

Supplementary materials

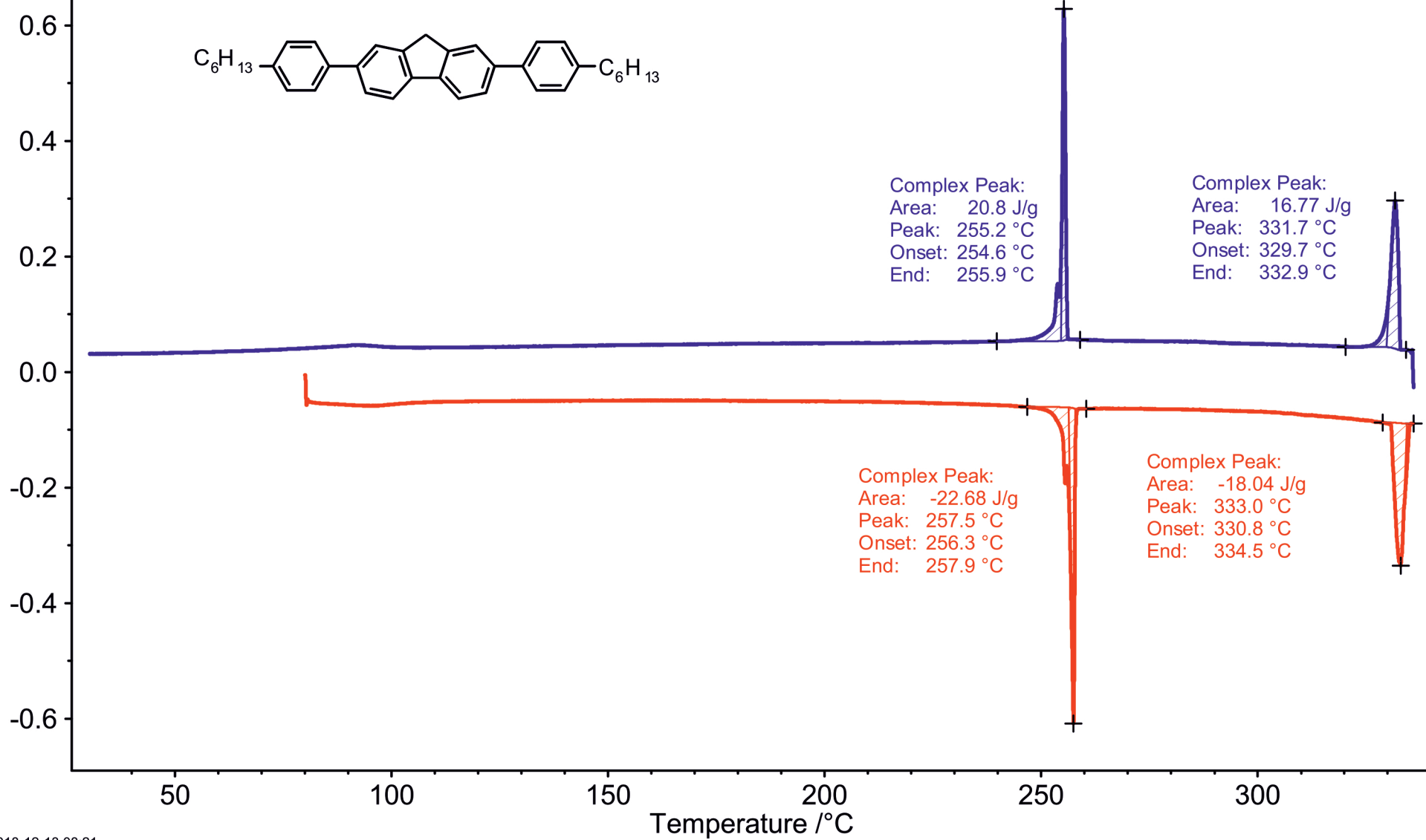
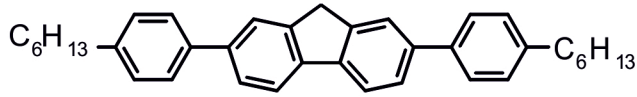
Synthesis and mesomorphic properties of four ring, rod-like fluorene derivatives - the influence of the lateral substitution on mesomorphic properties of 2,7-bis(4-alkylphenyl)-fluorenes

by Ewelina Dmochowska, Aneta Bombalska and Przemysław Kula

Following pages show DSC thermograms, ATR IR spectras and Mass Spectrograms (EI ionization with 70eV ionization energy)

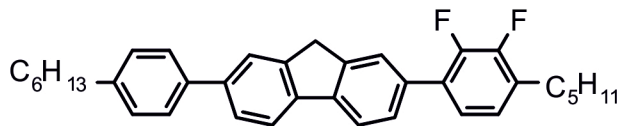
DSC /(mW/mg)

↑ exo



DSC /(mW/mg)

↑ exo



Complex Peak:
Area: 14.03 J/g
Peak: 161.8 °C
Onset: 161.1 °C
End: 162.4 °C

Complex Peak:
Area: 13.39 J/g
Peak: 291.0 °C
Onset: 289.9 °C
End: 292.0 °C

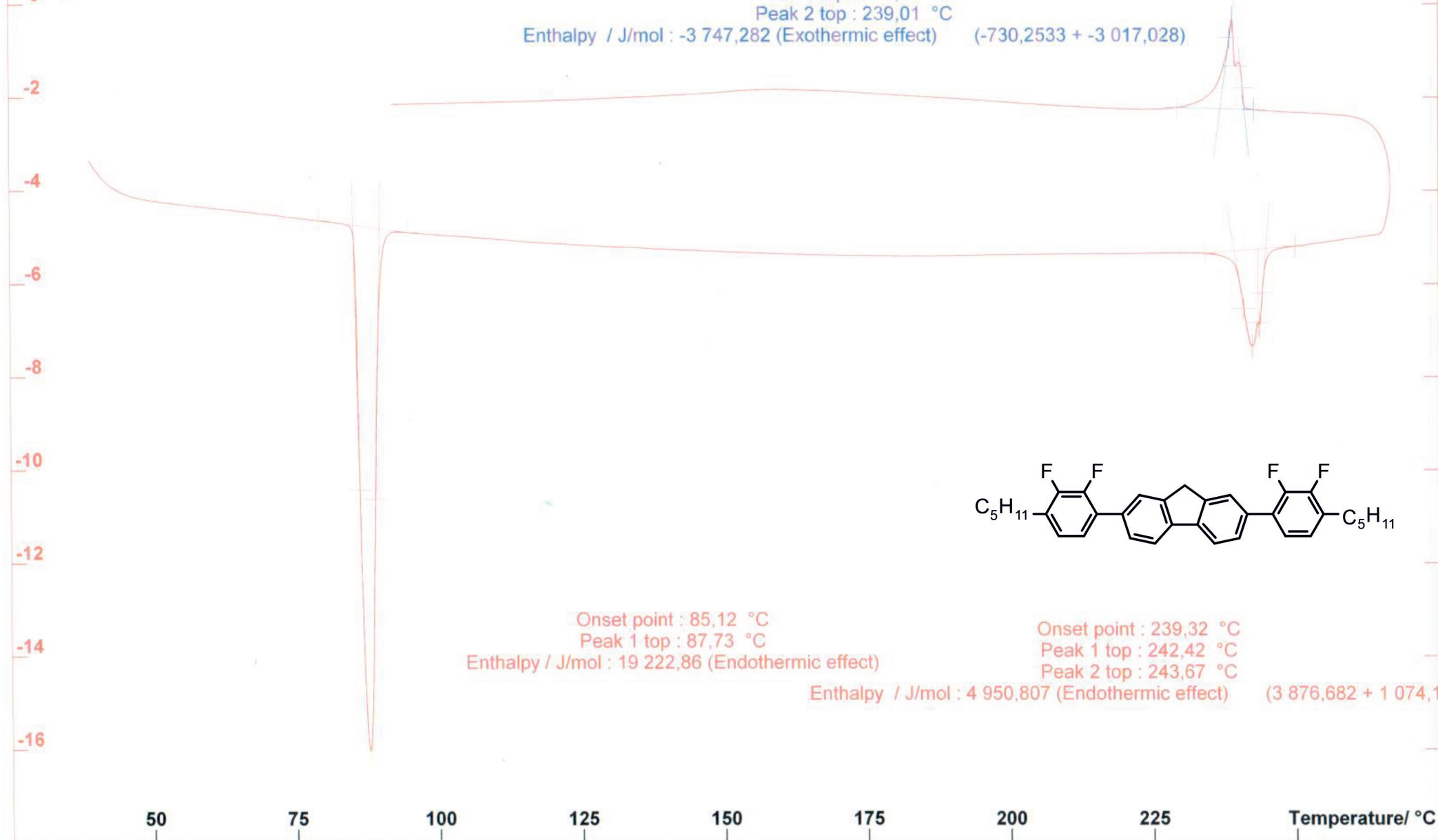
Complex Peak:
Area: -14.38 J/g
Peak: 164.5 °C
Onset: 161.5 °C
End: 165.2 °C

