Introducing Unactivated Acyclic Internal Aliphatic Olefins in Cobalt Catalyzed Allylic Selective Dehydrogenative Heck Reaction

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Supporting Information

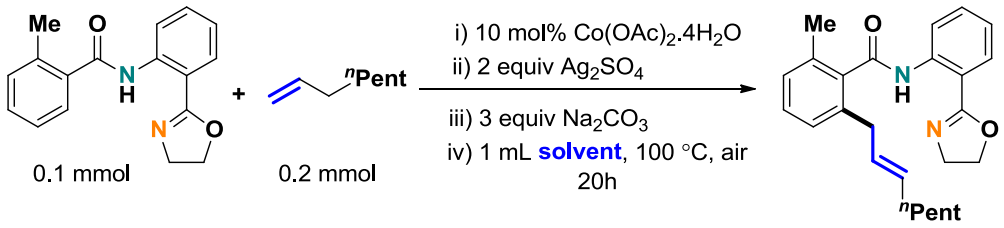
General Consideration:

Reagent Information. Unless otherwise stated, all reactions were carried out in screw cap reaction tubes. All the solvents were bought from commercial sources and were used without further purification. Cobalt acetate tetra hydrate and other cobalt salts were purchased from Alfa Aesar and Aldrich. Silica gel (100–200 mesh) obtained from SRL Co. was used for column chromatography. A gradient elution using petroleum ether and ethyl acetate was performed, based on Merck aluminium TLC sheets (silica gel $60F_{254)}$.

Analytical Information. All compounds are characterized by ^{1}H NMR, ^{13}C NMR spectroscopy, and HR-MS. Copies of the ^{1}H NMR, ^{13}C NMR can be found in the Supporting Information. Unless otherwise stated, all Nuclear Magnetic Resonance spectra were recorded on a Bruker 500 MHz / 400 MHz instrument. All ^{1}H NMR experiments are reported in units, parts per million (ppm), and were measured relative to the signals for residual chloroform (7.26 ppm) in the deuterated solvent, unless otherwise stated. All ^{13}C NMR spectra were reported in ppm relative to deuterochloroform (77.23 ppm), unless otherwise stated, and all were obtained with ^{1}H decoupling. All GC analyses were performed on a Agilent 7890A GC system with an FID detector using a J & W DB–1 column (10 m, 0.1 mm I.D.) using *n*-decane as the internal standard. High-resolution mass spectra (HR-MS) were recorded on a micro-mass ESI TOF (time of flight) mass spectrometer.

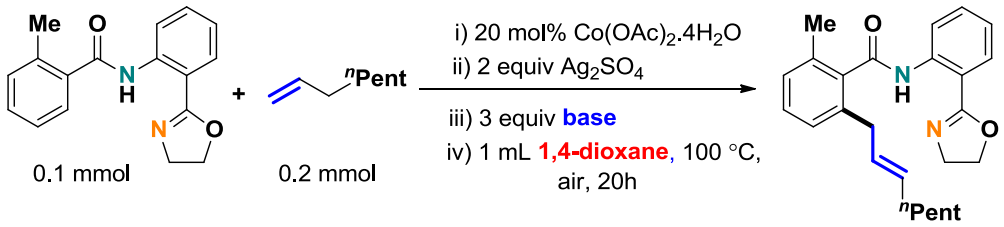
Optimization details for C–H allylation with aliphatic olefins:

Table S1: Solvent optimization



Entry	Solvents	GC Yield (%)
1	DCE	19
2	PhCl	16
3	TCP	-
4	toluene	11
5	THF	9
6	**1,4-dioxane**	**38**
7	benzene	27
8	trifluorotoluene	11
9	TFE	9
10	PhBr	15
11	cyclohexane	23

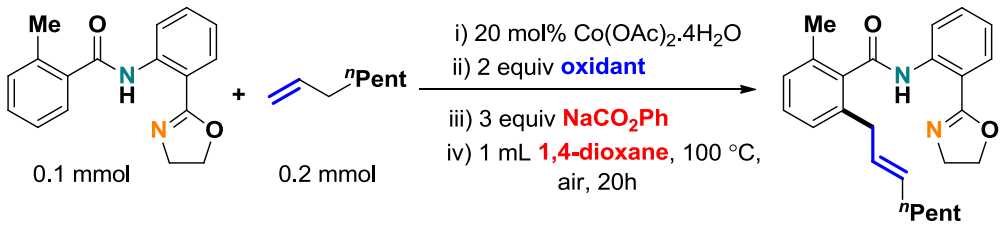
Table S2: Optimization of **bases**



Entry	Bases	GC Yield (%)
1	Na_2CO_3	40
2	NaOPiv	47
3	NaOAc	57
4	$NaHCO_3$	64
5	**$NaCO_2Ph$**	**70**
6	K_2CO_3	67
7	K_3PO_4	-

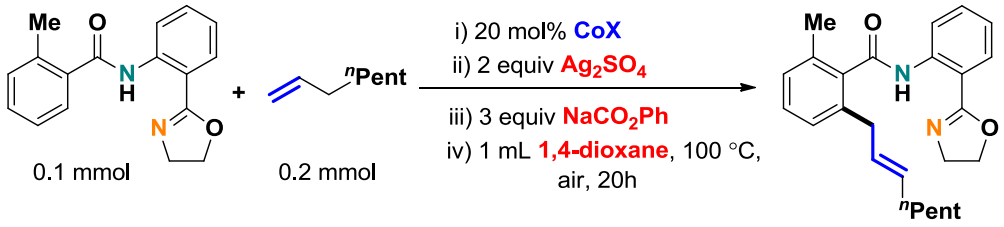
8	$KHCO_3$	14
9	$NaCO_2CF_3$	-
10	Ag_2CO_3	66
11	NaOEt	40

Table S3: Optimization of **oxidants**



Entry	Oxidant	GC Yield (%)
1	**Ag_2SO_4**	**70**
2	Ag_2CO_3	35
3	AgOAc	50
4	$AgNO_3$	44
5	$AgNO_2$	15
6	Ag_2O	18
7	AgI	11
8	$Mn(OAc)_2.4H_2O$	-
9	$Mn(OAc)_3.2H_2O$	31
10	$PhI(OAc)_2$	19
11	$Cu(OAc)_2.H_2O$	-

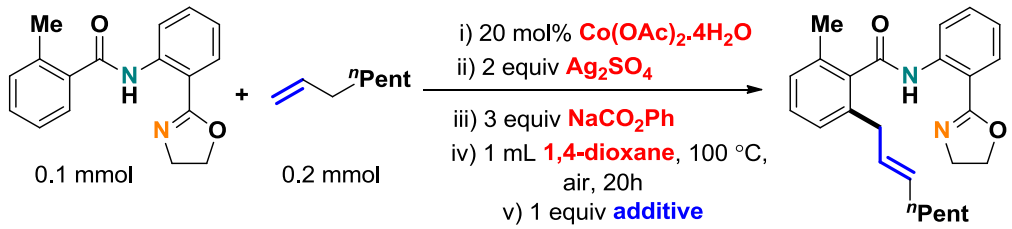
Table S4: Optimization of **catalysts**



Entry	Catalyst	GC Yield (%)
1	**$Co(OAc)_2.4H_2O$**	**70**
2	$Co(acac)_2$	51
3	$Co(acac)_3$	41
4	$Co(CO_2Ph)_2$	49

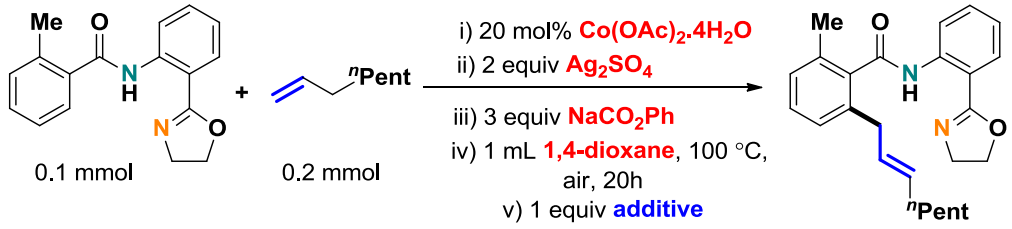
5	$CoBr_2$	56
6	$CoCl_2$	60

Table S5: Optimization of **additives**



Entry	Additive	GC Yield (%)
1	-	70
2	**PivOH**	**78**
3	**$AdCO_2H$**	**80**
4	Mesitoic acid	57
5	$(PhO)PO_2H$	19
6	$(BnO)PO_2H$	18

Table S6: Optimization of **acid additives**



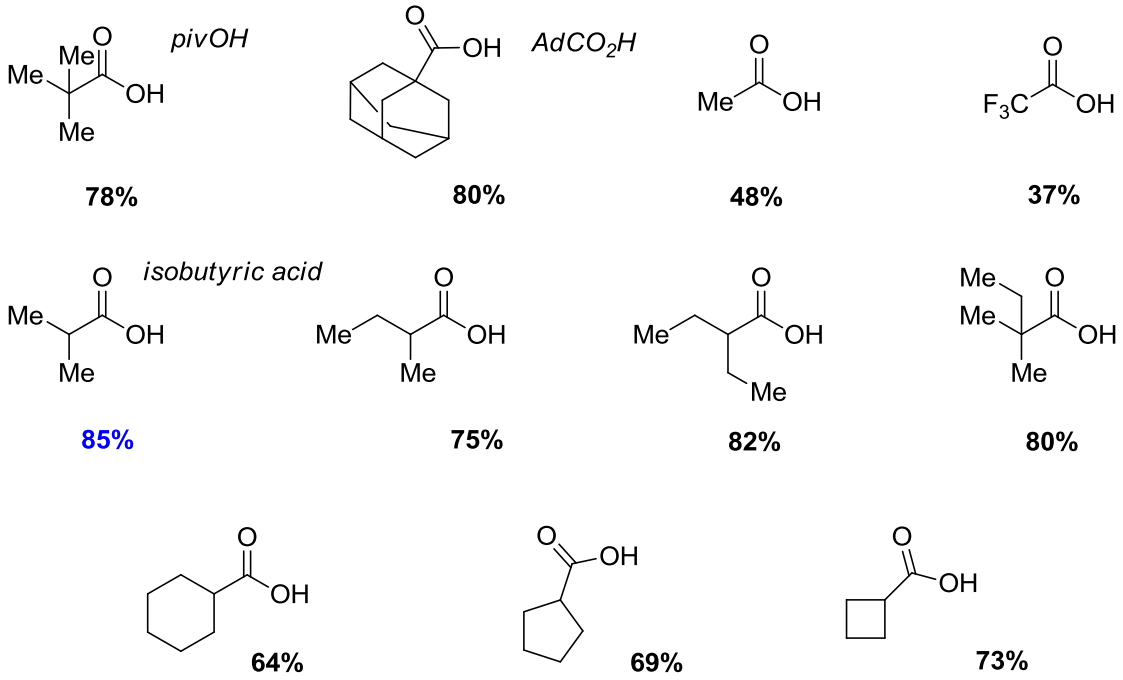
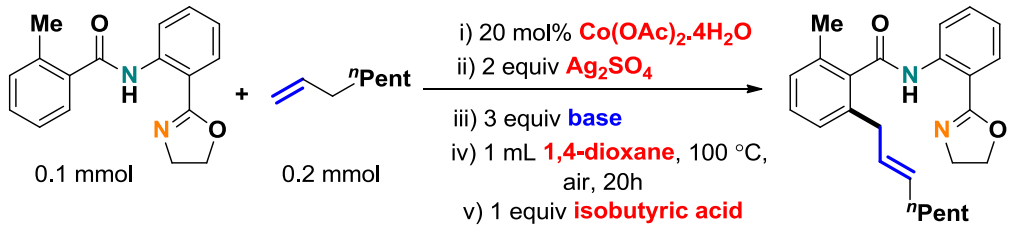


Table S7: Re-optimization of **bases**



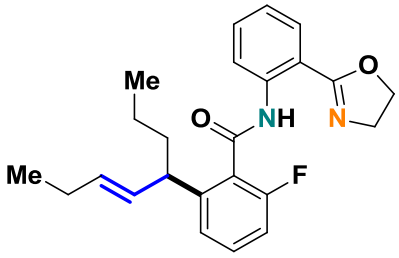
Entry	Base	GC Yield (%)
1	Na_2CO_3	24
2	NaOPiv	75
3	NaOAc	63
4	**$NaCO_2Ph$**	**85**
5	K_2CO_3	31
6	**$NaHCO_3$**	**90**

General procedure for cobalt catalyzed C-H allylation with internal and terminal aliphatic olefins:

To an oven-dried screw cap reaction tube charged with a magnetic stir-bar was added benzoic acid amide (0.25 mmol, 1 equiv), $Co(OAc)_2.4H_2O$ (20 mol%), Ag_2SO_4 (0.5 mmol, 2 equiv) and $NaHCO_3$ (0.75 mmol, 3 equiv). Aliphatic olefins (0.5 mmol; 2 equiv), isobutyric acid additive (1 equiv) were added with a micro litter pipette and solvent (1,4-dioxane) was introduced with a disposable laboratory syringe.

Note that, commercially purchased solvents were used without further purification or drying. The tube was placed in a preheated oil bath at 100 ºC and the reaction mixture was stirred under aerobic condition (at 900 rpm) for 20-24h. The reaction mixture was then cooled to room temperature and filtered through a celite pad with ethyl acetate. The filtrate was concentrated and purified by column chromatography using silica gel (100-200 mesh size) and petroleum ether / ethyl acetate as the eluent.

Characterization data of C-H allylation products:



(*E*)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-fluoro-6-(oct-5-en-4-yl)benzamide (Scheme 3, 3a).

C-H Allylation was carried out following general procedure with *N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-fluorobenzamide (0.25 mmol, 71 mg) and *trans*-4-octene (0.5 mmol, 78 µL).

Eluent: ethyl acetate/ petroleum ether (1: 99 v/v); R_f = 0.6 (5% EA-PE)

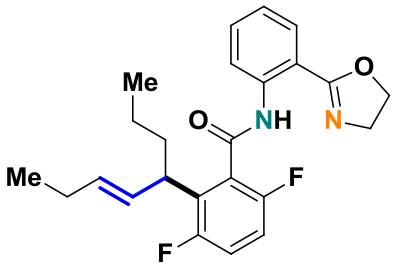
Appearance: Sticky white liquid.

Isolated yield: 83% (82 mg).

^{1}H NMR (500 MHz, $CDCl_3$) δ 12.51 (s, 1H), 8.95 (d, *J* = 8.1 Hz, 1H), 7.88 (dd, *J* = 7.9, 1.4 Hz, 1H), 7.56 – 7.49 (m, 1H), 7.34 (td, *J* = 8.0, 6.0 Hz, 1H), 7.16 – 7.08 (m, 2H), 6.96 (t, *J* = 8.6 Hz, 1H), 5.54 – 5.39 (m, 2H), 4.31 (t, *J* = 9.5 Hz, 2H), 3.95 (t, *J* = 9.5 Hz, 2H), 3.57 (q, *J* = 7.2 Hz, 1H), 1.97 – 1.89 (m, 2H), 1.70 – 1.64 (m, 2H), 1.34 – 1.27 (m, 1H), 1.21 – 1.12 (m, 1H), 0.89 (t, *J* = 7.4 Hz, 3H), 0.82 (t, *J* = 7.4 Hz, 3H).

^{13}C NMR (126 MHz, $CDCl_3$) δ 164.46, 164.35, 160.03, 158.06, 145.86, 139.72, 132.75, 132.58, 132.05, 130.64, 130.57, 129.36, 126.43, 126.29, 122.97, 122.90, 122.88, 120.23, 113.66, 113.18, 113.01, 66.32, 54.85, 44.52, 38.48, 25.72, 20.81, 14.23, 13.80.

HR-MS (ESI-QTOF): $[M+H]^+$ calculated for $C_{24}H_{28}FN_2O_2$ *m/z* 395.2129 and found *m/z* 395.2125.



(*E*)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-3,6-difluoro-2-(oct-5-en-4-yl)benzamide (Scheme 3, 3b).

C-H Allylation was carried out following general procedure with *N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2,5-difluorobenzamide (0.25 mmol, 76 mg) and *trans*-4-octene (0.5 mmol, 78 µL).

Eluent: ethyl acetate/ petroleum ether (1: 99 v/v); R_f = 0.6 (5% EA-PE)

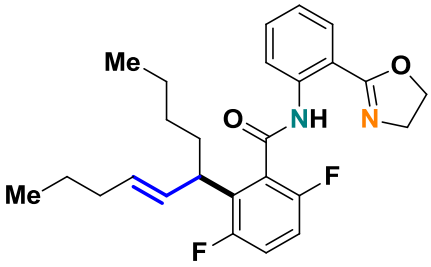
Appearance: Sticky white semi-solid.

Isolated yield: 80% (82 mg).

^{1}H NMR (500 MHz, $CDCl_3$) δ 12.61 (d, *J* = 12.8 Hz, 1H), 8.92 (d, *J* = 8.4 Hz, 1H), 7.89 (dd, *J* = 7.9, 1.5 Hz, 1H), 7.56 – 7.51 (m, 1H), 7.18 – 7.13 (m, 1H), 7.05 – 6.99 (m, 1H), 6.97 – 6.91 (m, 1H), 5.73 – 5.66 (m, 1H), 5.54 – 5.46 (m, 1H), 4.36 – 4.28 (m, 2H), 3.96 (t, *J* = 9.5 Hz, 2H), 3.48 (q, *J* = 7.7 Hz, 1H), 1.95 (p, *J* = 6.5 Hz, 2H), 1.85 – 1.70 (m, 2H), 1.36 – 1.27 (m, 1H), 1.20 – 1.10 (m, 1H), 0.90 (t, *J* = 7.4 Hz, 3H), 0.82 (t, *J* = 7.3 Hz, 3H).

^{13}C NMR (126 MHz, $CDCl_3$) δ 164.49, 163.27, 158.38, 158.36, 156.44, 156.42, 155.95, 155.93, 154.01, 153.99, 139.49, 133.72, 132.81, 131.98, 131.96, 131.85, 131.83, 129.76, 129.73, 129.41, 127.47, 127.42, 127.30, 127.25, 123.23, 120.22, 117.87, 117.80, 117.66, 117.59, 114.53, 114.46, 114.34, 114.27, 113.69, 66.37, 54.80, 44.22, 36.34, 36.31, 25.64, 21.24, 14.16, 13.72.

HR-MS (ESI-QTOF): $[M+H]^+$ calculated for $C_{24}H_{27}F_2N_2O_2$ *m/z* 413.2035 and found *m/z* 413.2033.



(E)-2-(dec-6-en-5-yl)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-3,6-difluorobenzamide (Scheme 3, 3c).

C-H Allylation was carried out following general procedure with *N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2,5-difluorobenzamide (0.25 mmol, 76 mg) and *trans*-5-decene (0.5 mmol, 95 µL).

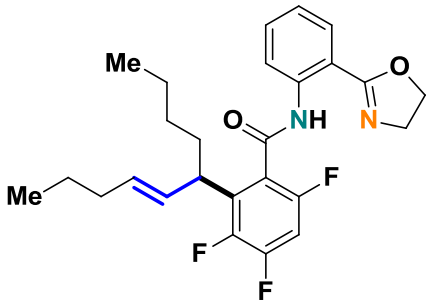
Eluent: ethyl acetate/ petroleum ether (1: 99 v/v); R_f = 0.6 (5% EA-PE)

Appearance: Whitish solid (X-ray characterization).

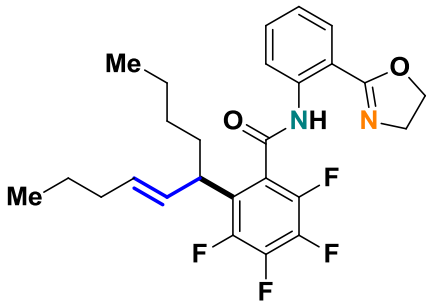
Isolated yield: 85% (93 mg).

^{1}H NMR (500 MHz, $CDCl_3$) δ 12.61 (d, *J* = 19.4 Hz, 1H), 8.93 (dd, *J* = 7.7, 7.2 Hz, 1H), 7.89 (dd, *J* = 7.9, 1.5 Hz, 1H), 7.56 – 7.49 (m, 1H), 7.15 (td, *J* = 7.9, 1.1 Hz, 1H), 7.06 – 6.98 (m, 1H), 6.97 – 6.91 (m, 1H), 5.75 – 5.67 (m, 1H), 5.50 – 5.40 (m, 1H), 4.32 (t, *J* = 9.6 Hz, 2H), 3.96 (t, *J*

= 9.5 Hz, 2H), 3.48 (q, *J* = 7.7 Hz, 1H), 1.95 – 1.87 (m, 2H), 1.79 (dtt, *J* = 16.7, 13.2, 6.8 Hz, 2H), 1.34 – 1.22 (m, 5H), 1.15 – 1.06 (m, 1H), 0.79 (ddd, *J* = 21.3, 10.0, 5.4 Hz, 6H).
^{13}C NMR (126 MHz, $CDCl_3$) δ 164.53, 163.25, 163.24, 158.39, 158.37, 156.45, 156.43, 155.94, 155.93, 154.01, 153.99, 139.54, 132.81, 132.11, 132.01, 131.04, 131.01, 129.41, 127.48, 127.43, 127.32, 127.27, 123.19, 120.19, 117.85, 117.78, 117.64, 117.57, 114.51, 114.44, 114.32, 114.24, 113.69, 66.36, 54.82, 44.42, 34.73, 33.86, 33.84, 30.27, 22.75, 22.55, 14.11, 13.76.
HR-MS (ESI-QTOF): $[M+H]^+$ calculated for $C_{26}H_{31}F_2N_2O_2$ *m/z* 441.2348 and found *m/z* 441.2348.



(*E*)-2-(dec-6-en-5-yl)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-3,4,6-trifluorobenzamide (Scheme 3, 3d).
C-H Allylation was carried out following general procedure with *N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2,4,5-trifluorobenzamide (0.25 mmol, 80 mg) and *trans*-5-decene (0.5 mmol, 95 µL).
Eluent: ethyl acetate/ petroleum ether (1: 99 v/v); R_f = 0.45 (5% EA-PE)
Appearance: Sticky colorless liquid.
Isolated yield: 72% (82 mg).
^{1}H NMR (500 MHz, $CDCl_3$) δ 12.65 (d, *J* = 19.7 Hz, 1H), 8.91 (t, *J* = 7.6 Hz, 1H), 7.90 (dd, *J* = 7.9, 1.5 Hz, 1H), 7.57 – 7.49 (m, 1H), 7.19 – 7.13 (m, 1H), 6.90 – 6.83 (m, 1H), 5.74 – 5.66 (m, 1H), 5.52 – 5.43 (m, 1H), 4.33 (t, *J* = 9.5 Hz, 2H), 3.98 (t, *J* = 9.5 Hz, 2H), 3.54 (q, *J* = 7.7 Hz, 1H), 1.92 (dd, *J* = 14.3, 7.1 Hz, 2H), 1.82 (ddd, *J* = 20.2, 13.4, 8.1 Hz, 2H), 1.37 – 1.18 (m, 6H), 0.86 – 0.77 (m, 6H).
^{13}C NMR (126 MHz, $CDCl_3$) δ 164.61, 162.40, 155.20, 155.12, 153.26, 153.24, 153.17, 153.15, 152.18, 152.15, 152.08, 152.06, 151.96, 150.18, 150.07, 150.05, 149.95, 147.14, 147.11, 147.04, 147.02, 145.19, 145.16, 145.08, 145.06, 139.47, 134.24, 134.14, 132.84, 132.64, 130.42, 130.41, 129.45, 123.31, 122.67, 122.50, 120.14, 113.70, 103.74, 103.57, 103.52, 103.34, 66.40, 54.82, 44.59, 34.70, 33.81, 33.79, 30.22, 22.69, 22.49, 14.06, 13.74.
HR-MS (ESI-QTOF): $[M+Na]^+$ calculated for $C_{26}H_{29}F_3N_2NaO_2$ *m/z* 481.2073 and found *m/z* 481.2066.



(*E*)-2-(dec-6-en-5-yl)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-3,4,5,6-tetrafluorobenzamide (Scheme 3, 3e).

C-H Allylation was carried out following general procedure with *N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2,3,4,5-tetrafluorobenzamide (0.25 mmol, 84 mg) and *trans*-5-decene (0.5 mmol, 95 µL).

Eluent: ethyl acetate/ petroleum ether (1: 99 v/v); R_f = 0.45 (5% EA-PE)

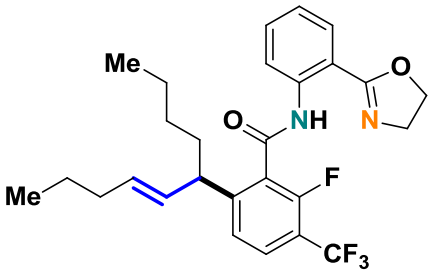
Appearance: Sticky colorless liquid.

Isolated yield: 75% (89 mg).

^{1}H NMR (500 MHz, $CDCl_3$) δ 12.75 (d, *J* = 20.9 Hz, 1H), 8.88 (t, *J* = 7.9 Hz, 1H), 7.91 (dd, *J* = 7.9, 1.2 Hz, 1H), 7.54 (t, *J* = 7.9 Hz, 1H), 7.18 (t, *J* = 7.6 Hz, 1H), 5.71 – 5.63 (m, 1H), 5.51 – 5.43 (m, 1H), 4.35 (t, *J* = 9.5 Hz, 2H), 3.99 (t, *J* = 9.5 Hz, 2H), 3.50 (q, *J* = 7.7 Hz, 1H), 1.96 – 1.88 (m, 2H), 1.80 (dt, *J* = 17.5, 8.1 Hz, 2H), 1.37 – 1.18 (m, 6H), 0.88 – 0.76 (m, 6H).

^{13}C NMR (126 MHz, $CDCl_3$) δ 164.68, 161.13, 147.47, 147.44, 147.39, 147.36, 145.48, 145.46, 145.40, 145.38, 145.06, 145.05, 144.98, 144.97, 143.09, 143.08, 143.02, 142.99, 139.89, 139.78, 139.70, 139.26, 137.92, 137.78, 137.66, 132.88, 132.76, 130.29, 129.50, 127.55, 127.45, 123.56, 122.22, 122.09, 120.17, 113.78, 66.46, 54.80, 44.20, 34.68, 33.83, 33.81, 30.21, 22.67, 22.48, 14.04, 13.73.

HR-MS (ESI-QTOF): $[M+Na]^+$ calculated for $C_{26}H_{28}F_4N_2NaO_2$ *m/z* 499.1979 and found *m/z* 499.1981.



(*E*)-6-(dec-6-en-5-yl)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-fluoro-3-(trifluoromethyl)benzamide (Scheme 3, 3f).

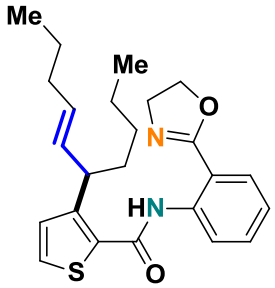
C-H Allylation was carried out following general procedure with N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-fluoro-3-(trifluoromethyl)benzamide (0.25 mmol, 88 mg) and *trans*-5-decene (0.5 mmol, 95 µL).

Eluent: ethyl acetate/ petroleum ether (1: 99 v/v); R_f = 0.39 (5% EA-PE)

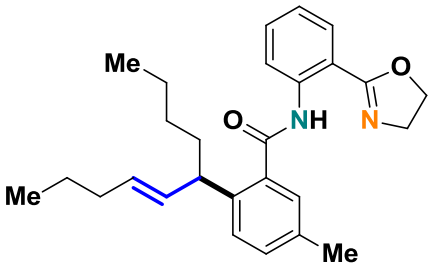
Appearance: Sticky colorless liquid.

Isolated yield: 53% (65 mg).

^{1}H NMR (500 MHz, $CDCl_3$) δ 12.71 (s, 1H), 8.90 (d, *J* = 8.4 Hz, 1H), 7.90 (d, *J* = 7.9 Hz, 1H), 7.61 (t, *J* = 7.7 Hz, 1H), 7.54 (t, *J* = 7.9 Hz, 1H), 7.21 (d, *J* = 8.2 Hz, 1H), 7.17 (t, *J* = 7.6 Hz, 1H), 5.51 – 5.39 (m, 2H), 4.34 (t, *J* = 9.5 Hz, 2H), 3.97 (t, *J* = 9.4 Hz, 2H), 3.63 (q, *J* = 7.1 Hz, 1H), 1.91 (dd, *J* = 13.5, 6.8 Hz, 2H), 1.75 – 1.66 (m, 2H), 1.32 – 1.22 (m, 6H), 0.84 – 0.79 (m, 6H).
^{13}C NMR (126 MHz, $CDCl_3$) δ 164.57, 162.61, 157.36, 157.34, 155.32, 155.30, 150.86, 139.43, 132.82, 132.28, 131.95, 129.42, 127.70, 127.67, 127.58, 127.45, 123.82, 123.34, 122.97, 122.94, 121.66, 120.24, 116.27, 116.16, 116.00, 115.90, 115.64, 115.47, 113.80, 66.43, 54.72, 44.93, 35.78, 34.81, 29.76, 22.78, 22.55, 14.10, 13.80.
HR-MS (ESI-QTOF): $[M+H]^+$ calculated for $C_{27}H_{31}F_4N_2O_2$ *m/z* 491.2316 and found *m/z* 491.2317.



(*E*)-3-(dec-6-en-5-yl)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)thiophene-2-carboxamide (Scheme 3, 3g).
C-H Allylation was carried out following general procedure with *N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)thiophene-2-carboxamide (0.25 mmol, 68 mg) and *trans*-5-decene (0.5 mmol, 95 µL).
Eluent: ethyl acetate/ petroleum ether (1: 99 v/v); R_f = 0.5 (5% EA-PE)
Appearance: Sticky colorless liquid.
Isolated yield: 70% (72 mg).
^{1}H NMR (500 MHz, $CDCl_3$) δ 12.72 (s, 1H), 8.86 – 8.81 (m, 1H), 7.87 (dd, *J* = 7.9, 1.5 Hz, 1H), 7.50 – 7.46 (m, 1H), 7.34 (d, *J* = 5.2 Hz, 1H), 7.10 – 7.06 (m, 1H), 7.05 (d, *J* = 5.1 Hz, 1H), 5.61 – 5.55 (m, 1H), 5.51 (dt, *J* = 15.3, 6.4 Hz, 1H), 4.49 (q, *J* = 7.4 Hz, 1H), 4.37 (t, *J* = 9.4 Hz, 2H), 4.14 (t, *J* = 9.6 Hz, 2H), 2.01 – 1.93 (m, 2H), 1.67 (dd, *J* = 14.0, 6.2 Hz, 2H), 1.39 – 1.26 (m, 6H), 0.86 (td, *J* = 7.3, 4.7 Hz, 6H).
^{13}C NMR (126 MHz, $CDCl_3$) δ 164.76, 162.16, 151.96, 140.33, 133.24, 132.57, 131.07, 130.66, 129.30, 128.73, 127.31, 122.43, 120.20, 113.63, 66.43, 54.80, 41.51, 36.29, 34.90, 29.83, 22.90, 22.75, 14.24, 13.83.
HR-MS (ESI-QTOF): $[M+Na]^+$ calculated for $C_{24}H_{30}N_2NaO_2S$ *m/z* 433.1920 and found *m/z* 433.1920.



(*E*)-2-(dec-6-en-5-yl)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-5-methylbenzamide (Scheme 3, 3h).

C-H Allylation was carried out following general procedure with *N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)-3-methylbenzamide (0.25 mmol, 70 mg) and *trans*-5-decene (0.5 mmol, 95 µL).

Eluent: ethyl acetate/ petroleum ether (1: 99 v/v); R_f = 0.6 (5% EA-PE)

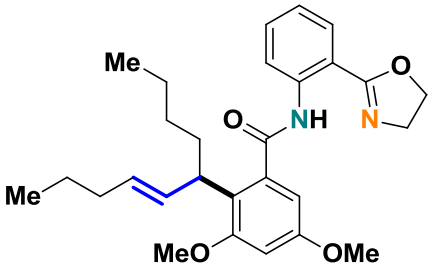
Appearance: Sticky colorless liquid.

Isolated yield: 53% (55 mg).

^{1}H NMR (500 MHz, $CDCl_3$) δ 12.39 (s, 1H), 8.92 (d, *J* = 8.3 Hz, 1H), 7.89 (dd, *J* = 7.9, 1.5 Hz, 1H), 7.54 – 7.49 (m, 1H), 7.35 (s, 1H), 7.25 – 7.21 (m, 2H), 7.14 – 7.09 (m, 1H), 5.54 (dd, *J* = 15.3, 7.4 Hz, 1H), 5.45 – 5.38 (m, 1H), 4.34 (t, *J* = 9.6 Hz, 2H), 4.02 (t, *J* = 9.5 Hz, 2H), 3.88 (q, *J* = 7.3 Hz, 1H), 2.36 (s, 3H), 1.95 – 1.88 (m, 2H), 1.72 – 1.64 (m, 2H), 1.33 – 1.22 (m, 6H), 0.85 – 0.79 (m, 6H).

^{13}C NMR (126 MHz, $CDCl_3$) δ 169.49, 164.65, 141.40, 140.30, 137.38, 135.29, 134.28, 132.72, 130.92, 130.16, 129.37, 128.03, 127.64, 122.59, 120.13, 113.65, 66.32, 54.95, 43.38, 36.13, 34.95, 29.95, 22.95, 22.77, 21.14, 14.22, 13.85.

HR-MS (ESI-QTOF): $[M+H]^+$ calculated for $C_{27}H_{35}N_2O_2$ *m/z* 419.2693 and found *m/z* 419.2690.



(*E*)-2-(dec-6-en-5-yl)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-3,5-dimethoxybenzamide (Scheme 3, 3i).

C-H Allylation was carried out following general procedure with *N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)-3,5-dimethoxybenzamide (0.25 mmol, 81 mg) and *trans*-5-decene (0.5 mmol, 95 µL).

Eluent: ethyl acetate/ petroleum ether (3: 97 v/v); R_f = 0.3 (15% EA-PE)

Appearance: Sticky colorless liquid.

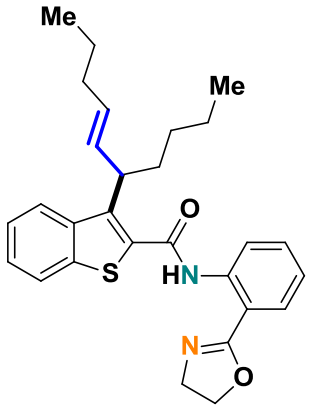
Isolated yield: 43% (50 mg). brsm = 64%.

^{1}H NMR (500 MHz, $CDCl_3$) δ 12.32 (s, 1H), 8.92 (d, *J* = 8.3 Hz, 1H), 7.89 (dd, *J* = 7.9, 1.4 Hz, 1H), 7.52 (dt, *J* = 13.0, 2.8 Hz, 1H), 7.15 – 7.10 (m, 1H), 6.58 (d, *J* = 2.4 Hz, 1H), 6.51 (d, *J* = 2.4 Hz, 1H), 5.82 (dd, *J* = 15.3, 7.9 Hz, 1H), 5.41 – 5.34 (m, 1H), 4.32 (t, *J* = 9.6 Hz, 2H), 3.99

(t, *J* = 9.5 Hz, 2H), 3.80 (d, *J* = 4.2 Hz, 6H), 3.62 (q, *J* = 7.6 Hz, 1H), 1.89 (tt, *J* = 12.5, 6.4 Hz, 2H), 1.84 – 1.74 (m, 2H), 1.31 – 1.20 (m, 6H), 0.80 (q, *J* = 7.3 Hz, 6H).

^{13}C NMR (126 MHz, $CDCl_3$) δ 169.61, 164.50, 159.42, 158.64, 140.07, 139.44, 133.07, 132.73, 130.22, 129.38, 124.45, 122.69, 120.17, 113.64, 102.79, 100.98, 66.29, 55.61, 55.59, 55.01, 43.79, 34.91, 33.71, 30.61, 22.94, 22.80, 14.27, 13.85.

HR-MS (ESI-QTOF): $[M+H]^+$ calculated for $C_{28}H_{37}N_2O_4$ *m/z* 465.2748 and found *m/z* 465.2747.



(*E*)-3-(dec-6-en-5-yl)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)benzo[b]thiophene-2-carboxamide (Scheme 3, 3j).

C-H Allylation was carried out following general procedure with *N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)benzo[*b*]thiophene-2-carboxamide (0.25 mmol, 80 mg) and *trans*-5-decene (0.5 mmol, 95 µL).

Eluent: ethyl acetate/ petroleum ether (1: 99 v/v); R_f = 0.5 (5% EA-PE)

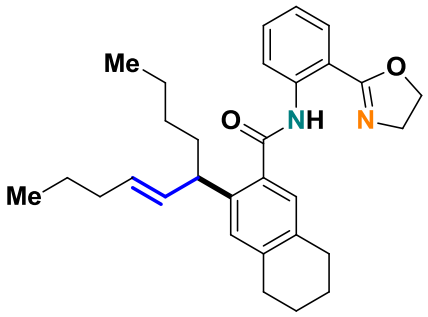
Appearance: Sticky colorless liquid.

Isolated yield: 60% (69 mg).

^{1}H NMR (500 MHz, $CDCl_3$) δ 12.83 (d, *J* = 18.9 Hz, 1H), 8.88 (d, *J* = 8.4 Hz, 1H), 8.05 (d, *J* = 8.0 Hz, 1H), 7.90 (dd, *J* = 7.9, 1.3 Hz, 1H), 7.86 (d, *J* = 7.9 Hz, 1H), 7.55 – 7.49 (m, 1H), 7.44 – 7.33 (m, 2H), 7.14 (t, *J* = 7.6 Hz, 1H), 5.93 (dd, *J* = 15.4, 6.4 Hz, 1H), 5.63 – 5.54 (m, 1H), 4.69 (dd, *J* = 14.1, 7.0 Hz, 1H), 4.39 (t, *J* = 9.6 Hz, 2H), 4.14 (t, *J* = 9.4 Hz, 2H), 2.03 – 1.94 (m, 4H), 1.40 – 1.32 (m, 3H), 1.30 – 1.23 (m, 3H), 0.83 (dt, *J* = 18.3, 7.3 Hz, 6H).

^{13}C NMR (126 MHz, $CDCl_3$) δ 164.73, 163.02, 143.83, 140.08, 139.77, 139.03, 132.66, 132.07, 132.01, 131.39, 129.37, 125.93, 125.78, 124.04, 122.96, 122.88, 120.42, 113.92, 66.51, 54.91, 41.77, 35.03, 34.09, 30.38, 22.92, 22.77, 14.20, 13.91.

HR-MS (ESI-QTOF): $[M+Na]^+$ calculated for $C_{28}H_{32}N_2NaO_2S$ *m/z* 483.2077 and found *m/z* 483.2076.



(*E*)-3-(dec-6-en-5-yl)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-5,6,7,8-tetrahydronaphthalene-2-carboxamide (Scheme 3, 3k).

C-H Allylation was carried out following general procedure with *N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)-5,6,7,8-tetrahydronaphthalene-2-carboxamide (0.25 mmol, 80 mg) and *trans*-5-decene (0.5 mmol, 95 µL).

Eluent: ethyl acetate/ petroleum ether (1: 99 v/v); R_f = 0.5 (5% EA-PE)

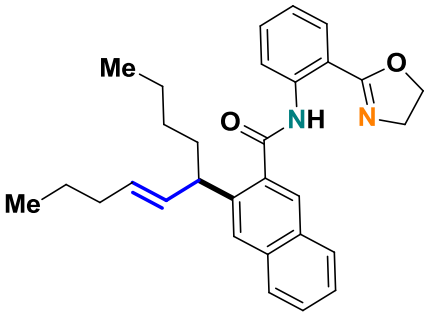
Appearance: White solid.

Isolated yield: 52% (60 mg).

^{1}H NMR (500 MHz, $CDCl_3$) δ 12.39 (s, 1H), 8.94 (d, *J* = 8.4 Hz, 1H), 7.89 (dd, *J* = 7.9, 1.5 Hz, 1H), 7.53 – 7.49 (m, 1H), 7.28 (s, 1H), 7.10 (dt, *J* = 12.5, 2.6 Hz, 1H), 7.04 (s, 1H), 5.55 (dd, *J* = 15.3, 7.6 Hz, 1H), 5.49 – 5.42 (m, 1H), 4.34 (t, *J* = 9.5 Hz, 2H), 4.04 (t, *J* = 9.5 Hz, 2H), 3.95 (dd, *J* = 14.7, 7.4 Hz, 1H), 2.81 – 2.75 (m, 4H), 1.98 – 1.89 (m, 2H), 1.84 – 1.80 (m, 4H), 1.72 – 1.64 (m, 2H), 1.35 – 1.25 (m, 6H), 0.84 (t, *J* = 7.4 Hz, 6H).

^{13}C NMR (126 MHz, $CDCl_3$) δ 169.42, 164.65, 141.85, 140.45, 139.35, 134.60, 134.50, 134.36, 132.65, 130.12, 129.33, 128.33, 128.30, 122.40, 120.06, 113.58, 66.28, 54.98, 43.22, 36.24, 34.96, 30.01, 29.66, 29.12, 23.39, 23.29, 22.94, 22.78, 14.23, 13.84.

HR-MS (ESI-QTOF): $[M+Na]^+$ calculated for $C_{30}H_{38}N_2NaO_2$ *m/z* 481.2825 and found *m/z* 481.2826.



(*E*)-3-(dec-6-en-5-yl)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-naphthamide (Scheme 3, 3l).

C-H Allylation was carried out following general procedure with *N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-naphthamide (0.25 mmol, 79 mg) and *trans*-5-decene (0.5 mmol, 95 µL).

Eluent: ethyl acetate/ petroleum ether (1: 99 v/v); R_f = 0.5 (5% EA-PE)

Appearance: Sticky white semi-solid.

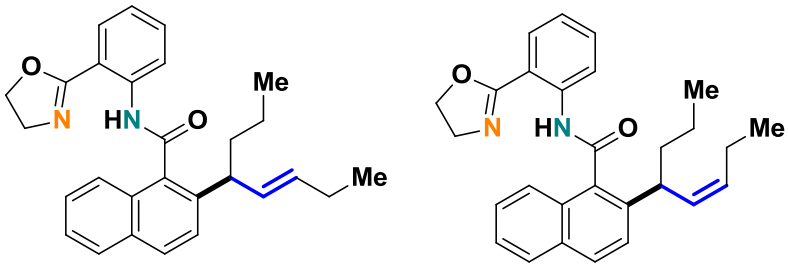
Isolated yield: 42% (48 mg). brsm = 67%.

^{1}H NMR (500 MHz, $CDCl_3$) δ 12.61 (s, 1H), 8.97 (d, *J* = 8.4 Hz, 1H), 8.06 (s, 1H), 7.92 (dd, *J* = 7.9, 1.4 Hz, 1H), 7.85 (dd, *J* = 7.8, 4.5 Hz, 2H), 7.79 (s, 1H), 7.58 – 7.51 (m, 2H), 7.50 – 7.46

(m, 1H), 7.17 – 7.13 (m, 1H), 5.59 (dd, *J* = 15.3, 7.8 Hz, 1H), 5.51 – 5.44 (m, 1H), 4.33 (t, *J* = 9.5 Hz, 2H), 4.11 (dd, *J* = 14.8, 7.6 Hz, 1H), 3.97 (td, *J* = 9.4, 1.7 Hz, 2H), 1.94 – 1.84 (m, 3H), 1.82 – 1.73 (m, 1H), 1.34 – 1.25 (m, 6H), 0.86 – 0.79 (m, 6H).

^{13}C NMR (126 MHz, $CDCl_3$) δ 169.30, 164.70, 141.82, 140.33, 136.65, 134.29, 134.21, 132.77, 131.36, 130.65, 129.41, 128.29, 127.74, 127.40, 127.17, 126.33, 126.01, 122.71, 120.15, 113.73, 66.34, 54.96, 43.68, 36.02, 34.91, 30.05, 22.97, 22.72, 14.25, 13.84.

HR-MS (ESI-QTOF): $[M+H]^+$ calculated for $C_{30}H_{35}N_2O_2$ *m/z* 455.2693 and found *m/z* 455.2700.



(*E*)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-(oct-5-en-4-yl)-1-naphthamide compound with (*Z*)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-(oct-5-en-4-yl)-1-naphthamide (1:1) (Scheme 3m).

C-H Allylation was carried out following general procedure with *N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)-1-naphthamide (0.25 mmol, 79 mg) and *trans*-4-octene (0.5 mmol, 78 µL).

Eluent: ethyl acetate/ petroleum ether (1: 99 v/v); R_f = 0.5 (5% EA-PE)

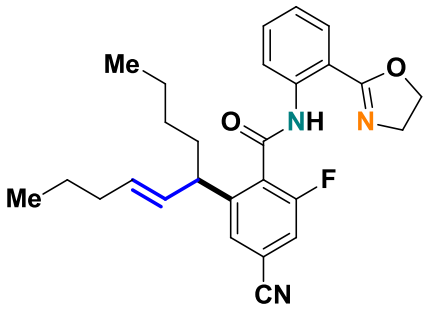
Appearance: Sticky white liquid.

Isolated yield: 85% (91 mg).

^{1}H NMR (500 MHz, $CDCl_3$) δ 12.56 (s, 1H), 12.51 (s, 1H), 9.16 (d, *J* = 8.4 Hz, 2H), 7.92 (t, *J* = 7.1 Hz, 4H), 7.87 (d, *J* = 8.6 Hz, 2H), 7.84 – 7.81 (m, 2H), 7.60 (t, *J* = 7.9 Hz, 2H), 7.48 – 7.42 (m, 6H), 7.18 (t, *J* = 7.6 Hz, 2H), 5.69 – 5.59 (m, 2H), 5.58 – 5.51 (m, 1H), 5.49 – 5.41 (m, 1H), 4.24 (dd, *J* = 17.9, 9.5 Hz, 4H), 3.77 (t, *J* = 9.4 Hz, 4H), 3.72 – 3.63 (m, 2H), 2.04 – 1.92 (m, 4H), 1.76 (dt, *J* = 14.6, 7.2 Hz, 4H), 1.38 – 1.29 (m, 2H), 1.23 – 1.11 (m, 2H), 0.93 (q, *J* = 7.5 Hz, 6H), 0.86 (t, *J* = 7.3 Hz, 3H), 0.81 (t, *J* = 7.3 Hz, 3H).

^{13}C NMR (126 MHz, $CDCl_3$) δ 169.05, 164.29, 164.20, 139.90, 139.58, 139.26, 134.67, 134.37, 132.83, 132.79, 132.59, 132.08, 131.96, 130.45, 130.38, 129.44, 129.41, 129.37, 127.94, 126.84, 125.75, 125.72, 125.49, 125.47, 125.05, 124.99, 122.95, 122.92, 120.33, 120.27, 113.73, 113.66, 66.23, 66.20, 54.81, 54.71, 45.23, 45.18, 38.27, 38.22, 25.93, 25.78, 21.02, 20.84, 14.40, 14.31, 13.94, 13.84.

HR-MS (ESI-QTOF): $[M+Na]^+$ calculated for $C_{28}H_{30}N_2NaO_2$ *m/z* 449.2199 and found *m/z* 449.2199.



(*E*)-4-cyano-2-(dec-6-en-5-yl)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-6-fluorobenzamide (Scheme 3, 3n).

C-H Allylation was carried out following general procedure with 4-cyano-*N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-fluorobenzamide (0.25 mmol, 77 mg) and *trans*-5-decene (0.5 mmol, 95 µL).

Eluent: ethyl acetate/ petroleum ether (1: 99 v/v); R_f = 0.39 (15% EA-PE)

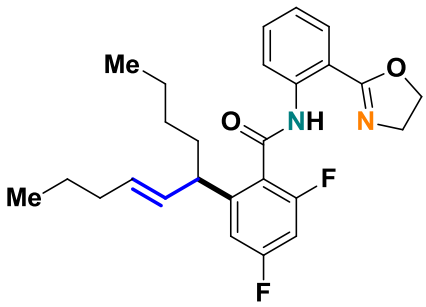
Appearance: Sticky colorless liquid.

Isolated yield: 80% (89 mg).

^{1}H NMR (400 MHz, $CDCl_3$) δ 12.74 (d, *J* = 16.0 Hz, 1H), 8.89 (dd, *J* = 8.4, 0.7 Hz, 1H), 7.89 (dd, *J* = 7.9, 1.5 Hz, 1H), 7.58 – 7.49 (m, 1H), 7.41 (d, *J* = 0.7 Hz, 1H), 7.26 (s, 1H), 7.17 (td, *J* = 7.9, 1.1 Hz, 1H), 5.49 – 5.36 (m, 2H), 4.33 (t, *J* = 9.6 Hz, 2H), 3.96 (t, *J* = 9.5 Hz, 2H), 3.58 (dd, *J* = 13.3, 7.0 Hz, 1H), 1.95 – 1.86 (m, 2H), 1.68 (dd, *J* = 14.7, 7.2 Hz, 2H), 1.35 – 1.17 (m, 6H), 0.85 – 0.77 (m, 6H).

^{13}C NMR (101 MHz, $CDCl_3$) δ 164.63, 162.11, 159.75, 157.26, 147.98, 147.95, 139.21, 132.86, 132.28, 131.83, 130.66, 130.48, 129.43, 127.46, 127.43, 123.48, 120.15, 117.71, 117.68, 116.95, 116.70, 114.29, 114.19, 113.67, 66.41, 54.71, 44.71, 35.68, 34.72, 29.67, 22.67, 22.44, 14.04, 13.75.

HR-MS (ESI-QTOF): $[M+H]^+$ calculated for $C_{27}H_{31}FN_3O_2$ *m/z* 448.2395 and found *m/z* 448.2403.



(*E*)-2-(dec-6-en-5-yl)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-4,6-difluorobenzamide (Scheme 3, 3o).

C-H Allylation was carried out following general procedure with *N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2,4-difluorobenzamide (0.25 mmol, 75 mg) and *trans*-5-decene (0.5 mmol, 95 µL).

Eluent: ethyl acetate/ petroleum ether (1: 99 v/v); R_f = 0.4 (5% EA-PE)

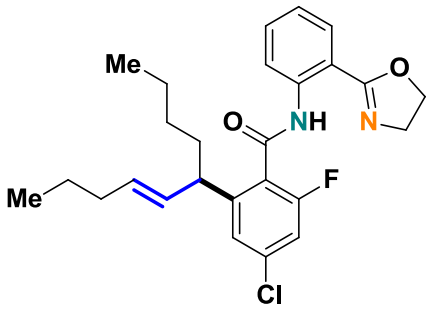
Appearance: Sticky colorless liquid.

Isolated yield: 74% (81 mg).

^{1}H NMR (500 MHz, $CDCl_3$) δ 12.58 (d, *J* = 16.5 Hz, 1H), 8.96 – 8.88 (m, 1H), 7.88 (dt, *J* = 18.6, 9.3 Hz, 1H), 7.56 – 7.49 (m, 1H), 7.14 (t, *J* = 7.6 Hz, 1H), 6.83 (d, *J* = 9.8 Hz, 1H), 6.71 (td, *J* = 8.9, 2.3 Hz, 1H), 5.50 – 5.37 (m, 2H), 4.32 (t, *J* = 9.5 Hz, 2H), 3.97 (t, *J* = 9.5 Hz, 2H), 3.62 (q, *J* = 6.9 Hz, 1H), 1.91 (dd, *J* = 13.2, 6.7 Hz, 2H), 1.72 – 1.60 (m, 2H), 1.34 – 1.19 (m, 6H), 0.85 – 0.76 (m, 6H).

^{13}C NMR (126 MHz, $CDCl_3$) δ 164.53, 164.33, 164.22, 163.46, 162.34, 162.24, 160.55, 160.45, 158.57, 158.47, 148.75, 148.20, 148.18, 148.14, 148.11, 139.63, 132.76, 132.50, 131.53, 129.38, 123.07, 122.76, 122.73, 122.62, 122.59, 120.09, 113.62, 110.15, 110.12, 109.98, 109.95, 101.94, 101.73, 101.53, 66.33, 54.82, 44.71, 35.77, 34.78, 29.72, 22.77, 22.55, 14.09, 13.77.

HR-MS (ESI-QTOF): $[M+Na]^+$ calculated for $C_{26}H_{30}F_2N_2NaO_2$ *m/z* 463.2168 and found *m/z* 463.2161.



(*E*)-4-chloro-2-(dec-6-en-5-yl)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-6-fluorobenzamide (Scheme 3, 3p).

C-H Allylation was carried out following general procedure with 4-chloro-*N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-fluorobenzamide (0.25 mmol, 79 mg) and *trans*-5-decene (0.5 mmol, 95 µL).

Eluent: ethyl acetate/ petroleum ether (1: 99 v/v); R_f = 0.45 (5% EA-PE)

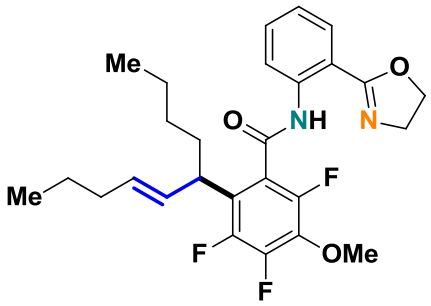
Appearance: Sticky whitish semi-solid.

Isolated yield: 75% (85 mg).

^{1}H NMR (500 MHz, $CDCl_3$) δ 12.60 (d, *J* = 17.5 Hz, 1H), 8.93 (t, *J* = 7.3 Hz, 1H), 7.89 (dd, *J* = 7.9, 1.4 Hz, 1H), 7.55 – 7.49 (m, 1H), 7.17 – 7.12 (m, 1H), 7.09 (s, 1H), 7.00 (dd, *J* = 8.8, 1.8 Hz, 1H), 5.50 – 5.38 (m, 2H), 4.32 (t, *J* = 9.5 Hz, 2H), 3.96 (dd, *J* = 18.5, 8.9 Hz, 2H), 3.58 (q, *J* = 7.1 Hz, 1H), 1.91 (h, *J* = 7.7 Hz, 2H), 1.72 – 1.60 (m, 2H), 1.36 – 1.19 (m, 6H), 0.86 – 0.76 (m, 6H).

^{13}C NMR (126 MHz, $CDCl_3$) δ 164.55, 163.27, 159.99, 158.00, 147.60, 139.58, 135.76, 135.68, 132.77, 132.46, 131.64, 129.39, 124.99, 124.85, 123.47, 123.45, 123.13, 120.13, 114.15, 113.94, 113.65, 66.35, 54.84, 44.75, 35.80, 34.78, 29.76, 22.76, 22.55, 14.09, 13.78.

HR-MS (ESI-QTOF): $[M+K]^+$ calculated for $C_{26}H_{30}ClFKN_2O_2$ *m/z* 495.1611 and found *m/z* 495.1615.



(*E*)-2-(dec-6-en-5-yl)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-3,4,6-trifluoro-5-methoxybenzamide (Scheme 3, 3q).

C-H Allylation was carried out following general procedure with *N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2,4,5-trifluoro-3-methoxybenzamide (0.25 mmol, 87 mg) and *trans*-5-decene (0.5 mmol, 95 µL).

Eluent: ethyl acetate/ petroleum ether (1: 99 v/v); R_f = 0.4 (10% EA-PE)

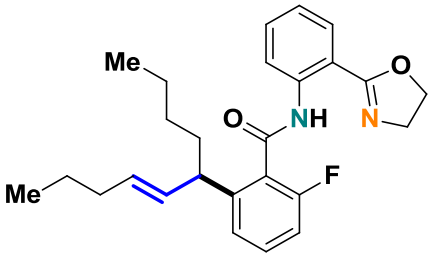
Appearance: Sticky colorless liquid.

Isolated yield: 77% (94 mg).

^{1}H NMR (500 MHz, $CDCl_3$) δ 12.65 (d, *J* = 20.0 Hz, 1H), 8.90 (t, *J* = 7.5 Hz, 1H), 7.90 (dd, *J* = 7.9, 1.4 Hz, 1H), 7.57 – 7.50 (m, 1H), 7.19 – 7.12 (m, 1H), 5.71 – 5.62 (m, 1H), 5.55 – 5.35 (m, 1H), 4.33 (t, *J* = 9.6 Hz, 2H), 4.02 (d, *J* = 8.9 Hz, 3H), 3.98 (t, *J* = 9.5 Hz, 2H), 3.45 (q, *J* = 7.7 Hz, 1H), 1.96 – 1.86 (m, 2H), 1.84 – 1.70 (m, 2H), 1.40 – 1.14 (m, 6H).

^{13}C NMR (126 MHz, $CDCl_3$) δ 164.58, 162.20, 148.99, 147.61, 147.58, 147.49, 147.04, 146.44, 146.39, 146.31, 146.26, 145.65, 145.62, 145.56, 145.53, 144.43, 144.38, 144.31, 144.26, 139.40, 135.87, 135.78, 135.76, 135.73, 135.66, 135.64, 132.83, 132.27, 130.68, 129.44, 126.10, 125.99, 123.34, 122.05, 121.90, 120.13, 113.70, 66.40, 62.23, 54.82, 44.13, 34.69, 33.91, 33.89, 30.22, 22.69, 22.50, 14.07, 13.75.

HR-MS (ESI-QTOF): $[M+Na]^+$ calculated for $C_{27}H_{31}F_3N_2NaO_3$ *m/z* 511.2179 and found *m/z* 511.2176.



(*E*)-2-(dec-6-en-5-yl)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-6-fluorobenzamide (Scheme 4, 4a).

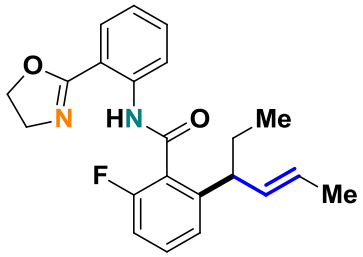
C-H Allylation was carried out following general procedure with *N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-fluorobenzamide (0.25 mmol, 71 mg) and *trans*-5-decene (0.5 mmol, 95 µL).

Eluent: ethyl acetate/ petroleum ether (1: 99 v/v); R_f = 0.65 (5% EA-PE)

Appearance: Sticky greenish white liquid.

Isolated yield: 89% (94 mg).

^{1}H NMR (500 MHz, $CDCl_3$) δ 12.53 (s, 1H), 8.96 (d, *J* = 8.2 Hz, 1H), 7.89 (dd, *J* = 7.9, 1.4 Hz, 1H), 7.55 – 7.50 (m, 1H), 7.34 (td, *J* = 8.0, 6.0 Hz, 1H), 7.15 – 7.09 (m, 2H), 6.96 (t, *J* = 8.6 Hz, 1H), 5.52 (dd, *J* = 15.3, 7.4 Hz, 1H), 5.44 – 5.37 (m, 1H), 4.30 (t, *J* = 9.5 Hz, 2H), 3.95 (t, *J* = 9.5 Hz, 2H), 3.58 (q, *J* = 7.4 Hz, 1H), 1.91 (dd, *J* = 14.2, 7.1 Hz, 2H), 1.73 – 1.63 (m, 2H), 1.34 – 1.20 (m, 6H), 0.81 (td, *J* = 7.2, 4.2 Hz, 6H).
^{13}C NMR (126 MHz, $CDCl_3$) δ 164.46, 164.31, 159.99, 158.03, 145.96, 139.72, 133.27, 132.70, 130.85, 130.61, 130.54, 129.34, 126.38, 126.23, 122.92, 122.87, 122.84, 120.15, 113.63, 113.13, 112.96, 66.28, 54.82, 44.74, 35.95, 34.80, 29.82, 22.80, 22.60, 14.10, 13.76.
HR-MS (ESI-QTOF): $[M+H]^+$ calculated for $C_{26}H_{32}FN_2O_2$ *m/z* 423.2442 and found *m/z* 423.2446.



(*E*)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-fluoro-6-(hex-4-en-3-yl)benzamide (Scheme 4, 4b).

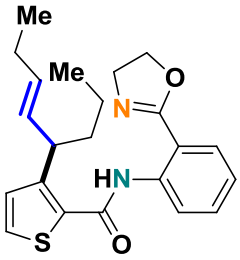
C-H Allylation was carried out following general procedure with *N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-fluorobenzamide (0.25 mmol, 71 mg) and *trans*-3-hexene (0.5 mmol, 62 µL).

Eluent: ethyl acetate/ petroleum ether (1: 99 v/v); R_f = 0.6 (5% EA-PE)

Appearance: Sticky colorless liquid.

Isolated yield: 56% (51 mg).

^{1}H NMR (500 MHz, $CDCl_3$) δ 12.53 (s, 1H), 8.98 – 8.92 (m, 1H), 7.89 (dd, *J* = 7.9, 1.5 Hz, 1H), 7.56 – 7.49 (m, 1H), 7.34 (tt, *J* = 15.2, 7.6 Hz, 1H), 7.16 – 7.12 (m, 1H), 7.09 (d, *J* = 7.6 Hz, 1H), 6.99 – 6.94 (m, 1H), 5.56 – 5.47 (m, 1H), 5.47 – 5.37 (m, 1H), 4.31 (t, *J* = 9.5 Hz, 2H), 3.94 (dd, *J* = 14.3, 5.2 Hz, 2H), 3.44 (q, *J* = 7.4 Hz, 1H), 1.72 (dq, *J* = 13.6, 6.2 Hz, 2H), 1.59 (d, *J* = 6.2 Hz, 3H), 0.82 (t, *J* = 7.4 Hz, 3H).
^{13}C NMR (126 MHz, $CDCl_3$) δ 164.43, 164.36, 160.04, 158.08, 145.46, 139.69, 134.16, 132.74, 130.64, 130.57, 129.36, 126.55, 126.42, 125.69, 122.99, 122.84, 122.82, 120.24, 113.67, 113.23, 113.06, 66.31, 54.80, 46.58, 29.06, 18.15, 12.28.
HR-MS (ESI-QTOF): $[M+Na]^+$ calculated for $C_{22}H_{23}FN_2NaO_2$ *m/z* 389.1636 and found *m/z* 389.1633.



(*E*)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-3-(oct-5-en-4-yl)thiophene-2-carboxamide (Scheme 4, 4c).

C-H Allylation was carried out following general procedure with *N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)thiophene-2-carboxamide (0.25 mmol, 68 mg) and *cis*-4-octene (0.5 mmol, 78 µL).

Eluent: ethyl acetate/ petroleum ether (1: 99 v/v); R_f = 0.5 (5% EA-PE)

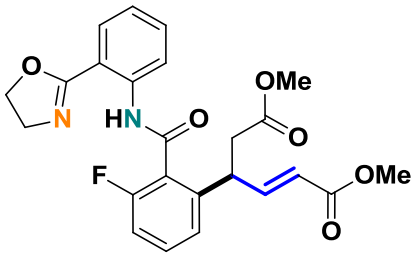
Appearance: Sticky colorless liquid.

Isolated yield: 48% (46 mg).

^{1}H NMR (500 MHz, $CDCl_3$) δ 12.72 (s, 1H), 8.83 (dd, *J* = 8.5, 0.8 Hz, 1H), 7.87 (dd, *J* = 7.9, 1.6 Hz, 1H), 7.51 – 7.46 (m, 1H), 7.34 (t, *J* = 4.9 Hz, 1H), 7.11 – 7.07 (m, 1H), 7.05 (d, *J* = 5.1 Hz, 1H), 5.61 – 5.52 (m, 2H), 4.50 (dd, *J* = 13.2, 6.8 Hz, 1H), 4.39 (dd, *J* = 14.4, 4.9 Hz, 2H), 4.15 (t, *J* = 9.6 Hz, 2H), 2.01 (qd, *J* = 7.4, 4.6 Hz, 2H), 1.65 (dd, *J* = 15.5, 7.7 Hz, 3H), 1.36 (dt, *J* = 15.2, 7.3 Hz, 1H), 1.25 – 1.19 (m, 1H), 0.95 (t, *J* = 7.4 Hz, 3H), 0.88 (t, *J* = 7.3 Hz, 3H).

^{13}C NMR (126 MHz, $CDCl_3$) δ 164.79, 162.21, 151.87, 140.34, 132.61, 132.37, 132.02, 131.18, 129.32, 128.77, 127.35, 122.47, 120.23, 113.65, 66.45, 54.82, 41.30, 38.86, 25.82, 20.83, 14.32, 13.99.

HR-MS (ESI-QTOF): $[M+Na]^+$ calculated for $C_{22}H_{26}N_2NaO_2S$ *m/z* 405.1607 and found *m/z* 405.1614.



(*E*)-dimethyl-4-(2-((2-(4,5-dihydrooxazol-2-yl)phenyl)carbamoyl)-3-fluorophenyl)hex-2-enedioate (Scheme 4, 4d).

C-H Allylation was carried out following general procedure with *N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-fluorobenzamide (0.25 mmol, 71 mg) and (*E*)-dimethyl hex-3-enedioate (0.5 mmol, 86 µL).

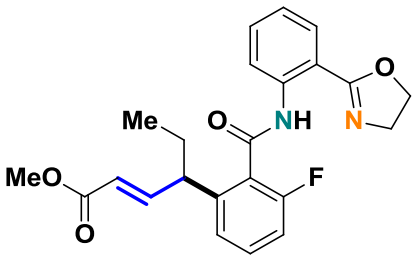
Eluent: ethyl acetate/ petroleum ether (15: 85 v/v); R_f = 0.3 (30% EA-PE)

Appearance: Sticky colorless liquid.

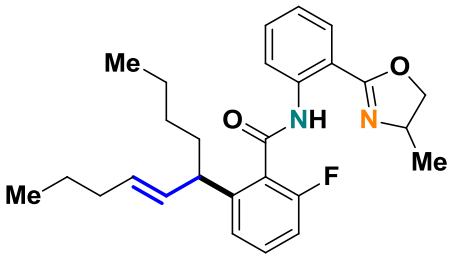
Isolated yield: 47% (53 mg).

^{1}H NMR (500 MHz, $CDCl_3$) δ 12.67 (s, 1H), 8.92 – 8.86 (m, 1H), 7.87 (dt, *J* = 9.6, 4.8 Hz, 1H), 7.55 – 7.49 (m, 1H), 7.41 – 7.35 (m, 1H), 7.14 (td, *J* = 7.9, 1.1 Hz, 1H), 7.07 (ddd, *J* = 8.4, 7.0, 2.6 Hz, 3H), 5.79 (dt, *J* = 10.9, 5.5 Hz, 1H), 4.38 (qd, *J* = 6.7, 1.4 Hz, 1H), 4.32 (dd, *J* = 12.2, 6.9 Hz, 2H), 4.02 – 3.92 (m, 2H), 3.63 (s, 3H), 3.57 (s, 3H), 2.86 (qd, *J* = 16.0, 7.5 Hz, 2H).

^{13}C NMR (126 MHz, $CDCl_3$) δ 171.18, 166.78, 164.53, 163.25, 160.25, 158.27, 148.75, 147.79, 140.84, 139.43, 132.77, 131.31, 131.24, 129.35, 123.63, 123.24, 121.77, 120.98, 120.25, 115.05, 114.88, 113.77, 67.25, 66.40, 54.69, 52.02, 51.68, 40.45, 40.32, 39.42.
HR-MS (ESI-QTOF): $[M+Na]^+$ calculated for $C_{24}H_{23}FN_2NaO_6$ *m/z* 477.1432 and found *m/z* 477.1426.



(*E*)-methyl-4-(2-((2-(4,5-dihydrooxazol-2-yl)phenyl)carbamoyl)-3-fluorophenyl)hex-2-enoate (Scheme 4, 4e).
C-H Allylation was carried out following general procedure with *N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-fluorobenzamide (0.25 mmol, 71 mg) and (*E*)-methyl hex-3-enoate (0.5 mmol, 64 µL).
Eluent: ethyl acetate/ petroleum ether (5: 95 v/v); R_f = 0.4 (15% EA-PE)
Appearance: Sticky colorless liquid.
Isolated yield: 60% (61 mg).
^{1}H NMR (500 MHz, $CDCl_3$) δ 12.63 (s, 1H), 8.90 (dd, *J* = 8.3, 7.9 Hz, 1H), 7.88 (dd, *J* = 7.9, 1.5 Hz, 1H), 7.55 – 7.50 (m, 1H), 7.38 (td, *J* = 8.1, 5.9 Hz, 1H), 7.17 – 7.12 (m, 1H), 7.08 (d, *J* = 7.9 Hz, 1H), 7.07 – 7.03 (m, 1H), 7.02 (dd, *J* = 6.6, 2.3 Hz, 1H), 5.76 (dd, *J* = 15.7, 1.2 Hz, 1H), 4.34 – 4.27 (m, 2H), 4.02 – 3.87 (m, 2H), 3.69 – 3.63 (m, 4H), 1.82 (p, *J* = 7.4 Hz, 2H), 0.85 (t, *J* = 7.4 Hz, 3H).
^{13}C NMR (126 MHz, $CDCl_3$) δ 167.16, 164.46, 163.79, 160.14, 158.17, 151.02, 142.15, 139.47, 132.75, 131.06, 131.00, 129.38, 126.99, 126.84, 123.21, 123.13, 123.10, 121.14, 120.20, 114.26, 114.09, 113.76, 66.40, 54.66, 51.58, 45.96, 28.11, 12.08.
HR-MS (ESI-QTOF): $[M+Na]^+$ calculated for $C_{23}H_{23}FN_2NaO_4$ *m/z* 433.1534 and found *m/z* 433.1535.



(*E*)-2-(dec-6-en-5-yl)-6-fluoro-N-(2-(4-methyl-4,5-dihydrooxazol-2-yl)phenyl)benzamide (Scheme 4, 4f).
C-H Allylation was carried out following general procedure with *N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-fluorobenzamide (0.25 mmol, 71 mg) and (*E*)-methyl hex-3-enoate (0.5 mmol, 64 µL).
Eluent: ethyl acetate/ petroleum ether (5: 95 v/v); R_f = 0.6 (5% EA-PE)

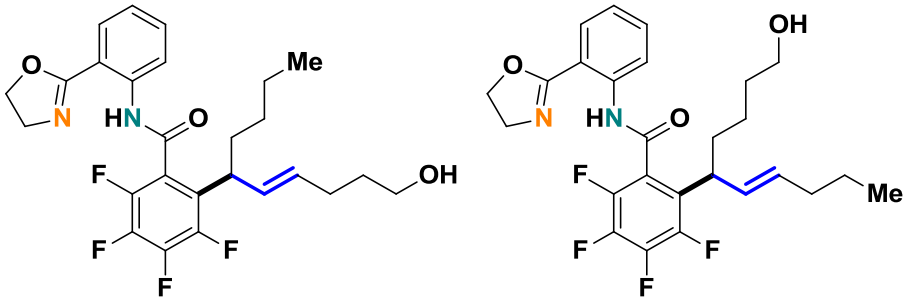
Appearance: Sticky colorless liquid.

Isolated yield: 60% (61 mg).

^{1}H NMR (500 MHz, $CDCl_3$) δ 12.65 (s, 1H), 12.64 (s, 1H), 8.93 (t, *J* = 7.4 Hz, 2H), 7.86 (dd, *J* = 7.9, 1.4 Hz, 2H), 7.55 – 7.50 (m, 2H), 7.34 (dd, *J* = 14.1, 7.1 Hz, 2H), 7.15 – 7.08 (m, 4H), 6.95 (t, *J* = 8.6 Hz, 2H), 5.51 (td, *J* = 15.3, 7.3 Hz, 2H), 5.41 (ddd, *J* = 22.1, 14.4, 6.5 Hz, 2H), 4.43 – 4.37 (m, 2H), 4.32 – 4.24 (m, 2H), 3.86 (t, *J* = 7.8 Hz, 2H), 3.65 – 3.58 (m, 2H), 1.94 – 1.86 (m, 4H), 1.76 – 1.61 (m, 5H), 1.30 (ddd, *J* = 14.0, 7.2, 3.3 Hz, 6H), 1.25 – 1.21 (m, 4H), 1.17 (dt, *J* = 10.2, 5.1 Hz, 8H), 0.80 (ddd, *J* = 10.0, 7.2, 3.6 Hz, 12H).

^{13}C NMR (126 MHz, $CDCl_3$) δ 164.23, 164.22, 163.22, 163.19, 160.00, 159.97, 158.03, 158.00, 146.25, 139.84, 133.32, 133.21, 132.71, 130.94, 130.92, 130.63, 130.56, 129.27, 126.36, 126.19, 122.94, 122.90, 122.83, 122.81, 120.15, 113.73, 113.05, 113.03, 112.88, 112.86, 72.86, 72.83, 61.99, 61.97, 44.65, 44.57, 36.07, 35.84, 34.83, 29.87, 29.79, 22.83, 22.78, 22.65, 22.63, 21.47, 14.13, 13.80.

HR-MS (ESI-QTOF): $[M+Na]^+$ calculated for $C_{27}H_{33}FN_2NaO_2$ *m/z* 459.2418 and found *m/z* 459.2419.



(*E*)-*N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2,3,4,5-tetrafluoro-6-(1-hydroxydec-6-en-5-yl)benzamide compound with (*E*)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2,3,4,5-tetrafluoro-6-(10-hydroxydec-6-en-5-yl)benzamide (Scheme 4, 4g).

C-H Allylation was carried out following general procedure with *N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2,3,4,5-tetrafluorobenzamide (0.25 mmol, 84 mg) and *trans*-5-decene-1-ol (0.5 mmol, 92 µL).

Eluent: ethyl acetate/ petroleum ether (15: 85 v/v); R_f = 0.3 (30% EA-PE)

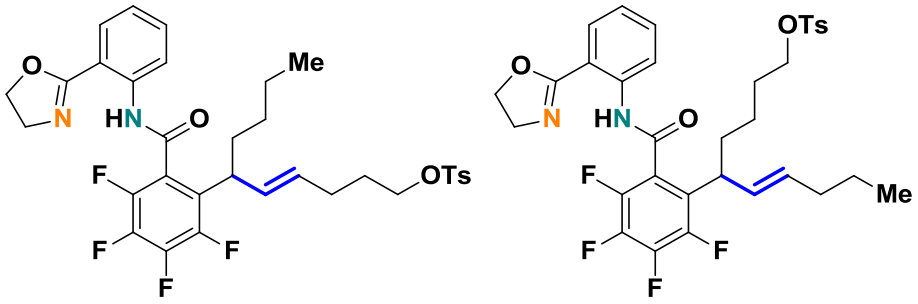
Appearance: Sticky yellowish liquid.

Isolated yield: 65% (80 mg).

^{1}H NMR (500 MHz, $CDCl_3$) δ 12.76 (d, *J* = 27.0 Hz, 2H), 8.84 (dd, *J* = 8.2, 2.7 Hz, 2H), 7.90 (dd, *J* = 7.8, 1.1 Hz, 2H), 7.54 (dd, *J* = 11.5, 4.2 Hz, 2H), 7.17 (t, *J* = 7.6 Hz, 2H), 5.75 – 5.58 (m, 2H), 5.52 – 5.39 (m, 2H), 4.40 – 4.30 (m, 4H), 4.04 – 3.93 (m, 4H), 3.58 – 3.46 (m, 6H), 2.02 (dd, *J* = 14.0, 6.9 Hz, 2H), 1.89 (dt, *J* = 13.0, 6.5 Hz, 2H), 1.84 – 1.71 (m, 4H), 1.55 (dt, *J* = 14.8, 4.1 Hz, 2H), 1.48 (ddd, *J* = 15.6, 8.6, 4.0 Hz, 2H), 1.31 – 1.18 (m, 8H), 0.80 (td, *J* = 7.2, 4.2 Hz, 6H).

^{13}C NMR (126 MHz, $CDCl_3$) δ 164.70, 164.66, 161.19, 161.11, 147.40, 147.33, 145.89, 145.43, 145.34, 145.03, 144.95, 143.08, 143.05, 142.98, 139.14, 139.08, 137.94, 137.80, 137.71, 136.06, 132.91, 132.90, 132.86, 132.00, 130.78, 130.07, 129.53, 129.49, 127.24, 127.16, 127.08, 123.69, 123.63, 122.12, 121.97, 120.15, 113.80, 113.77, 66.50, 66.49, 62.72, 62.38, 54.77, 54.75, 44.04, 34.64, 33.72, 32.56, 32.16, 30.18, 28.85, 24.16, 22.64, 22.43, 14.03, 13.73.

HR-MS (ESI-QTOF): $[M+K]^+$ calculated for $C_{26}H_{28}F_4KN_2O_3$ *m/z* 531.1668 and found *m/z* 531.1662.



(*E*)-5-(2-((2-(4,5-dihydrooxazol-2-yl)phenyl)carbamoyl)-3,4,5,6-tetrafluorophenyl)dec-6-en-1-yl 4-methylbenzenesulfonate compound with (*E*)-6-(2-((2-(4,5-dihydrooxazol-2-yl)phenyl)carbamoyl)-3,4,5,6-tetrafluorophenyl)dec-4-en-1-yl 4-methylbenzenesulfonate (Scheme 4, 4h).

C-H Allylation was carried out following general procedure with *N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2,3,4,5-tetrafluorobenzamide (0.25 mmol, 84 mg) and (*E*)-dec-5-en-1-yl 4-methylbenzenesulfonate (0.5 mmol, 155 µL).

Eluent: ethyl acetate/ petroleum ether (10: 90 v/v); R_f = 0.4 (30% EA-PE)

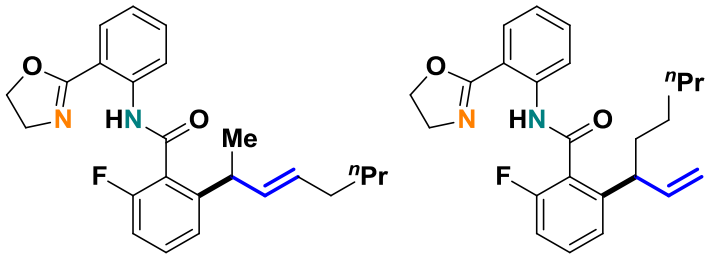
Appearance: Sticky colorless liquid.

Isolated yield: 61% (98 mg).

^{1}H NMR (500 MHz, $CDCl_3$) δ 12.75 (s, 1H), 12.73 (s, 1H), 8.84 (d, *J* = 8.4 Hz, 3H), 7.94 – 7.88 (m, 3H), 7.78 – 7.69 (m, 6H), 7.57 – 7.51 (m, 3H), 7.30 (dd, *J* = 14.4, 8.1 Hz, 6H), 7.18 (ddd, *J* = 7.9, 4.4, 2.0 Hz, 3H), 5.67 – 5.55 (m, 3H), 5.38 (ddt, *J* = 25.2, 17.4, 8.7 Hz, 3H), 4.42 – 4.30 (m, 6H), 4.03 – 3.90 (m, 12H), 3.44 (dq, *J* = 15.6, 7.7 Hz, 3H), 2.42 (s, 4H), 2.42 (s, 3H), 1.97 (dd, *J* = 14.2, 7.0 Hz, 3H), 1.89 (dd, *J* = 14.2, 7.0 Hz, 2H), 1.82 – 1.68 (m, 7H), 1.68 – 1.61 (m, 4H), 1.61 – 1.53 (m, 3H), 1.32 – 1.26 (m, 4H), 1.24 – 1.16 (m, 6H), 0.80 (td, *J* = 7.3, 3.3 Hz, 8H).

^{13}C NMR (126 MHz, $CDCl_3$) δ 164.67, 161.00, 144.89, 144.86, 139.13, 133.28, 133.21, 133.16, 132.88, 131.71, 130.44, 129.99, 129.96, 129.70, 129.57, 129.54, 127.99, 126.93, 126.83, 123.67, 123.64, 120.10, 113.79, 113.76, 70.36, 69.94, 66.50, 54.77, 43.90, 43.83, 34.61, 33.51, 33.27, 30.15, 28.71, 28.48, 28.22, 23.76, 22.64, 22.39, 21.75, 14.03, 13.75.

HR-MS (ESI-QTOF): $[M+H]^+$ calculated for $C_{33}H_{35}F_4N_2O_5S$ *m/z* 647.2197 and found *m/z* 647.2195.



(*E*)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-fluoro-6-(oct-3-en-2-yl)benzamide compound and N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-fluoro-6-(oct-1-en-3-yl)benzamide (Scheme 4, 4i).

C-H Allylation was carried out following general procedure with *N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-fluorobenzamide (0.25 mmol, 71 mg) and *trans*-2-octene (0.5 mmol, 78 µL).

Eluent: ethyl acetate/ petroleum ether (1: 99 v/v); R_f = 0.6 (5% EA-PE)

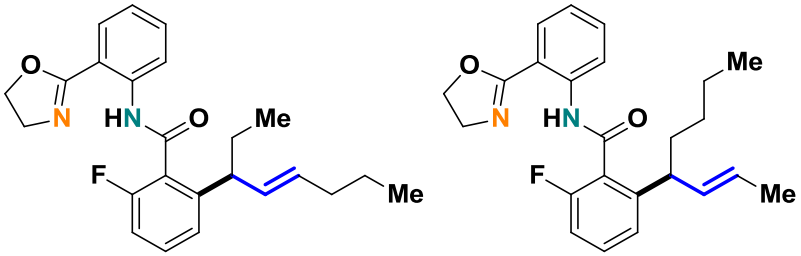
Appearance: Sticky colorless liquid.

Isolated yield: 72% (71 mg).

^{1}H NMR (500 MHz, $CDCl_3$) δ 12.56 (s, 2H), 8.95 (d, *J* = 8.4 Hz, 2H), 7.89 (d, *J* = 7.9 Hz, 2H), 7.53 (t, *J* = 7.9 Hz, 2H), 7.35 (ddd, *J* = 14.1, 8.0, 6.1 Hz, 2H), 7.16 – 7.08 (m, 4H), 6.98 (td, *J* = 8.7, 5.9 Hz, 2H), 5.94 (ddd, *J* = 17.2, 10.4, 7.1 Hz, 1H), 5.58 (dd, *J* = 15.4, 6.1 Hz, 1H), 5.44 (ddd, *J* = 7.7, 6.7, 3.3 Hz, 1H), 5.03 – 4.96 (m, 2H), 4.36 – 4.26 (m, 4H), 3.96 (dt, *J* = 14.1, 9.8 Hz, 4H), 3.83 – 3.75 (m, 1H), 3.61 (q, *J* = 7.3 Hz, 1H), 1.94 (dd, *J* = 13.2, 6.5 Hz, 2H), 1.71 (ddd, *J* = 15.5, 12.2, 5.5 Hz, 3H), 1.35 (d, *J* = 6.9 Hz, 4H), 1.25 – 1.19 (m, 8H), 0.83 (t, *J* = 5.3 Hz, 3H), 0.78 (t, *J* = 6.8 Hz, 3H).

^{13}C NMR (126 MHz, $CDCl_3$) δ 164.53, 164.45, 164.33, 164.22, 160.03, 158.09, 146.80, 144.84, 141.52, 139.70, 139.67, 133.81, 132.75, 130.70, 130.64, 130.05, 129.88, 129.37, 128.78, 128.56, 128.34, 126.62, 126.47, 125.93, 125.78, 123.02, 122.94, 122.91, 120.23, 120.22, 114.83, 113.68, 113.45, 113.36, 113.28, 113.19, 66.32, 54.86, 54.81, 45.65, 38.49, 35.60, 32.40, 31.98, 31.71, 29.89, 27.24, 22.65, 22.40, 21.72, 14.20, 14.10.

HR-MS (ESI-QTOF): $[M+H]^+$ calculated for $C_{24}H_{28}FN_2O_2$ *m/z* 395.2129 and found *m/z* 395.2127.



(*E*)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-fluoro-6-(oct-2-en-4-yl)benzamide compound and (*E*)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-fluoro-6-(oct-4-en-3-yl)benzamide (Scheme 4, 4j).

C-H Allylation was carried out following general procedure with *N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-fluorobenzamide (0.25 mmol, 71 mg) and *trans*-3-octene (0.5 mmol, 78 µL).

Eluent: ethyl acetate/ petroleum ether (1: 99 v/v); R_f = 0.6 (5% EA-PE)

Appearance: Sticky colorless liquid.

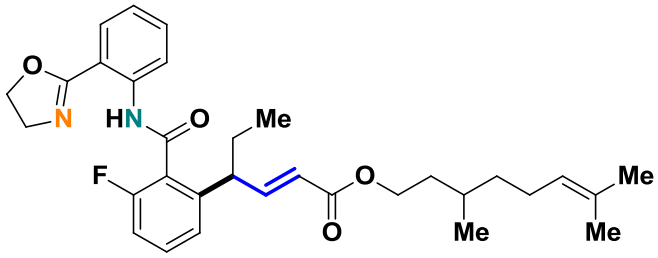
Isolated yield: 93% (92 mg).

^{1}H NMR (500 MHz, $CDCl_3$) δ 12.54 (s, 2H), 8.96 (d, *J* = 8.4 Hz, 2H), 7.89 (d, *J* = 7.8 Hz, 2H), 7.53 (t, *J* = 7.8 Hz, 2H), 7.34 (dd, *J* = 14.0, 7.9 Hz, 2H), 7.14 (t, *J* = 7.6 Hz, 2H), 7.10 (dd, *J* = 7.6, 2.6 Hz, 2H), 6.96 (t, *J* = 8.7 Hz, 2H), 5.52 (td, *J* = 15.1, 7.4 Hz, 2H), 5.45 – 5.36 (m, 2H), 4.31 (t, *J* = 9.6 Hz, 4H), 3.95 (td, *J* = 9.4, 4.0 Hz, 4H), 3.54 (q, *J* = 7.3 Hz, 1H), 3.48 (q, *J* = 7.3 Hz, 1H), 1.91 (dd, *J* = 14.1, 7.0 Hz, 2H), 1.77 – 1.67 (m, 4H), 1.59 (d, *J* = 6.2 Hz, 3H), 1.31 – 1.27 (m, 2H), 1.25 – 1.21 (m, 2H), 0.91 – 0.74 (m, 11H).

^{13}C NMR (126 MHz, $CDCl_3$) δ 164.42, 164.34, 160.01, 159.99, 158.05, 158.02, 145.73, 145.71, 145.66, 145.65, 139.69, 134.40, 133.00, 132.71, 131.04, 130.63, 130.56, 129.34, 126.48, 126.40, 126.33, 126.26, 125.48, 122.96, 122.86, 122.83, 122.81, 120.18, 120.16, 113.65, 113.62, 113.19,

113.17, 113.02, 113.00, 66.29, 54.82, 54.79, 46.47, 44.86, 35.94, 34.81, 29.87, 29.81, 29.08, 22.84, 22.60, 18.13, 14.11, 13.79, 12.28.

HR-MS (ESI-QTOF): $[M+H]^+$ calculated for $C_{24}H_{28}FN_2O_2$ *m/z* 395.2129 and found *m/z* 395.2129.



(*E*)-3,7-dimethyloct-6-en-1-yl-4-(2-((2-(4,5-dihydrooxazol-2-yl)phenyl)carbamoyl)-3-fluorophenyl)hex-2-enoate (Scheme 4, 4k).

C-H Allylation was carried out following general procedure with *N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-fluorobenzamide (0.25 mmol, 71 mg) and (*E*)-3,7-dimethyloct-6-en-1-yl hex-3-enoate (0.5 mmol, 126 µL).

Eluent: ethyl acetate/ petroleum ether (3: 97 v/v); R_f = 0.4 (15% EA-PE)

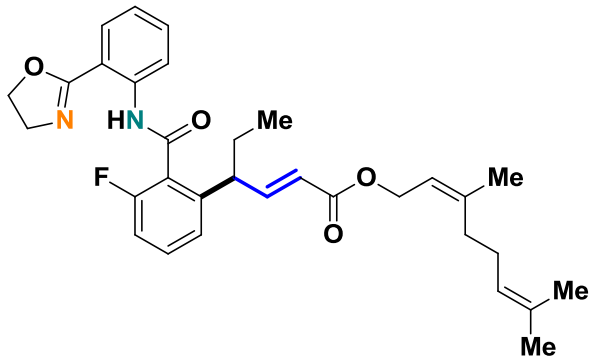
Appearance: Sticky colorless liquid.

Isolated yield: 55% (73 mg).

^{1}H NMR (500 MHz, $CDCl_3$) δ 12.62 (s, 1H), 8.91 (d, *J* = 8.0 Hz, 1H), 7.89 (dd, *J* = 7.9, 1.4 Hz, 1H), 7.56 – 7.50 (m, 1H), 7.39 (td, *J* = 8.1, 5.9 Hz, 1H), 7.18 – 7.12 (m, 1H), 7.08 (d, *J* = 7.8 Hz, 1H), 7.06 – 6.99 (m, 2H), 5.76 (dd, *J* = 15.7, 1.2 Hz, 1H), 5.10 – 5.03 (m, 1H), 4.32 (t, *J* = 9.5 Hz, 2H), 4.13 – 4.05 (m, 2H), 4.04 – 3.97 (m, 1H), 3.97 – 3.90 (m, 1H), 3.67 (q, *J* = 7.1 Hz, 1H), 1.96 (qd, *J* = 14.8, 7.7 Hz, 2H), 1.86 – 1.78 (m, 2H), 1.67 (s, 3H), 1.63 (dd, *J* = 12.8, 7.3 Hz, 1H), 1.59 (s, 3H), 1.51 (dt, *J* = 19.2, 6.5 Hz, 1H), 1.41 (dt, *J* = 7.7, 6.8 Hz, 1H), 1.33 (ddd, *J* = 9.5, 7.7, 4.0 Hz, 1H), 1.16 (dddd, *J* = 13.5, 9.4, 7.7, 6.0 Hz, 1H), 0.88 (t, *J* = 5.1 Hz, 3H), 0.85 (t, *J* = 7.4 Hz, 3H).

^{13}C NMR (126 MHz, $CDCl_3$) δ 166.88, 164.49, 163.82, 160.15, 158.18, 150.68, 142.25, 139.50, 132.79, 131.54, 131.06, 131.00, 129.41, 126.98, 126.84, 124.73, 123.22, 123.17, 123.15, 121.59, 120.26, 114.25, 114.07, 113.76, 66.43, 63.09, 54.65, 45.91, 37.18, 37.16, 35.59, 29.65, 28.25, 25.90, 25.54, 19.59, 19.58, 17.84, 12.12.

HR-MS (ESI-QTOF): $[M+Na]^+$ calculated for $C_{32}H_{39}FN_2NaO_4$ *m/z* 557.2786 and found *m/z* 557.2788.



(*E*)-(*Z*)-3,7-dimethylocta-2,6-dien-1-yl 4-(2-((2-(4,5-dihydrooxazol-2-yl)phenyl)carbamoyl)-3-fluorophenyl)hex-2-enoate (Scheme 4, 4l).

C-H Allylation was carried out following general procedure with *N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-fluorobenzamide (0.25 mmol, 71 mg) and (*E*)-(*Z*)-3,7-dimethylocta-2,6-dien-1-yl hex-3-enoate (0.5 mmol, 125 µL).

Eluent: ethyl acetate/ petroleum ether (3: 97 v/v); R_f = 0.37 (15% EA-PE)

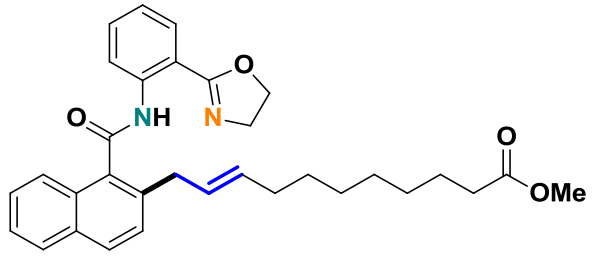
Appearance: Sticky colorless liquid.

Isolated yield: 53% (70 mg).

^{1}H NMR (400 MHz, $CDCl_3$) δ 12.63 (s, 1H), 8.91 (d, *J* = 8.3 Hz, 1H), 7.88 (dd, *J* = 7.9, 1.4 Hz, 1H), 7.56 – 7.50 (m, 1H), 7.38 (td, *J* = 8.1, 5.9 Hz, 1H), 7.18 – 7.12 (m, 1H), 7.10 – 7.00 (m, 3H), 5.76 (dd, *J* = 15.7, 1.2 Hz, 1H), 5.32 (t, *J* = 6.9 Hz, 1H), 5.10 – 5.03 (m, 1H), 4.61 – 4.51 (m, 2H), 4.31 (t, *J* = 9.4 Hz, 2H), 4.04 – 3.87 (m, 2H), 3.65 (q, *J* = 7.0 Hz, 1H), 2.11 – 2.04 (m, 4H), 1.81 (dd, *J* = 14.3, 7.0 Hz, 2H), 1.75 (s, 3H), 1.66 (s, 3H), 1.58 (s, 3H), 0.85 (t, *J* = 7.3 Hz, 3H).

^{13}C NMR (101 MHz, $CDCl_3$) δ 166.76, 164.46, 163.79, 160.38, 157.92, 150.80, 142.64, 142.19, 139.50, 132.76, 132.36, 131.04, 130.95, 129.39, 127.03, 126.84, 123.71, 123.19, 121.51, 120.21, 119.34, 114.24, 114.02, 113.75, 66.38, 61.14, 54.66, 45.90, 32.33, 28.21, 26.80, 25.86, 23.69, 17.83, 12.10.

HR-MS (ESI-QTOF): $[M+Na]^+$ calculated for $C_{32}H_{37}FN_2NaO_4$ *m/z* 555.2630 and found *m/z* 555.2629.



(*E*)-methyl-11-(1-((2-(4,5-dihydrooxazol-2-yl)phenyl)carbamoyl)naphthalen-2-yl)undec-9-enoate (Scheme 5, 5a).

C-H Allylation was carried out following general procedure with *N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)-1-naphthamide (0.25 mmol, 79 mg) and methyl-10-undecenoate (0.5 mmol, 112 µL).

Eluent: ethyl acetate/ petroleum ether (3: 97 v/v); R_f = 0.4 (15% EA-PE)

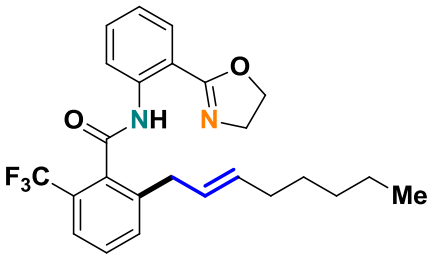
Appearance: Sticky light orange liquid.

Isolated yield: 83% (106 mg).

^{1}H NMR (500 MHz, $CDCl_3$) δ 12.55 (s, 1H), 9.11 (d, *J* = 8.4 Hz, 1H), 7.99 – 7.94 (m, 1H), 7.91 (dd, *J* = 7.8, 1.1 Hz, 1H), 7.83 (dd, *J* = 9.1, 5.5 Hz, 2H), 7.58 (dd, *J* = 11.5, 4.2 Hz, 1H), 7.49 – 7.42 (m, 2H), 7.40 (d, *J* = 8.5 Hz, 1H), 7.16 (t, *J* = 7.6 Hz, 1H), 5.65 – 5.56 (m, 1H), 5.56 – 5.48 (m, 1H), 4.25 (t, *J* = 9.0 Hz, 2H), 3.78 (dt, *J* = 26.6, 14.1 Hz, 2H), 3.66 (d, *J* = 4.1 Hz, 3H), 3.59 (d, *J* = 6.4 Hz, 2H), 2.29 (t, *J* = 7.5 Hz, 2H), 1.95 (dd, *J* = 13.5, 6.7 Hz, 2H), 1.60 (dt, *J* = 14.6, 7.3 Hz, 2H), 1.27 (d, *J* = 16.6 Hz, 8H).

