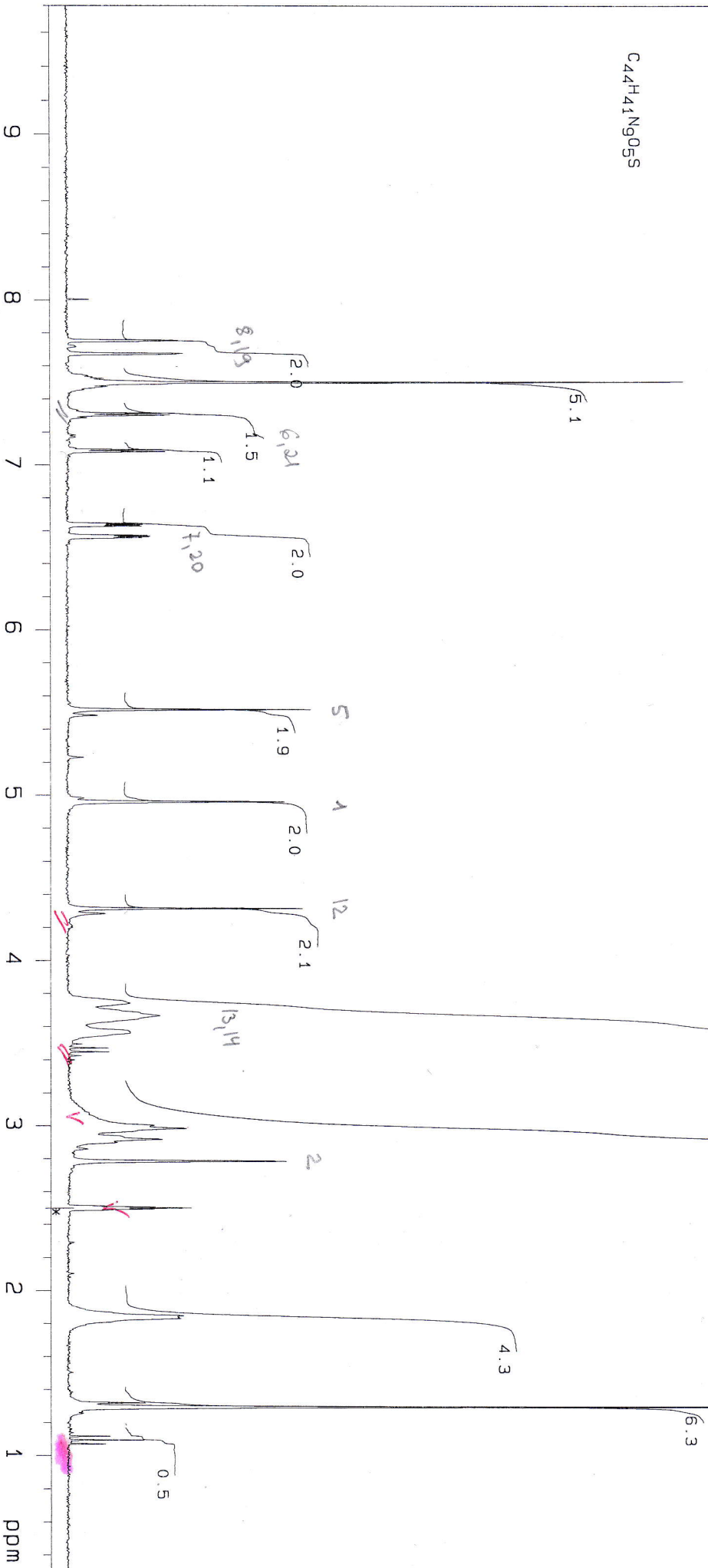
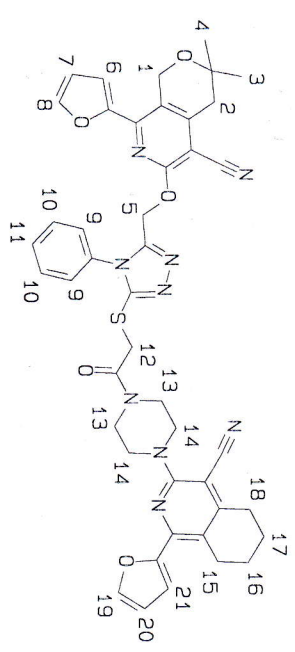
10f

Molecular Structure Research Centre, Yerevan, Armenia, Varian Mercury-300VX
T20-054-1

H1 300.088 MHz, nt = 16, np = 32000, temp = 30.0 C, lb = -0.2, solvent = DMSO/Cd4 1/3

