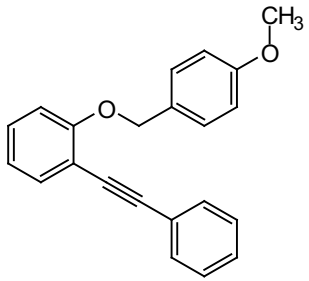
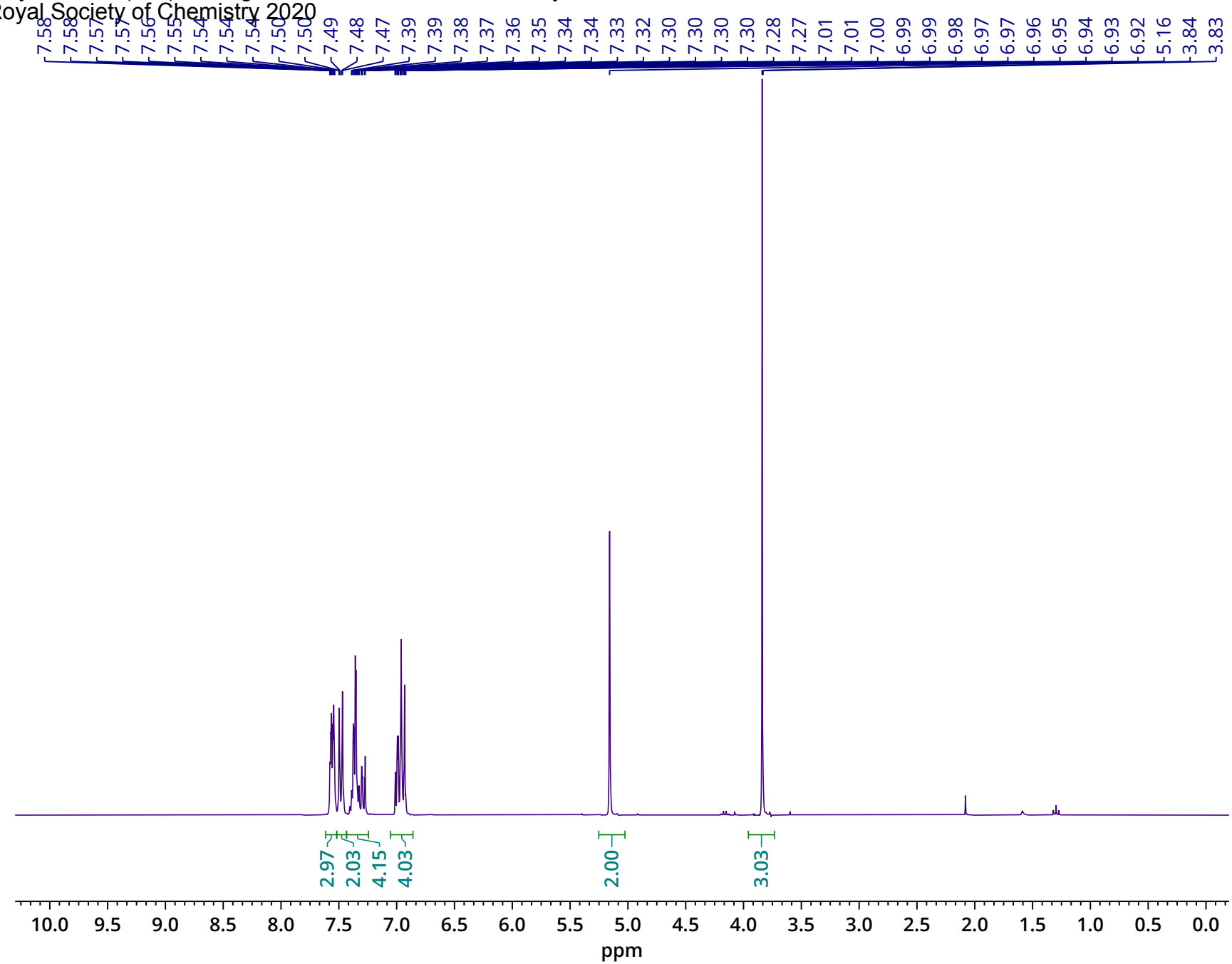
Parameter	Value
Title	DAL-107.101.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	299.1
Pulse Sequence	zg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	16
Receiver Gain	16.6
Relaxation Delay	1.0000
Pulse Width	10.2000
Acquisition Date	2018-07-02T14:42:00
Modification Date	2018-07-02T15:44:10
Spectrometer Frequency	300.18
Spectral Width	6103.5
Nucleus	1H
Spectral Size	65536