Complex Peak:
Area: -13.7 J/g
Peak: 292.6 °C
Onset: 290.7 °C
End: 293.8 °C

Temperature /°C

Heat Flow/ mW

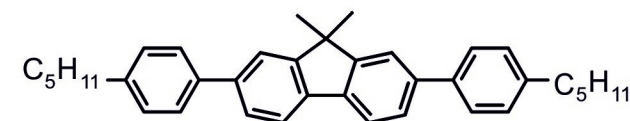
0 ↑ Exo



Heat Flow/ mW

50
45
40
35
30
25
20
15
10
5
0
-5
-10
-15
-20
-25
-30

Exo



Onset point : 100,22 °C
Peak 1 top : 99,84 °C
Enthalpy / J/mol : -20 491,67 (Exothermic effect)

Onset point : 172,13 °C
Peak 1 top : 171,65 °C
Enthalpy / J/mol : -754,5746 (Exothermic effect)

Onset point : 121,24 °C
Peak 1 top : 122,97 °C
Enthalpy / J/mol : 34 080,9 (Endothermic effect)

Onset point : 171,91 °C
Peak 1 top : 172,49 °C
Enthalpy / J/mol : 656,8104 (Endothermic effect)

80

100

120

140

160

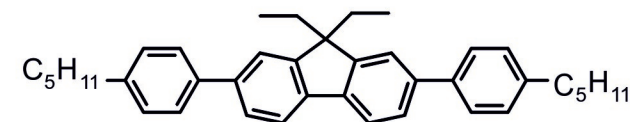
180

Temperature/ °C

Heat Flow/ mW

2.5 ↑ Exo
0.0
-2.5
-5.0
-7.5
-10.0
-12.5
-15.0
-17.5
-20.0
-22.5

Onset point : 52,35 °C
Peak 1 top : 51,80 °C
Enthalpy / J/mol : -1 160,481 (Exothermic effect)



Onset point : 102,85 °C
Peak 1 top : 104,47 °C
Enthalpy / J/mol : 33 235,16 (Endothermic effect)

Onset point : 99,52 °C
Peak 1 top : 100,14 °C
Enthalpy / J/mol : 237,8503 (Endothermic effect)

20 40 60 80 100 120 140 160 Temperature/ °C

Heat Flow/ mW

Exo

0.0

-2.5

-5.0

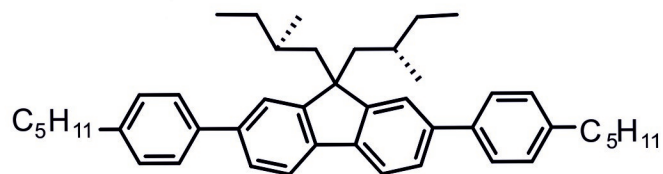
-7.5

-10.0

-12.5

-15.0

-17.5



Onset point : 105,38 °C
Peak 1 top : 106,87 °C
Enthalpy / J/mol : 26 127,51 (Endothermic effect)

Onset point : 23,85 °C
Peak 1 top : 23,36 °C
Enthalpy / J/mol : -89,357 (Exothermic effect)

Onset point : 52,49 °C
Peak 1 top : 47,80 °C
Enthalpy / J/mol : -16 562,6 (Exothermic effect)