^{13}C NMR (126 MHz, $CDCl_3$) δ 174.45, 168.79, 164.35, 139.80, 135.08, 134.53, 132.74, 132.63, 132.17, 130.41, 129.41, 129.24, 128.31, 128.00, 127.73, 126.82, 125.70, 125.30, 122.97, 120.34, 113.74, 66.21, 54.74, 51.58, 37.15, 34.21, 32.66, 29.39, 29.21, 29.11, 25.05.

HR-MS (ESI-QTOF): $[M+H]^+$ calculated for $C_{32}H_{37}N_2O_4$ *m/z* 513.2748 and found *m/z* 513.2750.



(*E*)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-(oct-2-en-1-yl)-6-(trifluoromethyl)benzamide (Scheme 5, 5b).

C-H Allylation was carried out following general procedure with *N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-(trifluoromethyl)benzamide (0.25 mmol, 83 mg) and 1-octene (0.5 mmol, 80 µL).

Eluent: ethyl acetate/ petroleum ether (1: 99 v/v); R_f = 0.4 (5% EA-PE)

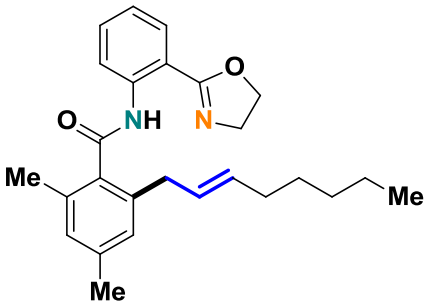
Appearance: Sticky colorless liquid.

Isolated yield: 72% (80 mg).

^{1}H NMR (500 MHz, $CDCl_3$) δ 12.49 (s, 1H), 8.90 (d, *J* = 7.8 Hz, 1H), 7.89 (dd, *J* = 7.9, 1.5 Hz, 1H), 7.51 (ddt, *J* = 32.0, 24.2, 7.6 Hz, 4H), 7.14 (td, *J* = 7.9, 1.0 Hz, 1H), 5.56 – 5.45 (m, 2H), 4.35 – 4.25 (m, 2H), 3.98 – 3.88 (m, 2H), 3.53 – 3.41 (m, 2H), 1.93 (dd, *J* = 13.1, 6.9 Hz, 2H), 1.30 – 1.20 (m, 6H), 0.87 – 0.83 (m, 3H).

^{13}C NMR (126 MHz, $CDCl_3$) δ 166.21, 164.46, 139.70, 139.50, 135.70, 133.49, 133.43, 132.75, 129.36, 129.22, 127.42, 127.13, 125.15, 124.21, 124.17, 124.13, 124.09, 123.14, 122.97, 120.35, 113.82, 77.48, 77.23, 76.98, 66.31, 54.81, 36.34, 32.61, 31.59, 29.10, 22.65, 14.20.

HR-MS (ESI-QTOF): $[M+Na]^+$ calculated for $C_{25}H_{27}F_3N_2NaO_2$ *m/z* 467.1917 and found *m/z* 467.1920.



(*E*)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2,4-dimethyl-6-(oct-2-en-1-yl)benzamide (Scheme 5, 5c).

C-H Allylation was carried out following general procedure with *N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2,4-dimethylbenzamide (0.25 mmol, 73 mg) and 1-octene (0.5 mmol, 80 µL).

Eluent: ethyl acetate/ petroleum ether (1: 99 v/v); R_f = 0.6 (5% EA-PE)

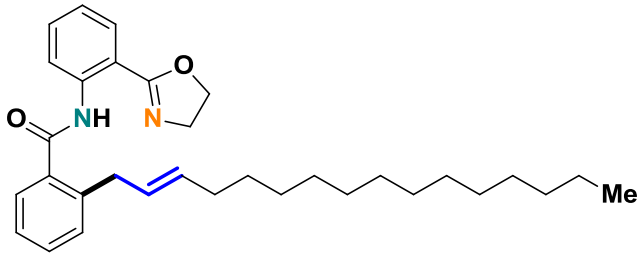
Appearance: Sticky colorless liquid.

Isolated yield: 66% (67 mg).

^{1}H NMR (500 MHz, $CDCl_3$) δ 12.23 (s, 1H), 9.00 – 8.93 (m, 1H), 7.89 (dd, *J* = 7.9, 1.5 Hz, 1H), 7.55 – 7.48 (m, 1H), 7.14 – 7.09 (m, 1H), 6.91 (d, *J* = 3.7 Hz, 2H), 5.54 (dt, *J* = 14.4, 6.6 Hz, 1H), 5.49 – 5.42 (m, 1H), 4.31 (t, *J* = 9.5 Hz, 2H), 3.97 (t, *J* = 9.5 Hz, 2H), 3.40 (d, *J* = 6.5 Hz, 2H), 2.35 (d, *J* = 10.3 Hz, 3H), 2.33 (s, 3H), 1.92 (dd, *J* = 13.6, 6.7 Hz, 2H), 1.28 – 1.19 (m, 6H), 0.85 (t, *J* = 7.0 Hz, 3H).

^{13}C NMR (126 MHz, $CDCl_3$) δ 169.52, 164.50, 139.88, 138.60, 137.72, 135.54, 134.39, 132.68, 132.31, 129.38, 128.92, 128.53, 127.68, 122.69, 120.24, 113.61, 66.23, 54.97, 36.76, 32.64, 31.62, 29.18, 22.67, 21.43, 19.64, 14.22.

HR-MS (ESI-QTOF): $[M+Na]^+$ calculated for $C_{26}H_{32}N_2NaO_2$ *m/z* 427.2356 and found *m/z* 427.2352.



(*E*)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-(hexadec-2-en-1-yl)benzamide (Scheme 5, 5d).

C-H Allylation was carried out following general procedure with *N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)benzamide (0.25 mmol, 67 mg) and 1-hexadecene (0.5 mmol, 143 µL).

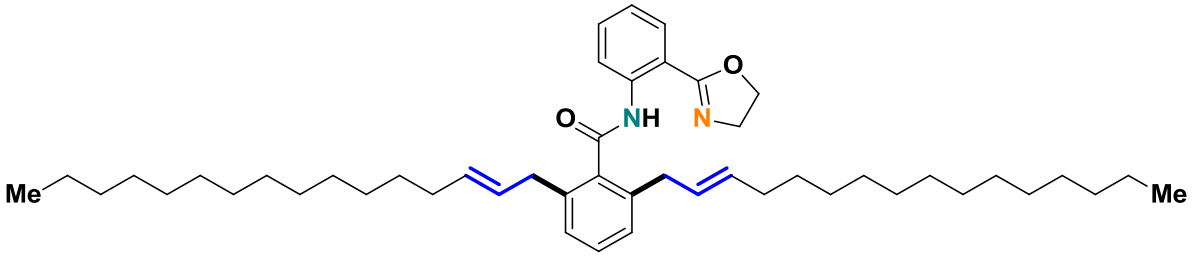
Eluent: ethyl acetate/ petroleum ether (1: 99 v/v); R_f = 0.65 (5% EA-PE)

Appearance: Whitish solid.

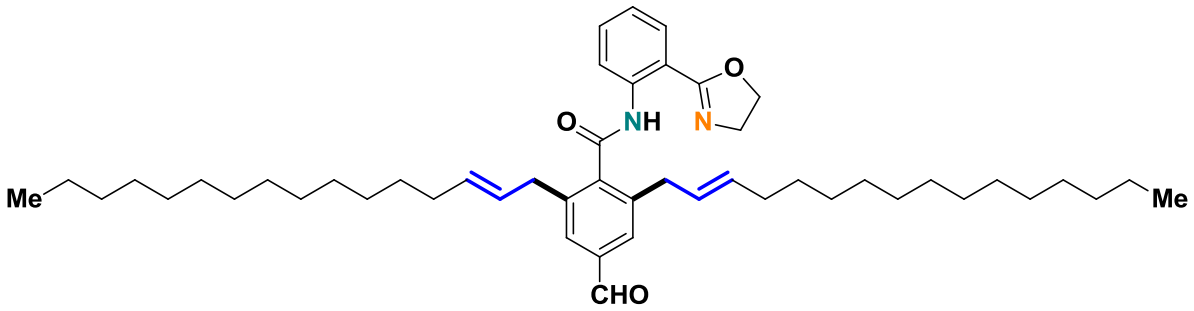
Isolated yield: 17% (21 mg).

^{1}H NMR (500 MHz, $CDCl_3$) δ 12.53 (s, 1H), 8.93 (d, *J* = 8.3 Hz, 1H), 7.89 (dd, *J* = 7.9, 1.5 Hz, 1H), 7.60 (dd, *J* = 7.6, 1.0 Hz, 1H), 7.54 – 7.49 (m, 1H), 7.39 (td, *J* = 7.5, 1.3 Hz, 1H), 7.30 (dd, *J* = 11.0, 7.4 Hz, 2H), 7.14 – 7.09 (m, 1H), 5.62 – 5.54 (m, 1H), 5.51 – 5.44 (m, 1H), 4.35 (t, *J* =

9.5 Hz, 2H), 4.05 (t, *J* = 9.5 Hz, 2H), 3.64 (d, *J* = 6.5 Hz, 2H), 1.93 (dd, *J* = 13.6, 6.7 Hz, 2H), 1.26 (s, 18H), 1.20 (d, *J* = 10.8 Hz, 4H), 0.88 (t, *J* = 6.9 Hz, 3H).
^{13}C NMR (126 MHz, $CDCl_3$) δ 168.96, 164.79, 140.32, 140.28, 137.07, 132.75, 132.51, 130.57, 130.31, 129.41, 128.63, 127.66, 126.22, 122.64, 120.03, 113.65, 66.36, 54.93, 36.71, 32.78, 32.13, 29.88, 29.81, 29.70, 29.65, 29.57, 29.42, 22.89, 14.32.
HR-MS (ESI-QTOF): $[M+H]^+$ calculated for $C_{32}H_{45}N_2O_2$ *m/z* 489.3476 and found *m/z* 489.3471.



***N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2,6-di((*E*)-hexadec-2-en-1-yl)benzamide (Scheme 5, 5d').**
C-H Allylation was carried out following general procedure with *N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)benzamide (0.25 mmol, 67 mg) and 1-hexadecene (0.5 mmol, 143 µL).
Eluent: ethyl acetate/ petroleum ether (1: 99 v/v); R_f = 0.8 (5% EA-PE)
Appearance: Sticky colorless liquid.
Isolated yield: 46% (82 mg).
^{1}H NMR (500 MHz, $CDCl_3$) δ 12.26 (s, 1H), 8.96 (d, *J* = 8.4 Hz, 1H), 7.89 (dd, *J* = 7.9, 1.4 Hz, 1H), 7.54 – 7.50 (m, 1H), 7.29 – 7.26 (m, 1H), 7.13 (dd, *J* = 9.1, 4.3 Hz, 3H), 5.57 – 5.50 (m, 2H), 5.48 – 5.41 (m, 2H), 4.32 (t, *J* = 9.5 Hz, 2H), 3.96 (t, *J* = 9.5 Hz, 2H), 3.42 (d, *J* = 6.2 Hz, 4H), 1.91 (dd, *J* = 13.5, 6.7 Hz, 4H), 1.24 (d, *J* = 25.3 Hz, 44H), 0.89 (t, *J* = 6.9 Hz, 6H).
^{13}C NMR (126 MHz, $CDCl_3$) δ 169.08, 164.51, 139.80, 137.87, 137.74, 132.73, 132.49, 129.40, 129.04, 128.40, 127.31, 122.77, 120.31, 113.61, 66.24, 55.00, 36.77, 32.72, 32.13, 29.90, 29.89, 29.88, 29.87, 29.83, 29.71, 29.57, 29.44, 22.89, 14.32.
HR-MS (ESI-QTOF): $[M+Na]^+$ calculated for $C_{48}H_{74}N_2NaO_2$ *m/z* 733.5642 and found *m/z* 733.5643.



***N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)-4-formyl-2,6-di((E)-hexadec-2-en-1-yl)benzamide (Scheme 5, 5e).**
C-H Allylation was carried out following general procedure with *N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)-4-formylbenzamide (0.25 mmol, 73 mg) and 1-hexadecene (0.5 mmol, 143 µL).
Eluent: ethyl acetate/ petroleum ether (1: 99 v/v); R_f = 0.45 (10% EA-PE)

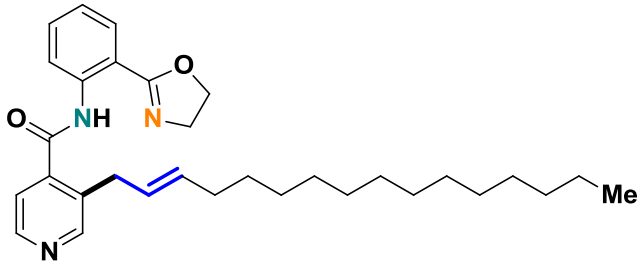
Appearance: Sticky light yellowish liquid.

Isolated yield: 52% (96 mg).

^{1}H NMR (500 MHz, $CDCl_3$) δ 14.02 – 13.30 (m, 1H), 12.43 (s, 1H), 10.00 (s, 1H), 8.92 (d, *J* = 8.3 Hz, 1H), 7.90 (dd, *J* = 7.9, 1.4 Hz, 1H), 7.65 (s, 2H), 7.56 – 7.50 (m, 1H), 7.15 (t, *J* = 7.6 Hz, 1H), 5.55 – 5.46 (m, 4H), 4.33 (t, *J* = 9.5 Hz, 2H), 3.95 (t, *J* = 9.5 Hz, 2H), 3.47 (d, *J* = 5.3 Hz, 4H), 1.92 (dd, *J* = 12.9, 6.5 Hz, 4H), 1.23 (d, *J* = 19.4 Hz, 44H), 0.87 (t, *J* = 6.9 Hz, 6H).

^{13}C NMR (126 MHz, $CDCl_3$) δ 192.52, 167.77, 164.64, 143.04, 139.42, 139.08, 136.70, 133.53, 132.85, 129.48, 128.82, 127.35, 123.19, 120.29, 113.66, 66.34, 54.89, 36.57, 32.70, 32.12, 29.89, 29.87, 29.85, 29.81, 29.69, 29.55, 29.45, 22.88, 14.32.

HR-MS (ESI-QTOF): $[M+Na]^+$ calculated for $C_{49}H_{74}N_2NaO_3$ *m/z* 761.5591 and found *m/z* 761.5591.



(*E*)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-3-(hexadec-2-en-1-yl)isonicotinamide (Scheme 5, 5f).

C-H Allylation was carried out following general procedure with *N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)isonicotinamide (0.25 mmol, 67 mg) and 1-hexadecene (0.5 mmol, 143 µL).

Eluent: ethyl acetate/ petroleum ether (10: 90 v/v); R_f = 0.35 (25% EA-PE)

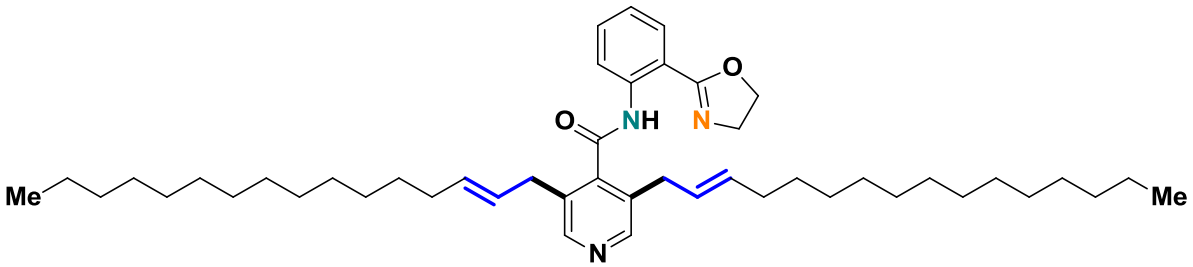
Appearance: Sticky white liquid.

Isolated yield: 19% (23 mg).

^{1}H NMR (500 MHz, $CDCl_3$) δ 12.77 (d, *J* = 23.9 Hz, 1H), 8.86 (d, *J* = 8.4 Hz, 1H), 8.62 (d, *J* = 28.7 Hz, 2H), 7.89 (t, *J* = 7.9 Hz, 1H), 7.53 (t, *J* = 7.9 Hz, 1H), 7.46 (d, *J* = 3.8 Hz, 1H), 7.15 (t, *J* = 7.6 Hz, 1H), 5.57 – 5.45 (m, 2H), 4.37 (t, *J* = 9.5 Hz, 2H), 4.05 (t, *J* = 9.5 Hz, 2H), 3.62 (d, *J* = 5.9 Hz, 2H), 1.90 (dd, *J* = 13.3, 6.7 Hz, 2H), 1.21 (dd, *J* = 26.7, 19.6 Hz, 22H), 0.86 (d, *J* = 7.1 Hz, 3H).

^{13}C NMR (126 MHz, $CDCl_3$) δ 166.39, 164.93, 151.77, 147.83, 144.00, 139.65, 133.64, 132.90, 129.50, 127.13, 123.32, 120.07, 113.78, 66.50, 54.82, 33.95, 32.73, 32.13, 29.90, 29.87, 29.77, 29.67, 29.56, 29.50, 29.40, 22.89, 14.33.

HR-MS (ESI-QTOF): $[M+H]^+$ calculated for $C_{31}H_{44}N_3O_2$ *m/z* 490.3428 and found *m/z* 490.3425.



***N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)-3,5-di((*E*)-hexadec-2-en-1-yl)isonicotinamide (Scheme 5, 5f').**

C-H Allylation was carried out following general procedure with *N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)isonicotinamide (0.25 mmol, 67 mg) and 1-hexadecene (0.5 mmol, 143 µL).

Eluent: ethyl acetate/ petroleum ether (5: 95 v/v); R_f = 0.45 (25% EA-PE)

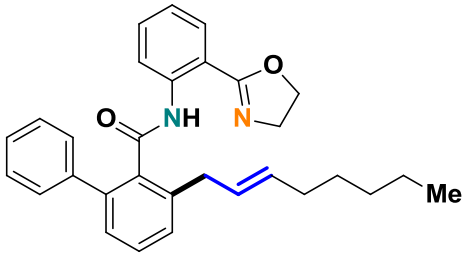
Appearance: Sticky yellowish-white semi-solid.

Isolated yield: 22% (39 mg).

^{1}H NMR (500 MHz, $CDCl_3$) δ 12.46 (s, 1H), 8.88 (d, *J* = 8.3 Hz, 1H), 8.39 (s, 2H), 7.89 (dd, *J* = 7.9, 1.2 Hz, 1H), 7.56 – 7.50 (m, 1H), 7.15 (t, *J* = 7.3 Hz, 1H), 5.51 – 5.41 (m, 4H), 4.34 (t, *J* = 9.5 Hz, 2H), 3.97 (t, *J* = 9.5 Hz, 2H), 3.41 (d, *J* = 4.9 Hz, 4H), 1.90 – 1.81 (m, 4H), 1.25 – 1.17 (m, 44H), 0.87 (t, *J* = 6.9 Hz, 6H).

^{13}C NMR (126 MHz, $CDCl_3$) δ 166.14, 164.68, 148.86, 144.53, 139.32, 133.55, 132.88, 132.15, 129.49, 126.95, 123.28, 120.26, 113.64, 66.39, 54.91, 34.13, 32.66, 32.13, 29.90, 29.89, 29.87, 29.80, 29.69, 29.57, 29.45, 29.40, 22.90, 14.33.

HR-MS (ESI-QTOF): $[M+H]^+$ calculated for $C_{47}H_{74}N_3O_2$ *m/z* 712.5776 and found *m/z* 712.5775.



(*E*)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-3-(oct-2-en-1-yl)-[1,1'-biphenyl]-2-carboxamide (Scheme 5, 5g).

C-H Allylation was carried out following general procedure with *N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)-[1,1'-biphenyl]-2-carboxamide (0.25 mmol, 85 mg) and 1-octene (0.5 mmol, 80 µL).

Eluent: ethyl acetate/ petroleum ether (1: 99 v/v); R_f = 0.5 (5% EA-PE)

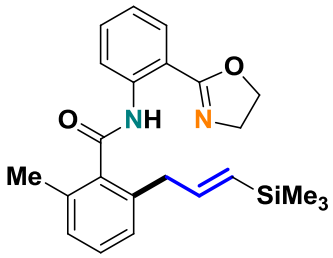
Appearance: Sticky white liquid.

Isolated yield: 73% (82 mg).

^{1}H NMR (500 MHz, $CDCl_3$) δ 12.01 (s, 1H), 8.76 (d, *J* = 8.4 Hz, 1H), 7.73 (dd, *J* = 7.9, 1.3 Hz, 1H), 7.50 – 7.45 (m, 2H), 7.43 (ddd, *J* = 12.2, 5.3, 2.5 Hz, 2H), 7.33 – 7.28 (m, 2H), 7.26 (dd, *J* = 8.6, 6.4 Hz, 2H), 7.19 (t, *J* = 7.3 Hz, 1H), 7.03 (t, *J* = 7.6 Hz, 1H), 5.64 – 5.56 (m, 1H), 5.55 – 5.48 (m, 1H), 4.22 (t, *J* = 9.5 Hz, 2H), 3.89 (t, *J* = 9.5 Hz, 2H), 3.56 (s, 2H), 1.93 (dd, *J* = 13.6, 6.7 Hz, 2H), 1.27 – 1.18 (m, 6H), 0.84 (t, *J* = 6.9 Hz, 3H).

^{13}C NMR (126 MHz, $CDCl_3$) δ 168.78, 163.96, 140.83, 139.58, 139.48, 139.00, 137.09, 132.68, 132.43, 129.22, 129.03, 128.85, 128.75, 128.29, 128.10, 128.02, 127.35, 122.54, 120.07, 113.51, 66.12, 54.78, 36.81, 32.67, 31.62, 29.19, 22.66, 14.21.

HR-MS (ESI-QTOF): $[M+Na]^+$ calculated for $C_{30}H_{32}N_2NaO_2$ *m/z* 475.2356 and found *m/z* 475.2353.



(*E*)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-methyl-6-(3-(trimethylsilyl)allyl)benzamide (Scheme 5, 5h).

C-H Allylation was carried out following general procedure with *N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-methylbenzamide (0.25 mmol, 70 mg) and allyltrimethylsilane (0.5 mmol, 79 µL).

Eluent: ethyl acetate/ petroleum ether (1: 99 v/v); R_f = 0.6 (5% EA-PE)

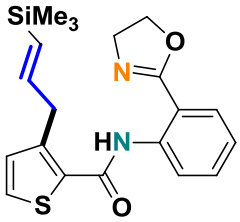
Appearance: Sticky colorless liquid.

Isolated yield: 70% (69 mg).

^{1}H NMR (500 MHz, $CDCl_3$) δ 12.29 (s, 1H), 8.96 (t, *J* = 7.3 Hz, 1H), 7.90 (dd, *J* = 7.9, 1.5 Hz, 1H), 7.56 – 7.50 (m, 1H), 7.26 (s, 1H), 7.15 – 7.07 (m, 3H), 6.15 – 6.07 (m, 1H), 5.67 (dd, *J* = 17.1, 1.3 Hz, 1H), 4.32 (t, *J* = 9.5 Hz, 2H), 3.97 (t, *J* = 9.5 Hz, 2H), 3.57 (d, *J* = 5.8 Hz, 2H), 2.40 (s, 3H), -0.05 (s, 9H).

^{13}C NMR (126 MHz, $CDCl_3$) δ 169.12, 164.56, 144.74, 139.74, 138.33, 136.82, 134.52, 132.74, 131.95, 129.42, 129.01, 128.35, 127.23, 122.83, 120.24, 113.64, 66.26, 54.95, 41.01, 19.76, -1.17.

HR-MS (ESI-QTOF): $[M+Na]^+$ calculated for $C_{23}H_{28}N_2NaO_2Si$ *m/z* 415.1812 and found *m/z* 415.1818.



(*E*)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-3-(3-(trimethylsilyl)allyl)thiophene-2-carboxamide (Scheme 5, 5i).

C-H Allylation was carried out following general procedure with *N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)thiophene-2-carboxamide (0.25 mmol, 68 mg) and allyltrimethylsilane (0.5 mmol, 79 µL).

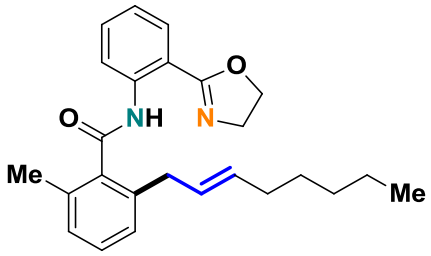
Eluent: ethyl acetate/ petroleum ether (1: 99 v/v); R_f = 0.55 (5% EA-PE)

Appearance: Light yellowish semi-solid.

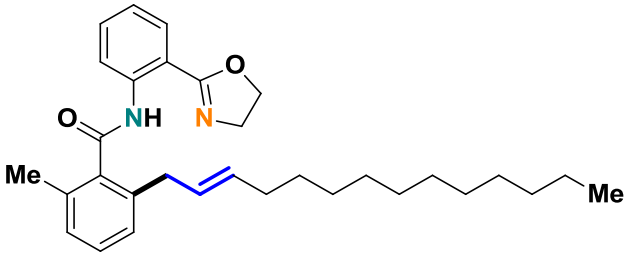
Isolated yield: 51% (49 mg).

^{1}H NMR (500 MHz, $CDCl_3$) δ 12.75 (s, 1H), 8.82 (d, *J* = 8.4 Hz, 1H), 7.87 (dd, *J* = 7.9, 1.5 Hz, 1H), 7.51 – 7.46 (m, 1H), 7.36 (d, *J* = 5.0 Hz, 1H), 7.12 – 7.07 (m, 1H), 6.97 (d, *J* = 5.0 Hz, 1H), 6.20 (dt, *J* = 18.4, 6.2 Hz, 1H), 5.74 (dt, *J* = 18.4, 1.3 Hz, 1H), 4.39 (t, *J* = 9.6 Hz, 2H), 4.16 (t, *J* = 9.5 Hz, 2H), 3.93 (dd, *J* = 6.2, 1.3 Hz, 2H), 0.04 (s, 9H).

^{13}C NMR (126 MHz, $CDCl_3$) δ 164.86, 161.97, 145.56, 144.27, 140.28, 132.65, 131.98, 131.80, 131.21, 129.35, 127.39, 122.54, 120.20, 113.64, 66.47, 54.79, 37.01, -1.00.
HR-MS (ESI-QTOF): $[M+Na]^+$ calculated for $C_{20}H_{24}N_2NaO_2SSi$ *m/z* 407.1220 and found *m/z* 407.1220.



(*E*)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-methyl-6-(oct-2-en-1-yl)benzamide (Scheme 5, 5j).
C-H Allylation was carried out following general procedure with *N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-methylbenzamide (0.25 mmol, 70 mg) and 1-octene (0.5 mmol, 80 µL).
Eluent: ethyl acetate/ petroleum ether (1: 99 v/v); R_f = 0.6 (5% EA-PE)
Appearance: Sticky white liquid.
Isolated yield: 77% (75 mg).
^{1}H NMR (500 MHz, $CDCl_3$) δ 12.27 (s, 1H), 8.95 (d, *J* = 8.4 Hz, 1H), 7.91 – 7.87 (m, 1H), 7.53 (t, *J* = 7.8 Hz, 1H), 7.24 (t, *J* = 7.8 Hz, 1H), 7.15 – 7.08 (m, 3H), 5.57 – 5.49 (m, 1H), 5.45 (dt, *J* = 14.1, 6.4 Hz, 1H), 4.32 (t, *J* = 9.5 Hz, 2H), 3.97 (t, *J* = 9.5 Hz, 2H), 3.40 (t, *J* = 12.1 Hz, 2H), 2.39 (s, 3H), 1.91 (dd, *J* = 13.8, 6.9 Hz, 2H), 1.27 – 1.20 (m, 6H), 0.84 (t, *J* = 6.9 Hz, 3H).
^{13}C NMR (126 MHz, $CDCl_3$) δ 169.32, 164.55, 139.80, 138.21, 137.77, 134.48, 132.75, 132.50, 129.43, 128.97, 128.39, 128.15, 127.01, 122.84, 120.32, 113.68, 66.29, 54.97, 36.78, 32.67, 31.64, 29.22, 22.69, 19.71, 14.24.
HR-MS (ESI-QTOF): $[M+H]^+$ calculated for $C_{25}H_{31}N_2O_2$ *m/z* 391.2380 and found *m/z* 391.2387.

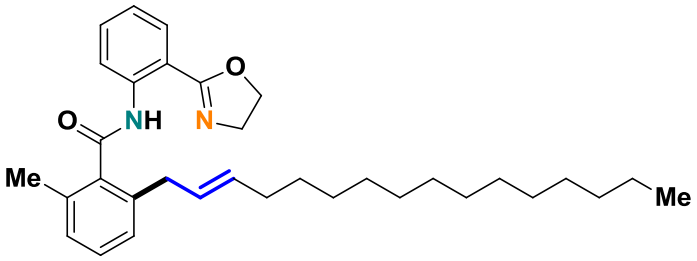


(*E*)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-methyl-6-(tetradec-2-en-1-yl)benzamide (Scheme 5, 5k).
C-H Allylation was carried out following general procedure with *N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-methylbenzamide (0.25 mmol, 70 mg) and 1-tetradecene (0.5 mmol, 126 µL).
Eluent: ethyl acetate/ petroleum ether (1: 99 v/v); R_f = 0.6 (5% EA-PE)
Appearance: Sticky colorless liquid.
Isolated yield: 73% (87 mg).
^{1}H NMR (500 MHz, $CDCl_3$) δ 12.28 (s, 1H), 8.96 (dd, *J* = 8.4, 0.8 Hz, 1H), 7.90 (dd, *J* = 7.9, 1.6 Hz, 1H), 7.56 – 7.50 (m, 1H), 7.24 (t, *J* = 7.6 Hz, 1H), 7.12 (ddd, *J* = 18.3, 12.6, 4.7 Hz, 3H),

5.54 (dt, *J* = 14.4, 6.6 Hz, 1H), 5.45 (dt, *J* = 14.0, 6.5 Hz, 1H), 4.32 (t, *J* = 9.6 Hz, 2H), 3.96 (t, *J* = 9.5 Hz, 2H), 3.43 (d, *J* = 6.5 Hz, 2H), 2.40 (s, 3H), 1.91 (dd, *J* = 13.4, 6.6 Hz, 2H), 1.24 (d, *J* = 21.6 Hz, 18H), 0.89 (t, *J* = 7.0 Hz, 3H).

^{13}C NMR (126 MHz, $CDCl_3$) δ 169.28, 164.52, 139.78, 138.18, 137.73, 134.44, 132.71, 132.47, 129.41, 128.94, 128.36, 128.12, 126.99, 122.80, 120.28, 113.65, 66.25, 54.94, 36.76, 32.70, 32.11, 29.85, 29.82, 29.80, 29.68, 29.54, 29.42, 22.87, 19.68, 14.30.

HR-MS (ESI-QTOF): $[M+Na]^+$ calculated for $C_{31}H_{42}N_2NaO_2$ *m/z* 497.3138 and found *m/z* 497.3130.



(*E*)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-(hexadec-2-en-1-yl)-6-methylbenzamide (Scheme 5, 5l).

C-H Allylation was carried out following general procedure with *N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-methylbenzamide (0.25 mmol, 70 mg) and 1-hexadecene (0.5 mmol, 143 µL).

Eluent: ethyl acetate/ petroleum ether (1: 99 v/v); R_f = 0.7 (5% EA-PE)

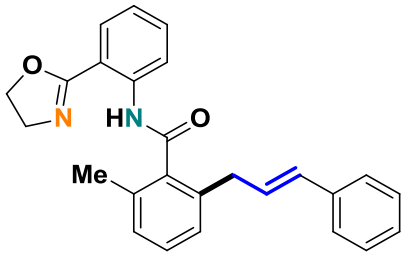
Appearance: Sticky colorless liquid.

Isolated yield: 75% (94 mg).

^{1}H NMR (500 MHz, $CDCl_3$) δ 12.27 (s, 1H), 8.95 (dd, *J* = 8.4, 0.6 Hz, 1H), 7.89 (dd, *J* = 7.9, 1.5 Hz, 1H), 7.55 – 7.50 (m, 1H), 7.24 (t, *J* = 7.7 Hz, 1H), 7.12 (ddd, *J* = 18.4, 12.0, 4.5 Hz, 3H), 5.56 – 5.49 (m, 1H), 5.48 – 5.41 (m, 1H), 4.32 (t, *J* = 9.5 Hz, 2H), 3.97 (t, *J* = 9.5 Hz, 2H), 3.42 (d, *J* = 6.4 Hz, 2H), 2.39 (s, 3H), 1.91 (dd, *J* = 13.4, 6.6 Hz, 2H), 1.23 (d, *J* = 26.9 Hz, 22H), 0.88 (t, *J* = 6.9 Hz, 3H).

^{13}C NMR (126 MHz, $CDCl_3$) δ 169.31, 164.54, 139.80, 138.20, 137.77, 134.47, 132.75, 132.51, 129.42, 128.96, 128.38, 128.14, 127.00, 122.83, 120.31, 113.67, 66.28, 54.97, 36.78, 32.72, 32.13, 29.89, 29.87, 29.82, 29.71, 29.56, 29.44, 22.90, 19.71, 14.33.

HR-MS (ESI-QTOF): $[M+H]^+$ calculated for $C_{33}H_{47}N_2O_2$ *m/z* 503.3632 and found *m/z* 503.3630.



2-cinnamyl-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-6-methylbenzamide (Scheme 5, 5m).

C-H Allylation was carried out following general procedure with *N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-methylbenzamide (0.25 mmol, 70 mg) and allylbenzene (0.5 mmol, 66 µL).

Eluent: ethyl acetate/ petroleum ether (1: 99 v/v); R_f = 0.5 (5% EA-PE)

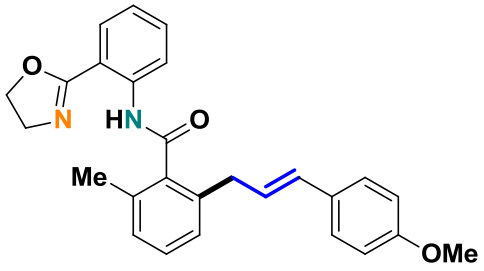
Appearance: Sticky colorless liquid.

Isolated yield: 75% (74 mg).

^{1}H NMR (500 MHz, $CDCl_3$) δ 12.40 (s, 1H), 9.06 – 9.00 (m, 1H), 7.87 (dd, *J* = 7.9, 1.5 Hz, 1H), 7.59 – 7.51 (m, 1H), 7.28 (t, *J* = 7.6 Hz, 1H), 7.25 – 7.19 (m, 5H), 7.18 – 7.13 (m, 3H), 6.38 – 6.30 (m, 2H), 4.12 (s, 2H), 3.78 (s, 2H), 3.63 (dd, *J* = 10.1, 7.9 Hz, 2H), 2.43 (s, 3H).

^{13}C NMR (126 MHz, $CDCl_3$) δ 169.20, 164.31, 139.69, 138.42, 137.62, 136.73, 134.67, 132.66, 131.15, 129.42, 129.06, 128.44, 128.41, 127.22, 127.04, 126.18, 122.85, 120.16, 113.68, 66.10, 54.78, 37.22, 19.63.

HR-MS (ESI-QTOF): $[M+Na]^+$ calculated for $C_{26}H_{24}N_2NaO_2$ *m/z* 419.1730 and found *m/z* 419.1729.



(*E*)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-(3-(4-methoxyphenyl)allyl)-6-methylbenzamide (Scheme 5, 5n).

C-H Allylation was carried out following general procedure with *N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-methylbenzamide (0.25 mmol, 70 mg) and 4-allylanisole (0.5 mmol, 77 µL).

Eluent: ethyl acetate/ petroleum ether (5: 95 v/v); R_f = 0.4 (20% EA-PE)

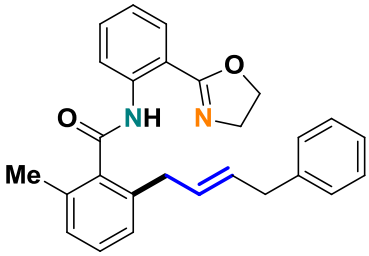
Appearance: Sticky light yellowish liquid.

Isolated yield: 81% (86 mg).

^{1}H NMR (500 MHz, $CDCl_3$) δ 12.38 (s, 1H), 9.01 (d, *J* = 8.3 Hz, 1H), 7.86 (d, *J* = 7.6 Hz, 1H), 7.54 (t, *J* = 7.5 Hz, 1H), 7.26 (s, 1H), 7.19 – 7.10 (m, 5H), 6.76 (d, *J* = 8.2 Hz, 2H), 6.29 (d, *J* = 15.7 Hz, 1H), 6.22 – 6.14 (m, 1H), 4.14 (s, 2H), 3.77 (s, 5H), 3.60 (d, *J* = 6.1 Hz, 2H), 2.42 (s, 3H).

^{13}C NMR (126 MHz, $CDCl_3$) δ 169.24, 164.31, 158.85, 139.71, 138.36, 137.02, 134.62, 132.65, 130.54, 129.40, 129.03, 128.32, 127.27, 127.18, 126.88, 122.82, 120.17, 113.87, 113.68, 66.13, 55.40, 54.81, 37.19, 19.62.

HR-MS (ESI-QTOF): $[M+H]^+$ calculated for $C_{27}H_{27}N_2O_3$ *m/z* 427.2016 and found *m/z* 427.2014.



(*E*)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-methyl-6-(4-phenylbut-2-en-1-yl)benzamide (Scheme 5, 5o).

C-H Allylation was carried out following general procedure with *N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-methylbenzamide (0.25 mmol, 70 mg) and 4-phenyl-1-butene (0.5 mmol, 75 µL).

Eluent: ethyl acetate/ petroleum ether (1: 99 v/v); R_f = 0.5 (5% EA-PE)

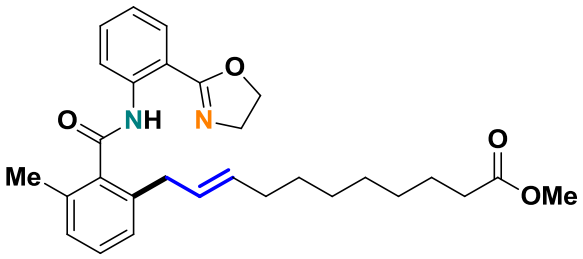
Appearance: Sticky colorless-yellowish liquid.

Isolated yield: 74% (76 mg).

^{1}H NMR (500 MHz, $CDCl_3$) δ 12.31 (s, 1H), 8.96 (d, *J* = 8.4 Hz, 1H), 7.91 (d, *J* = 7.9 Hz, 1H), 7.54 (t, *J* = 7.9 Hz, 1H), 7.27 (d, *J* = 7.6 Hz, 1H), 7.25 – 7.21 (m, 2H), 7.18 – 7.08 (m, 6H), 5.73 – 5.56 (m, 2H), 4.30 (t, *J* = 9.5 Hz, 2H), 3.92 (t, *J* = 9.4 Hz, 2H), 3.49 (d, *J* = 5.7 Hz, 2H), 3.28 (d, *J* = 5.8 Hz, 2H), 2.41 (s, 3H).

^{13}C NMR (126 MHz, $CDCl_3$) δ 169.25, 164.51, 140.77, 139.75, 138.23, 137.33, 134.53, 132.76, 130.71, 130.20, 129.44, 129.02, 128.65, 128.46, 128.27, 127.07, 126.04, 122.88, 120.28, 113.68, 66.26, 54.89, 39.08, 36.64, 19.72.

HR-MS (ESI-QTOF): $[M+Na]^+$ calculated for $C_{27}H_{26}N_2NaO_2$ *m/z* 433.1886 and found *m/z* 433.1887.



(*E*)-methyl-11-(2-((2-(4,5-dihydrooxazol-2-yl)phenyl)carbamoyl)-3-methylphenyl)undec-9-enoate (Scheme 5, 5p).

C-H Allylation was carried out following general procedure with *N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-methylbenzamide (0.25 mmol, 70 mg) and methyl 10-undecenoate (0.5 mmol, 112 µL).

Eluent: ethyl acetate/ petroleum ether (3: 97 v/v); R_f = 0.3 (15% EA-PE)

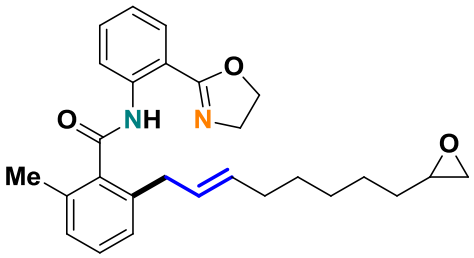
Appearance: Sticky colorless liquid.

Isolated yield: 83% (99 mg).

^{1}H NMR (500 MHz, $CDCl_3$) δ 12.26 (s, 1H), 8.94 (d, *J* = 8.4 Hz, 1H), 7.88 (d, *J* = 7.9 Hz, 1H), 7.52 (t, *J* = 7.9 Hz, 1H), 7.23 (t, *J* = 7.6 Hz, 1H), 7.10 (dt, *J* = 15.3, 7.5 Hz, 3H), 5.56 – 5.49 (m, 1H), 5.46 – 5.39 (m, 1H), 4.30 (t, *J* = 9.5 Hz, 2H), 3.95 (t, *J* = 9.5 Hz, 2H), 3.65 (s, 3H), 3.41 (d, *J* = 6.5 Hz, 2H), 2.38 (s, 3H), 2.28 (t, *J* = 7.5 Hz, 2H), 1.93 – 1.86 (m, 2H), 1.62 – 1.55 (m, 2H), 1.24 (d, *J* = 18.7 Hz, 8H).

^{13}C NMR (126 MHz, $CDCl_3$) δ 174.42, 169.22, 164.49, 139.75, 138.15, 137.66, 134.41, 132.67, 132.27, 129.37, 128.92, 128.45, 128.10, 126.96, 122.77, 120.23, 113.63, 66.24, 54.90, 51.54, 36.72, 34.21, 32.57, 29.37, 29.19, 29.10, 25.05, 19.63.

HR-MS (ESI-QTOF): $[M+Na]^+$ calculated for $C_{29}H_{36}N_2NaO_4$ *m/z* 499.2567 and found *m/z* 499.2567.



(*E*)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-methyl-6-(8-(oxiran-2-yl)oct-2-en-1-yl)benzamide (Scheme 5, 5q).

C-H Allylation was carried out following general procedure with *N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-methylbenzamide (0.25 mmol, 70 mg) and 1,2-epoxy-9-decene (0.5 mmol, 91 µL).

Eluent: ethyl acetate/ petroleum ether (2: 98 v/v); R_f = 0.4 (10% EA-PE)

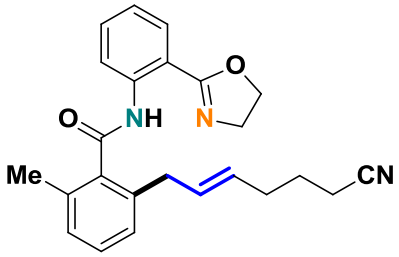
Appearance: Sticky colorless liquid.

Isolated yield: 72% (78 mg).

^{1}H NMR (500 MHz, $CDCl_3$) δ 12.27 (s, 1H), 8.97 – 8.92 (m, 1H), 7.89 (dd, *J* = 7.9, 1.4 Hz, 1H), 7.55 – 7.48 (m, 1H), 7.23 (t, *J* = 7.6 Hz, 1H), 7.14 – 7.10 (m, 1H), 7.10 – 7.06 (m, 2H), 5.57 – 5.49 (m, 1H), 5.47 – 5.39 (m, 1H), 4.32 (t, *J* = 9.5 Hz, 2H), 3.96 (t, *J* = 9.5 Hz, 2H), 3.41 (d, *J* = 6.6 Hz, 2H), 2.89 – 2.83 (m, 1H), 2.74 – 2.69 (m, 1H), 2.43 (dd, *J* = 5.0, 2.8 Hz, 1H), 2.38 (s, 3H), 1.91 (d, *J* = 6.0 Hz, 2H), 1.46 (dd, *J* = 7.4, 5.7 Hz, 2H), 1.38 (ddd, *J* = 10.9, 7.3, 5.1 Hz, 2H), 1.26 (dd, *J* = 6.6, 3.2 Hz, 4H).

^{13}C NMR (126 MHz, $CDCl_3$) δ 169.25, 164.50, 139.75, 138.15, 137.65, 134.45, 132.71, 132.13, 129.39, 128.94, 128.60, 128.15, 126.97, 122.81, 120.25, 113.64, 66.26, 54.92, 52.51, 47.26, 36.76, 32.54, 32.50, 29.34, 29.09, 25.92, 19.68.

HR-MS (ESI-QTOF): $[M+Na]^+$ calculated for $C_{27}H_{32}N_2NaO_3$ *m/z* 455.2305 and found *m/z* 499. 455.2310.



(*E*)-2-(6-cyanohex-2-en-1-yl)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-6-methylbenzamide (Scheme 5, 5r).

C-H Allylation was carried out following general procedure with *N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-methylbenzamide (0.25 mmol, 70 mg) and 6-heptenenitrile (0.5 mmol, 65 µL).

Eluent: ethyl acetate/ petroleum ether (3: 97 v/v); R_f = 0.3 (15% EA-PE)

Appearance: Sticky colorless liquid.

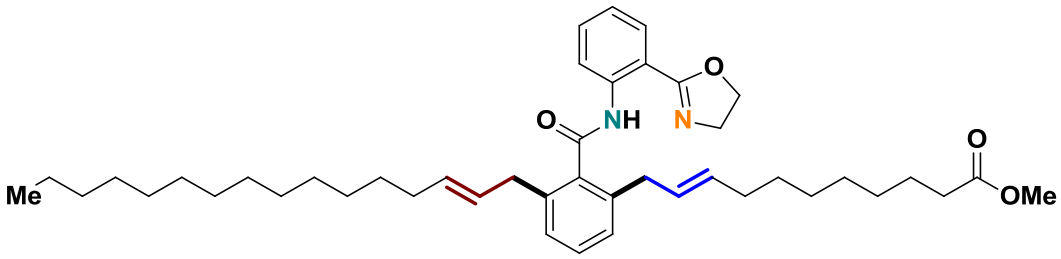
Isolated yield: 67% (65 mg).

^{1}H NMR (500 MHz, $CDCl_3$) δ 12.29 (s, 1H), 8.94 (d, *J* = 8.3 Hz, 1H), 7.90 (dd, *J* = 7.9, 1.4 Hz, 1H), 7.58 – 7.49 (m, 1H), 7.23 (d, *J* = 7.6 Hz, 1H), 7.16 – 7.11 (m, 1H), 7.08 (dd, *J* = 15.3, 7.6 Hz, 2H), 5.62 (dt, *J* = 14.9, 6.8 Hz, 1H), 5.34 (dt, *J* = 15.0, 6.8 Hz, 1H), 4.33 (t, *J* = 9.5 Hz, 2H),

3.97 (t, *J* = 9.5 Hz, 2H), 3.44 (d, *J* = 6.7 Hz, 2H), 2.39 (s, 3H), 2.22 (t, *J* = 7.2 Hz, 2H), 2.09 – 2.03 (m, 2H), 1.60 (p, *J* = 7.2 Hz, 2H).

^{13}C NMR (126 MHz, $CDCl_3$) δ 169.10, 164.56, 139.68, 138.18, 137.01, 134.61, 132.75, 131.08, 129.48, 129.17, 129.06, 128.40, 127.08, 122.91, 120.15, 119.83, 113.62, 66.31, 54.91, 36.79, 31.26, 25.02, 19.68, 16.40.

HR-MS (ESI-QTOF): $[M+Na]^+$ calculated for $C_{24}H_{25}N_3NaO_2$ *m/z* 410.1839 and found *m/z* 410.1840.



(*E*)-methyl-11-(2-((2-(4,5-dihydrooxazol-2-yl)phenyl)carbamoyl)-3-((*E*)-hexadec-2-en-1-yl)phenyl)undec-9-enoate (Scheme 5, 5s).

C-H Allylation was carried out following general procedure with *N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-methylbenzamide (0.1 mmol,) and 1,2-epoxy-9-decene (0.2 mmol, 37 µL).

Eluent: ethyl acetate/ petroleum ether (2: 98 v/v); R_f = 0.4 (15% EA-PE)

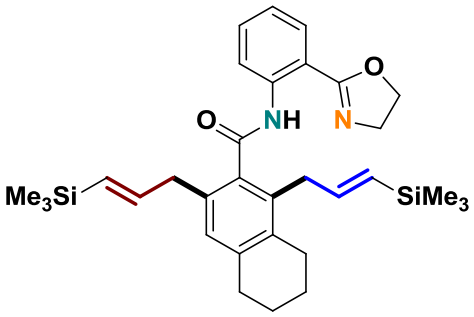
Appearance: Sticky colorless liquid.

Isolated yield: 60% (41 mg).

^{1}H NMR (500 MHz, $CDCl_3$) δ 12.26 (d, *J* = 11.2 Hz, 1H), 8.94 (d, *J* = 8.4 Hz, 1H), 7.88 (dd, *J* = 7.9, 1.5 Hz, 1H), 7.51 (dt, *J* = 11.4, 2.1 Hz, 1H), 7.27 (t, *J* = 5.2 Hz, 1H), 7.13 (dd, *J* = 12.2, 4.2 Hz, 3H), 5.55 – 5.47 (m, 2H), 5.47 – 5.38 (m, 2H), 4.32 (t, *J* = 9.5 Hz, 2H), 3.96 (t, *J* = 9.5 Hz, 2H), 3.66 (s, 3H), 3.41 (d, *J* = 6.1 Hz, 4H), 2.28 (t, *J* = 7.6 Hz, 2H), 1.93 – 1.86 (m, 4H), 1.58 (dt, *J* = 14.9, 7.5 Hz, 2H), 1.28 – 1.20 (m, 30H), 0.88 (t, *J* = 6.9 Hz, 3H).

^{13}C NMR (126 MHz, $CDCl_3$) δ 174.54, 169.09, 164.50, 139.78, 137.85, 137.75, 137.70, 132.74, 132.52, 132.35, 129.40, 129.06, 128.50, 128.37, 127.33, 127.31, 122.80, 120.31, 113.61, 66.27, 55.01, 51.65, 36.76, 34.28, 32.72, 32.65, 32.13, 29.89, 29.86, 29.83, 29.71, 29.56, 29.44, 29.27, 29.18, 25.12, 22.89, 14.33.

HR-MS (ESI-QTOF): $[M+H]^+$ calculated for $C_{44}H_{65}N_2O_4$ *m/z* 685.4939 and found *m/z* 685.4939.



***N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)-1,3-bis((*E*)-3-(trimethylsilyl)allyl)-5,6,7,8-tetrahydronaphthalene-2-carboxamide (Scheme 5, 5t).**

C-H Allylation was carried out following general procedure with (*E*)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-3-(3-(trimethylsilyl)allyl)-5,6,7,8-tetrahydronaphthalene-2-carboxamide (0.25 mmol, 108 mg) and allyltrimethylsilane (0.5 mmol, 79 µL).

Eluent: ethyl acetate/ petroleum ether (1: 99 v/v); R_f = 0.65 (5% EA-PE)

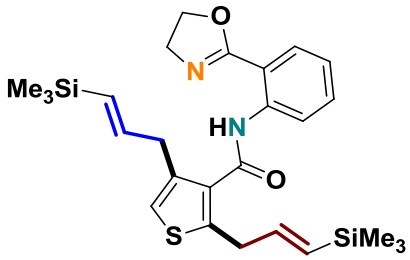
Appearance: White solid.

Isolated yield: 72% (98 mg).

^{1}H NMR (500 MHz, $CDCl_3$) δ 12.19 (s, 1H), 8.99 – 8.93 (m, 1H), 7.89 (dd, *J* = 7.9, 1.6 Hz, 1H), 7.55 – 7.47 (m, 1H), 7.11 (dd, *J* = 11.1, 4.1 Hz, 1H), 6.85 (s, 1H), 6.14 – 6.05 (m, 1H), 6.05 – 5.96 (m, 1H), 5.66 (dd, *J* = 18.4, 1.3 Hz, 1H), 5.58 (d, *J* = 18.5 Hz, 1H), 4.31 (td, *J* = 9.3, 4.0 Hz, 2H), 3.99 (t, *J* = 9.5 Hz, 2H), 3.57 – 3.44 (m, 4H), 2.80 (s, 2H), 2.68 (s, 2H), 1.81 (s, 4H), -0.02 (t, *J* = 2.5 Hz, 9H), -0.07 (t, *J* = 2.7 Hz, 9H).

^{13}C NMR (126 MHz, $CDCl_3$) δ 169.63, 164.50, 145.16, 144.12, 139.85, 138.31, 136.70, 134.61, 134.36, 133.24, 132.71, 131.64, 131.01, 129.42, 128.72, 122.65, 120.27, 113.52, 66.17, 55.18, 40.97, 37.83, 30.46, 26.43, 23.63, 22.93, -1.08, -1.15.

HR-MS (ESI-QTOF): $[M+H]^+$ calculated for $C_{32}H_{45}N_2O_2Si_2$ *m/z* 545.3014 and found *m/z* 545.3011.



***N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2,4-bis((*E*)-3-(trimethylsilyl)allyl)thiophene-3-carboxamide (Scheme 5, 5u).**

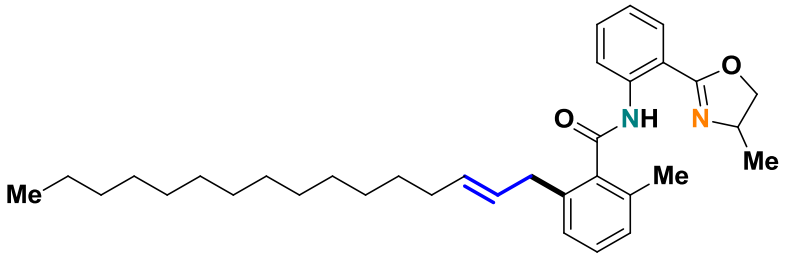
C-H Allylation was carried out following general procedure with (E)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-(3-(trimethylsilyl)allyl)thiophene-3-carboxamide (0.25 mmol, 96 mg) and allyltrimethylsilane (0.5 mmol, 79 µL).

Eluent: ethyl acetate/ petroleum ether (1: 99 v/v); R_f = 0.7 (5% EA-PE)

Appearance: Sticky colorless liquid.

Isolated yield: 74% (92 mg).

^{1}H NMR (500 MHz, $CDCl_3$) δ 12.45 – 12.35 (m, 1H), 8.91 (t, *J* = 9.0 Hz, 1H), 7.89 (dd, *J* = 7.9, 1.4 Hz, 1H), 7.52 – 7.44 (m, 1H), 7.12 – 7.05 (m, 1H), 6.80 (s, 1H), 6.18 – 6.07 (m, 2H), 5.74 (t, *J* = 14.8 Hz, 1H), 5.67 (t, *J* = 13.2 Hz, 1H), 4.39 – 4.29 (m, 2H), 4.05 (t, *J* = 9.5 Hz, 2H), 3.83 (dt, *J* = 18.1, 9.0 Hz, 2H), 3.59 (t, *J* = 9.9 Hz, 2H), 0.00 (d, *J* = 10.9 Hz, 9H), -0.06 (s, 9H).
^{13}C NMR (126 MHz, $CDCl_3$) δ 164.67, 144.09, 143.84, 143.09, 139.93, 139.71, 135.38, 132.83, 132.68, 131.95, 129.33, 122.53, 119.87, 119.71, 113.24, 66.21, 54.83, 37.05, 36.46, -1.23.
HR-MS (ESI-QTOF): $[M+H]^+$ calculated for $C_{26}H_{37}N_2O_2SSi_2$ *m/z* 497.2109 and found *m/z* 497.2107.



(*E*)-2-(hexadec-2-en-1-yl)-6-methyl-N-(2-(4-methyl-4,5-dihydrooxazol-2-yl)phenyl)benzamide (Scheme 5, 5v).

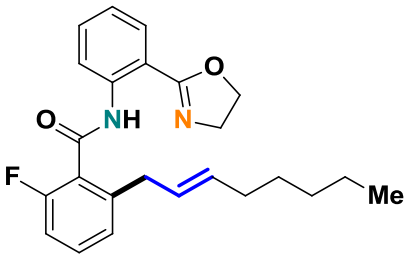
C-H Allylation was carried out following general procedure with 2-methyl-N-(2-(4-methyl-4,5-dihydrooxazol-2-yl)phenyl)benzamide (0.25 mmol, 73 mg) and 1-hexadecene (0.5 mmol, 143 µL).

Eluent: ethyl acetate/ petroleum ether (1: 99 v/v); R_f = 0.6 (5% EA-PE)

Appearance: Sticky colorless liquid.

Isolated yield: 60% (77 mg).

^{1}H NMR (500 MHz, $CDCl_3$) δ 12.37 (s, 1H), 8.93 (d, *J* = 7.9 Hz, 1H), 7.87 (dd, *J* = 7.9, 1.5 Hz, 1H), 7.55 – 7.49 (m, 1H), 7.23 (t, *J* = 7.6 Hz, 1H), 7.15 – 7.07 (m, 3H), 5.56 – 5.48 (m, 1H), 5.48 – 5.41 (m, 1H), 4.39 (dt, *J* = 10.9, 7.3 Hz, 1H), 4.33 – 4.23 (m, 1H), 3.86 (t, *J* = 7.8 Hz, 1H), 3.49 – 3.38 (m, 2H), 2.40 (s, 3H), 1.91 (dd, *J* = 13.3, 6.6 Hz, 2H), 1.23 (d, *J* = 29.5 Hz, 22H), 1.18 (d, *J* = 6.6 Hz, 3H), 0.89 (t, *J* = 6.9 Hz, 3H).
^{13}C NMR (126 MHz, $CDCl_3$) δ 169.22, 163.28, 139.89, 138.25, 137.75, 134.34, 132.72, 132.54, 129.33, 128.95, 128.34, 128.05, 126.89, 122.77, 120.25, 113.69, 72.77, 62.00, 36.79, 32.69, 32.12, 29.90, 29.88, 29.86, 29.81, 29.69, 29.56, 29.42, 22.89, 21.54, 19.73, 14.31.
HR-MS (ESI-QTOF): $[M+Na]^+$ calculated for $C_{34}H_{48}N_2NaO_2$ *m/z* 539.3607 and found *m/z* 539.3607.



(*E*)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-fluoro-6-(oct-2-en-1-yl)benzamide (Scheme 6, 6a).

C-H Allylation was carried out following general procedure with *N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-fluorobenzamide (0.25 mmol, 71 mg), 1-octene (0.5 mmol, 80 µL) and trans-4-octene (0.5 mmol, 78 µL). Selective allylation was observed with 1-octene in 14:1 ratio.

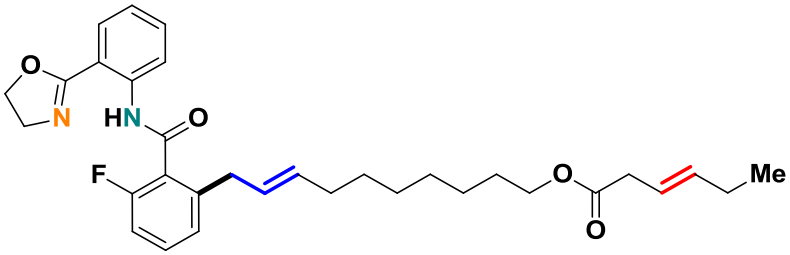
Eluent: ethyl acetate/ petroleum ether (1: 99 v/v); R_f = 0.6 (5% EA-PE)

Appearance: Sticky colorless liquid.

Isolated yield: 60% (58 mg).

^{1}H NMR (400 MHz, $CDCl_3$) δ 12.58 (s, 1H), 8.97 – 8.91 (m, 1H), 7.88 (dd, *J* = 7.9, 1.5 Hz, 1H), 7.55 – 7.49 (m, 1H), 7.35 – 7.28 (m, 1H), 7.13 (td, *J* = 7.9, 1.1 Hz, 1H), 7.08 (d, *J* = 7.6 Hz, 1H), 6.99 (t, *J* = 8.7 Hz, 1H), 5.58 – 5.42 (m, 2H), 4.32 (dd, *J* = 12.9, 6.3 Hz, 2H), 3.99 (t, *J* = 9.5 Hz, 2H), 3.50 (d, *J* = 5.7 Hz, 2H), 1.91 (dd, *J* = 13.0, 6.9 Hz, 2H), 1.28 – 1.18 (m, 6H), 0.83 (t, *J* = 6.9 Hz, 3H).

^{13}C NMR (101 MHz, $CDCl_3$) δ 164.54, 164.06, 160.53, 158.07, 141.54, 141.52, 139.70, 133.12, 132.70, 132.55, 132.03, 130.69, 130.61, 129.36, 127.59, 126.07, 125.89, 125.46, 125.43, 122.96, 120.17, 113.72, 113.67, 113.50, 66.32, 54.85, 36.43, 36.41, 32.63, 31.58, 29.12, 22.64, 14.19.



(*E*)-(*E*)-10-(2-((2-(4,5-dihydrooxazol-2-yl)phenyl)carbamoyl)-3-fluorophenyl)dec-8-en-1-yl hex-3-enoate (Scheme 6, 6b).

C-H Allylation was carried out following general procedure with *N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-fluorobenzamide (0.25 mmol, 71 mg), (*E*)-dec-9-en-1-yl hex-3-enoate (0.5 mmol, 126 µL).

Eluent: ethyl acetate/ petroleum ether (1: 99 v/v); R_f = 0.5 (10% EA-PE)

Appearance: Sticky colorless liquid.

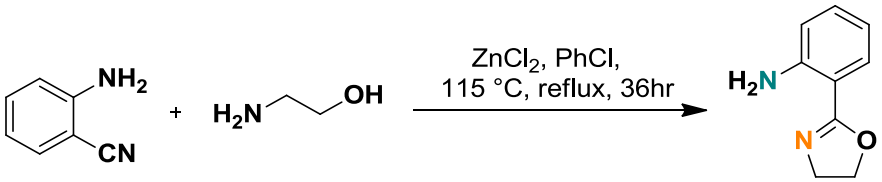
Isolated yield: 41% (55 mg).

^{1}H NMR (500 MHz, $CDCl_3$) δ 12.56 (s, 1H), 8.92 (d, *J* = 8.3 Hz, 1H), 7.87 (dd, *J* = 7.9, 1.5 Hz, 1H), 7.54 – 7.47 (m, 1H), 7.30 (td, *J* = 8.0, 5.9 Hz, 1H), 7.12 (dd, *J* = 11.3, 4.0 Hz, 1H), 7.06 (d, *J* = 7.7 Hz, 1H), 6.98 (t, *J* = 8.7 Hz, 1H), 5.59 (dt, *J* = 15.2, 6.1 Hz, 1H), 5.55 – 5.42 (m, 3H), 4.31 (t, *J* = 9.5 Hz, 2H), 4.04 (t, *J* = 6.8 Hz, 2H), 3.98 (t, *J* = 9.5 Hz, 2H), 3.49 (d, *J* = 6.2 Hz,

2H), 3.04 – 2.96 (m, 2H), 2.07 – 1.99 (m, 2H), 1.90 (dd, *J* = 12.7, 6.2 Hz, 2H), 1.61 – 1.53 (m, 2H), 1.25 (dd, *J* = 22.1, 14.7 Hz, 8H), 1.00 – 0.95 (m, 3H).
^{13}C NMR (126 MHz, $CDCl_3$) δ 172.46, 164.51, 163.99, 160.26, 158.29, 141.49, 141.47, 139.68, 136.35, 132.90, 132.67, 130.67, 130.60, 129.32, 127.71, 126.01, 125.87, 125.43, 125.41, 122.93, 120.83, 120.14, 113.69, 113.64, 113.51, 66.29, 64.81, 54.82, 38.26, 36.40, 32.56, 29.29, 29.16, 29.15, 28.69, 25.92, 25.63, 13.60.
HR-MS (ESI-QTOF): $[M+Na]^+$ calculated for $C_{32}H_{39}FN_2NaO_4$ *m/z* 557.2786 and found *m/z* 557.2785.

Procedures and Characterization Data of synthesized Starting Materials:

Synthesis of directing group 2-(4,5-dihydrooxazol-2-yl)benzenamine.

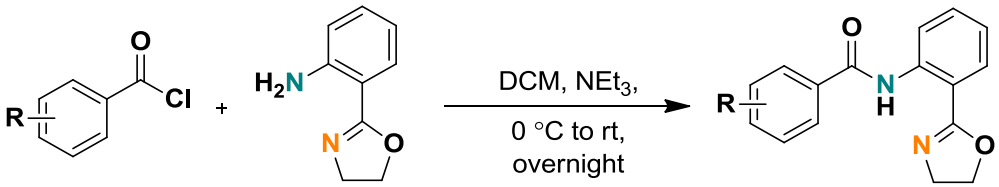


To an oven-dried 250ml round bottom flask charged with a magnetic stir-bar 2-aminobenzonitrile (50.8 mmol, 6 g), ethanol amine (150 mmol, 9 ml), Zinc chloride (4.84 mmol, 660 mg) were added. Chlorobenzene (50 mL) was added as solvent. The reaction mixture was then kept under refluxing condition for 36h at 115˚C with continuous stirring. The reaction mixture was evaporated and the residue was dissolved in ethyl acetate and was treated with saturated $NaHCO_3$ solution, then dried over Na_2SO_4. The solvent is removed by evaporation and the residue was purified by column chromatography on silica gel (eluent: petroleum ether/EtOAc) to give the desired directing group as the product.
^{1}H NMR (400 MHz, $CDCl_3$) δ 7.71 (dd, *J* = 7.9, 1.6 Hz, 1H), 7.20 (ddd, *J* = 8.5, 7.2, 1.6 Hz, 1H), 6.72 – 6.63 (m, 2H), 6.06 (s, 2H), 4.34 – 4.28 (m, 2H), 4.13 – 4.06 (m, 2H).
^{13}C NMR (101 MHz, $CDCl_3$) δ 164.99, 148.64, 132.13, 129.79, 116.19, 115.82, 109.32, 65.90, 55.13.

Synthesis of *N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)benzamide.

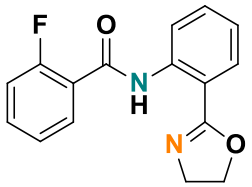
All amides bearing 2-(4,5-dihydrooxazol-2-yl)benzenamine moiety were prepared from the reaction between the corresponding acid chlorides and 2-(4,5-dihydrooxazol-2-yl)benzenamine. The amide preparation procedure and spectroscopic data are given bellow.

General procedure (GP1)



To an oven dried screw cap reaction tube charged with magnetic star-bar 2-(4,5-dihydrooxazol-2-yl)benzenamine (1.5 mmol, 243 mg), Et_3N (3.45 mmol, 0.480 mL) and DCM

(10 mL) were added under N_2 atmosphere. Benzoyl chloride (1.15 mmol, 0.134 mL) was then added to the reaction mixture drop wise under ice cold condition and was stirred overnight under room temperature. It was then treated with water and extracted with DCM. The organic layer was dried over anhydrous Na_2SO_4 and solvent is removed by evaporation under reduced pressure. The residue was purified with column chromatography on silica gel (eluent: Petroleum ether/EtOAc) to give the desired amides.

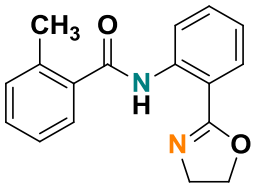


2-fluoro-*N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)benzamide.

Following GP1, 2-fluoro-*N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)benzamide was synthesized from 2-fluorobenzoyl chloride (1.15 mmol, 0.137 mL) and 2-(4,5-dihydrooxazol-2-yl)benzenamine (1.5 mmol, 243 mg). Purification by column chromatography on silica gel (eluent: Petroleum ether/EtOAc) gave 2-fluoro-*N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)benzamide (0.87 mmol, 248 mg) with 76% yield.

^{1}H NMR (500 MHz, $CDCl_3$) δ 12.80 (s, 1H), 8.92 (d, *J* = 8.4 Hz, 1H), 7.95 (td, *J* = 7.6, 1.2 Hz, 1H), 7.89 (d, *J* = 7.9 Hz, 1H), 7.55 – 7.45 (m, 2H), 7.26 (t, *J* = 7.6 Hz, 1H), 7.20 – 7.11 (m, 2H), 4.38 (t, *J* = 9.4 Hz, 2H), 4.11 (t, *J* = 9.6 Hz, 2H).

^{13}C NMR (126 MHz, $CDCl_3$) δ 164.51, 163.21, 161.28, 159.27, 139.86, 133.14, 133.07, 132.63, 131.33, 129.41, 124.62, 124.59, 123.00, 120.71, 116.73, 116.55, 114.24, 66.47, 54.90.

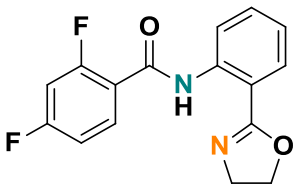


***N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-methylbenzamide.**

Following GP1, N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-methylbenzamide was synthesized from 2-methylbenzoyl chloride (1.15 mmol, 0.152 mL) and 2-(4,5-dihydrooxazol-2-yl)benzenamine (1.5 mmol, 243 mg). Purification by column chromatography on silica gel (eluent: Petroleum ether/EtOAc) gave N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-methylbenzamide (0.84 mmol, 236 mg) with 74% yield.

^{1}H NMR (500 MHz, $CDCl_3$) δ 12.57 (s, 1H), 8.93 (d, *J* = 8.4 Hz, 1H), 7.87 (d, *J* = 7.9 Hz, 1H), 7.63 – 7.59 (m, 1H), 7.49 (t, *J* = 7.9 Hz, 1H), 7.33 (d, *J* = 7.5 Hz, 1H), 7.25 (d, *J* = 5.1 Hz, 2H), 7.09 (t, *J* = 7.6 Hz, 1H), 4.32 (td, *J* = 9.4, 3.8 Hz, 2H), 4.02 (dd, *J* = 12.5, 6.4 Hz, 2H), 2.55 (s, 3H).

^{13}C NMR (126 MHz, $CDCl_3$) δ 168.88, 164.79, 140.31, 137.35, 136.92, 132.75, 131.54, 130.31, 129.42, 127.72, 125.95, 122.62, 119.90, 113.64, 77.48, 77.23, 76.97, 66.35, 54.86, 20.54.

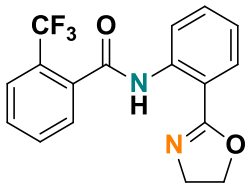


2,4-difluoro-*N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)benzamide.

Following GP1, 2,4-difluoro-*N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)benzamide was synthesized from 2,4-difluorobenzoyl chloride (1.15 mmol, 0.141 mL) and 2-(4,5-dihydrooxazol-2-yl)benzenamine (1.5 mmol, 243 mg). Purification by column chromatography on silica gel (eluent: Petroleum ether/EtOAc) gave 2,4-difluoro-*N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)benzamide (0.77 mmol, 232mg) with 67% yield.

^{1}H NMR (500 MHz, $CDCl_3$) δ 12.80 (s, 1H), 8.90 – 8.84 (m, 1H), 7.99 (td, *J* = 8.6, 6.6 Hz, 1H), 7.89 (dd, *J* = 7.9, 1.6 Hz, 1H), 7.55 – 7.48 (m, 1H), 7.13 (td, *J* = 7.8, 0.9 Hz, 1H), 6.99 (ddd, *J* = 9.2, 5.3, 1.4 Hz, 1H), 6.91 (ddd, *J* = 11.0, 8.7, 2.4 Hz, 1H), 4.38 (t, *J* = 9.5 Hz, 2H), 4.11 (t, *J* = 9.5 Hz, 2H).

^{13}C NMR (126 MHz, $CDCl_3$) δ 165.95, 165.85, 164.56, 163.92, 162.19, 161.80, 159.87, 139.76, 133.13, 133.10, 133.05, 133.02, 132.64, 129.44, 123.10, 120.73, 114.25, 112.22, 112.05, 105.02, 104.82, 104.61, 77.48, 77.23, 76.98, 66.50, 54.86.

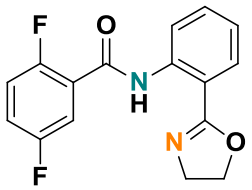


2-(trifluoromethyl)-*N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)benzamide.

Following GP1, 2-(trifluoromethyl)-*N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)benzamide was synthesized from 2-(trifluoromethyl)benzoyl chloride (1.15 mmol, 0.169 mL) and 2-(4,5-dihydrooxazol-2-yl)benzenamine (1.5 mmol, 243 mg). Purification by column chromatography on silica gel (eluent: Petroleum ether/EtOAc) gave 2-(trifluoromethyl)-*N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)benzamide (0.72 mmol, 242 mg) with 63% yield.

^{1}H NMR (500 MHz, $CDCl_3$) δ 12.68 (s, 1H), 8.89 (d, *J* = 8.4 Hz, 1H), 7.89 (d, *J* = 7.9 Hz, 1H), 7.76 (d, *J* = 7.8 Hz, 1H), 7.69 (d, *J* = 7.5 Hz, 1H), 7.63 (t, *J* = 7.5 Hz, 1H), 7.57 (t, *J* = 7.5 Hz, 1H), 7.52 (t, *J* = 7.9 Hz, 1H), 7.14 (t, *J* = 7.6 Hz, 1H), 4.38 – 4.28 (m, 2H), 3.98 (t, *J* = 9.5 Hz, 2H).

^{13}C NMR (126 MHz, $CDCl_3$) δ 166.61, 164.72, 139.81, 136.80, 132.82, 132.12, 130.12, 129.38, 128.48, 127.93, 127.02, 126.98, 126.94, 126.90, 124.91, 123.15, 122.74, 120.17, 113.81, 77.48, 77.23, 76.98, 66.41, 54.76.

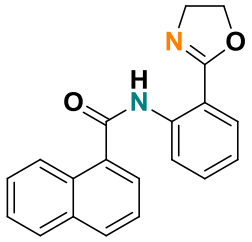


2,5-difluoro-*N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)benzamide.

Following GP1, 2,5-difluoro-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)benzamide was synthesized from 2,5-difluorobenzoyl chloride (1.15 mmol, 0.140 mL) and 2-(4,5-dihydrooxazol-2-yl)benzenamine (1.5 mmol, 243mg). Purification by column chromatography on silica gel (eluent: Petroleum ether/EtOAc) gave 2,5-difluoro-N-(2-(4,5-dihydrooxazol-2-yl)phenyl) benzamide with (0.79 mmol, 240 mg) with 69% yield.

^{1}H NMR (500 MHz, $CDCl_3$) δ 12.86 (s, 1H), 8.87 (d, *J* = 8.5 Hz, 1H), 7.89 (dd, *J* = 7.9, 1.5 Hz, 1H), 7.65 (ddd, *J* = 8.5, 5.4, 3.0 Hz, 1H), 7.53 – 7.48 (m, 1H), 7.19 – 7.11 (m, 3H), 4.38 (t, *J* = 9.4 Hz, 2H), 4.11 (dd, *J* = 17.5, 7.8 Hz, 2H).

^{13}C NMR (126 MHz, $CDCl_3$) δ 164.53, 161.83, 159.76, 159.74, 157.82, 157.81, 157.22, 157.20, 155.25, 155.23, 139.58, 132.67, 129.45, 125.52, 125.47, 125.40, 125.34, 123.28, 120.76, 119.86, 119.79, 119.67, 119.60, 118.14, 118.07, 117.93, 117.86, 117.75, 117.72, 117.54, 117.52, 114.34, 66.53, 54.85.

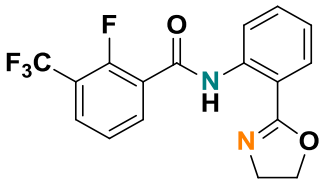


***N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)-1-naphthamide.**

Following GP1, *N*-(3-(4,5-dihydrooxazol-2-yl)phenyl)-1-naphthamide was synthesized from 1-naphthoyl chloride (1.15 mmol, 0.173 mL) and 2-(4,5-dihydrooxazol-2-yl)benzenamine (1.5 mmol, 243mg). Purification by column chromatography on silica gel (eluent: Petroleum ether/EtOAc) gave *N*-(3-(4,5-dihydrooxazol-2-yl)phenyl)-1-naphthamide (0.8 mmol, 253 mg) with 70% yield.

^{1}H NMR (500 MHz, $CDCl_3$) δ 12.87 (s, 1H), 9.07 (d, *J* = 8.4 Hz, 1H), 8.59 (d, *J* = 8.0 Hz, 1H), 7.97 (d, *J* = 8.2 Hz, 1H), 7.93 – 7.86 (m, 3H), 7.61 – 7.51 (m, 4H), 7.16 (t, *J* = 7.6 Hz, 1H), 4.32 (t, *J* = 9.5 Hz, 2H), 3.96 (t, *J* = 9.4 Hz, 2H).

^{13}C NMR (126 MHz, $CDCl_3$) δ 168.44, 164.75, 140.37, 134.99, 134.08, 132.79, 131.23, 130.74, 129.45, 128.43, 127.21, 126.53, 126.04, 124.95, 122.80, 120.07, 113.78, 77.48, 77.23, 76.98, 66.36, 54.78.

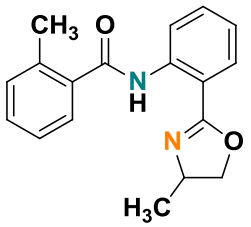


2-fluoro-3-(trifluoromethyl)-*N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)benzamide.

Following GP1, 2-fluoro-3-(trifluoromethyl)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)benzamide was synthesized from 2-fluoro-3-(trifluoromethyl)benzoyl chloride (1.15 mmol, 0.172 mL) and 2-(4,5-dihydrooxazol-2-yl)benzenamine (1.5 mmol, 2.43 mg). Purification by column chromatography on silica gel (eluent: Petroleum ether/EtOAc) gave 2-fluoro-3-(trifluoromethyl)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)benzamide (0.88 mmol, 310 mg) with 76% yield.

^{1}H NMR (500 MHz, $CDCl_3$) δ 13.04 (s, 1H), 8.84 (d, *J* = 0.6 Hz, 1H), 8.11 – 8.08 (m, 1H), 7.87 (dd, *J* = 7.9, 1.6 Hz, 1H), 7.73 (dd, *J* = 10.4, 3.8 Hz, 1H), 7.53 – 7.48 (m, 1H), 7.34 (t, *J* = 7.8 Hz, 1H), 7.13 (td, *J* = 7.9, 1.1 Hz, 1H), 4.36 (t, *J* = 9.6 Hz, 3H), 4.07 (dd, *J* = 11.8, 7.2 Hz, 2H).

^{13}C NMR (126 MHz, $CDCl_3$) δ 164.59, 161.68, 139.55, 135.25, 132.76, 129.97, 129.45, 125.99, 124.51, 124.47, 123.38, 120.51, 114.23, 77.48, 77.23, 76.98, 66.60, 54.61.

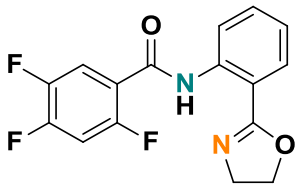


***N*-(2-(4,5-dihydro-4-methyloxazol-2-yl)phenyl)-2-methylbenzamide.**

Following GP1, *N*-(2-(4,5-dihydro-4-methyloxazol-2-yl)phenyl)-2-methylbenzamide was synthesized from 2-methylbenzoyl chloride (1.15 mmol, 0.150 mL) and 2-(4-methyl-4,5-dihydrooxazol-2-yl)aniline (1.5 mmol, 264 mg). Purification by column chromatography on silica gel (eluent: Petroleum ether/EtOAc) gave *N*-(2-(4,5-dihydro-4-methyloxazol-2-yl)phenyl)-2-methylbenzamide (80 mmol, 237 mg) with 70% yield.

^{1}H NMR (500 MHz, $CDCl_3$) δ 12.72 (s, 1H), 8.96 (dd, *J* = 8.4, 0.7 Hz, 1H), 7.88 (dd, *J* = 7.9, 1.4 Hz, 1H), 7.67 (d, *J* = 7.8 Hz, 1H), 7.54 – 7.49 (m, 1H), 7.39 – 7.33 (m, 1H), 7.28 (d, *J* = 8.3 Hz, 2H), 7.14 – 7.09 (m, 1H), 4.45 (dd, *J* = 9.1, 7.8 Hz, 1H), 4.39 – 4.35 (m, 1H), 3.89 (t, *J* = 7.8 Hz, 1H), 2.59 (s, 3H), 1.30 (d, *J* = 6.5 Hz, 3H).

^{13}C NMR (126 MHz, $CDCl_3$) δ 168.81, 163.52, 140.38, 137.55, 136.77, 132.74, 131.56, 130.35, 129.33, 127.77, 125.78, 122.58, 119.80, 113.63, 77.48, 77.23, 76.98, 72.84, 62.04, 21.58, 20.60.

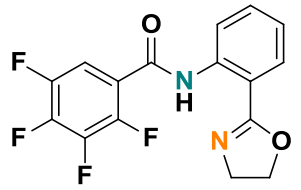


2,4,5-trifluoro-*N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)benzamide.

Following GP2, 2,4,5-trifluoro-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)benzamide was synthesized from 2,4,5-trifluorobenzoyl chloride (1.15 mmol, 0.147 mL) and 2-(4,5-dihydrooxazol-2-yl)benzenamine (1.5 mmol, 243 mg). Purification by column chromatography on silica gel (eluent: Petroleum ether/EtOAc) gave 2,4,5-trifluoro-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)benzamide (0.72 mmol, 229 mg) with 62% yield.

^{1}H NMR (500 MHz, $CDCl_3$) δ 12.89 (s, 1H), 8.84 (dd, *J* = 8.4, 0.7 Hz, 1H), 7.89 (dd, *J* = 7.9, 1.6 Hz, 1H), 7.83 (ddd, *J* = 10.4, 8.9, 6.7 Hz, 1H), 7.54 – 7.48 (m, 1H), 7.17 – 7.12 (m, 1H), 7.04 (td, *J* = 9.8, 6.2 Hz, 1H), 4.39 (t, *J* = 9.6 Hz, 2H), 4.12 (t, *J* = 9.5 Hz, 2H).

^{13}C NMR (126 MHz, $CDCl_3$) δ 164.55, 160.92, 156.72, 156.64, 154.72, 153.12, 151.29, 148.15, 146.21, 139.47, 132.70, 129.47, 123.38, 120.75, 119.63, 119.61, 119.59, 119.58, 119.46, 119.45, 119.43, 119.42, 114.32, 106.88, 106.71, 106.65, 106.48, 66.54, 54.82.

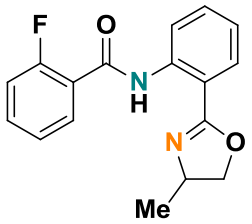


2,3,4,5-tetrafluoro-*N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)benzamide.

Following GP1, 2,3,4,5-tetrafluoro-*N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)benzamide was synthesized from 2,3,4,5-tetrafluorobenzoyl chloride (1.15 mmol, 0.155 mL) and 2-(4,5-dihydrooxazol-2-yl)benzenamine (1.5 mmol, 243 mg). Purification by column chromatography on silica gel (eluent: Petroleum ether/EtOAc) gave 2,3,4,5-tetrafluoro-*N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)benzamide (0.72 mmol, 244 mg) with 63% yield.

^{1}H NMR (500 MHz, $CDCl_3$) δ 13.01 (s, 1H), 8.82 (dd, *J* = 8.5, 0.8 Hz, 1H), 7.91 (dd, *J* = 7.9, 1.6 Hz, 1H), 7.63 (dddd, *J* = 10.5, 8.4, 6.0, 2.5 Hz, 1H), 7.55 – 7.49 (m, 1H), 7.17 (td, *J* = 7.8, 1.1 Hz, 1H), 4.41 (dd, *J* = 14.4, 4.9 Hz, 2H), 4.13 (t, *J* = 9.5 Hz, 2H).

^{13}C NMR (126 MHz, $CDCl_3$) δ 164.63, 159.97, 139.30, 132.79, 129.51, 123.64, 120.71, 114.33, 112.58, 77.48, 77.23, 76.98, 66.62, 54.78.

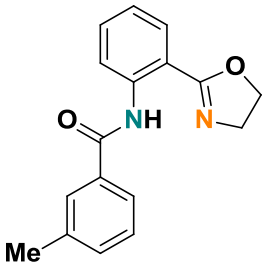


2-fluoro-N-(2-(4-methyl-4,5-dihydrooxazol-2-yl)phenyl)benzamide.

Following GP1, 2-fluoro-N-(2-(4-methyl-4,5-dihydrooxazol-2-yl)phenyl)benzamide was synthesized from 2-fluorobenzoyl chloride (1.15 mmol, 0.137 mL) and 2-(4-methyl-4,5-dihydrooxazol-2-yl)aniline (1.5 mmol, 264 mg). Purification by column chromatography on silica gel (eluent: Petroleum ether/EtOAc) gave 2-fluoro-N-(2-(4-methyl-4,5-dihydrooxazol-2-yl)phenyl)benzamide (230 mg) in 67% yield.

^{1}H NMR (500 MHz, $CDCl_3$) δ 12.92 (s, 1H), 8.93 (d, *J* = 8.4 Hz, 1H), 7.96 (t, *J* = 7.0 Hz, 1H), 7.90 – 7.85 (m, 1H), 7.55 – 7.45 (m, 2H), 7.26 (s, 1H), 7.15 (dt, *J* = 15.1, 9.0 Hz, 2H), 4.49 – 4.39 (m, 2H), 3.90 (t, *J* = 6.5 Hz, 1H), 1.34 (d, *J* = 5.4 Hz, 3H).

^{13}C NMR (126 MHz, $CDCl_3$) δ 163.21, 163.17, 161.28, 159.27, 139.95, 133.16, 133.09, 132.63, 131.30, 129.35, 124.53, 124.51, 124.32, 124.22, 122.96, 120.59, 116.66, 116.48, 114.15, 72.96, 62.16, 21.51.

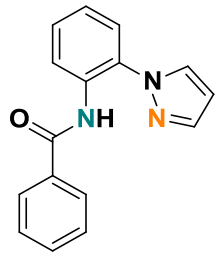


***N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)-3-methylbenzamide.**

Following GP1, *N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)-3-methylbenzamide was synthesized from 3-methylbenzoyl chloride (1.15 mmol, 0.151 mL) and 2-(4,5-dihydrooxazol-2-yl)benzenamine (1.5 mmol, 243 mg). Purification by column chromatography on silica gel (eluent: Petroleum ether/EtOAc) gave *N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)-3-methylbenzamide (193 mg) in 60% yield.

^{1}H NMR (400 MHz, $CDCl_3$) δ 13.00 (s, 1H), 8.98 (d, *J* = 8.5 Hz, 1H), 7.95 – 7.85 (m, 3H), 7.51 (t, *J* = 7.9 Hz, 1H), 7.40 – 7.32 (m, 2H), 7.10 (t, *J* = 7.6 Hz, 1H), 4.39 (t, *J* = 9.3 Hz, 2H), 4.18 (t, *J* = 9.6 Hz, 2H), 2.44 (s, 3H).

^{13}C NMR (101 MHz, $CDCl_3$) δ 166.43, 165.08, 140.43, 138.44, 135.44, 132.79, 132.54, 129.44, 128.77, 128.61, 124.89, 122.47, 119.99, 113.67, 66.41, 54.77, 21.64.

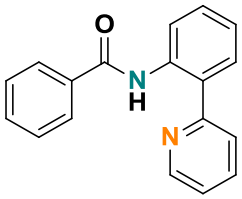


***N*-(2-(1H-pyrazol-1-yl)phenyl)benzamide.**

Following GP1, *N*-(2-(1H-pyrazol-1-yl)phenyl)benzamide was synthesized in 60% isolated yield.

^{1}H NMR (500 MHz, $CDCl_3$) δ 11.29 (d, *J* = 43.4 Hz, 1H), 8.75 – 8.69 (m, 1H), 7.98 – 7.92 (m, 2H), 7.89 – 7.83 (m, 2H), 7.56 – 7.51 (m, 1H), 7.48 (t, *J* = 7.5 Hz, 2H), 7.41 (t, *J* = 7.5 Hz, 1H), 7.37 (d, *J* = 7.6 Hz, 1H), 7.19 (dd, *J* = 10.0, 4.4 Hz, 1H), 6.51 (s, 1H).

^{13}C NMR (126 MHz, $CDCl_3$) δ 165.48, 141.29, 135.01, 131.97, 130.43, 129.27, 128.84, 128.23, 127.45, 124.19, 123.08, 122.34, 107.45.



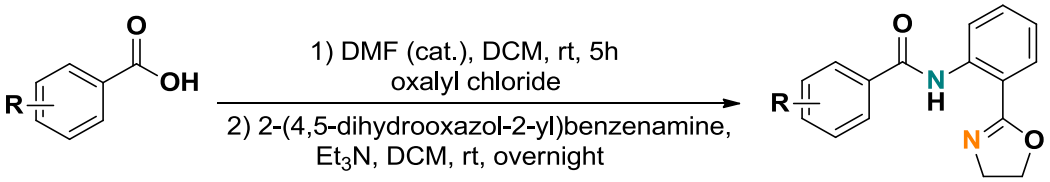
***N*-(2-(pyridin-2-yl)phenyl)benzamide.**

Following GP1, *N*-(2-(pyridin-2-yl)phenyl)benzamide was synthesized in 67% isolated yield.

^{1}H NMR (500 MHz, $CDCl_3$) δ 13.32 (s, 1H), 8.80 (dd, *J* = 8.3, 0.8 Hz, 1H), 8.67 (d, *J* = 4.6 Hz, 1H), 8.06 – 8.02 (m, 2H), 7.87 – 7.82 (m, 1H), 7.80 (d, *J* = 8.1 Hz, 1H), 7.73 (dd, *J* = 7.9, 1.4 Hz, 1H), 7.55 – 7.46 (m, 4H), 7.28 (ddd, *J* = 7.2, 4.9, 1.1 Hz, 1H), 7.23 – 7.18 (m, 1H).

^{13}C NMR (126 MHz, $CDCl_3$) δ 165.74, 158.49, 147.47, 138.29, 138.05, 135.92, 131.70, 130.44, 128.95, 128.79, 127.55, 125.74, 123.75, 123.17, 122.18, 122.09.

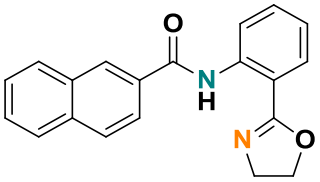
General procedure (GP2).



To an oven-dried screw cap reaction tube charged with a magnetic stir-bar benzoic acid (1.15 mmol), DMF (3 drops) and DCM (10 mL) were added under N_2 atmosphere. Oxalyl chloride was added drop wise under ice cold condition. The ice bath was removed and the reaction mixture was stirred overnight at room temperature.

Another oven-dried screw cap reaction tube charged with a magnetic stir-bar was added 2-(4,5-dihydrooxazol-2-yl)benzenamine (1.5 mmol, 243 mg), Et_3N (3.45 mmol, 0.480 mL) and DCM

(10 mL) under N_2 atmosphere. To this, a solution of acid chloride in DCM was added drop wise under ice cold condition and was stirred overnight at room temperature. It is then treated with water and extracted with DCM. The organic layer was dried over anhydrous Na_2SO_4 and the solvent is removed by evaporation and the residue was purified by column chromatography on silica gel (eluent: Petroleum ether/EtOAc) to give the desired amides.

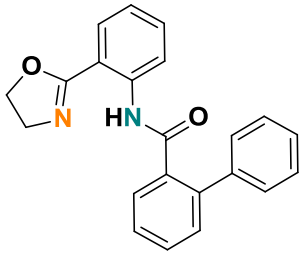


***N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-naphthamide.**

Following GP2, *N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-naphthamide was synthesized from 2-naphthoic acid (1.15 mmol, 198 mg) and 2-(4,5-dihydrooxazol-2-yl)benzenamine (1.5 mmol, 243 mg). Purification by column chromatography on silica gel (eluent: Petroleum ether/EtOAc) gave *N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-naphthamide (0.82 mmol, 258 mg) with 71% yield.

^{1}H NMR (500 MHz, $CDCl_3$) δ 13.21 (s, 1H), 9.02 (dd, *J* = 8.4, 0.8 Hz, 1H), 8.63 (d, *J* = 1.0 Hz, 1H), 8.16 (dd, *J* = 8.6, 1.8 Hz, 1H), 7.98 – 7.87 (m, 5H), 7.60 – 7.52 (m, 4H), 7.12 (td, *J* = 7.9, 1.0 Hz, 1H), 4.42 (dd, *J* = 10.1, 9.3 Hz, 2H), 4.22 (t, *J* = 9.2 Hz, 2H).

^{13}C NMR (126 MHz, $CDCl_3$) δ 166.31, 165.20, 140.45, 135.07, 132.91, 132.89, 132.73, 129.51, 129.43, 128.84, 128.55, 127.94, 127.90, 126.79, 124.37, 122.61, 120.06, 113.73, 77.48, 77.23, 76.98, 66.47, 54.82.

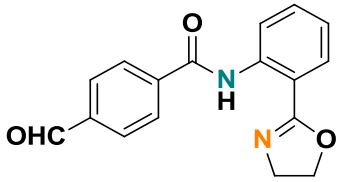


***N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-phenylbenzamide.**

Following GP2, *N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-phenylbenzamide was synthesized from 2-phenylbenzoic acid (1.15 mmol, 223 mg) and 2-(4,5-dihydrooxazol-2-yl)benzenamine (1.5 mmol, 243 mg). Purification by column chromatography on silica gel (eluent: Petroleum ether/EtOAc) gave *N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-phenylbenzamide (0.58 mmol, 199 mg) with 52% yield.

^{1}H NMR (500 MHz, $CDCl_3$) δ 12.24 (s, 1H), 8.82 (d, *J* = 8.3 Hz, 1H), 7.76 (t, *J* = 7.0 Hz, 2H), 7.53 (t, *J* = 7.5 Hz, 1H), 7.45 (dd, *J* = 13.4, 9.1 Hz, 5H), 7.30 (t, *J* = 7.0 Hz, 2H), 7.26 (d, *J* = 0.9 Hz, 1H), 7.05 (t, *J* = 7.6 Hz, 1H), 4.26 (t, *J* = 9.5 Hz, 2H), 3.93 (t, *J* = 9.4 Hz, 2H).

^{13}C NMR (126 MHz, $CDCl_3$) δ 169.05, 164.26, 140.63, 140.38, 140.03, 137.25, 132.64, 130.78, 130.41, 129.19, 129.01, 128.34, 127.63, 127.58, 122.57, 122.14, 119.94, 113.55, 77.51, 77.26, 77.01, 66.25, 54.79.

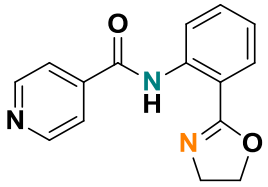


4-formyl-*N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)benzamide.