Compound 9a



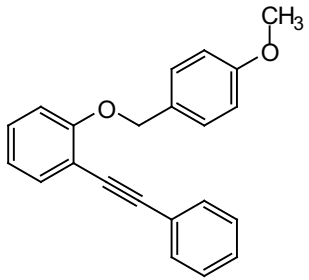
^{1}H NMR (300 MHz, $CDCl_3$) δ 7.61 – 7.52 (m, 3H), 7.52 – 7.43 (m, 2H), 7.43 – 7.24 (m, 4H), 7.05 – 6.86 (m, 4H), 5.16 (s, 2H), 3.84 (s, 3H).

Gold(I)–NHC-catalysed synthesis of benzofurans via migratory cyclization of 2-alkynylaryl benzyl ethers

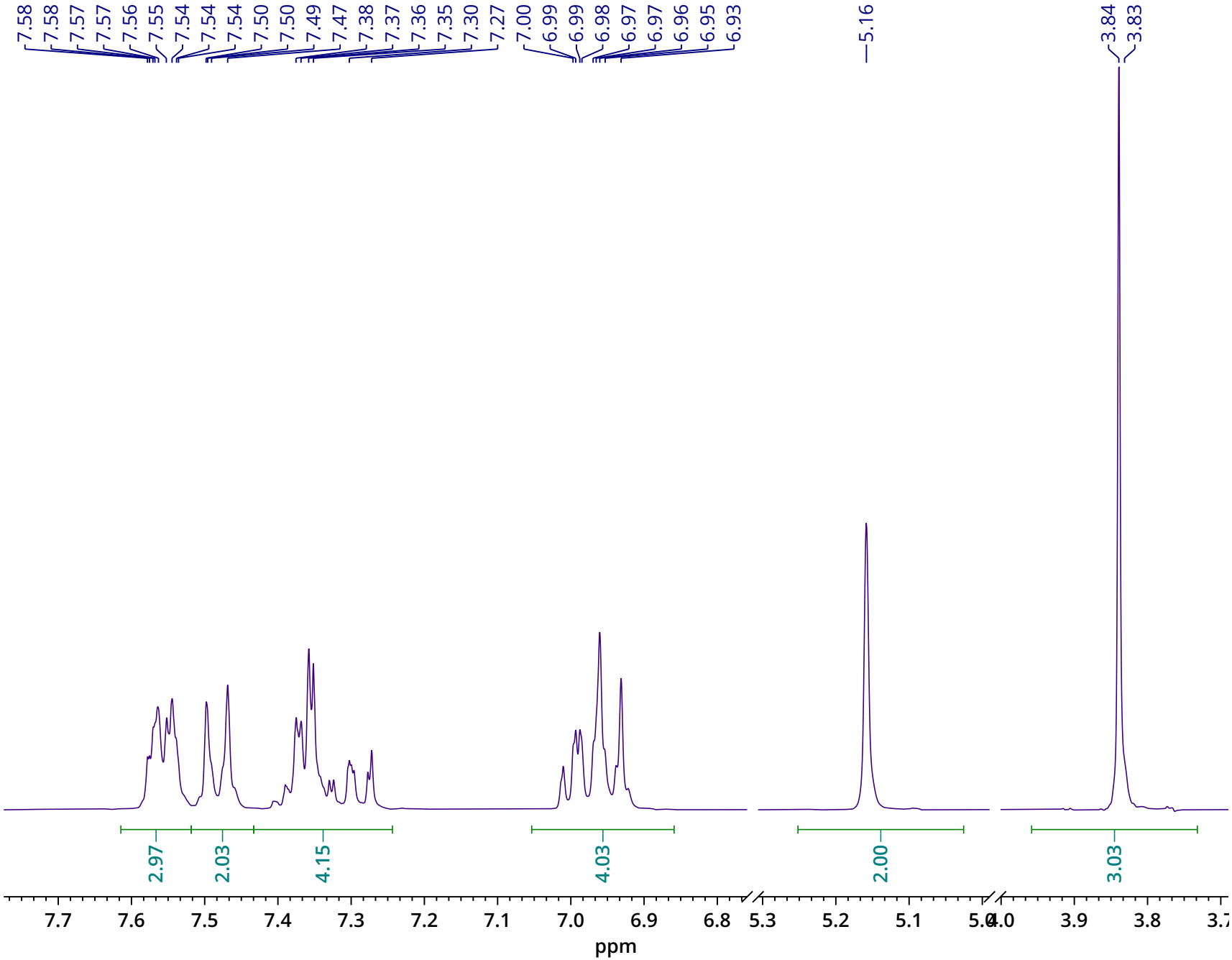
Quang Le,†[a] Christopher C. Dillon,†[a] Dana A. Lichtenstein,[a] Jeremy W. Pisor,[a] Kristina D. Closser,[a] and Hubert Muchalski[a]*