20

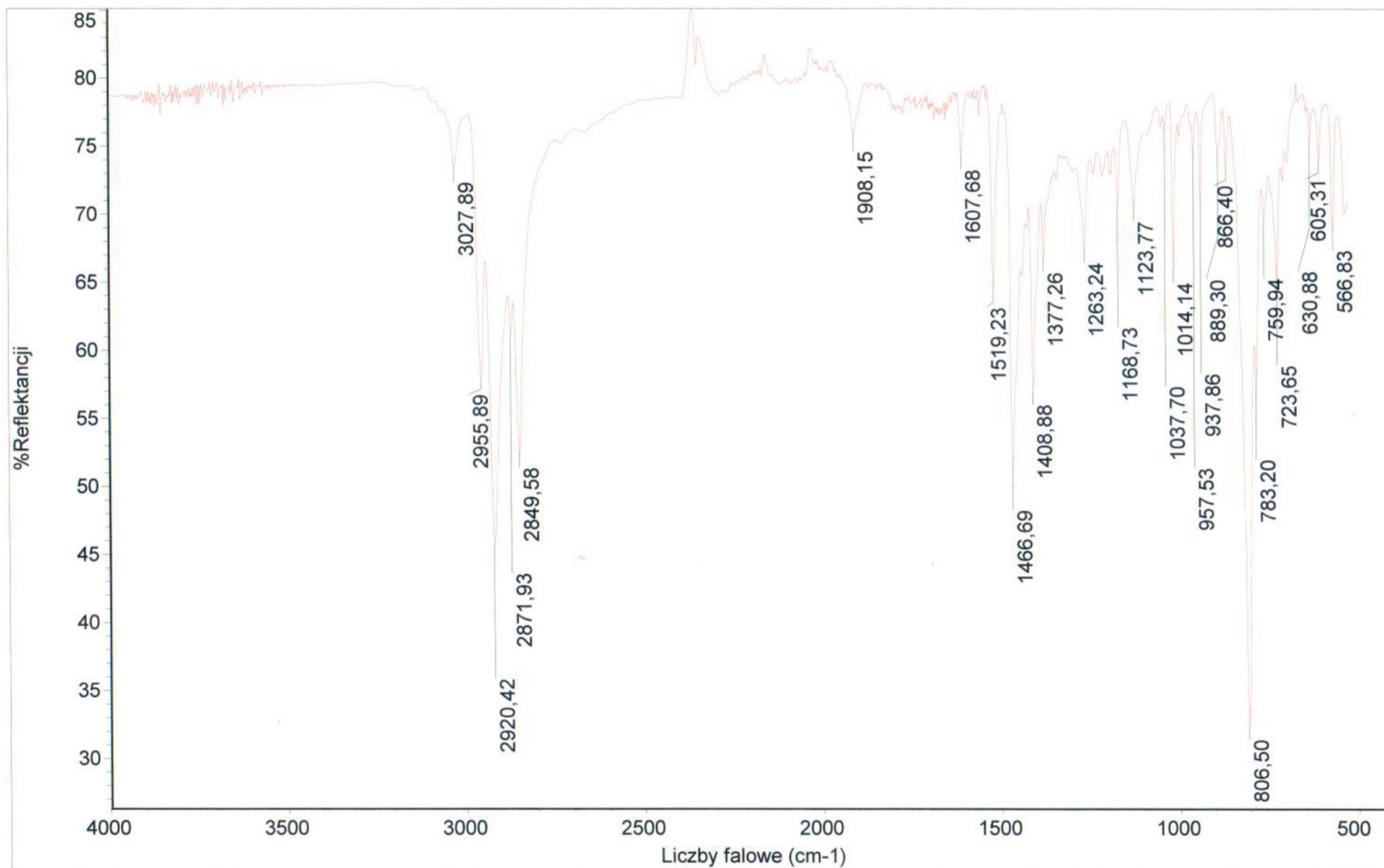
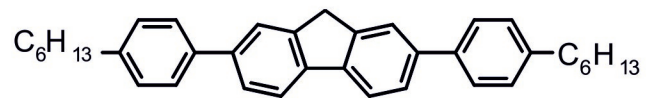
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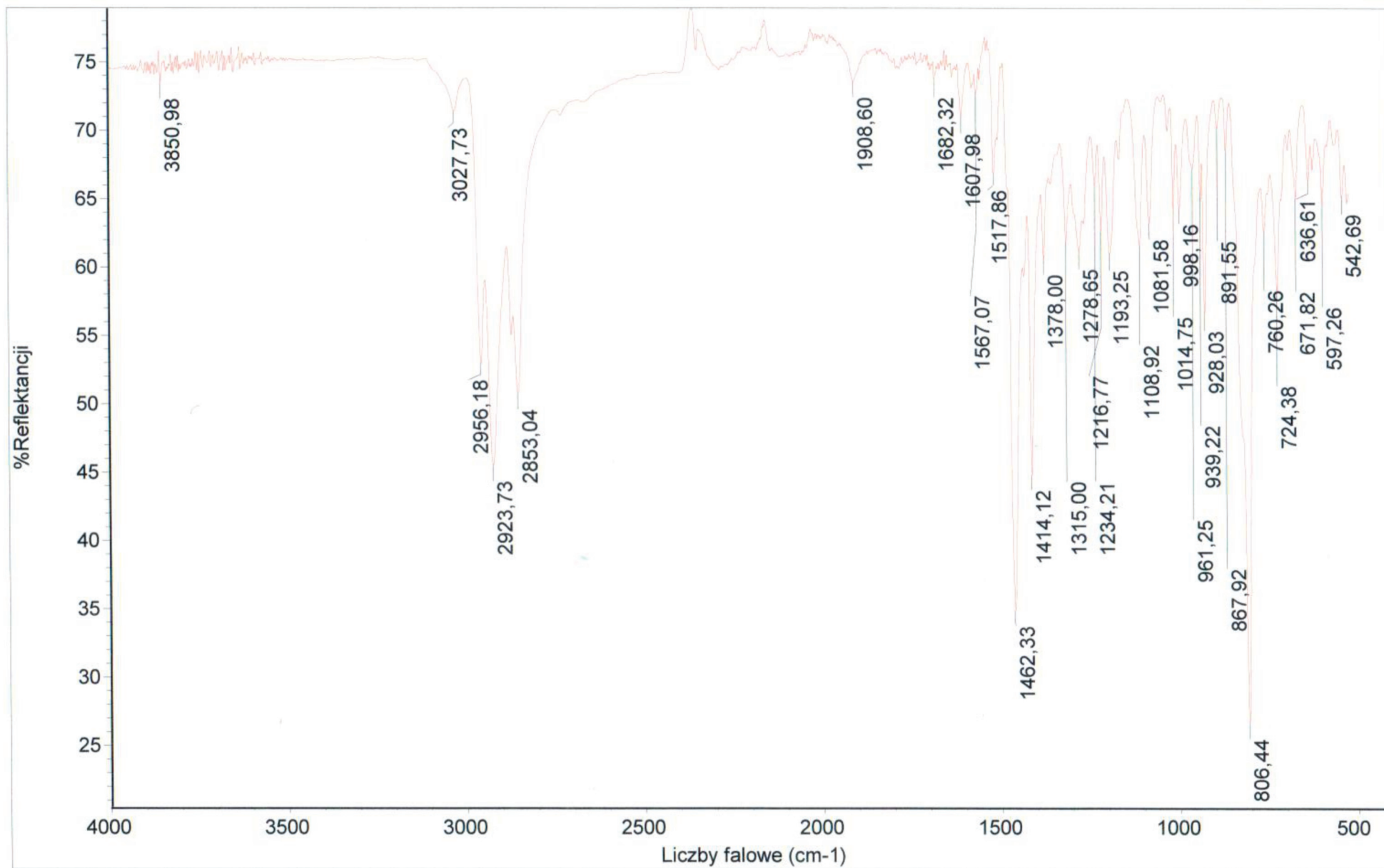
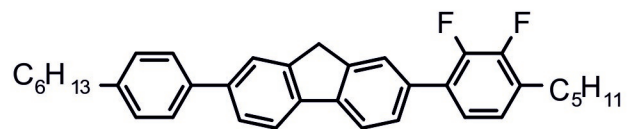
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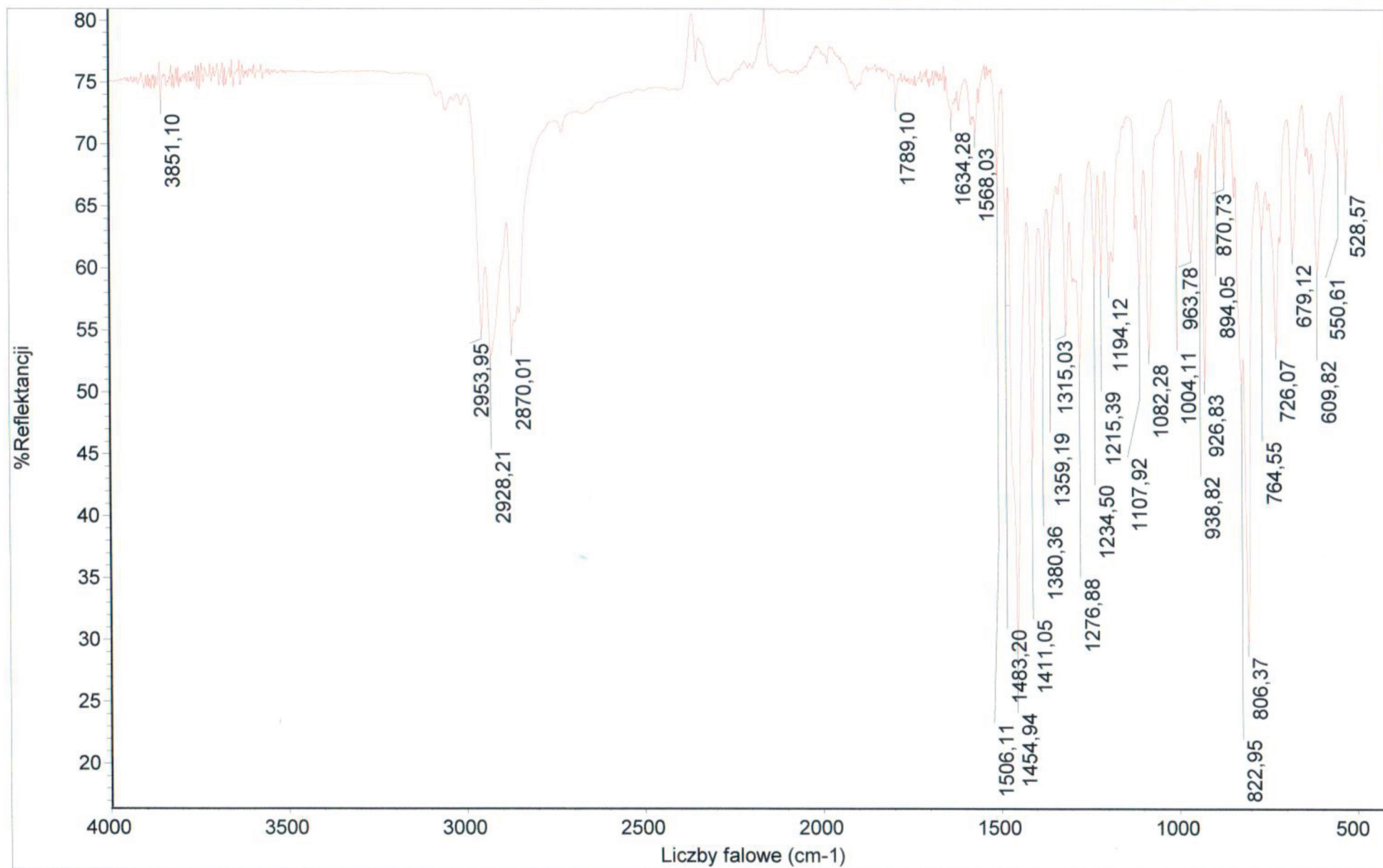
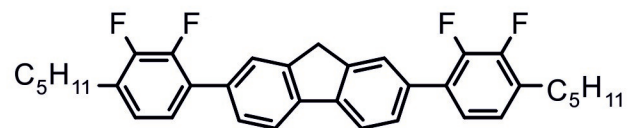