Following GP2, 4-formyl-*N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)benzamide was synthesized from 4-formylbenzoic acid (1.15 mmol, 173 mg) and 2-(4,5-dihydrooxazol-2-yl)benzenamine (1.5 mmol, 243 mg). Purification by column chromatography on silica gel (eluent: Petroleum ether/EtOAc) gave 4-formyl-*N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)benzamide (0.82 mmol, 241 mg) with 71% yield.

^{1}H NMR (500 MHz, $CDCl_3$) δ 13.21 (s, 1H), 10.12 (s, 1H), 8.96 – 8.93 (m, 1H), 8.24 (d, *J* = 8.3 Hz, 2H), 8.03 – 8.00 (m, 2H), 7.93 (dd, *J* = 7.9, 1.5 Hz, 1H), 7.56 – 7.52 (m, 1H), 7.17 – 7.13 (m, 1H), 4.44 (t, *J* = 9.4 Hz, 3H), 4.21 (t, *J* = 9.6 Hz, 3H).

^{13}C NMR (126 MHz, $CDCl_3$) δ 191.92, 165.33, 165.04, 140.75, 140.03, 138.48, 133.02, 130.07, 129.61, 128.61, 123.14, 120.16, 113.92, 77.48, 77.23, 76.98, 66.59, 54.84.

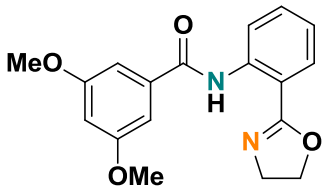


***N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)isonicotinamide.**

Following GP2, *N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)isonicotinamide was synthesized from isonicotinic acid (1.15 mmol, 142mg) and 2-(4,5-dihydrooxazol-2-yl)benzenamine (1.5 mmol, 243 mg). Purification by column chromatography on silica gel (eluent: Petroleum ether/EtOAc) gave N-(2-(4,5-dihydrooxazol-2-yl)phenyl)isonicotinamide (0.80 mmol, 215 mg) with 70% yield.

^{1}H NMR (500 MHz, $CDCl_3$) δ 13.24 (s, 1H), 8.91 (d, *J* = 8.5 Hz, 1H), 8.83 – 8.77 (m, 2H), 7.91 (dd, *J* = 6.2, 1.6 Hz, 3H), 7.53 (t, *J* = 7.9 Hz, 1H), 7.17 – 7.13 (m, 1H), 4.43 (td, *J* = 9.5, 1.5 Hz, 2H), 4.23 – 4.18 (m, 2H).

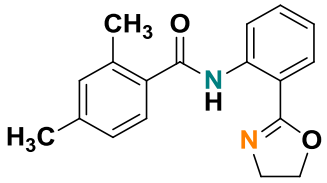
^{13}C NMR (126 MHz, $CDCl_3$) δ 165.26, 164.10, 150.79, 142.55, 139.70, 132.99, 129.59, 123.32, 121.61, 120.15, 113.93, 77.48, 77.23, 76.98, 66.59, 54.79.



***N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)-3,5-dimethoxybenzamide.**

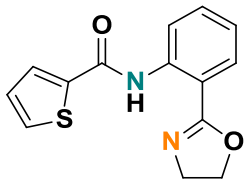
Following GP2, *N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)-3,5-dimethoxybenzamide was synthesized from 3,5-dimethoxybenzoic acid (1.15 mmol, 209 mg) and 2-(4,5-dihydrooxazol-2-yl)benzamine (1.5 mmol, 243 mg). Purification by column chromatography on silica gel (eluent: Petroleum ether/EtOAc) gave *N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)-3,5-dimethoxybenzamide (0.80 mmol, 262 mg) with 70% yield.

^{1}H NMR (500 MHz, $CDCl_3$) δ 12.99 (s, 1H), 8.96 (d, *J* = 8.4 Hz, 1H), 7.91 (dd, *J* = 7.9, 1.4 Hz, 1H), 7.54 – 7.50 (m, 1H), 7.28 (d, *J* = 2.2 Hz, 2H), 7.11 (dd, *J* = 11.3, 3.9 Hz, 1H), 6.63 (t, *J* = 2.1 Hz, 1H), 4.42 (t, *J* = 9.5 Hz, 2H), 4.20 (t, *J* = 9.5 Hz, 2H), 3.87 (s, 7H).
^{13}C NMR (126 MHz, $CDCl_3$) δ 165.93, 165.26, 161.07, 140.36, 137.60, 132.96, 129.54, 122.66, 120.02, 113.71, 105.63, 104.92, 77.48, 77.23, 76.98, 66.46, 55.74, 54.89.



***N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2,4-dimethylbenzamide.**

Following GP2, *N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2,4-dimethylbenzamide was synthesized from 2,4-dimethylbenzoic acid (1.15 mmol, 172 mg) and 2-(4,5-dihydrooxazol-2-yl)benzamine (1.5 mmol, 243 mg). Purification by column chromatography on silica gel (eluent: Petroleum ether/EtOAc) gave *N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2,4-dimethylbenzamide (0.82 mmol, 240 mg) with 71% yield.
^{1}H NMR (500 MHz, $CDCl_3$) δ 12.55 (s, 1H), 8.93 (d, *J* = 8.4 Hz, 1H), 7.89 (dd, *J* = 7.9, 1.4 Hz, 1H), 7.55 (d, *J* = 7.6 Hz, 1H), 7.53 – 7.49 (m, 1H), 7.12 – 7.05 (m, 3H), 4.36 (t, *J* = 9.5 Hz, 2H), 4.06 (t, *J* = 9.5 Hz, 2H), 2.54 (s, 3H), 2.37 (s, 3H).
^{13}C NMR (126 MHz, $CDCl_3$) δ 168.95, 164.83, 140.49, 140.45, 137.60, 133.99, 132.76, 132.43, 129.43, 127.93, 126.62, 122.50, 119.91, 113.60, 77.48, 77.23, 76.98, 66.36, 54.91, 21.50, 20.61.

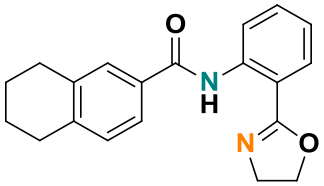


***N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)thiophene-2-carboxamide.**

Following GP2, *N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)thiophene-2-carboxamide was synthesized from thiophene-2-carboxylic acid (1.15 mmol, 147 mg) and 2-(4,5-dihydrooxazol-2-yl)benzamine (1.5 mmol, 243 mg). Purification by column chromatography on silica gel (eluent: Petroleum ether/EtOAc) gave *N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)thiophene-2-carboxamide (0.82 mmol, 222 mg) with 71% yield.

^{1}H NMR (500 MHz, $CDCl_3$) δ 13.07 (s, 1H), 8.85 (d, *J* = 8.4 Hz, 1H), 7.88 (dd, *J* = 7.9, 1.1 Hz, 1H), 7.79 (dd, *J* = 3.7, 1.0 Hz, 1H), 7.54 (dd, *J* = 5.0, 0.9 Hz, 1H), 7.52 – 7.47 (m, 1H), 7.13 (dd, *J* = 4.9, 3.8 Hz, 1H), 7.11 – 7.06 (m, 1H), 4.42 (dd, *J* = 14.3, 5.0 Hz, 2H), 4.21 (dd, *J* = 14.4, 5.1 Hz, 2H).

^{13}C NMR (126 MHz, $CDCl_3$) δ 165.17, 160.93, 141.31, 140.15, 132.88, 131.11, 129.46, 128.72, 127.96, 122.54, 119.86, 113.39, 77.48, 77.23, 76.98, 66.49, 54.81.

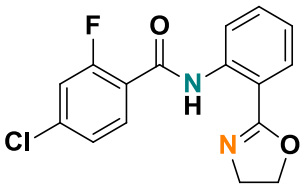


5,6,7,8-tetrahydro-*N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)naphthalene-2-carboxamide.

Following GP2, 5,6,7,8-tetrahydro-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)naphthalene-2-carboxamide was synthesized from 5,6,7,8-tetrahydronaphthalene-2-carboxylic acid (1.15 mmol, 202mg) and 2-(4,5-dihydrooxazol-2-yl)benzamine (1.5 mmol, 243 mg). Purification by column chromatography on silica gel (eluent: Petroleum ether/EtOAc) gave 5,6,7,8-tetrahydro-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)naphthalene-2-carboxamide (0.77 mmol, 246 mg) with 67% yield.

^{1}H NMR (500 MHz, $CDCl_3$) δ 12.94 (s, 1H), 8.97 (d, *J* = 8.4 Hz, 1H), 7.89 (dd, *J* = 7.9, 1.1 Hz, 1H), 7.80 (dd, *J* = 13.1, 5.2 Hz, 2H), 7.55 – 7.47 (m, 1H), 7.54 – 7.48 (m, 1H), 7.17 (d, *J* = 7.9 Hz, 1H), 7.10 (dd, *J* = 11.2, 4.0 Hz, 1H), 4.45 – 4.36 (m, 2H), 4.19 (t, *J* = 9.2 Hz, 2H), 2.89 – 2.79 (m, 4H), 1.83 (dt, *J* = 6.2, 3.1 Hz, 4H).

^{13}C NMR (126 MHz, $CDCl_3$) δ 166.57, 165.11, 141.57, 140.58, 137.56, 132.82, 132.68, 129.51, 129.44, 128.99, 124.82, 122.34, 120.00, 113.62, 77.48, 77.23, 76.98, 66.42, 54.82, 29.67, 23.24, 23.16.

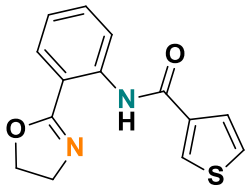


4-chloro-2-fluoro-*N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)benzamide.

Following GP2, 4-chloro-2-fluoro-*N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)benzamide was synthesized from 4-chloro-2-fluorobenzoic acid (1.15 mmol, 200 mg) and 2-(4,5-dihydrooxazol-2-yl)benzamine (1.5 mmol, 243 mg). Purification by column chromatography on silica gel (eluent: Petroleum ether/EtOAc) gave 4-chloro-2-fluoro-*N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)benzamide (0.70 mmol, 223 mg) with 61% yield.

^{1}H NMR (500 MHz, $CDCl_3$) δ 12.84 (s, 1H), 8.87 (dd, *J* = 8.5, 0.7 Hz, 1H), 7.94 – 7.86 (m, 2H), 7.54 – 7.48 (m, 1H), 7.27 – 7.25 (m, 1H), 7.21 (dd, *J* = 10.4, 1.9 Hz, 1H), 7.16 – 7.12 (m, 1H), 4.38 (t, *J* = 9.4 Hz, 2H), 4.11 (t, *J* = 9.6 Hz, 2H).

^{13}C NMR (126 MHz, $CDCl_3$) δ 164.55, 162.15, 161.09, 159.05, 139.68, 138.40, 138.32, 132.68, 132.39, 132.37, 129.45, 125.21, 125.19, 123.20, 122.90, 122.80, 120.71, 117.47, 117.26, 114.25, 66.51, 54.87.

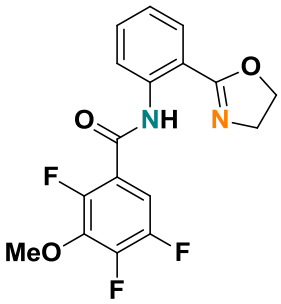


N-(2-(4,5-dihydrooxazol-2-yl)phenyl)thiophene-3-carboxamide.

Following GP2, N-(2-(4,5-dihydrooxazol-2-yl)phenyl)thiophene-3-carboxamide was synthesized from thiophene-3-carboxylic acid (1.15 mmol, 200 mg) and 2-(4,5-dihydrooxazol-2-yl)benzamine (1.5 mmol, 243 mg). Purification by column chromatography on silica gel (eluent: Petroleum ether/EtOAc) gave N-(2-(4,5-dihydrooxazol-2-yl)phenyl)thiophene-3-carboxamide (172 mg) with 55% yield.

^{1}H NMR (500 MHz, $CDCl_3$) δ 12.91 (s, 1H), 8.90 (d, *J* = 8.5 Hz, 1H), 8.14 (dd, *J* = 3.0, 1.2 Hz, 1H), 7.88 (dd, *J* = 7.9, 1.5 Hz, 1H), 7.68 (dd, *J* = 5.1, 1.2 Hz, 1H), 7.53 – 7.46 (m, 1H), 7.36 (dd, *J* = 5.1, 3.0 Hz, 1H), 7.13 – 7.06 (m, 1H), 4.41 (dd, *J* = 14.3, 5.0 Hz, 2H), 4.20 (t, *J* = 9.7 Hz, 2H).

^{13}C NMR (126 MHz, $CDCl_3$) δ 165.20, 161.73, 140.32, 139.06, 132.88, 129.49, 129.48, 126.97, 126.41, 122.47, 119.86, 113.41, 66.43, 54.85.

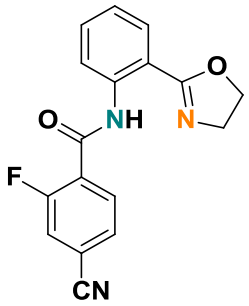


***N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2,4,5-trifluoro-3-methoxybenzamide.**

Following GP2, *N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2,4,5-trifluoro-3-methoxybenzamide was synthesized from 2,4,5-trifluoro-3-methoxybenzoic acid (1.15 mmol, 237 mg) and 2-(4,5-dihydrooxazol-2-yl)benzamine (1.5 mmol, 243 mg). Purification by column chromatography on silica gel (eluent: Petroleum ether/EtOAc) gave *N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2,4,5-trifluoro-3-methoxybenzamide (201 mg) with 50% yield.

^{1}H NMR (400 MHz, $CDCl_3$) δ 12.88 (s, 1H), 8.83 (d, *J* = 8.5 Hz, 1H), 7.89 (d, *J* = 7.9 Hz, 1H), 7.49 (ddd, *J* = 14.9, 9.5, 7.4 Hz, 2H), 7.17 – 7.11 (m, 1H), 4.39 (td, *J* = 9.4, 1.8 Hz, 2H), 4.15 – 4.09 (m, 2H), 4.08 (s, 3H).

^{13}C NMR (101 MHz, $CDCl_3$) δ 164.63, 161.04, 151.38, 151.34, 151.31, 148.87, 148.84, 148.80, 148.78, 147.80, 147.71, 147.65, 146.30, 146.21, 145.32, 145.26, 145.16, 145.11, 139.50, 132.73, 129.46, 123.36, 120.63, 114.23, 111.40, 111.38, 111.19, 111.17, 66.55, 62.47, 62.44, 62.41, 54.79.

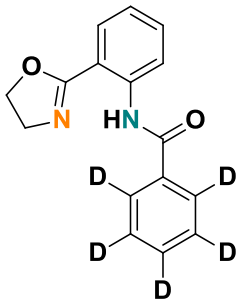


4-cyano-*N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-fluorobenzamide.

Following GP2, 4-cyano-*N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-fluorobenzamide was synthesized from 4-cyano-2-fluorobenzoic acid (1.15 mmol, 190 mg) and 2-(4,5-dihydrooxazol-2-yl)benzamine (1.5 mmol, 243 mg). Purification by column chromatography on silica gel (eluent: Petroleum ether/EtOAc) gave 4-cyano-*N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-fluorobenzamide (188 mg) with 53% yield.

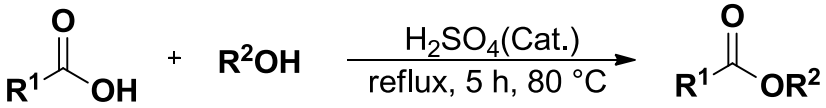
^{1}H NMR (400 MHz, $CDCl_3$) δ 13.03 (s, 1H), 8.86 (d, *J* = 8.4 Hz, 1H), 8.05 (t, *J* = 7.5 Hz, 1H), 7.90 (d, *J* = 7.9 Hz, 1H), 7.60 – 7.46 (m, 3H), 7.17 (t, *J* = 7.6 Hz, 1H), 4.40 (t, *J* = 9.4 Hz, 2H), 4.10 (t, *J* = 9.6 Hz, 2H).

^{13}C NMR (101 MHz, $CDCl_3$) δ 164.65, 161.18, 160.77, 158.22, 139.34, 132.79, 132.47, 132.44, 129.51, 128.93, 128.80, 128.49, 128.45, 123.62, 120.74, 120.66, 120.48, 117.12, 117.10, 116.29, 116.19, 114.29, 66.58, 54.79.

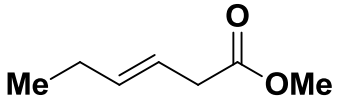


D_5-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)benzamide.
Following GP2, D_5-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)benzamide was synthesized from Benzoic acid-2,3,4,5,6-d_5 (1.15 mmol, 146 mg) and 2-(4,5-dihydrooxazol-2-yl)benzamine (1.5 mmol, 243 mg). Purification by column chromatography on silica gel (eluent: Petroleum ether/EtOAc) gave D_5-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)benzamide (146 mg) with 47% yield.
^{1}H NMR (400 MHz, $CDCl_3$) δ 13.03 (s, 1H), 8.97 (dd, *J* = 8.5, 1.0 Hz, 1H), 7.91 (dd, *J* = 7.9, 1.6 Hz, 1H), 7.56 – 7.49 (m, 1H), 7.12 (td, *J* = 7.9, 1.2 Hz, 1H), 4.46 – 4.39 (m, 2H), 4.21 (dd, *J* = 14.4, 5.2 Hz, 2H).
^{13}C NMR (101 MHz, $CDCl_3$) δ 166.31, 165.19, 140.42, 135.40, 135.39, 132.90, 129.50, 128.55, 128.52, 128.49, 128.29, 128.28, 128.07, 128.05, 128.03, 127.84, 127.82, 127.80, 127.56, 127.36, 127.32, 127.28, 122.62, 120.12, 113.76, 66.48, 54.92.

General procedure (GP3).

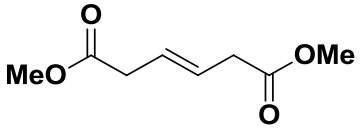


To an oven dried round bottom flask carboxylic acid (42 mmol) is taken in 25 mL of methanol catalytic amount of H_2SO_4 is then added under stirring condition and kept under refluxing condition at 80˚ for 5 hours. The reaction mixture was evaporated and then extracted with EtOAc. The combined organic layers was dried over anhydrous Na_2SO_4 and the solvent is removed by evaporation under reduced pressure and the residue was purified by column chromatography on silica gel (eluent: Petroleum ether/EtOAc) to give the desired esters.



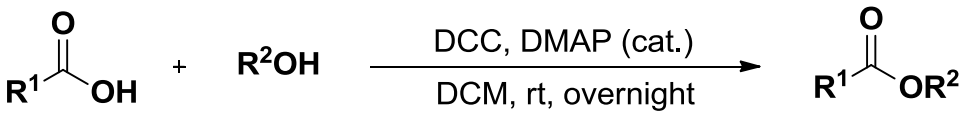
(*E*)-methyl hex-3-enoate.
Following GP3, (E)-methyl hex-3-enoate was synthesized from (E)-hex-3-enoic acid (42 mmol, 4.97 mL) and Methanol (25 mL). Purification by column chromatography on silica gel (eluent: Petroleum ether/EtOAc) gave (E)-methyl hex-3-enoate (31 mmol, 3.6 mL) with 74% yield.

^{1}H NMR (500 MHz, $CDCl_3$) δ 5.62 – 5.55 (m, 1H), 5.50 (dtt, *J* = 15.1, 6.9, 1.3 Hz, 1H), 3.67 (s, 3H), 3.02 (dd, *J* = 6.8, 1.0 Hz, 2H), 2.08 – 1.99 (m, 2H), 0.97 (t, *J* = 7.5 Hz, 3H).
^{13}C NMR (126 MHz, $CDCl_3$) δ 172.86, 136.56, 120.67, 77.48, 77.23, 76.98, 51.91, 38.07, 25.67, 13.60.

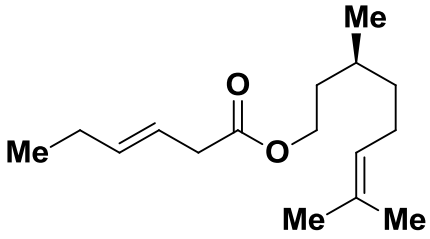


(*E*)-dimethyl hex-3-enedioate.
Following GP3, (E)-dimethyl hex-3-enedioate was synthesized from (E)-hex-3-enedioic acid (42 mmol) and methanol (25 mL). Purification by column chromatography on silica gel (eluent: Petroleum ether/EtOAc) gave (E)-dimethyl hex-3-enedioate (23 mmol, 4.0 mL) with 66% yield.
^{1}H NMR (500 MHz, $CDCl_3$) δ 5.71 – 5.62 (m, 1H), 3.66 (d, *J* = 1.3 Hz, 3H), 3.11 – 3.03 (m, 2H).
^{13}C NMR (126 MHz, $CDCl_3$) δ 172.11, 126.11, 77.51, 77.26, 77.01, 52.02, 37.83.

General procedure (GP4).

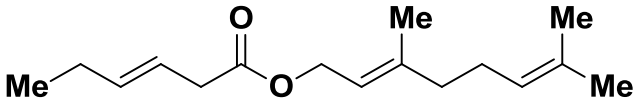


To a stirred solution of carboxylic acid (10 mmol) in 30 mL anhydrous DCM is added DMAP (1 mmol) and alcohol (20 mmol). DCC (11 mmol, 2.26 g) is then added to the reaction mixture at 0˚C, and then allowed to stir overnight at room temperature. Precipitated urea is then filtered off. Filtrate is evaporated and the residue is dissolved in DCM and is washed twice with saturated $NaHCO_3$ solution, and then dried over Na_2SO_4. The solvent is removed by evaporation and the residue was purified by column chromatography on silica gel (eluent: Petroleum ether/EtOAc) to give the desired ester.

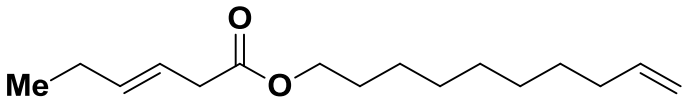


(*E*)-(*S*)-3,7-dimethyloct-6-enyl hex-3-enoate.
Following GP4, (E)-(S)-3,7-dimethyloct-6-enyl hex-3-enoate was synthesized from trans-3-hexanoic acid (10 mmol, 1.185 mL) and citronellol (20 mmol, 3.63 mL). Purification by column chromatography on silica gel (eluent: Petroleum ether/EtOAc) gave (E)-(S)-3,7-dimethyloct-6-enyl hex-3-enoate (7.5 mmol, 1.9 g) with 75% yield.

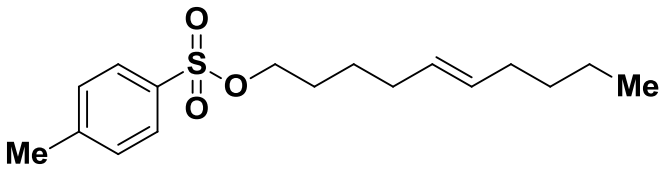
^{1}H NMR (500 MHz, $CDCl_3$) δ 5.59 (dt, *J* = 15.3, 6.1 Hz, 1H), 5.54 – 5.47 (m, 1H), 5.11 – 5.05 (m, 1H), 4.16 – 4.06 (m, 2H), 3.00 (dd, *J* = 6.7, 1.0 Hz, 2H), 2.07 – 2.02 (m, 2H), 2.00 – 1.90 (m, 2H), 1.68 (d, *J* = 6.6 Hz, 3H), 1.64 (dd, *J* = 7.3, 5.5 Hz, 1H), 1.60 (s, 3H), 1.53 (dt, *J* = 13.1, 6.5 Hz, 1H), 1.43 (dt, *J* = 13.7, 7.3 Hz, 1H), 1.37 – 1.30 (m, 1H), 1.18 (dddd, *J* = 13.5, 9.4, 7.7, 6.0 Hz, 1H), 0.98 (t, *J* = 7.5 Hz, 3H), 0.90 (d, *J* = 6.6 Hz, 3H).
^{13}C NMR (126 MHz, $CDCl_3$) δ 172.52, 136.42, 131.52, 124.77, 120.89, 77.48, 77.23, 76.98, 63.32, 38.37, 37.18, 35.62, 29.70, 25.91, 25.70, 25.59, 19.61, 17.84, 13.66.



(3*E*)-(*E*)-3,7-dimethylocta-2,6-dienyl hex-3-enoate.
Following GP4, (3E)-(E)-3,7-dimethylocta-2,6-dienyl hex-3-enoate was synthesized from trans-3-hexanoic acid (10 mmol, 1.185 mL) and nerol (20 mmol, 3.48 mL). Purification by column chromatography on silica gel (eluent: Petroleum ether/EtOAc) gave (3*E*)-(*E*)-3,7-dimethylocta-2,6-dienyl hex-3-enoate (6.6 mmol, 1.65 g) with 66% yield.
^{1}H NMR (500 MHz, $CDCl_3$) δ 5.59 (dt, *J* = 15.4, 6.0 Hz, 1H), 5.55 – 5.47 (m, 1H), 5.37 – 5.32 (m, 1H), 5.11 – 5.05 (m, 1H), 4.57 (s, 1H), 4.56 (s, 1H), 3.02 (d, *J* = 1.1 Hz, 1H), 3.01 (d, *J* = 1.0 Hz, 1H), 2.14 – 1.99 (m, 6H), 1.76 (d, *J* = 1.0 Hz, 3H), 1.67 (s, 3H), 1.59 (s, 3H), 0.98 (t, *J* = 7.5 Hz, 3H).
^{13}C NMR (126 MHz, $CDCl_3$) δ 172.46, 142.82, 136.46, 132.35, 123.78, 120.86, 119.35, 77.48, 77.23, 76.98, 61.42, 38.32, 32.37, 26.85, 25.88, 25.70, 23.72, 17.84, 13.64.



(*E*)-dec-9-en-1-yl hex-3-enoate.
Following GP4, (*E*)-dec-9-en-1-yl hex-3-enoate was synthesized from trans-3-hexanoic acid (10 mmol, 1.185 mL) and 9-decene-1-ol (20 mmol, 3.56 mL). Purification by column chromatography on silica gel (eluent: Petroleum ether/EtOAc) gave 60% yield of the product.
^{1}H NMR (500 MHz, $CDCl_3$) δ 5.85 – 5.74 (m, 1H), 5.63 – 5.56 (m, 1H), 5.51 (dtd, *J* = 8.0, 6.7, 1.2 Hz, 1H), 4.98 (d, *J* = 17.1 Hz, 1H), 4.92 (dd, *J* = 10.2, 0.9 Hz, 1H), 4.06 (t, *J* = 6.7 Hz, 2H), 3.01 (d, *J* = 6.7 Hz, 2H), 2.07 – 2.00 (m, 4H), 1.61 (dt, *J* = 13.6, 6.7 Hz, 2H), 1.37 – 1.25 (m, 10H), 0.98 (td, *J* = 7.4, 0.9 Hz, 3H).
^{13}C NMR (126 MHz, $CDCl_3$) δ 172.56, 139.35, 136.42, 120.89, 114.36, 64.91, 38.34, 33.98, 29.54, 29.38, 29.21, 29.08, 28.78, 26.06, 25.71, 13.66.



(*E*)-dec-5-en-1-yl 4-methylbenzenesulfonate.

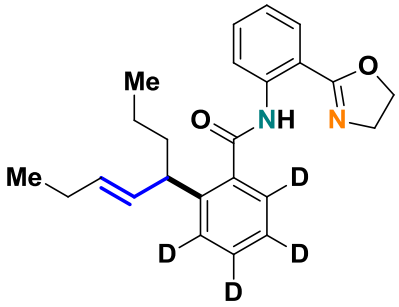
Following GP4, (*E*)-dec-5-en-1-yl 4-methylbenzenesulfonate was synthesized from trans-5-decene-1-ol (10 mmol, 1.5 mL) and tosyl chloride (20 mmol, 3.8 g). Purification by column chromatography on silica gel (eluent: Petroleum ether/EtOAc) gave 55% yield of the product.

^{1}H NMR (400 MHz, $CDCl_3$) δ 7.82 – 7.75 (m, 2H), 7.34 (d, *J* = 8.0 Hz, 2H), 5.41 – 5.22 (m, 2H), 4.02 (t, *J* = 6.5 Hz, 2H), 2.45 (s, 3H), 1.98 – 1.88 (m, 4H), 1.67 – 1.59 (m, 2H), 1.40 – 1.33 (m, 2H), 1.33 – 1.26 (m, 4H), 0.91 – 0.84 (m, 3H).

^{13}C NMR (101 MHz, $CDCl_3$) δ 144.82, 133.53, 131.55, 130.01, 129.28, 128.10, 70.77, 32.41, 31.96, 31.94, 28.43, 25.44, 22.39, 21.83, 14.14.

Allylated product with deuterated substrate:

From combined reaction mixture of the set of kinetic experiments, this compound has been isolated. Characterization through NMR spectroscopy suggested that no D-scrambling occurred and usual allylic selective alkenylation was observed.



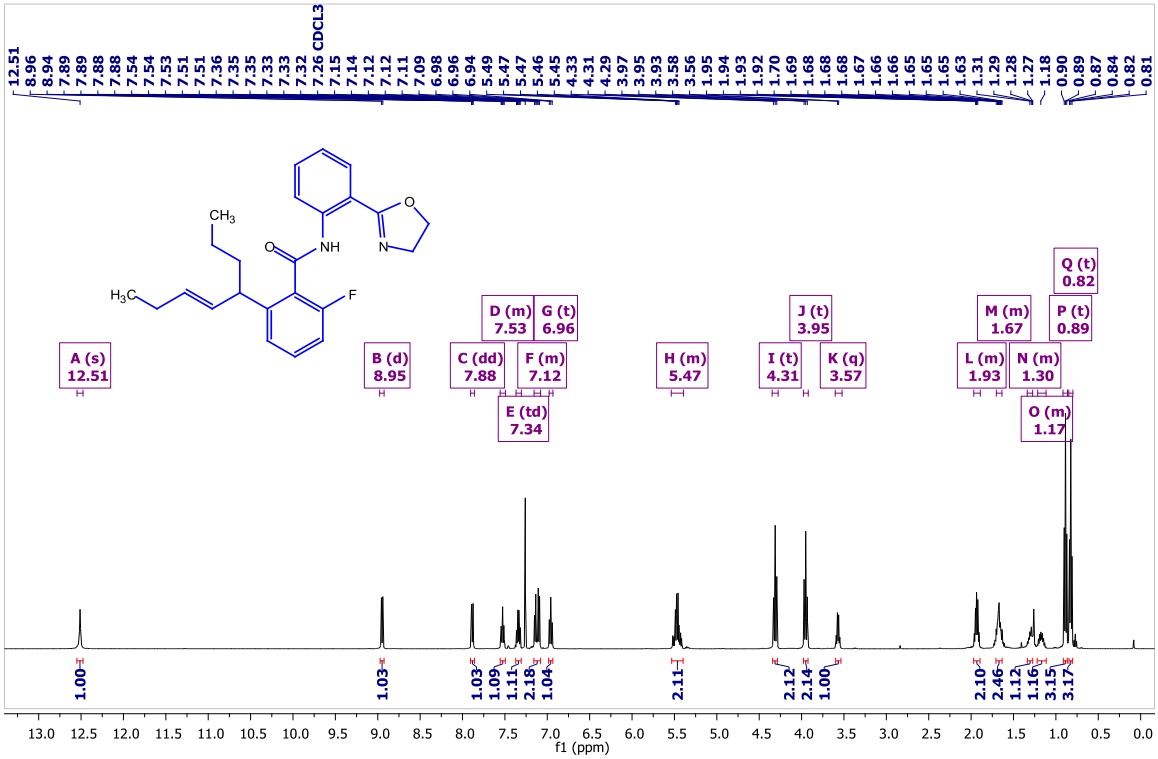
^{1}H NMR (500 MHz, $CDCl_3$) δ 12.44 (s, 1H), 8.94 (d, *J* = 8.3 Hz, 1H), 7.90 (d, *J* = 7.0 Hz, 1H), 7.53 (t, *J* = 7.4 Hz, 1H), 7.12 (t, *J* = 7.6 Hz, 1H), 5.56 (dd, *J* = 15.4, 7.1 Hz, 1H), 5.49 (dt, *J* = 15.3, 5.9 Hz, 1H), 4.33 (t, *J* = 9.5 Hz, 2H), 4.00 (t, *J* = 9.5 Hz, 2H), 3.95 (dd, *J* = 14.5, 7.3 Hz, 1H), 2.00 – 1.93 (m, 2H), 1.74 – 1.65 (m, 2H), 1.35 – 1.32 (m, 1H), 1.23 – 1.18 (m, 1H), 0.90 (t, *J* = 7.4 Hz, 3H), 0.85 (t, *J* = 7.3 Hz, 3H).

^{13}C NMR (126 MHz, $CDCl_3$) δ 169.35, 164.62, 144.31, 140.26, 137.46, 133.15, 132.83, 132.71, 132.40, 132.13, 129.80, 129.61, 129.38, 127.53, 127.34, 127.20, 127.16, 127.11, 126.92, 126.74, 125.50, 125.30, 125.12, 122.63, 120.10, 113.68, 66.32, 54.92, 43.49, 38.66, 25.82, 20.88, 14.32, 13.94.

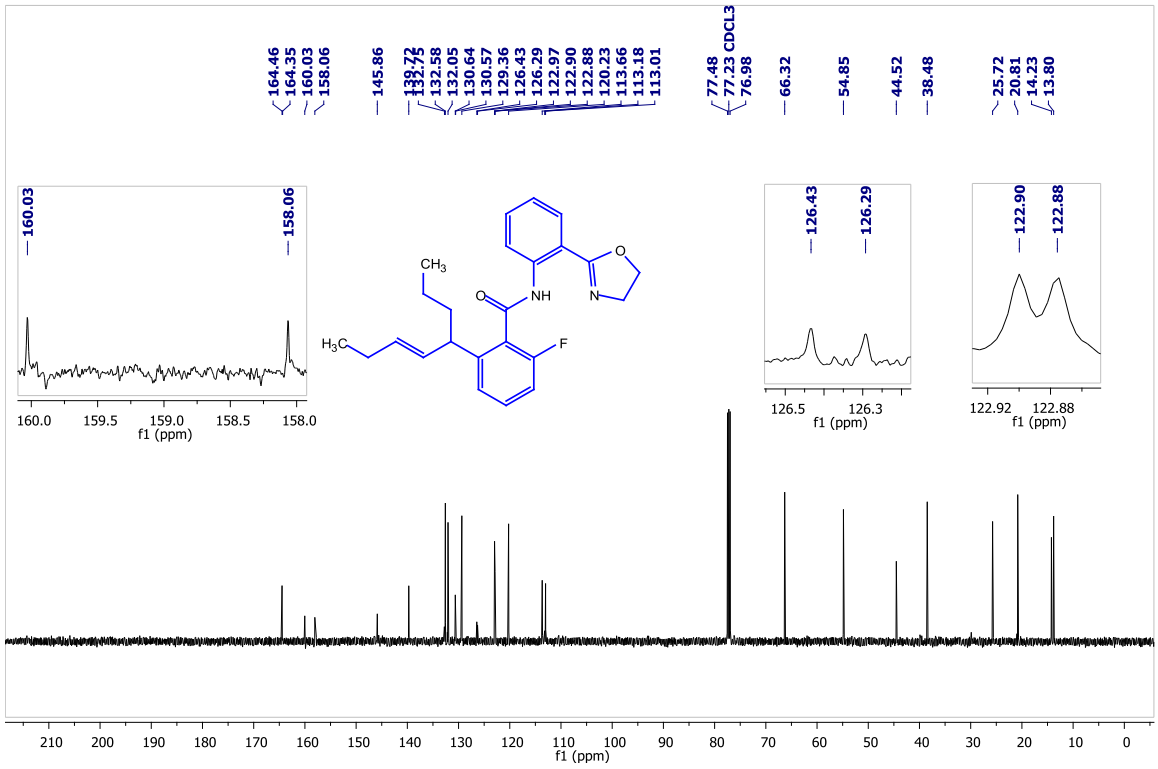
NMR spectra of synthesized products and starting materials.

3a.

(E)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-fluoro-6-(oct-5-en-4-yl)benzamide

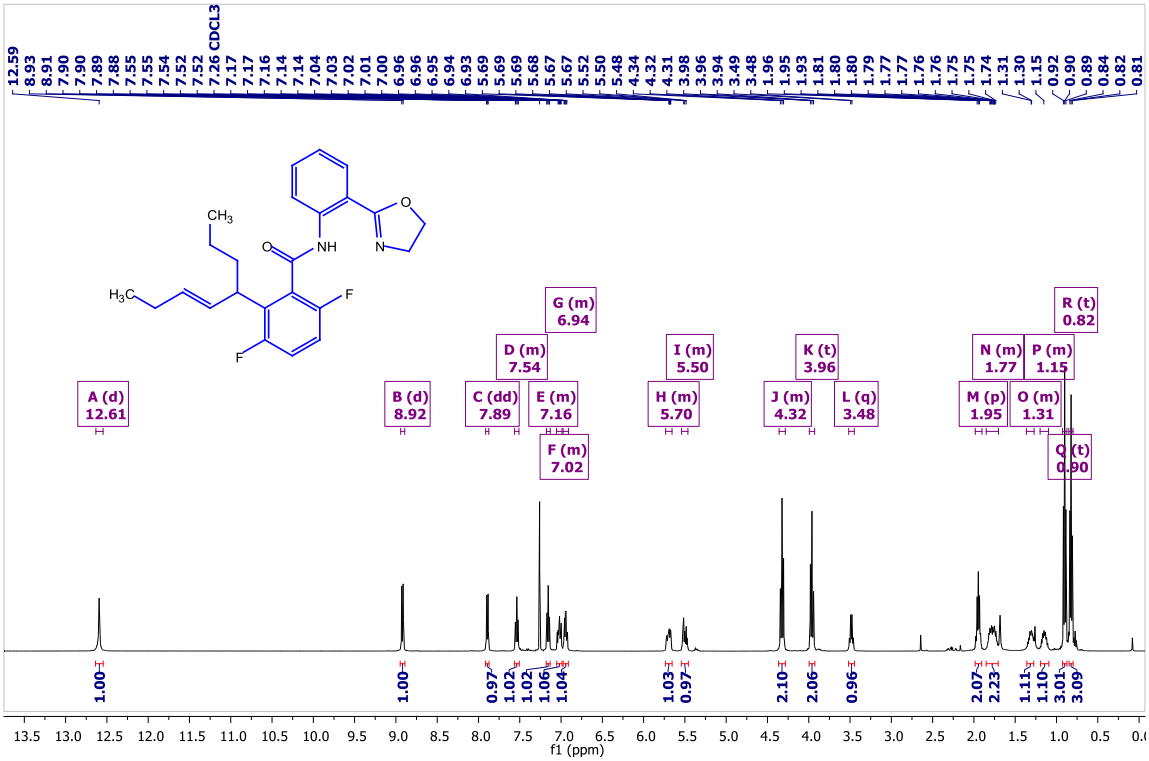


(E)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-fluoro-6-(oct-5-en-4-yl)benzamide

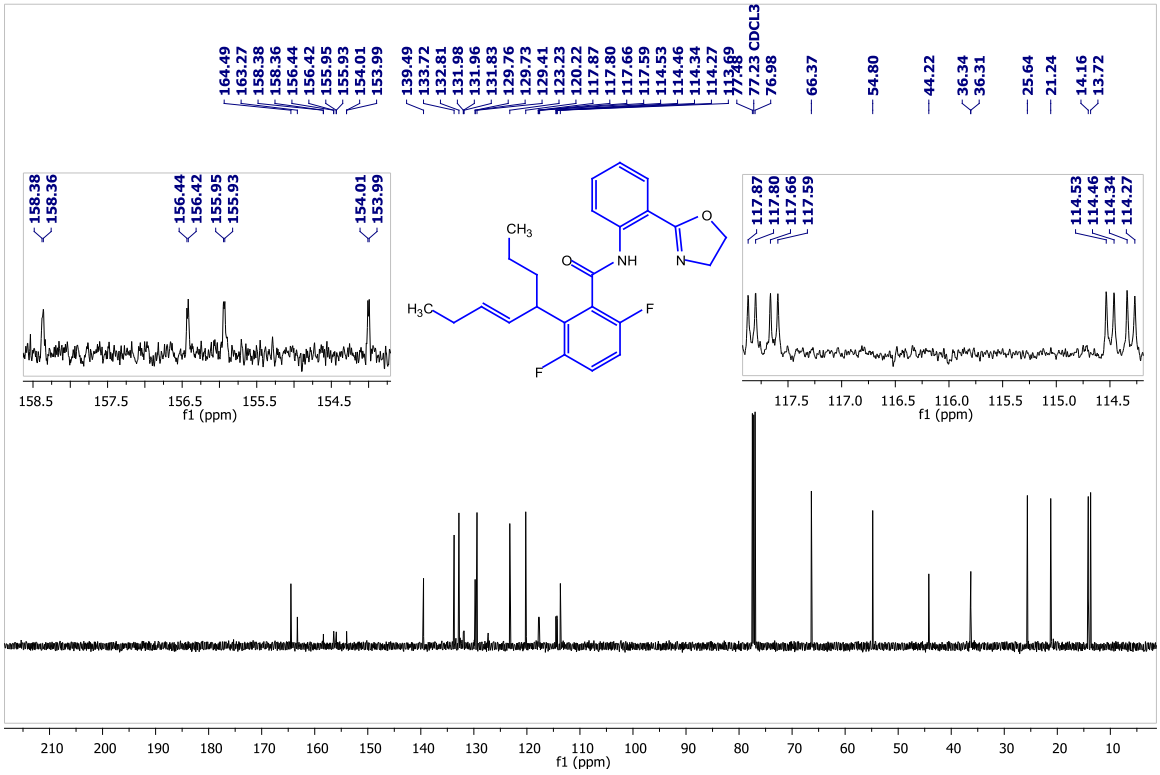


3b.

(E)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-3,6-difluoro-2-(oct-5-en-4-yl)benzamide

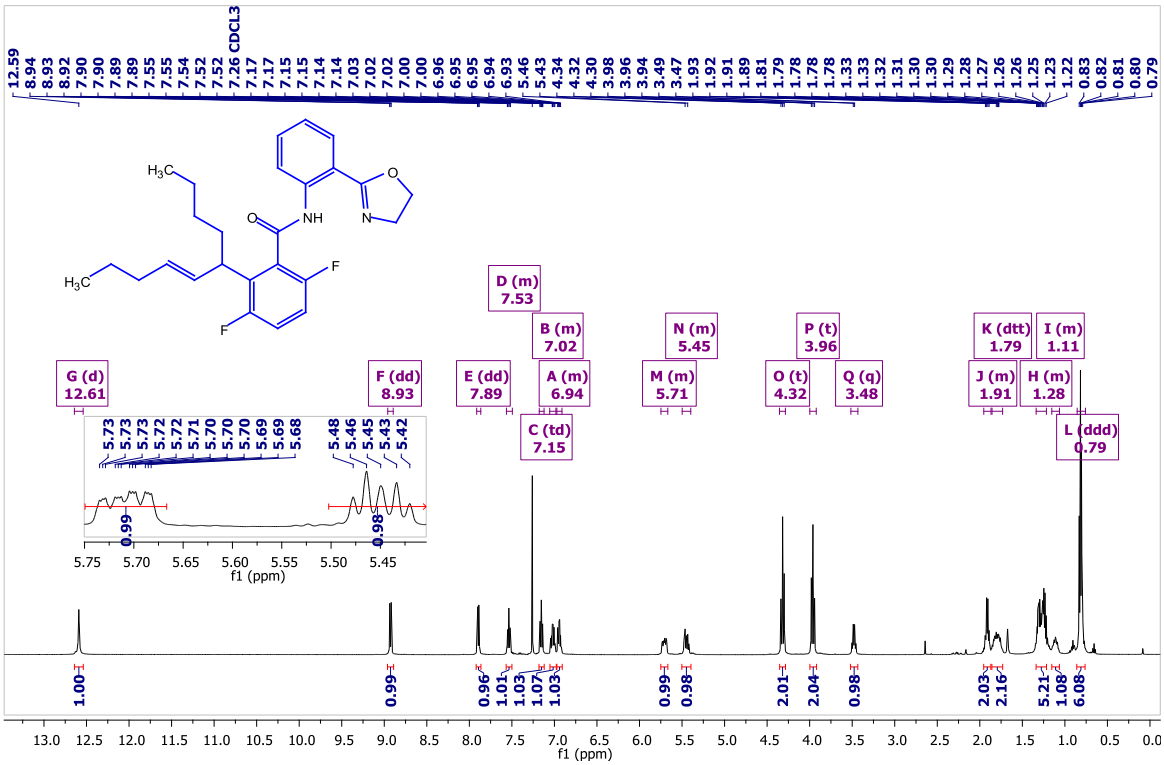


(E)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-3,6-difluoro-2-(oct-5-en-4-yl)benzamide

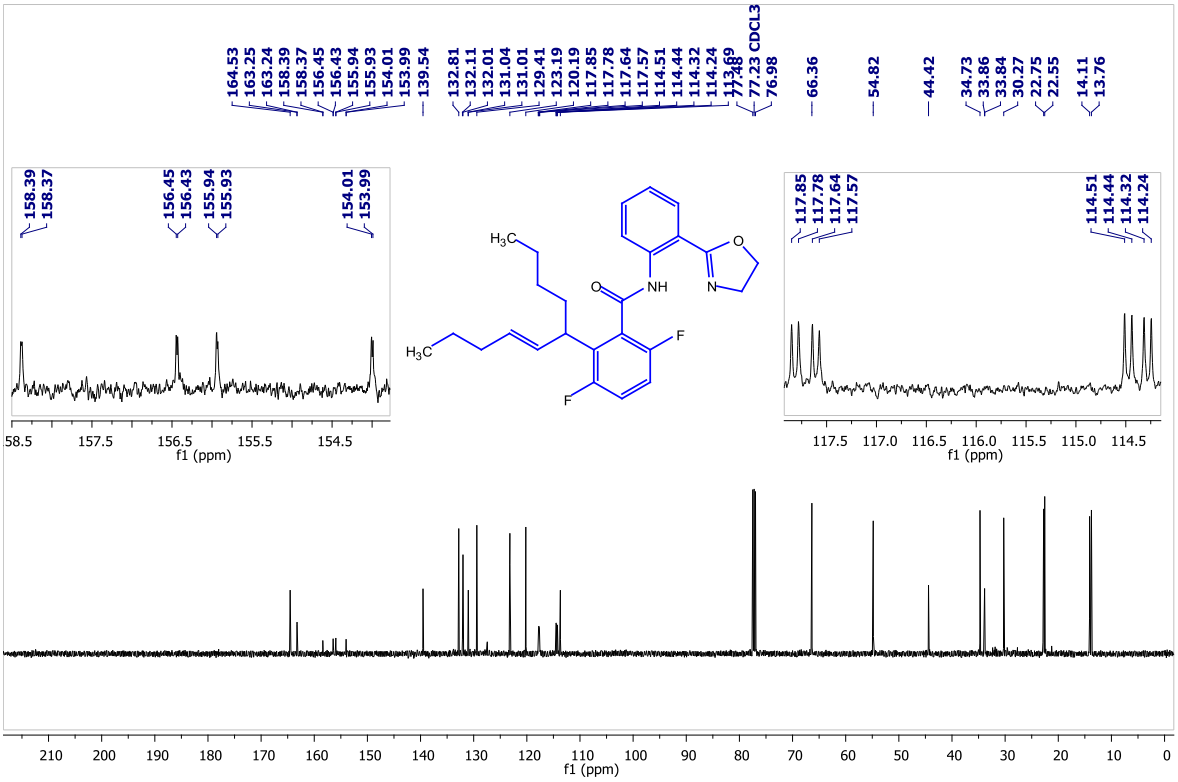


3c.

(E)-2-(dec-6-en-5-yl)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-3,6-difluorobenzamide

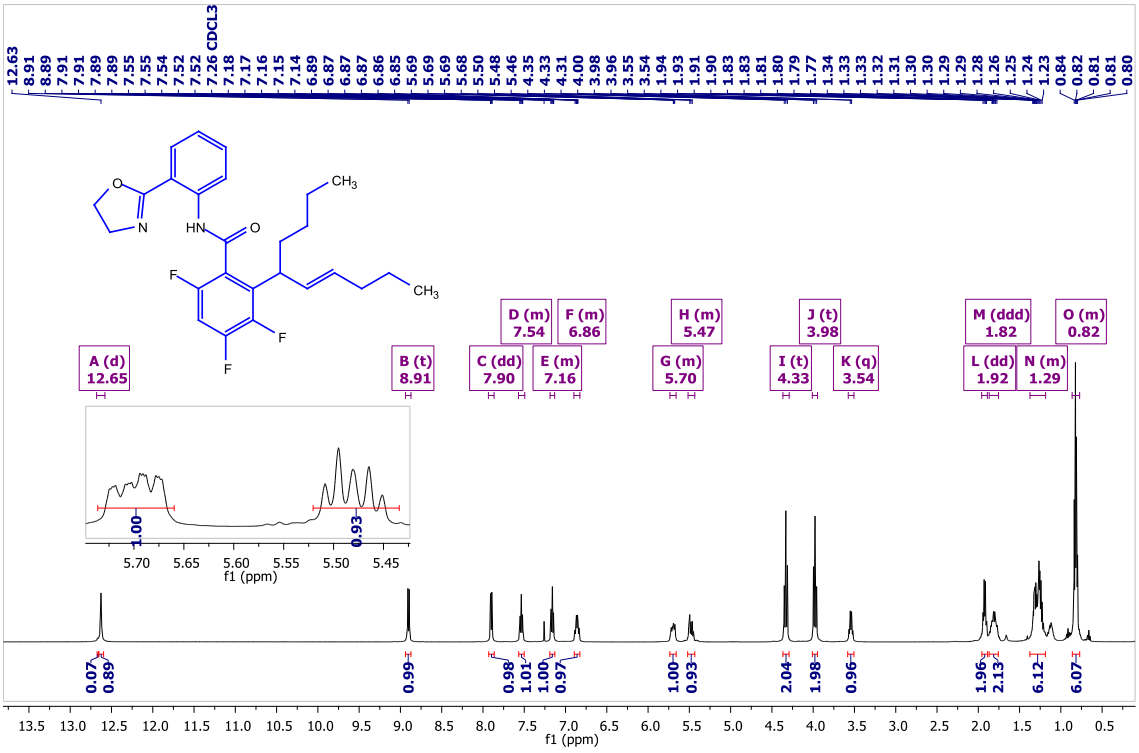


(E)-2-(dec-6-en-5-yl)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-3,6-difluorobenzamide

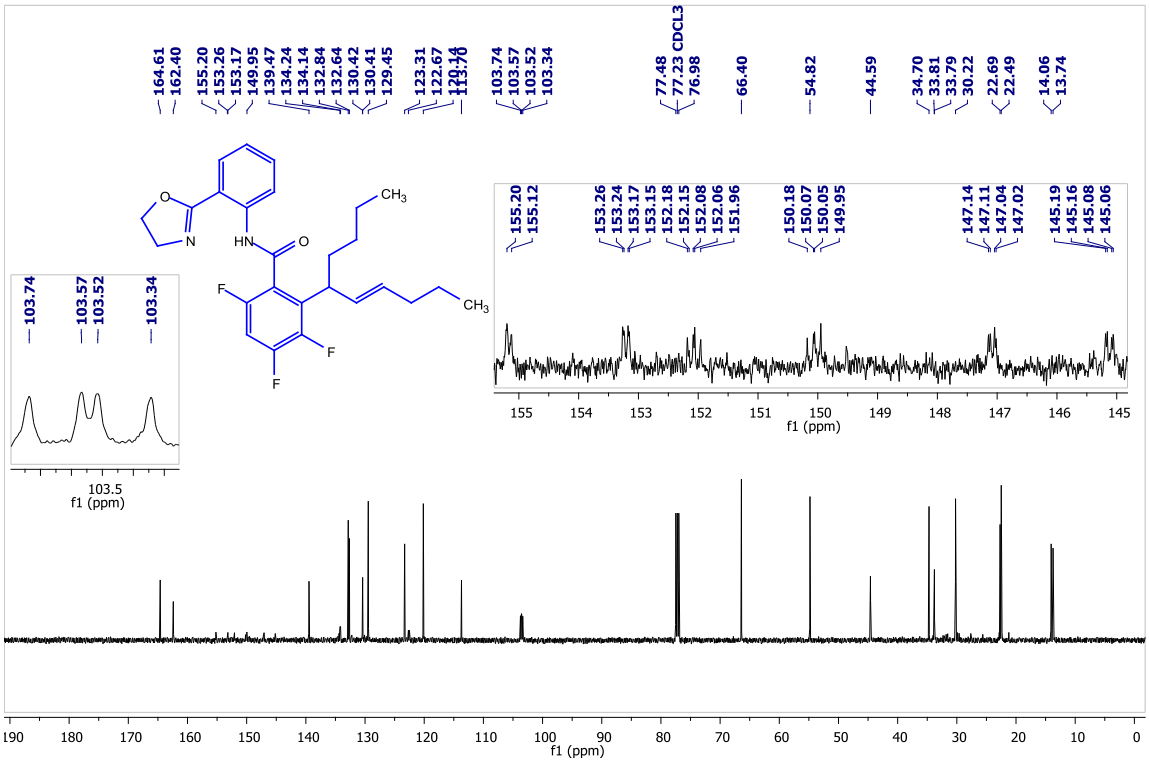


3d.

(E)-2-(dec-6-en-5-yl)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-3,4,6-trifluorobenzamide

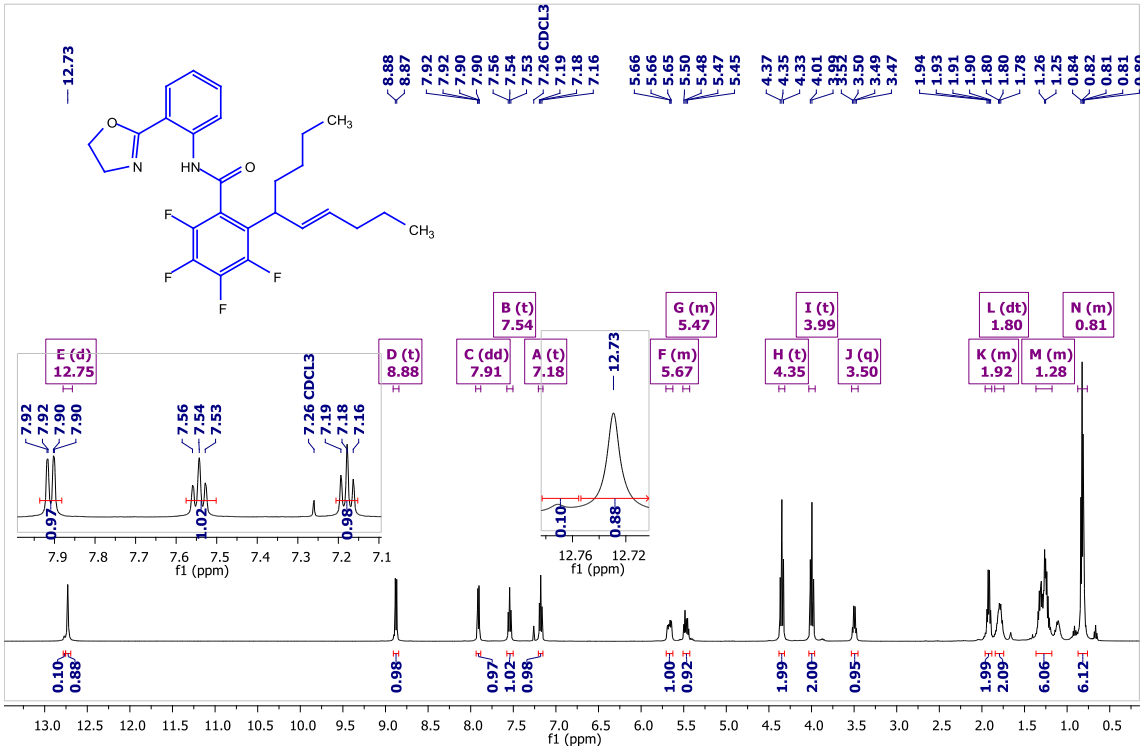


(E)-2-(dec-6-en-5-yl)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-3,4,6-trifluorobenzamide

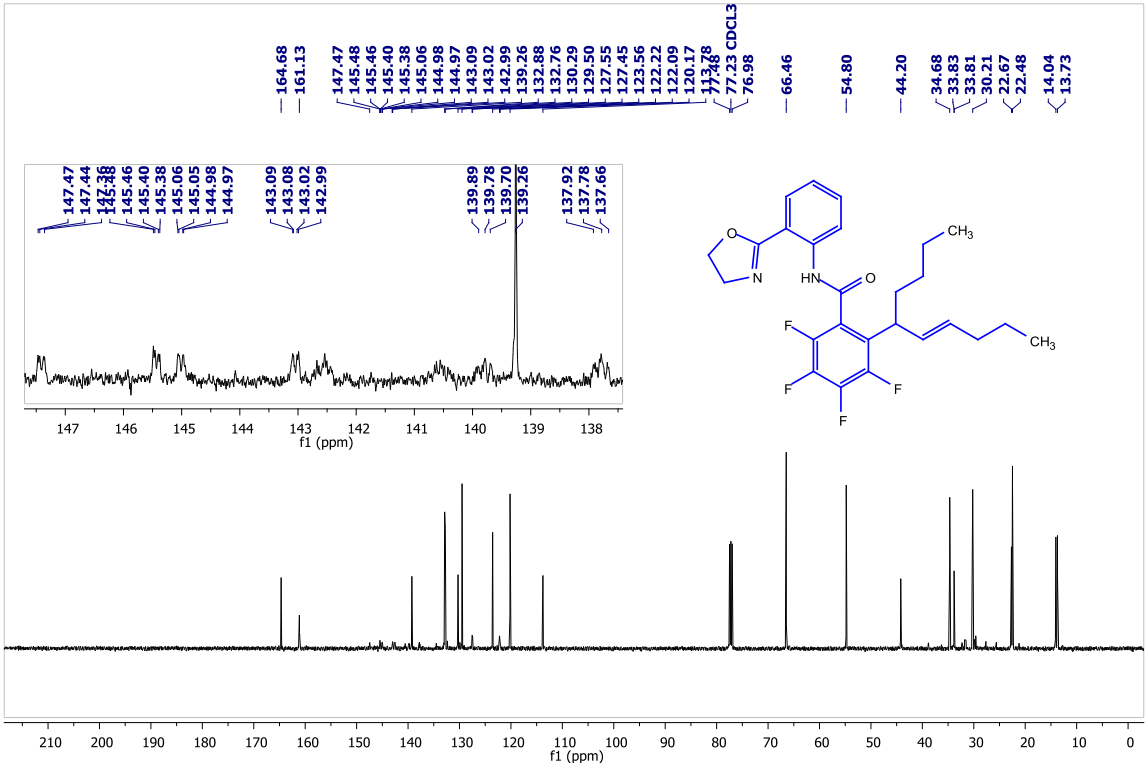


3e.

(E)-2-(dec-6-en-5-yl)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-3,4,5,6-tetrafluorobenzamide

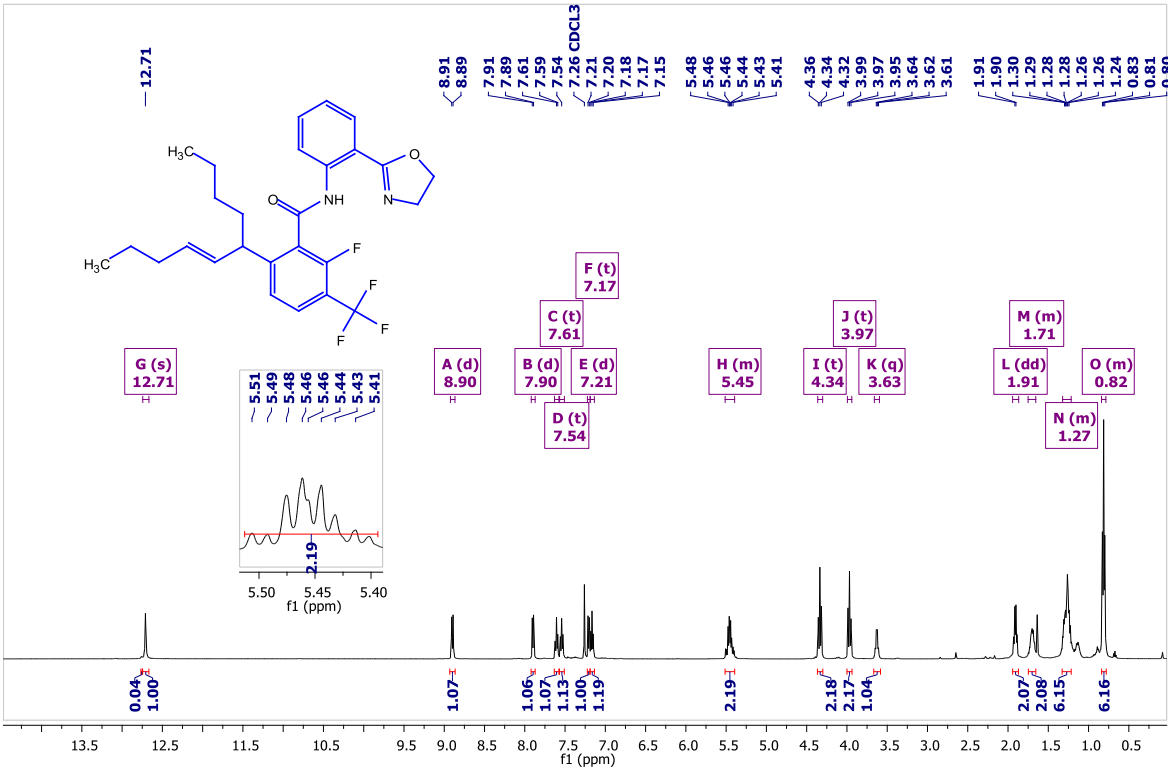


(E)-2-(dec-6-en-5-yl)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-3,4,5,6-tetrafluorobenzamide

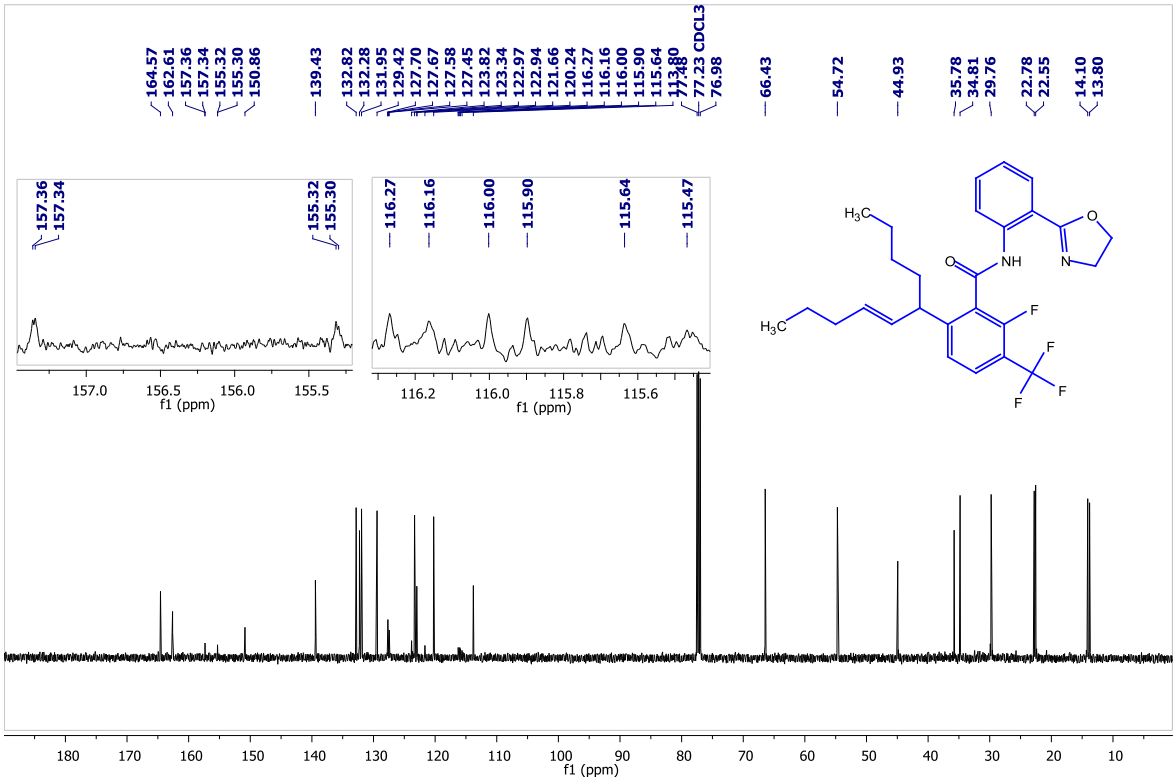


3f.

(E)-6-(dec-6-en-5-yl)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-fluoro-3-(trifluoromethyl)benzamide

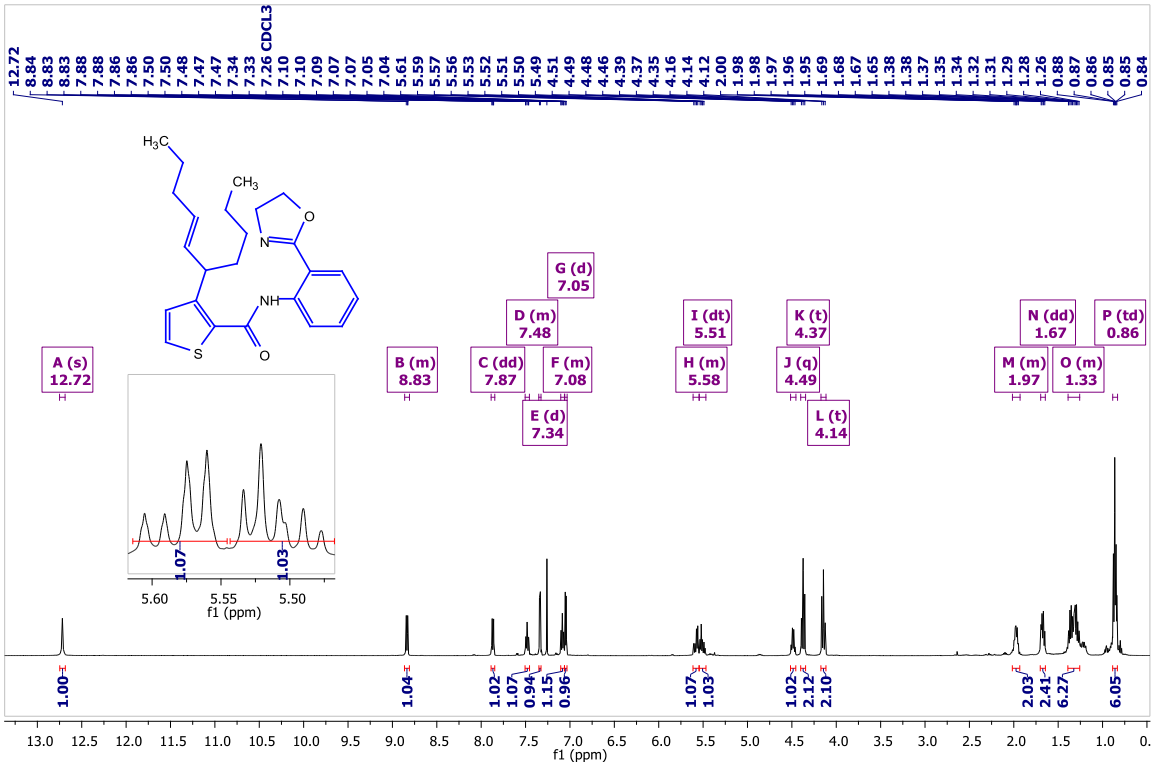


(E)-6-(dec-6-en-5-yl)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-fluoro-3-(trifluoromethyl)benzamide

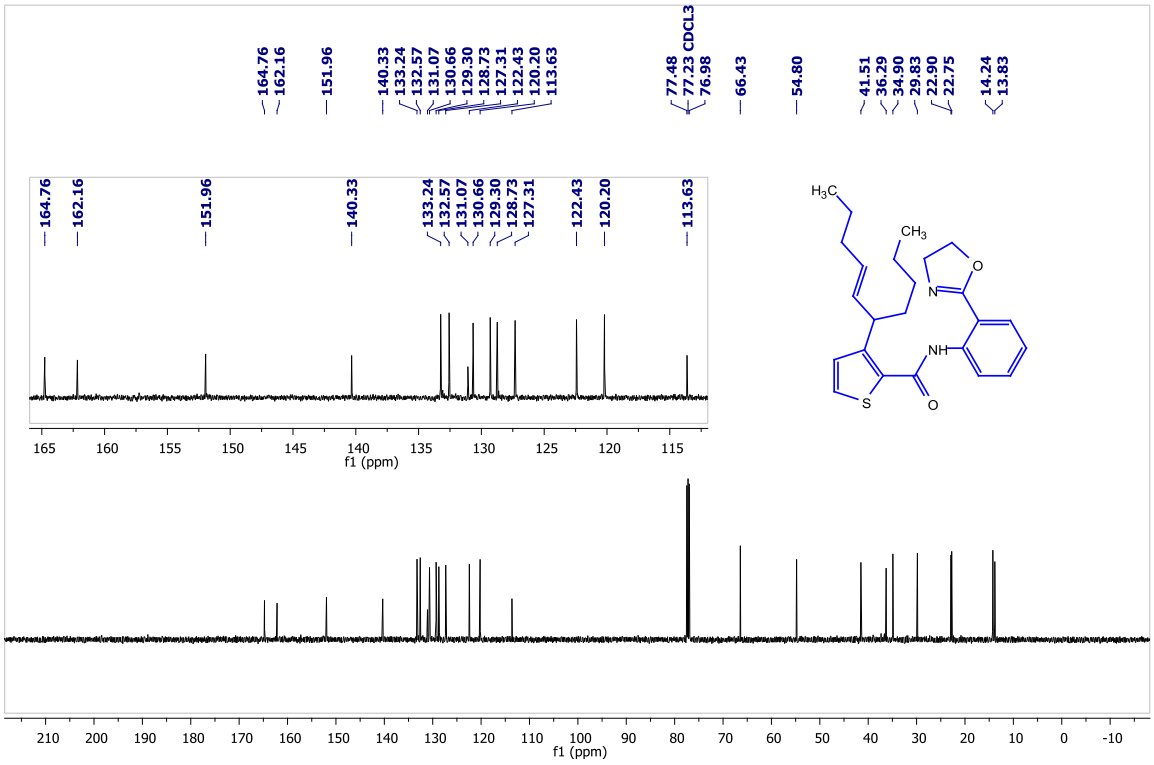


3g.

(E)-3-(dec-6-en-5-yl)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)thiophene-2-carboxamide

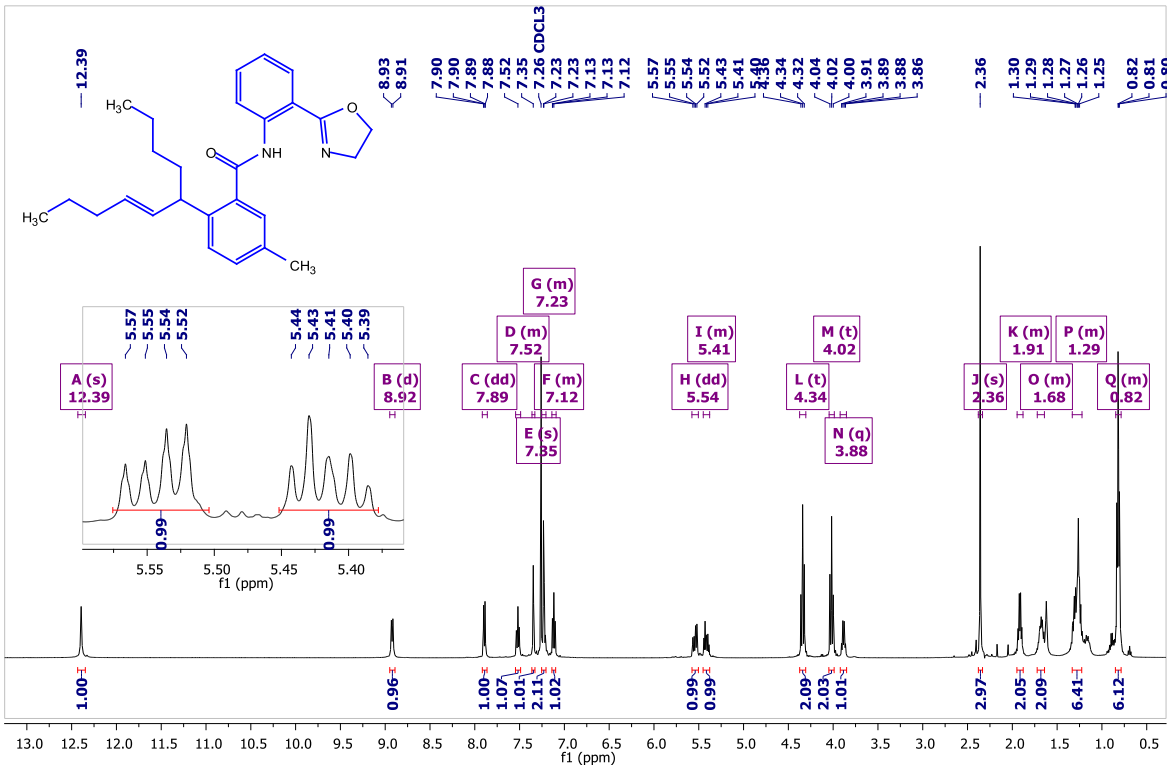


(E)-3-(dec-6-en-5-yl)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)thiophene-2-carboxamide

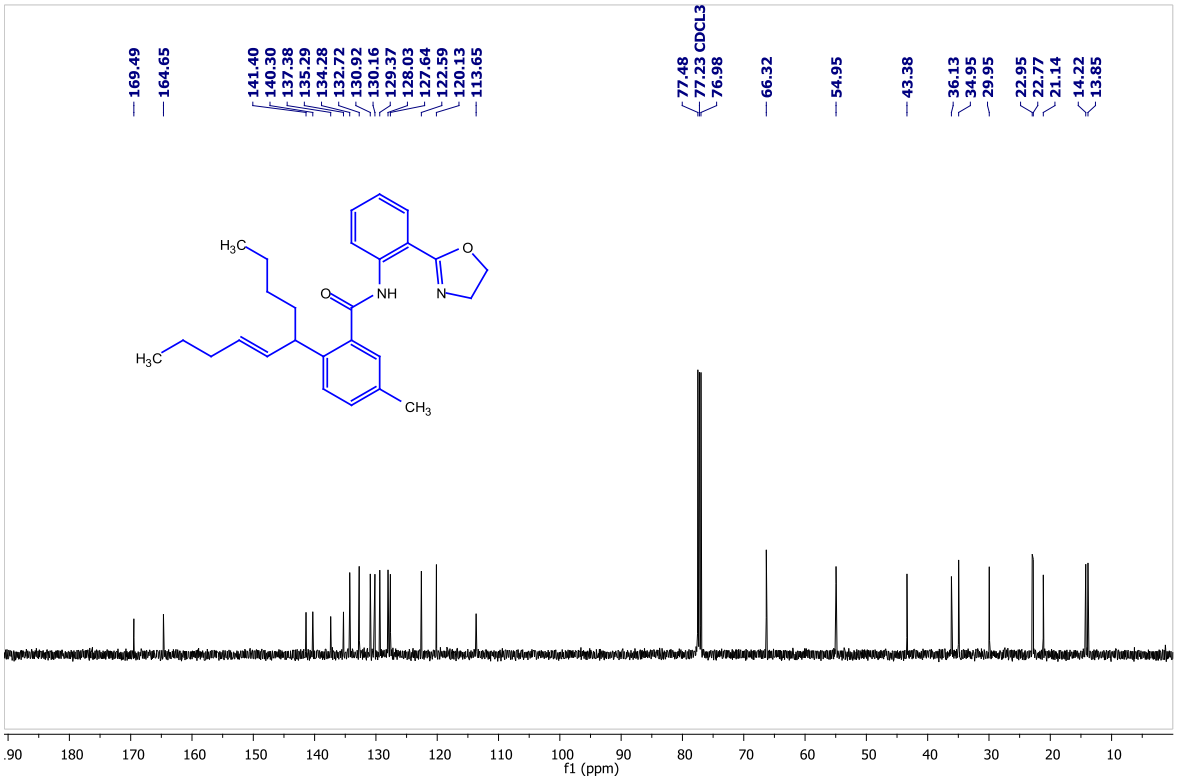


3h.

(E)-2-(dec-6-en-5-yl)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-5-methylbenzamide

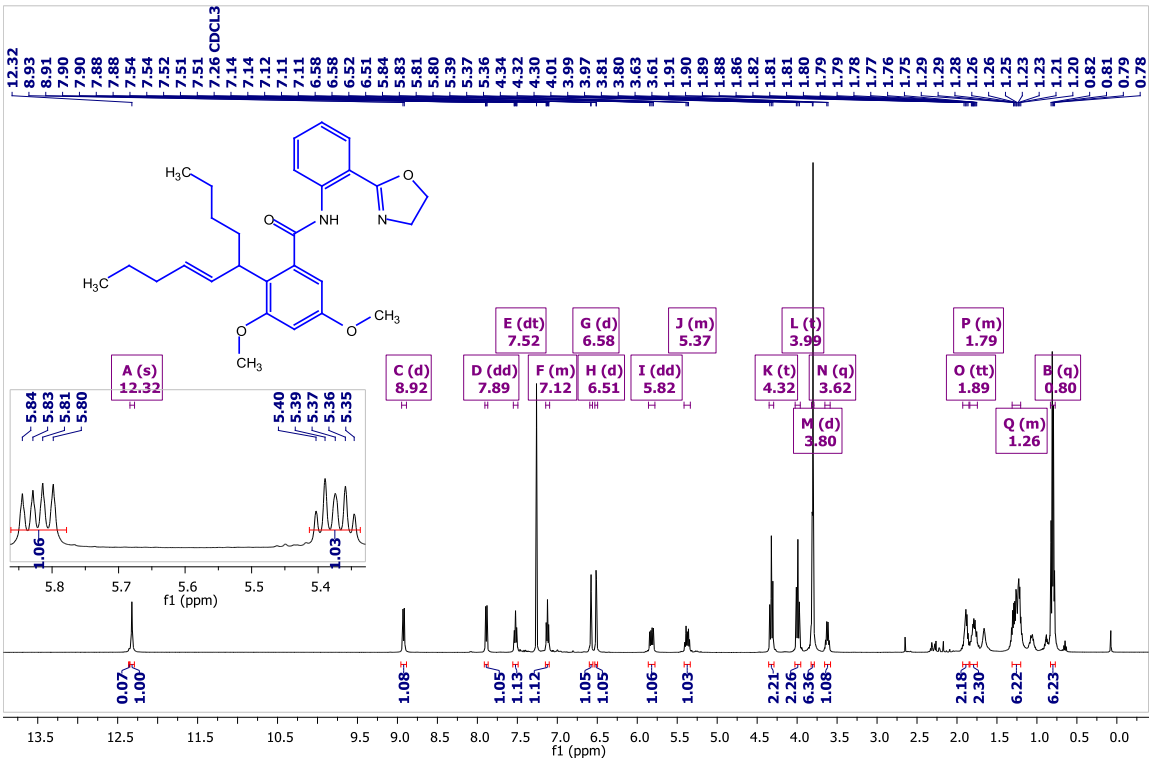


(E)-2-(dec-6-en-5-yl)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-5-methylbenzamide

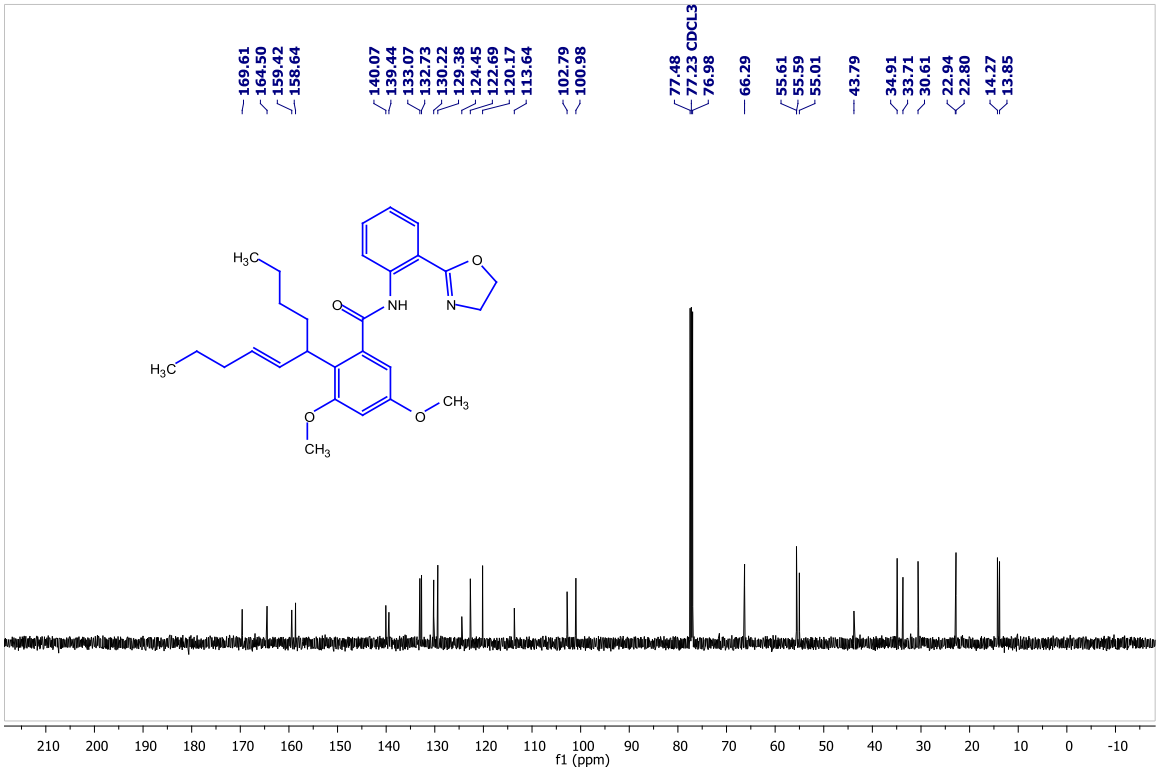


3i.

(E)-2-(dec-6-en-5-yl)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-3,5-dimethoxybenzamide

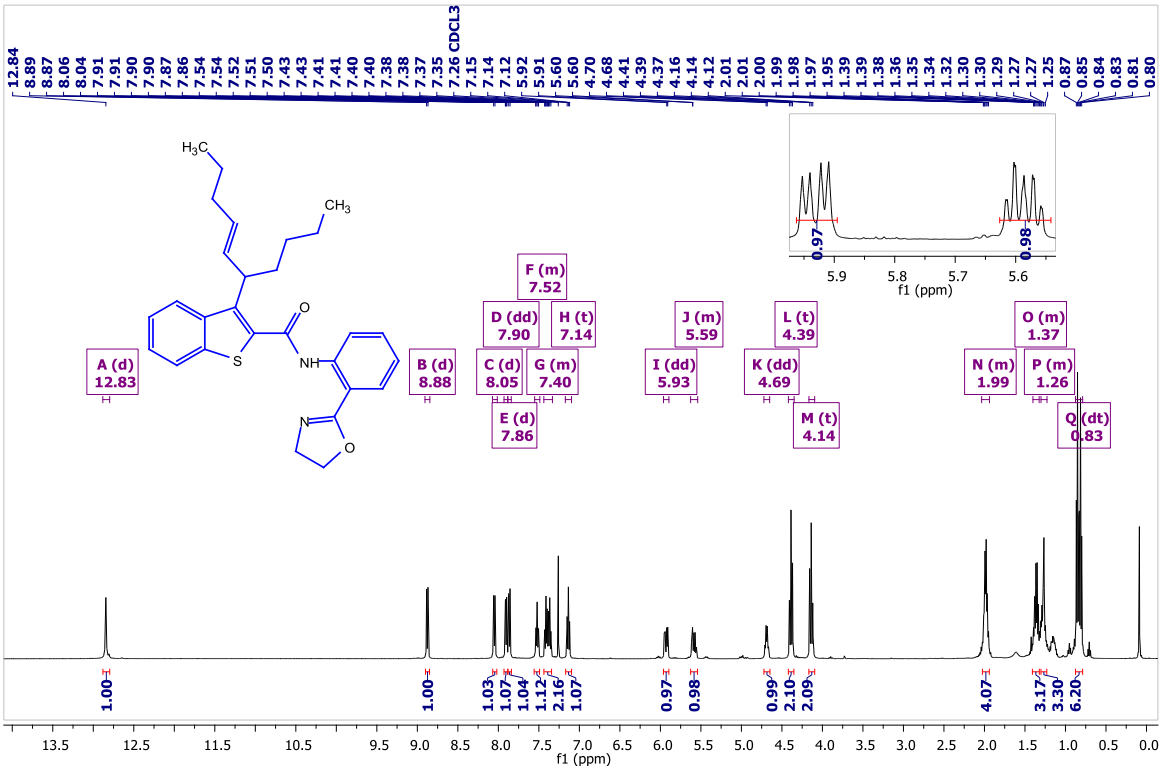


(E)-2-(dec-6-en-5-yl)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-3,5-dimethoxybenzamide

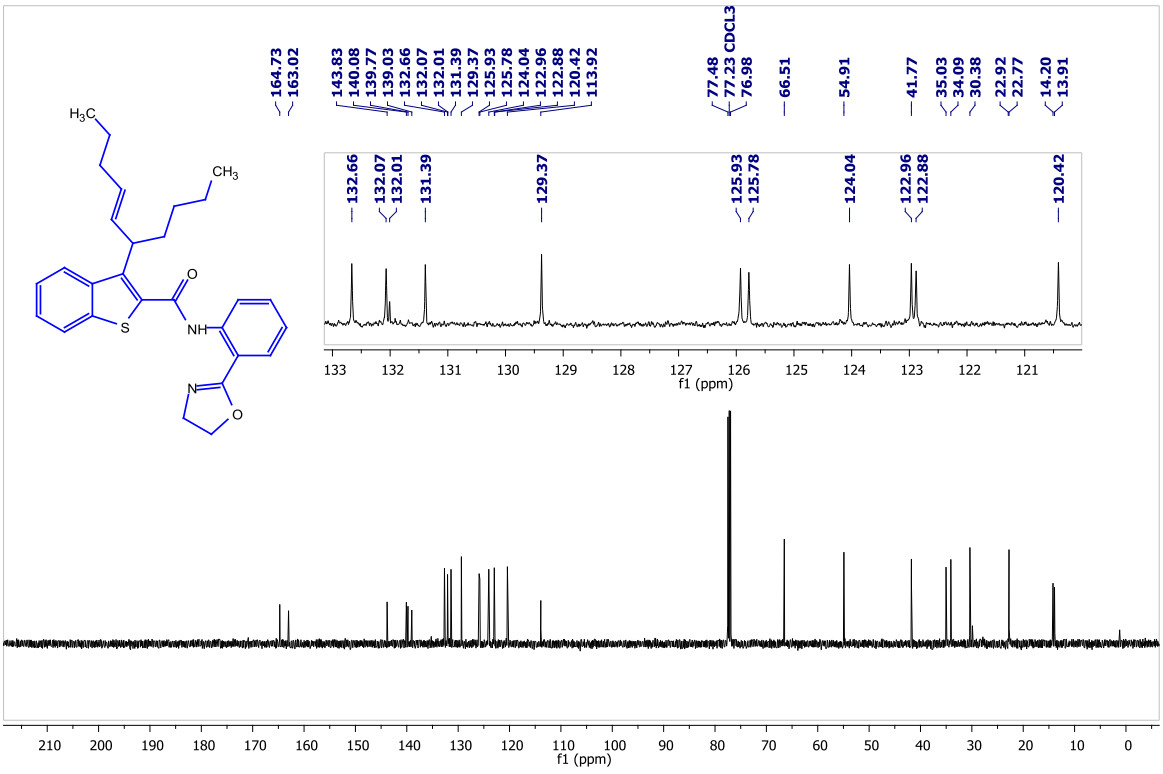


3j.

(E)-3-(dec-6-en-5-yl)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)benzo[b]thiophene-2-carboxamide

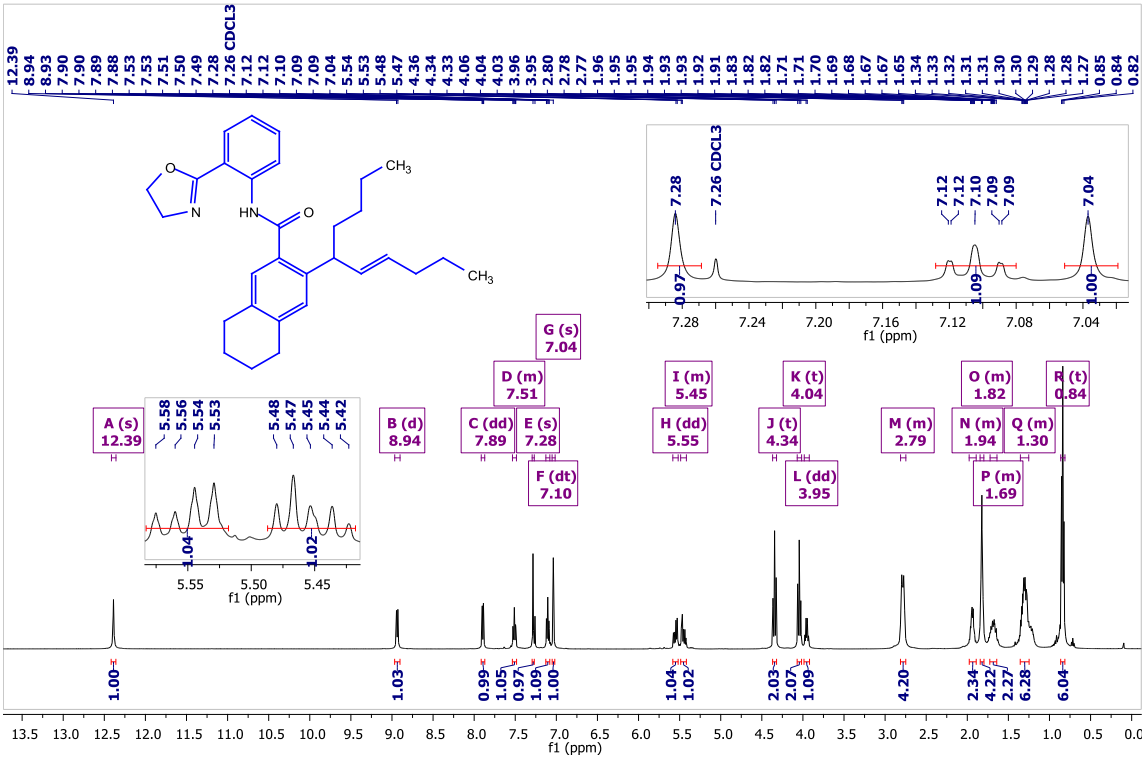


(E)-3-(dec-6-en-5-yl)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)benzo[b]thiophene-2-carboxamide

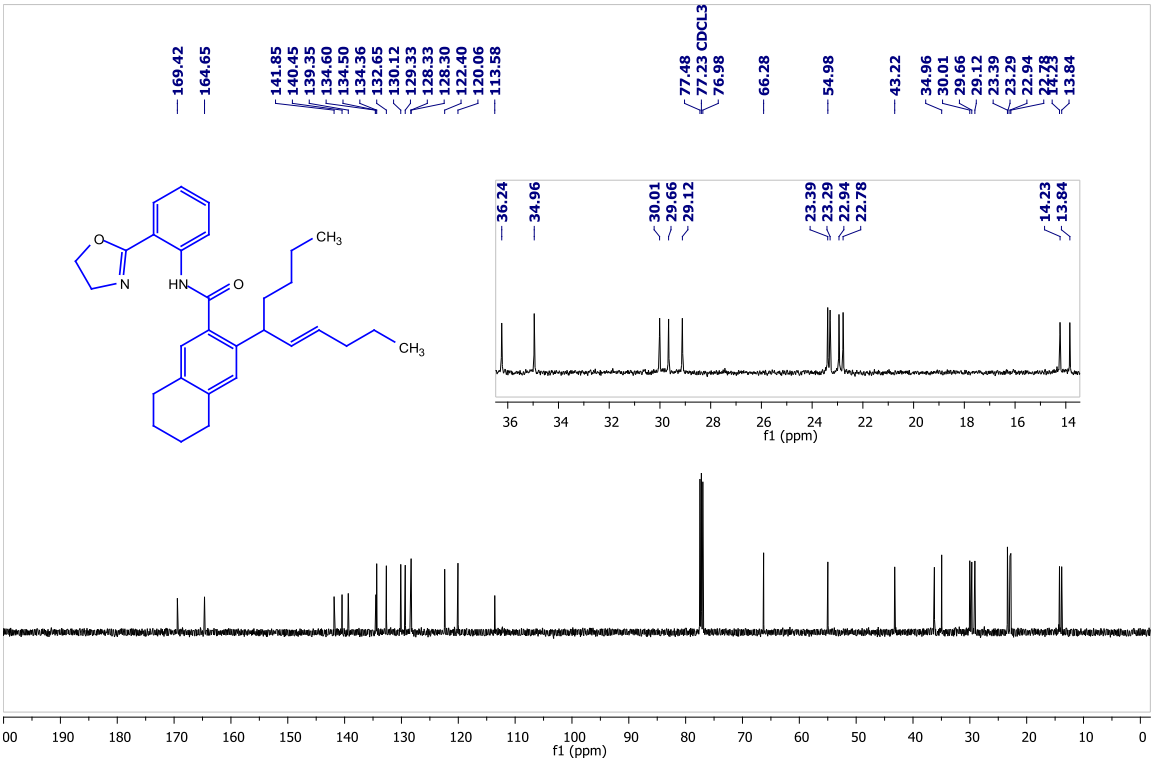


3k.