Digital images of NMR spectra

Parameter	Value
Title	DAL-107.101.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	299.1
Pulse Sequence	zg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	16
Receiver Gain	16.6
Relaxation Delay	1.0000
Pulse Width	10.2000
Acquisition Date	2018-07-02T14:42:00
Modification Date	2018-07-02T15:44:10
Spectrometer Frequency	300.18
Spectral Width	6103.5
Nucleus	1H
Spectral Size	65536

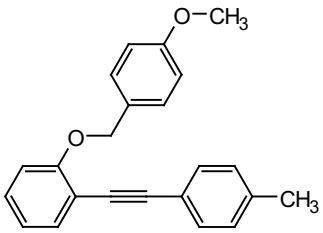


Compound 9a

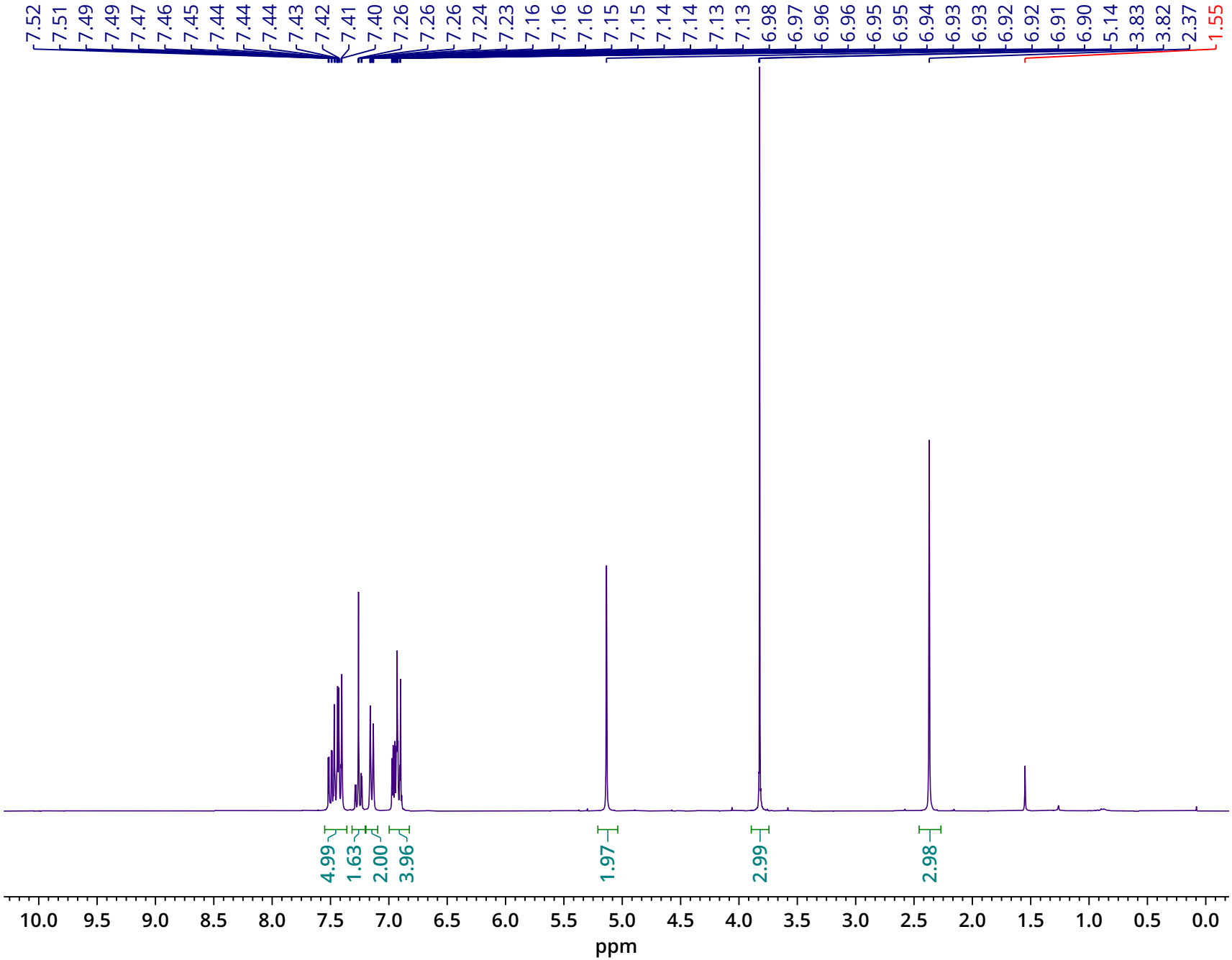


^{1}H NMR (300 MHz, $CDCl_3$) δ 7.61 – 7.52 (m, 3H), 7.52 – 7.43 (m, 2H), 7.43 – 7.24 (m, 4H), 7.05 – 6.86 (m, 4H), 5.16 (s, 2H), 3.84 (s, 3H).

Parameter	Value
Title	JAW-090.101.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	297.1
Pulse Sequence	zg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	16
Receiver Gain	79.3
Relaxation Delay	1.0000
Pulse Width	10.2000
Acquisition Date	2019-06-06T18:51:00
Modification Date	2019-06-06T18:53:14
Spectrometer Frequency	300.18
Spectral Width	6103.5
Nucleus	1H
Spectral Size	65536