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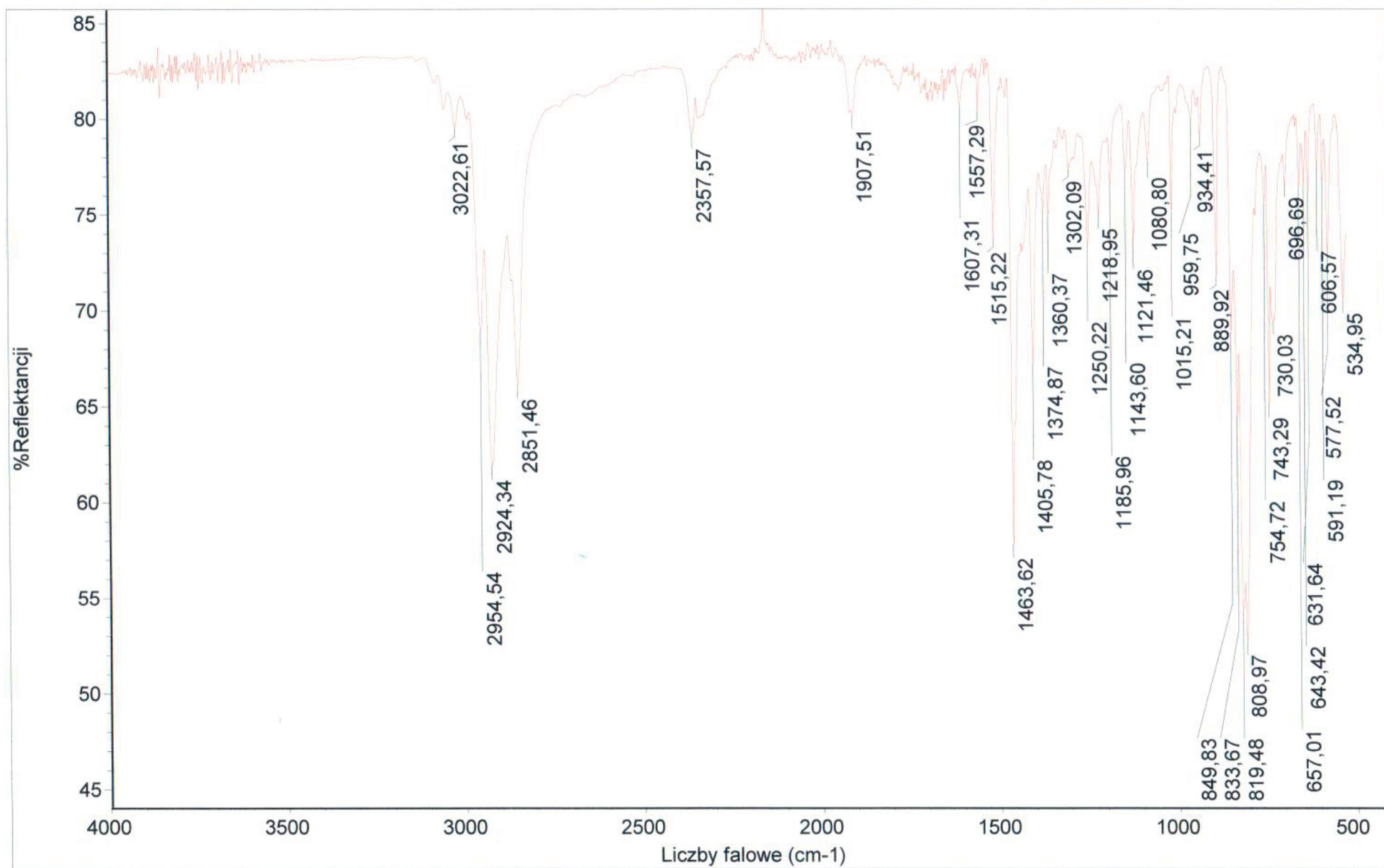
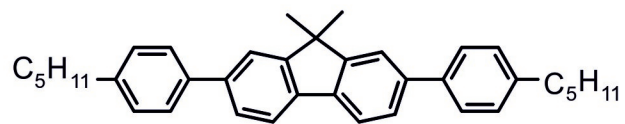
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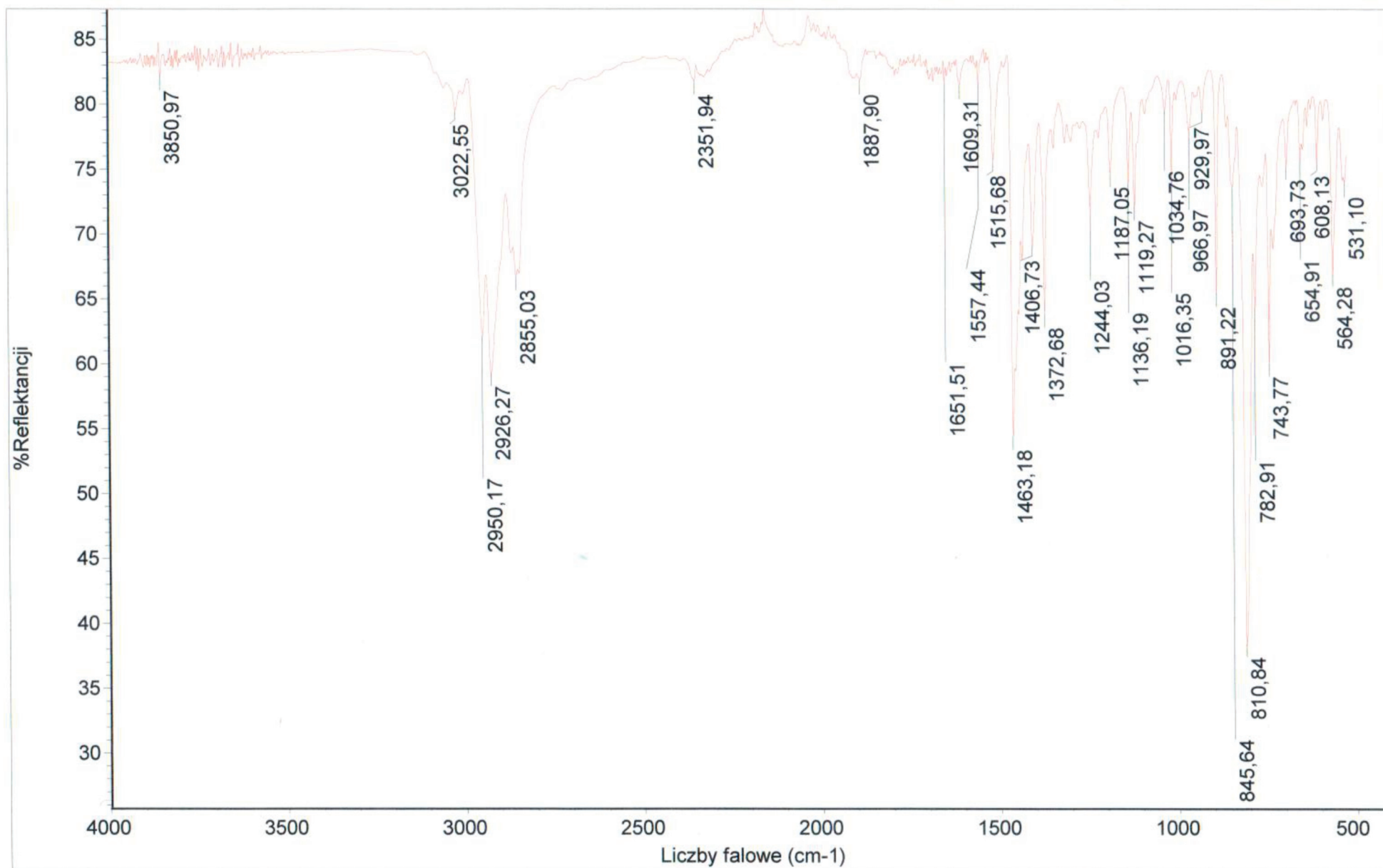
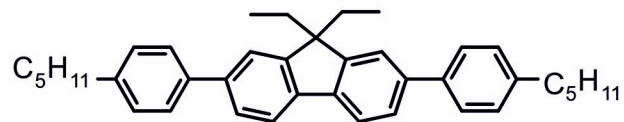
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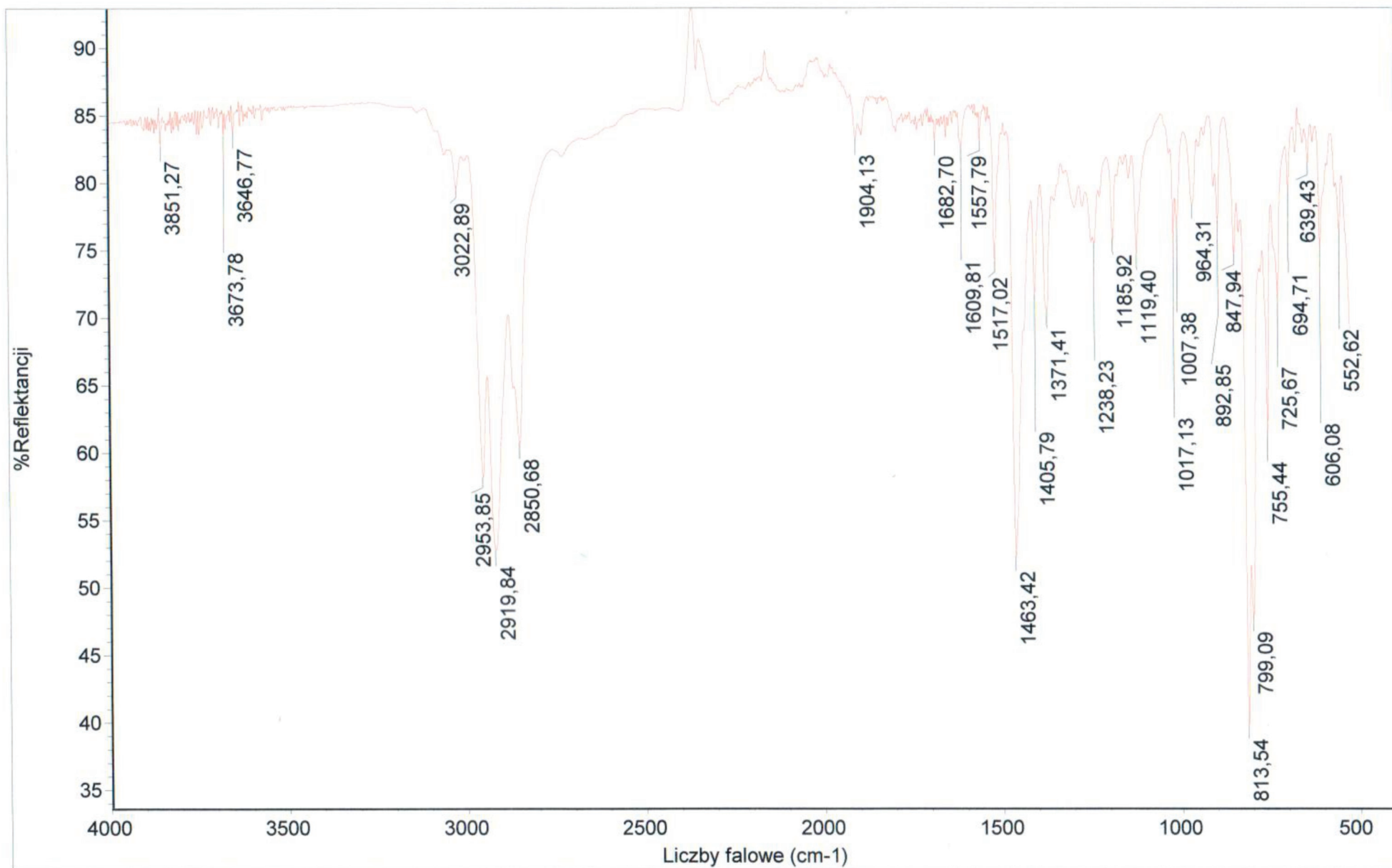
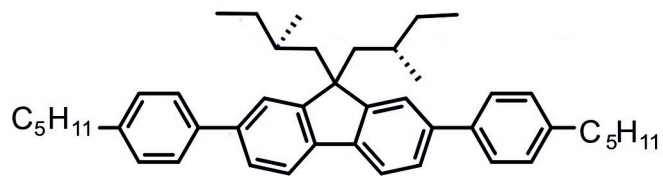