(E)-3-(dec-6-en-5-yl)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-5,6,7,8-tetrahydronaphthalene-2-carboxamide

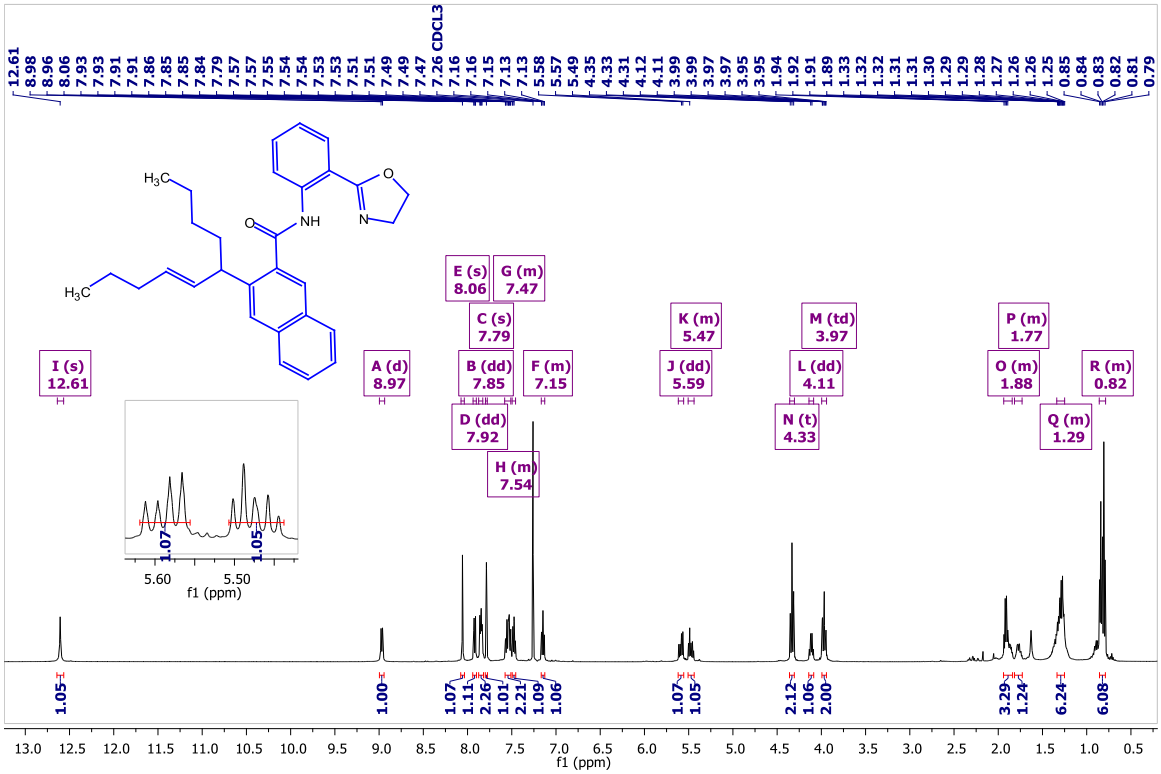


(E)-3-(dec-6-en-5-yl)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-5,6,7,8-tetrahydronaphthalene-2-carboxamide

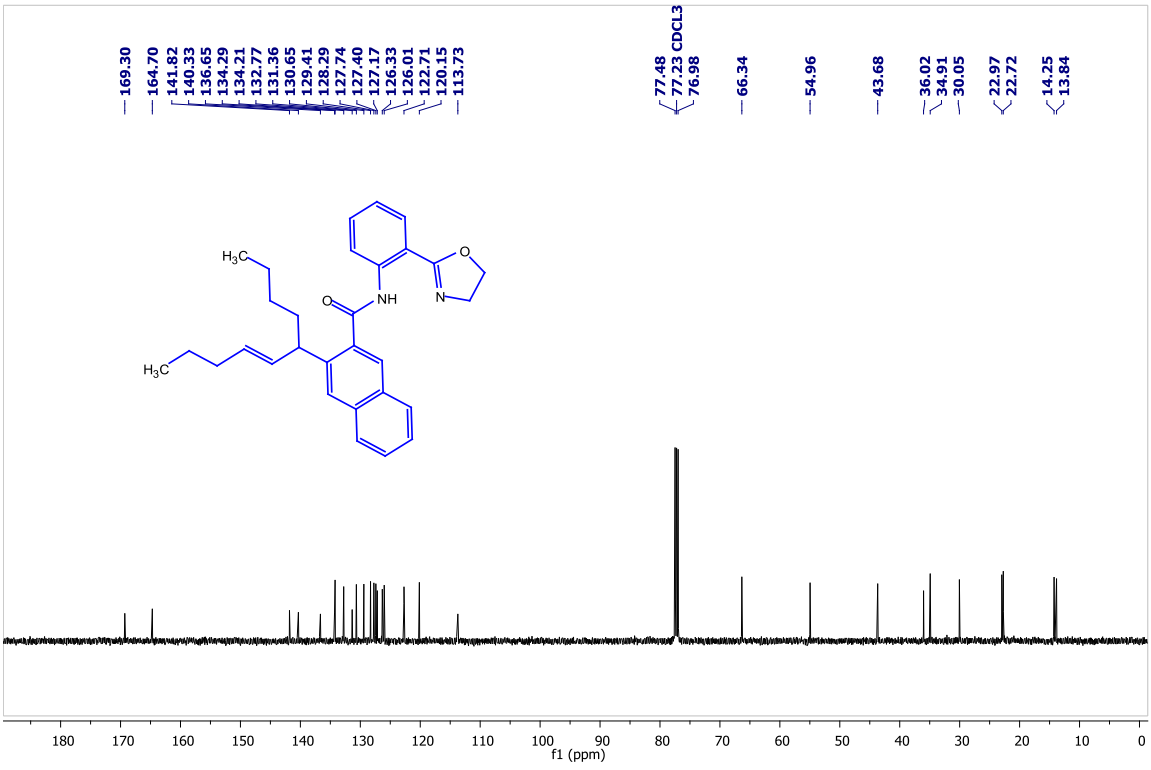


3l.

(E)-3-(dec-6-en-5-yl)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-naphthamide

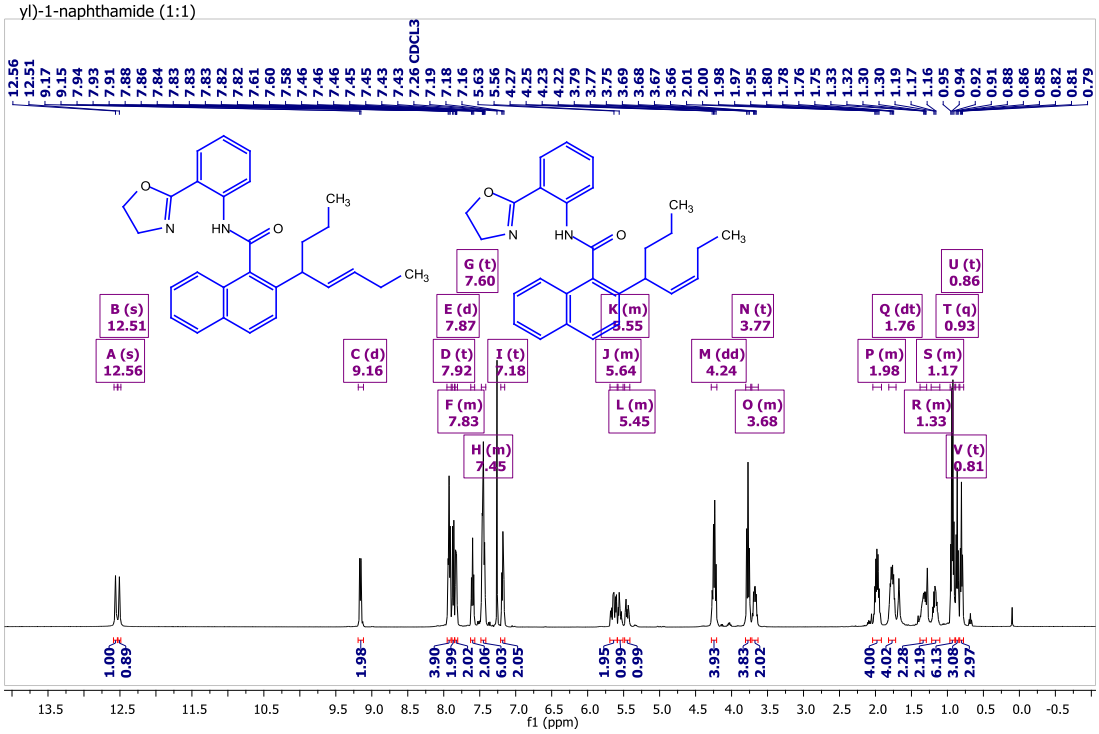


(E)-3-(dec-6-en-5-yl)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-naphthamide

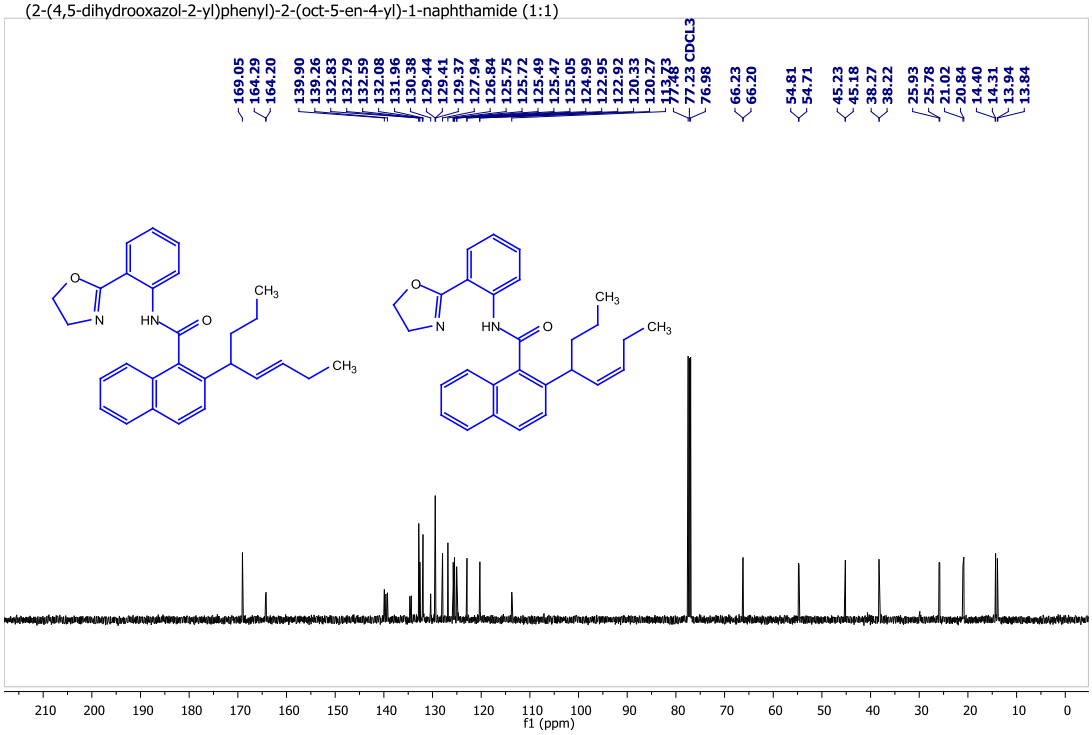


3m.

(E)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-(oct-5-en-4-yl)-1-naphthamide compound with (Z)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-(oct-5-en-4-yl)-1-naphthamide (1:1)

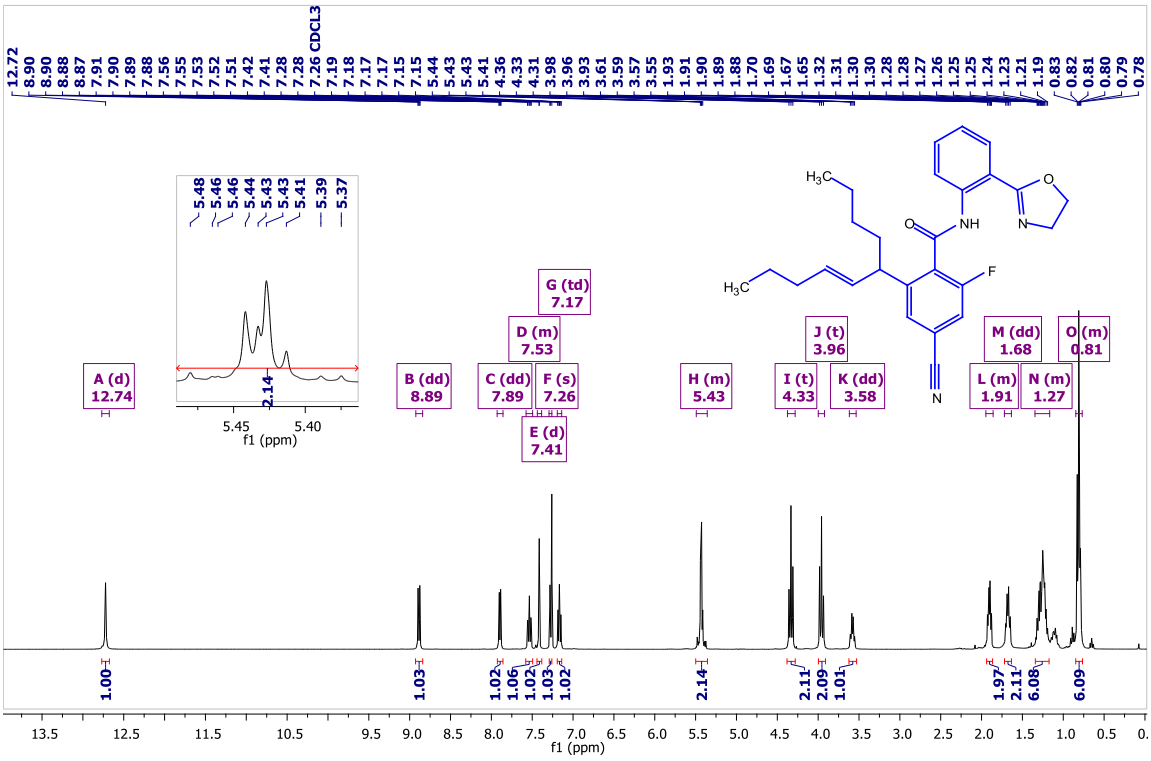


(E)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-(oct-5-en-4-yl)-1-naphthamide compound with (Z)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-(oct-5-en-4-yl)-1-naphthamide (1:1)

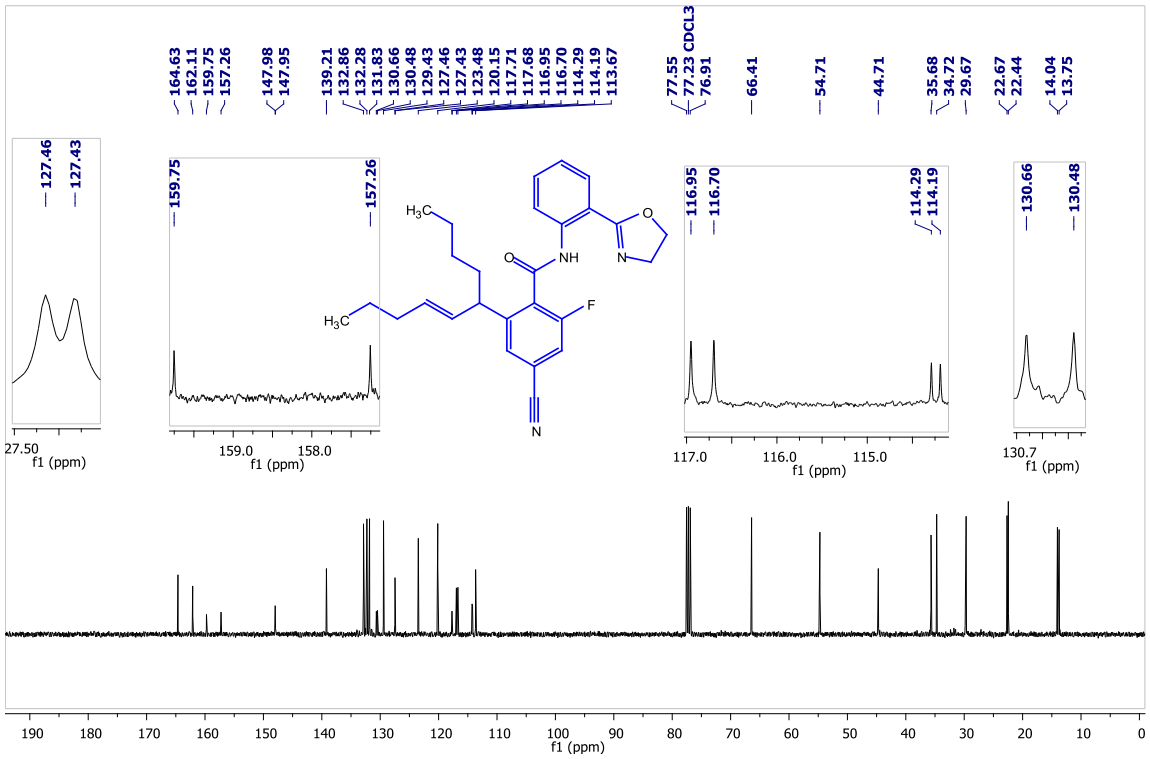


3n.

(E)-4-cyano-2-(dec-6-en-5-yl)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-6-fluorobenzamide

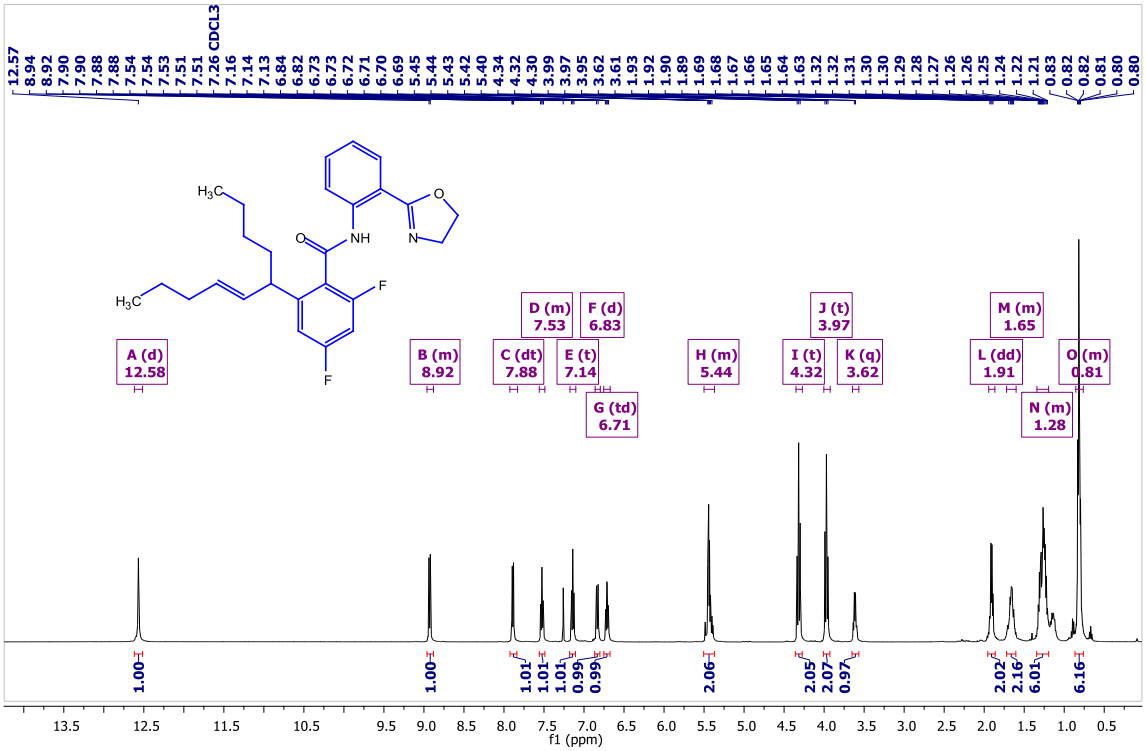


(E)-4-cyano-2-(dec-6-en-5-yl)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-6-fluorobenzamide

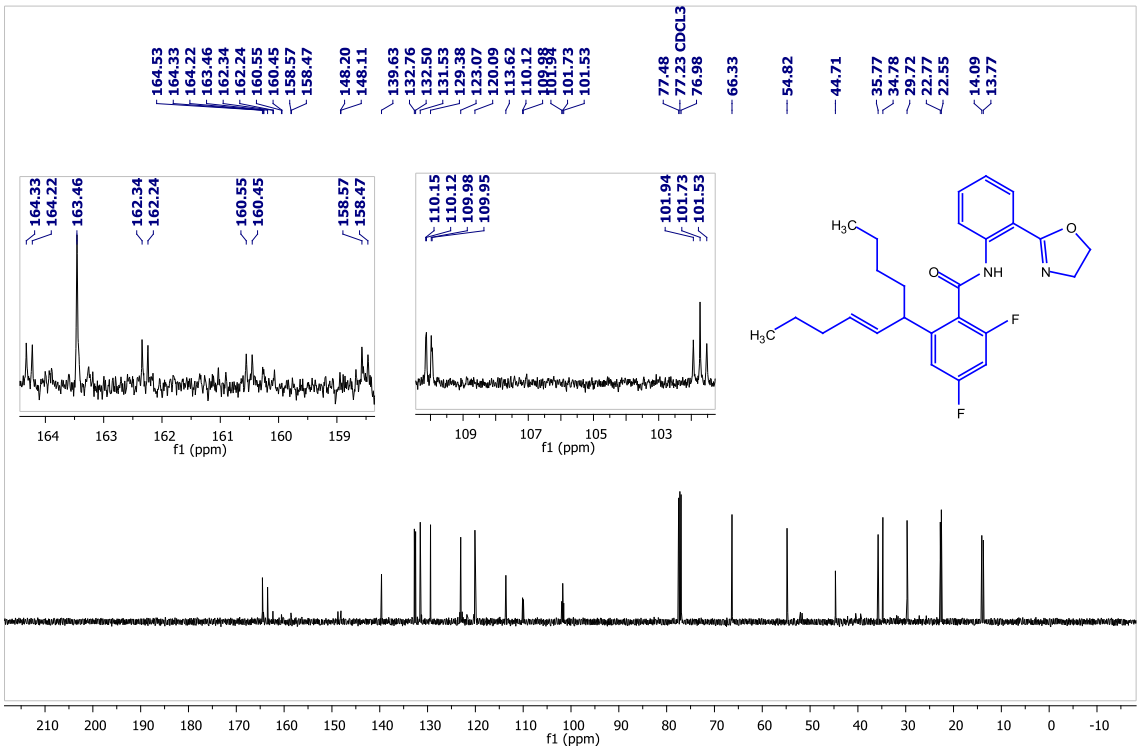


3o.

(E)-2-(dec-6-en-5-yl)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-4,6-difluorobenzamide

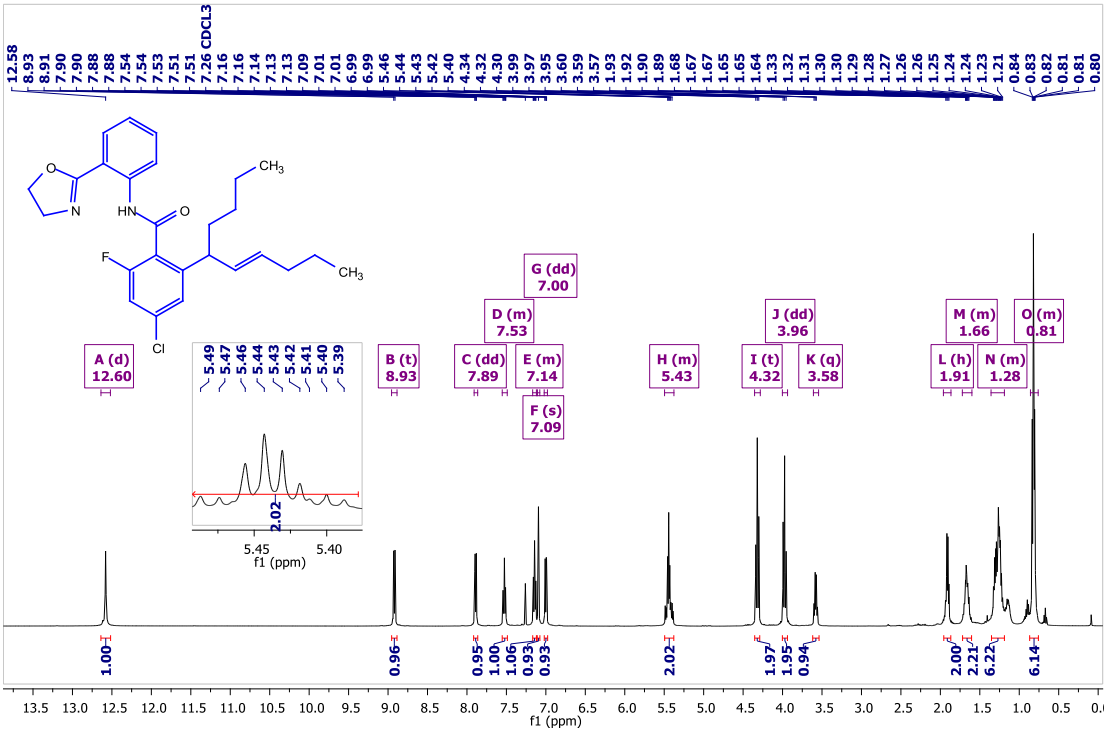


(E)-2-(dec-6-en-5-yl)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-4,6-difluorobenzamide

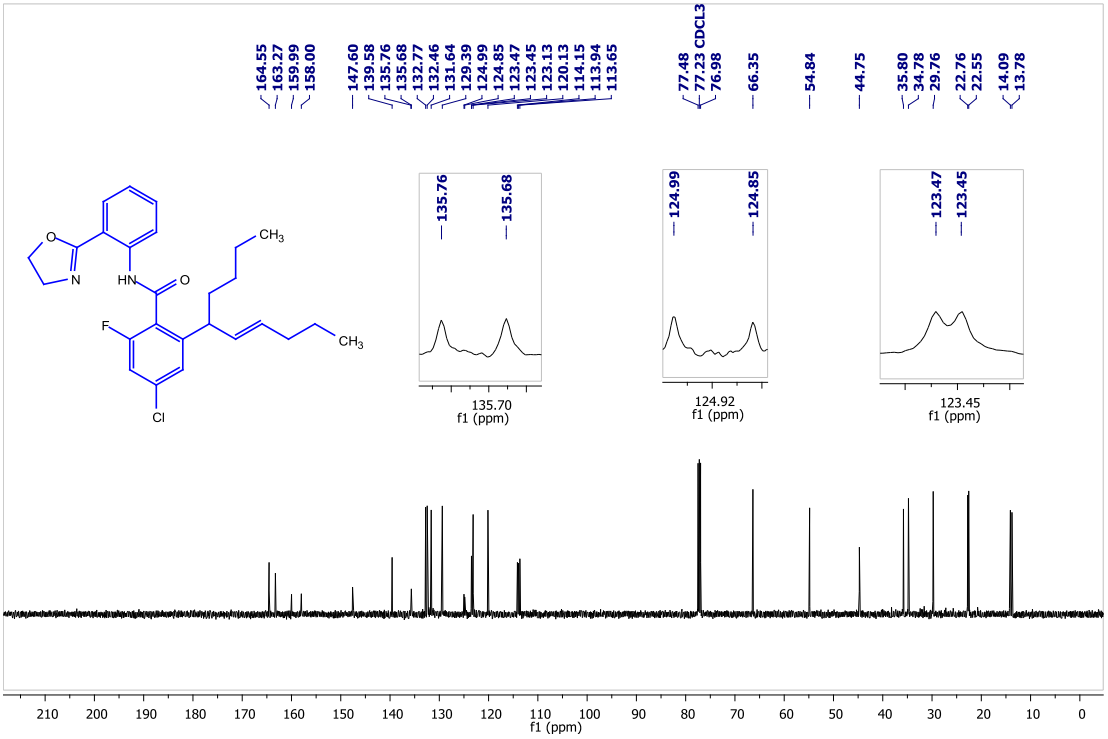


3p.

(E)-4-chloro-2-(dec-6-en-5-yl)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-6-fluorobenzamide

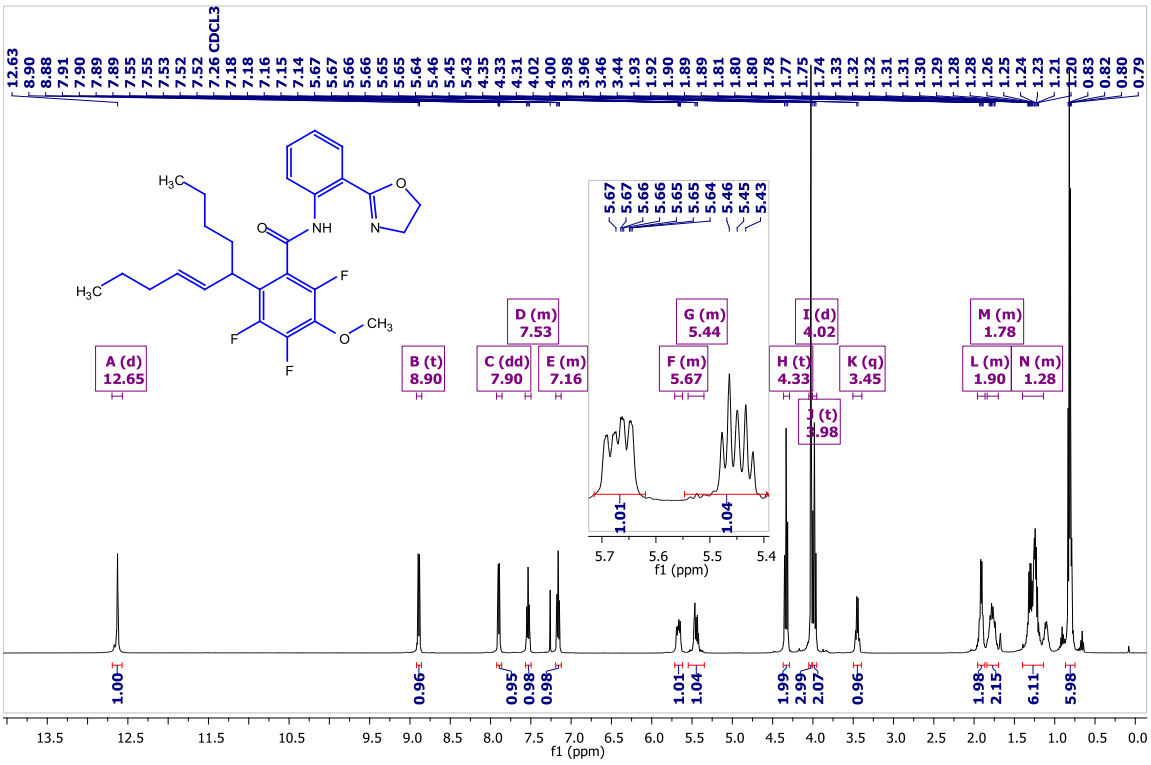


(E)-4-chloro-2-(dec-6-en-5-yl)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-6-fluorobenzamide

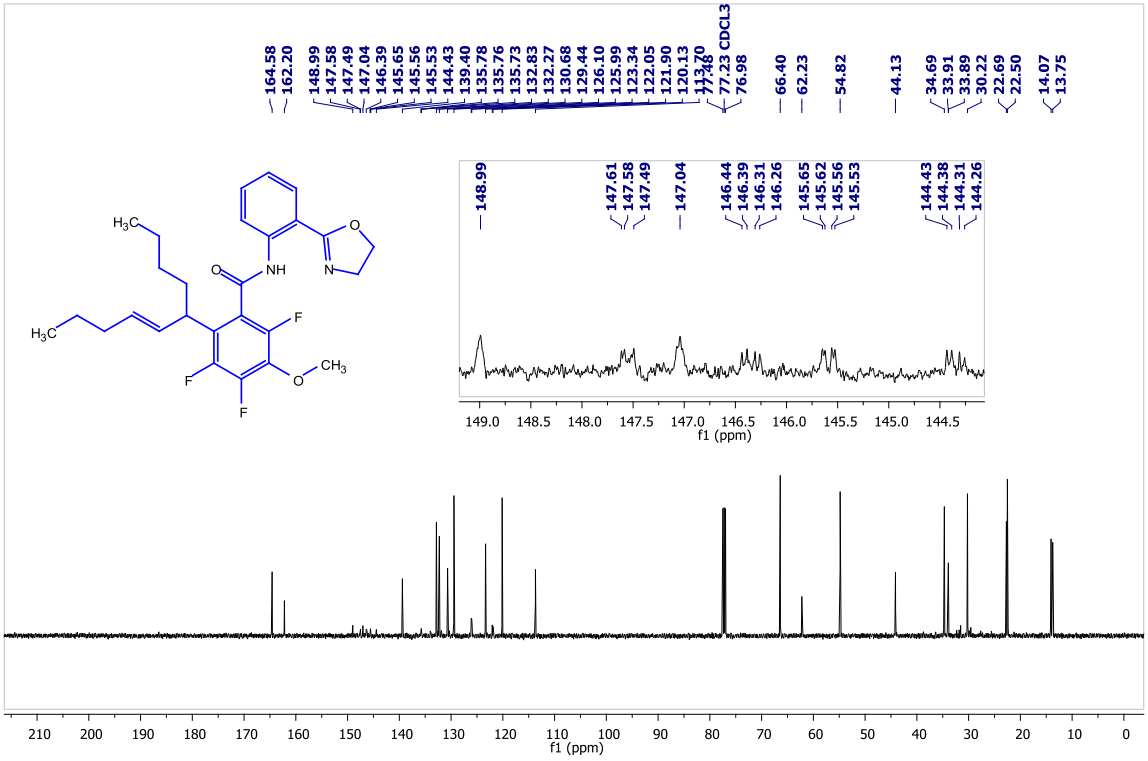


3q.

(E)-2-(dec-6-en-5-yl)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-3,4,6-trifluoro-5-methoxybenzamide

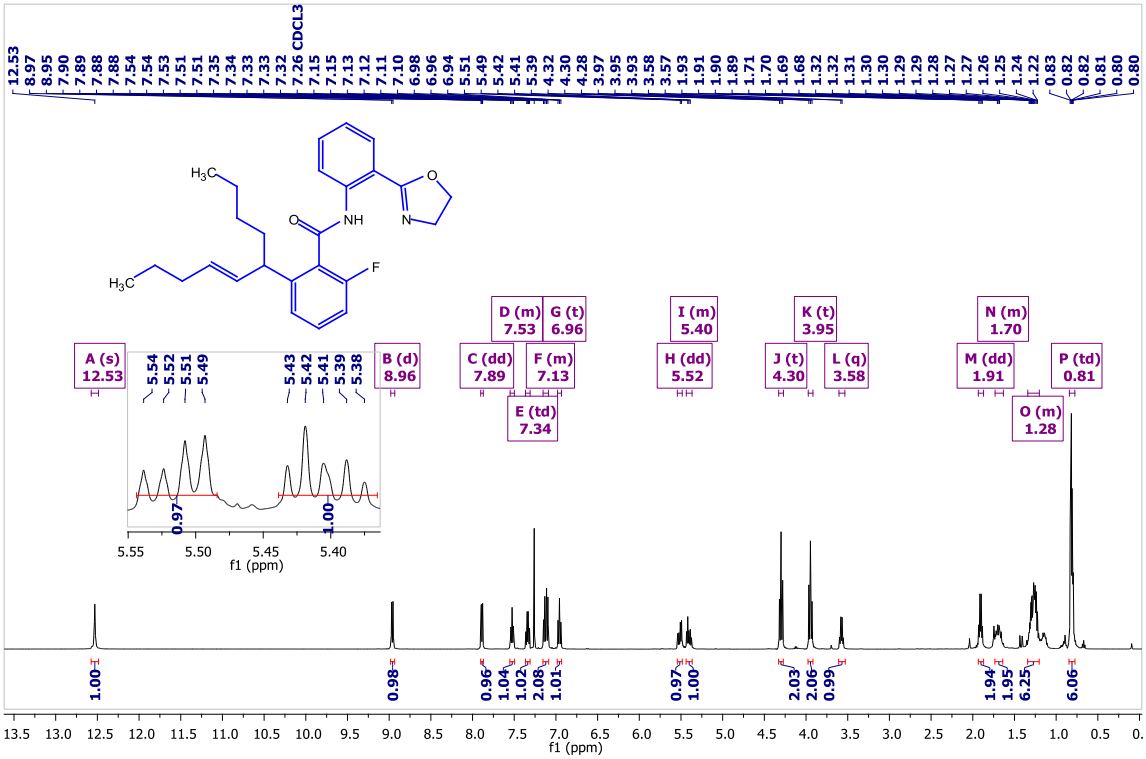


(E)-2-(dec-6-en-5-yl)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-3,4,6-trifluoro-5-methoxybenzamide

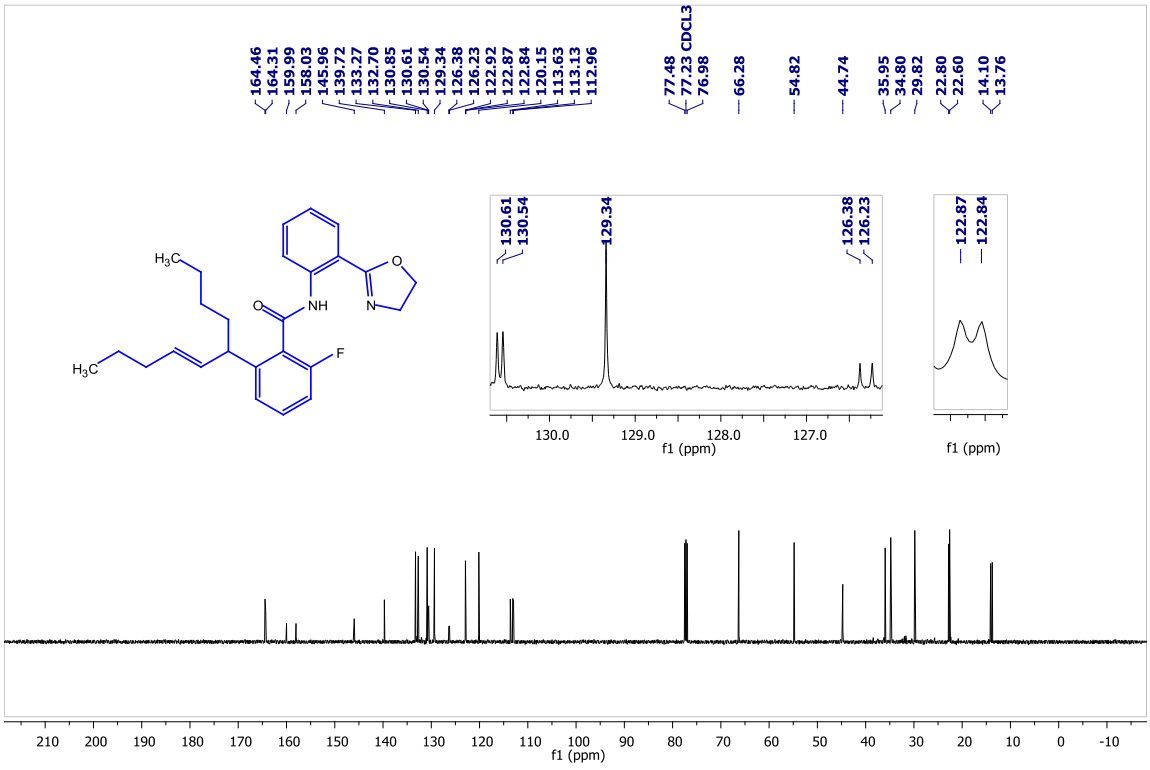


4a.

(E)-2-(dec-6-en-5-yl)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-6-fluorobenzamide

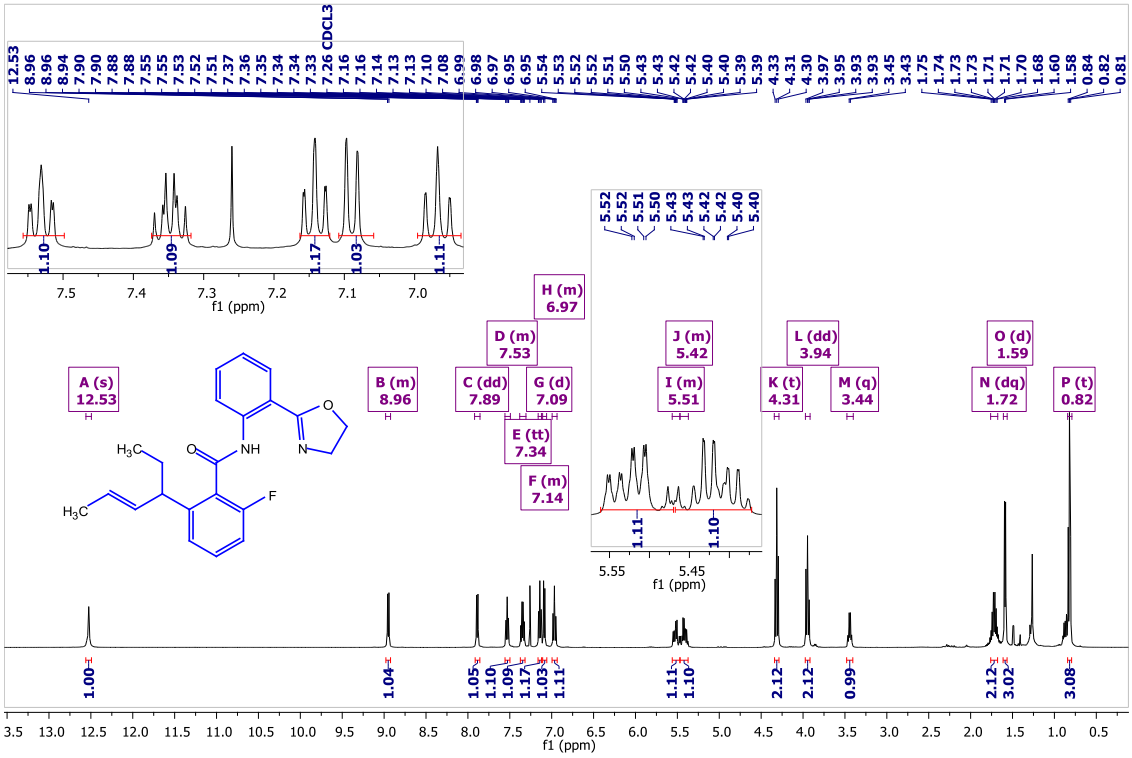


(E)-2-(dec-6-en-5-yl)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-6-fluorobenzamide

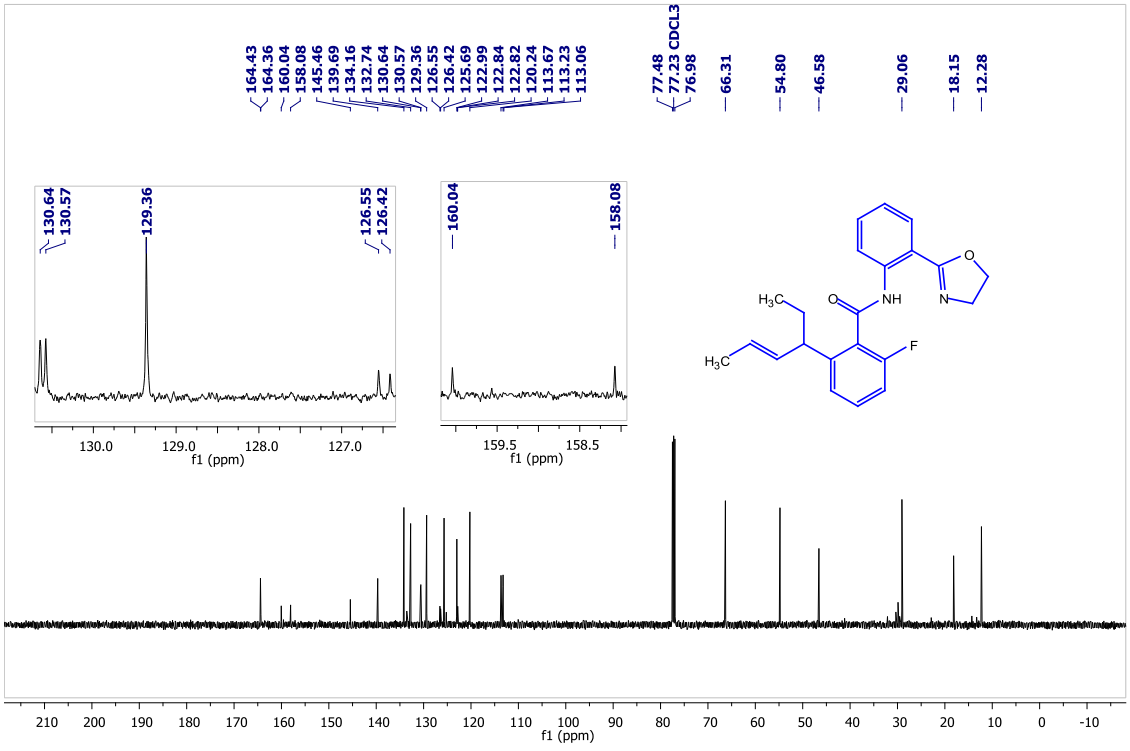


4b.

(E)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-fluoro-6-(hex-4-en-3-yl)benzamide

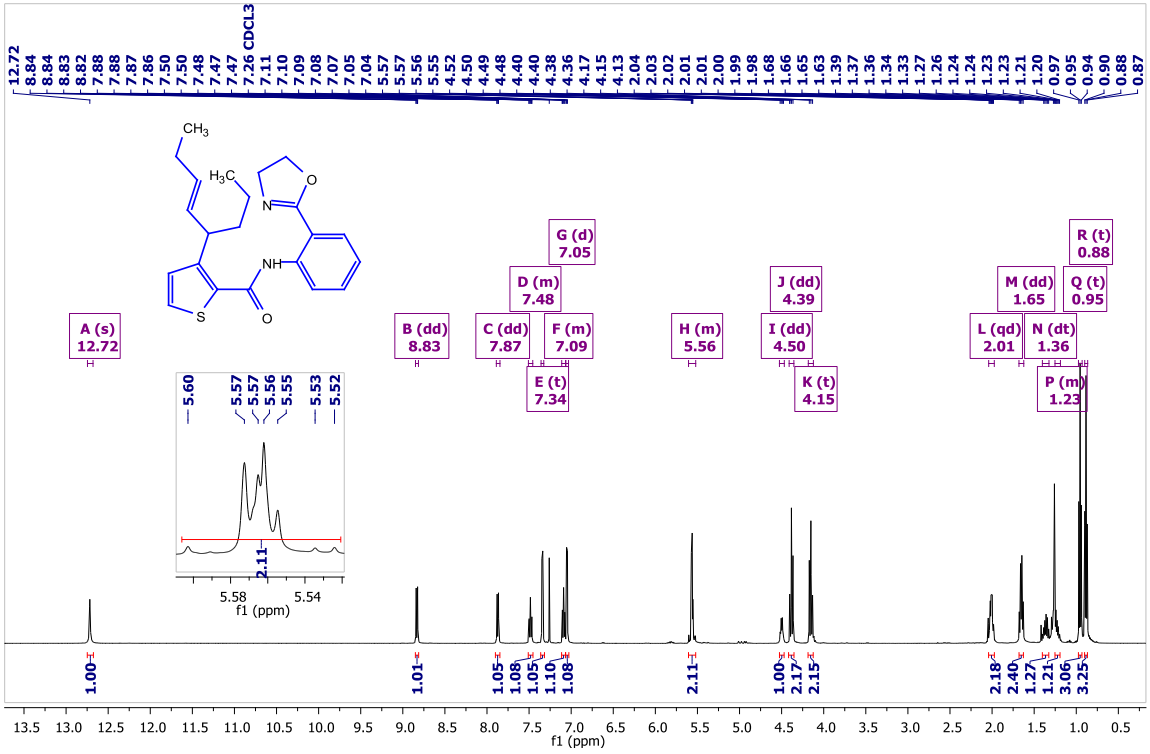


(E)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-fluoro-6-(hex-4-en-3-yl)benzamide

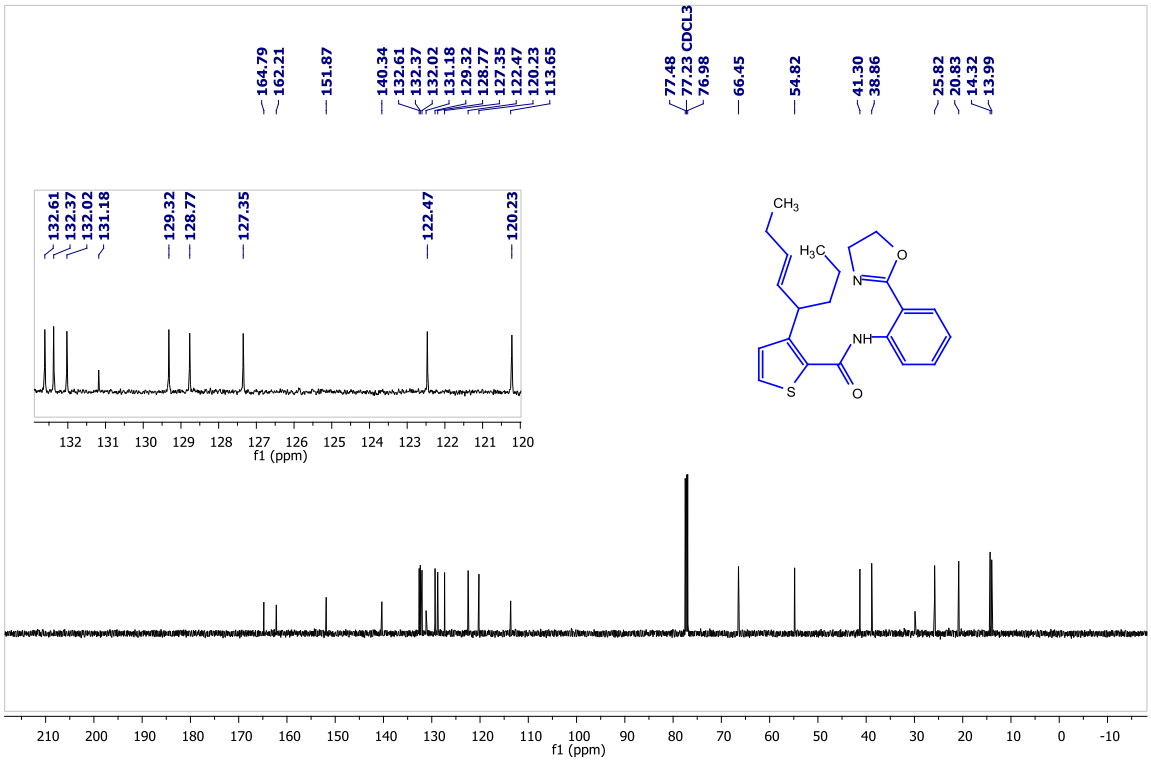


4c.

(E)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-3-(oct-5-en-4-yl)thiophene-2-carboxamide

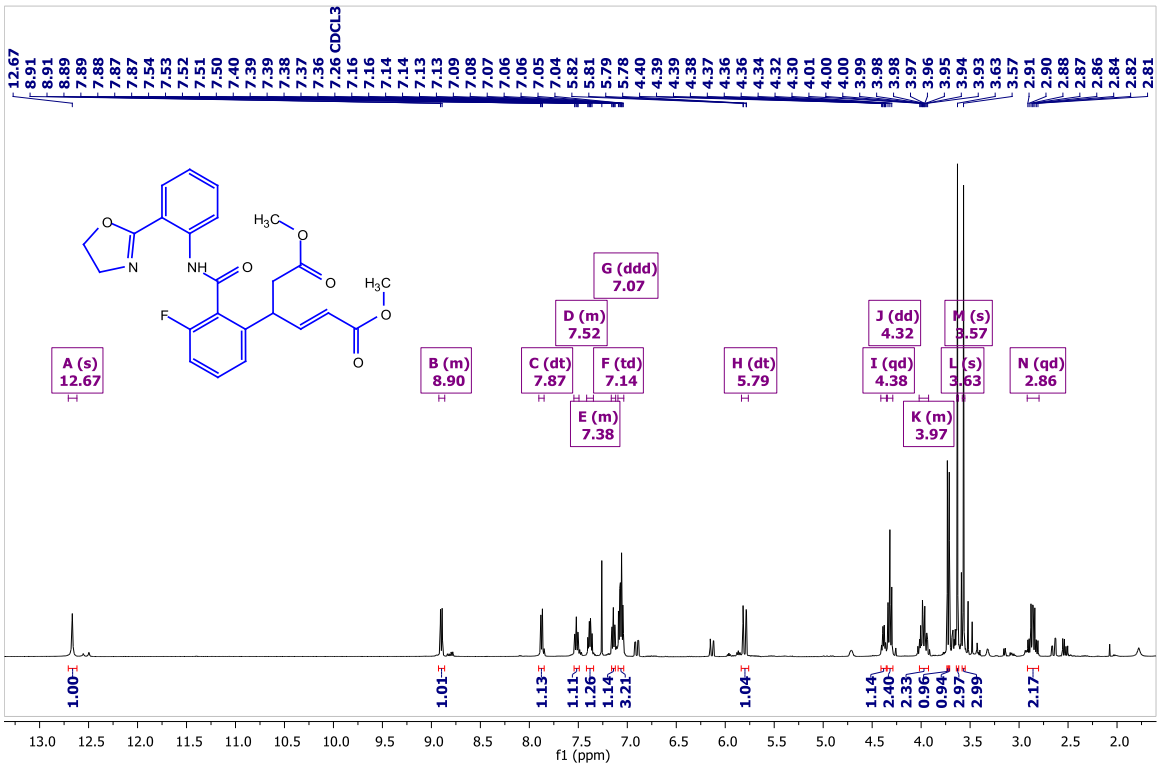


(E)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-3-(oct-5-en-4-yl)thiophene-2-carboxamide

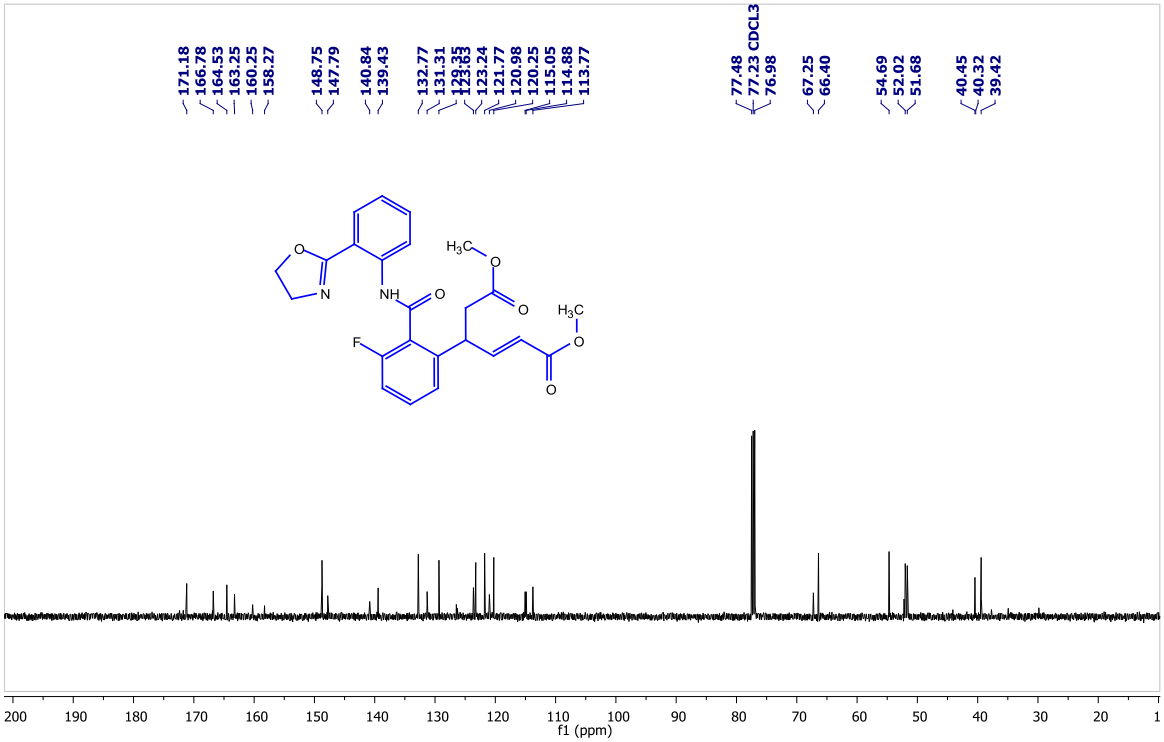


4d.

(E)-dimethyl 4-(2-((2-(4,5-dihydrooxazol-2-yl)phenyl)carbamoyl)-3-fluorophenyl)hex-2-enedioate

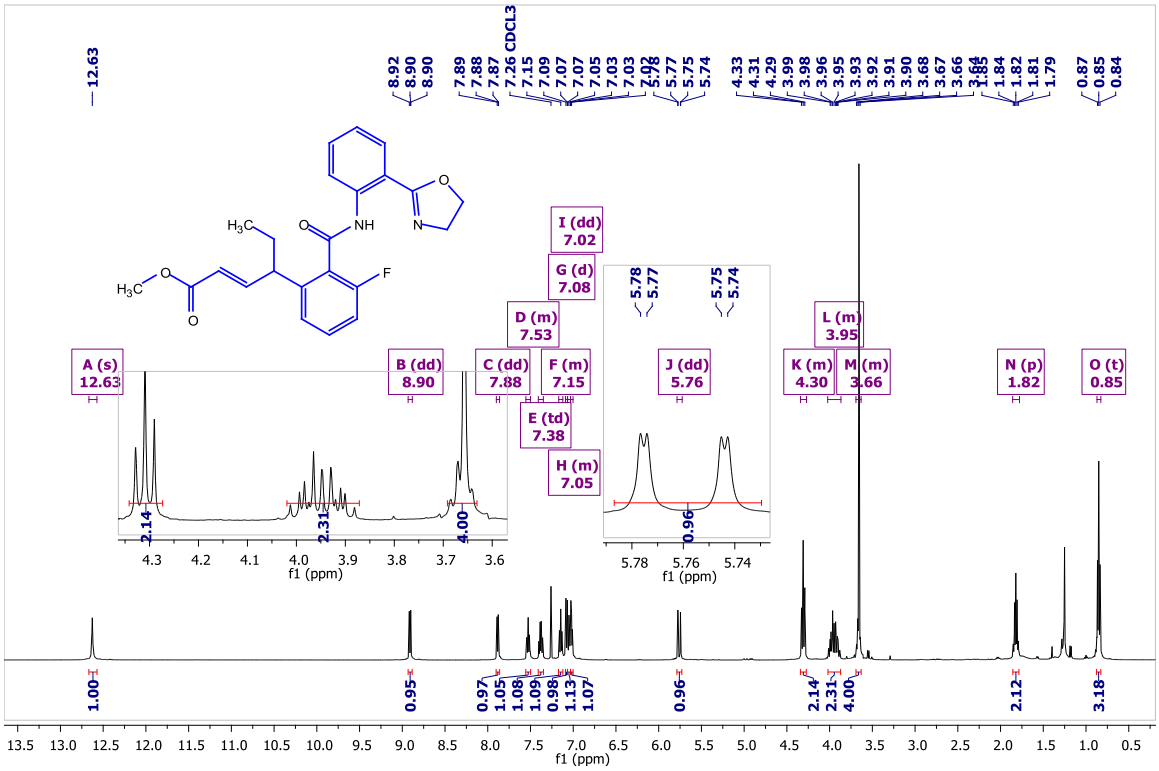


(E)-dimethyl 4-(2-((2-(4,5-dihydrooxazol-2-yl)phenyl)carbamoyl)-3-fluorophenyl)hex-2-enedioate

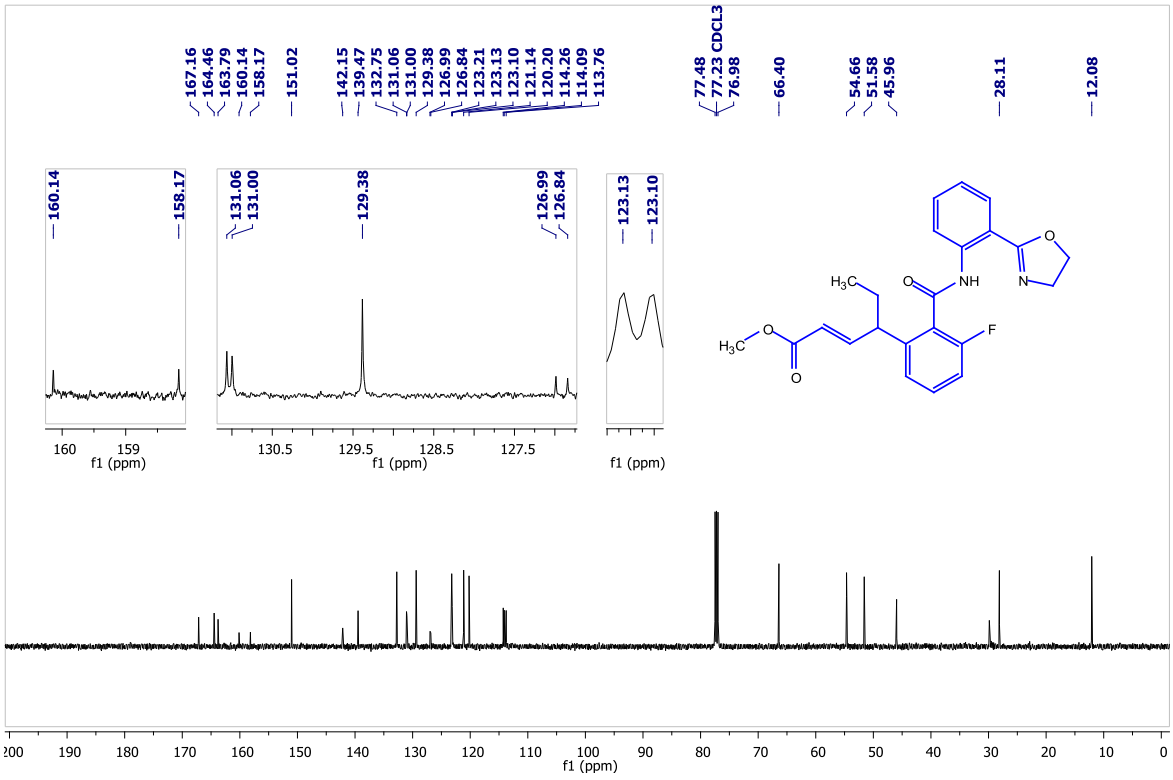


4e.

(E)-methyl 4-(2-((2-(4,5-dihydrooxazol-2-yl)phenyl)carbamoyl)-3-fluorophenyl)hex-2-enoate

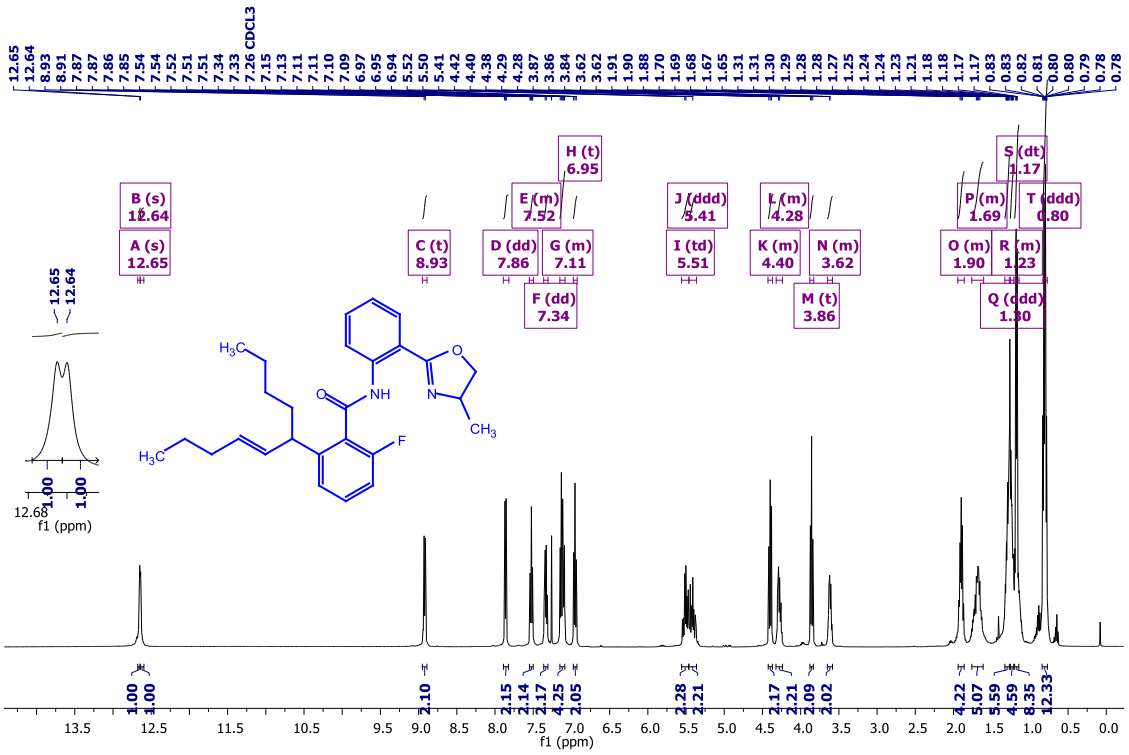


(E)-methyl 4-(2-((2-(4,5-dihydrooxazol-2-yl)phenyl)carbamoyl)-3-fluorophenyl)hex-2-enoate

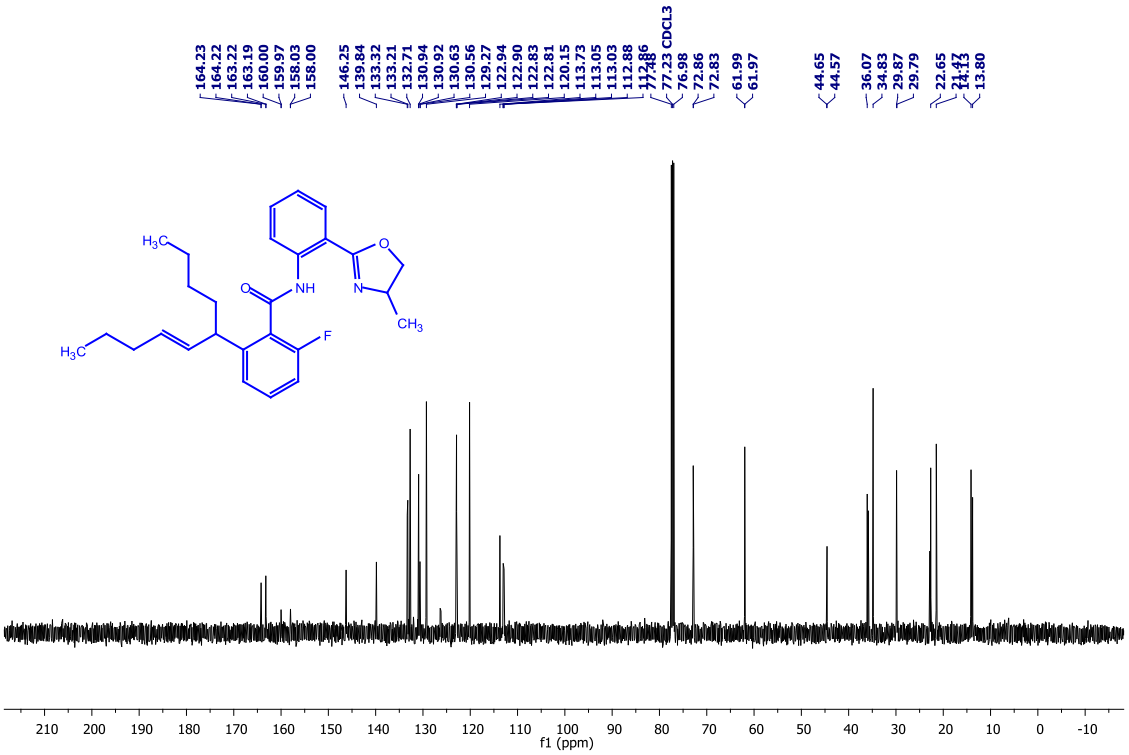


4f.

(E)-2-(dec-6-en-5-yl)-6-fluoro-N-(2-(4-methyl-4,5-dihydrooxazol-2-yl)phenyl)benzamide

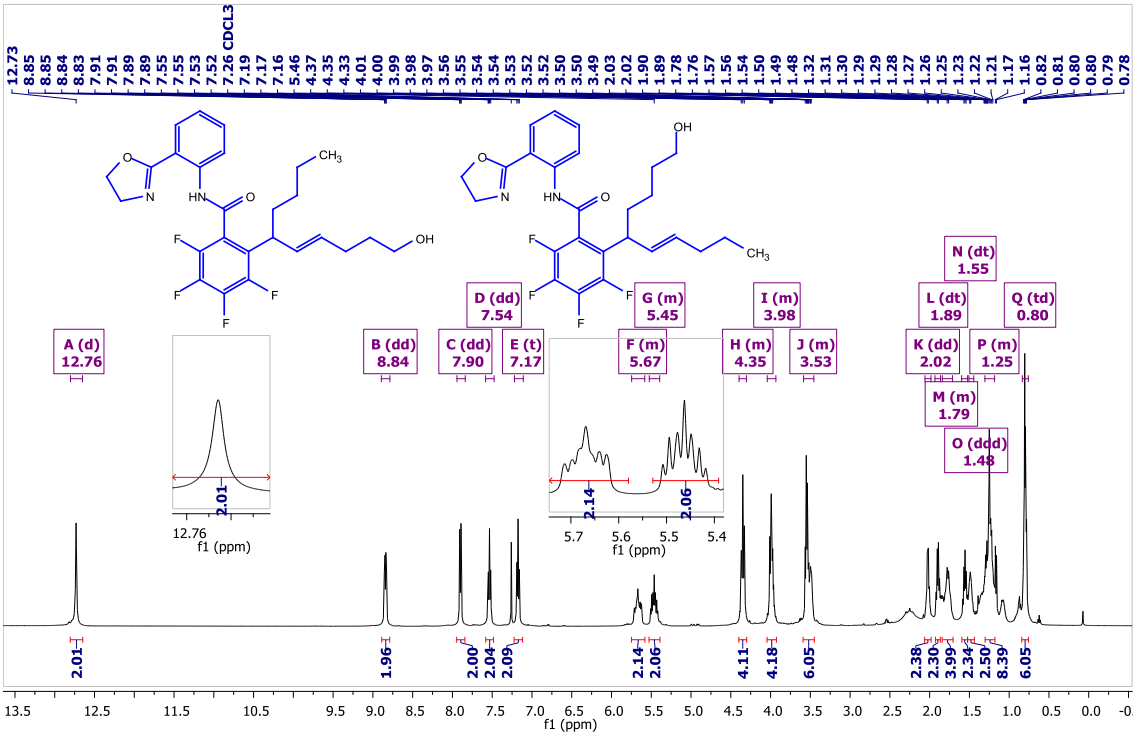


(E)-2-(dec-6-en-5-yl)-6-fluoro-N-(2-(4-methyl-4,5-dihydrooxazol-2-yl)phenyl)benzamide

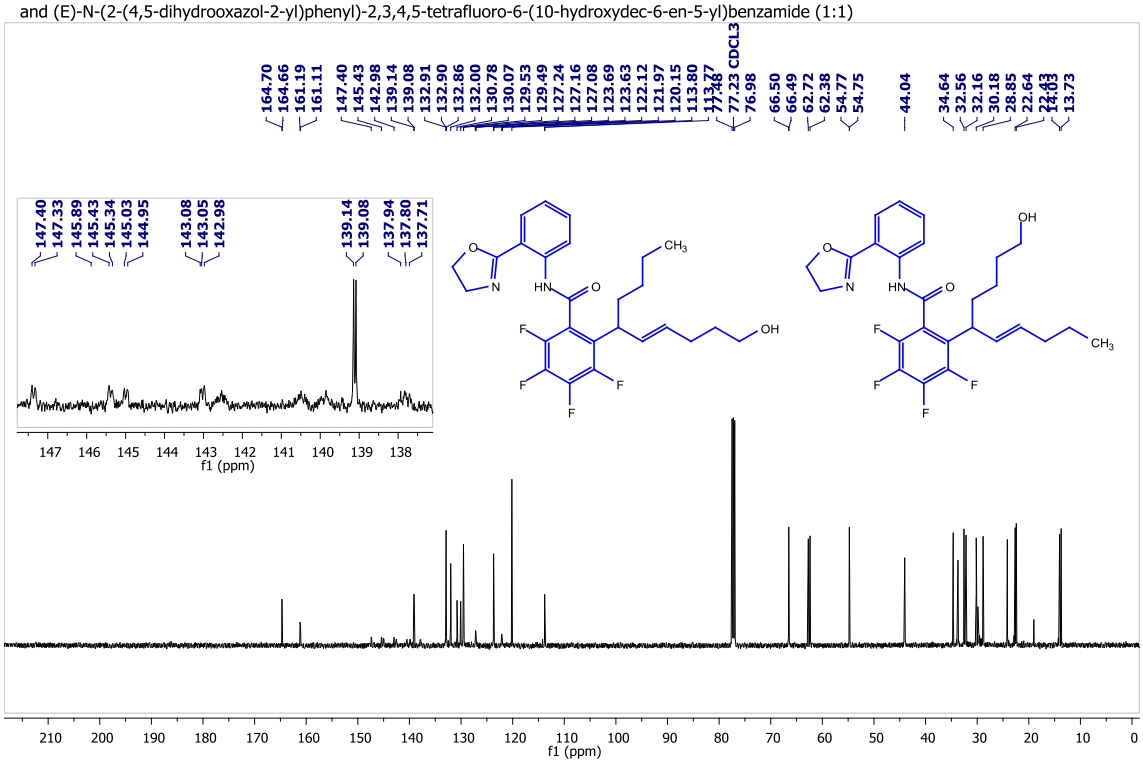


4g.

(E)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2,3,4,5-tetrafluoro-6-(1-hydroxydec-6-en-5-yl)benzamide compound and (E)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2,3,4,5-tetrafluoro-6-(10-hydroxydec-6-en-5-yl)benzamide (1:1)

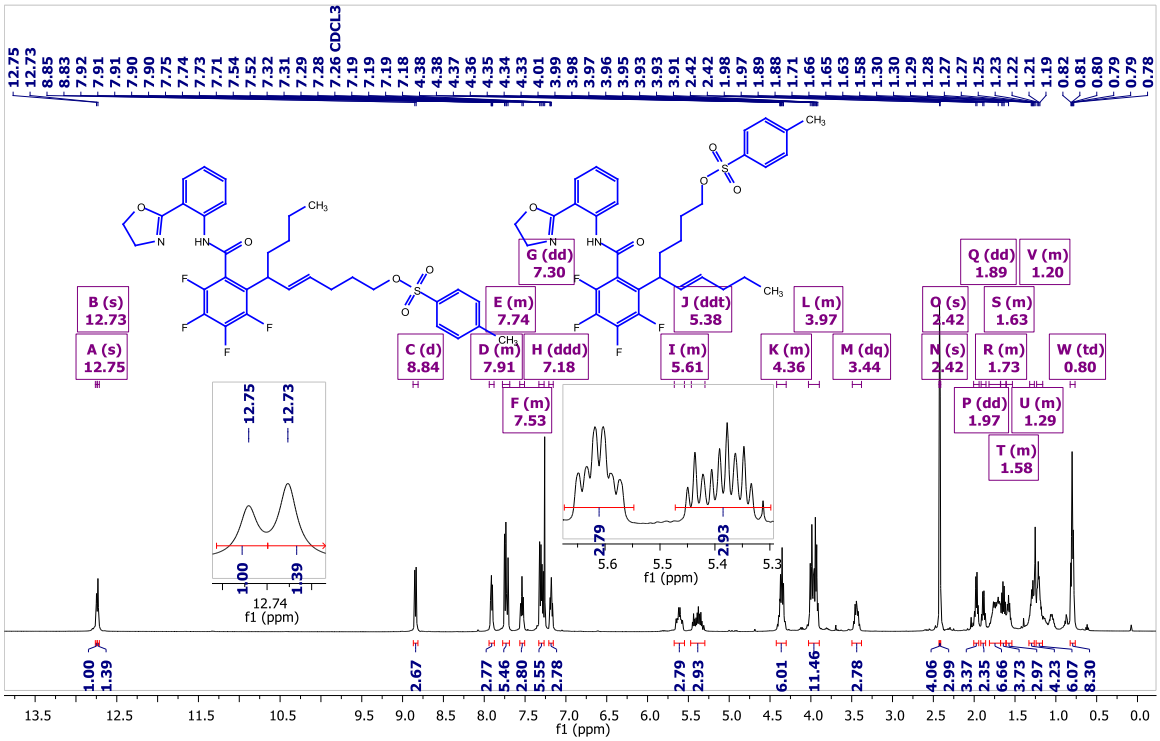


(E)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2,3,4,5-tetrafluoro-6-(1-hydroxydec-6-en-5-yl)benzamide compound and (E)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2,3,4,5-tetrafluoro-6-(10-hydroxydec-6-en-5-yl)benzamide (1:1)

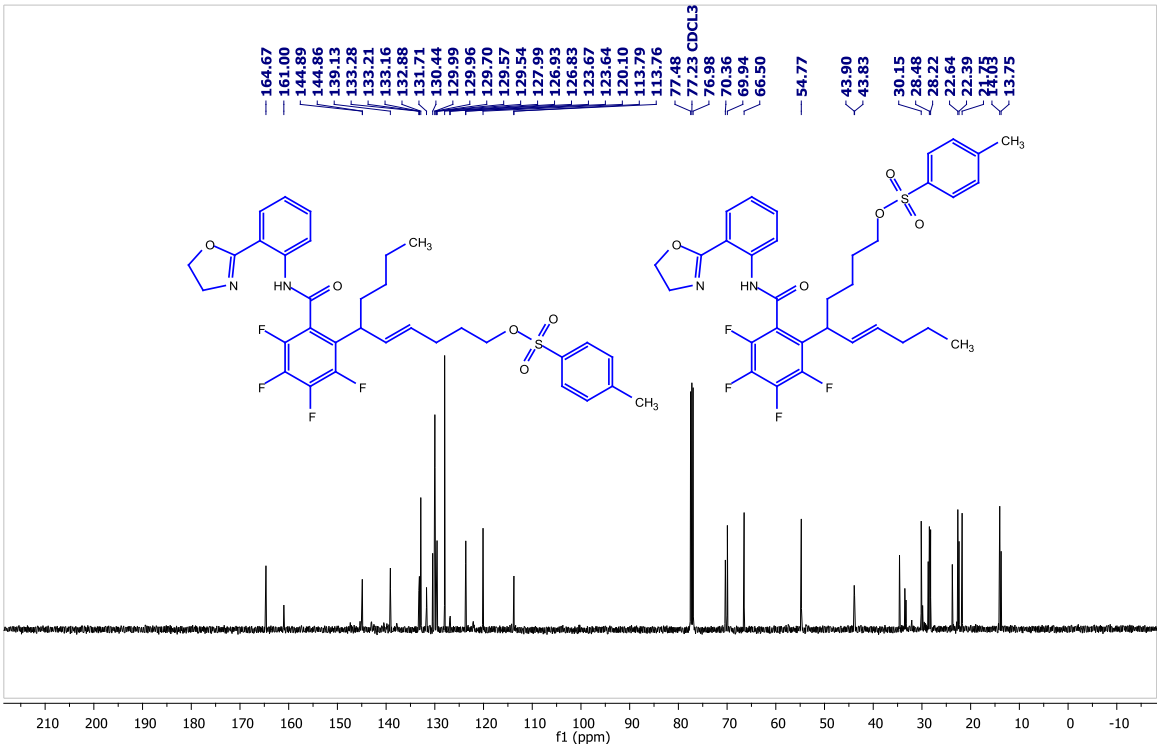


4h.

(E)-5-(2-((2-(4,5-dihydrooxazol-2-yl)phenyl)carbamoyl)-3,4,5,6-tetrafluorophenyl)dec-6-en-1-yl 4-methylbenzenesulfonate compound
(E)-6-(2-((2-(4,5-dihydrooxazol-2-yl)phenyl)carbamoyl)-3,4,5,6-tetrafluorophenyl)dec-4-en-1-yl 4-methylbenzenesulfonate

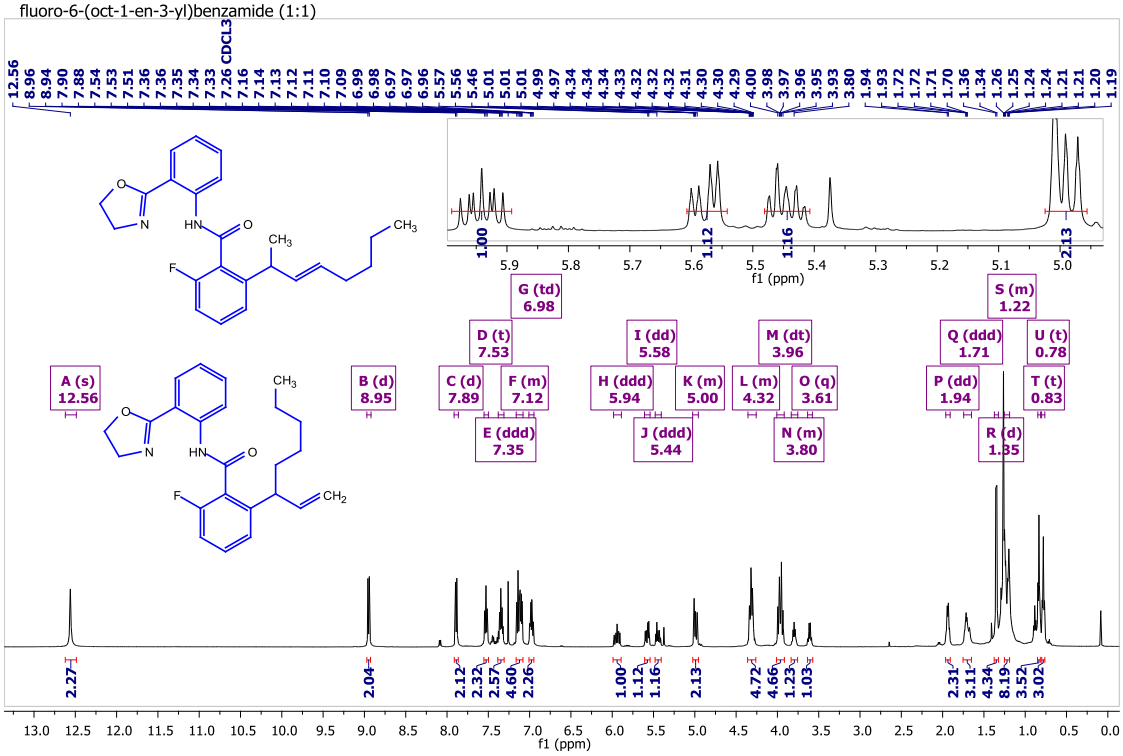


(E)-5-(2-((2-(4,5-dihydrooxazol-2-yl)phenyl)carbamoyl)-3,4,5,6-tetrafluorophenyl)dec-6-en-1-yl 4-methylbenzenesulfonate compound &
(E)-6-(2-((2-(4,5-dihydrooxazol-2-yl)phenyl)carbamoyl)-3,4,5,6-tetrafluorophenyl)dec-4-en-1-yl 4-methylbenzenesulfonate

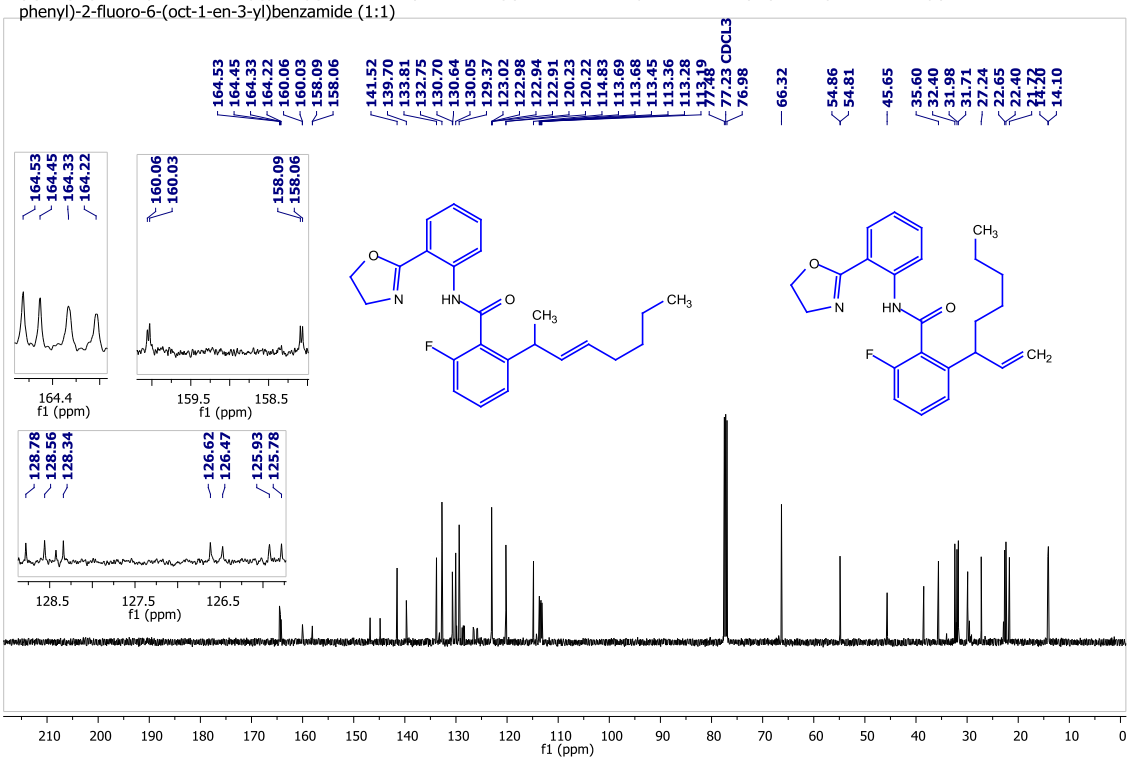


4i.

(E)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-fluoro-6-(oct-3-en-2-yl)benzamide compound with N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-fluoro-6-(oct-1-en-3-yl)benzamide (1:1)

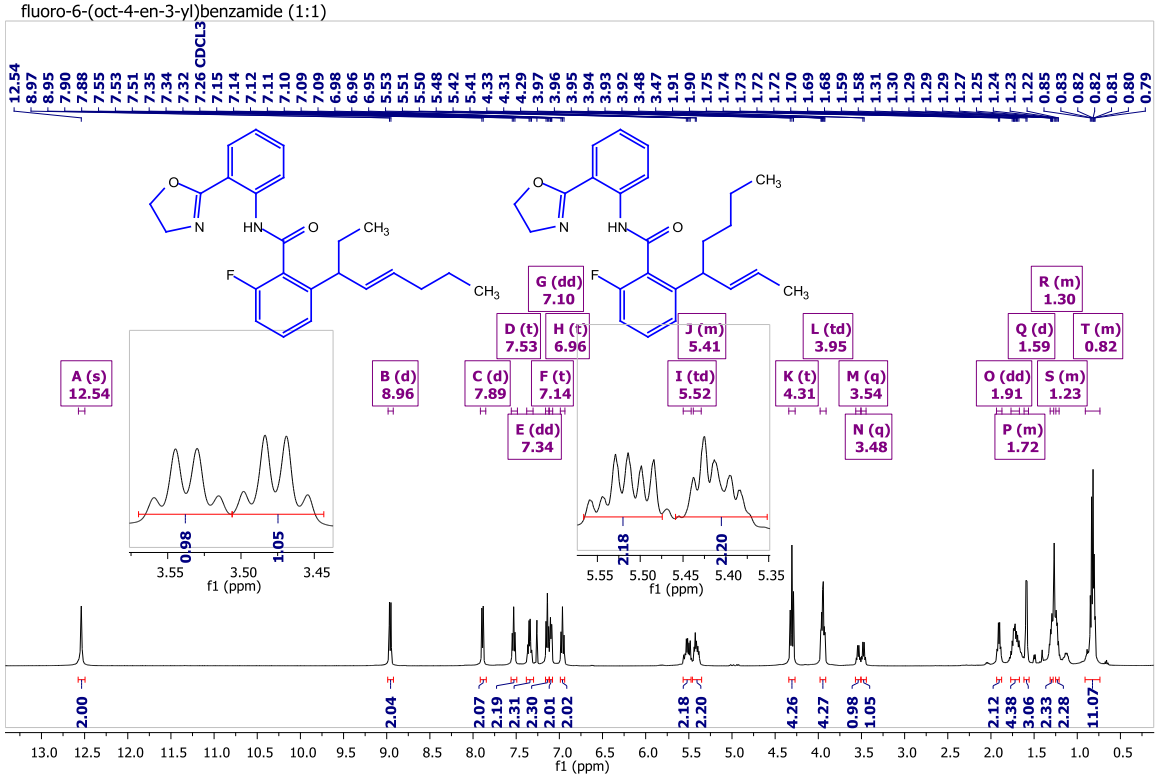


(E)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-fluoro-6-(oct-3-en-2-yl)benzamide compound with N-(2-(4,5-dihydrooxazol-2-yl) phenyl)-2-fluoro-6-(oct-1-en-3-yl)benzamide (1:1)

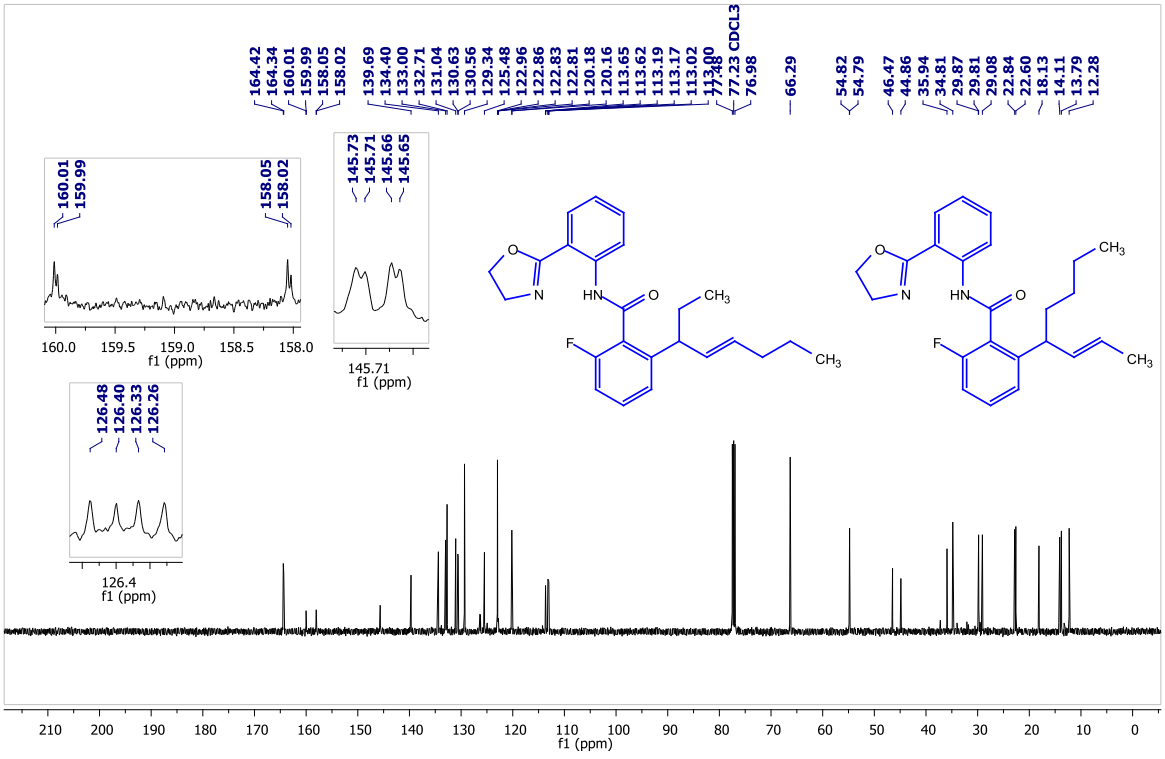


4j.

(E)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-fluoro-6-(oct-2-en-4-yl)benzamide compound with (E)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-fluoro-6-(oct-4-en-3-yl)benzamide (1:1)

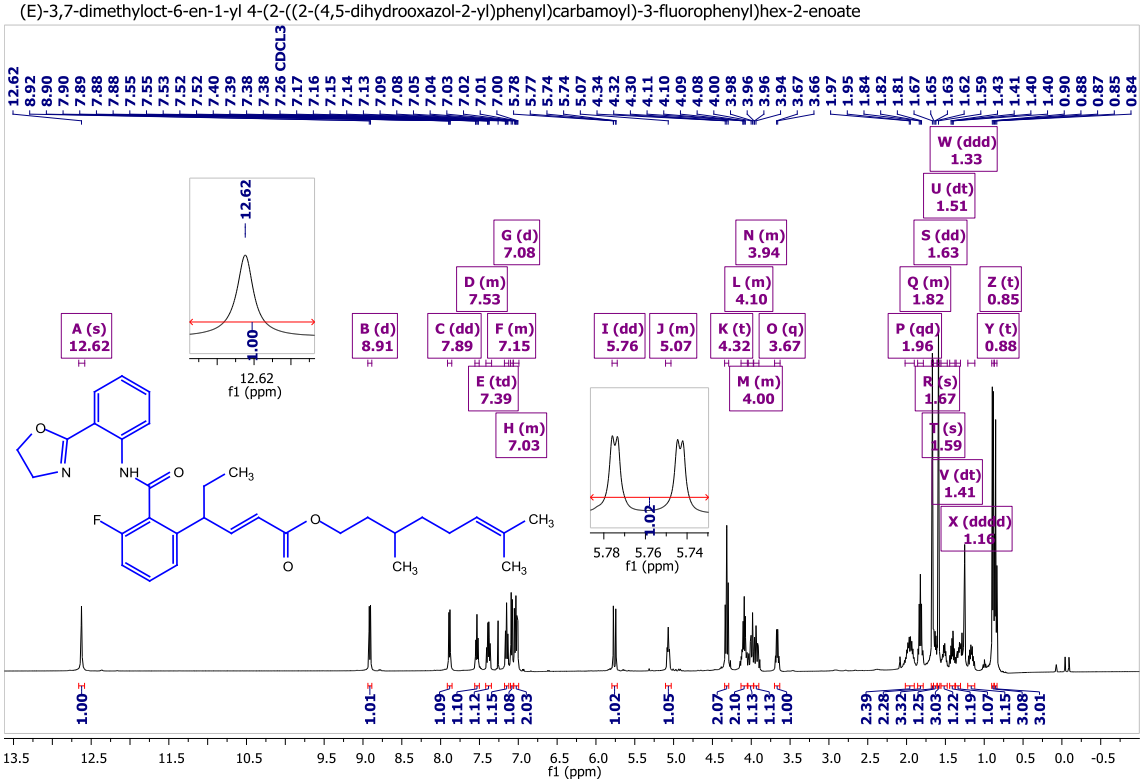


(E)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-fluoro-6-(oct-2-en-4-yl)benzamide compound with (E)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-fluoro-6-(oct-4-en-3-yl)benzamide (1:1)

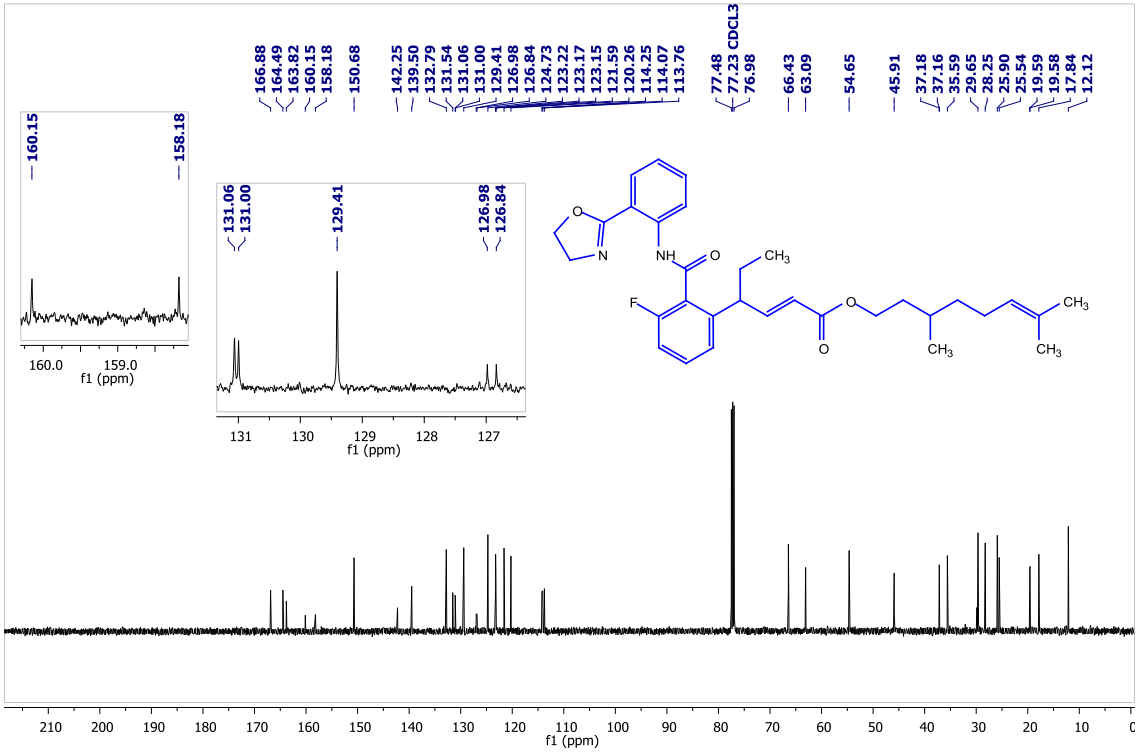


4k.