ANUSH_TEMA E20-054-1

Mar 31 2021



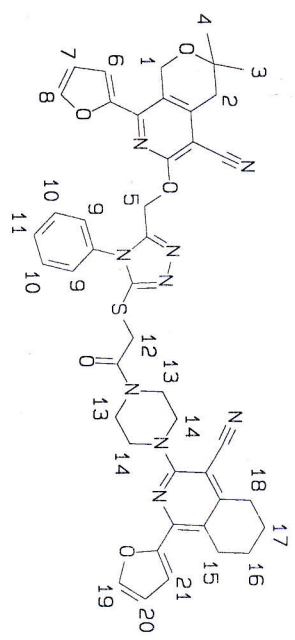
107

Molecular Structure Research Centre, Yerevan, Armenia, Varian Mercury-300VX
T20-054-1

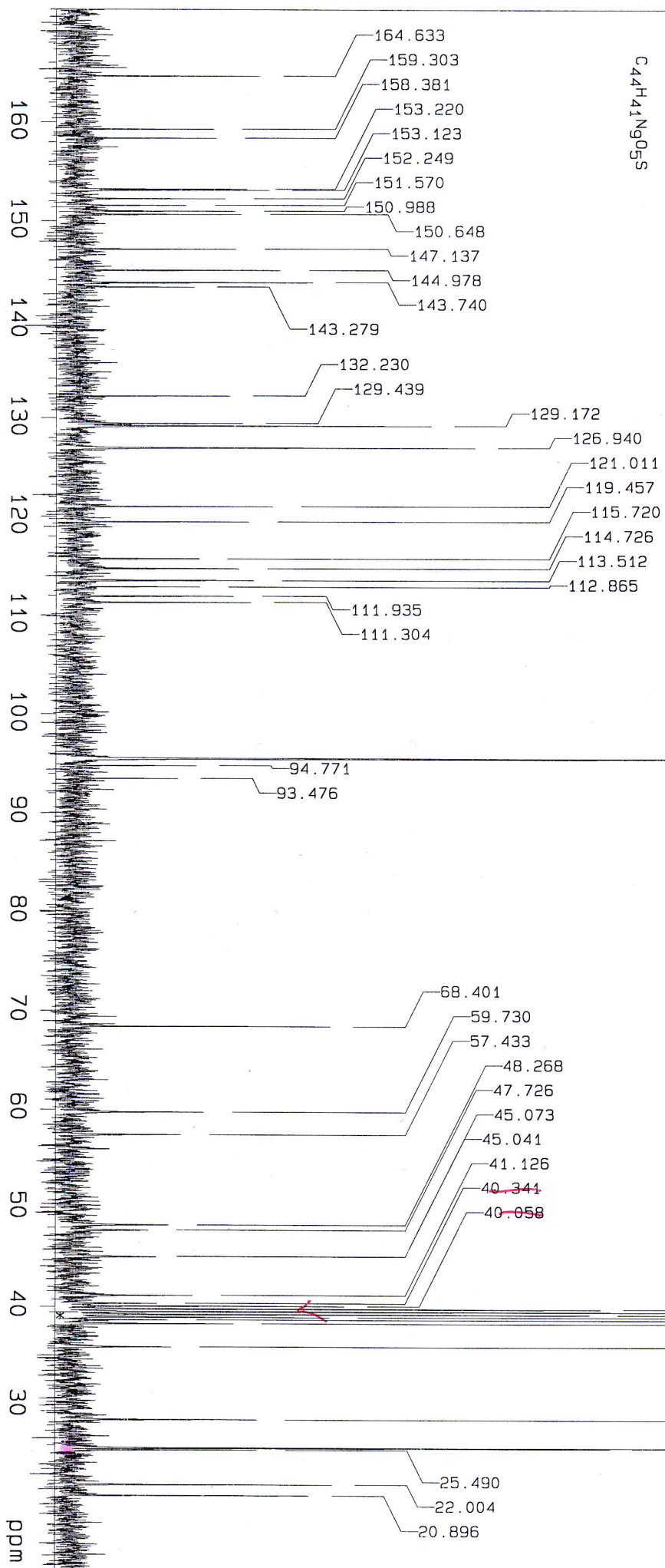
C13 75.465 MHz, nr = 640, mp = 19998, temp = 30.0 C, lb = 1.0, solvent = DMSO-CD3 1/3

ANUSH_TEMMA T20-054-1

Mar 31 2021



C₄₄H₄₁N₉O₅S



+ [Signature]