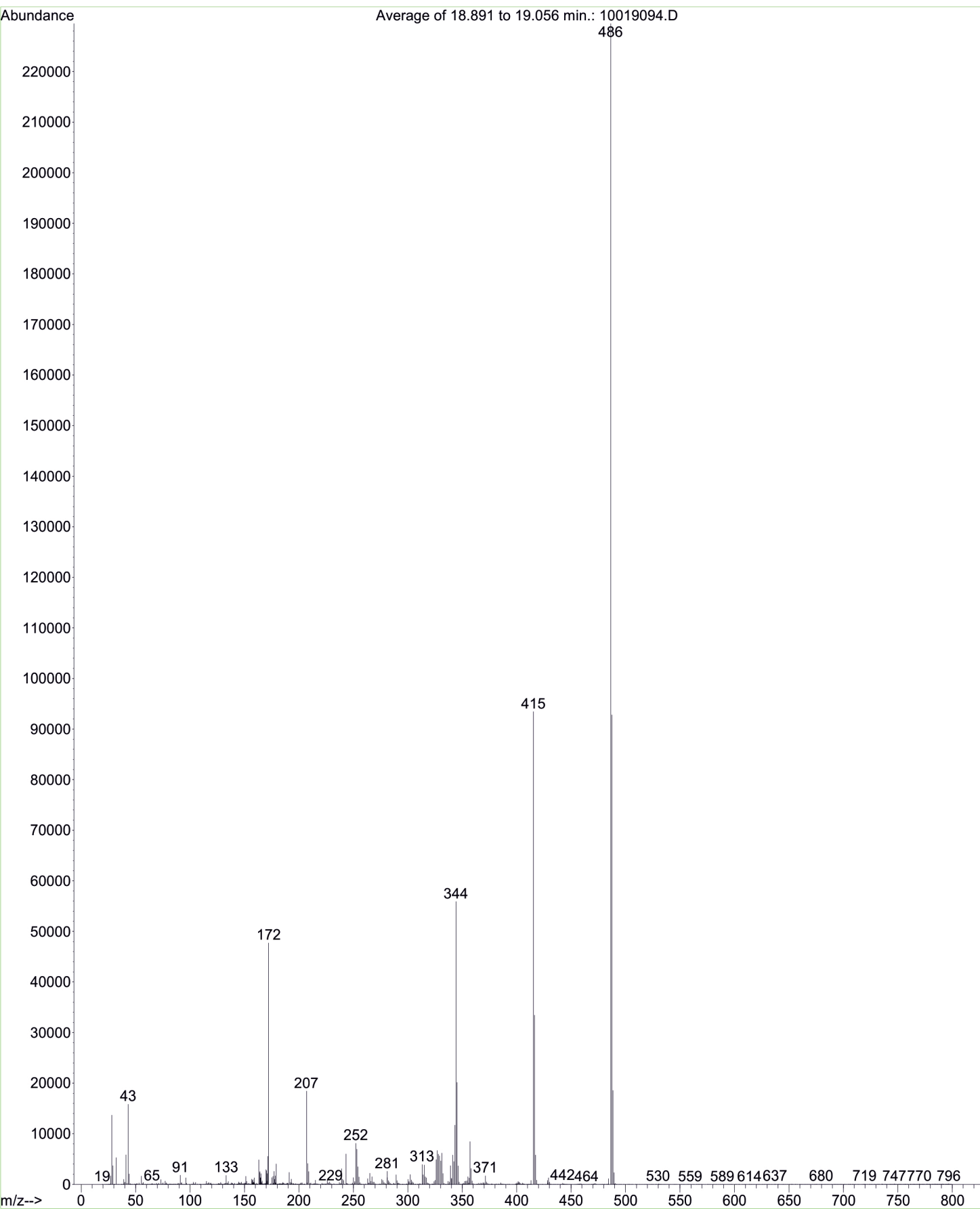
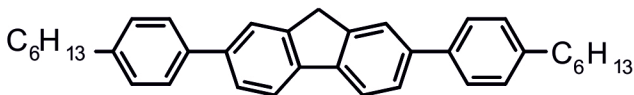