(E)-3,7-dimethyloct-6-en-1-yl 4-(2-((2-(4,5-dihydrooxazol-2-yl)phenyl)carbamoyl)-3-fluorophenyl)hex-2-enoate

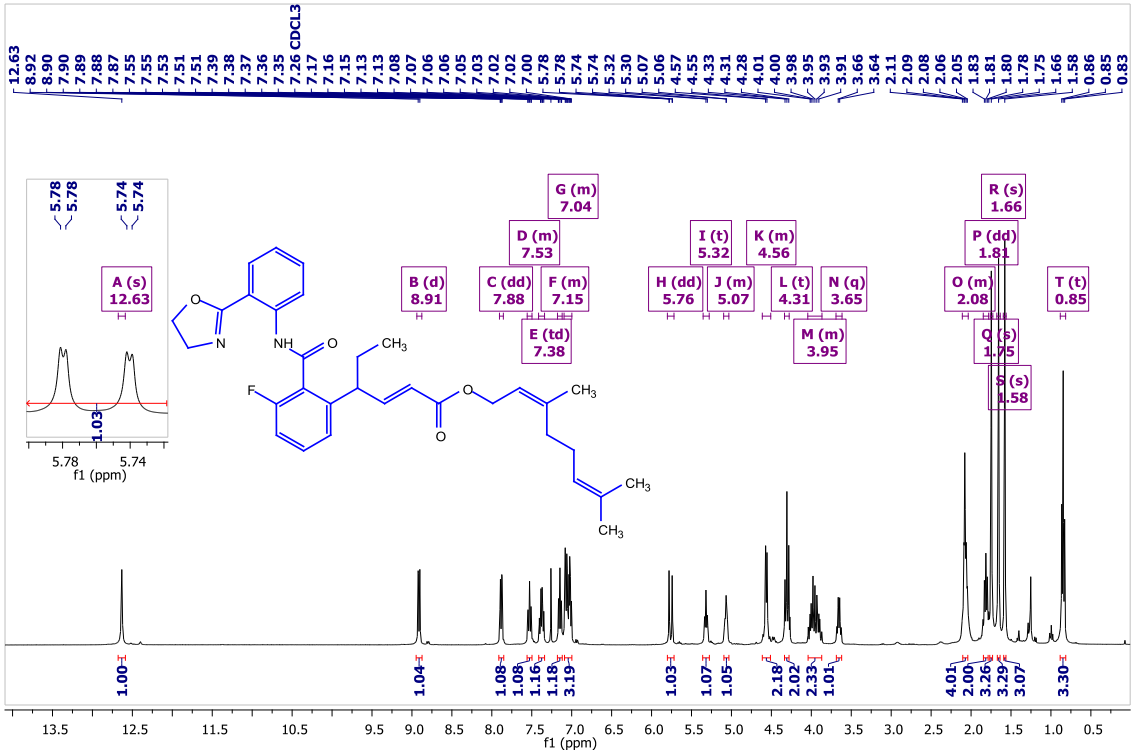


(E)-3,7-dimethyloct-6-en-1-yl 4-(2-((2-(4,5-dihydrooxazol-2-yl)phenyl)carbamoyl)-3-fluorophenyl)hex-2-enoate

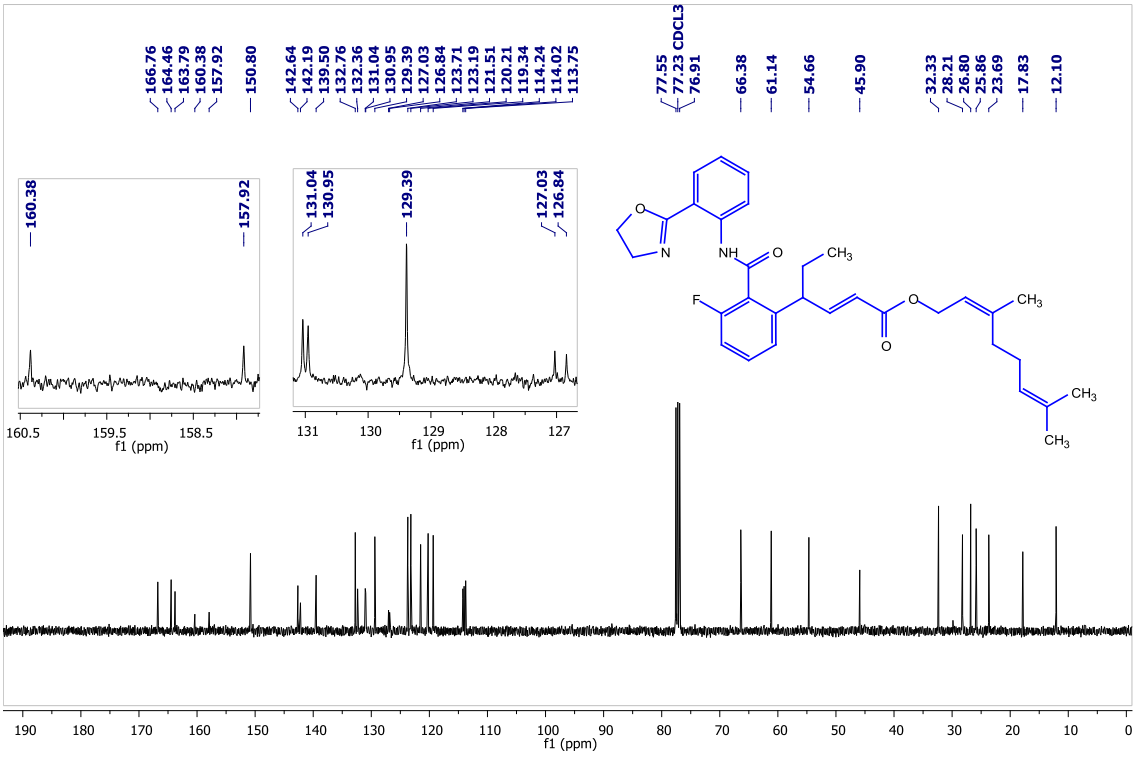


4l.

(E)-(Z)-3,7-dimethylocta-2,6-dien-1-yl 4-(2-((2-(4,5-dihydrooxazol-2-yl)phenyl)carbamoyl)-3-fluorophenyl)hex-2-enoate

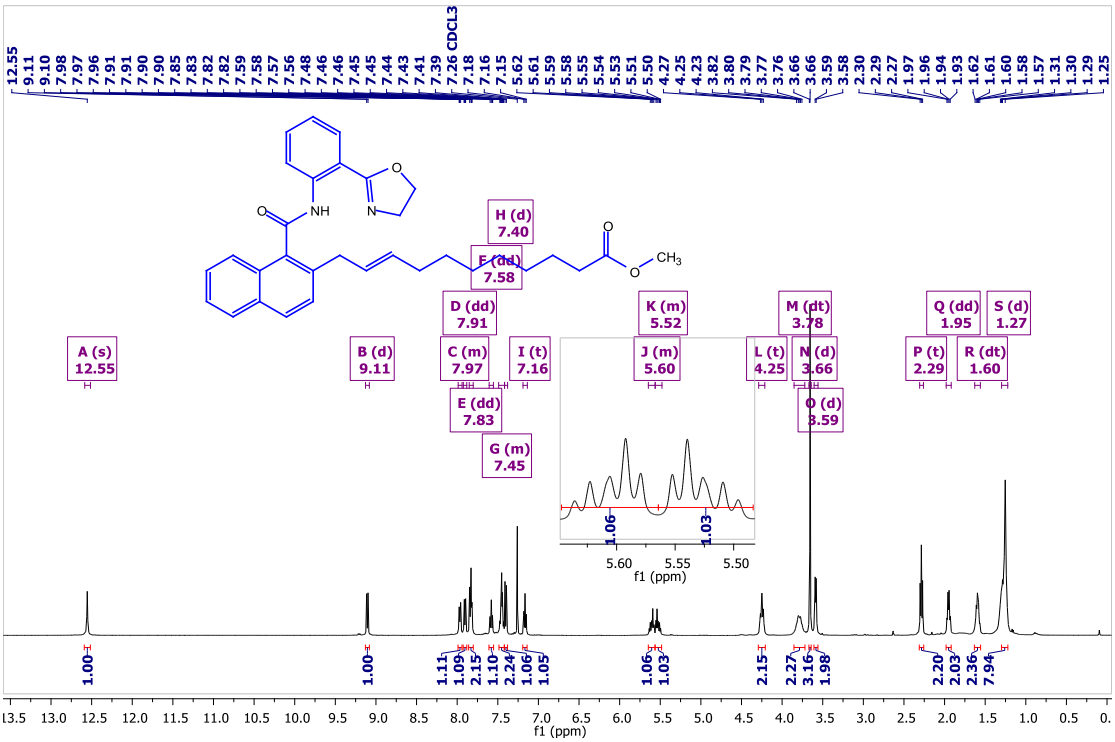


(E)-(Z)-3,7-dimethylocta-2,6-dien-1-yl 4-(2-((2-(4,5-dihydrooxazol-2-yl)phenyl)carbamoyl)-3-fluorophenyl)hex-2-enoate

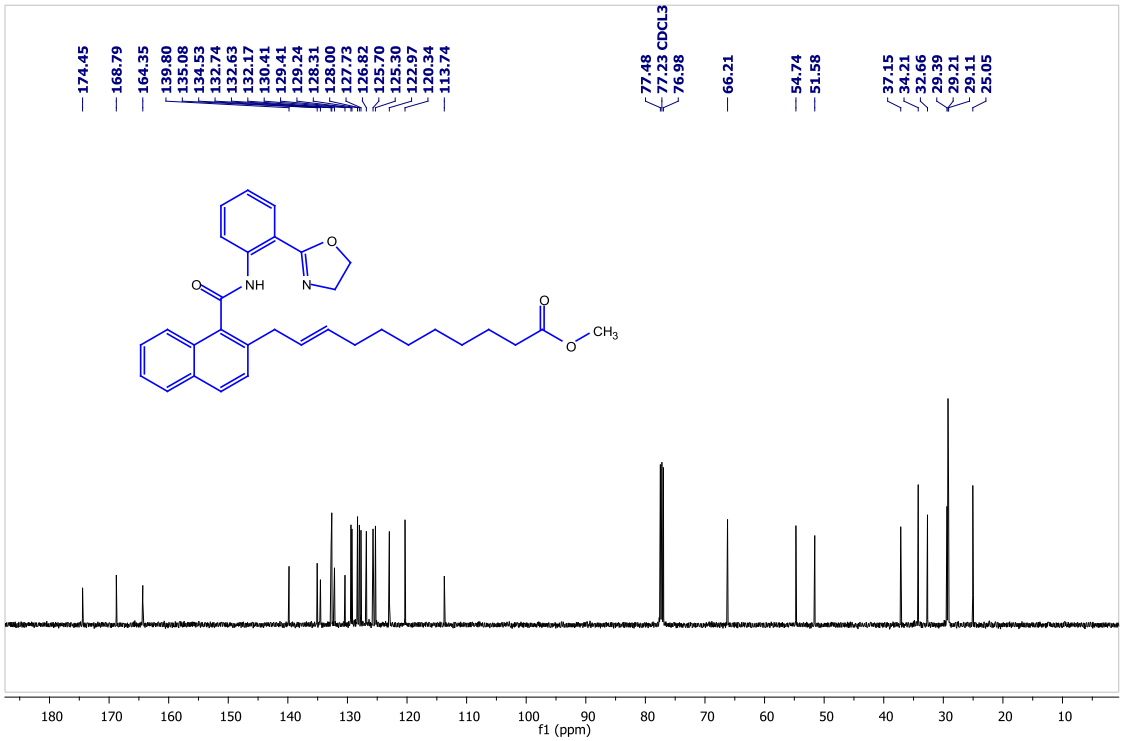


5a.

(E)-methyl 11-(1-((2-(4,5-dihydrooxazol-2-yl)phenyl)carbamoyl)naphthalen-2-yl)undec-9-enoate

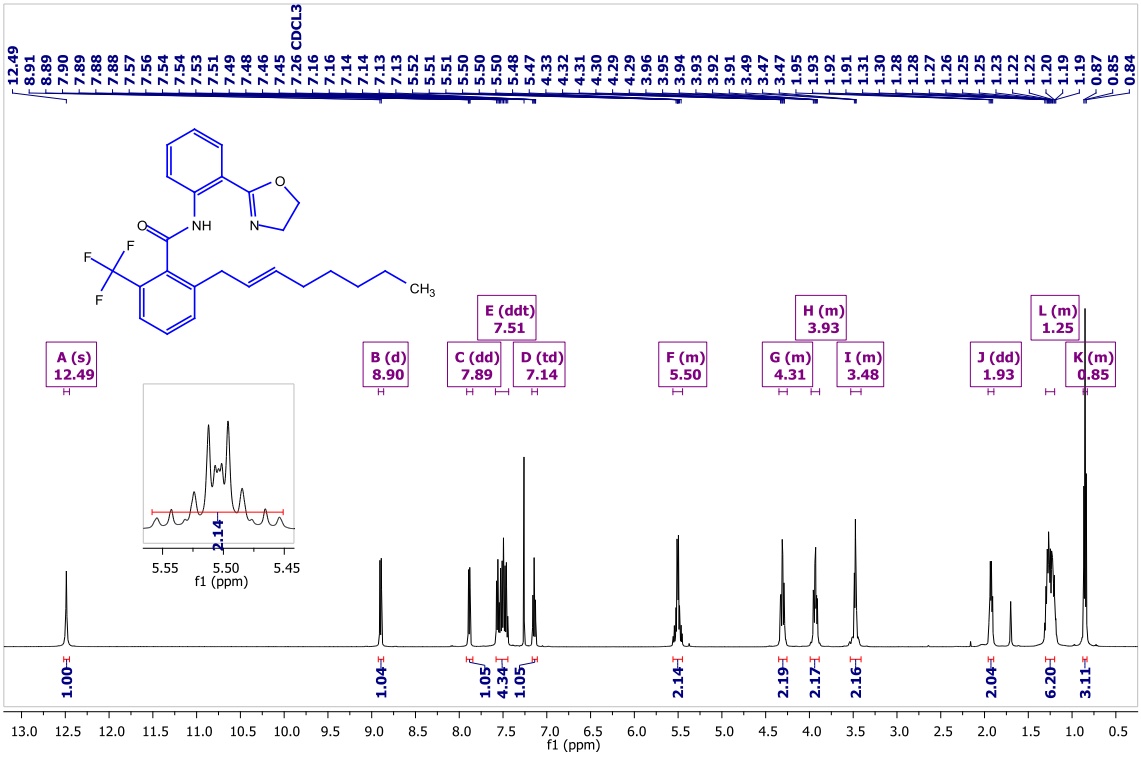


(E)-methyl 11-(1-((2-(4,5-dihydrooxazol-2-yl)phenyl)carbamoyl)naphthalen-2-yl)undec-9-enoate

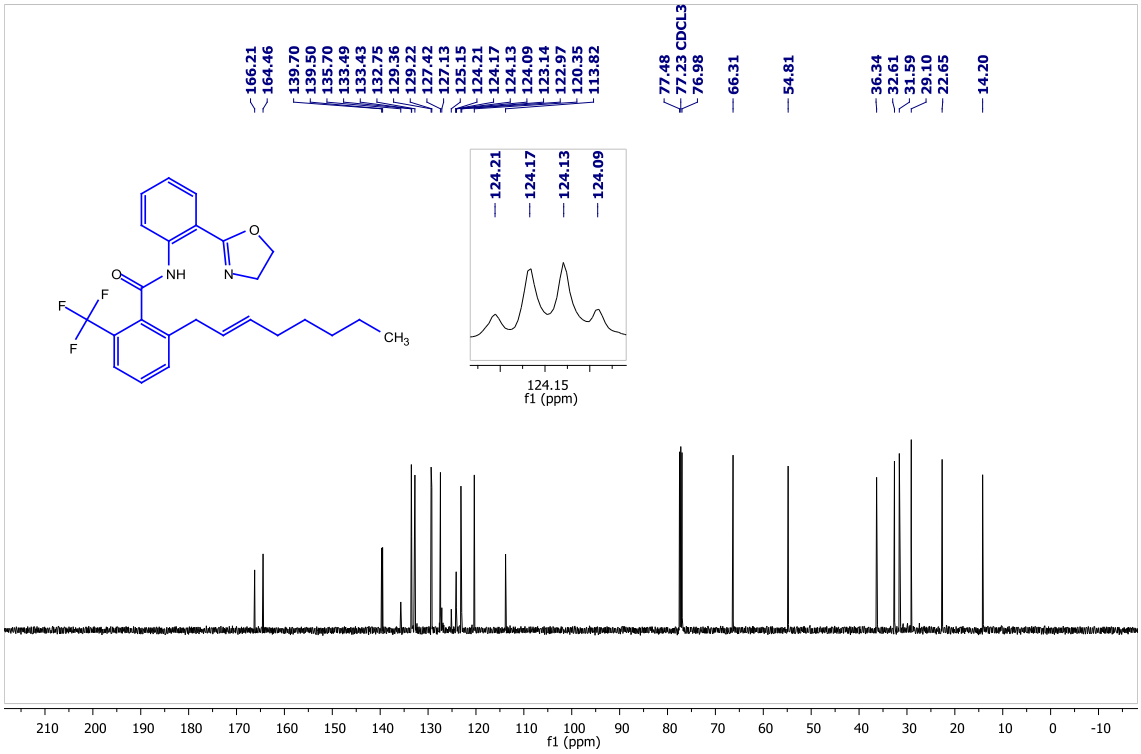


5b.

(E)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-(oct-2-en-1-yl)-6-(trifluoromethyl)benzamide

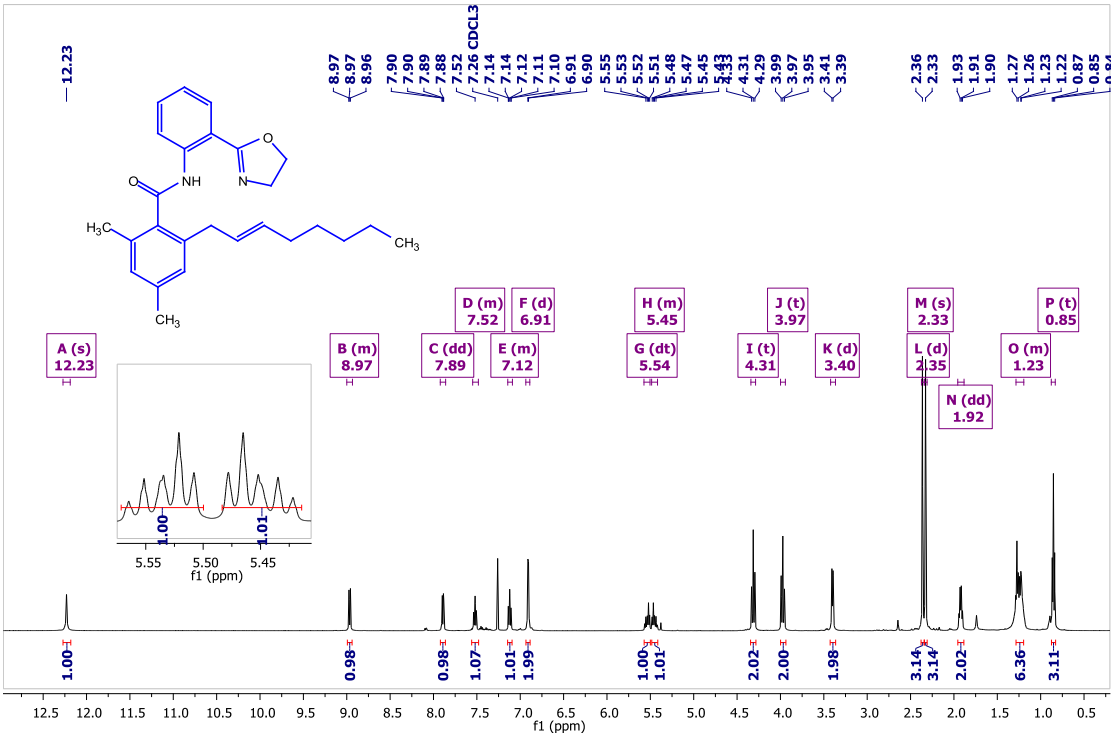


(E)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-(oct-2-en-1-yl)-6-(trifluoromethyl)benzamide

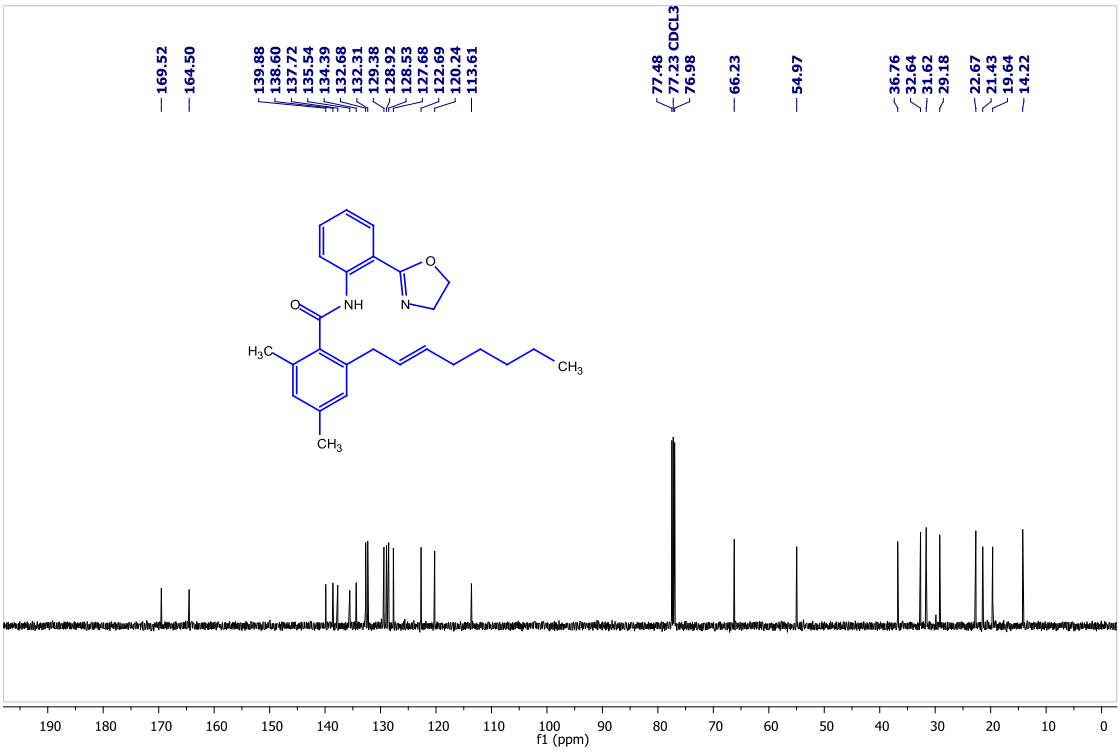


5c.

(E)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2,4-dimethyl-6-(oct-2-en-1-yl)benzamide

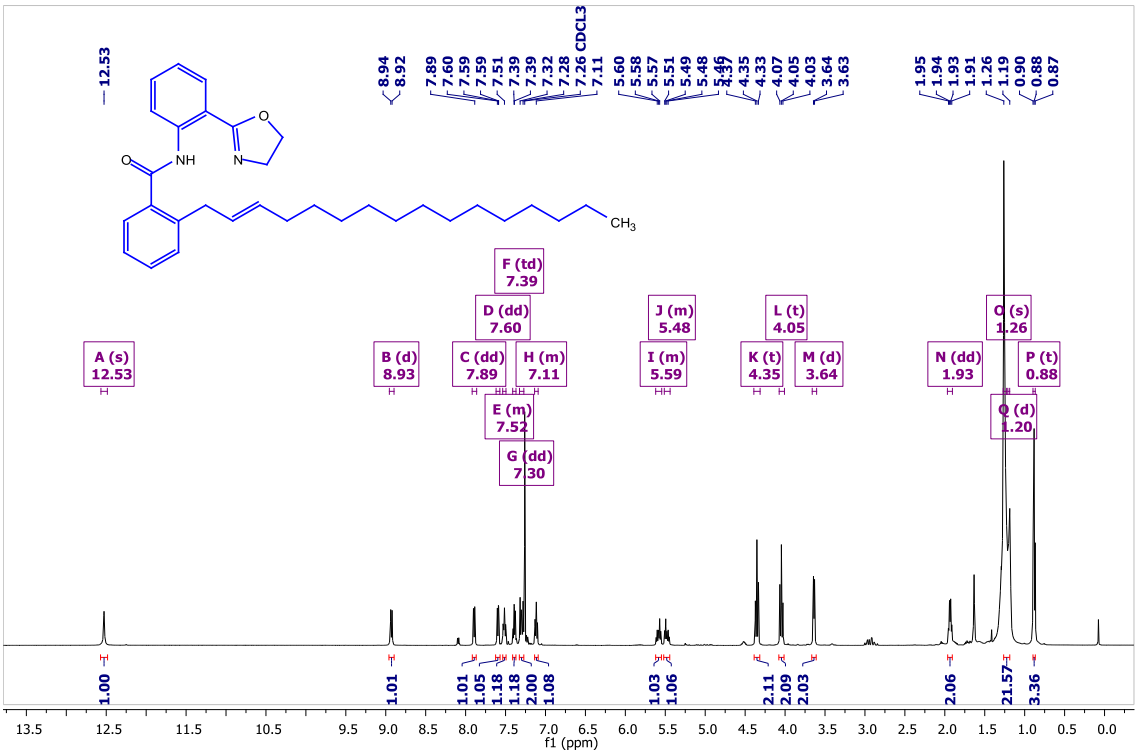


(E)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2,4-dimethyl-6-(oct-2-en-1-yl)benzamide

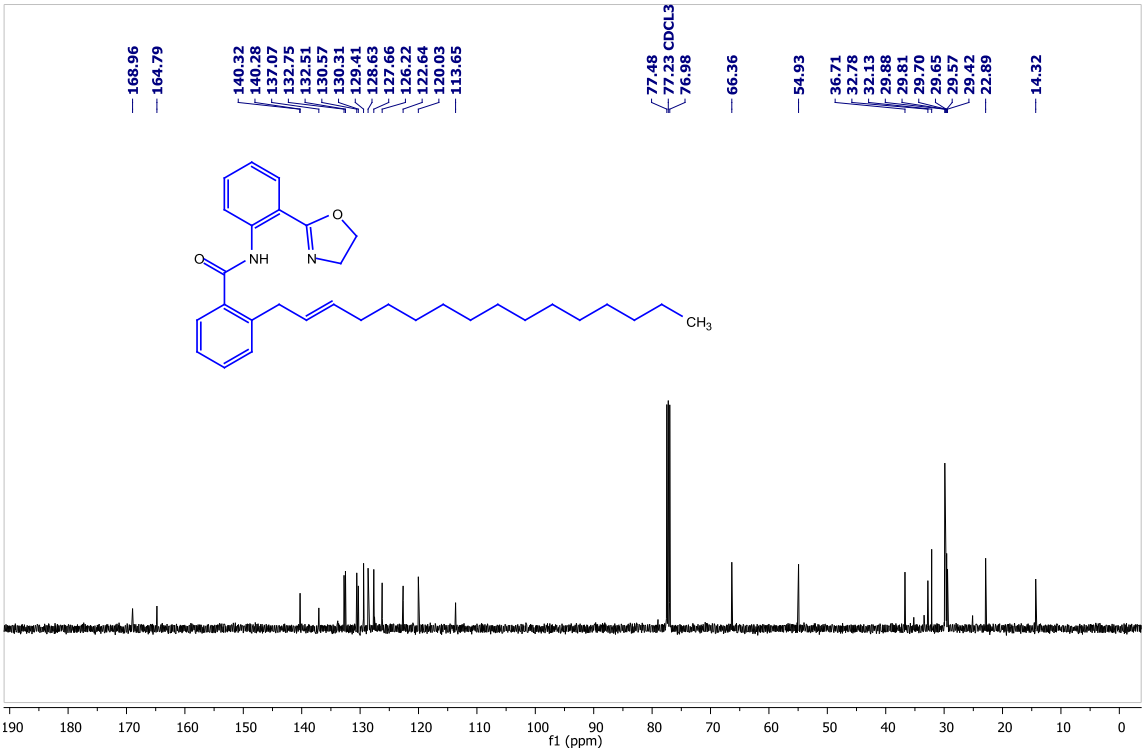


5d.

(E)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-(hexadec-2-en-1-yl)benzamide

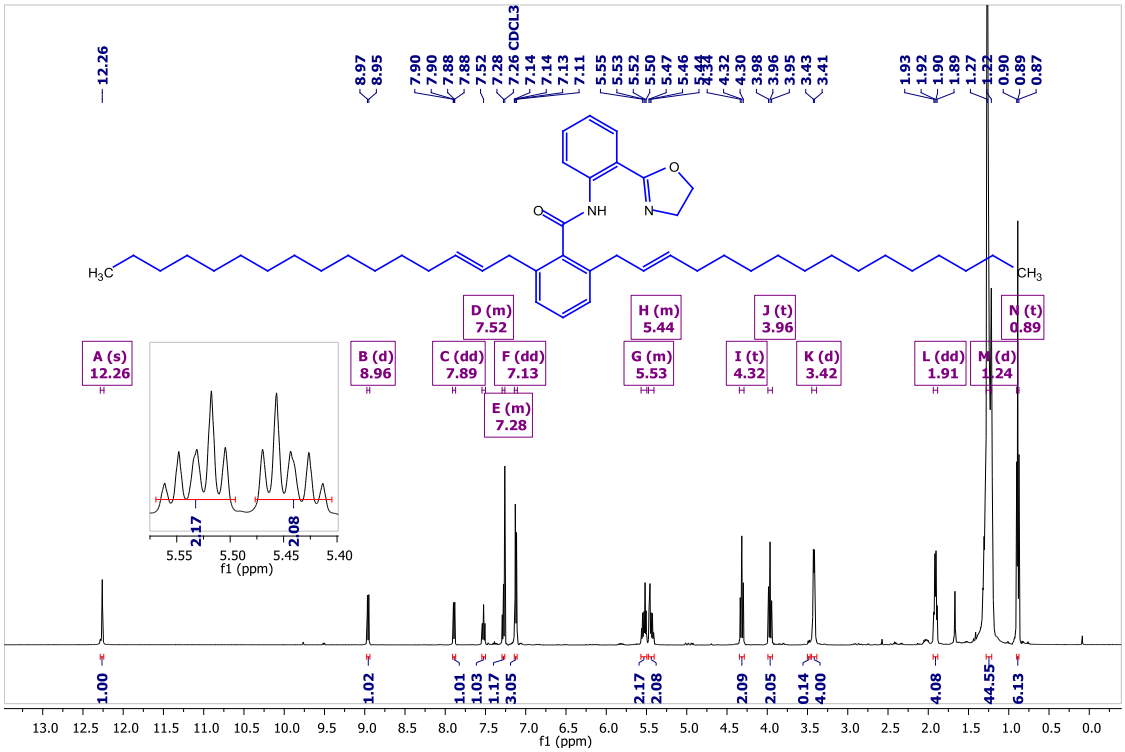


(E)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-(hexadec-2-en-1-yl)benzamide

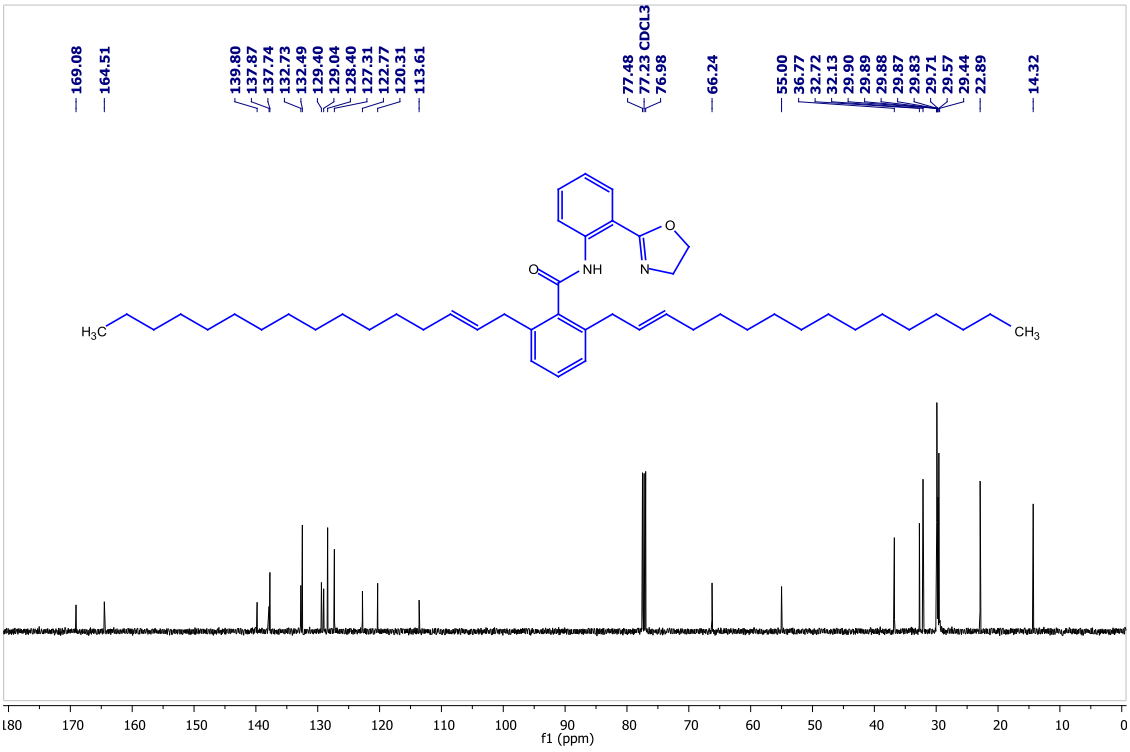


5d'.

N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2,6-di((E)-hexadec-2-en-1-yl)benzamide

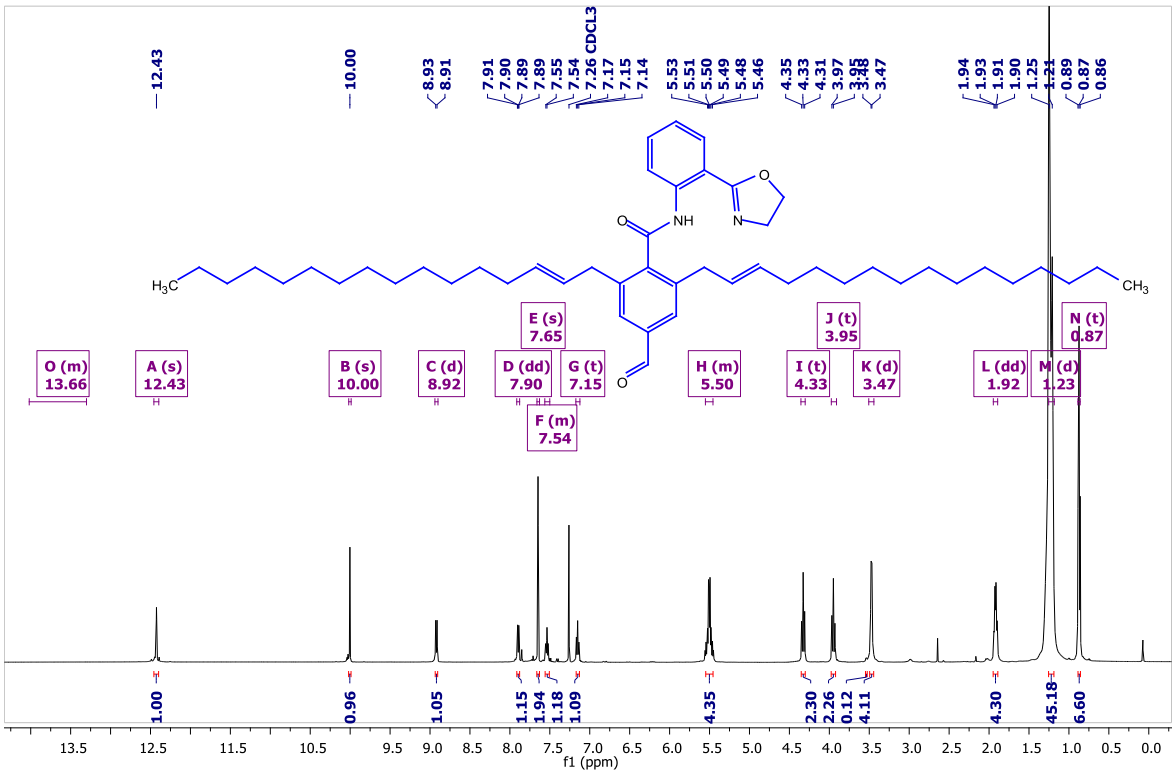


N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2,6-di((E)-hexadec-2-en-1-yl)benzamide

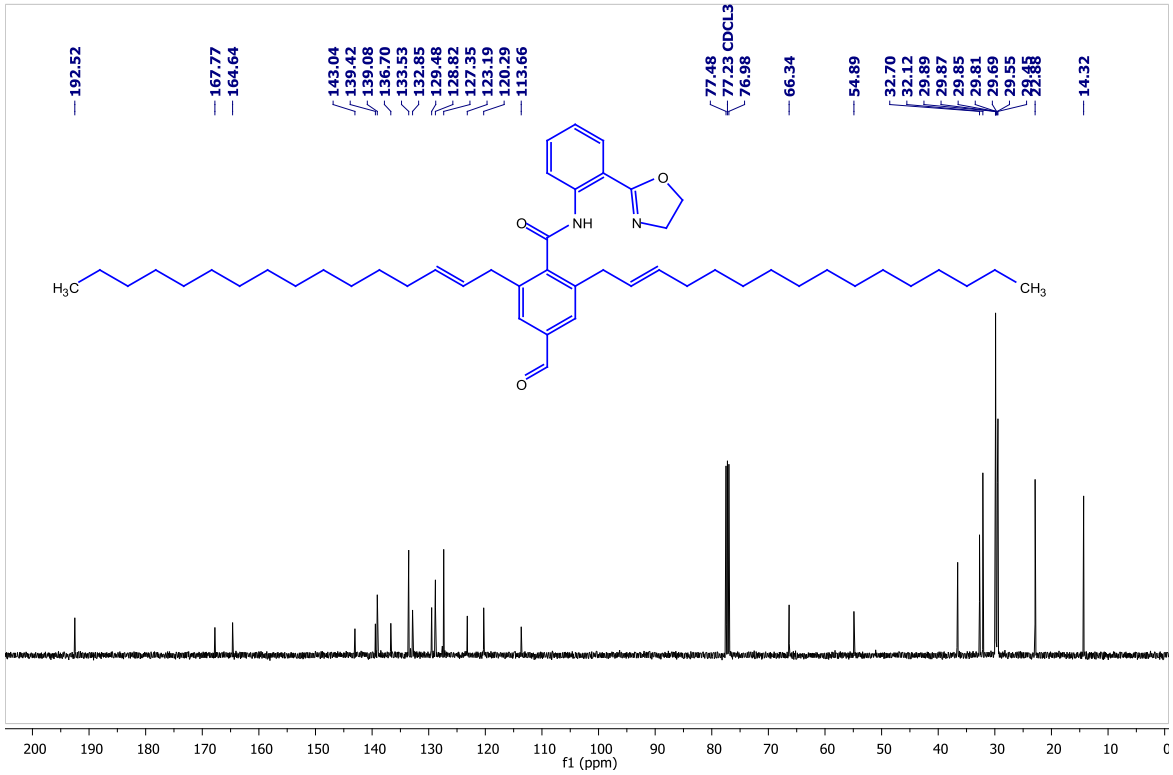


5e.

N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-4-formyl-2,6-di((E)-hexadec-2-en-1-yl)benzamide

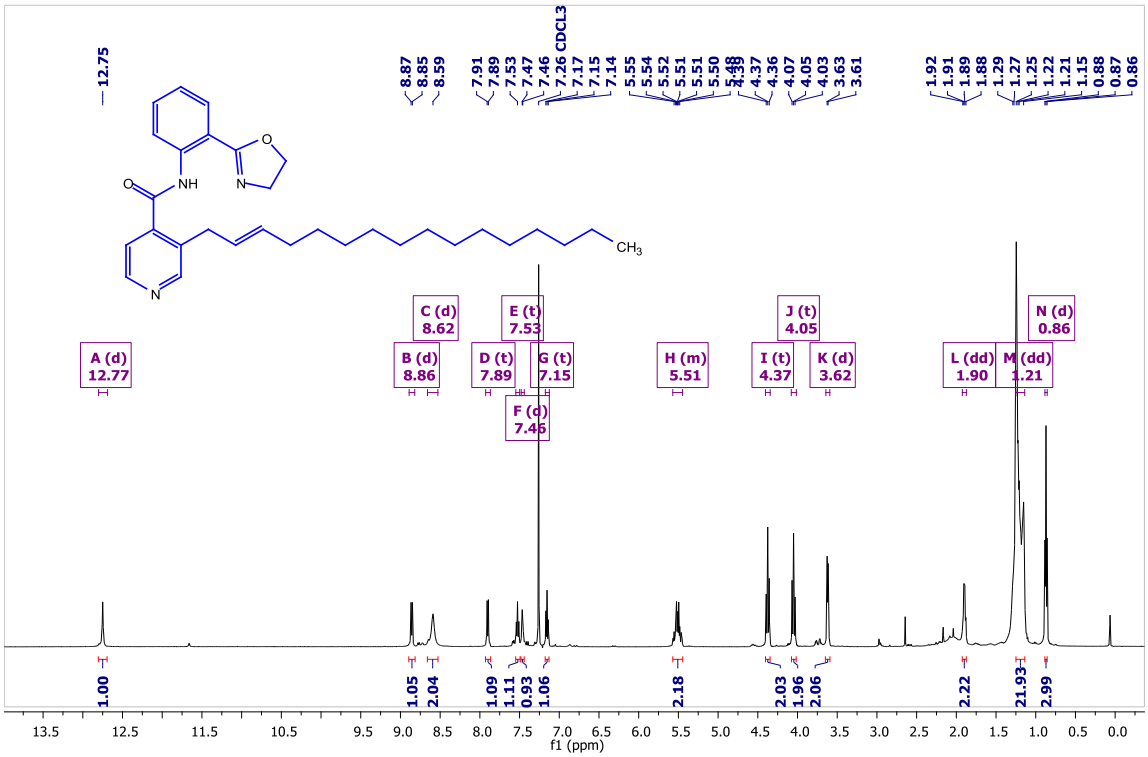


N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-4-formyl-2,6-di((E)-hexadec-2-en-1-yl)benzamide

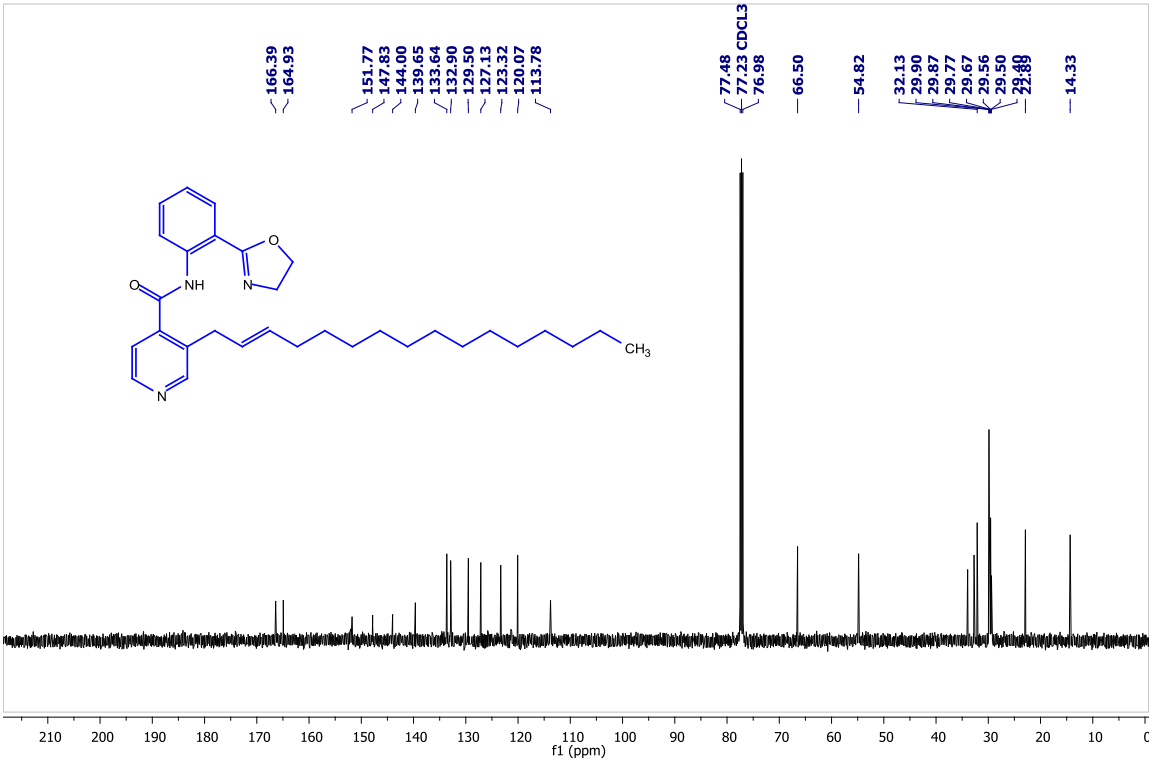


5f.

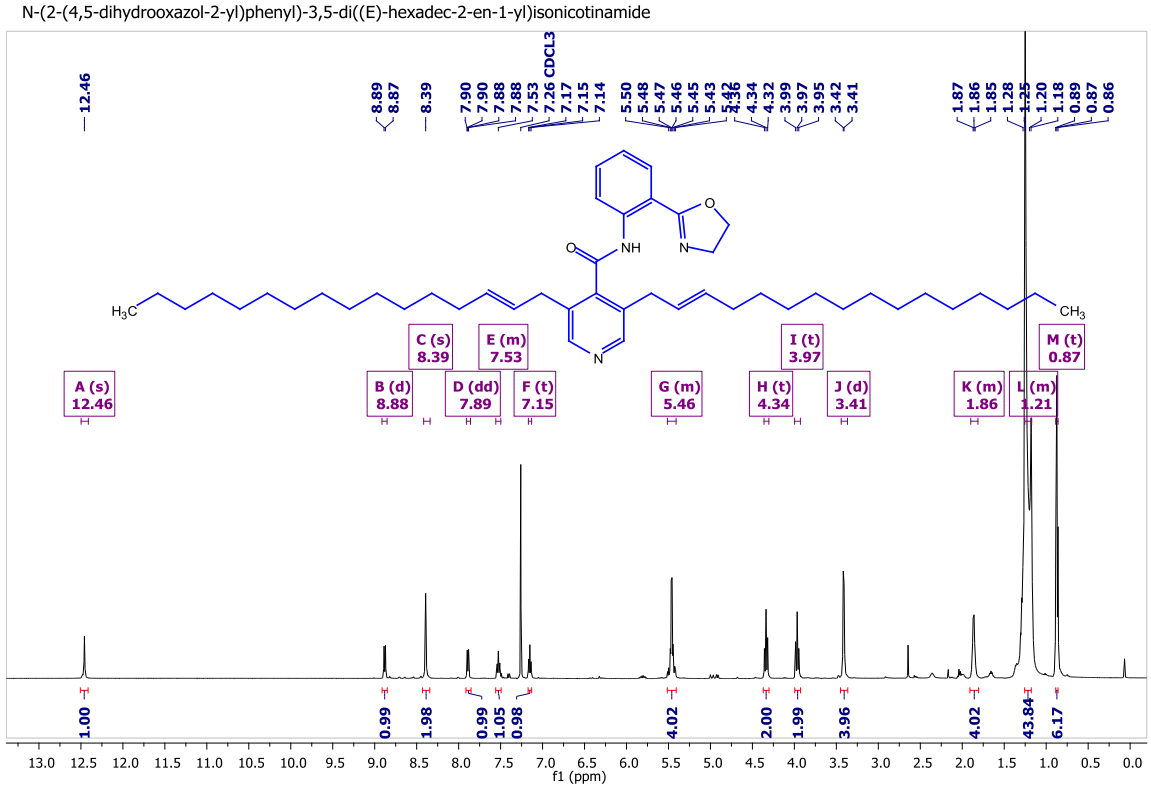
(E)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-3-(hexadec-2-en-1-yl)isonicotinamide

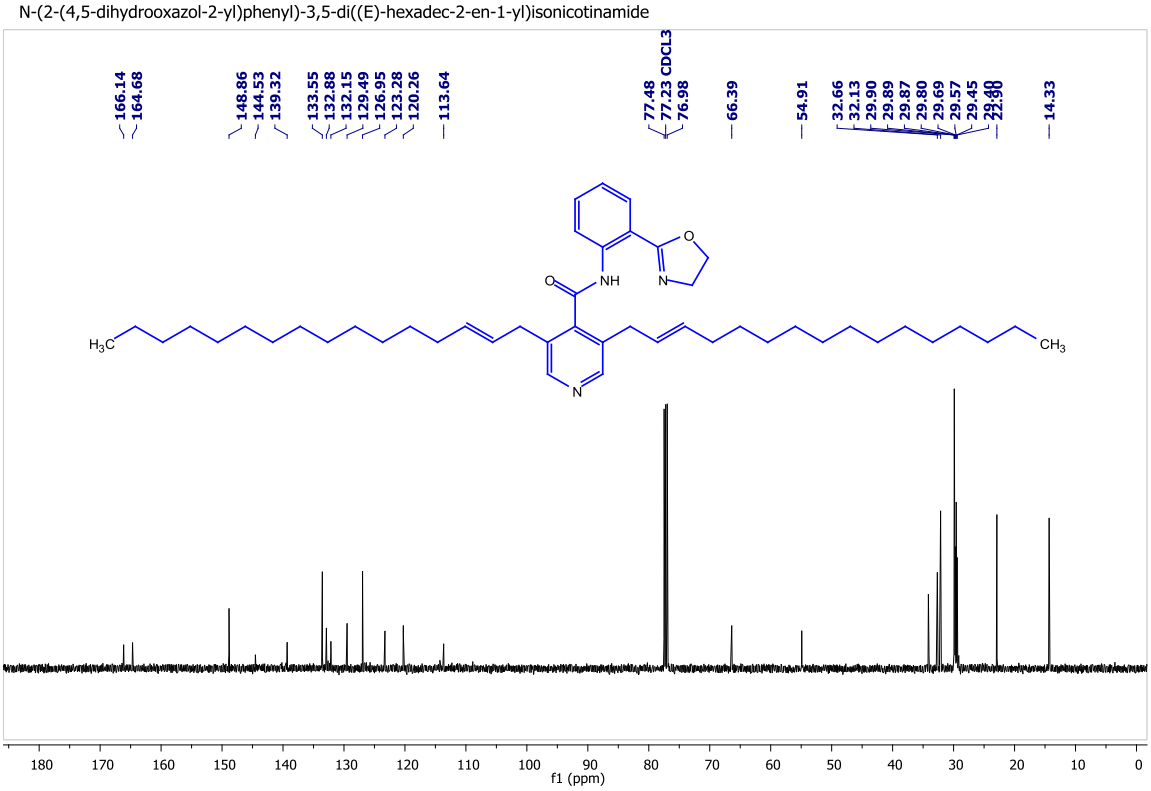


(E)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-3-(hexadec-2-en-1-yl)isonicotinamide



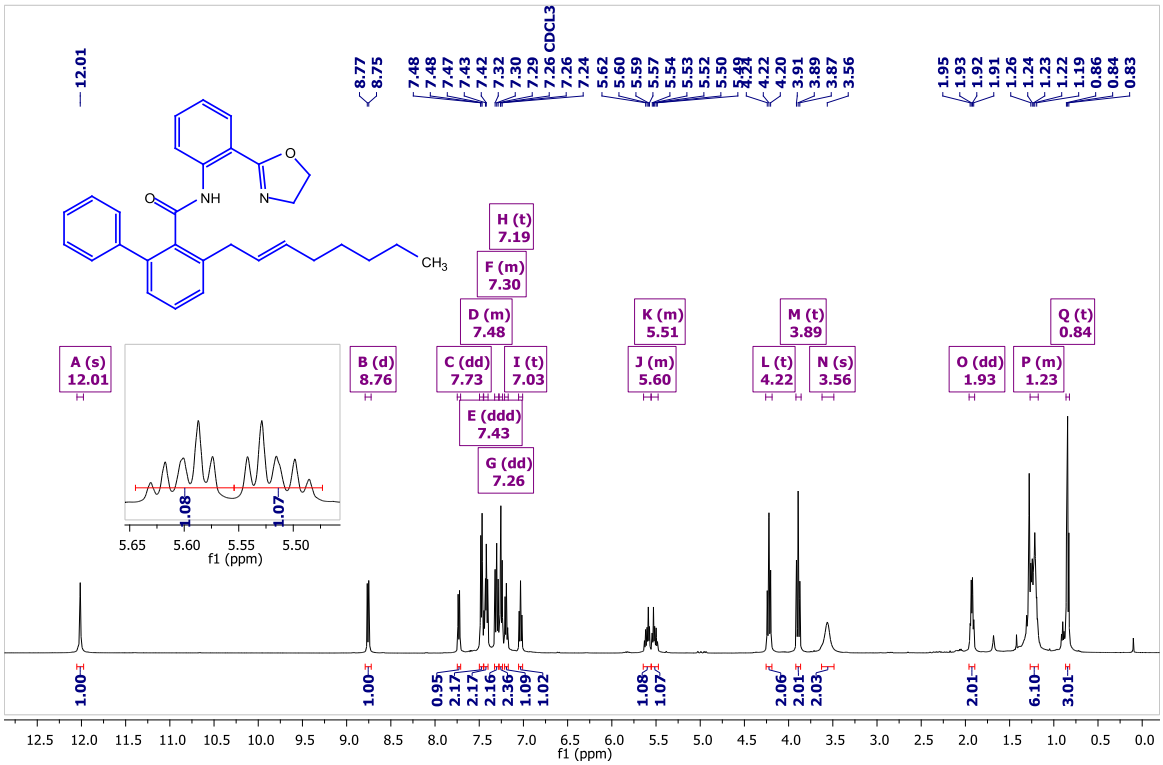
5f'.


N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-3,5-di((E)-hexadec-2-en-1-yl)isonicotinamide
12.46
8.89
8.87
8.39
7.90
7.90
7.88
7.88
7.53
7.26 CDCl3
7.17
7.15
7.14
5.50
5.48
5.47
5.46
5.45
5.43
4.36
4.34
4.32
3.99
3.97
3.95
3.42
3.41
1.87
1.86
1.85
1.28
1.25
1.20
1.18
0.89
0.87
0.86
A (s) 12.46
B (d) 8.88
C (s) 8.39
D (dd) 7.89
E (m) 7.53
F (t) 7.15
G (m) 5.46
H (t) 4.34
I (t) 3.97
J (d) 3.41
K (m) 1.86
L (m) 1.21
M (t) 0.87
1.00
0.99
1.98
0.99
1.05
0.98
4.02
2.00
1.99
3.96
4.02
43.84
6.17
f1 (ppm)

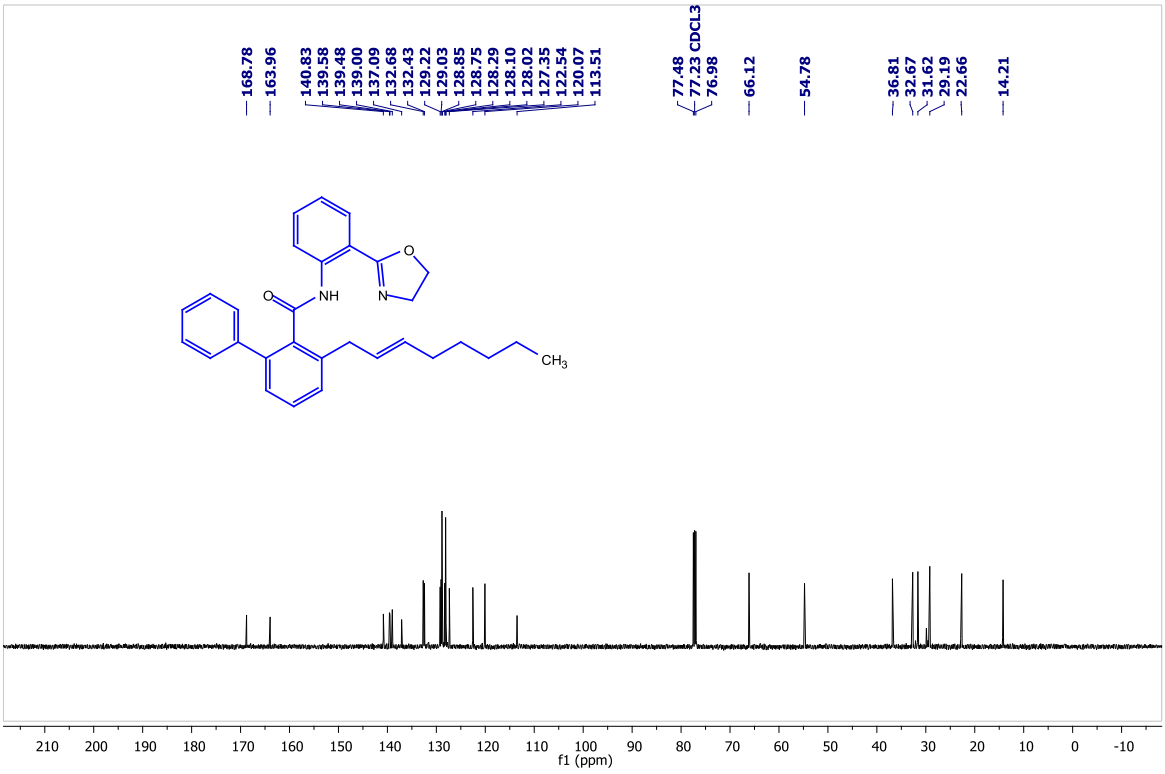

N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-3,5-di((E)-hexadec-2-en-1-yl)isonicotinamide
166.14
164.68
148.86
144.53
139.32
133.55
132.88
132.15
129.49
126.95
123.28
120.26
113.64
77.48
77.23 CDCl3
76.98
66.39
54.91
32.66
32.13
29.90
29.89
29.87
29.80
29.69
29.57
29.45
14.33
f1 (ppm)

5g.

(E)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-3-(oct-2-en-1-yl)-[1,1'-biphenyl]-2-carboxamide

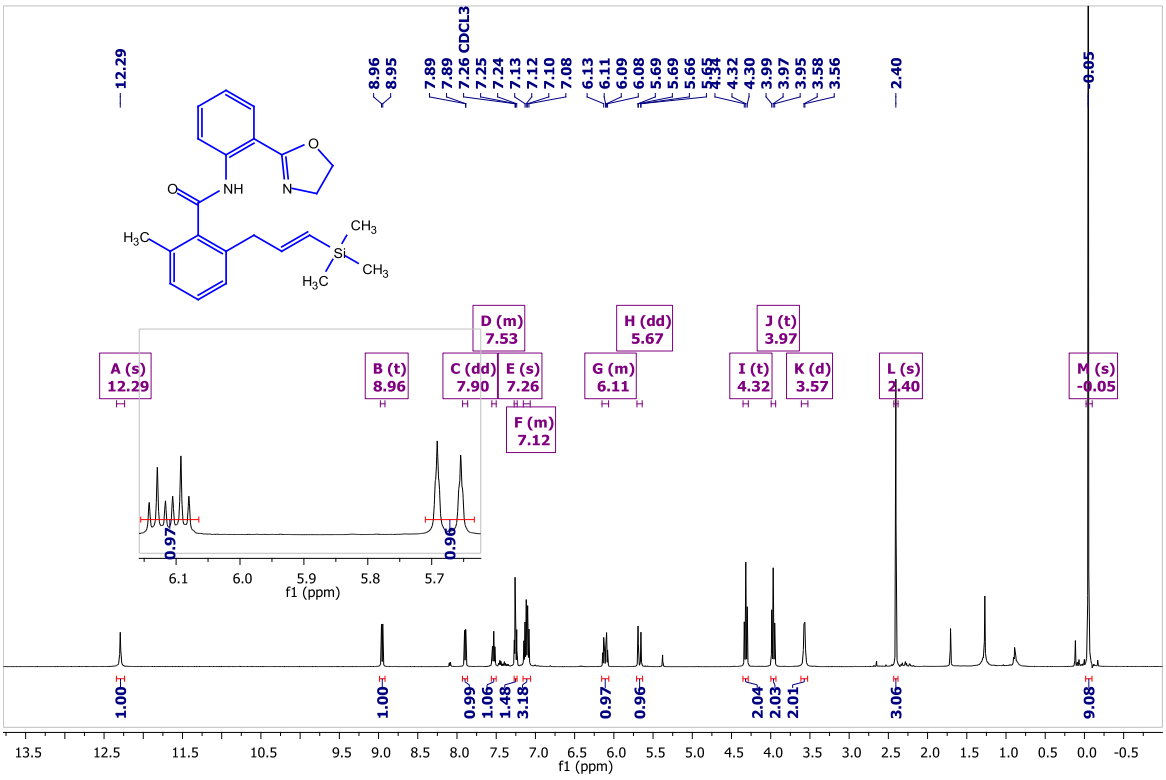


(E)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-3-(oct-2-en-1-yl)-[1,1'-biphenyl]-2-carboxamide

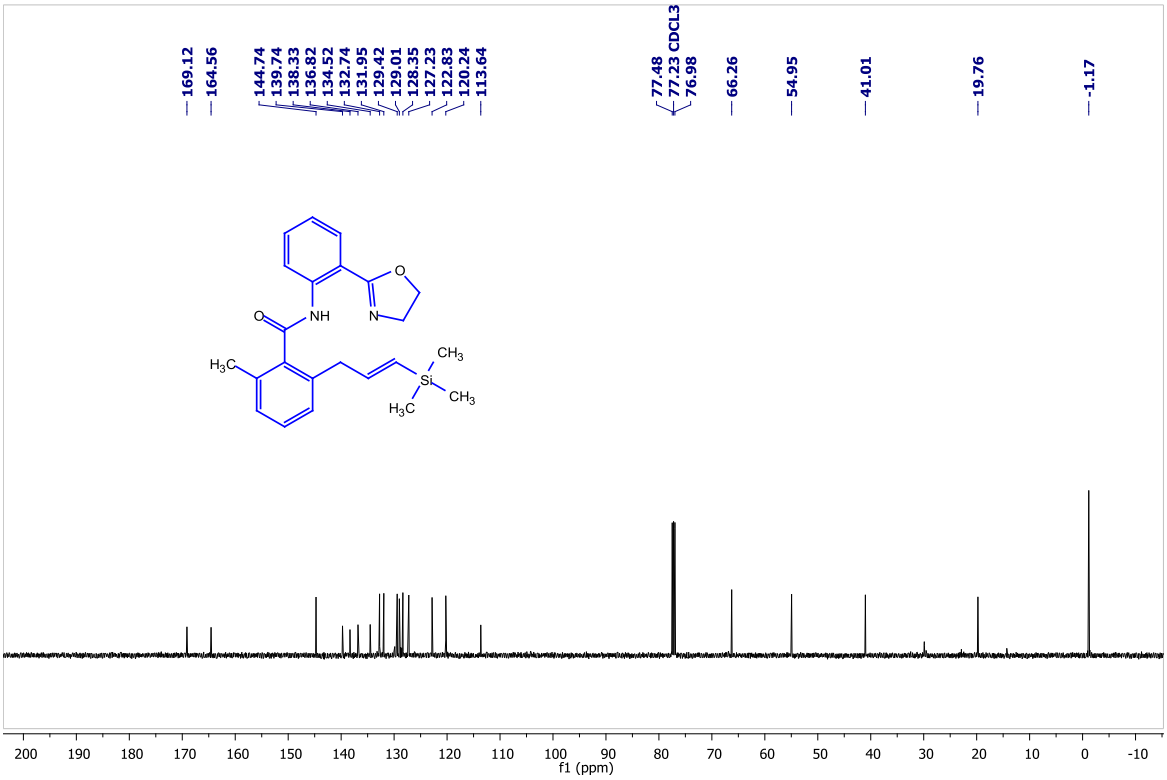


5h.

(E)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-methyl-6-(3-(trimethylsilyl)allyl)benzamide

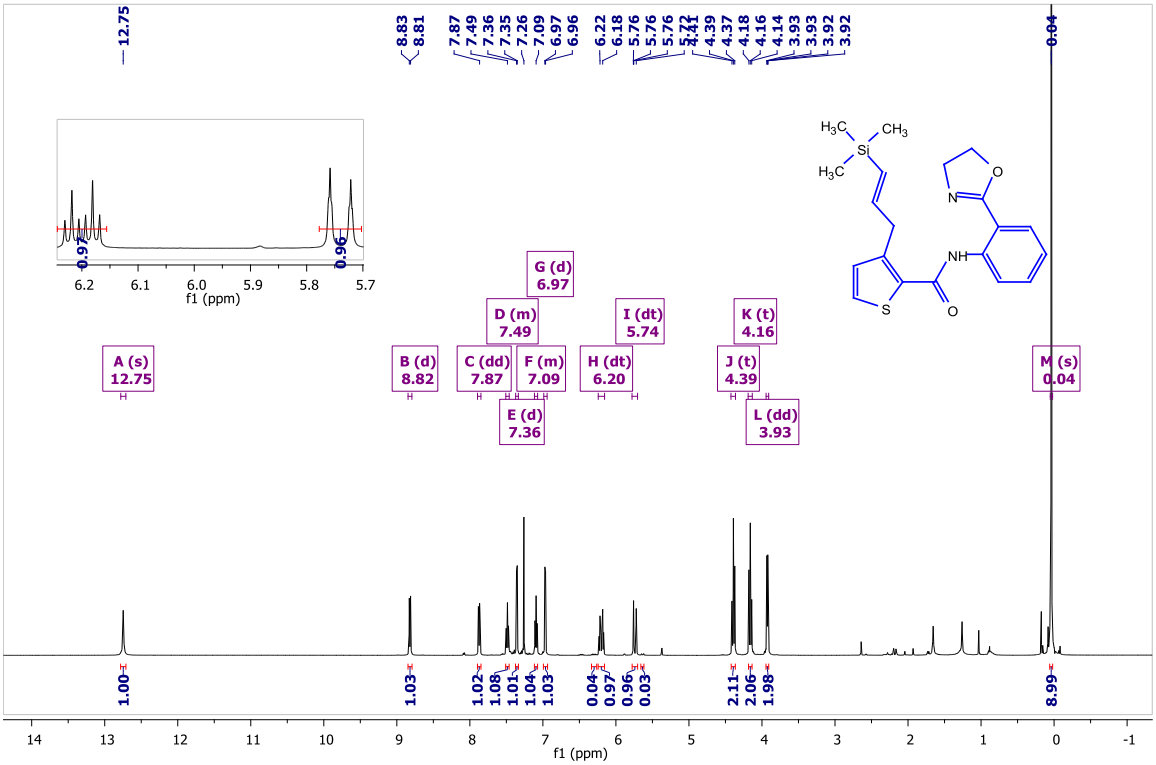


(E)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-methyl-6-(3-(trimethylsilyl)allyl)benzamide

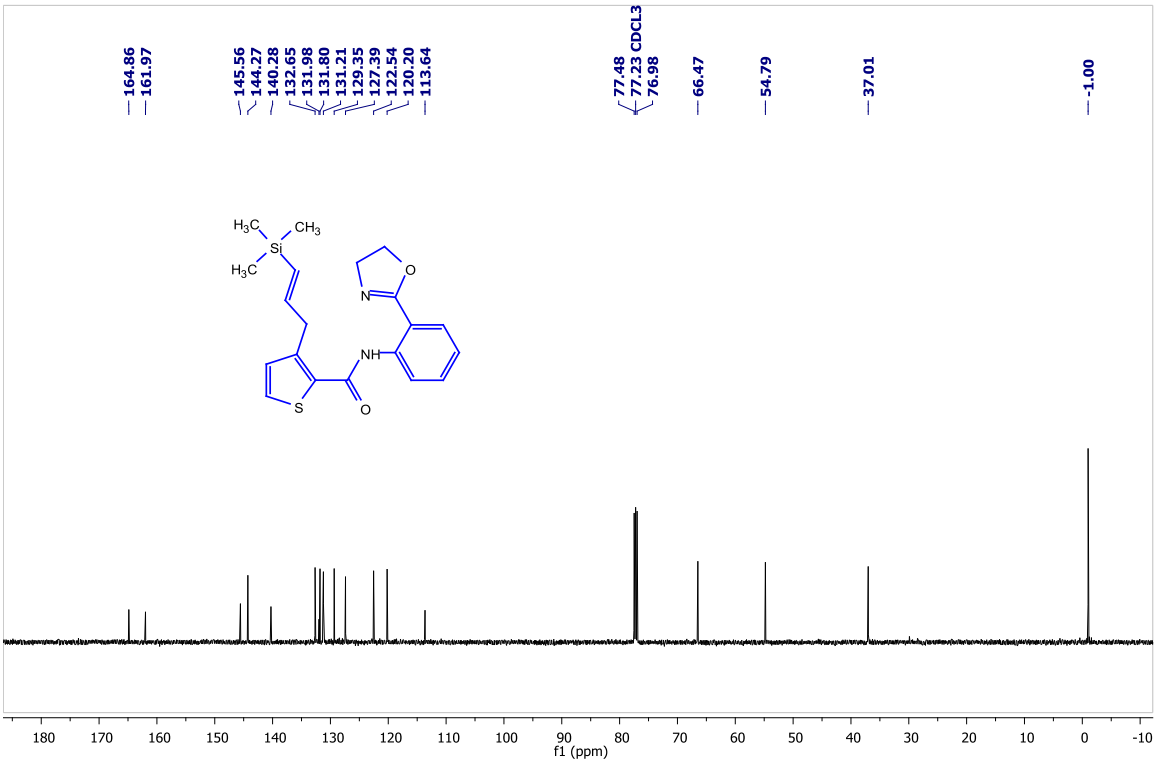


5i.

(E)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-3-(3-(trimethylsilyl)allyl)thiophene-2-carboxamide

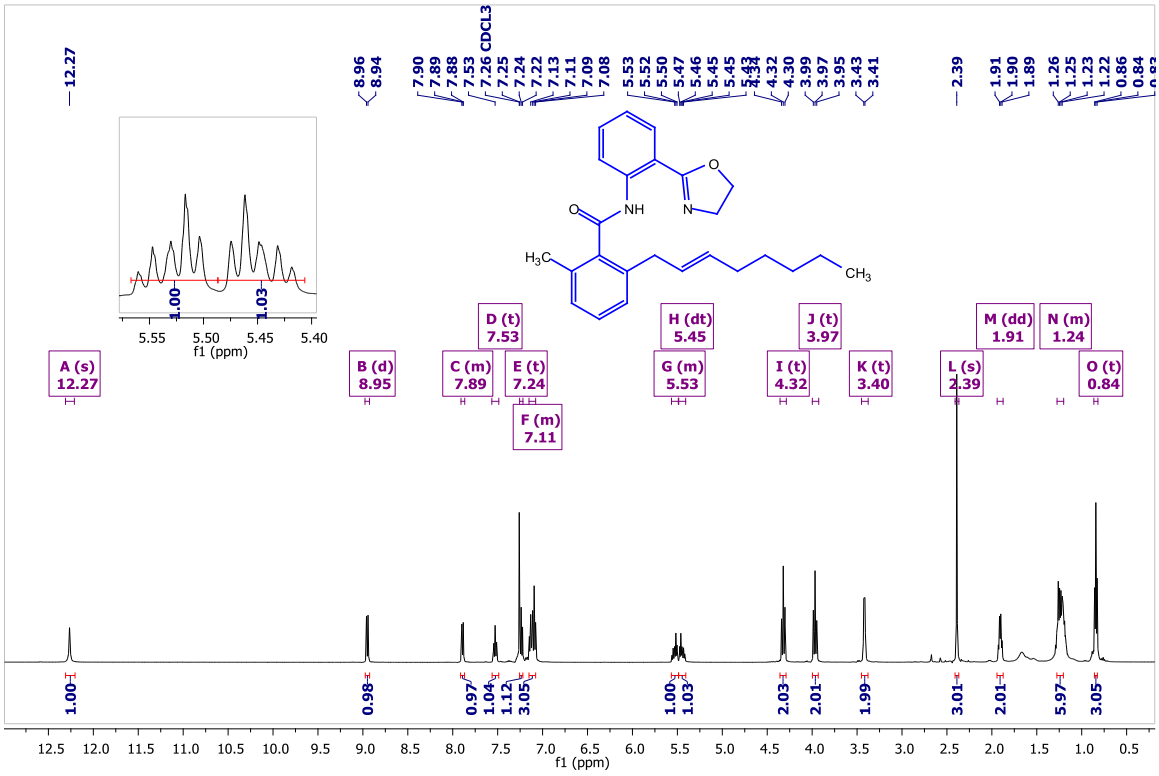


(E)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-3-(3-(trimethylsilyl)allyl)thiophene-2-carboxamide

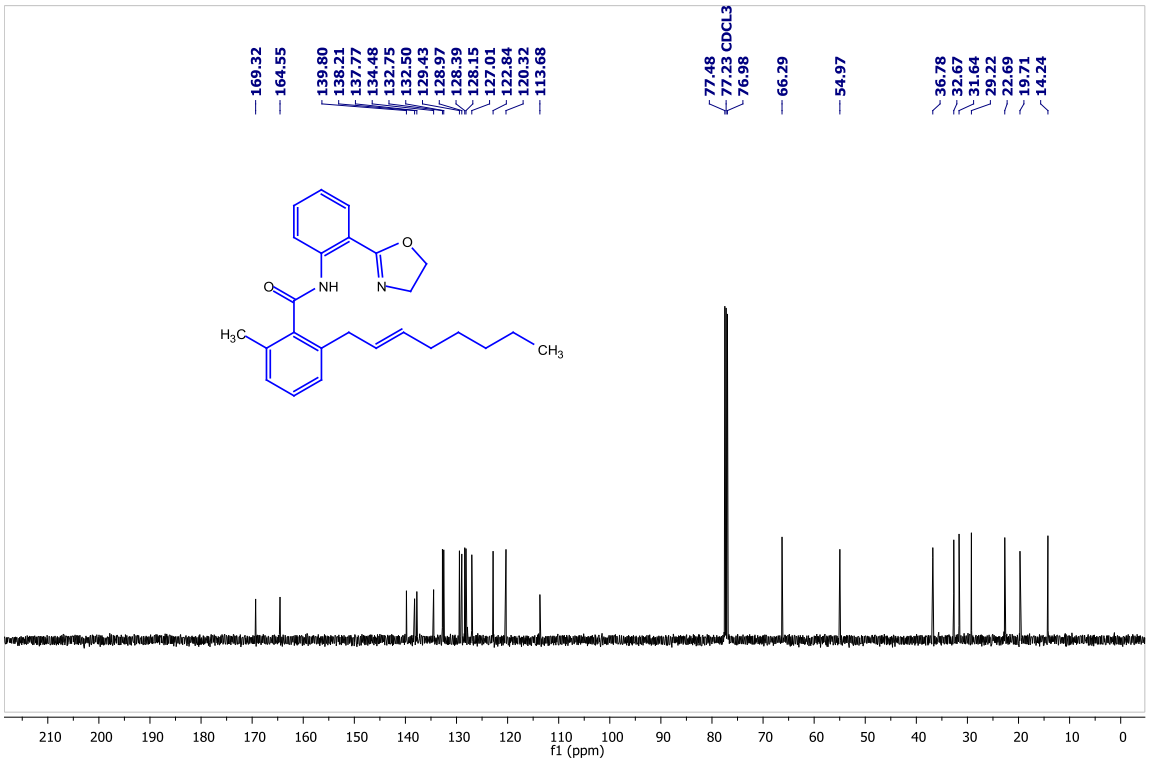


5j.

(E)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-methyl-6-(oct-2-en-1-yl)benzamide

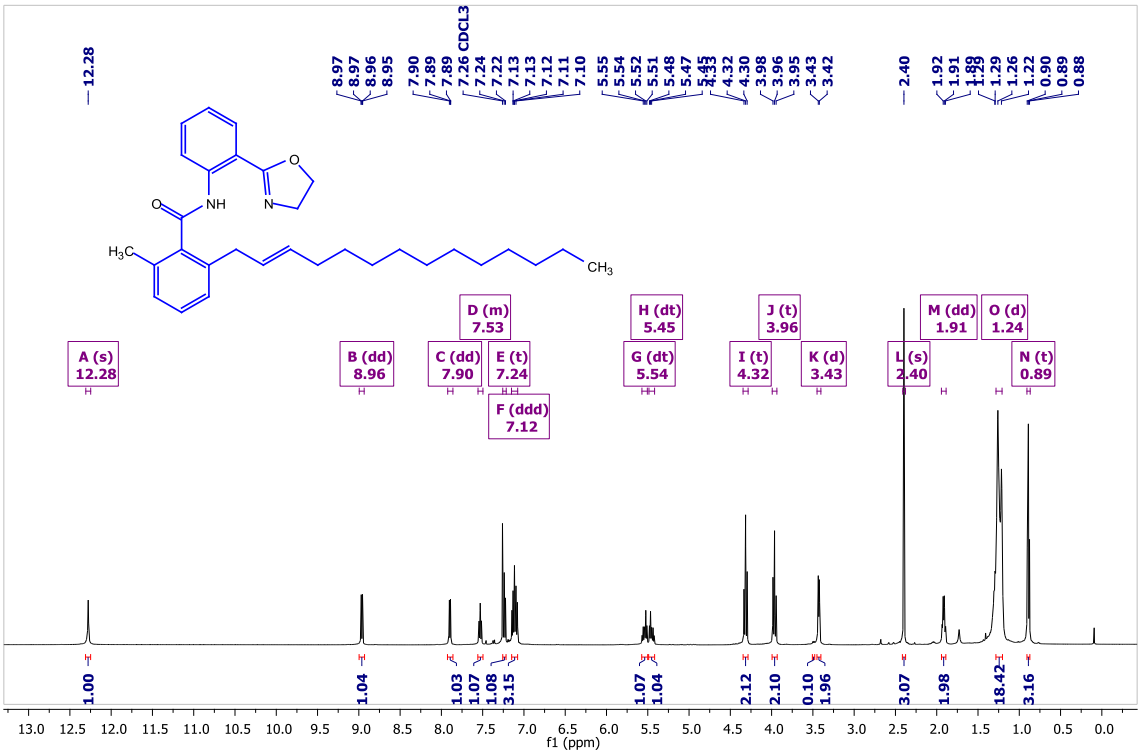


(E)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-methyl-6-(oct-2-en-1-yl)benzamide

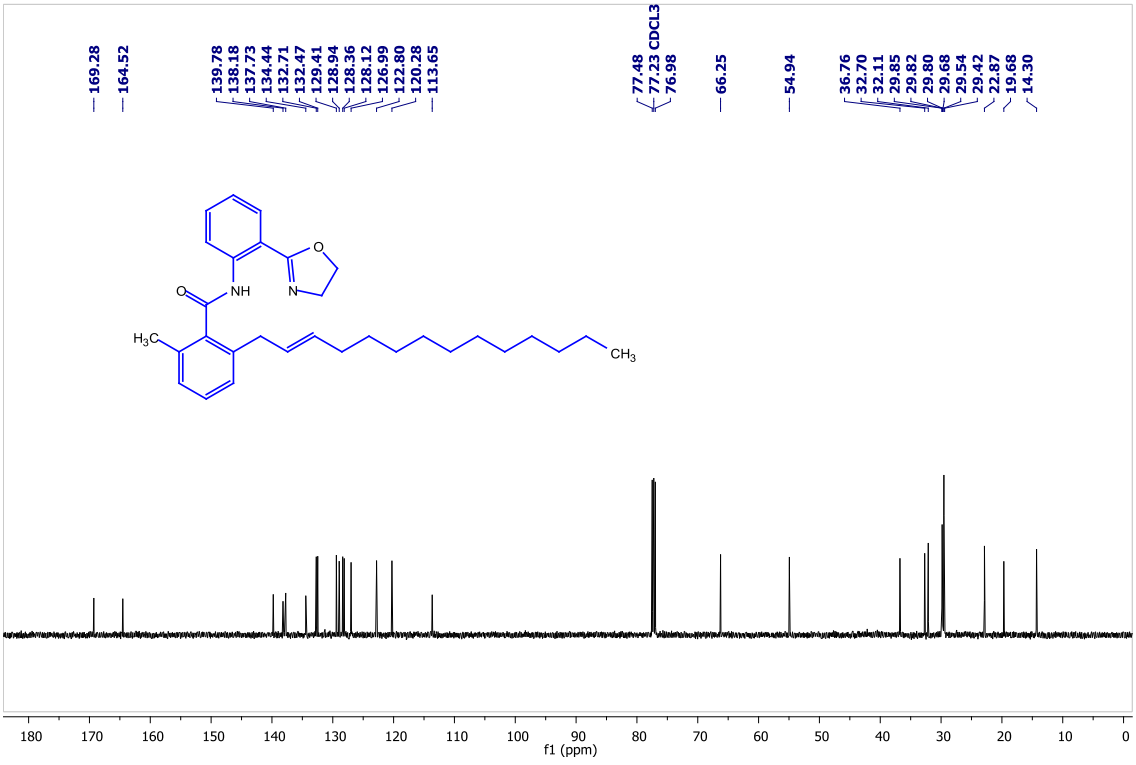


5k.

(E)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-methyl-6-(tetradec-2-en-1-yl)benzamide

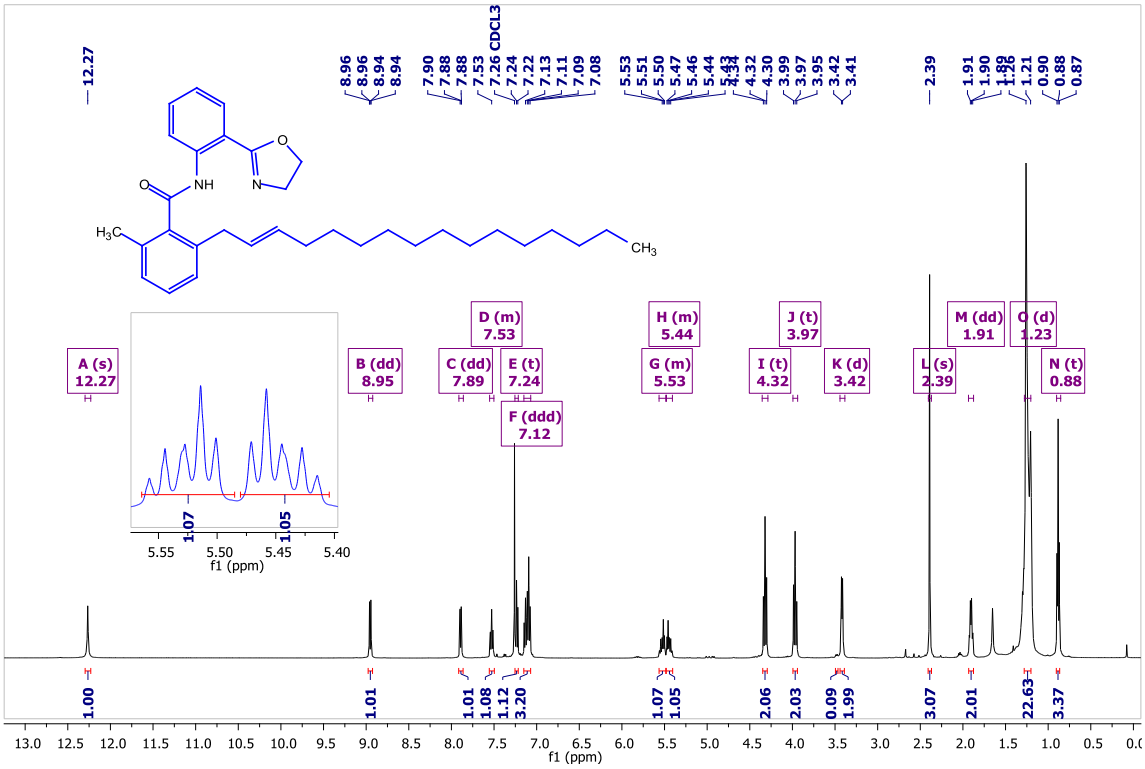


(E)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-methyl-6-(tetradec-2-en-1-yl)benzamide

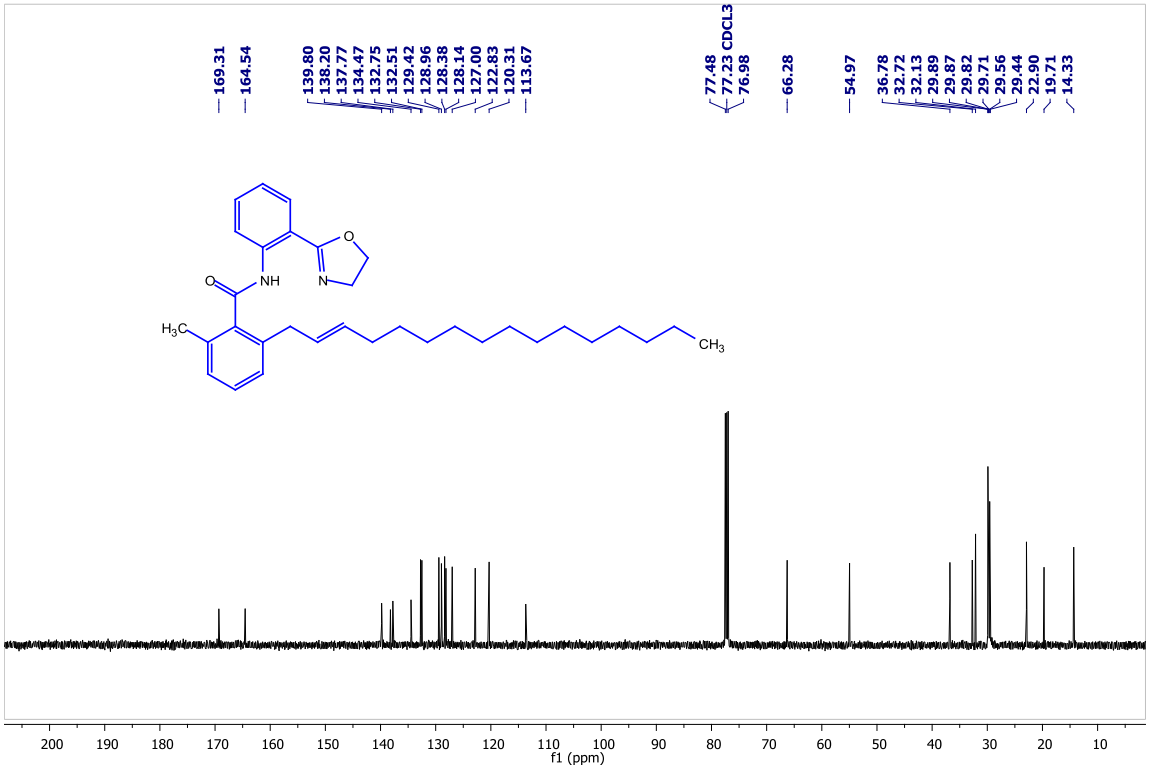


5l.

(E)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-(hexadec-2-en-1-yl)-6-methylbenzamide

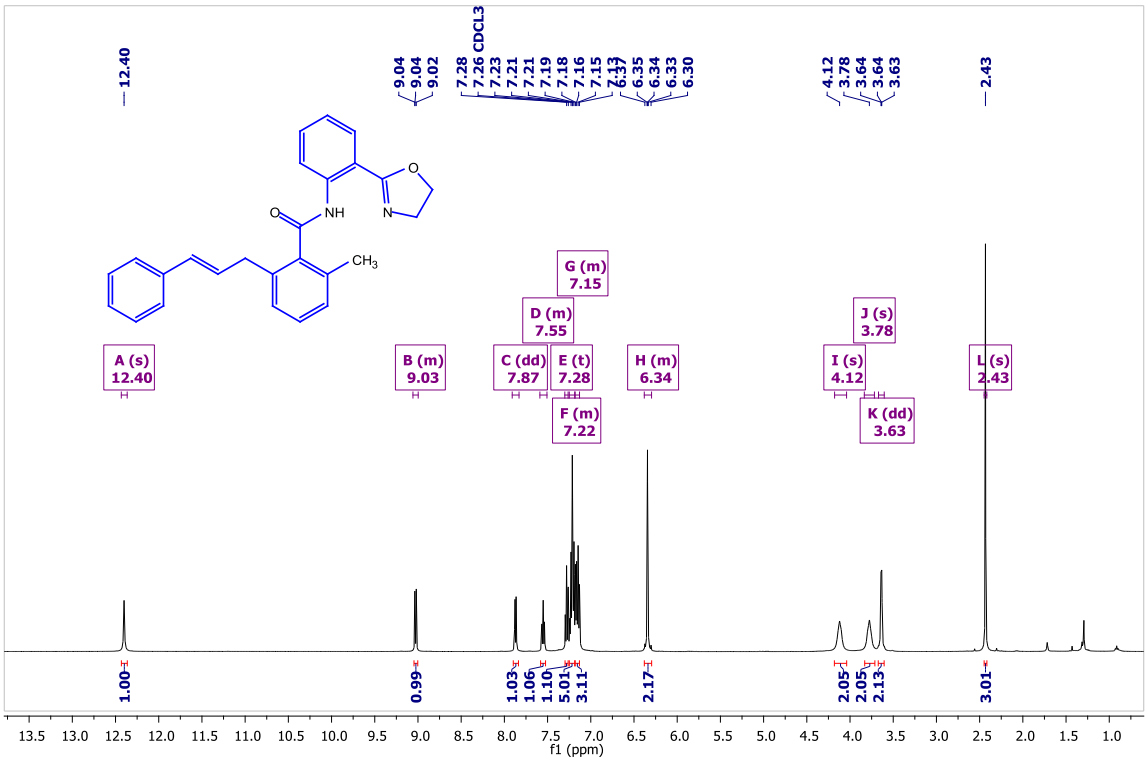


(E)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-(hexadec-2-en-1-yl)-6-methylbenzamide

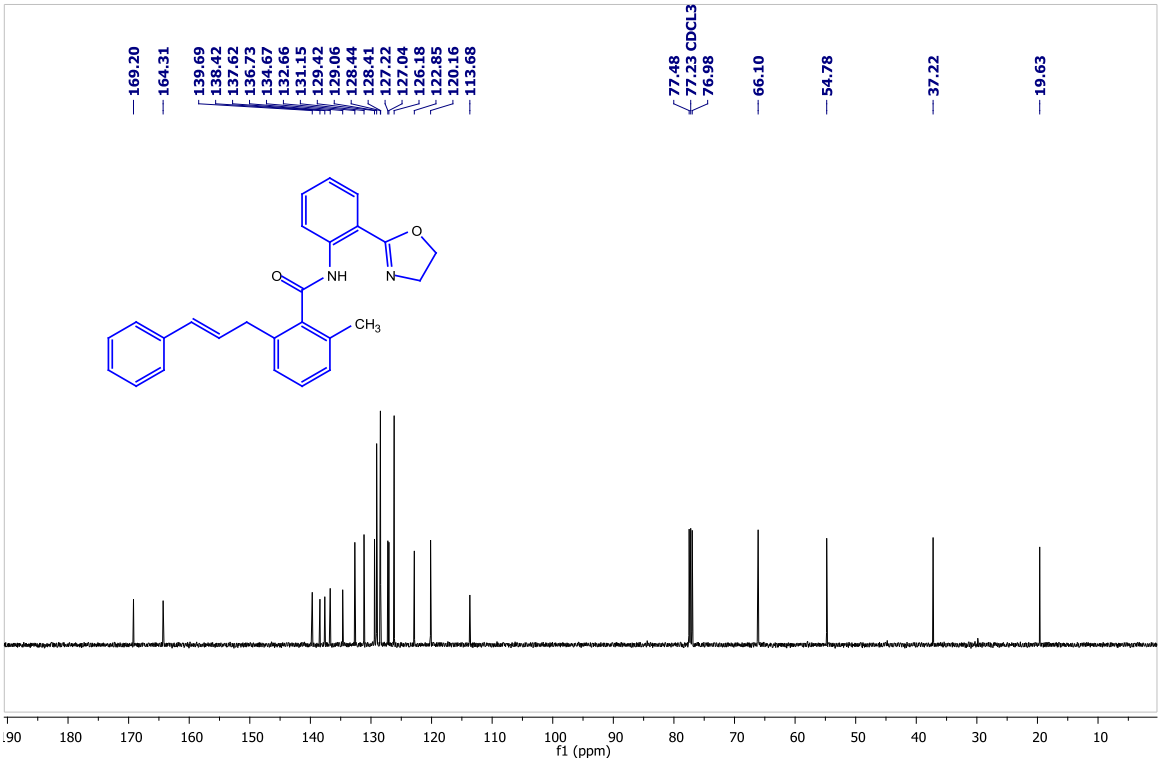


5m.