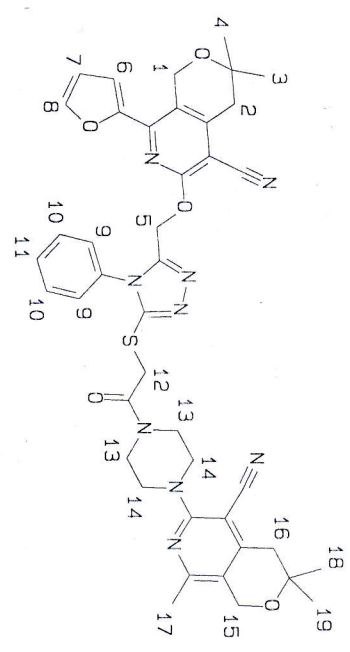
109

Molecular Structure Research Centre, Yerevan, Armenia, Varian Mercury-300VX
T20-055-2

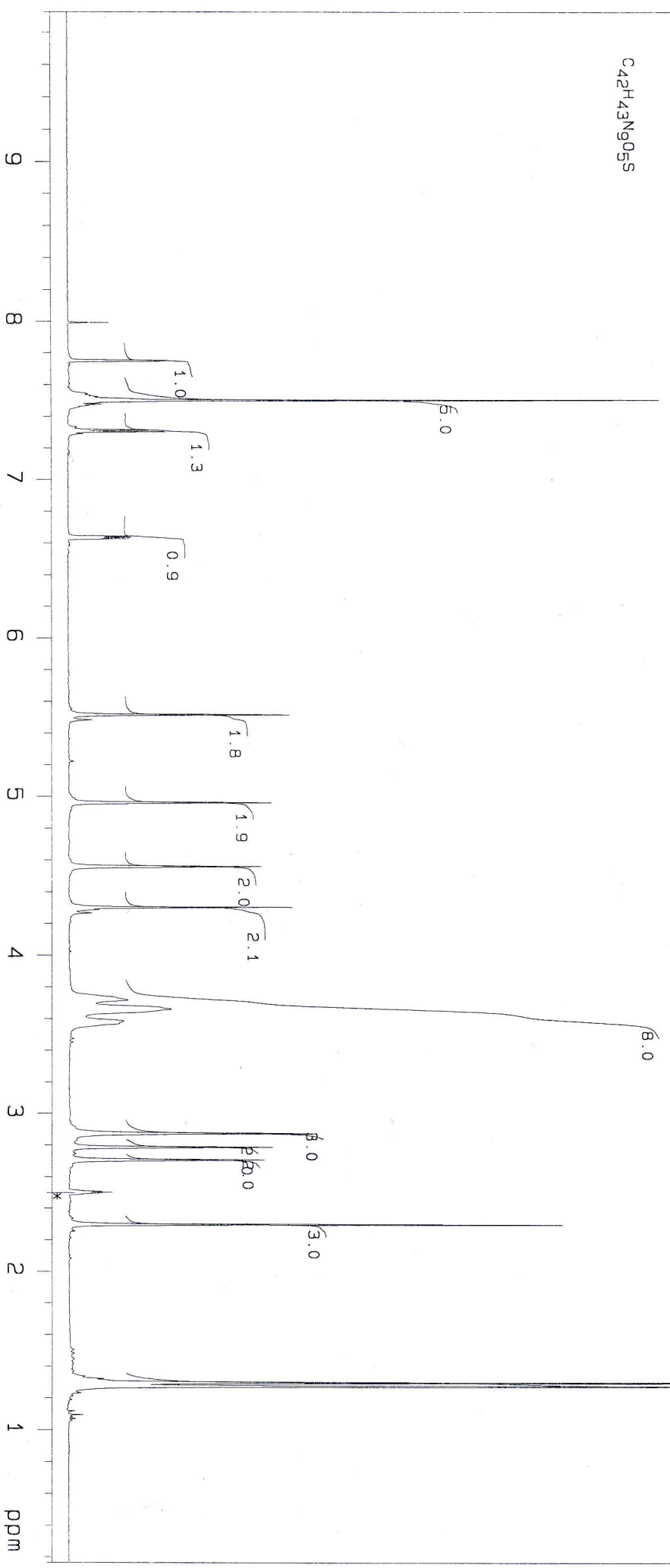
H1 300.088 MHz, nt = 16, np = 32000, temp = 30.0 C, lb = -0.2, solvent = DMSO/Cd4 1/3

ANUSH_TEMA t20-055-2

Apr 23 2021



C₄₂H₄₃N_gO₅S



+ Conf

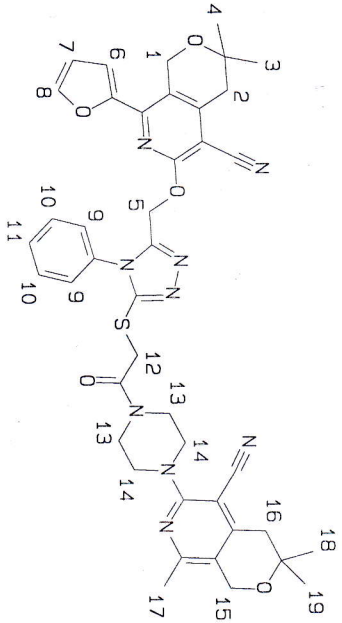
109

Molecular Structure Research Centre, Yerevan, Armenia, Varian Mercury-300VX
T20-055-2