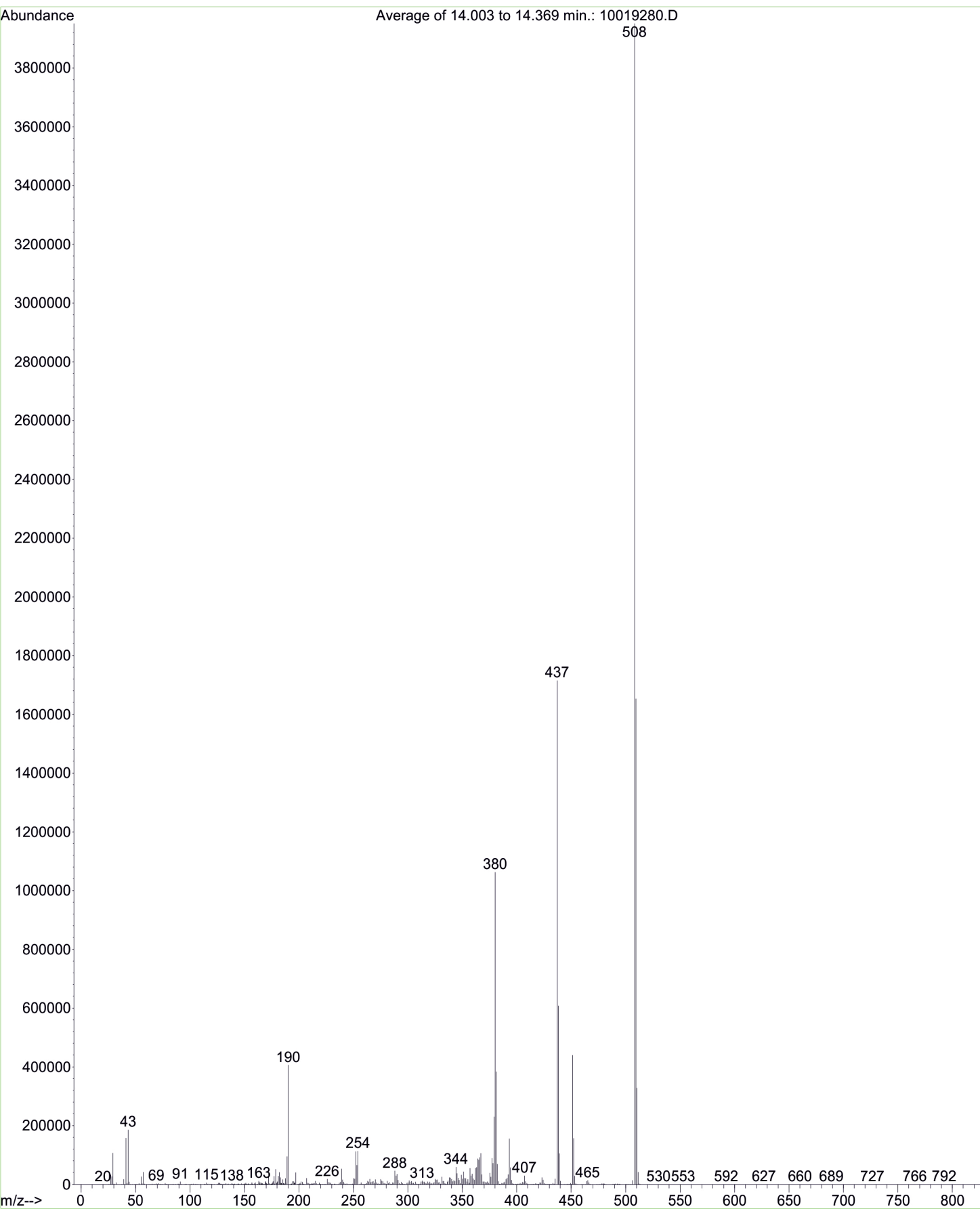
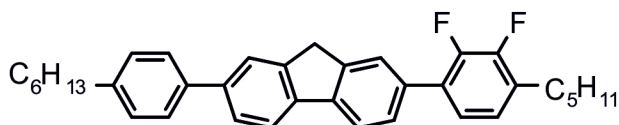
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Operator :
Acquired : 17 Dec 2015 8:47 using AcqMethod
Instrument : Instrumen
Sample Name: C6H13_C6H4_C13H8_C6H4_C6H13
Misc Info :
Vial Number: 1