2-cinnamyl-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-6-methylbenzamide

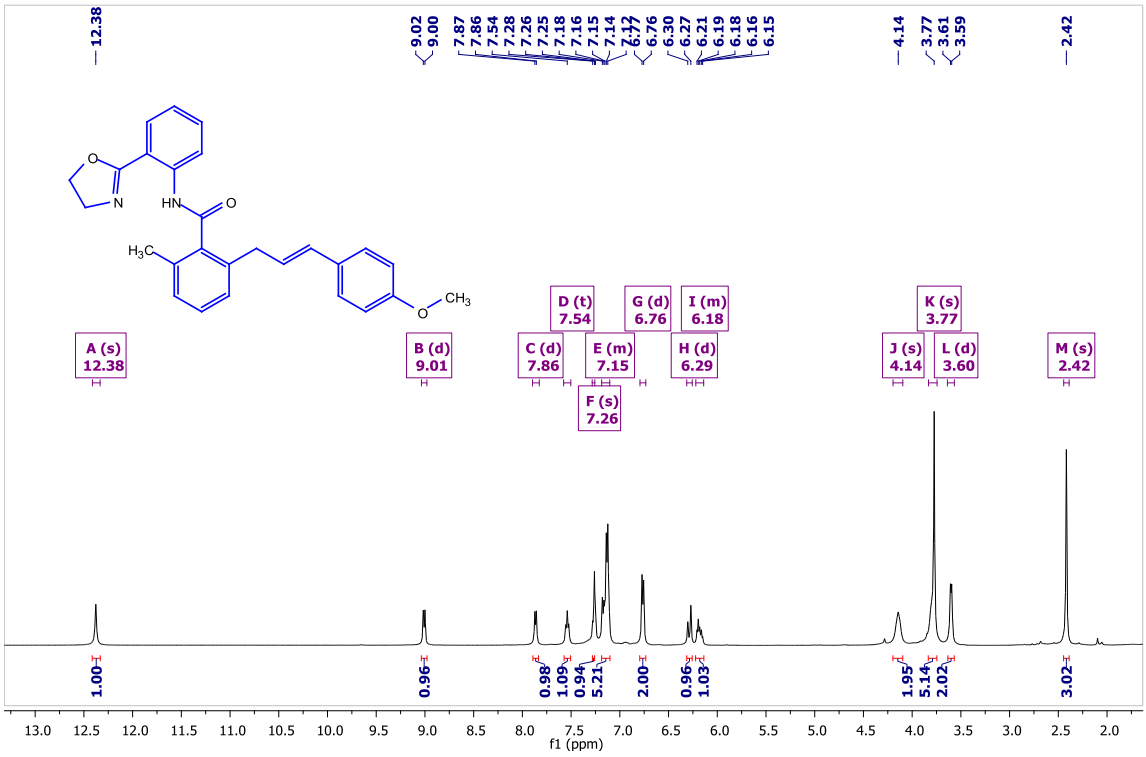


2-cinnamyl-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-6-methylbenzamide

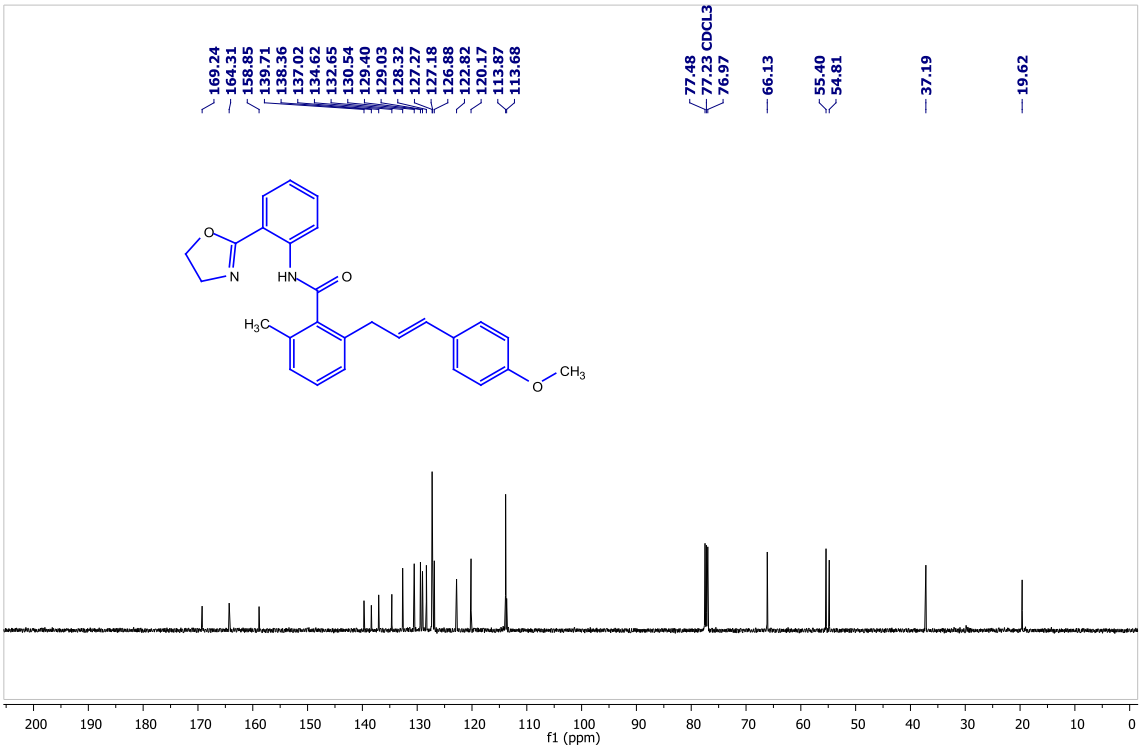


5n.

(E)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-(3-(4-methoxyphenyl)allyl)-6-methylbenzamide

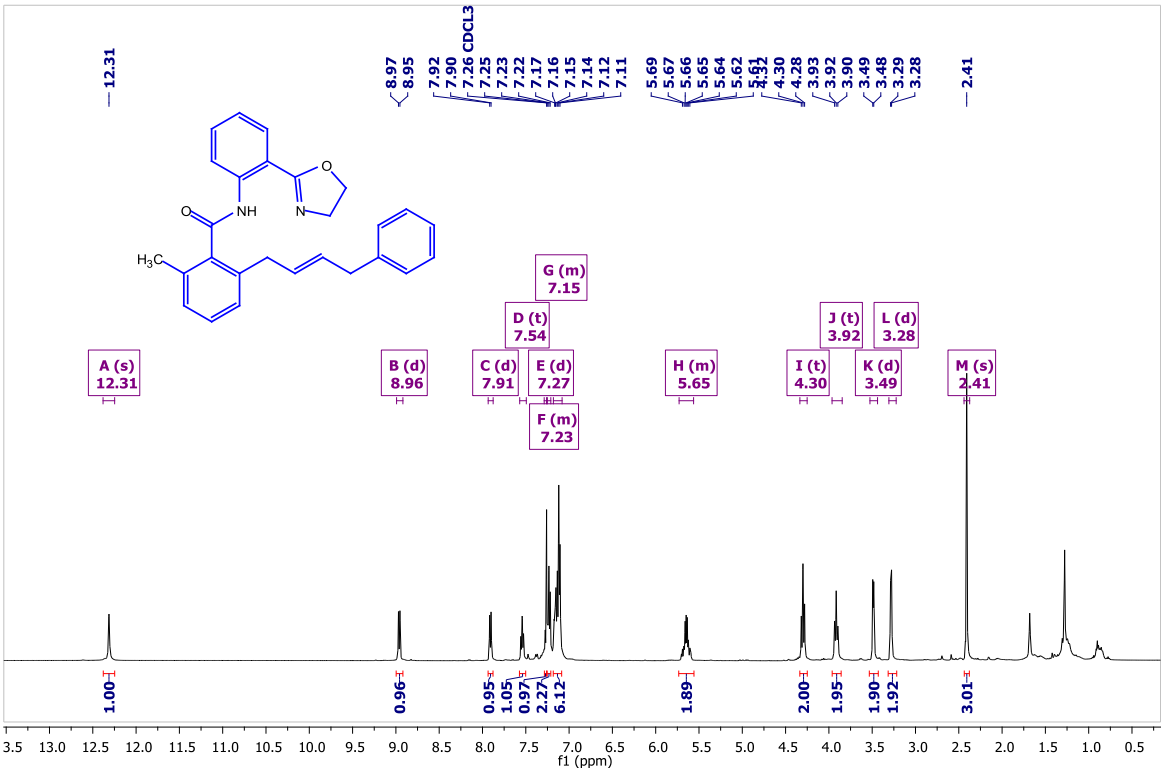


(E)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-(3-(4-methoxyphenyl)allyl)-6-methylbenzamide

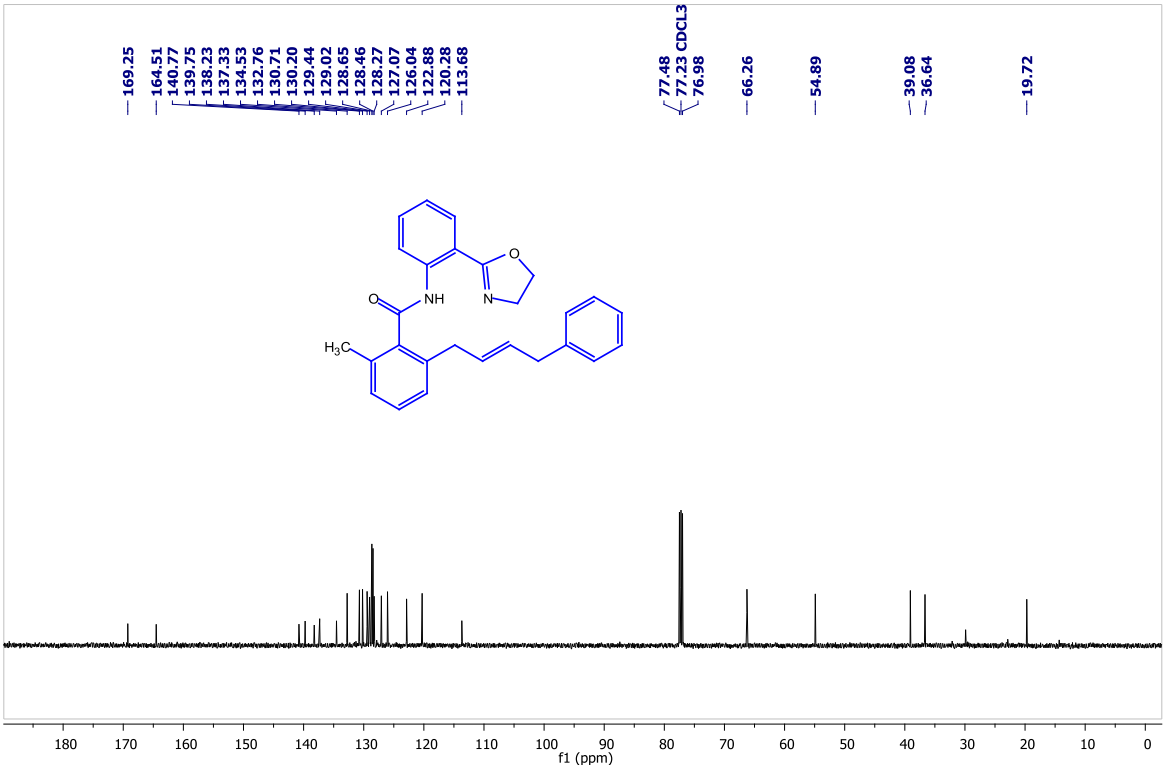


5o.

(E)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-methyl-6-(4-phenylbut-2-en-1-yl)benzamide

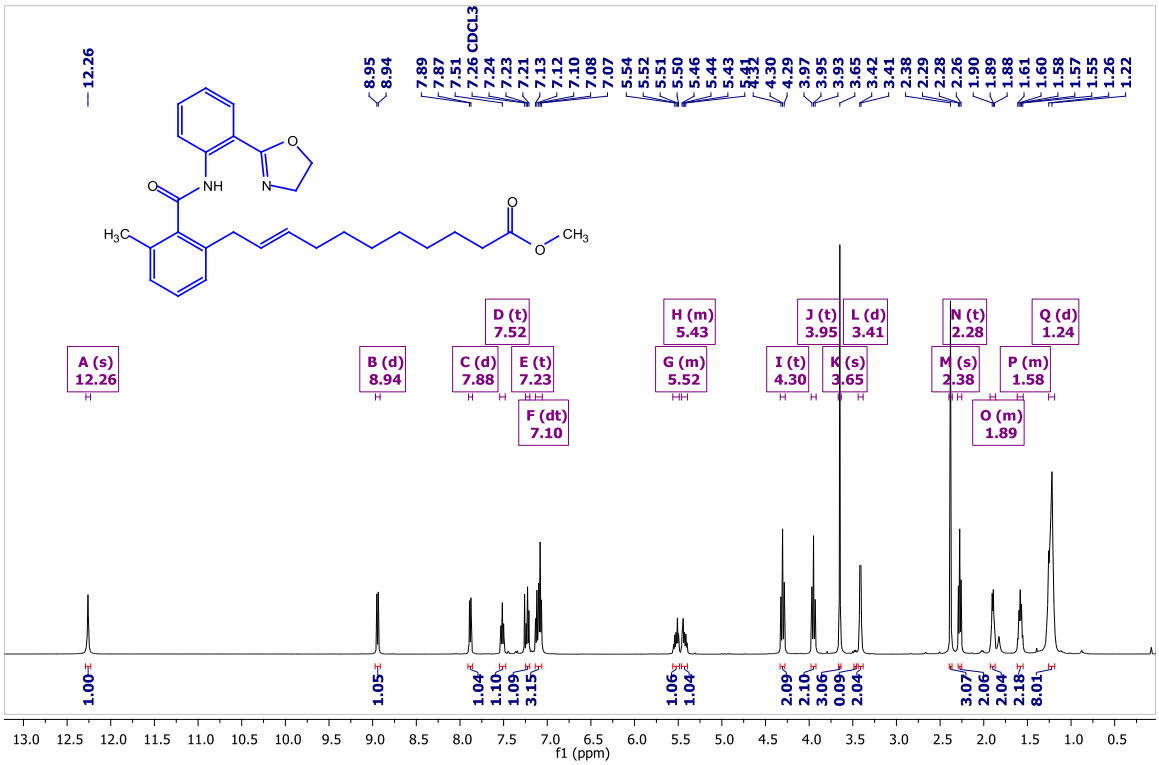


(E)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-methyl-6-(4-phenylbut-2-en-1-yl)benzamide

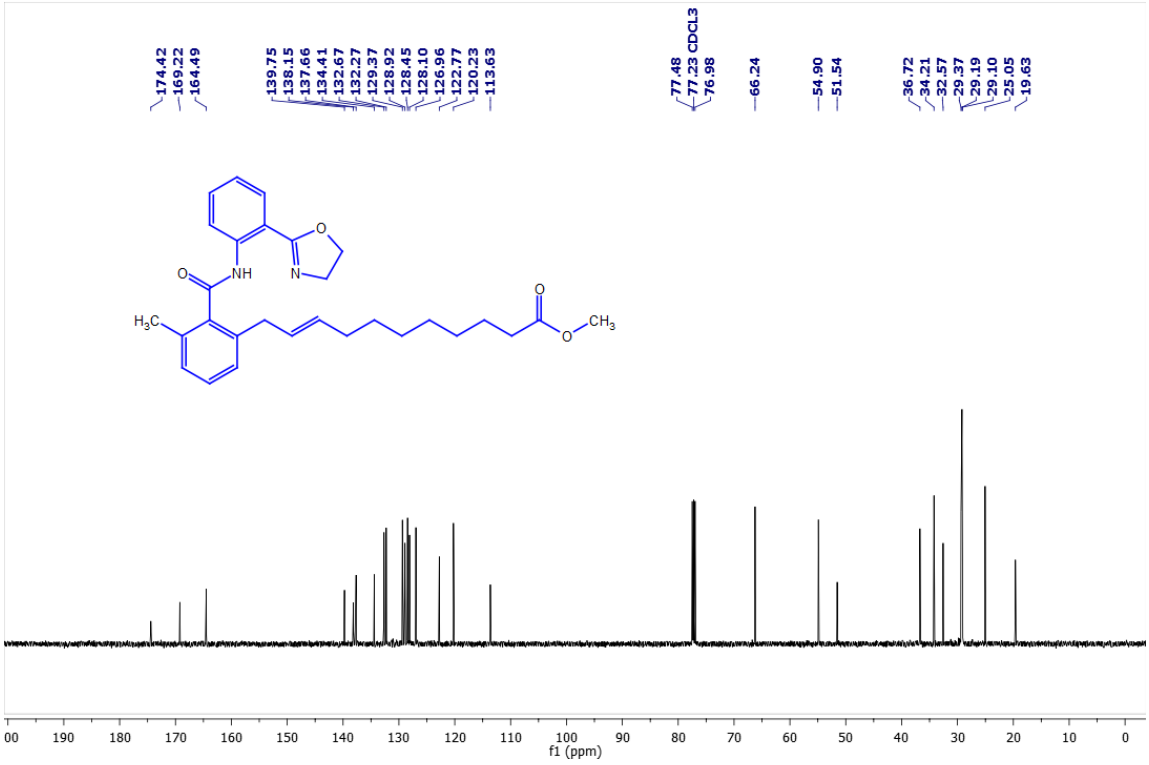


5p.

(E)-methyl 11-(2-((2-(4,5-dihydrooxazol-2-yl)phenyl)carbamoyl)-3-methylphenyl)undec-9-enoate

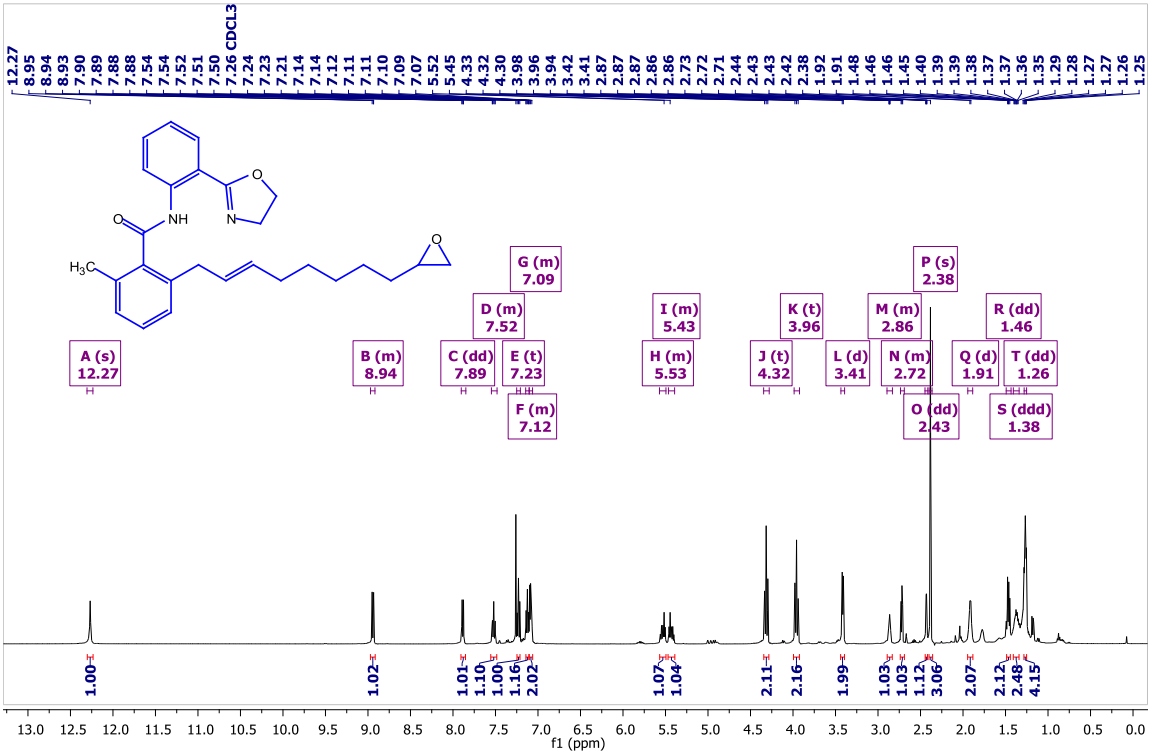


(E)-methyl 11-(2-((2-(4,5-dihydrooxazol-2-yl)phenyl)carbamoyl)-3-methylphenyl)undec-9-enoate

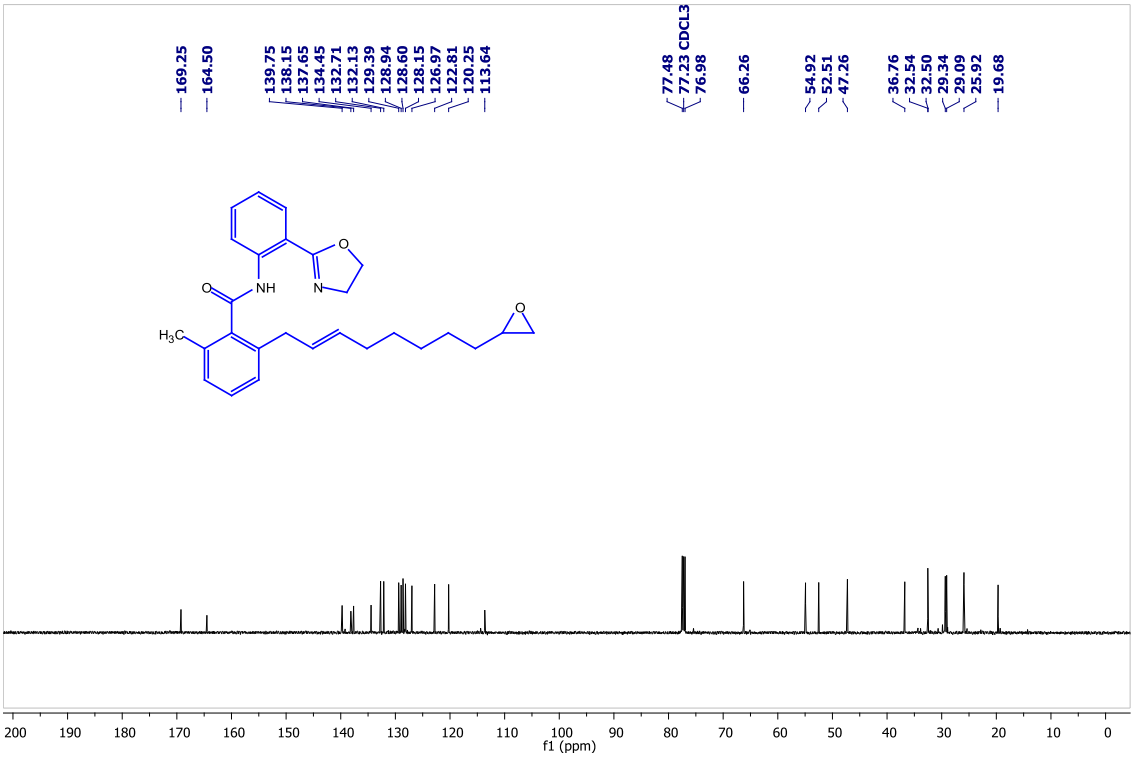


5q.

(E)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-methyl-6-(8-(oxiran-2-yl)oct-2-en-1-yl)benzamide

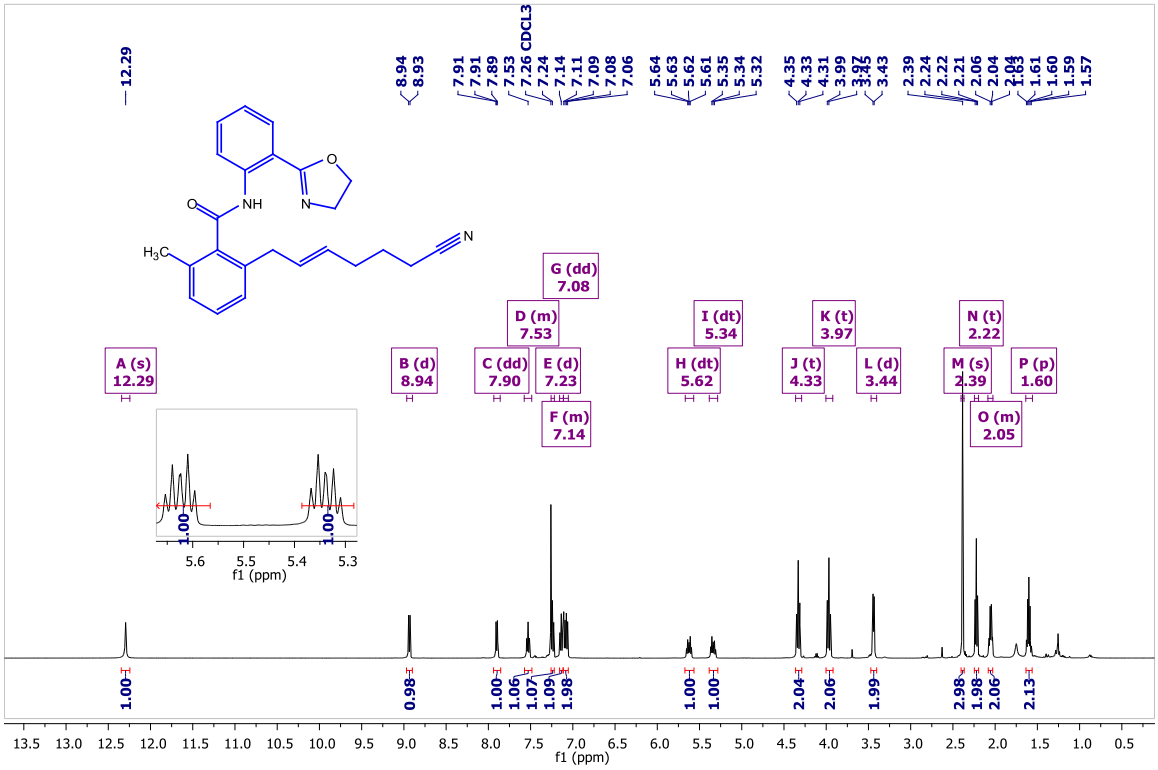


(E)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-methyl-6-(8-(oxiran-2-yl)oct-2-en-1-yl)benzamide

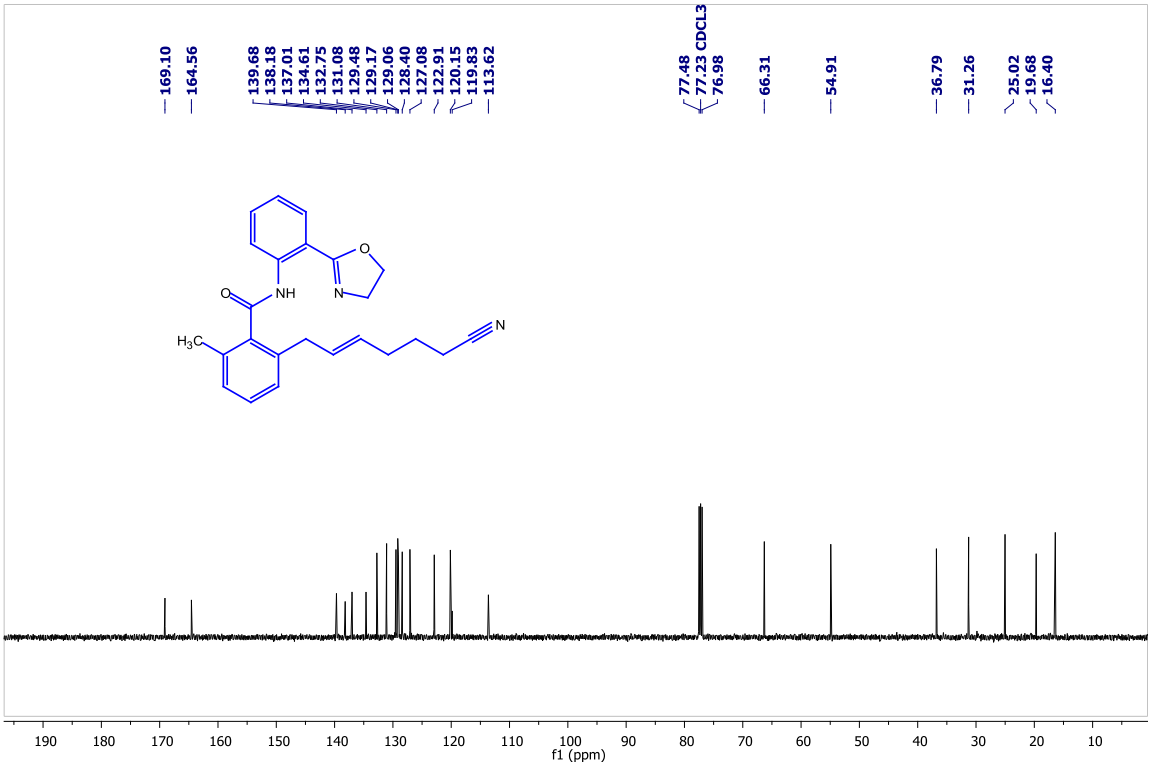


5r.

(E)-2-(6-cyanohex-2-en-1-yl)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-6-methylbenzamide

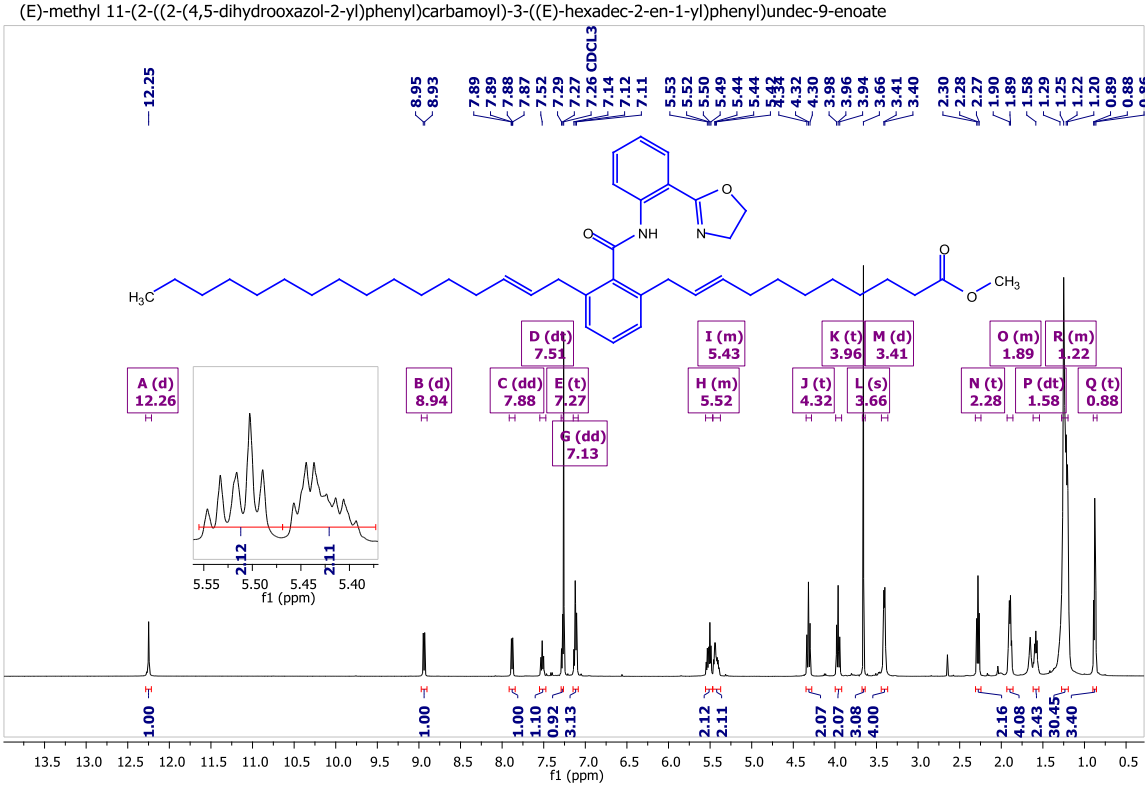


(E)-2-(6-cyanohex-2-en-1-yl)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-6-methylbenzamide

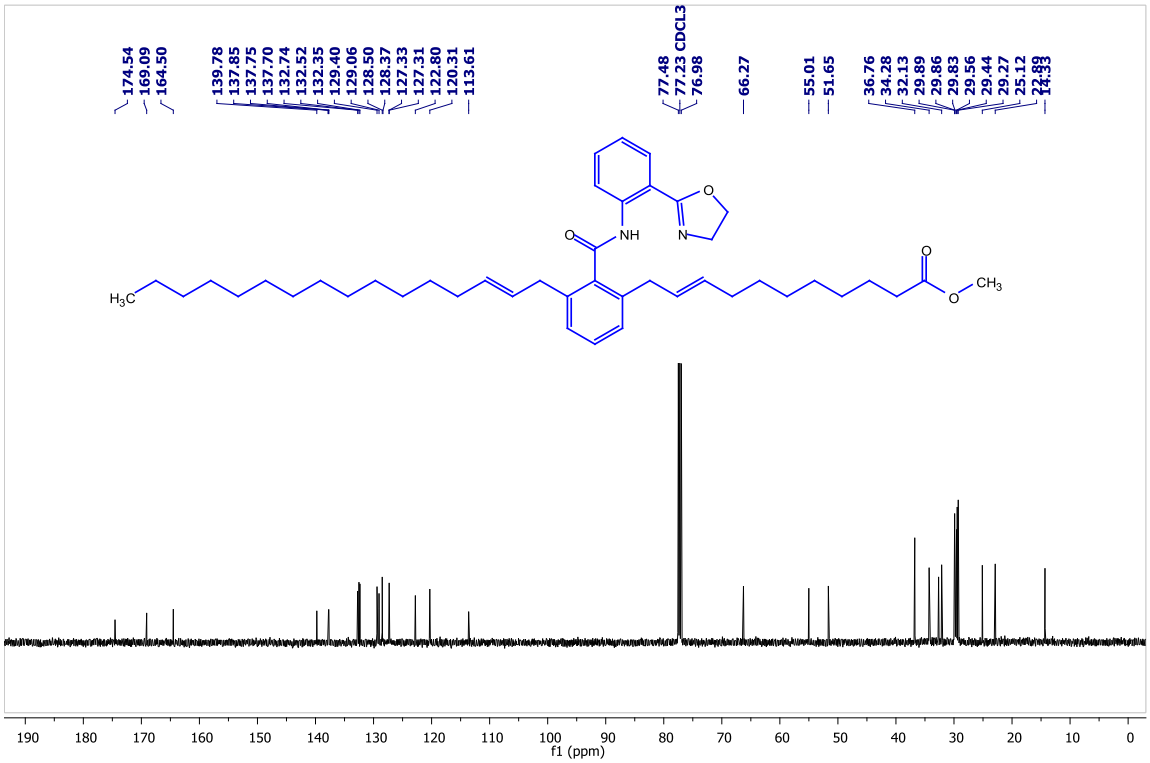


5s.

(E)-methyl 11-(2-((2-(4,5-dihydrooxazol-2-yl)phenyl)carbamoyl)-3-((E)-hexadec-2-en-1-yl)phenyl)undec-9-enoate

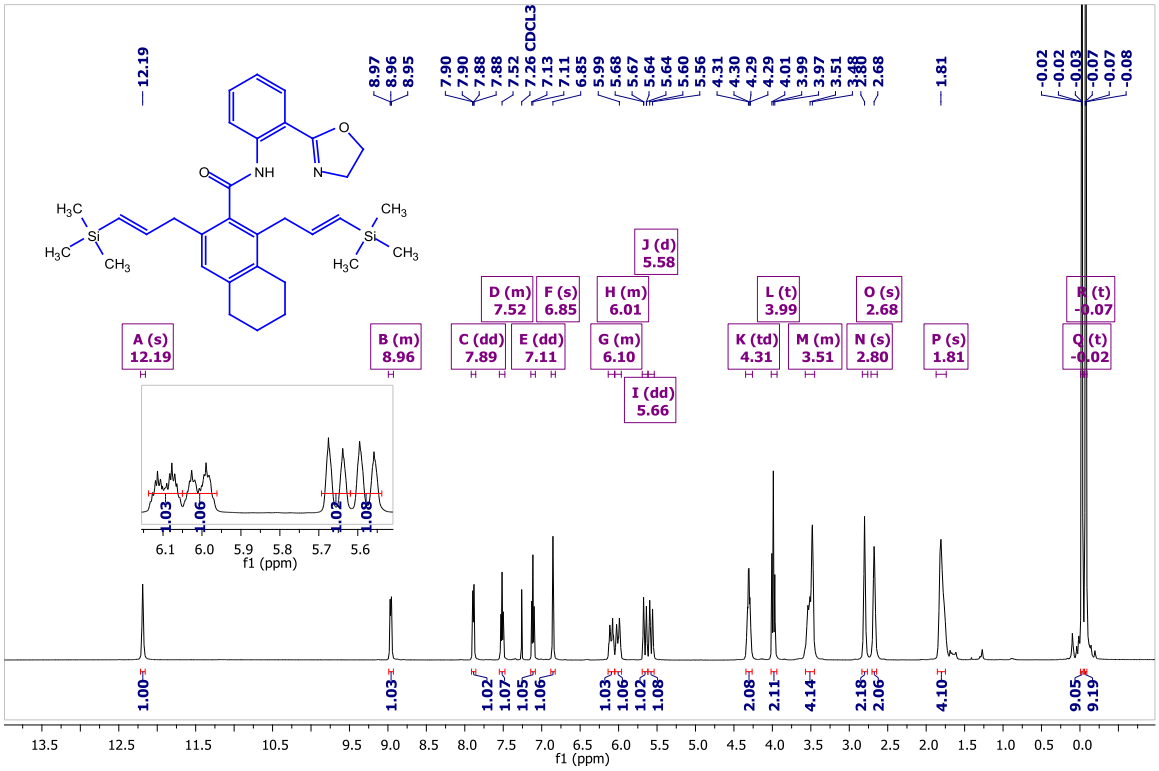


(E)-methyl 11-(2-((2-(4,5-dihydrooxazol-2-yl)phenyl)carbamoyl)-3-((E)-hexadec-2-en-1-yl)phenyl)undec-9-enoate

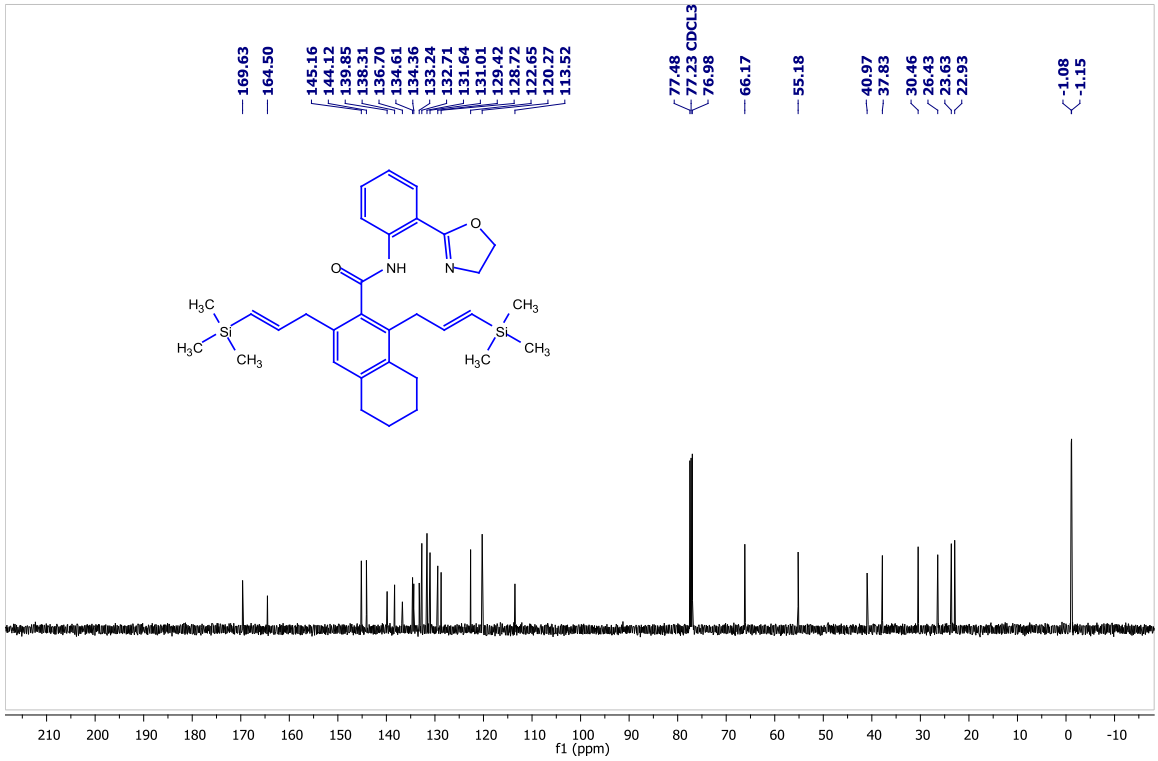


5t.

N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-1,3-bis((E)-3-(trimethylsilyl)allyl)-5,6,7,8-tetrahydronaphthalene-2-carboxamide

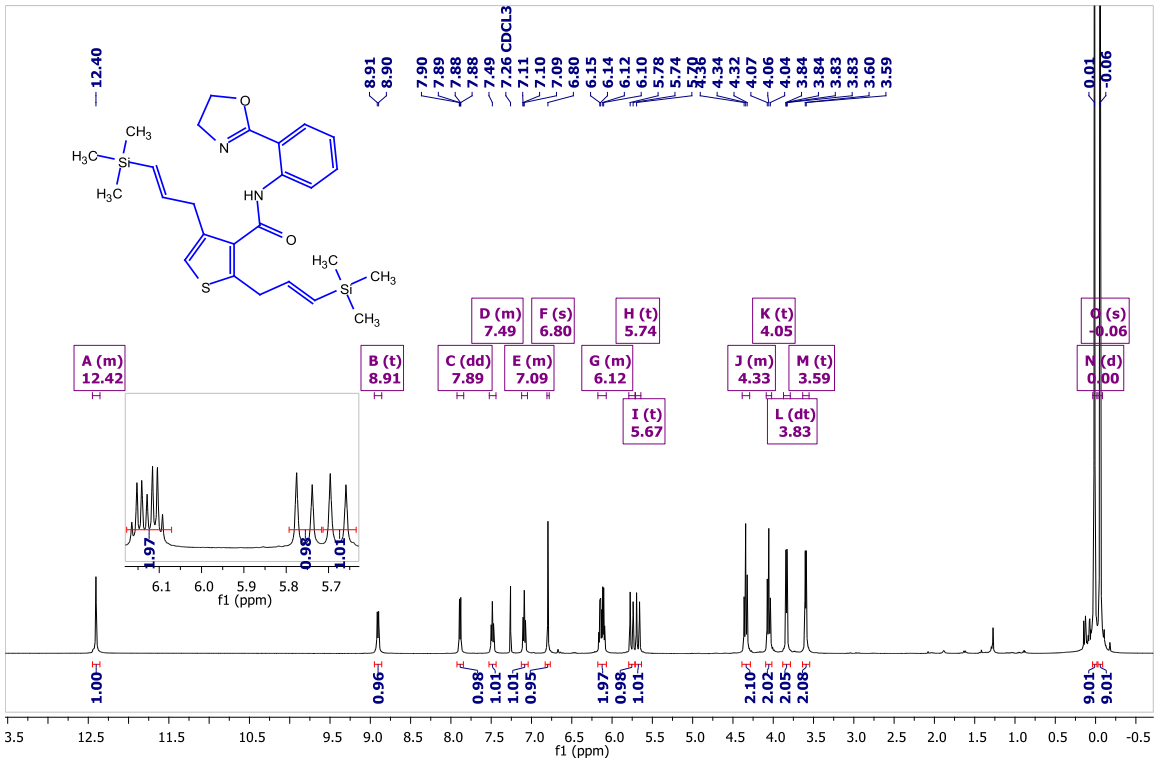


N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-1,3-bis((E)-3-(trimethylsilyl)allyl)-5,6,7,8-tetrahydronaphthalene-2-carboxamide

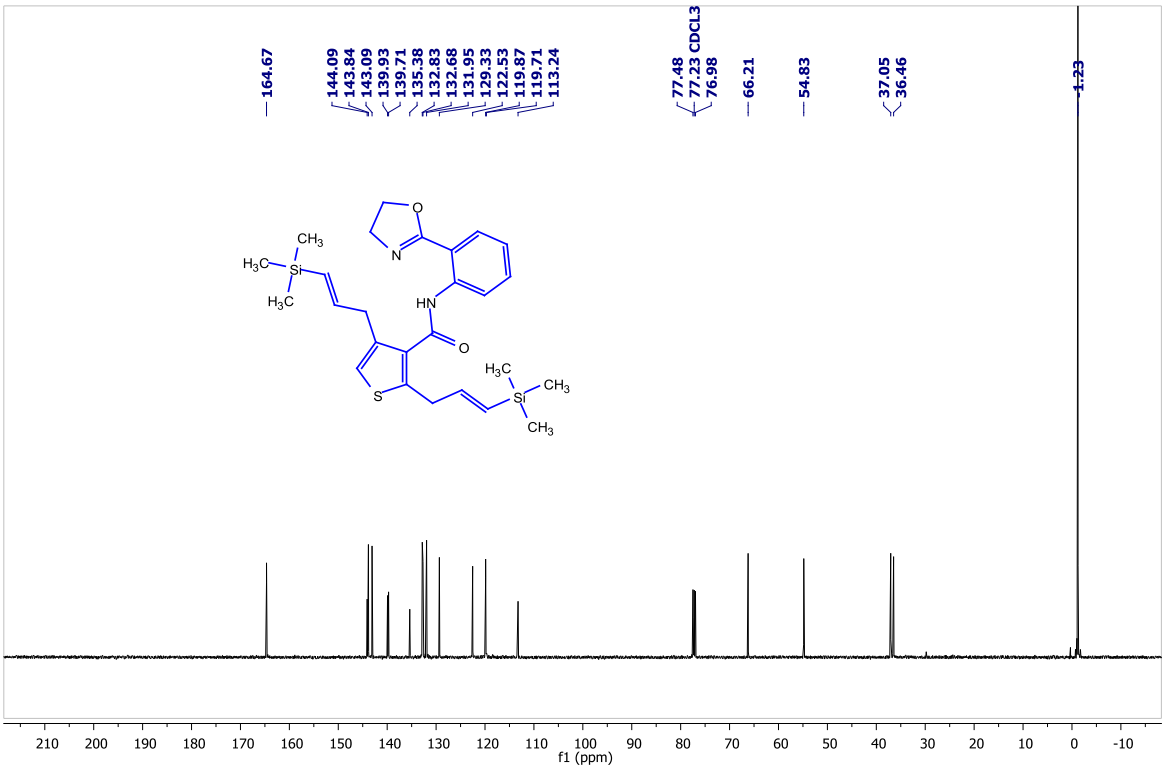


5u.

N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2,4-bis((E)-3-(trimethylsilyl)allyl)thiophene-3-carboxamide

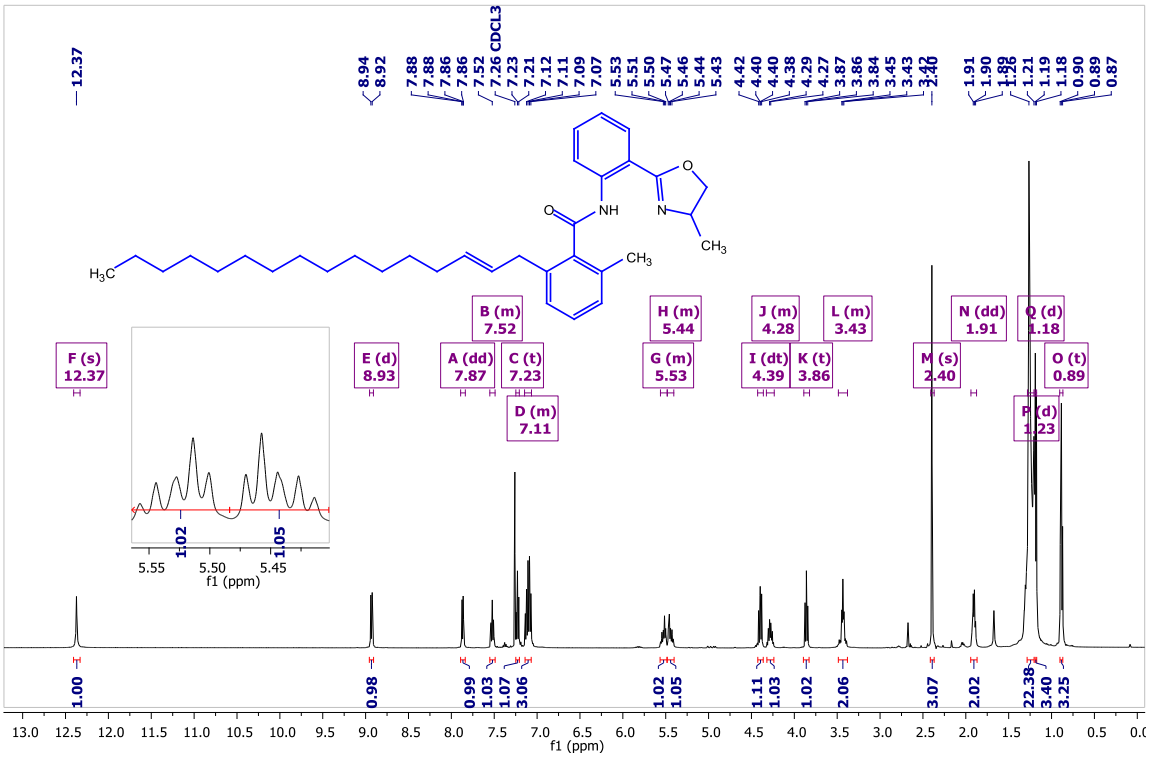


N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2,4-bis((E)-3-(trimethylsilyl)allyl)thiophene-3-carboxamide

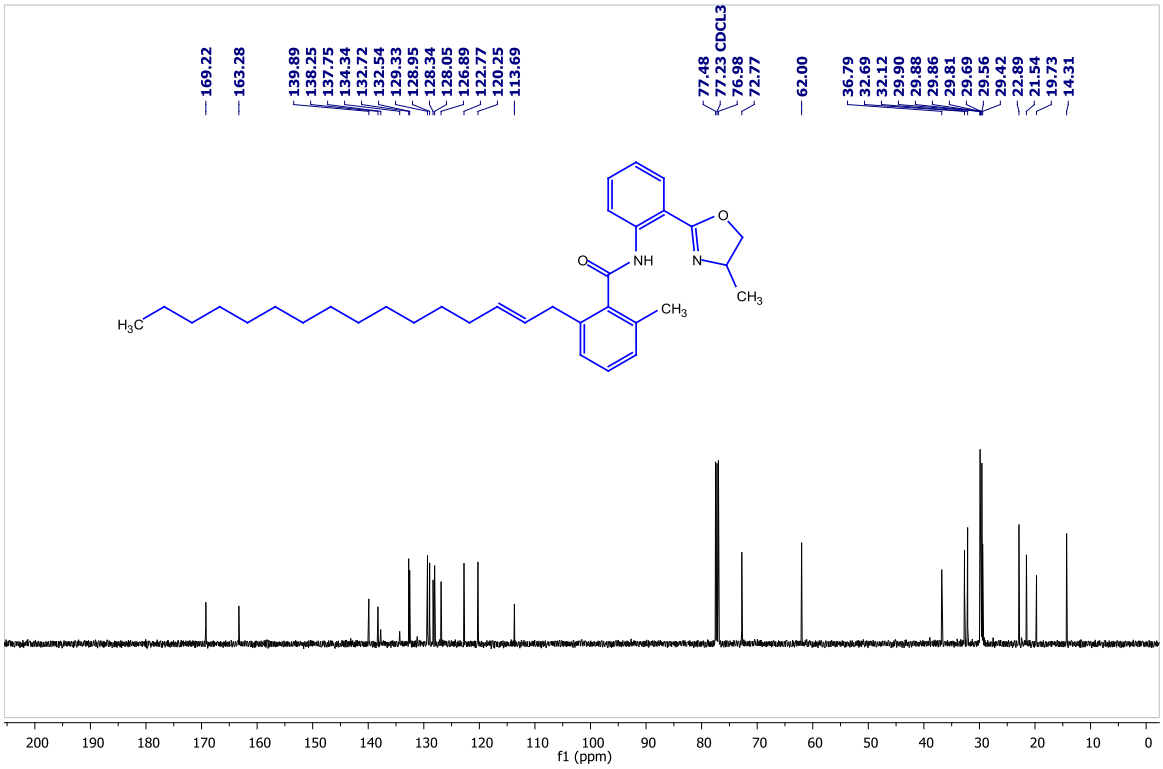


5v.

(E)-2-(hexadec-2-en-1-yl)-6-methyl-N-(2-(4-methyl-4,5-dihydrooxazol-2-yl)phenyl)benzamide

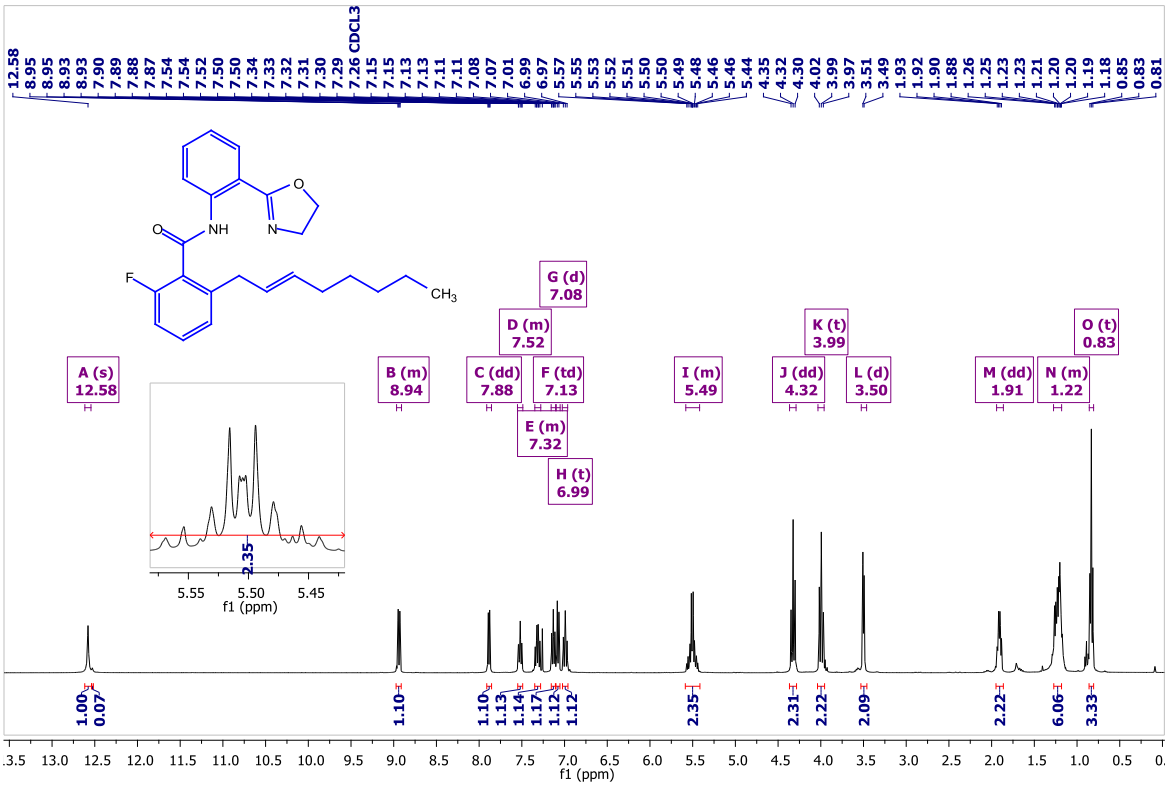


(E)-2-(hexadec-2-en-1-yl)-6-methyl-N-(2-(4-methyl-4,5-dihydrooxazol-2-yl)phenyl)benzamide

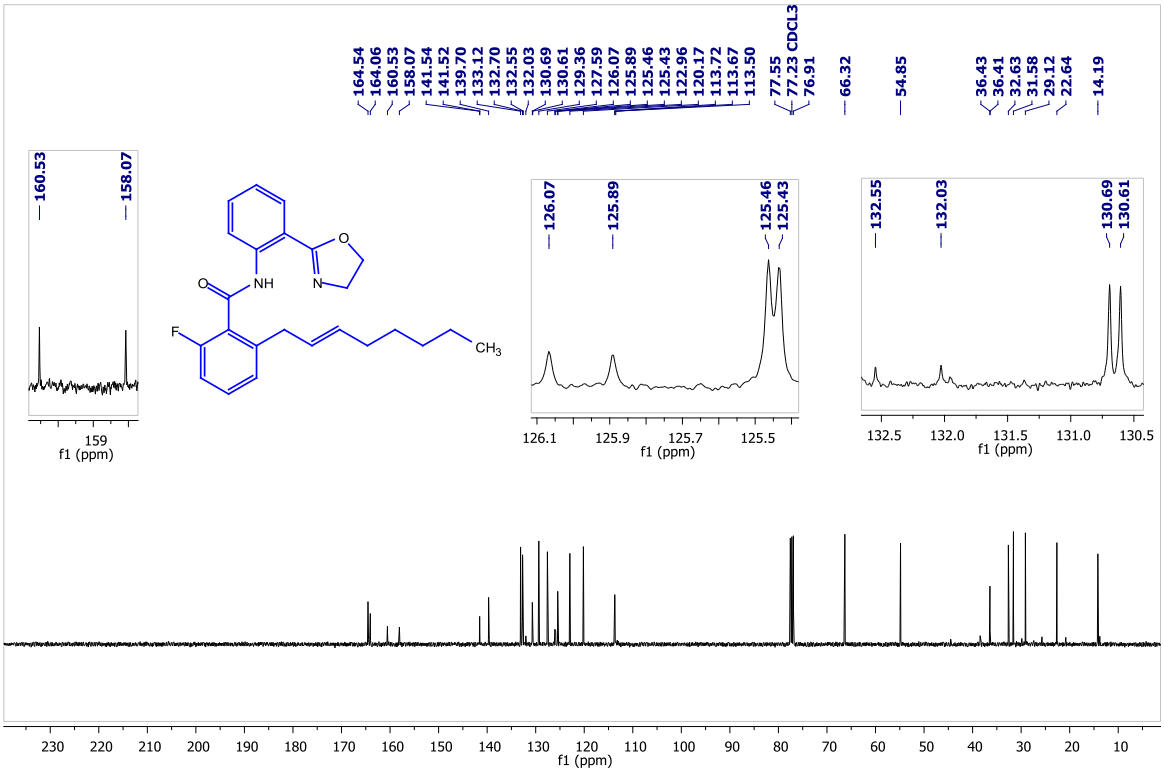


6a.

(E)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-fluoro-6-(oct-2-en-1-yl)benzamide

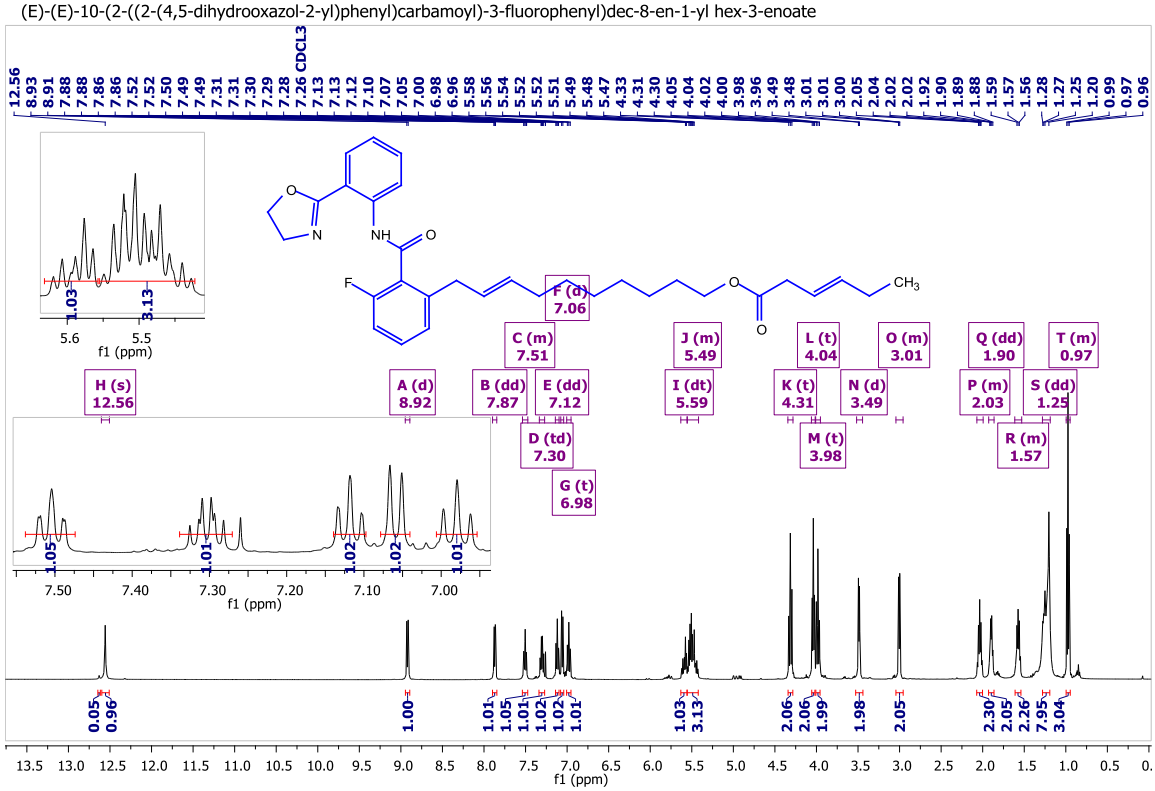


(E)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-fluoro-6-(oct-2-en-1-yl)benzamide

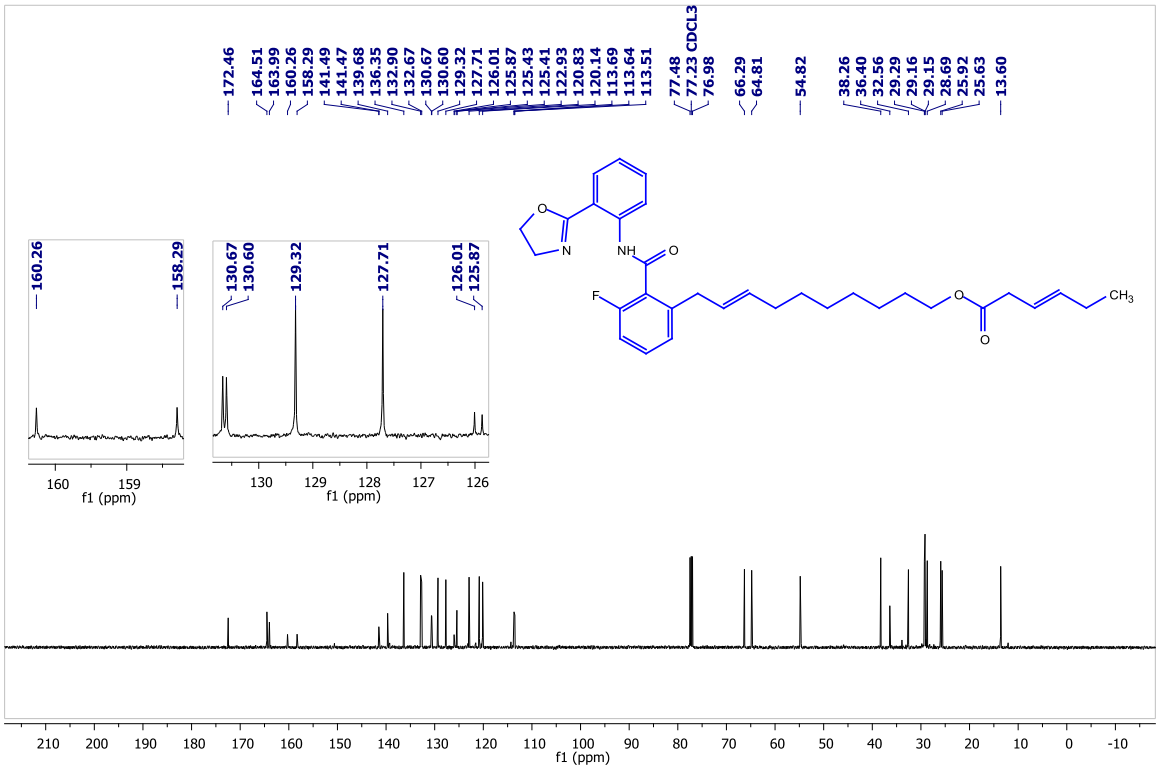


6b.

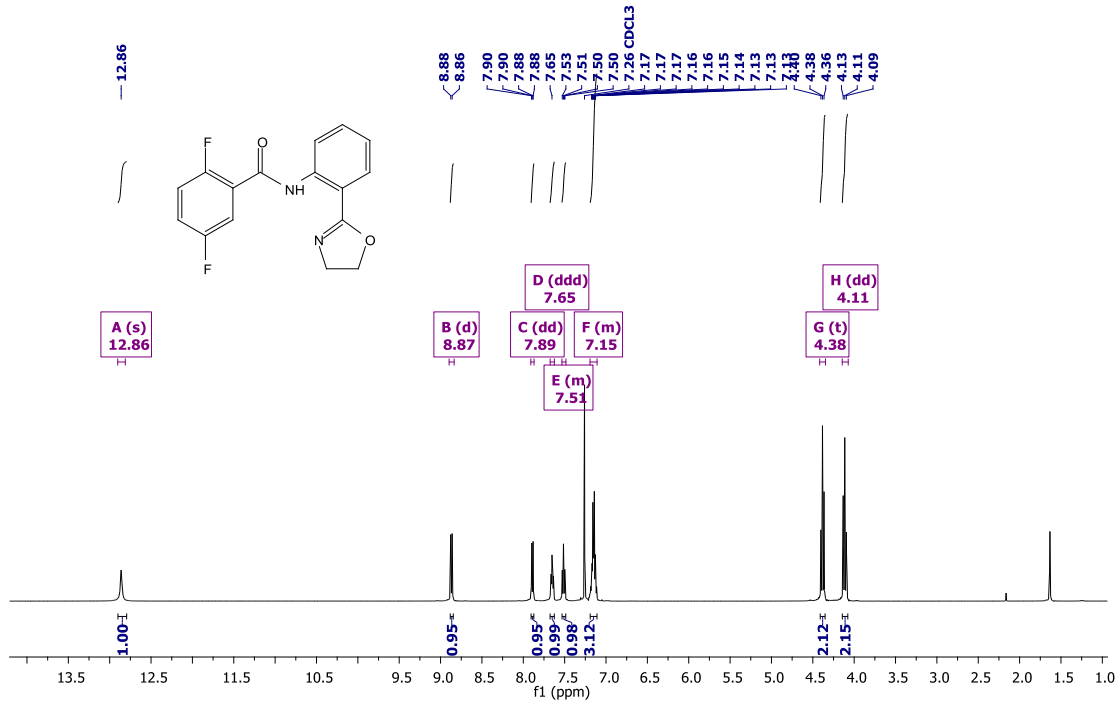
(E)-(E)-10-(2-((2-(4,5-dihydrooxazol-2-yl)phenyl)carbamoyl)-3-fluorophenyl)dec-8-en-1-yl hex-3-enoate



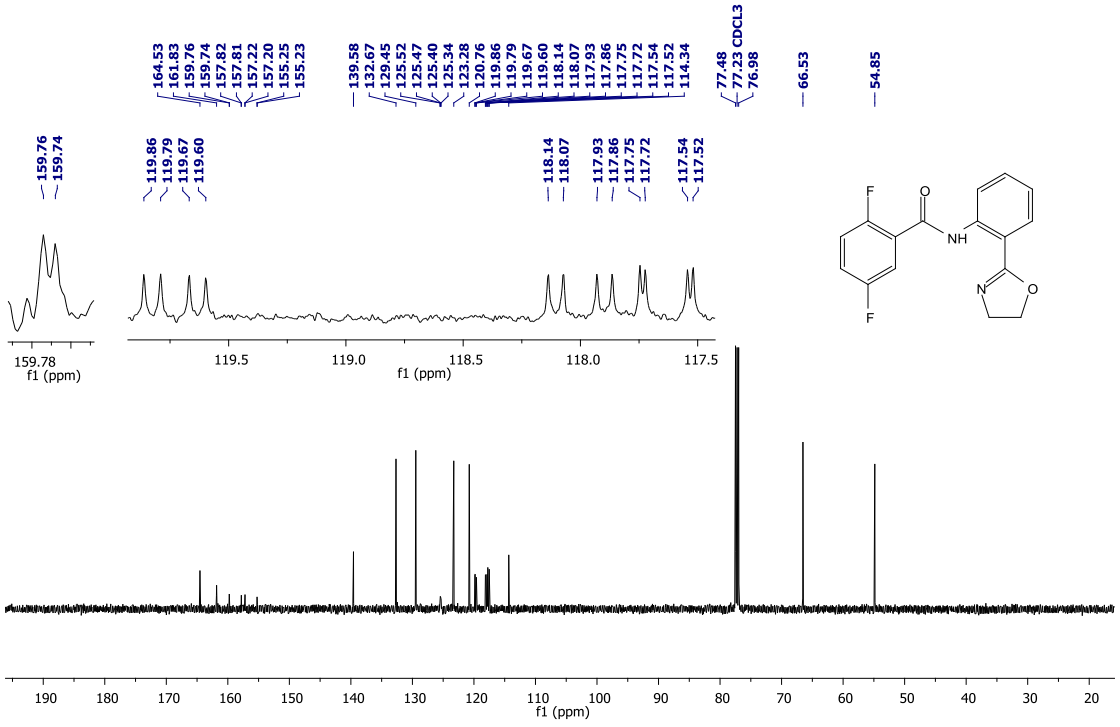
(E)-(E)-10-(2-((2-(4,5-dihydrooxazol-2-yl)phenyl)carbamoyl)-3-fluorophenyl)dec-8-en-1-yl hex-3-enoate



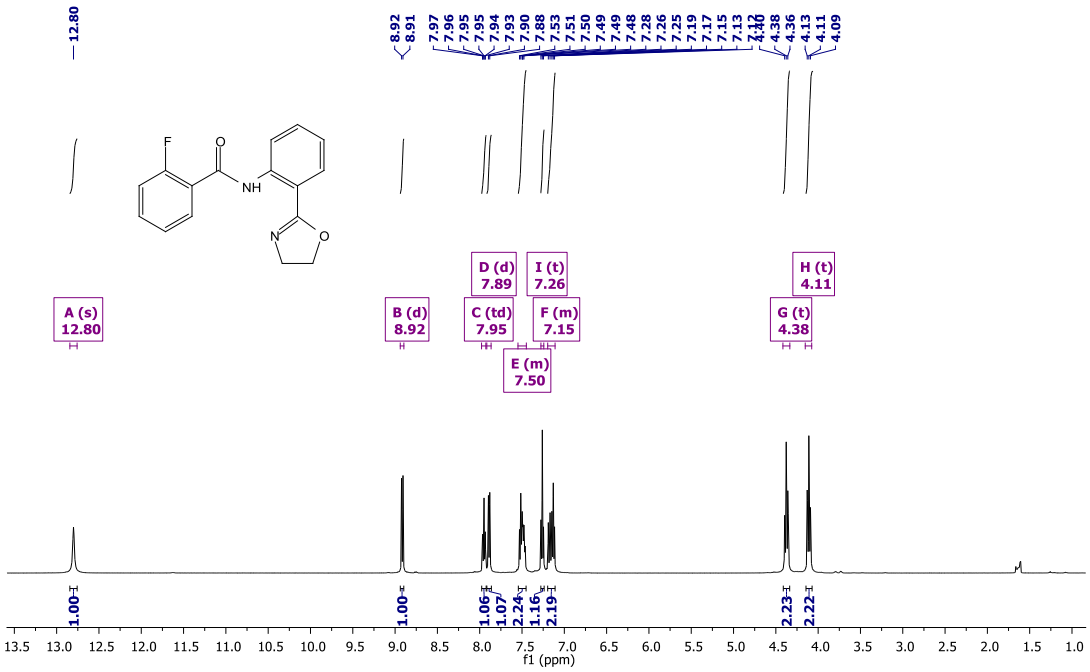
2,5-difluoro-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)benzamide



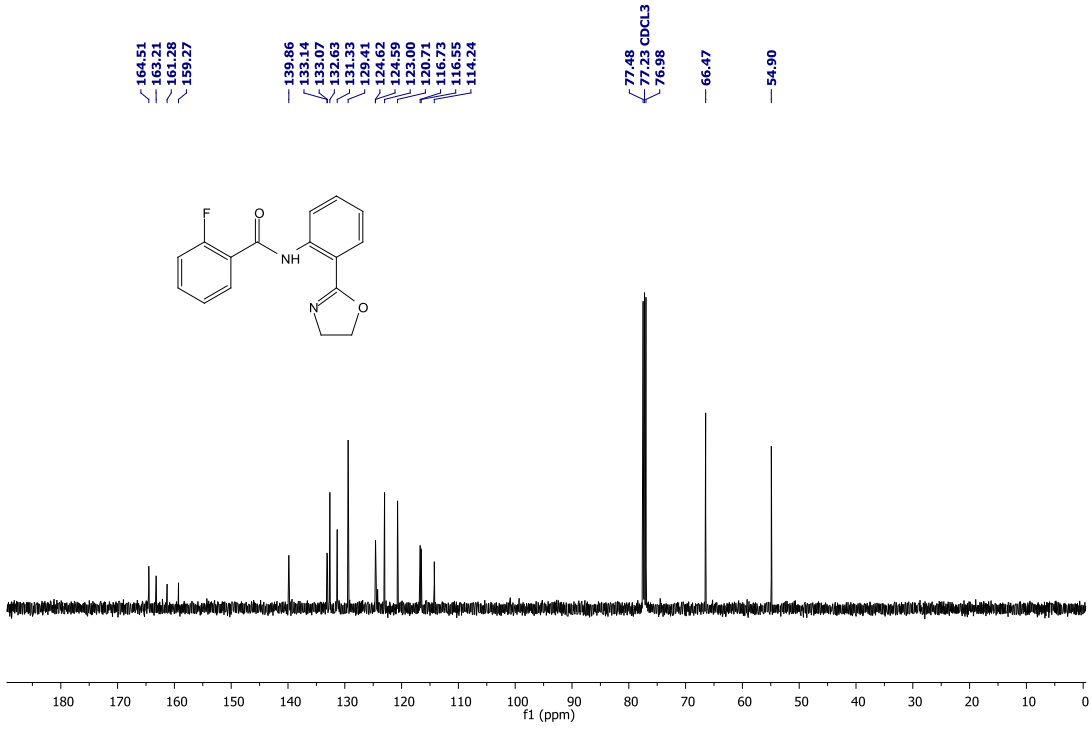
2,5-difluoro-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)benzamide



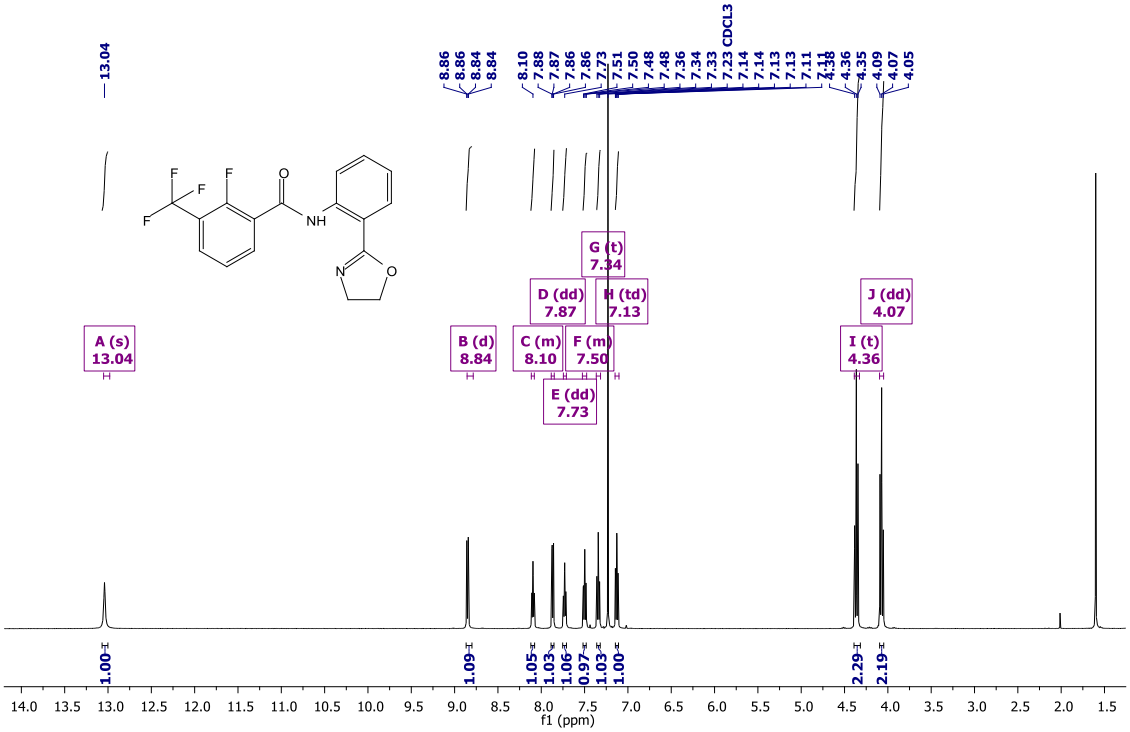
2-fluoro-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)benzamide



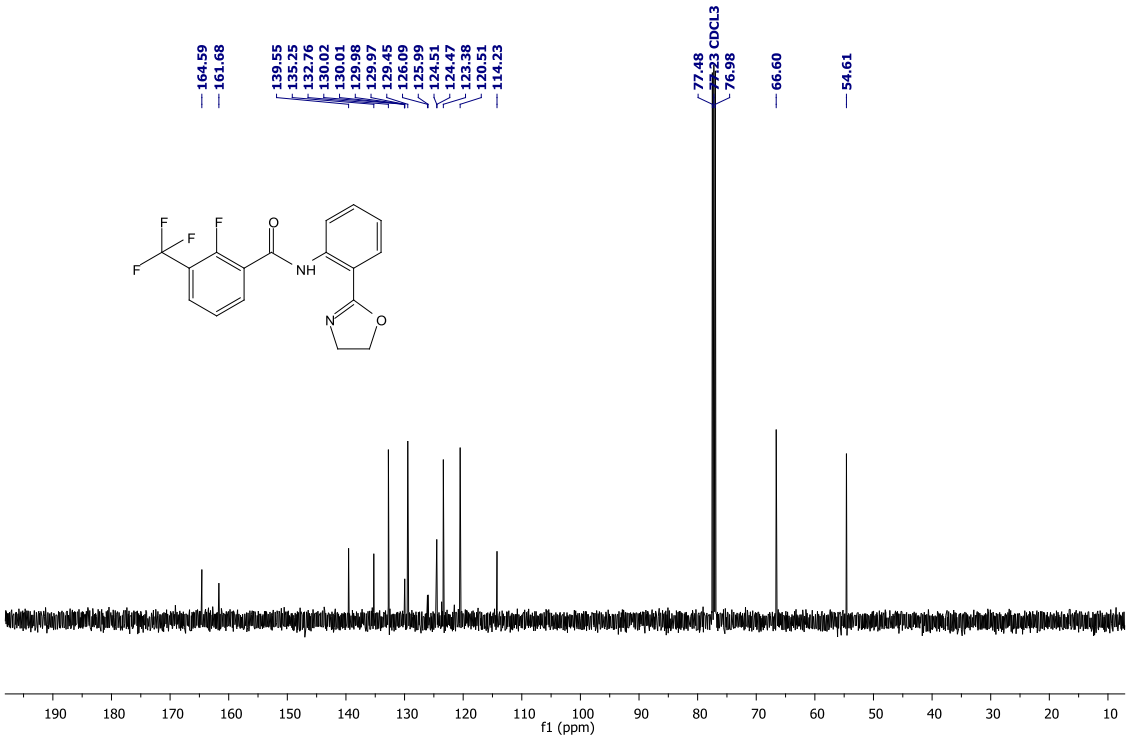
2-fluoro-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)benzamide



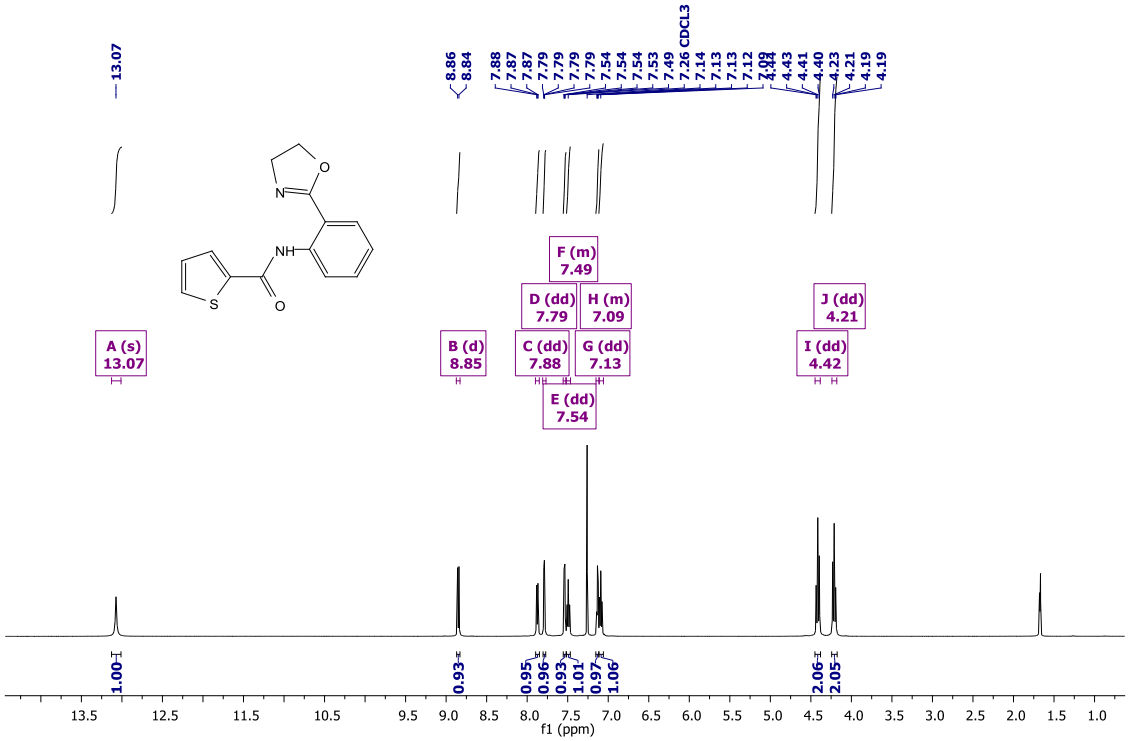
2-fluoro-3-(trifluoromethyl)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)benzamide



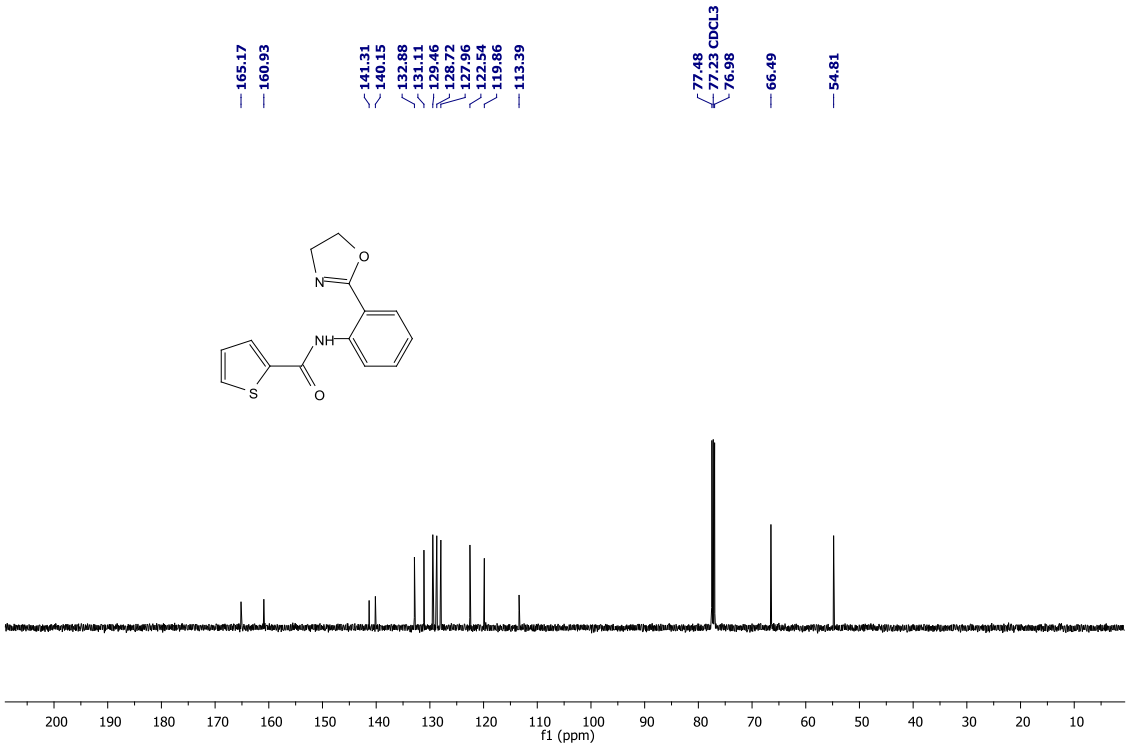
2-fluoro-3-(trifluoromethyl)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)benzamide



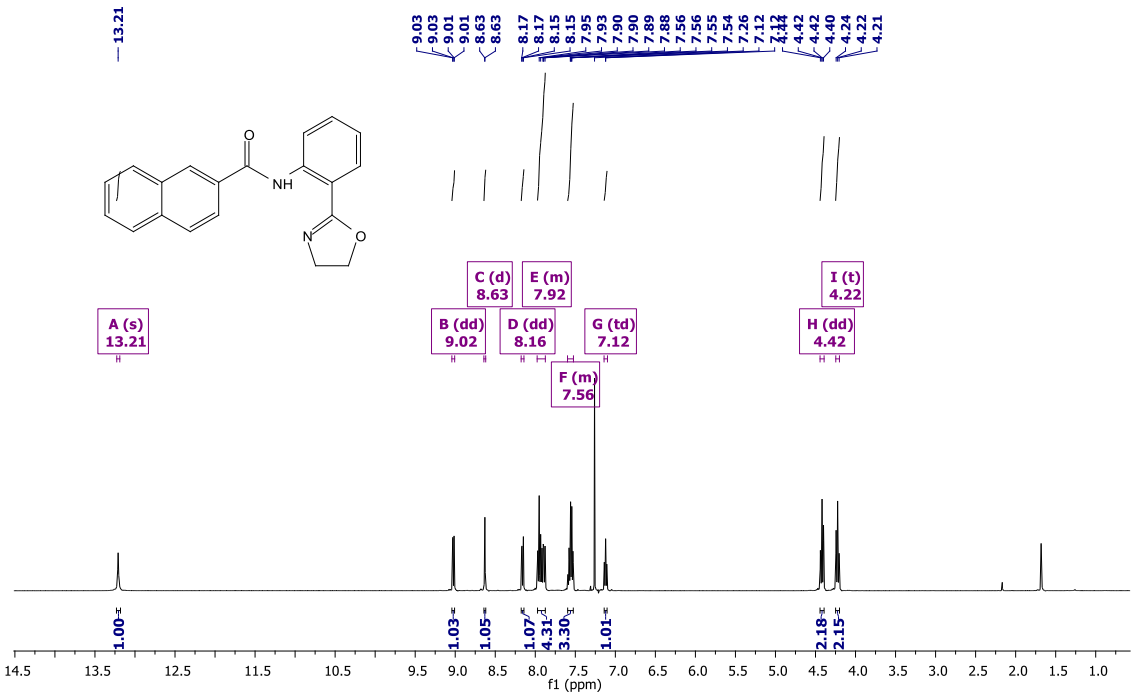
N-(2-(4,5-dihydrooxazol-2-yl)phenyl)thiophene-2-carboxamide



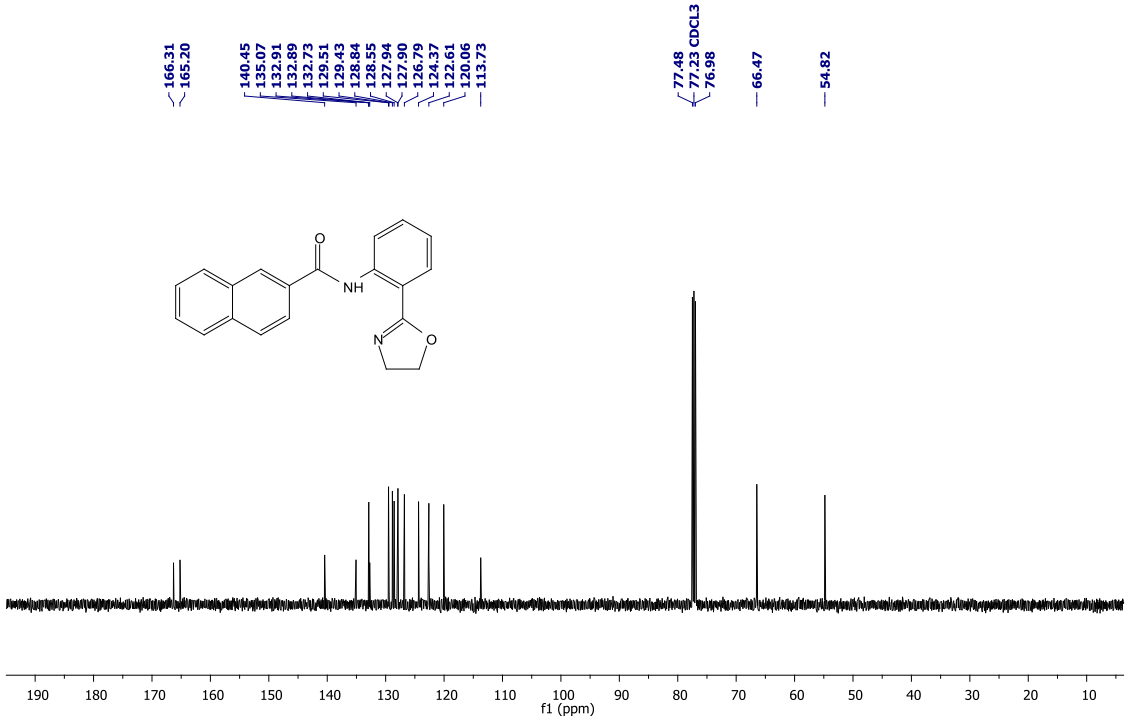
N-(2-(4,5-dihydrooxazol-2-yl)phenyl)thiophene-2-carboxamide



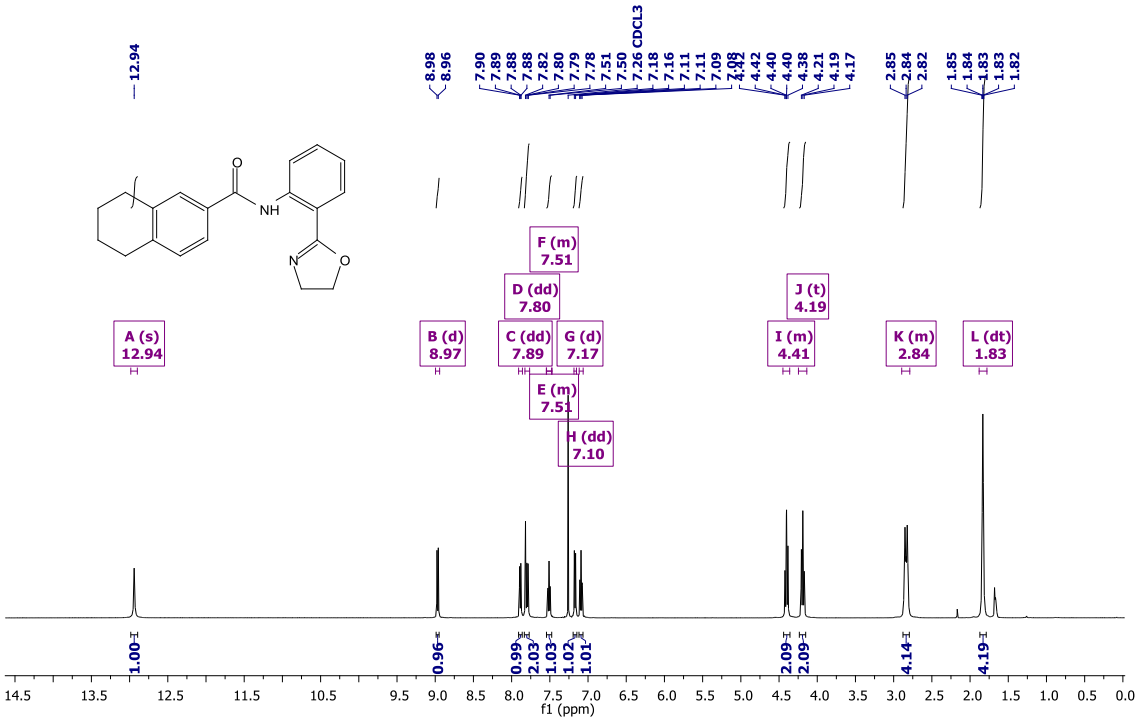
N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-naphthamide



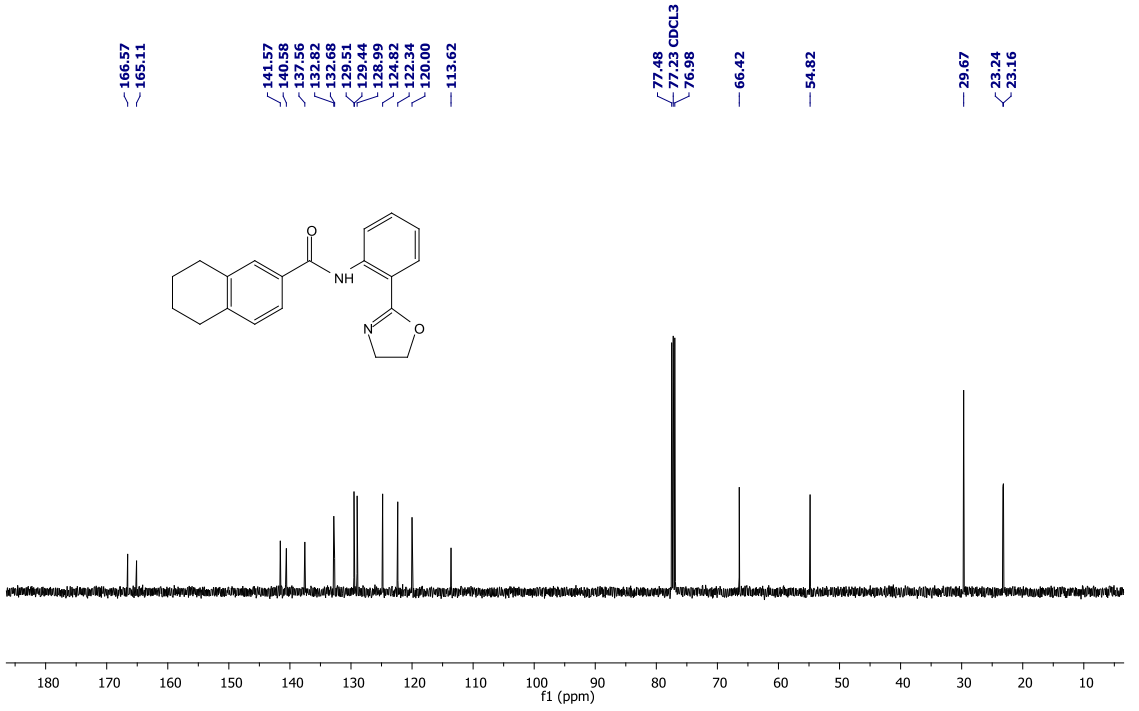
N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-naphthamide