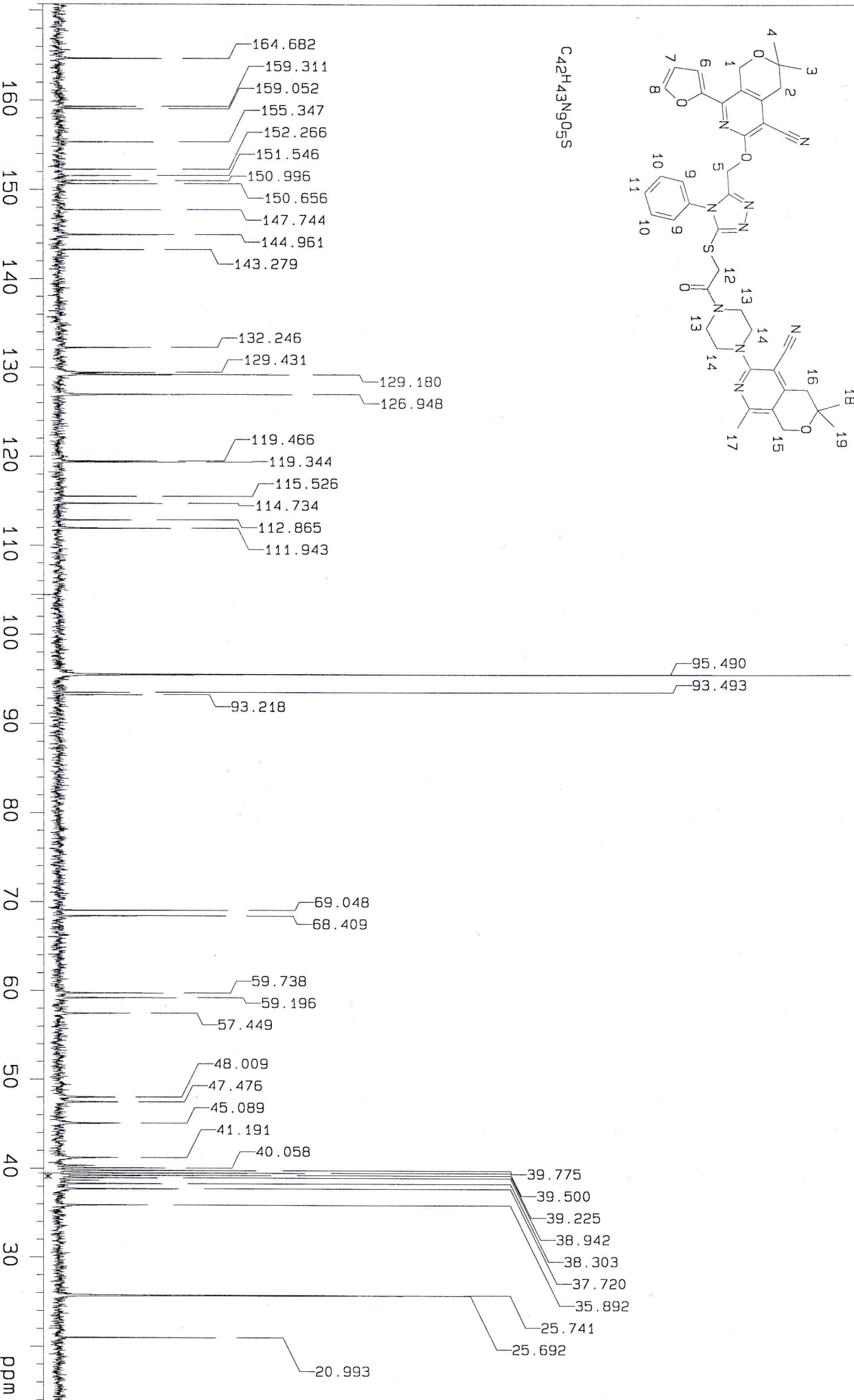
C13 75.465 MHz, n=864, np=19998, temp=30.0 C, lb=1.0, solvent=DMSO/Cd4 13

ANUSH_TEMEA t20-055-2

Apr 23 2021



C₄₂H₄₃N₉O₅S



+ Prof

109

31.01.2024

T-20-055 n 7 (0.141) Cm (5:10-14:21)

311.1284

6.00000000

1: TOF MS ES+
1.08e6