2_70_20



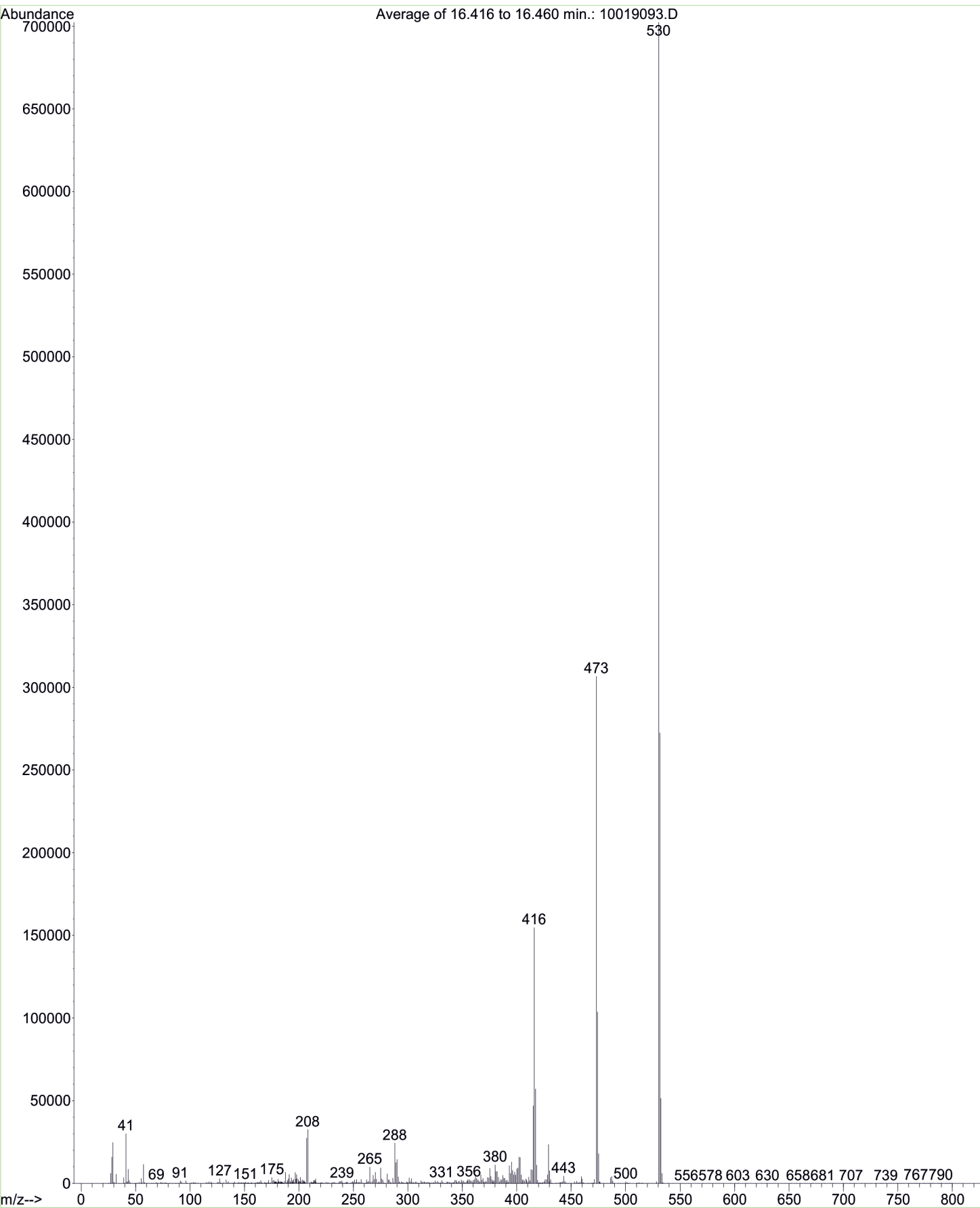
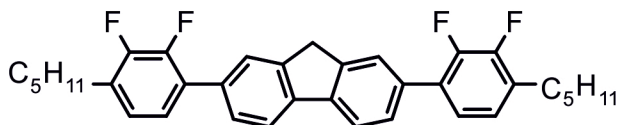
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Acquired : 26 Jan 2016 15:34 using AcqMethod
Instrument : Instrumen
Sample Name: C6H15_Ph_PF_[FPhF]_C5H11
Misc Info :
Vial Number: 1