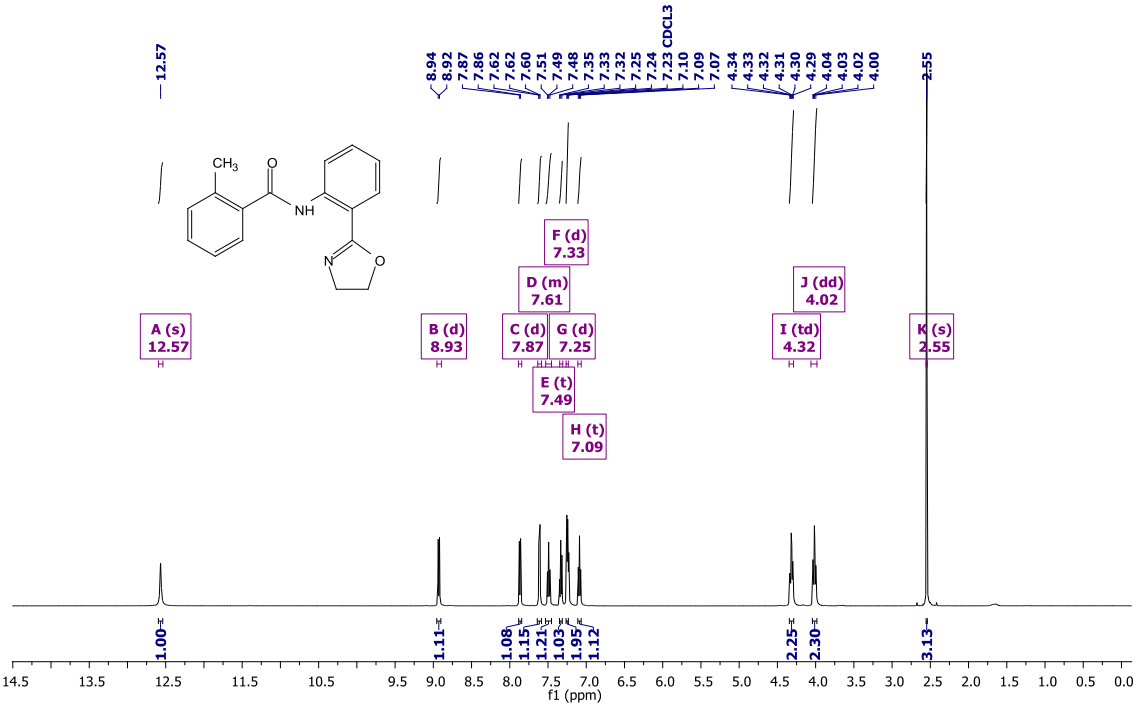
5,6,7,8-tetrahydro-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)naphthalene-2-carboxamide



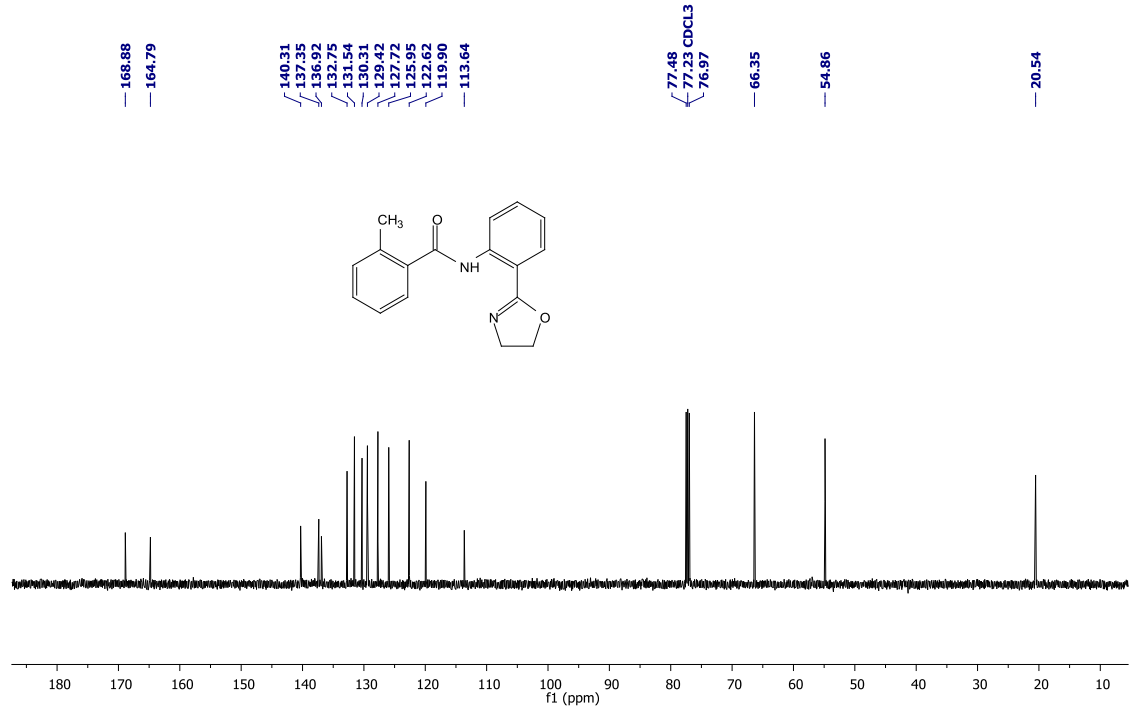
5,6,7,8-tetrahydro-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)naphthalene-2-carboxamide



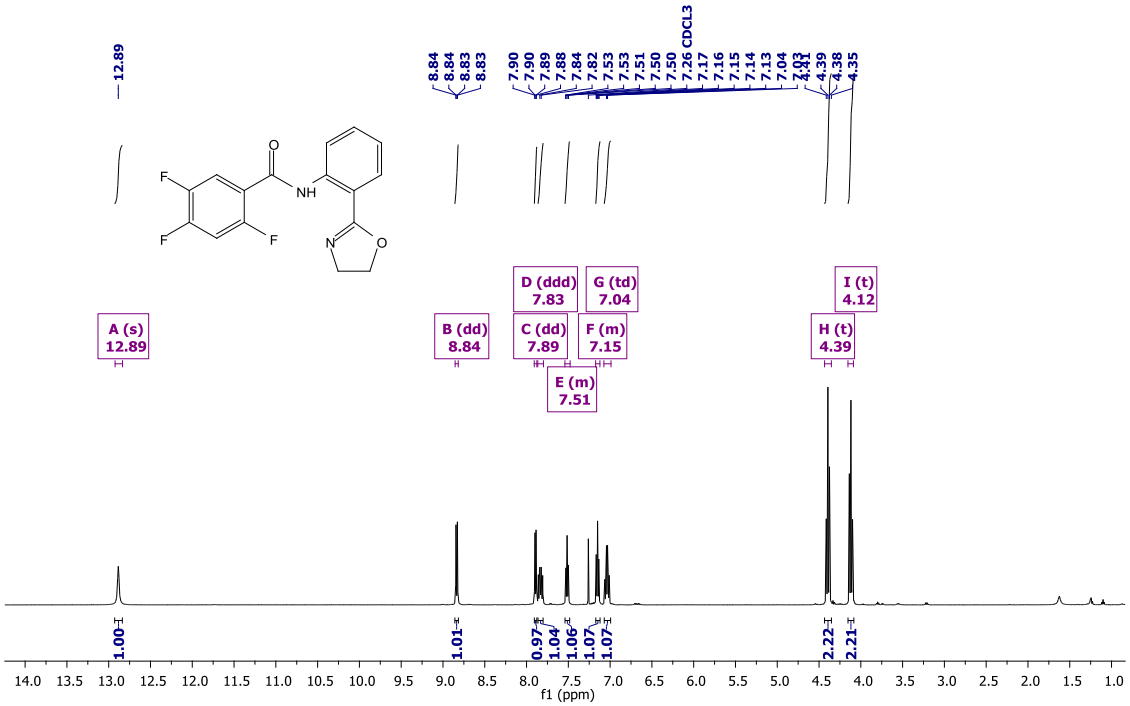
N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-methylbenzamide



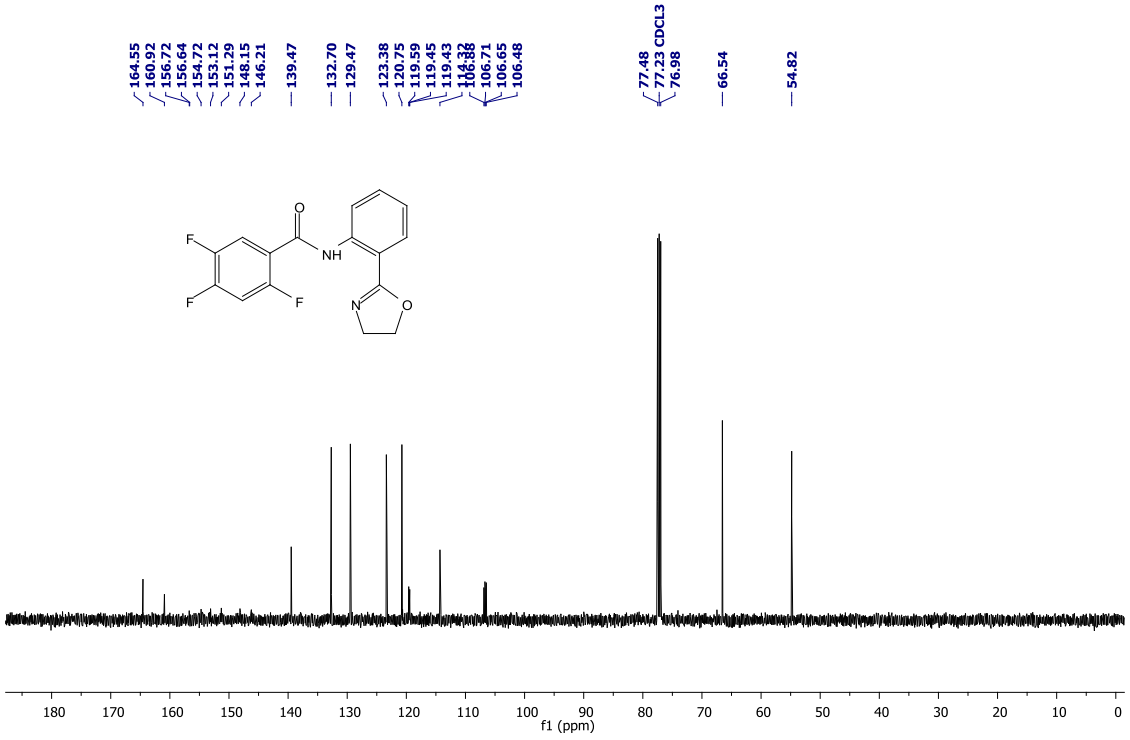
N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-methylbenzamide



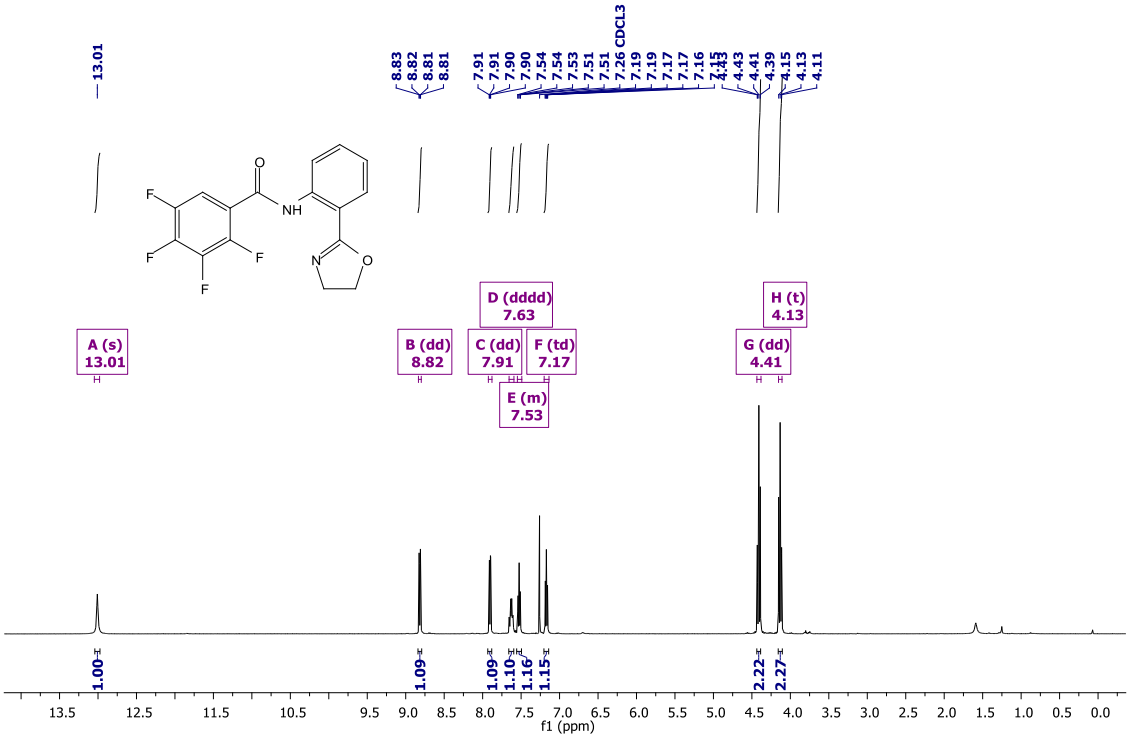
2,4,5-trifluoro-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)benzamide



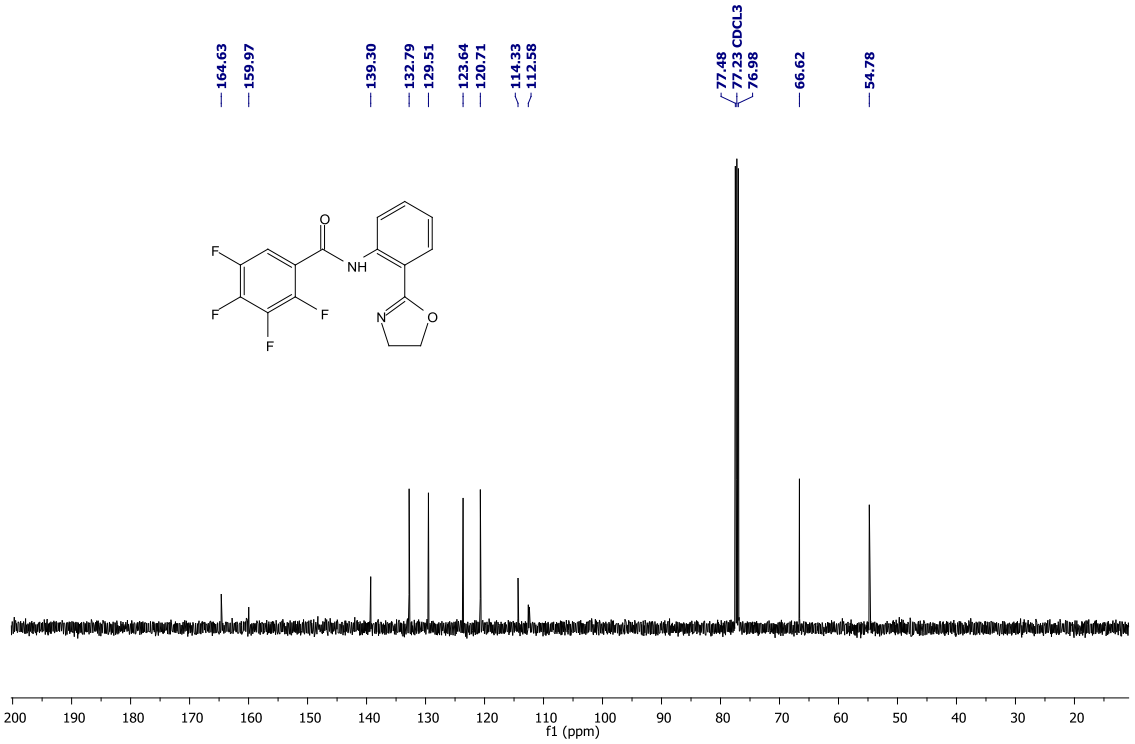
2,4,5-trifluoro-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)benzamide



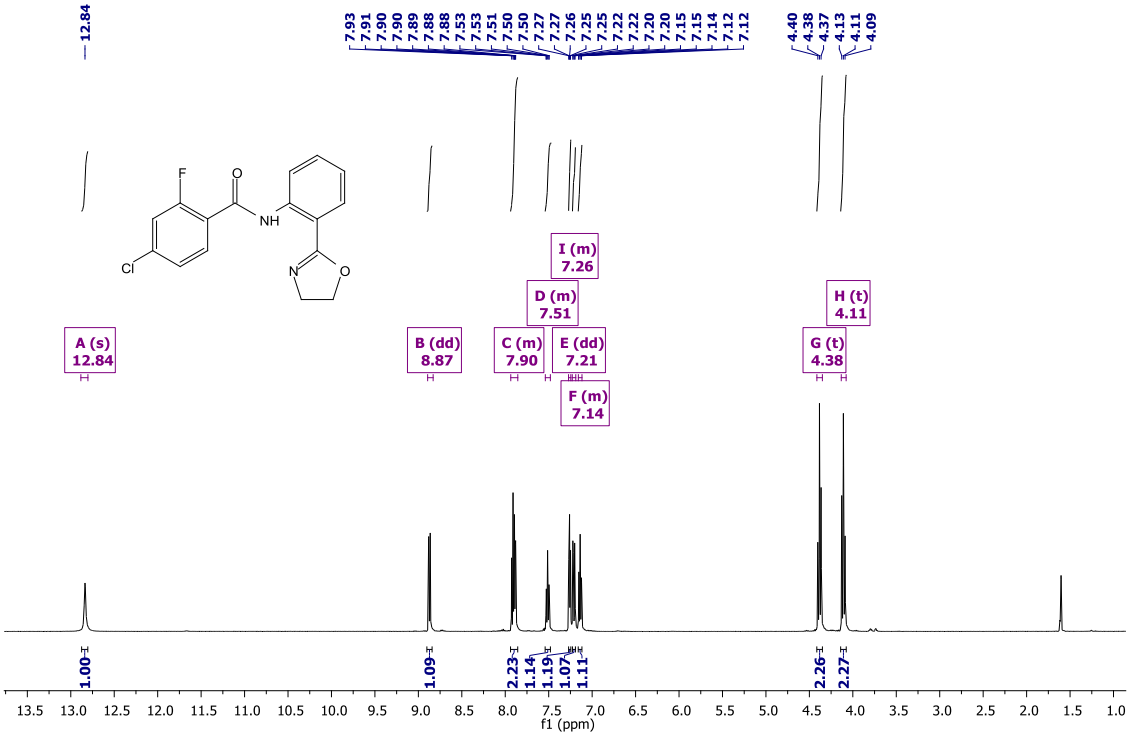
2,3,4,5-tetrafluoro-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)benzamide



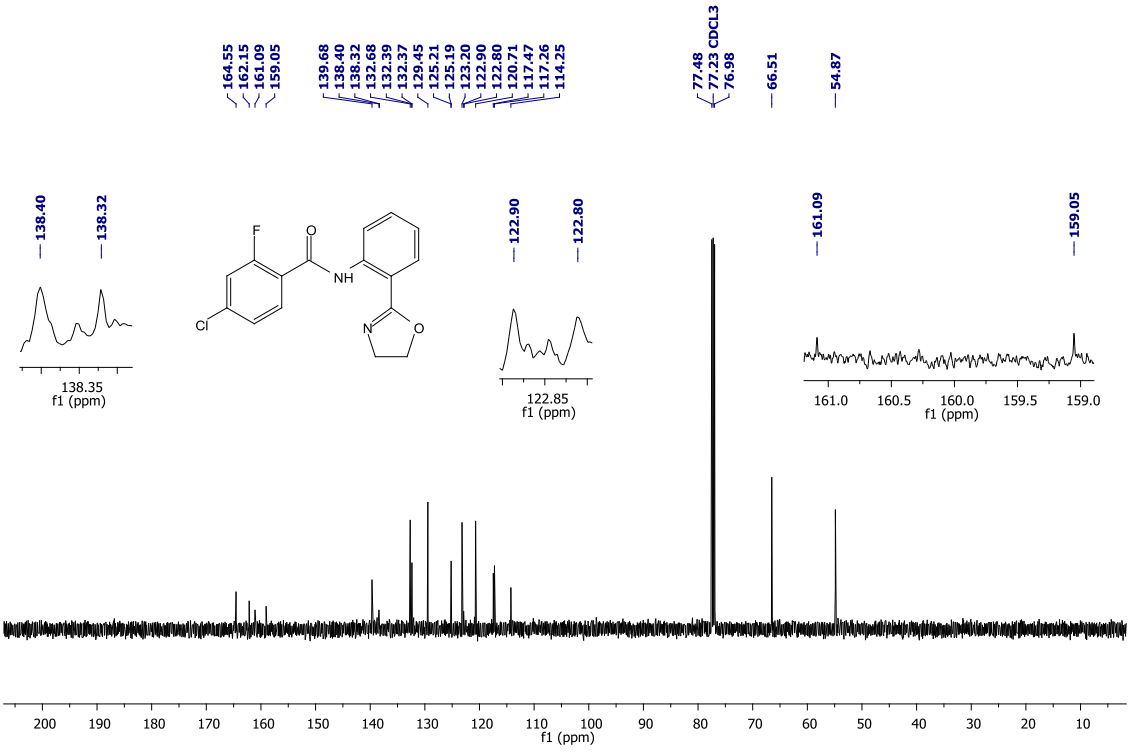
2,3,4,5-tetrafluoro-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)benzamide



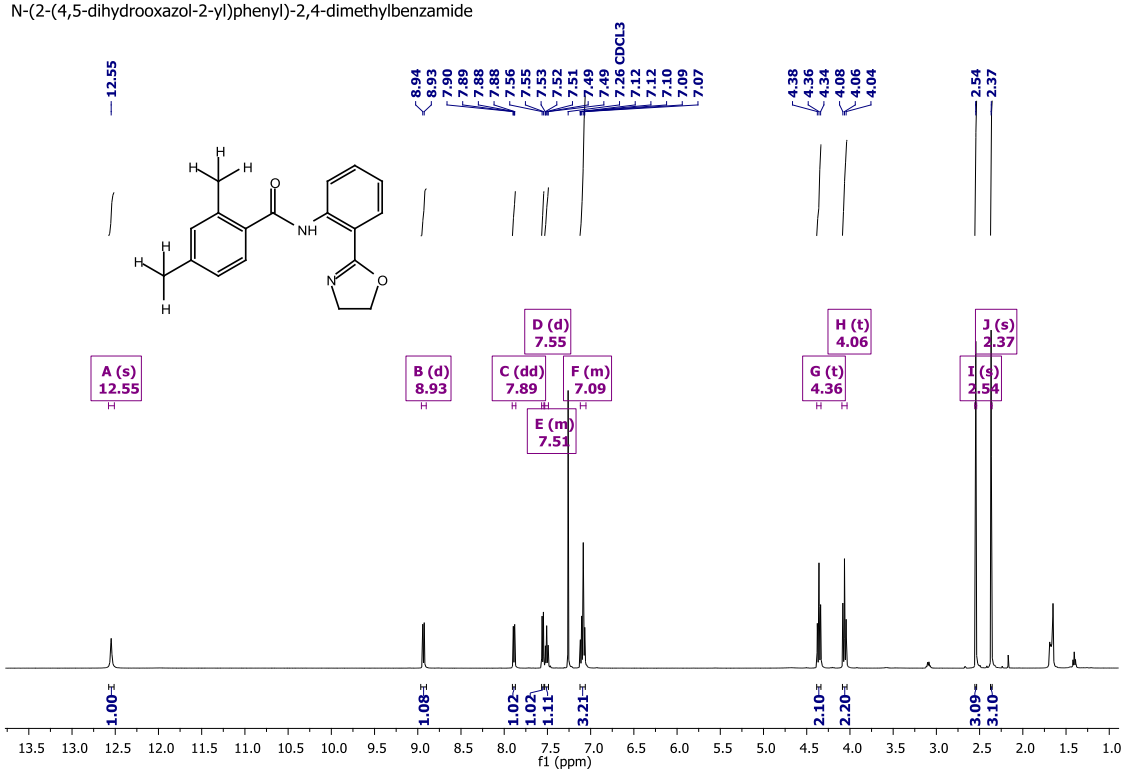
4-chloro-2-fluoro-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)benzamide



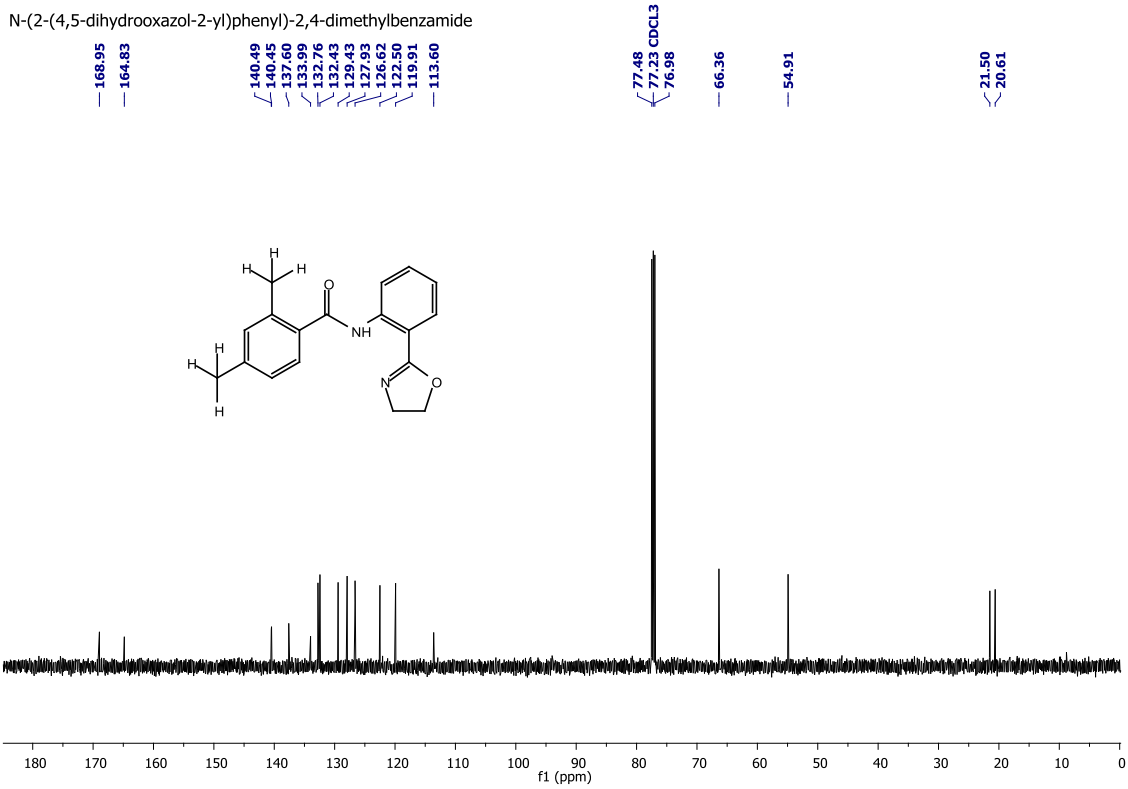
4-chloro-2-fluoro-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)benzamide



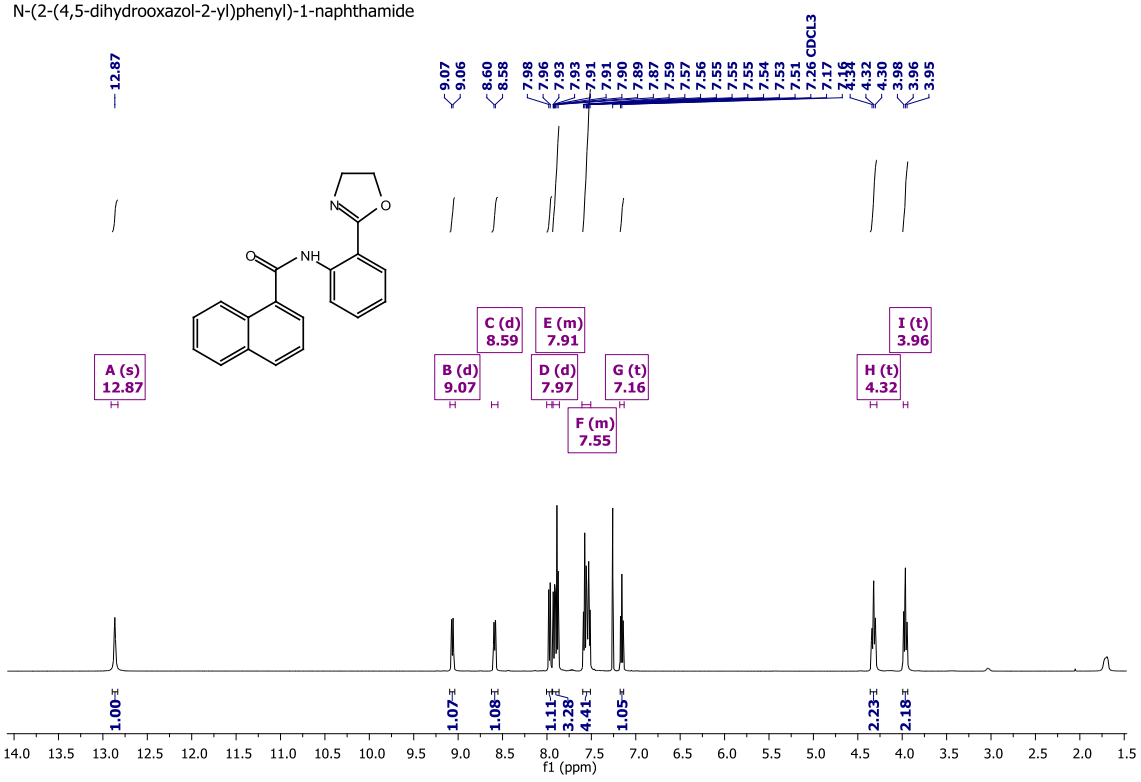
N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2,4-dimethylbenzamide



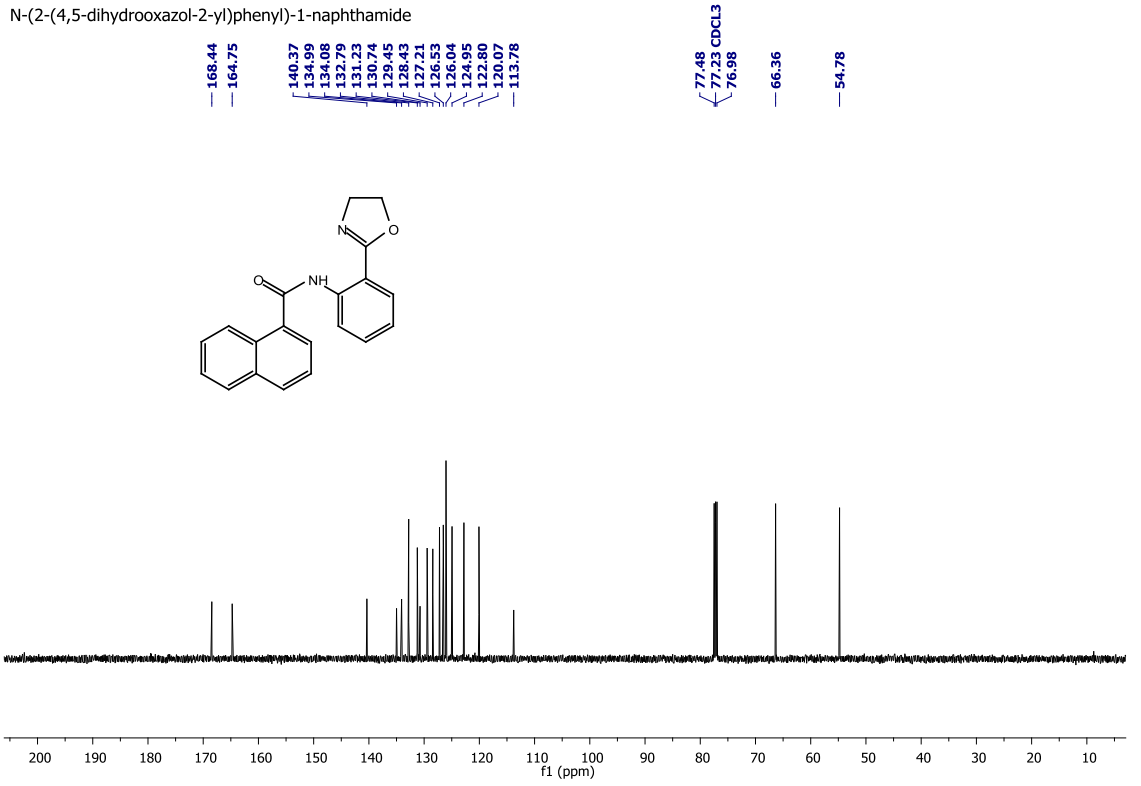
N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2,4-dimethylbenzamide



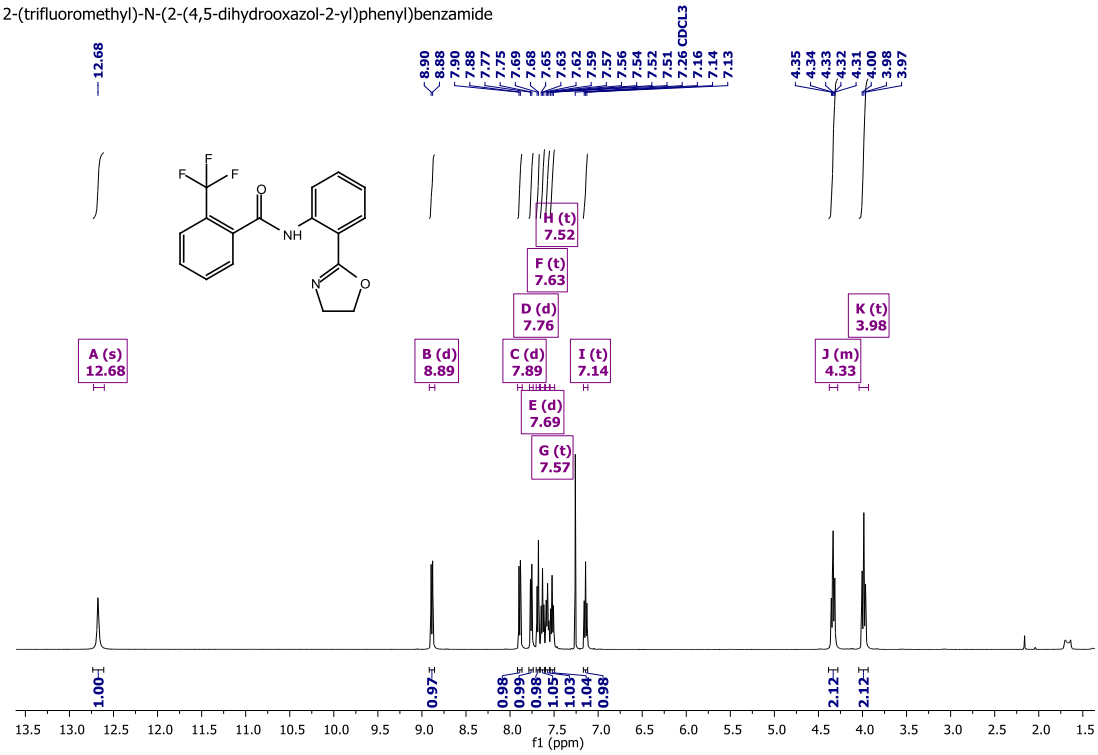
N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-1-naphthamide



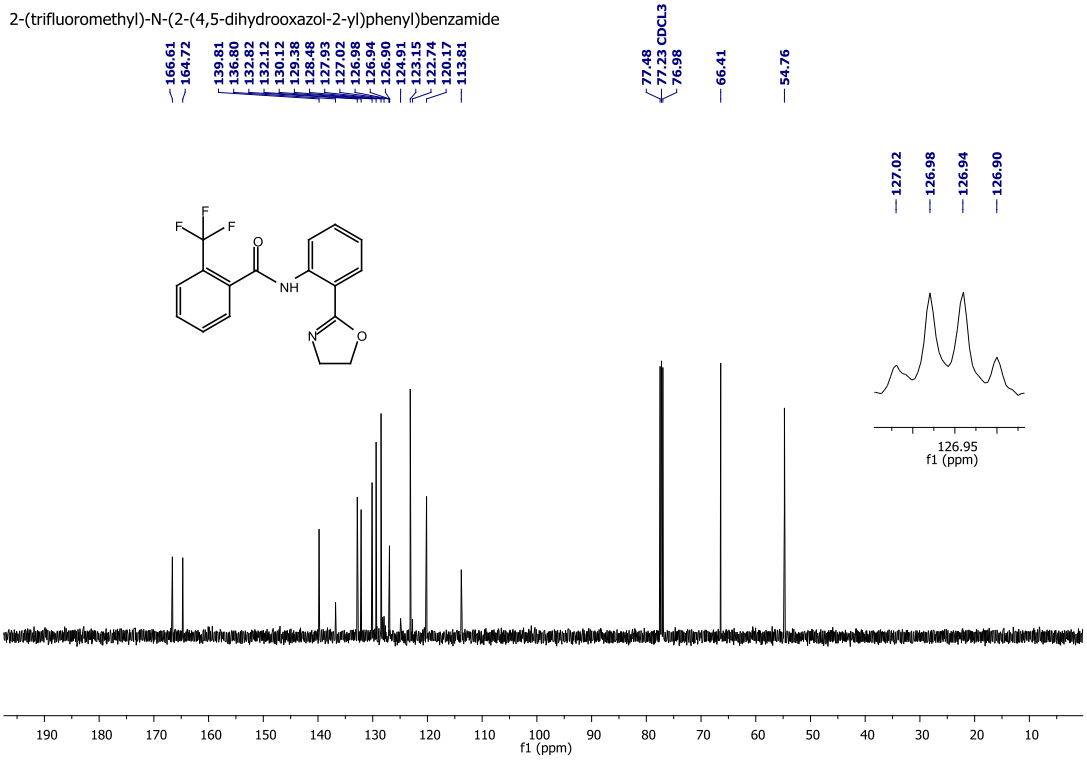
N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-1-naphthamide



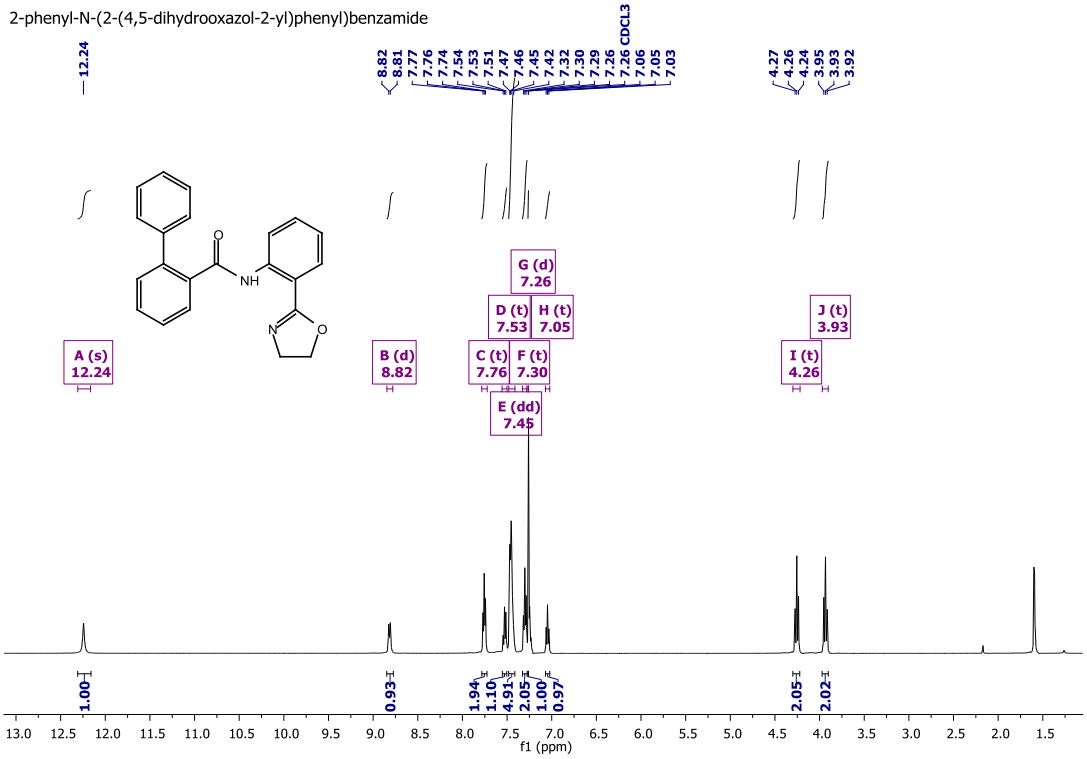
2-(trifluoromethyl)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)benzamide



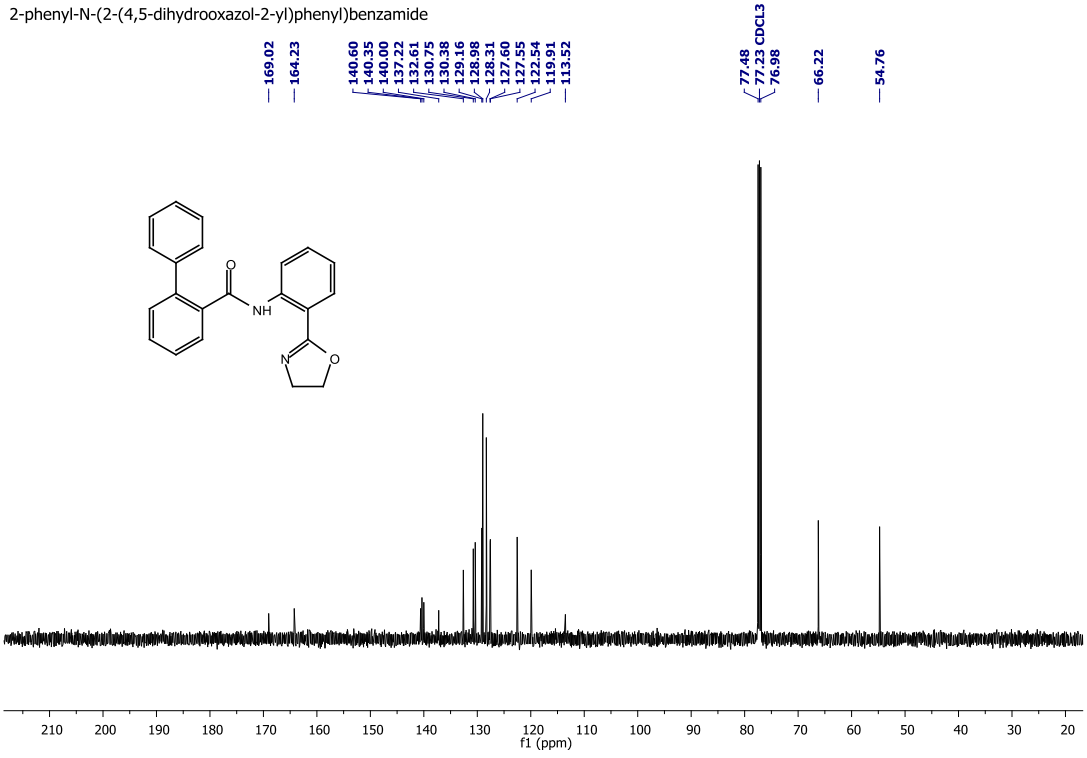
2-(trifluoromethyl)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)benzamide



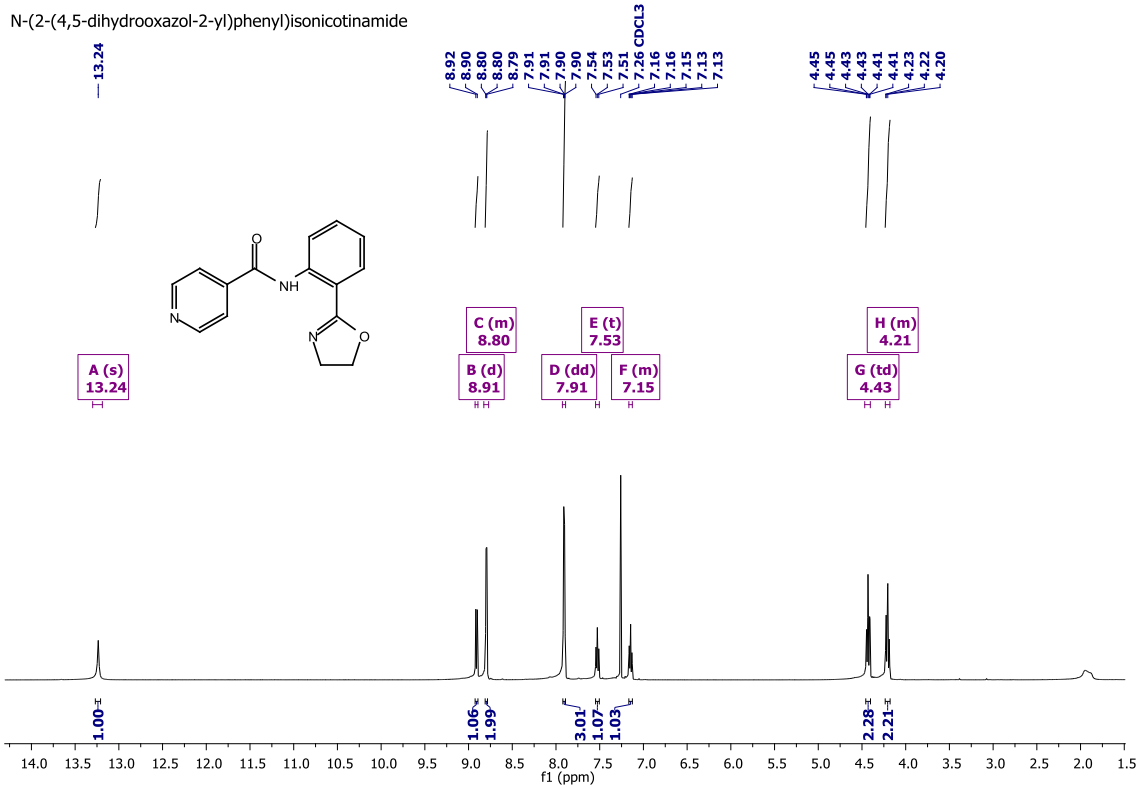
2-phenyl-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)benzamide



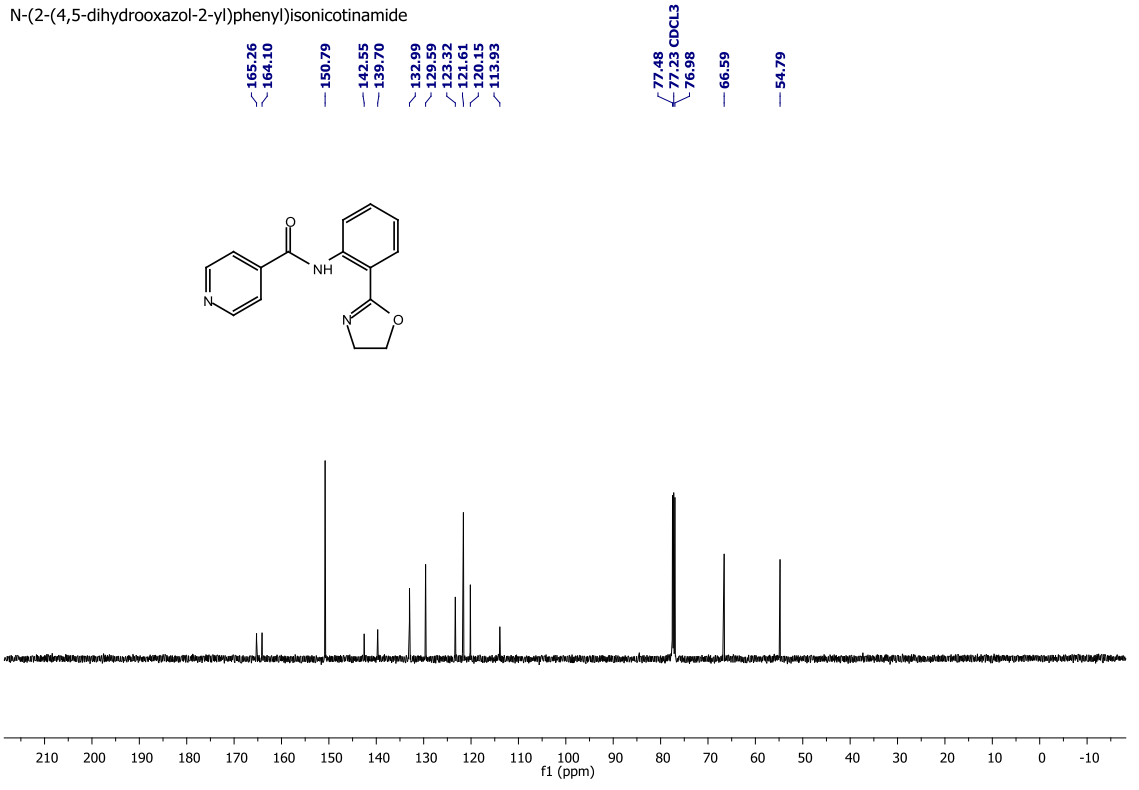
2-phenyl-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)benzamide

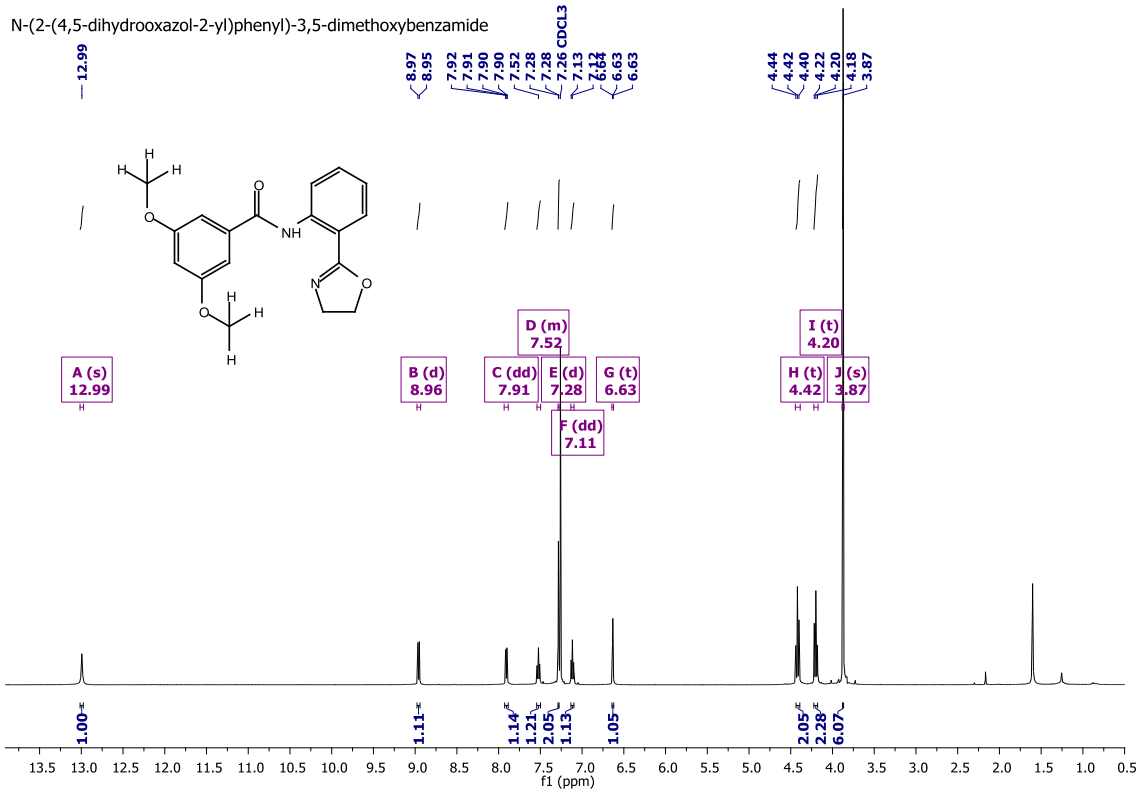


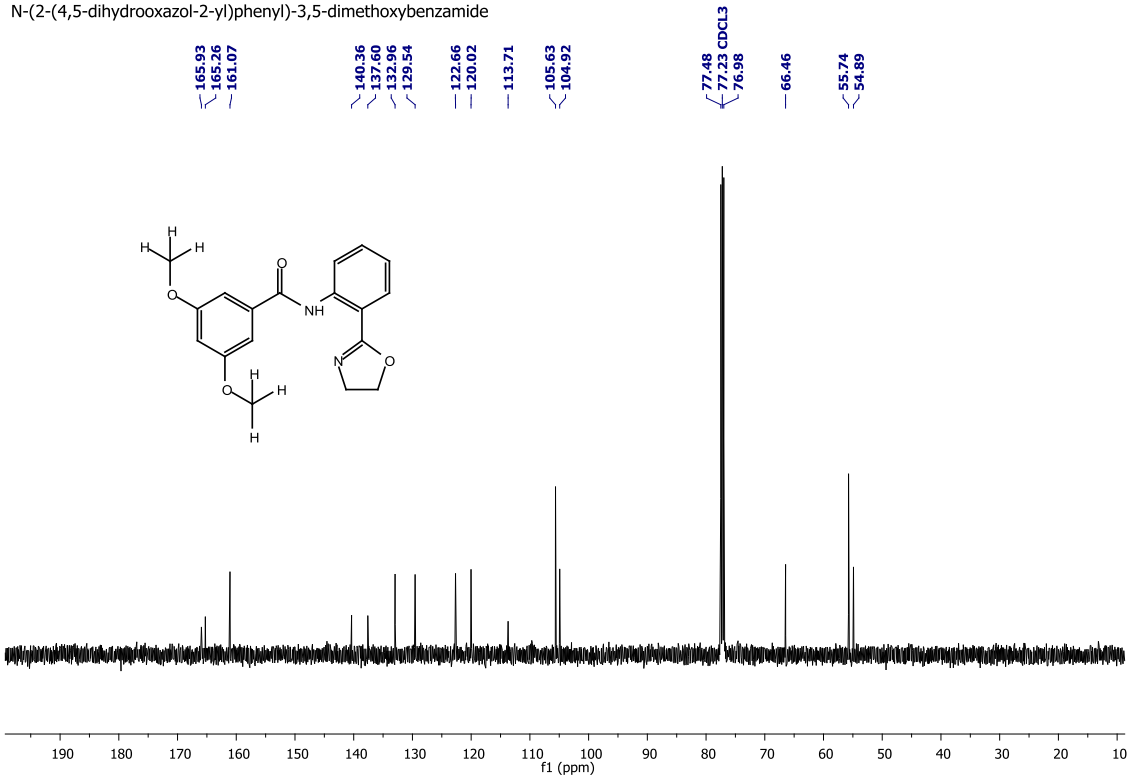
N-(2-(4,5-dihydrooxazol-2-yl)phenyl)isonicotinamide



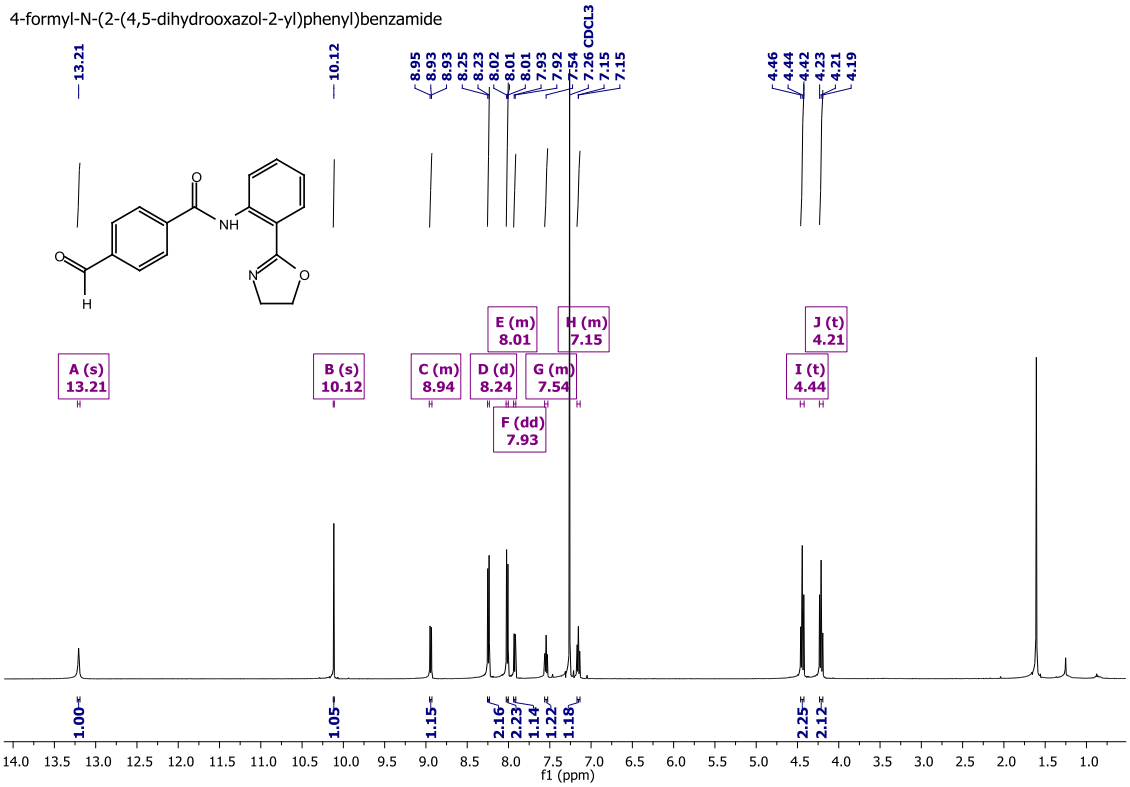
N-(2-(4,5-dihydrooxazol-2-yl)phenyl)isonicotinamide



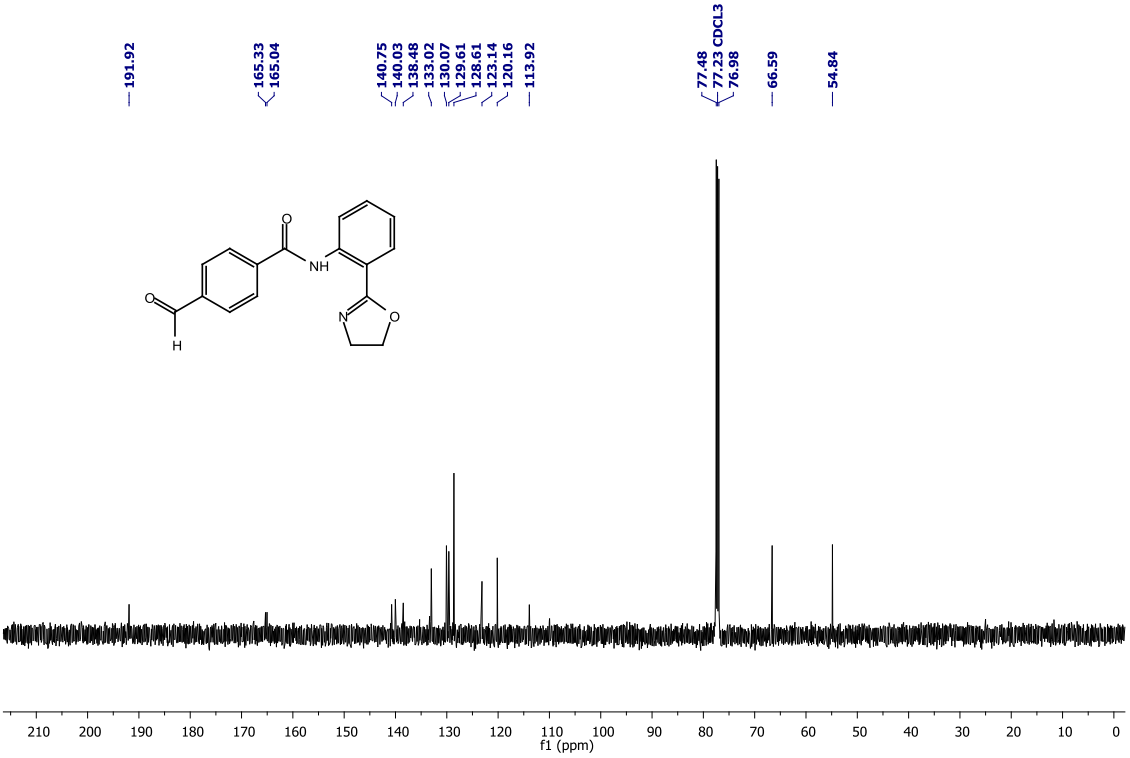

N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-3,5-dimethoxybenzamide
12.99
8.97
8.95
7.92
7.91
7.90
7.90
7.52
7.28
7.28
7.26 CDCL3
7.13
7.12
6.64
6.63
6.63
4.44
4.42
4.40
4.22
4.20
4.18
3.87
A (s) 12.99
B (d) 8.96
C (dd) 7.91
D (m) 7.52
E (d) 7.28
F (dd) 7.11
G (t) 6.63
H (t) 4.42
I (t) 4.20
J (s) 3.87
1.00
1.11
1.14
1.21
2.05
1.13
1.05
2.05
2.28
6.07
f1 (ppm)


N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-3,5-dimethoxybenzamide
165.93
165.26
161.07
140.36
137.60
132.96
129.54
122.66
120.02
113.71
105.63
104.92
77.48
77.23 CDCL3
76.98
66.46
55.74
54.89
f1 (ppm)

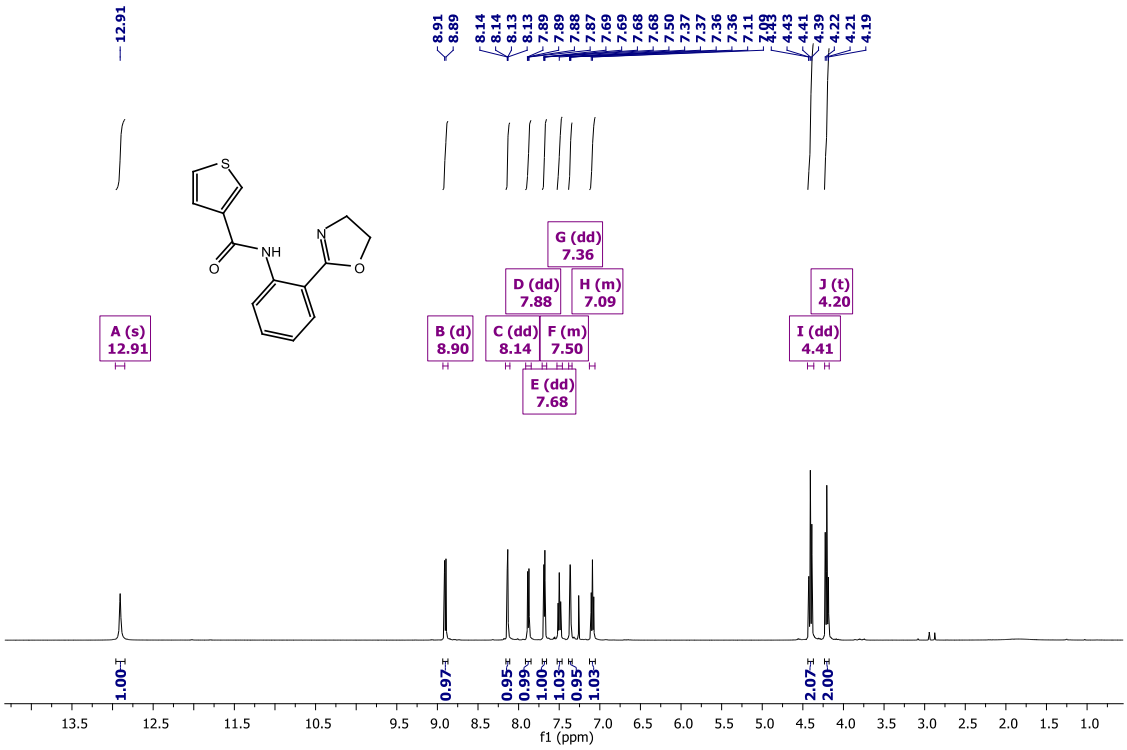
4-formyl-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)benzamide



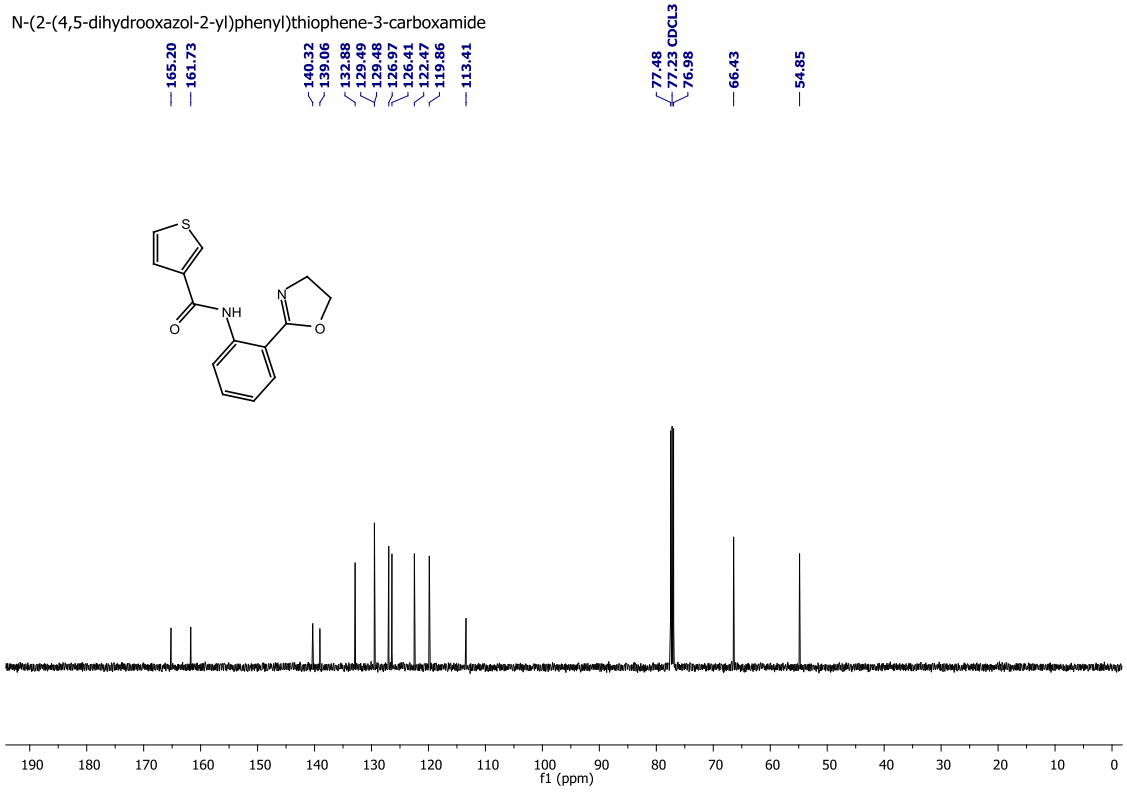
4-formyl-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)benzamide



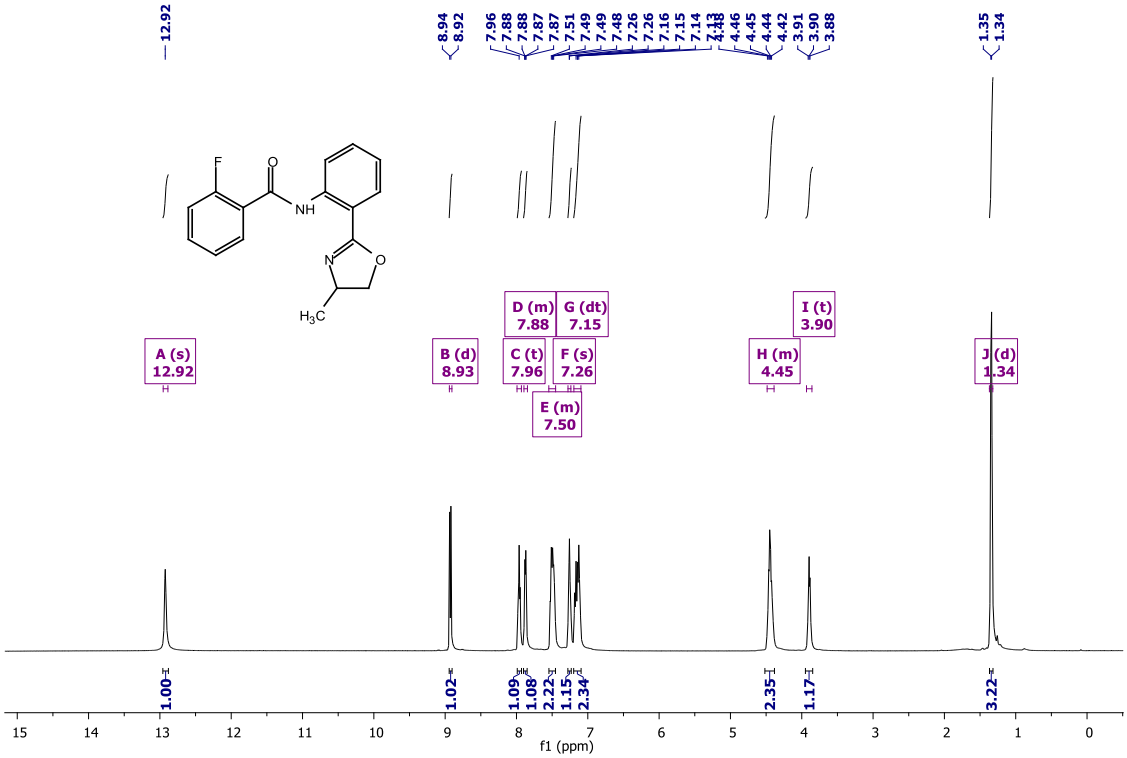
N-(2-(4,5-dihydrooxazol-2-yl)phenyl)thiophene-3-carboxamide



N-(2-(4,5-dihydrooxazol-2-yl)phenyl)thiophene-3-carboxamide



2-fluoro-N-(2-(4,5-dihydro-4-methyloxazol-2-yl)phenyl)benzamide



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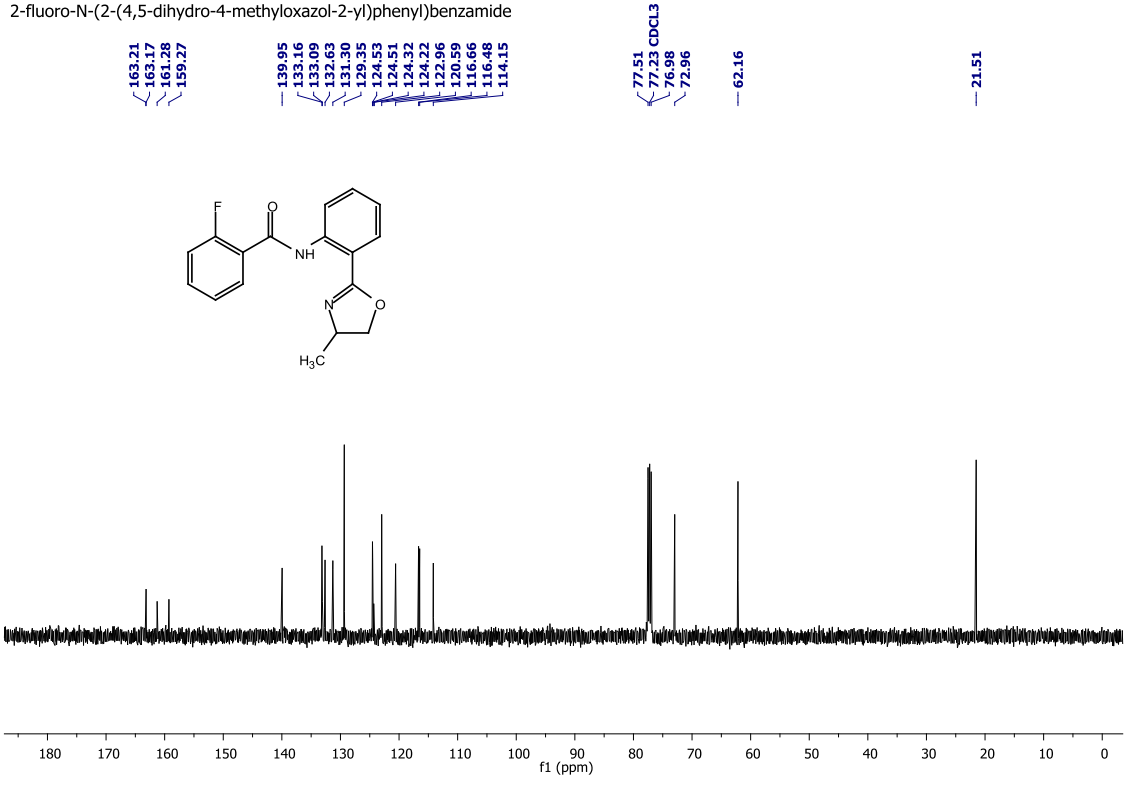

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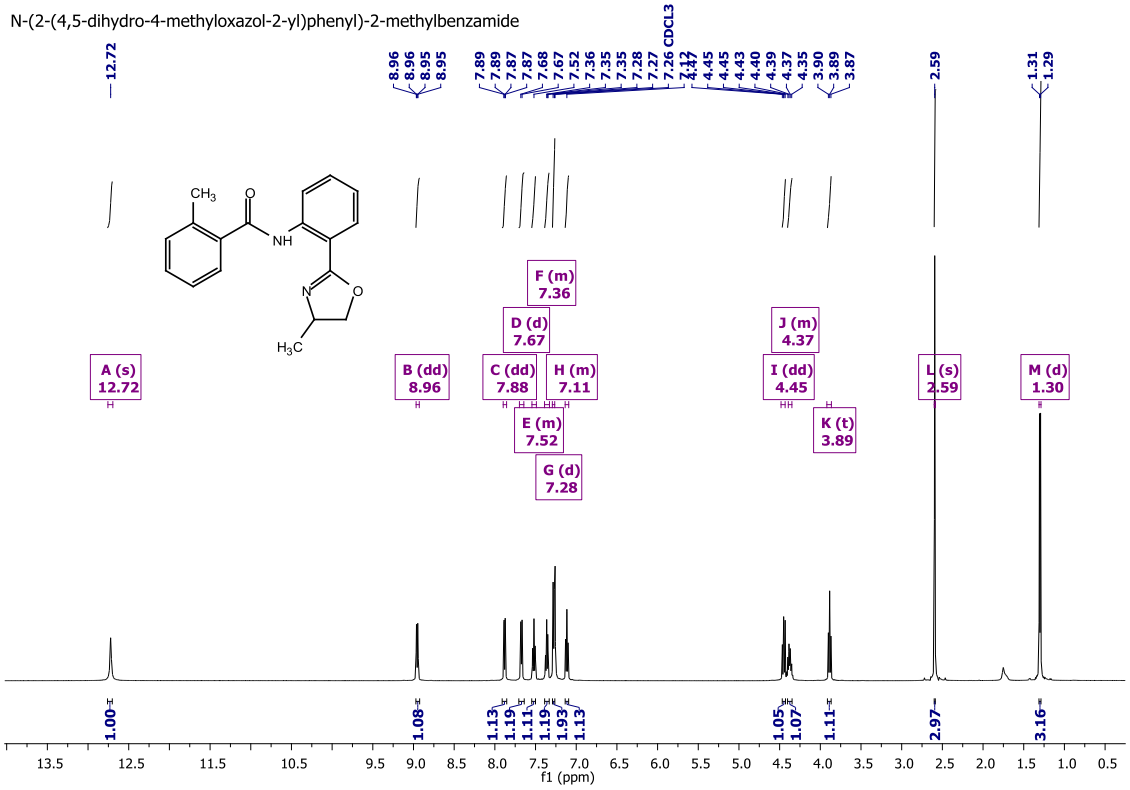

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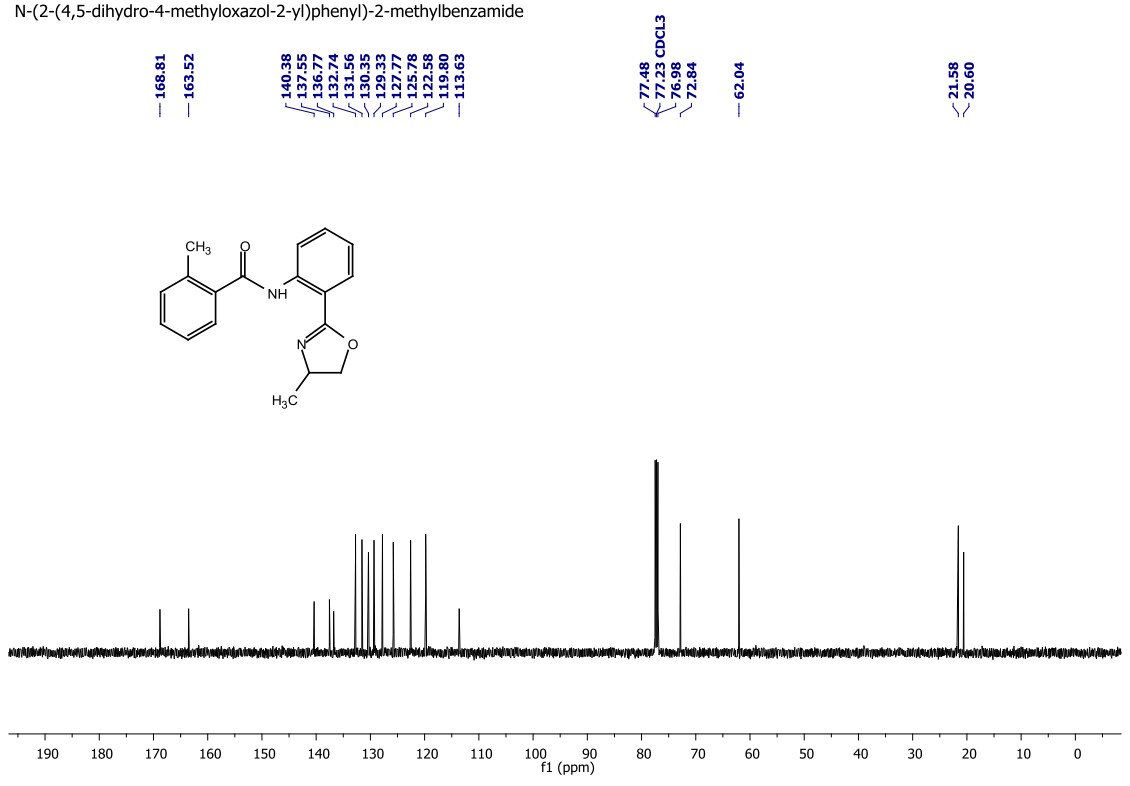

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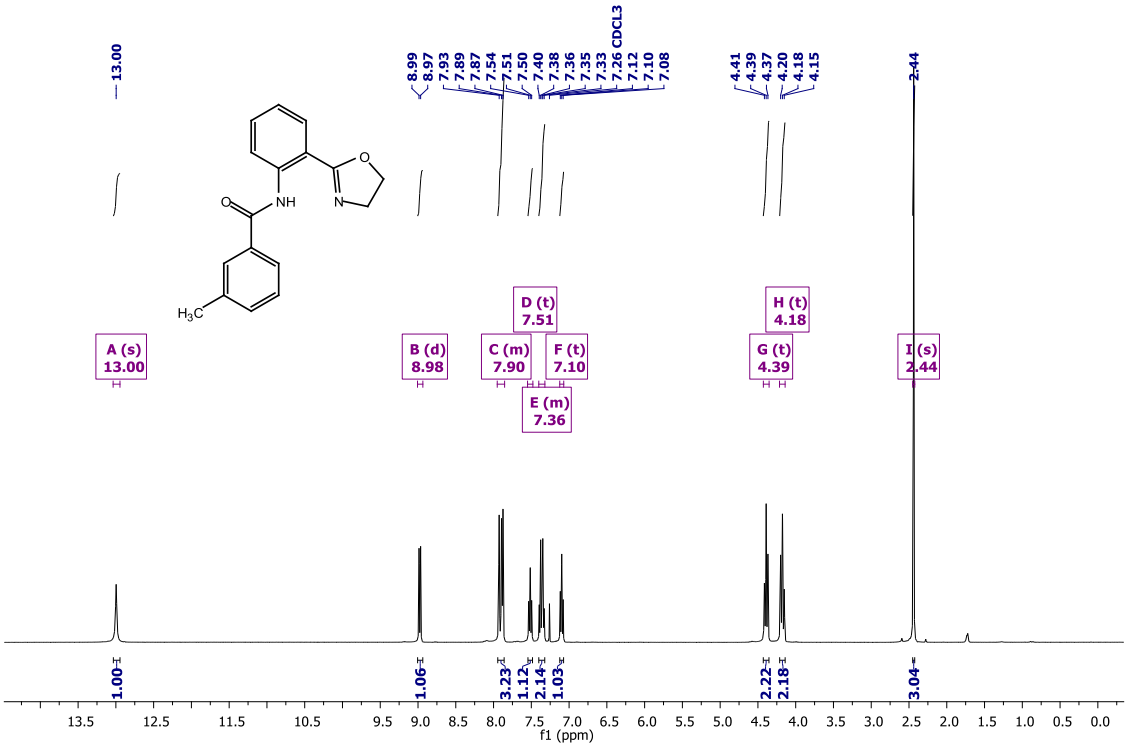

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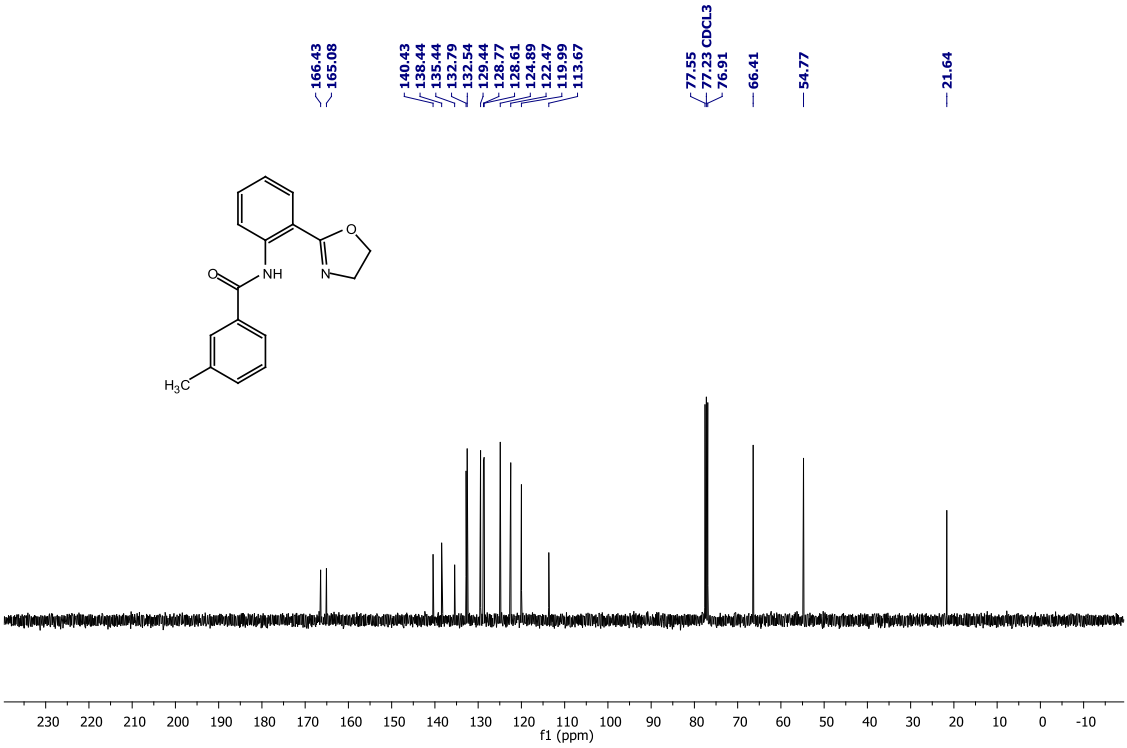
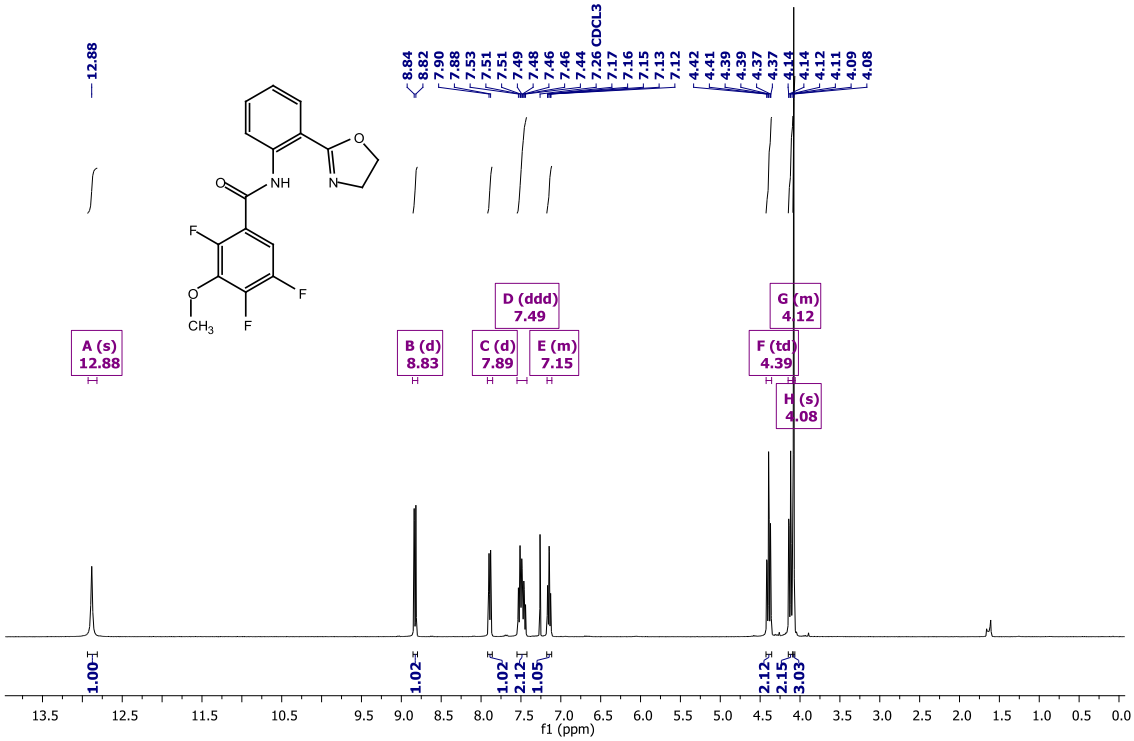


N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2,4,5-trifluoro-3-methoxybenzamide



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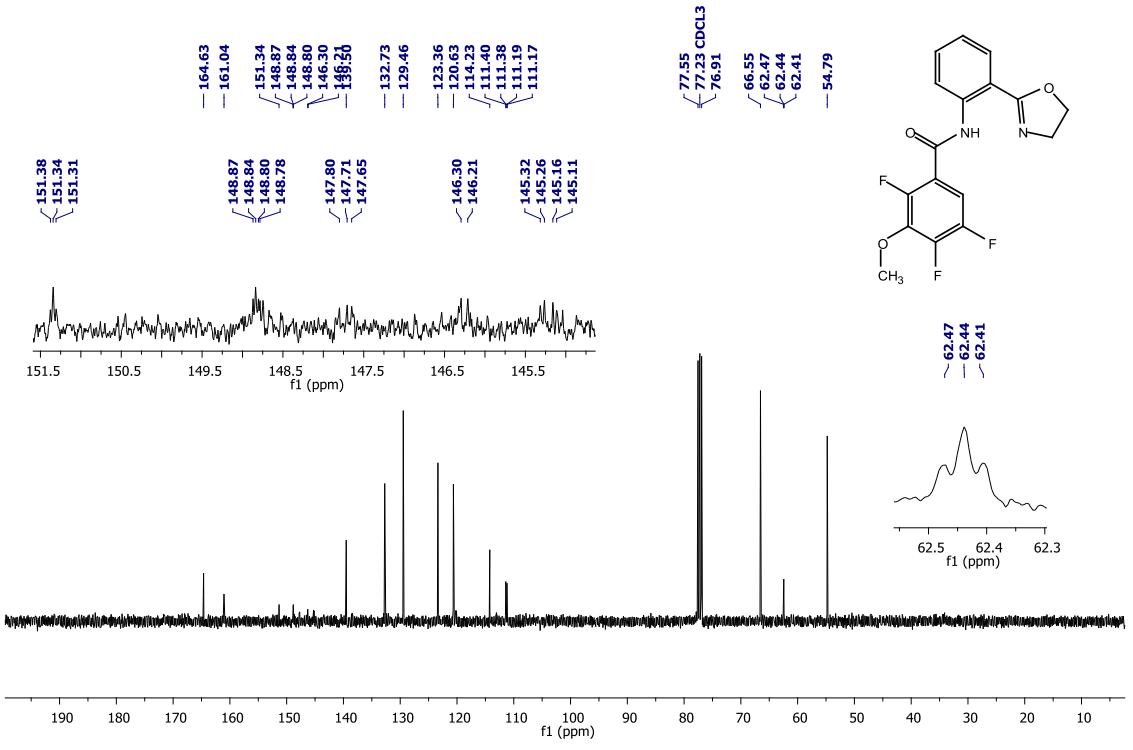

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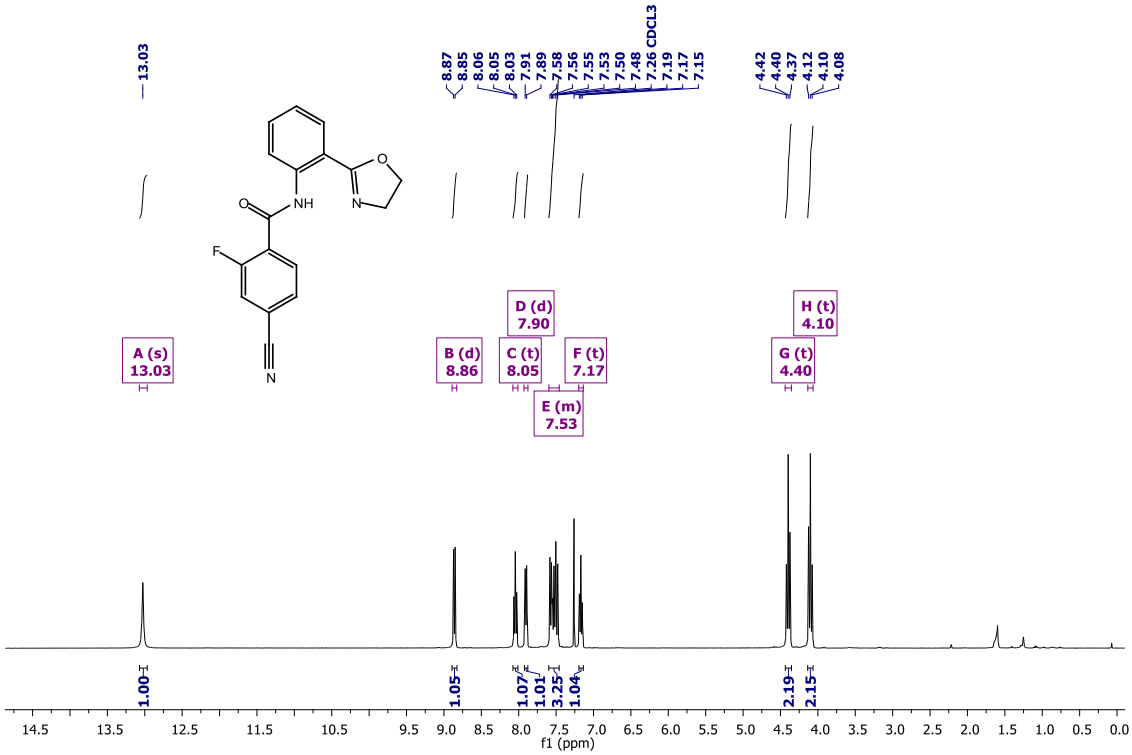

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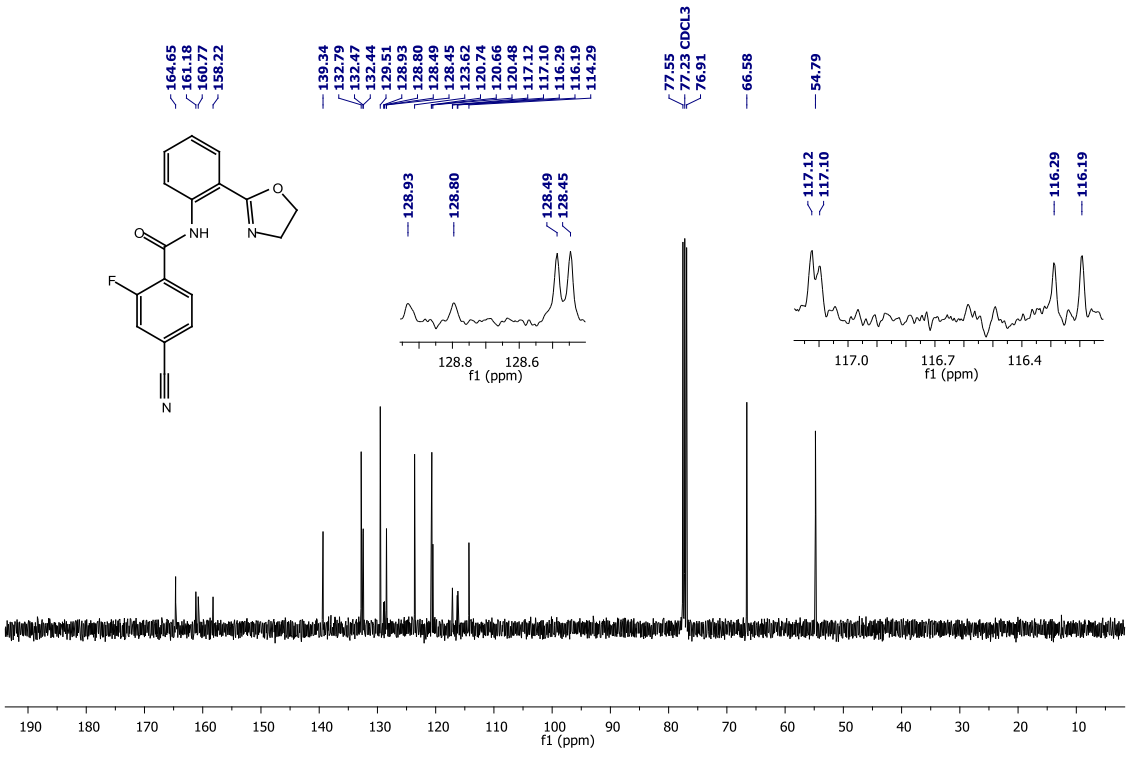
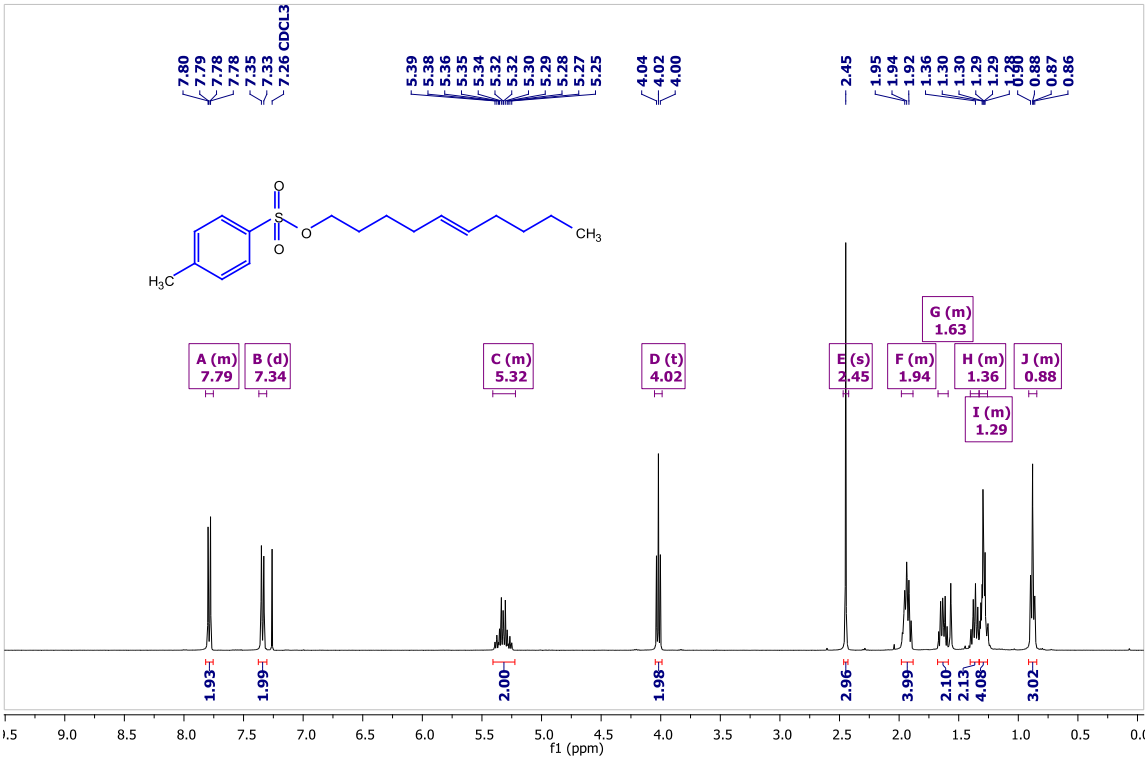


(E)-dec-5-en-1-yl 4-methylbenzenesulfonate



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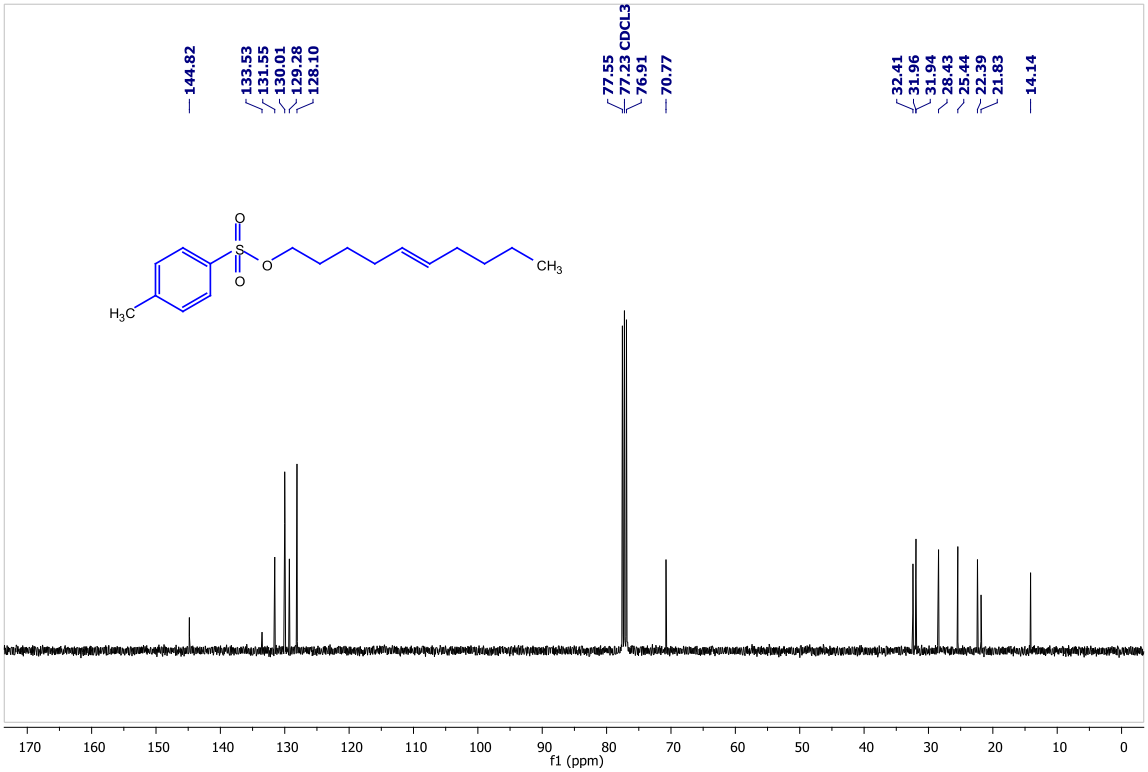
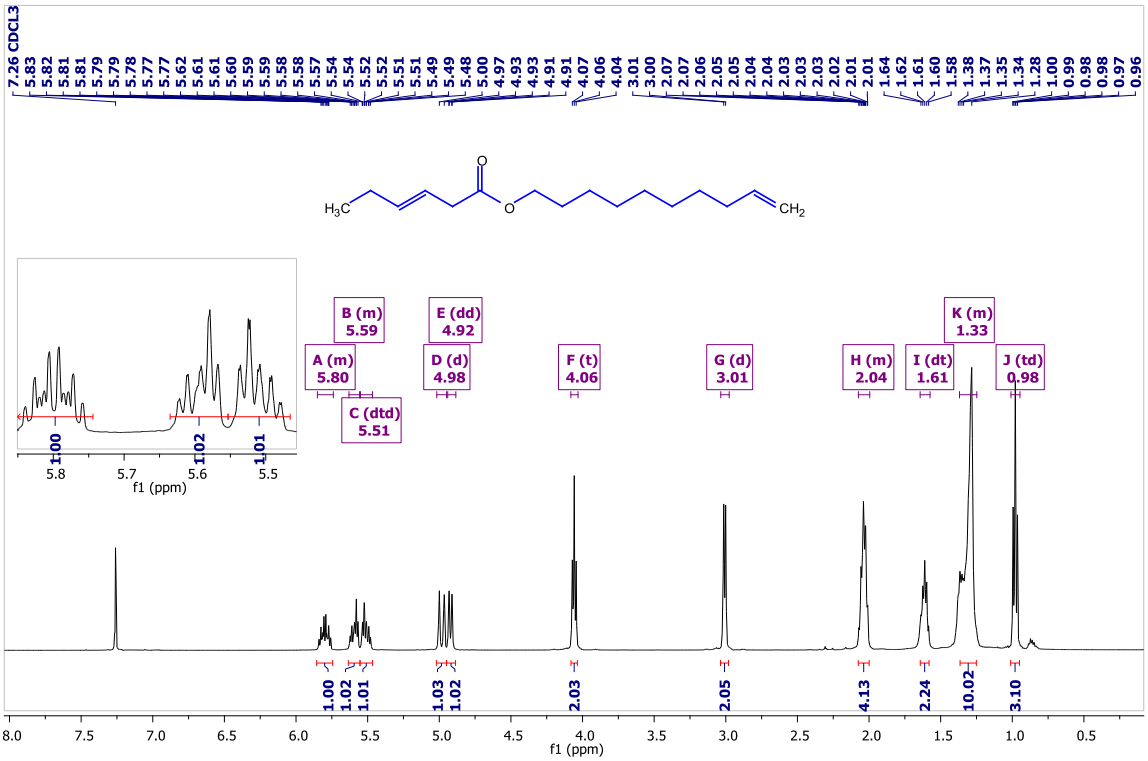


(E)-dec-9-en-1-yl hex-3-enoate



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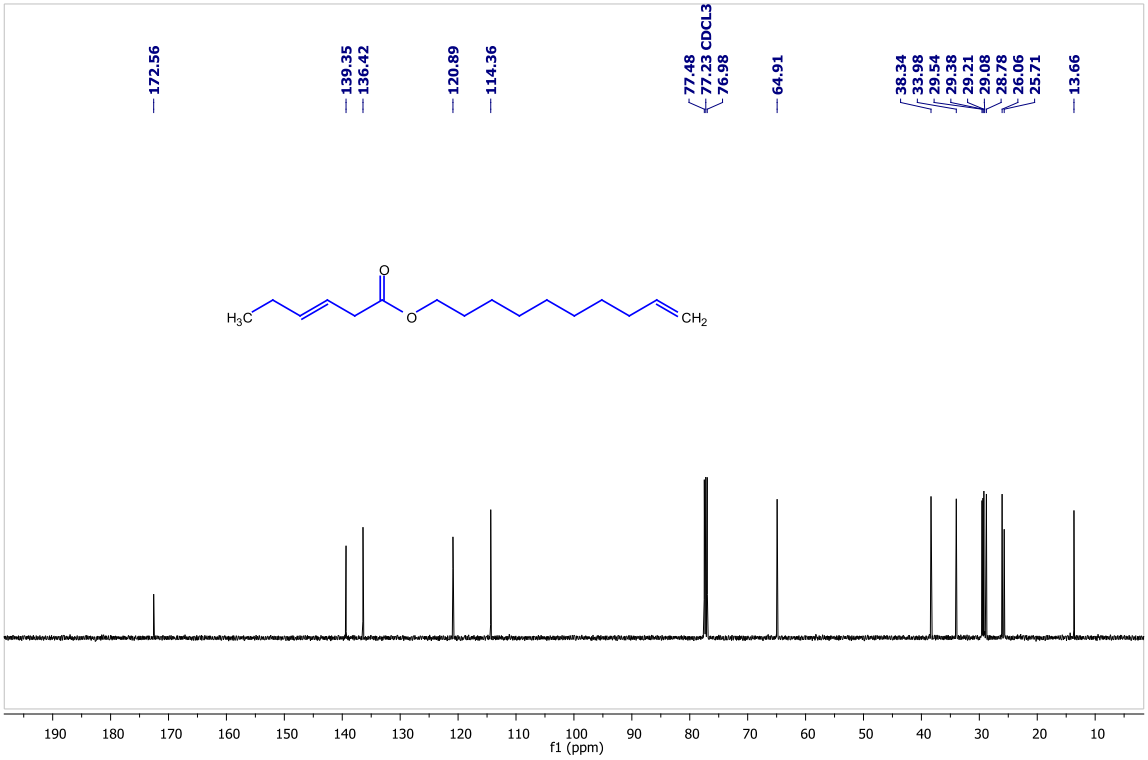

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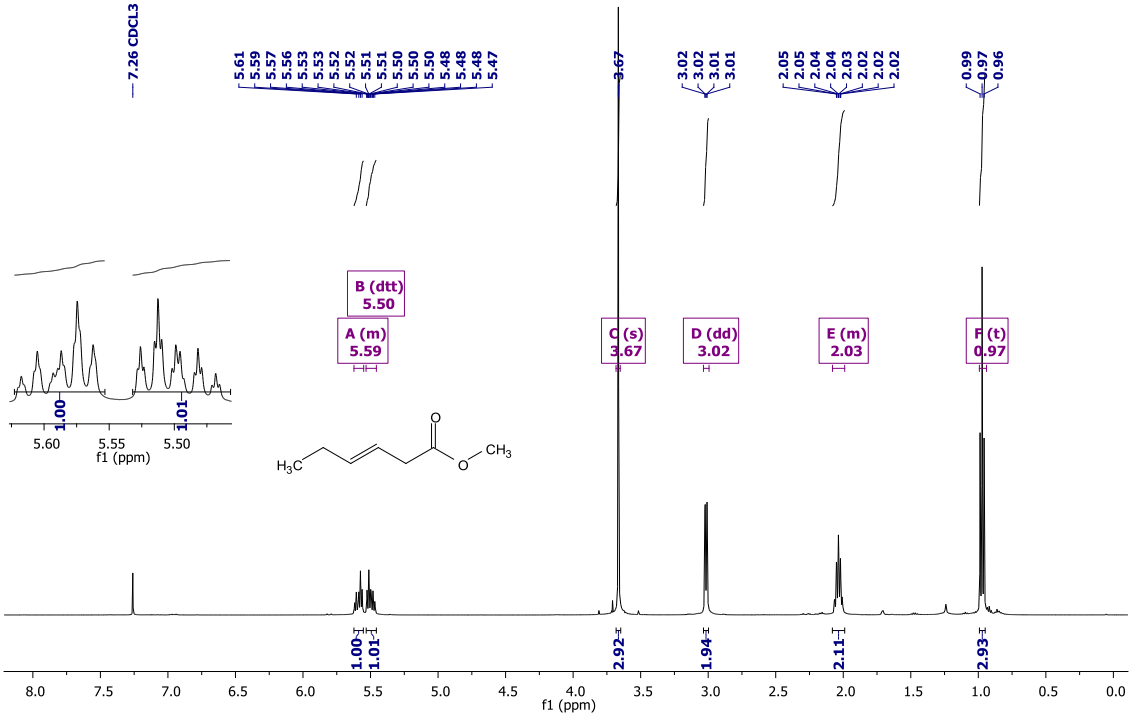

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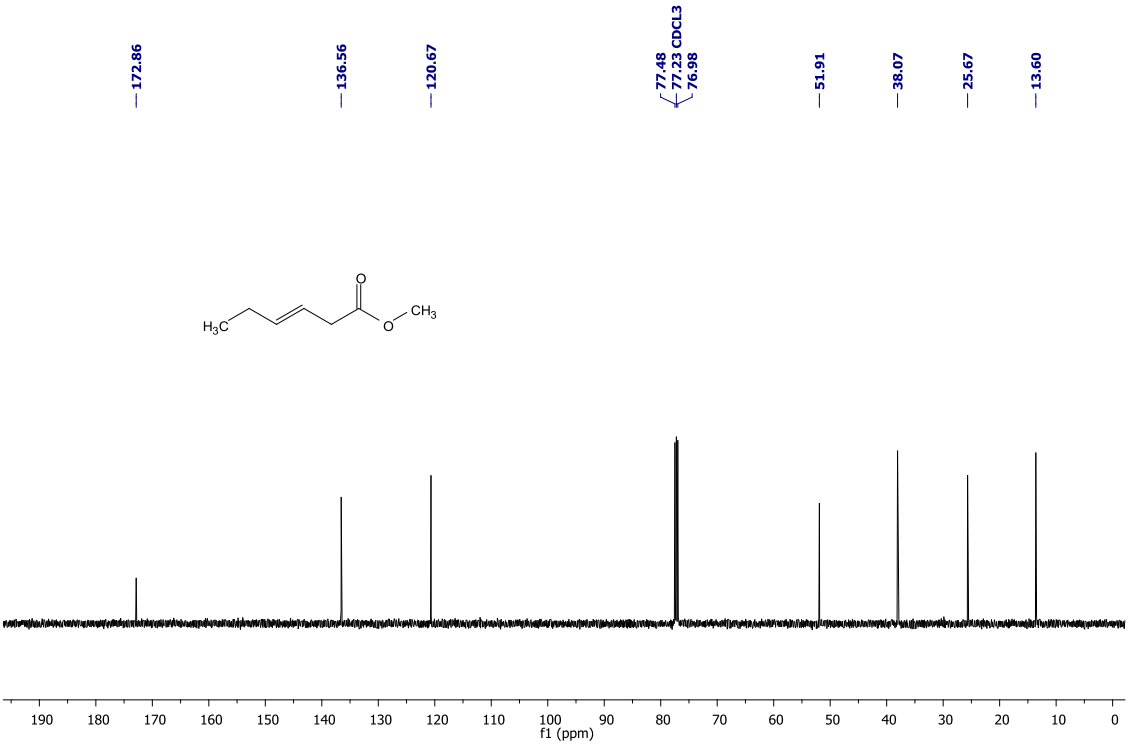
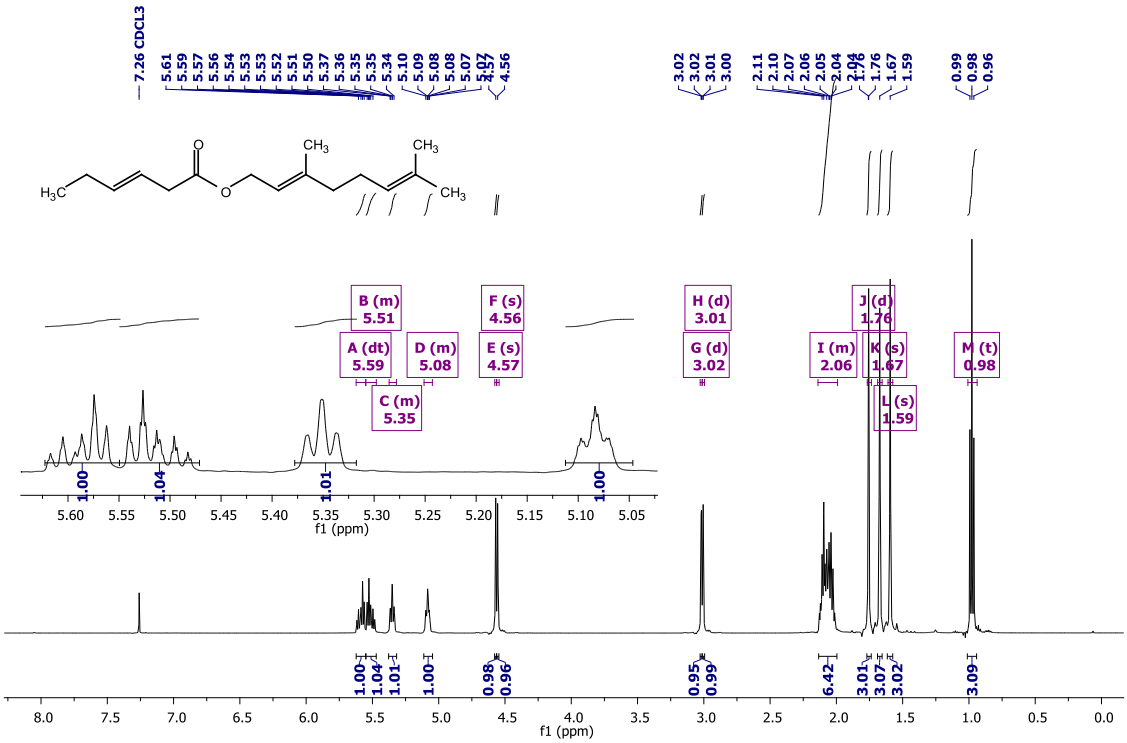


(E)-(E)-3,7-dimethylocta-2,6-dien-1-yl hex-3-enoate



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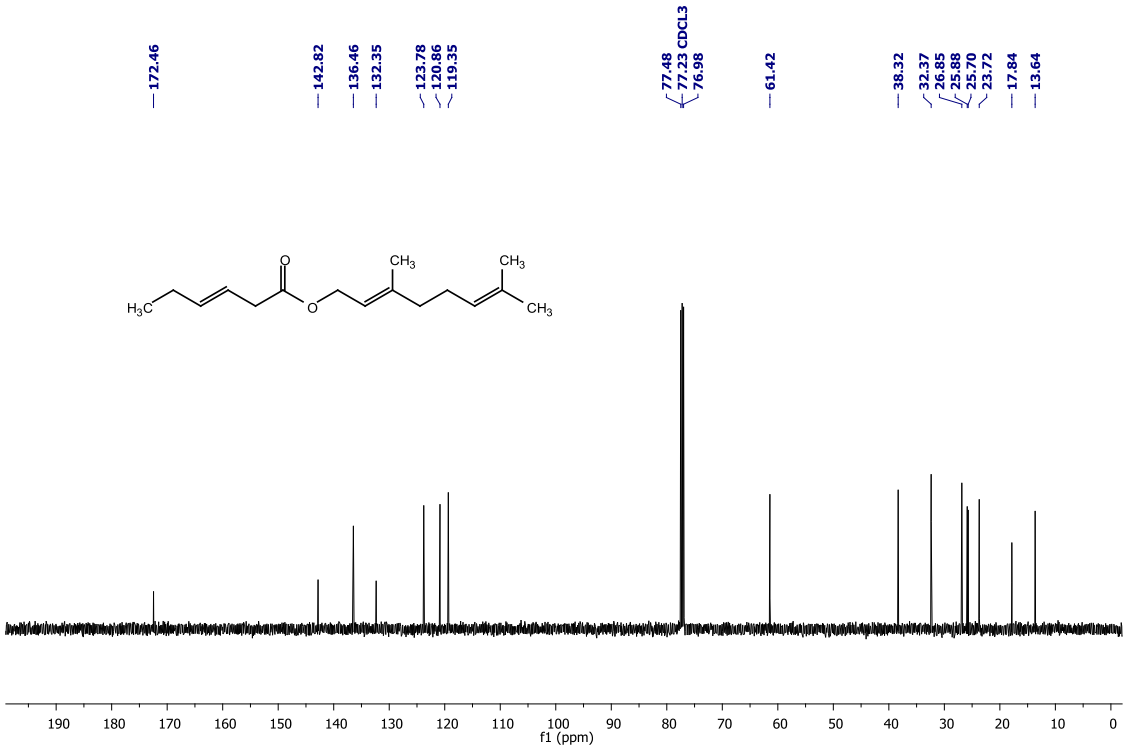

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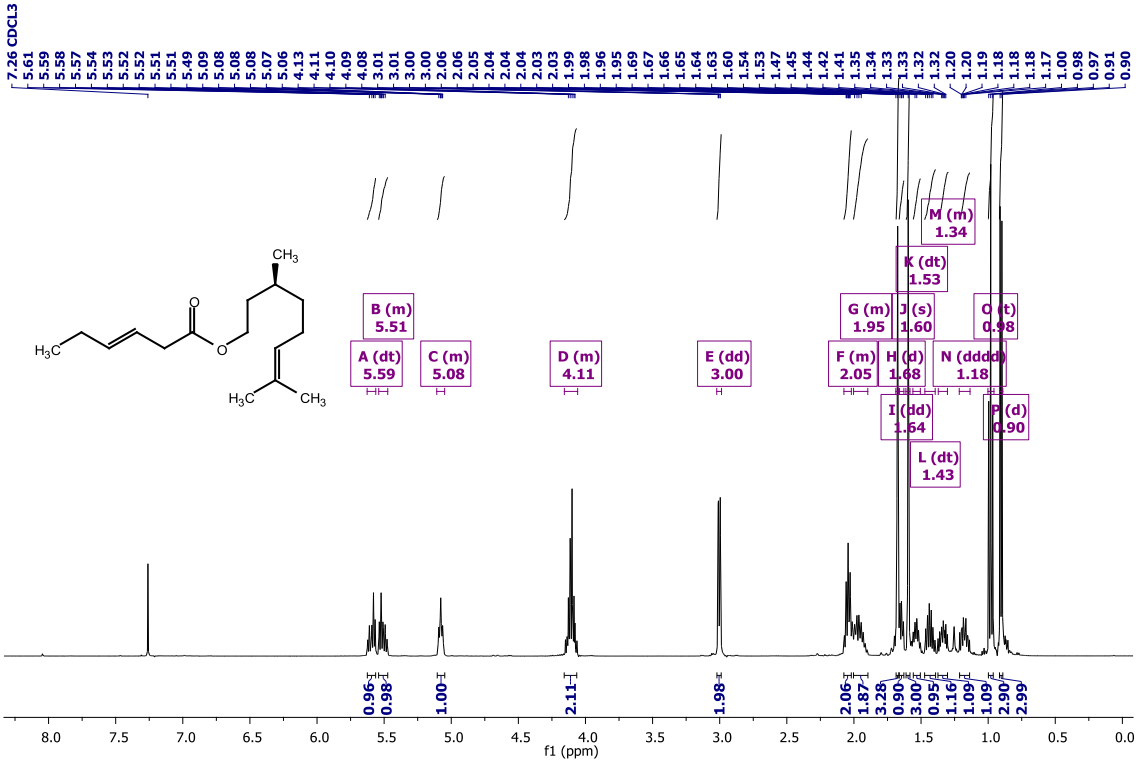

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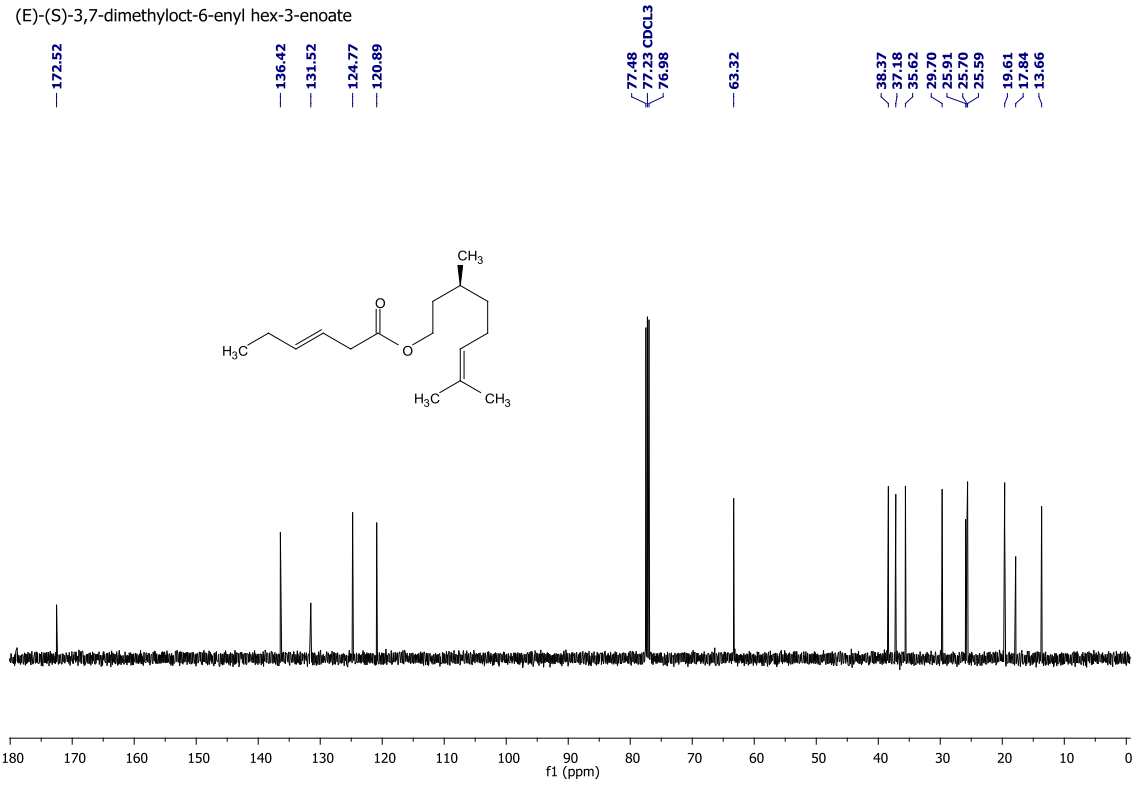

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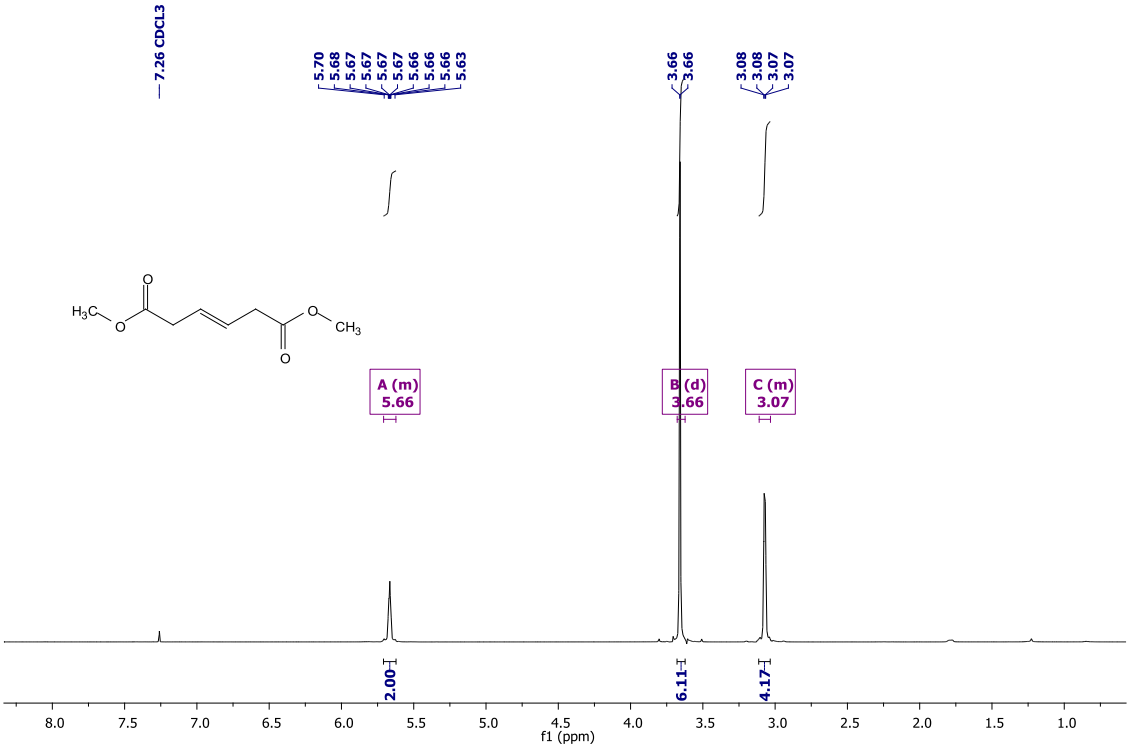
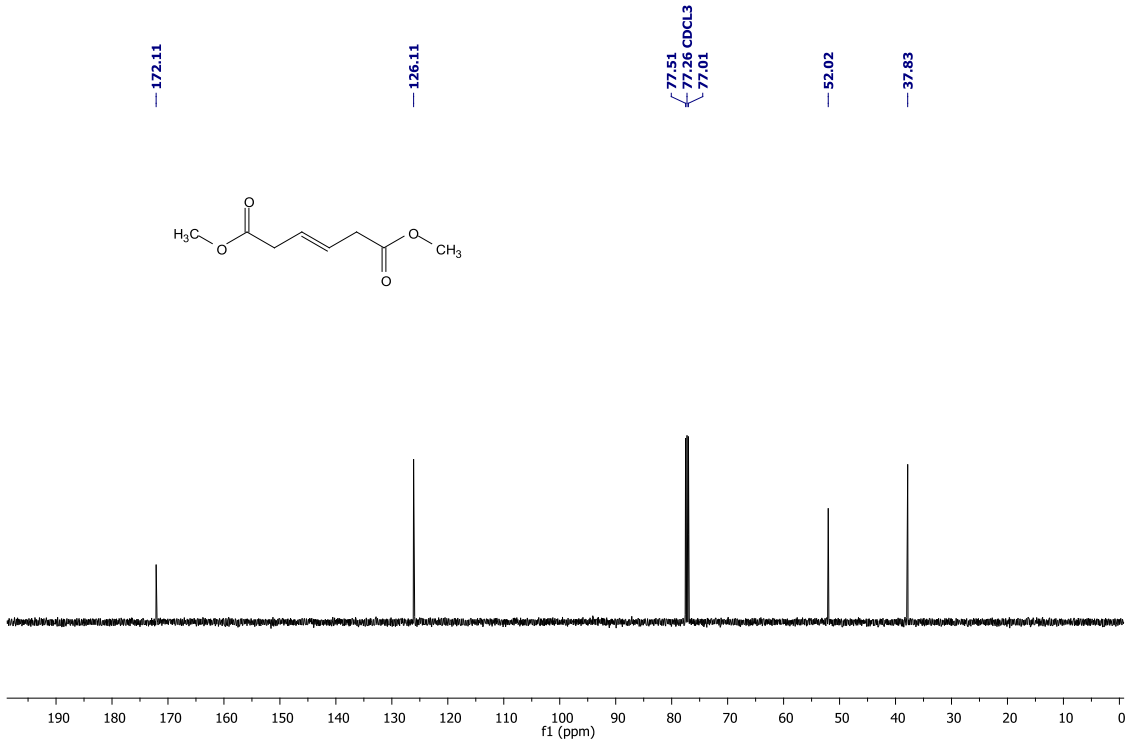
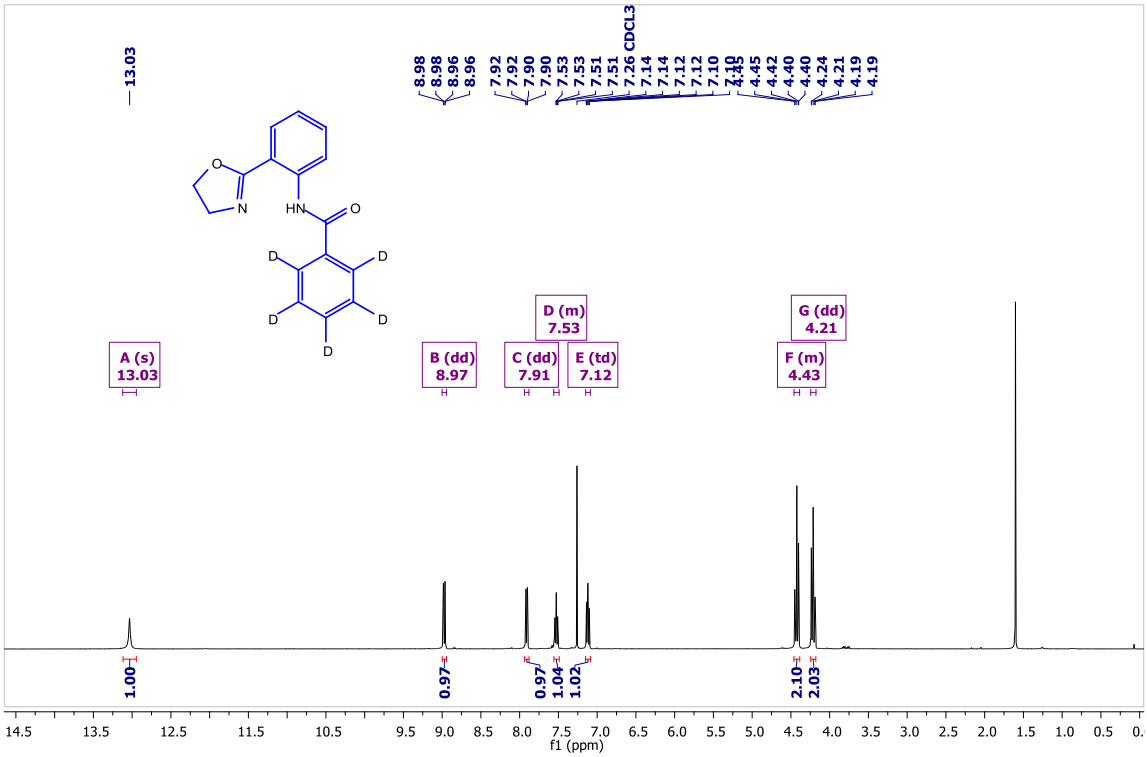


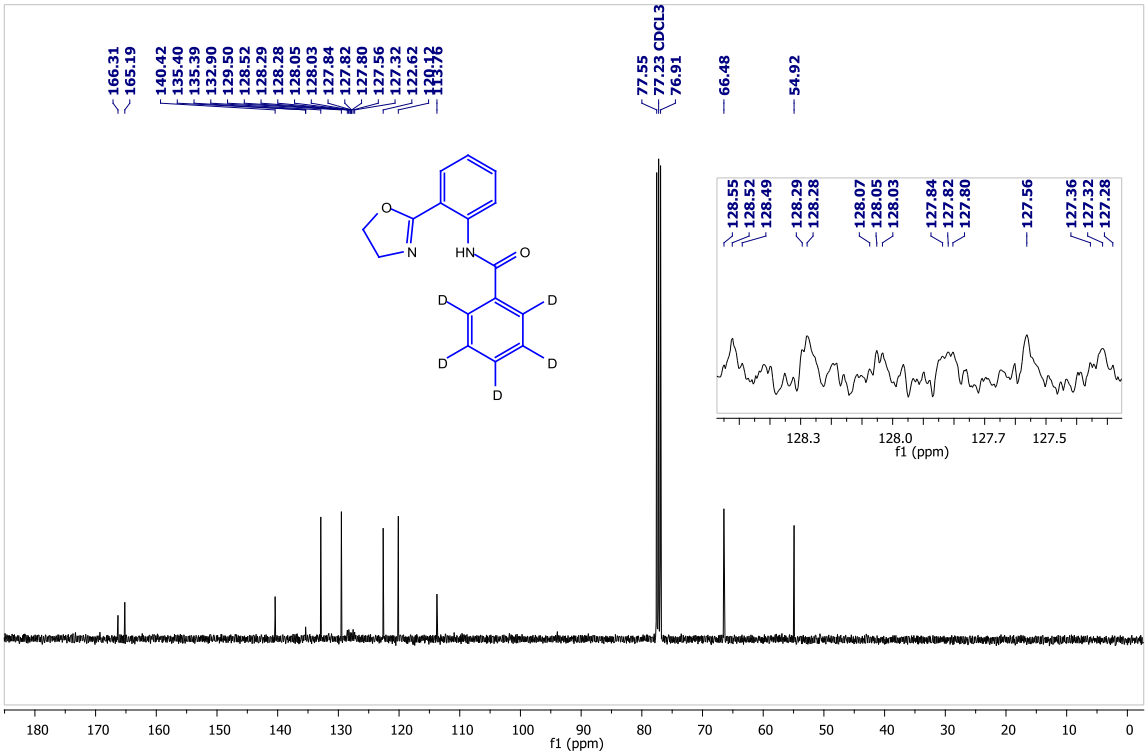
(E)-dimethyl hex-3-enedioate

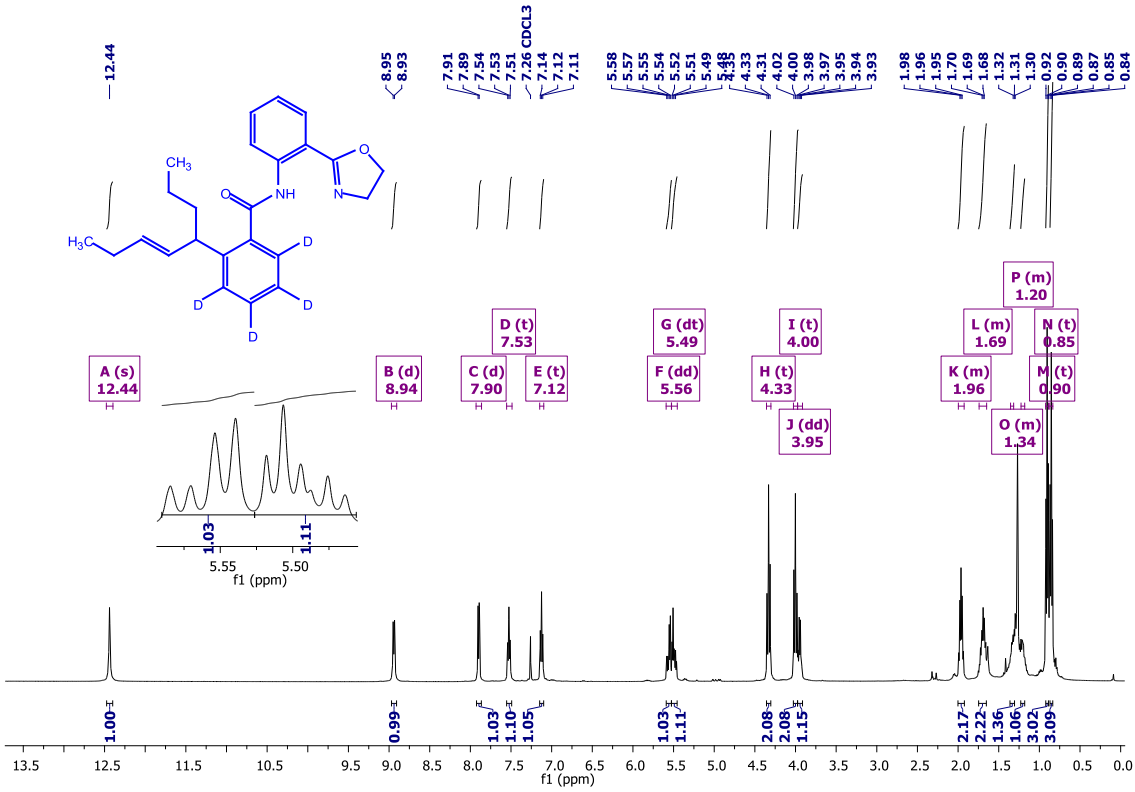


pentadeuterated N-(2-(4,5-dihydrooxazol-2-yl)phenyl)benzamide



deuterated N-(2-(4,5-dihydrooxazol-2-yl)phenyl)benzamide

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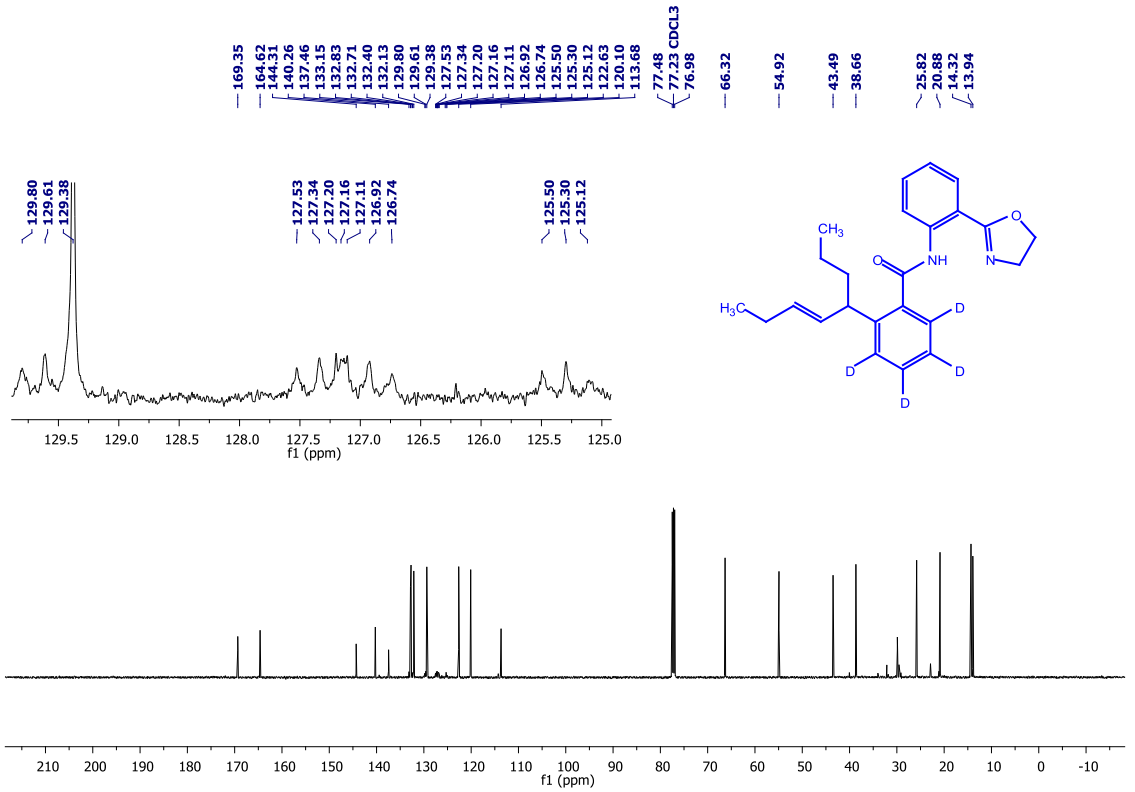
7.91
7.89
7.54
7.53
7.51
7.26 CDCL3
7.14
7.12
7.11
5.58
5.57
5.55
5.54
5.52
5.51
5.49
4.33
4.31
4.02
4.00
3.98
3.97
3.95
3.94
3.93
1.98
1.96
1.95
1.70
1.69
1.68
1.32
1.31
1.30
0.92
0.90
0.89
0.87
0.85
0.84
A (s) 12.44
B (d) 8.94
C (d) 7.90
D (t) 7.53
E (t) 7.12
F (dd) 5.56
G (dt) 5.49
H (t) 4.33
I (t) 4.00
J (dd) 3.95
K (m) 1.96
L (m) 1.69
M (t) 0.90
N (t) 0.85
O (m) 1.34
P (m) 1.20
1.03
1.11
5.55
5.50
f1 (ppm)
1.00
0.99
1.03
1.10
1.05
1.03
1.11
2.08
2.08
1.15
2.17
2.22
1.36
1.06
3.02
3.09
f1 (ppm)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129.38
127.53
127.34
127.20
127.16
127.11
126.92
126.74
125.50
125.30
125.12
122.63
120.10
113.68
77.48
77.23 CDCL3
76.98
66.32
54.92
43.49
38.66
25.82
20.88
14.32
13.94
129.80
129.61
129.38
127.53
127.34
127.20
127.16
127.11
126.92
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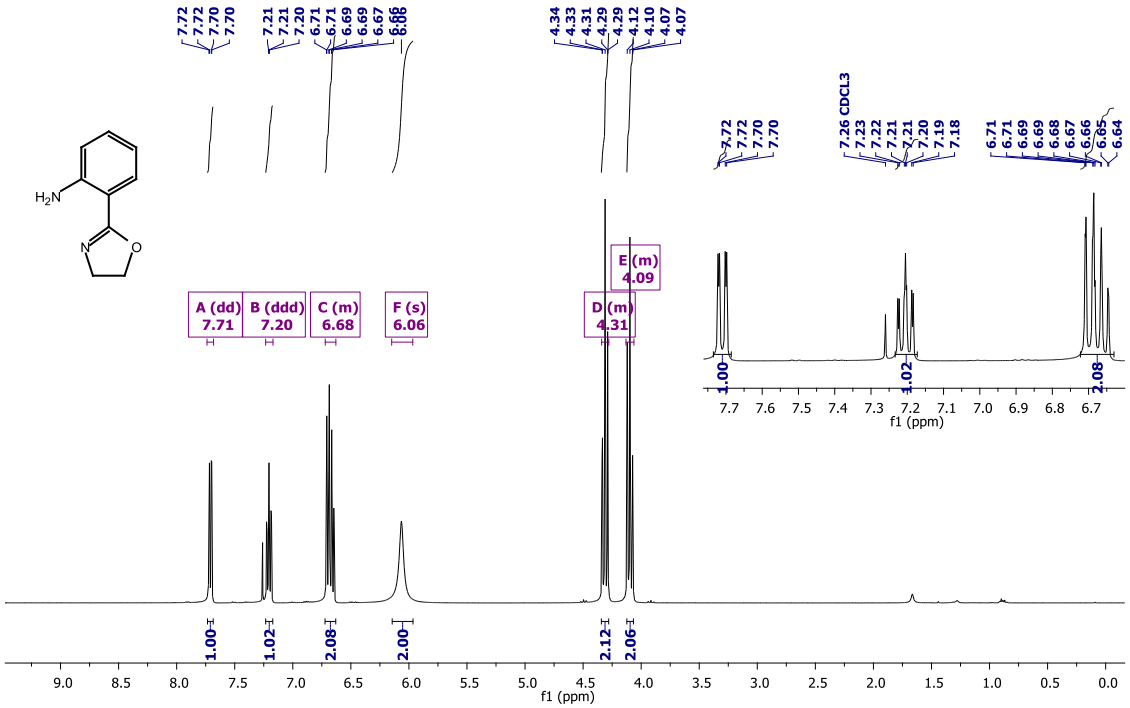
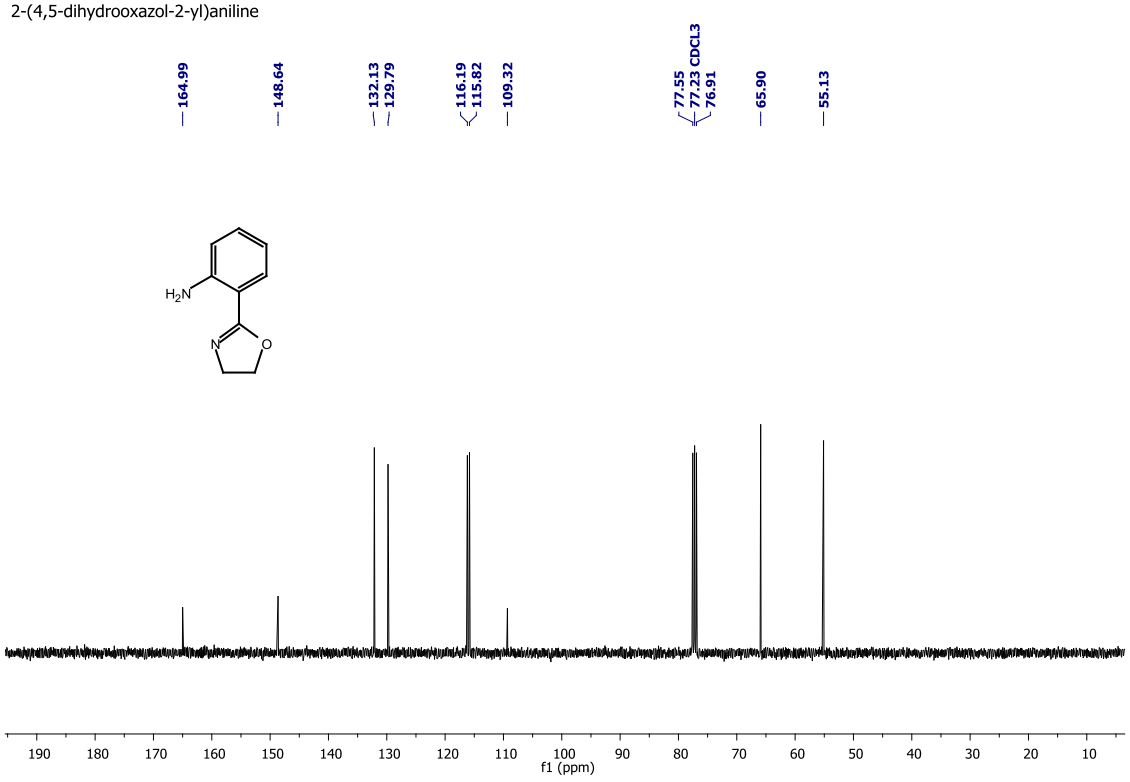
125.50
125.30
125.12
f1 (ppm)
f1 (ppm)

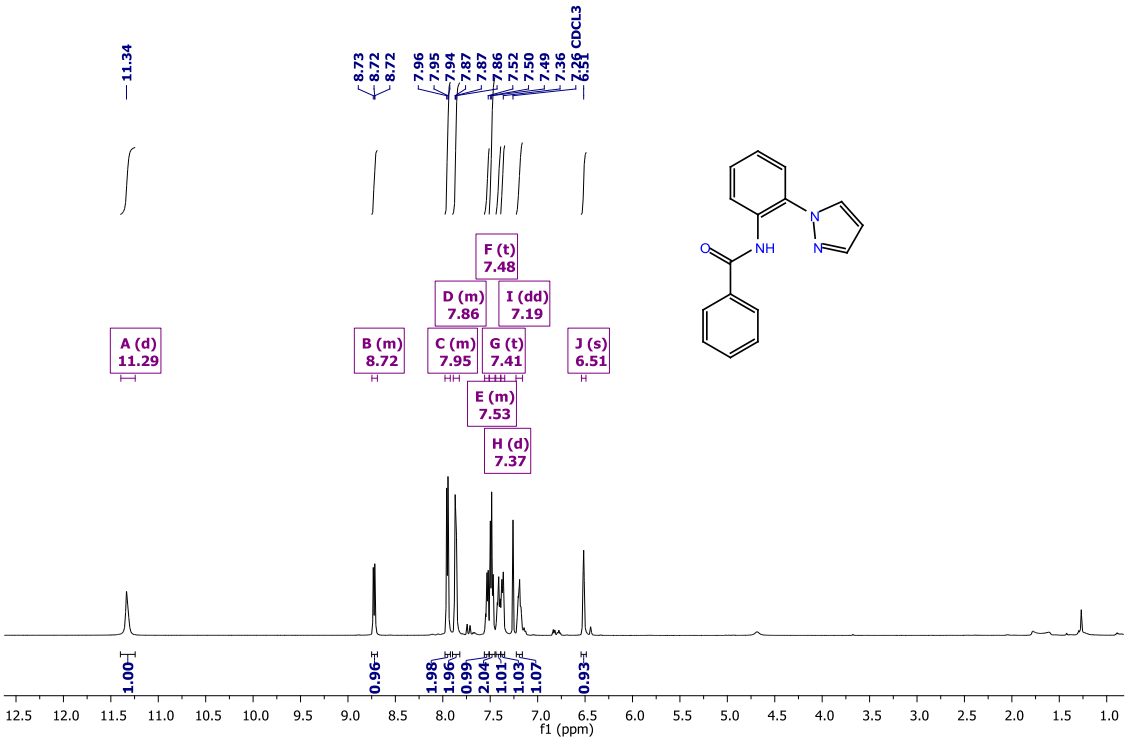
2-(4,5-dihydrooxazol-2-yl)aniline



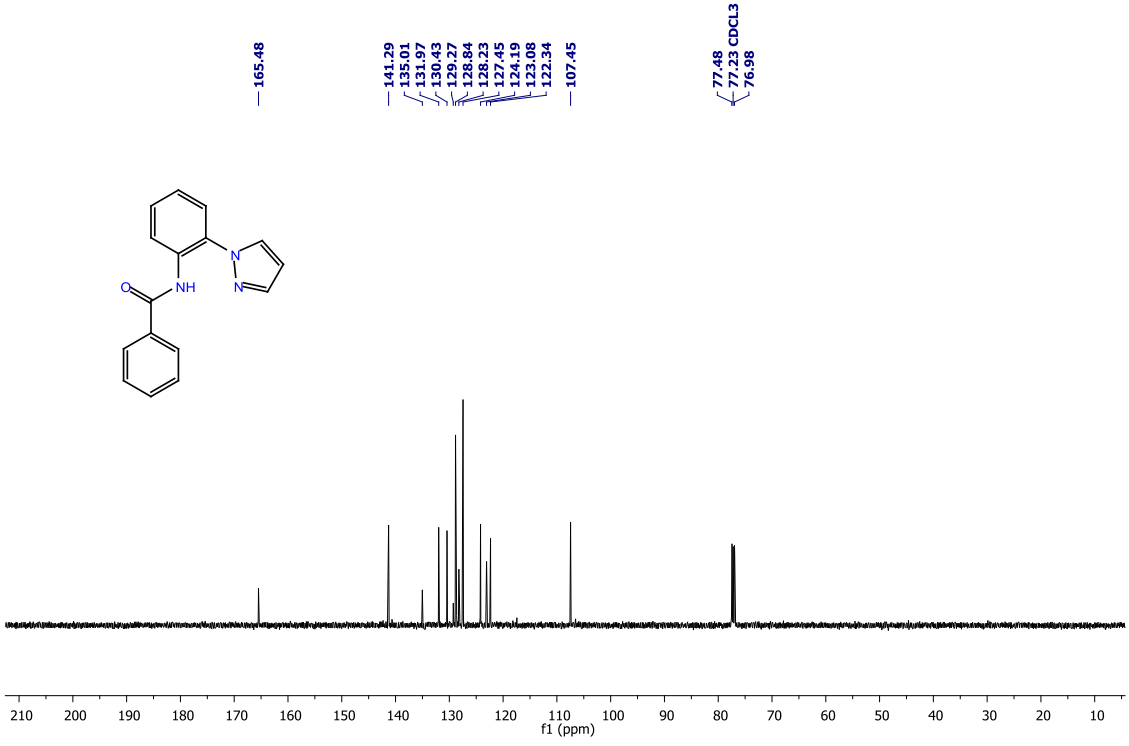
2-(4,5-dihydrooxazol-2-yl)aniline



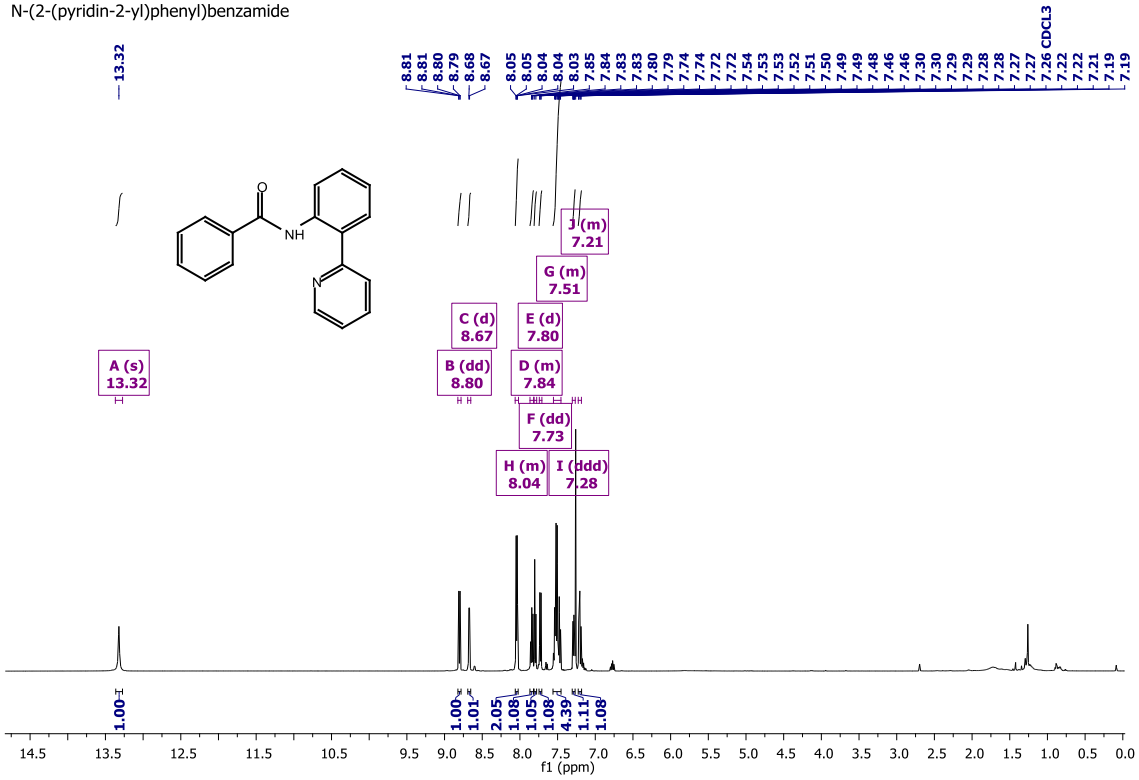
N-(2-(1H-pyrazol-1-yl)phenyl)benzamide



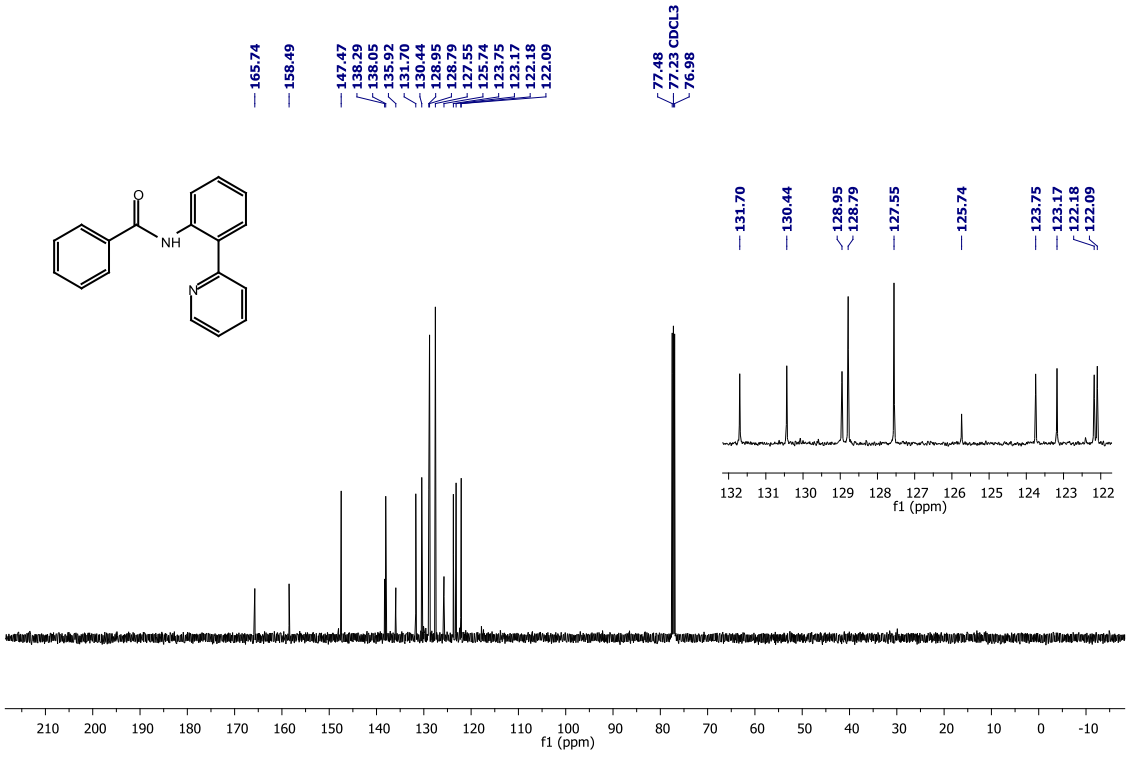
N-(2-(1H-pyrazol-1-yl)phenyl)benzamide



N-(2-(pyridin-2-yl)phenyl)benzamide



N-(2-(pyridin-2-yl)phenyl)benzamide

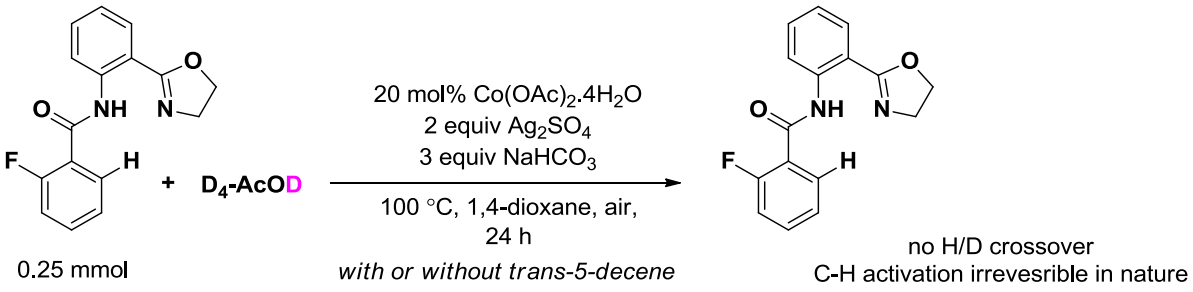


Preliminary mechanistic investigation.

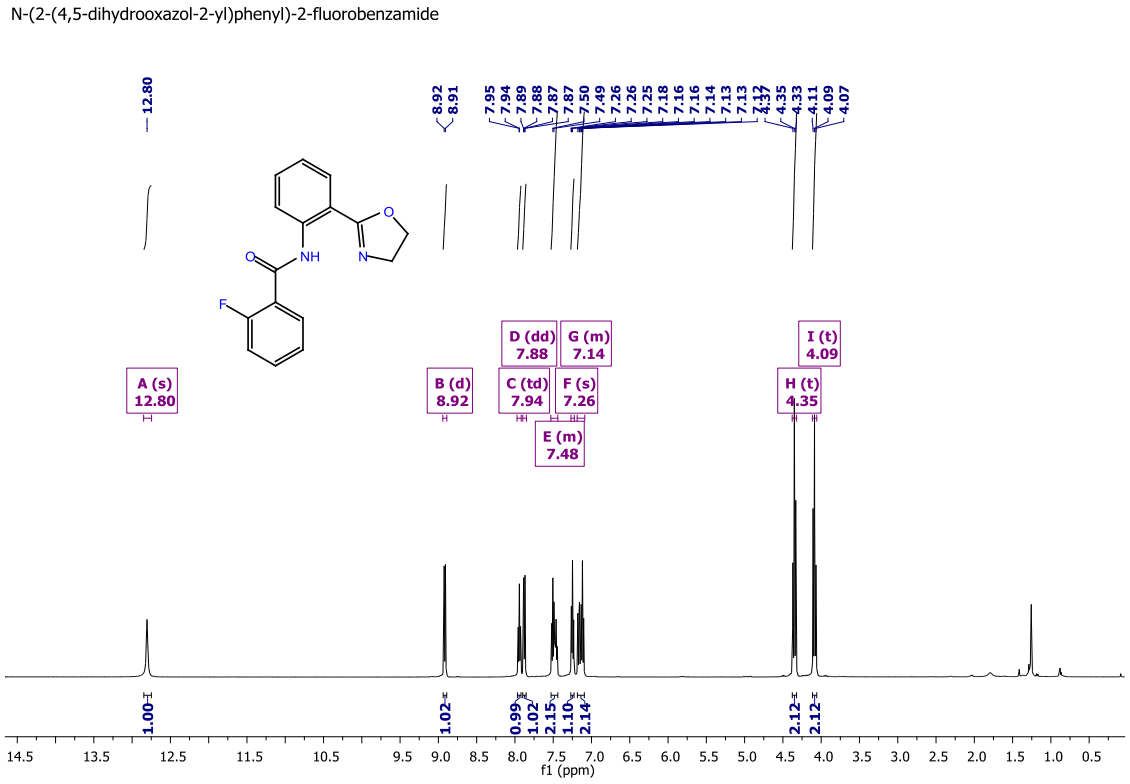
A. Reversibility of C-H activation step:

To probe the C-H activation step, reactions were performed with or without coupling partner olefin in presence of a D^+ source D_4-AcOD. However, it was observed that no H/D crossover had occurred thereby suggesting the irreversible nature of the C-H activation step.

Without olefin, 80% starting material was recovered. In presence of olefin, 65% starting material could be recovered with *ca*. 10% product formation. However, in no cases, D incorporation was observed.

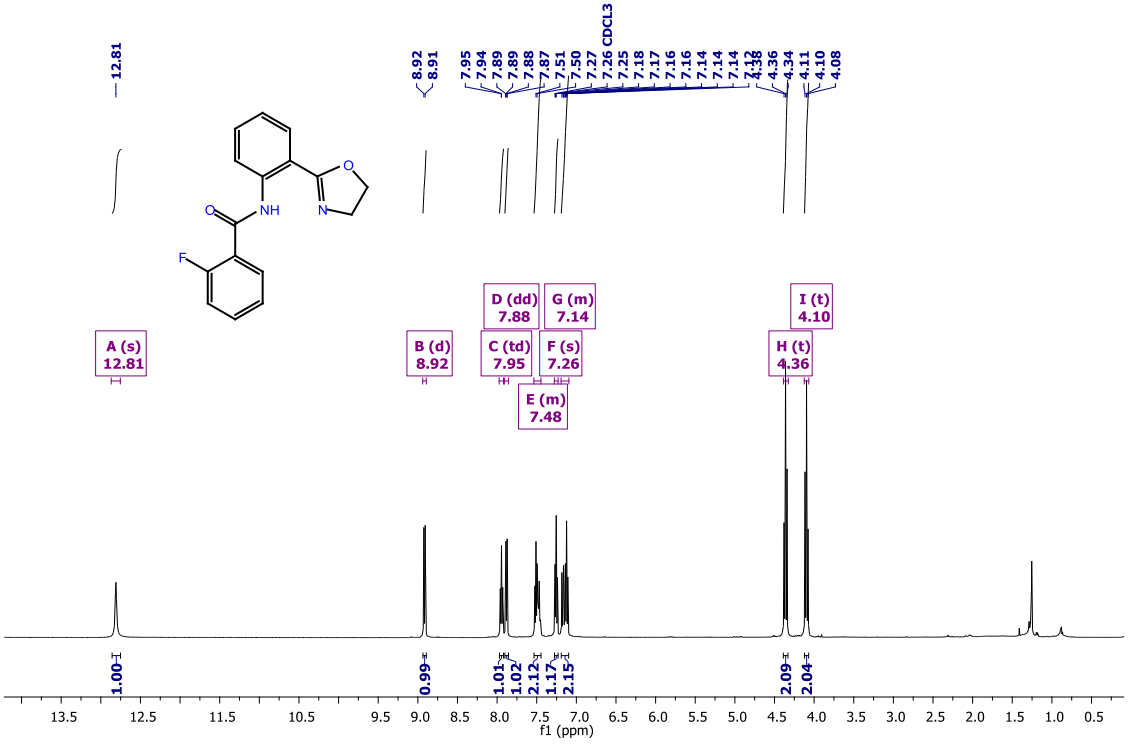


Without coupling partner olefin:

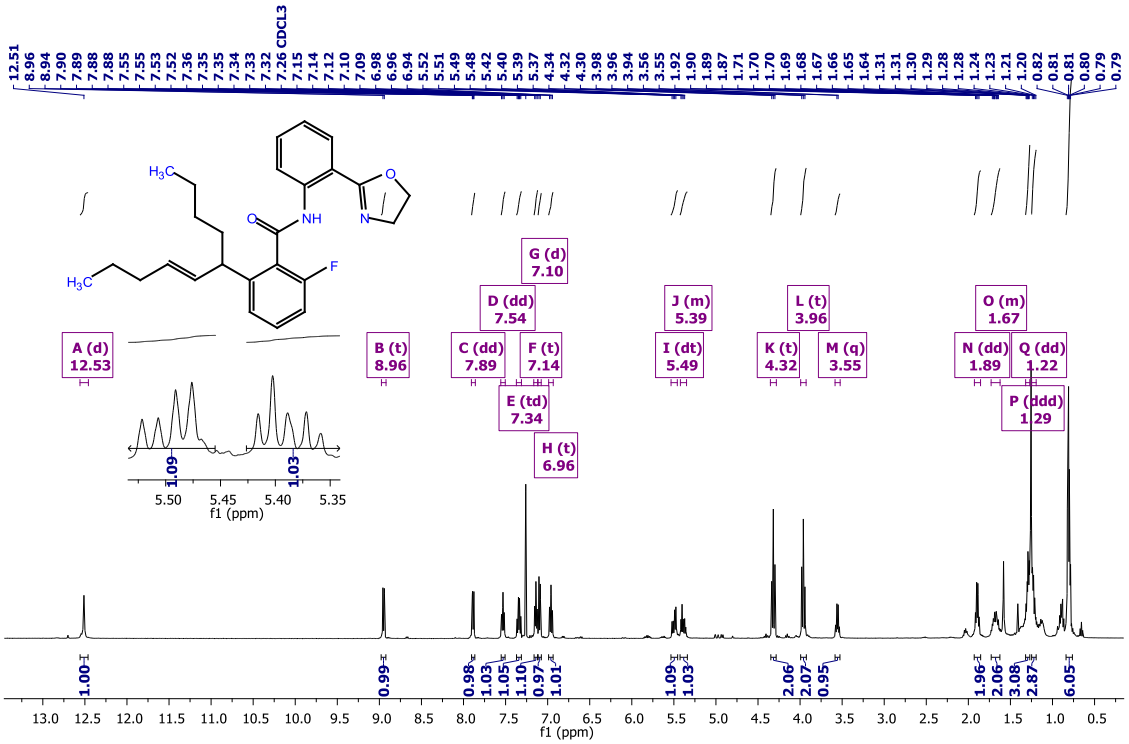


With coupling partner olefin:

N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-fluorobenzamide



(E)-2-(dec-6-en-5-yl)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-6-fluorobenzamide



B. Kinetic experiments:

Kinetic studies were performed under standard reaction conditions with 2-fluoro-*N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)benzamide and *trans*-4-octene.

In addition to the standard reaction condition, kinetics studies of reactions without aliphatic acid additive, base and oxidant were also performed in a stepwise control experiment.

Rate of the reaction was also determined with 2-fluoro-*N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)benzamide and 1-octene (terminal olefin). Amount of product in each reaction was measured by gas chromatography using n-decane as the internal standard and yield of the reaction was plotted against time (in h).

Kinetic dependence of reaction components:

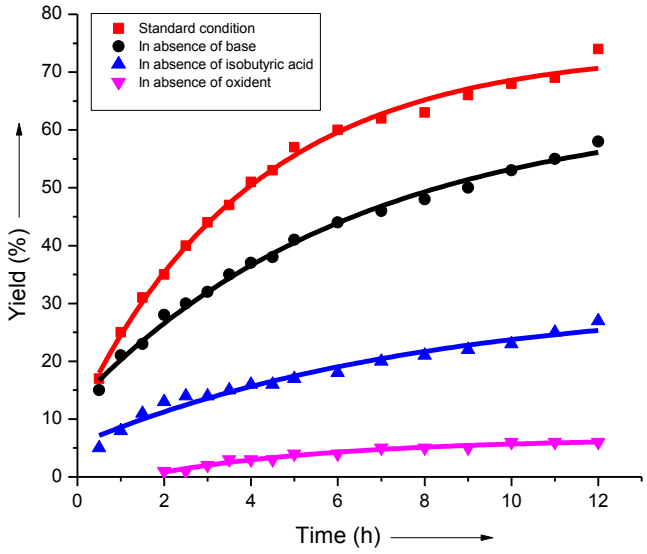


Figure S1: Product formation plot under various control experiments

As both amide and olefin were involved in this reaction, we can assume the rate of the reaction is only dependent on the concentration of amide and olefin.
So, Rate = k. $[amide]^x [olefin]^y$ …….(1)

Determination of order with respect to amide:

Run	2-fluoro-*N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)benzamide (mmol)	Trans-4-octene (mmol)	$Co(OAc)_2.4H_2O$	Ag_2SO_4 (mmol)	Isobutyric acid (mmol)	$NaHCO_3$ (mmol)	1,4-dioxane (mL)
1	0.1	0.2	20 mol%	0.2	0.1	0.3	1
2	0.05	0.2	20 mol%	0.2	0.1	0.3	1

From the different set of experiment the following product formation plot was observed:

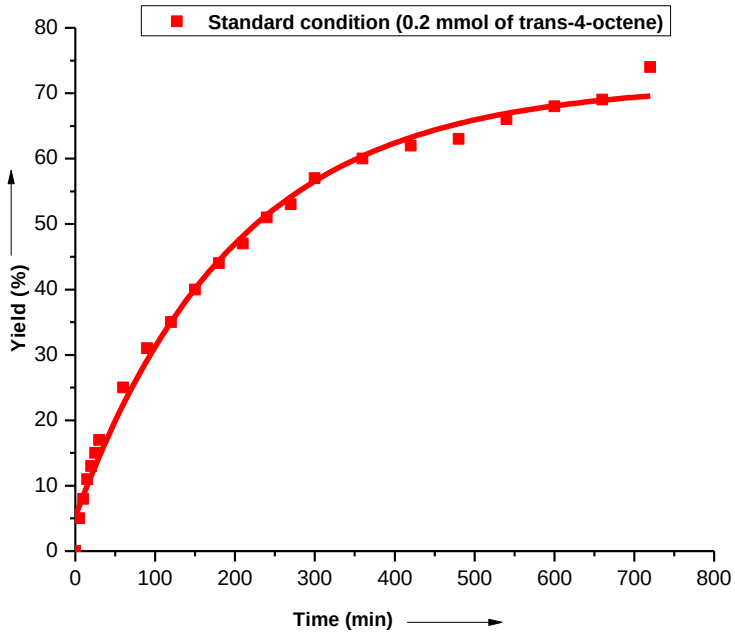


Figure S2: Product formation plot in run 1

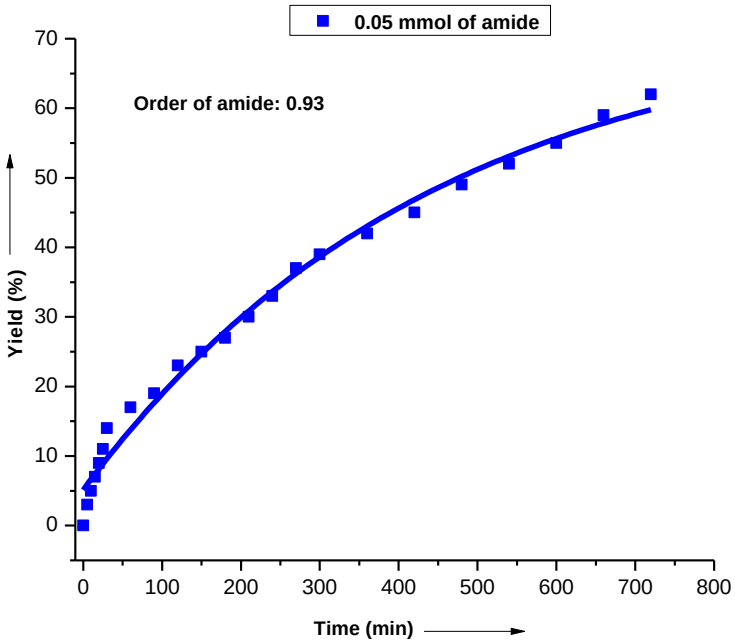


Figure S3: Product formation plot in run 2

From the equation (1) we got, Rate = k. $[Amide]^x [olefin]^y$

For run 1, initial rate = Rate 1

So, Rate 1 = k. $[Amide]^x [olefin]^y$

or, 0.332 $(mmol^{-1}.min^{-1})$ = k . $[0.1]^x [0.2]^y$ ……(2)

For run 2, initial rate = Rate 2

So, Rate 2 = k. $[Amide]^x [olefin]^y$

or, 0.174 $(mmol^{-1}.min^{-1})$ = k . $[0.05]^x [0.2]^y$ ……(3)

Hence from equation (2) and (3)

We get, $[Rate\ 1/ Rate\ 2] = [0.1/ 0.05]^x$

or, x = [log (Rate 1) – log (Rate 2)] / [log (0.1) – log (0.05)]

or, x = [log (0.332) – log (Rate 0.174)] / [log (0.1) – log (0.05)]

or, x = 0.93

So, order with respect to amide derivative is ~ 1

Determination of order with respect to internal olefin:

Run	2-fluoro-*N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)benzamide (mmol)	Trans-4-octene (mmol)	$Co(OAc)_2.4H_2O$	Ag_2SO_4 (mmol)	Isobutyric acid (mmol)	$NaHCO_3$ (mmol)	1,4-dioxane (mL)
1	0.1	0.2	20 mol%	0.2	0.1	0.3	1
3	0.1	0.4	20 mol%	0.2	0.1	0.3	1

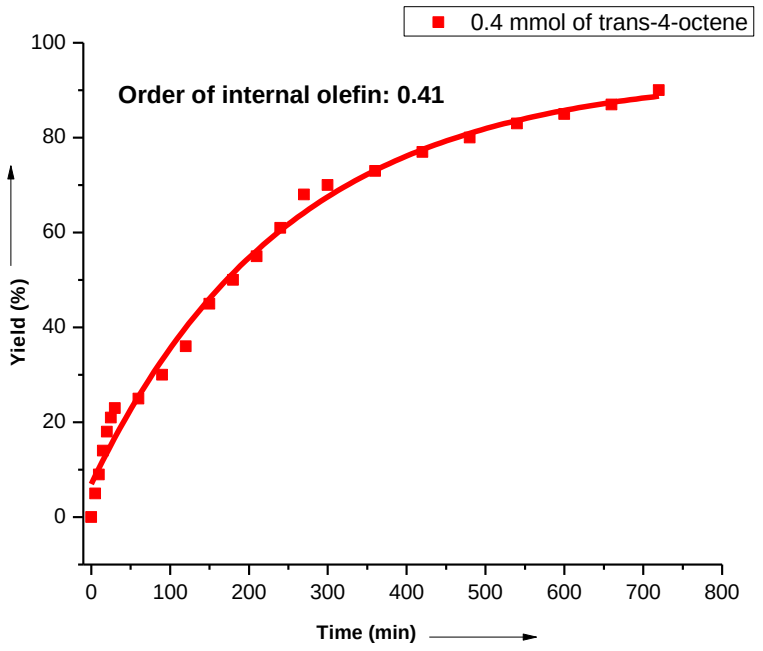


Figure S4: Product formation plot in run 3

From the equation (1) we got, Rate = k. $[Amide]^x [olefin]^y$

For run 1, initial rate = Rate 1

So, Rate 1 = k. $[Amide]^x [olefin]^y$

or, 0.332 ($mmol^{-1}.min^{-1}$) = k . $[0.1]^x [0.2]^y$ ……(2)

For run 3, initial rate = Rate 3

So, Rate 3 = k. $[Amide]^x [olefin]^y$

or, 0.441 ($mmol^{-1}.min^{-1}$) = k . $[0.1]^x [0.4]^y$ ……(4)

Hence from equation (2) and (4)

We get, $[Rate\ 1/ Rate\ 3] = [0.2/ 0.4]^y$

or, y = [log (Rate 1) – log (Rate 3)] / [log (0.2) – log (0.4)]

or, y = [log (0.332) – log (Rate 0.441)] / [log (0.2) – log (0.4)]

or, y = 0.41

So, order with respect to internal olefin is ~ 0.4

Determination of order with respect to terminal olefin:

Run	2-fluoro-*N*-(2-(4,5-dihydrooxazol-2-yl)phenyl)benzamide (mmol)	1-octene (mmol)	$Co(OAc)_2.4H_2O$	Ag_2SO_4 (mmol)	Isobutyric acid (mmol)	$NaHCO_3$ (mmol)	1,4-dioxane (mL)
4	0.1	0.2	20 mol%	0.2	0.1	0.3	1
5	0.1	0.4	20 mol%	0.2	0.1	0.3	1

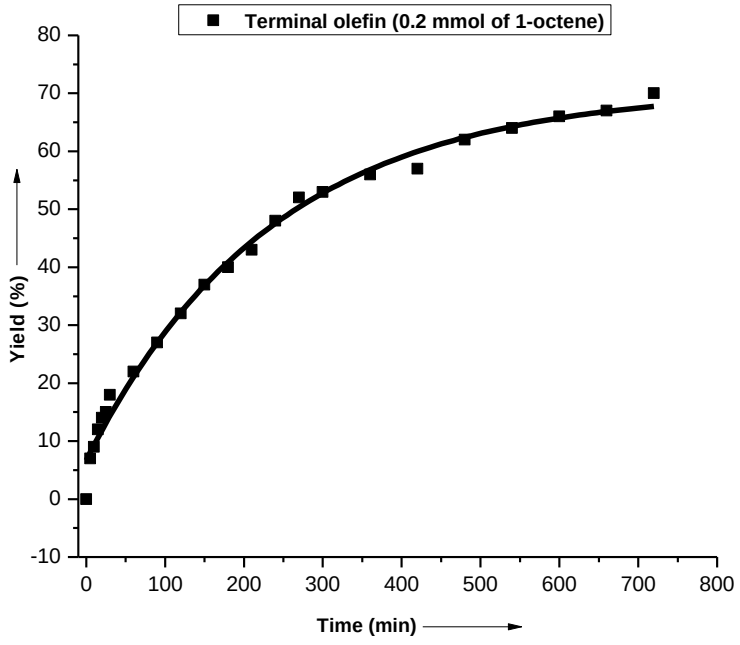


Figure S5: Product formation plot in run 4

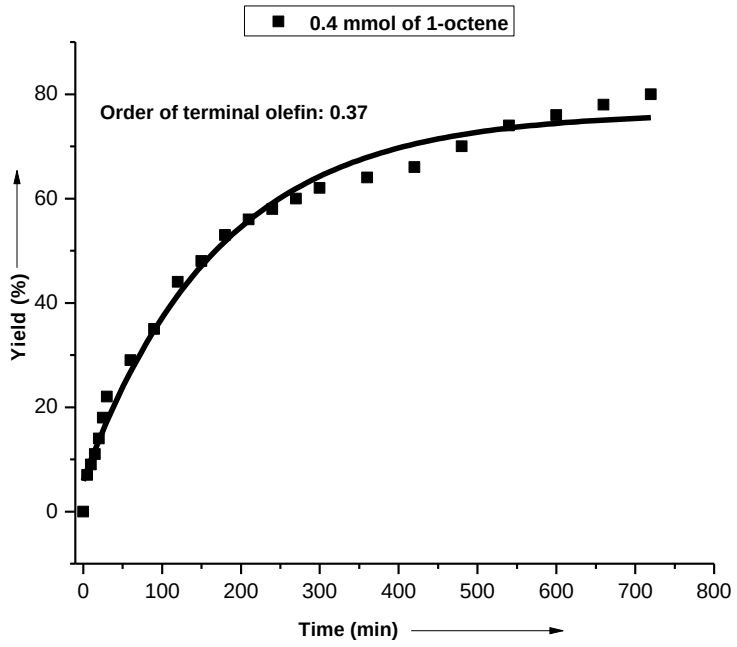


Figure S6: Product formation plot in run 5

From the equation (1) we got, Rate = k. $[Amide]^x [olefin]^y$

For run 4, initial rate = Rate 4

So, Rate 4 = k. $[Amide]^x [olefin]^y$

or, 0.335 ($mmol^{-1}.min^{-1}$) = k . $[0.1]^x [0.2]^y$ ……(2)

For run 5, initial rate = Rate 5

So, Rate 5 = k. $[Amide]^x [olefin]^y$

or, 0.432 ($mmol^{-1}.min^{-1}$) = k . $[0.1]^x [0.4]^y$ ……(4)

Hence from equation (2) and (4)

We get, $[Rate\ 4/\ Rate\ 5] = [0.2/\ 0.4]^y$

or, y = [log (Rate 4) – log (Rate 5)] / [log (0.2) – log (0.4)]

or, y = [log (0.335) – log (Rate 0.432)] / [log (0.2) – log (0.4)]

or, y = 0.37

So, order with respect to terminal olefin is ~ 0.4

Kinetic isotope effect experiment:

As mentioned in the manuscript, when both the *ortho* positions are open, formation of *mono*- and *di*-allylated products are observed in varying extent. Therefore, we decided to study the conversion of starting materials as opposed to yield of the products for the labeling studies.

Run	N-(2-(4,5-dihydrooxazol-2-yl)phenyl)benzamide (mmol)	Trans-4-octene (mmol)	$Co.(OAc)_2.4H_2O$	Ag_2SO_4 (mmol)	Isobutyric acid (mmol)	$NaHCO_3$ (mmol)	1,4-Dioxane (mL)
6	0.1	0.2	20 mol%	0.2	0.1	0.3	1

Run	N-(2-(4,5-dihydrooxazol-2-yl)phenyl)benzamide.D_5 (mmol)	Trans-4-octene (mmol)	$Co.(OAc)_2.4H_2O$	Ag_2SO_4 (mmol)	Isobutyric acid (mmol)	$NaHCO_3$ (mmol)	1,4-Dioxane (mL)
7	0.1	0.2	20 mol%	0.2	0.1	0.3	1

Entry	Time (min)	Conversion (%)
A	20	5
B	30	8
C	60	12
D	90	25
E	120	36
F	150	45
G	175	50
H	180	58
I	195	60
J	210	62
K	240	76
L	270	78
M	300	81
N	360	83
O	420	85
P	480	86
Q	540	88
R	600	89
S	660	92
T	720	93

Entry	Time (min)	Conversion (%)	Conversion (%) Deuterated
A	20	5	2
B	30	8	4
C	60	12	9
D	90	25	12

E	120	36	16
F	150	45	20
G	175	50	22
H	180	58	25
I	195	60	27
J	210	62	30
K	240	76	37

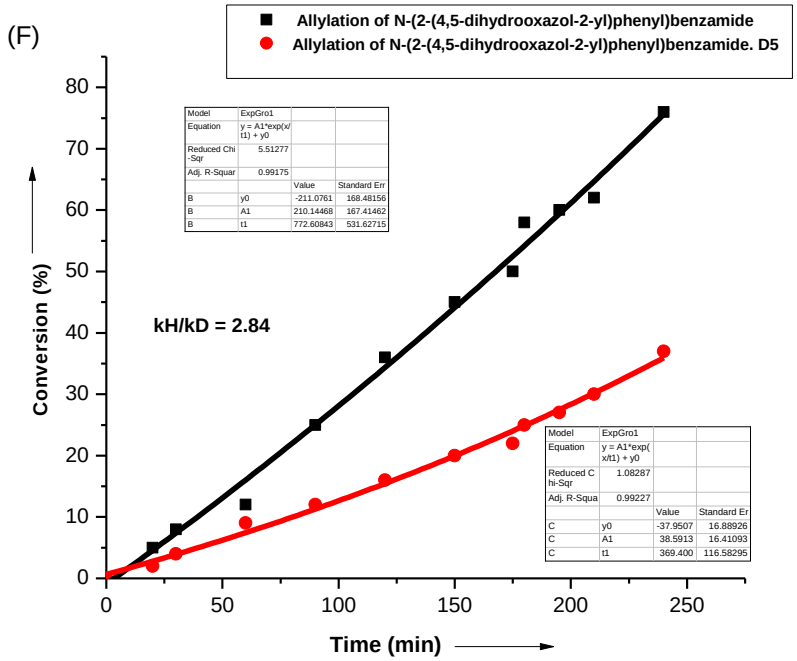


Figure S7: Determination of kinetic isotopic effect

Now, Rate = k. $[Amide]^x [olefin]^y$

For run 6, initial rate = Rate 6

So, Rate 6 = k_H. $[Amide]^x [olefin]^y$

or, 0.296 $(mmol^{-1}.min^{-1})$ = k_H . $[0.1]^x [0.2]^y$ ……(5)

For run 7, initial rate = Rate 7

So, Rate 7 = k_D. $[Amide]^x [olefin]^y$

or, 0.104 $(mmol^{-1}.min^{-1})$ = k_D. $[0.1]^x [0.2]^y$ ……(6)

So, from equation (5) and (6) we get

k_H / k_D = Rate 6 / Rate 7

or, k_H / k_D = 0.296 $(mmol^{-1}.min^{-1})$ / 0.104 $(mmol^{-1}.min^{-1})$

or, k_H / k_D = 2.84

Therefore, a substantial kinetic isotope effect was observed in the present reaction.

Schematic comparison of reaction rates of different aliphatic olefins:

Additionally, kinetic comparison was carried out of different aliphatic olefins. It was found that a *cis*-olefin was less reactive as compared to the *trans*-isomer. However, both internal trans-olefin and terminal olefins were found to be kinetically equivalent, although competition experiments suggested that a terminal olefin double bond could react preferentially in presence of an internal olefin (under *inter*/*intra* molecular set-up).

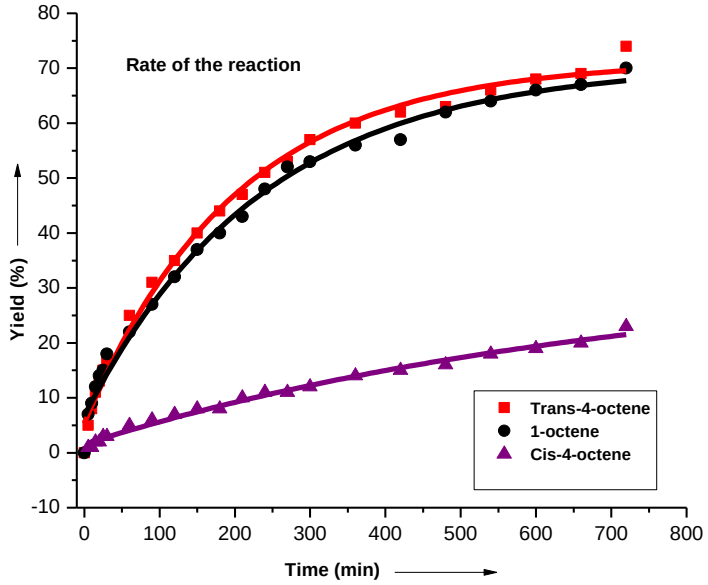
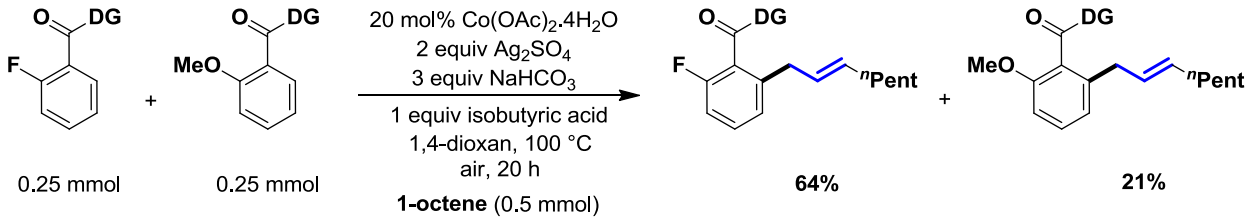
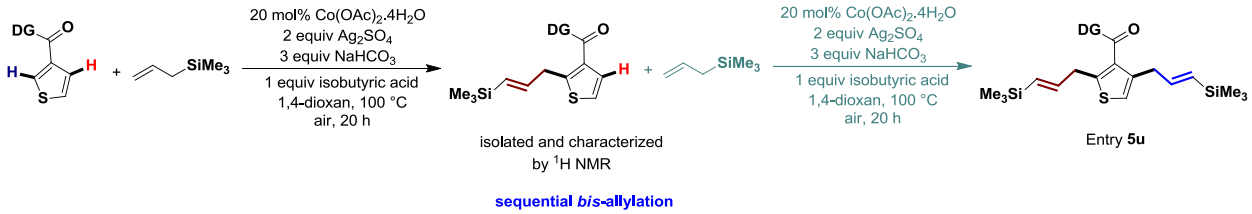


Figure S8: Kinetic comparison of different aliphatic olefins

Observation supporting CMD pathway; electron deficient arenes are more reactive as compared to the electron rich arene under the standard condition:



Sequential formation of 5u:



NMR spectrum of the isolated mono-allylated product:

(E)-N-(2-(4,5-dihydrooxazol-2-yl)phenyl)-2-(3-(trimethylsilyl)allyl)thiophene-3-carboxamide