2_70_30



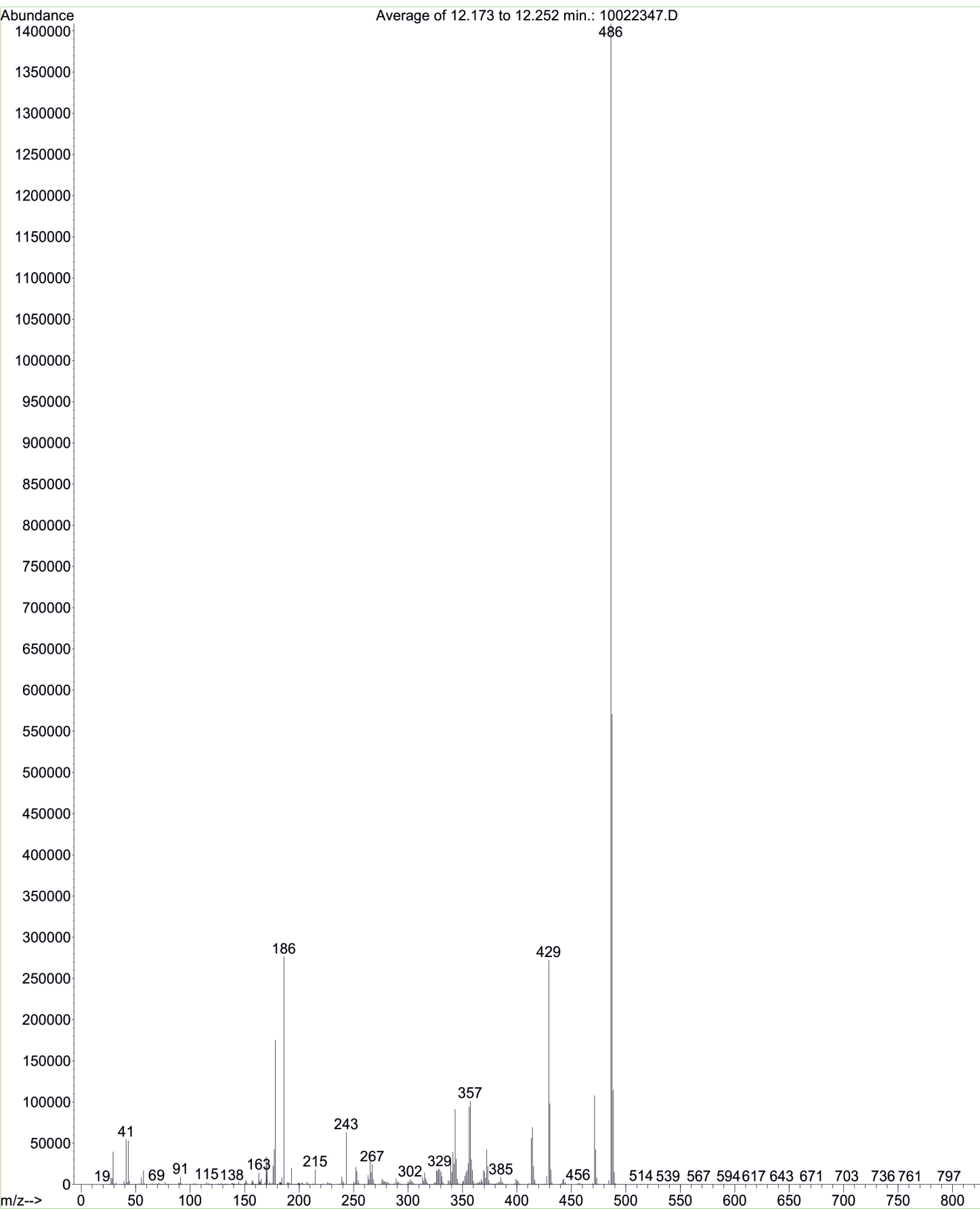
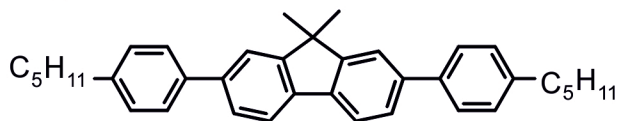
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Operator :
Acquired : 17 Dec 2015 8:11 using AcqMethod
Instrument : Instrumen
Sample Name: C5H11_C6H2F2_C13H8_C6H2F2_C5H11
Misc Info :
Vial Number: 1

2_70_20



File : D:\ANALIZY\223\10022347.D
Operator :
Acquired : 4 May 2017 9:53 using AcqMethod
Instrument : Instrumen
Sample Name: C5H11_Ph_Ph_(C(CH3)2)_Ph_Ph_C5H11
Misc Info :
Vial Number: 67

1_70_30



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Operator :
Acquired : 4 May 2017 9:23 using AcqMethod

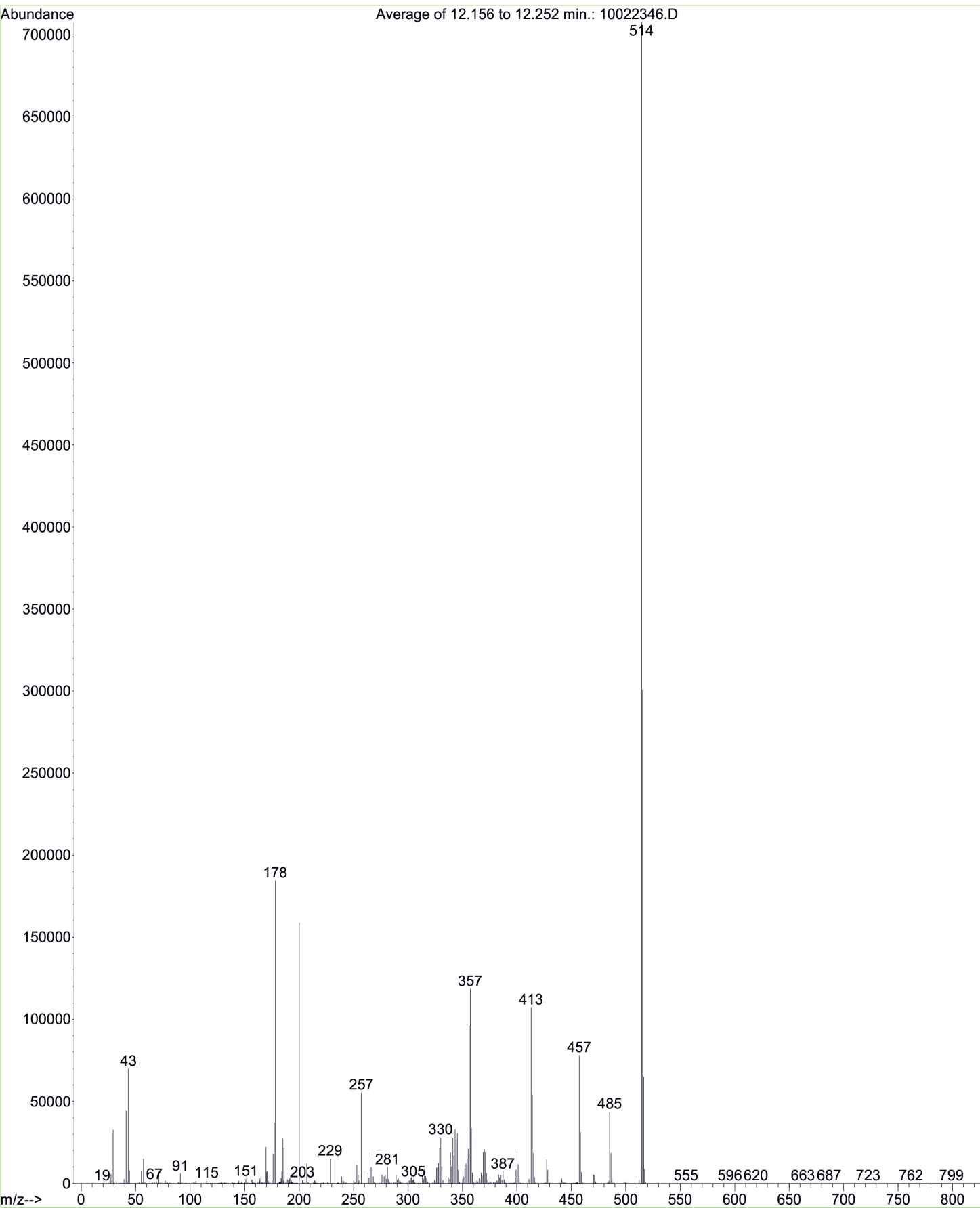
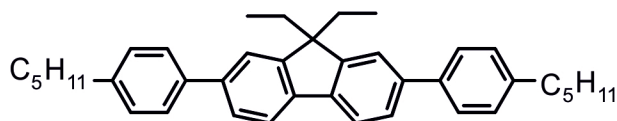
Instrument : Instrumen

Sample Name: C5H11_Ph_Ph_(C(C2H5)2)_Ph_Ph_C5H11

Misc Info :

Vial Number: 66

1_70_30



File : D:\ANALIZY\223\10022365.D

Operator :
Acquired : 9 May 2017 9:50 using AcqMethod

1_70_30

Instrument : Instrumen

Sample Name: C5H11_C6H4_C6H3{C(C5H11)2}_C6H3_C6H4_C 5H11

Misc Info :

Vial Number: 80