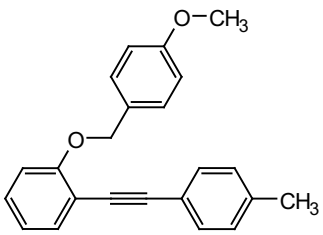


Compound 9b

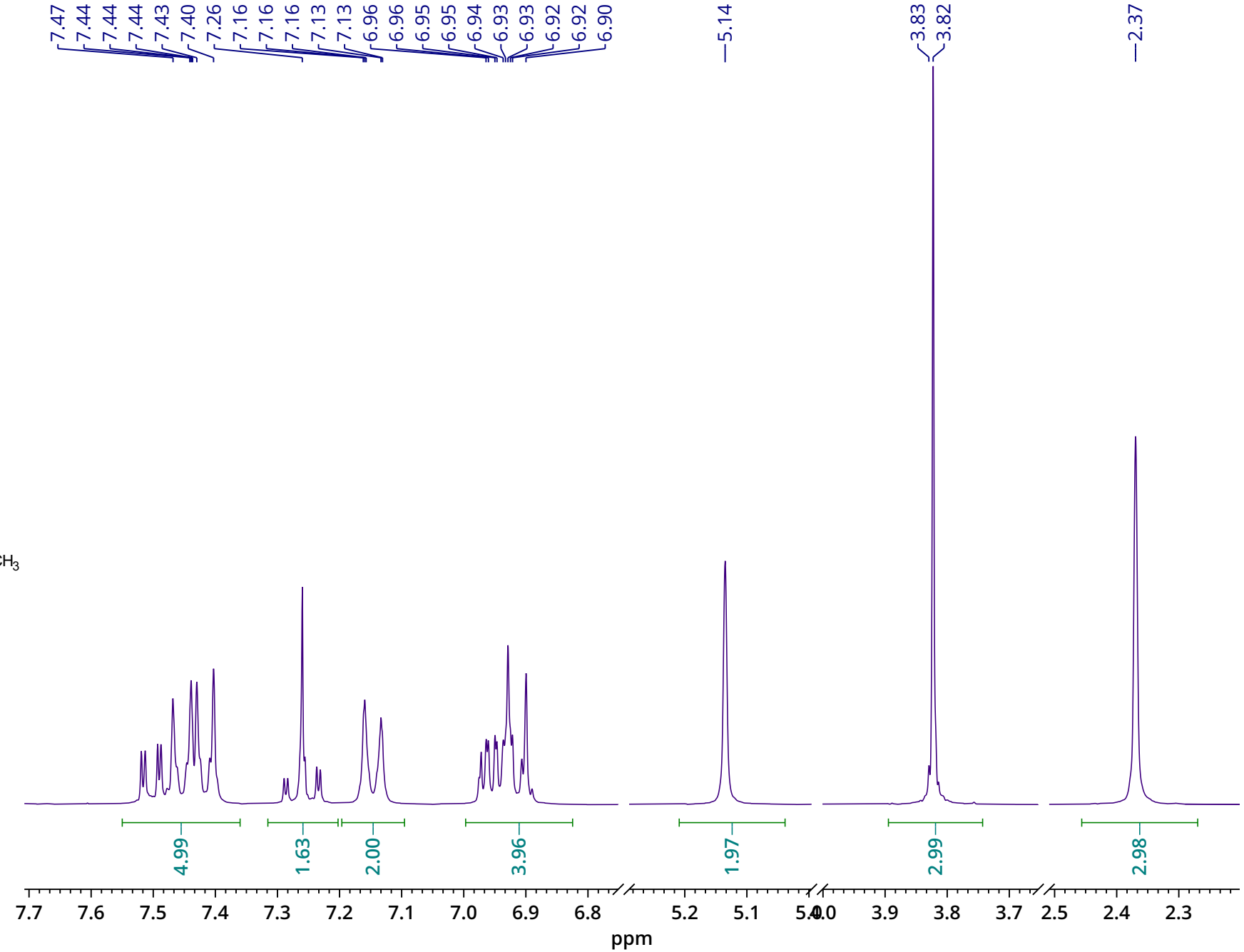


^{1}H NMR (300 MHz, $CDCl_3$) δ 7.54 – 7.37 (m, 5H), 7.32 – 7.20 (m, 1H), 7.19 – 7.10 (m, 2H), 6.99 – 6.87 (m, 4H), 5.14 (s, 2H), 3.82 (s, 3H), 2.37 (s, 3H).

Parameter	Value
Title	JAW-090.101.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	297.1
Pulse Sequence	zg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	16
Receiver Gain	79.3
Relaxation Delay	1.0000
Pulse Width	10.2000
Acquisition Date	2019-06-06T18:51:00
Modification Date	2019-06-06T18:53:14
Spectrometer Frequency	300.18
Spectral Width	6103.5
Nucleus	1H
Spectral Size	65536

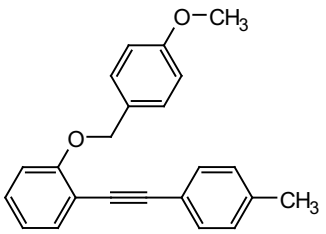


Compound 9b

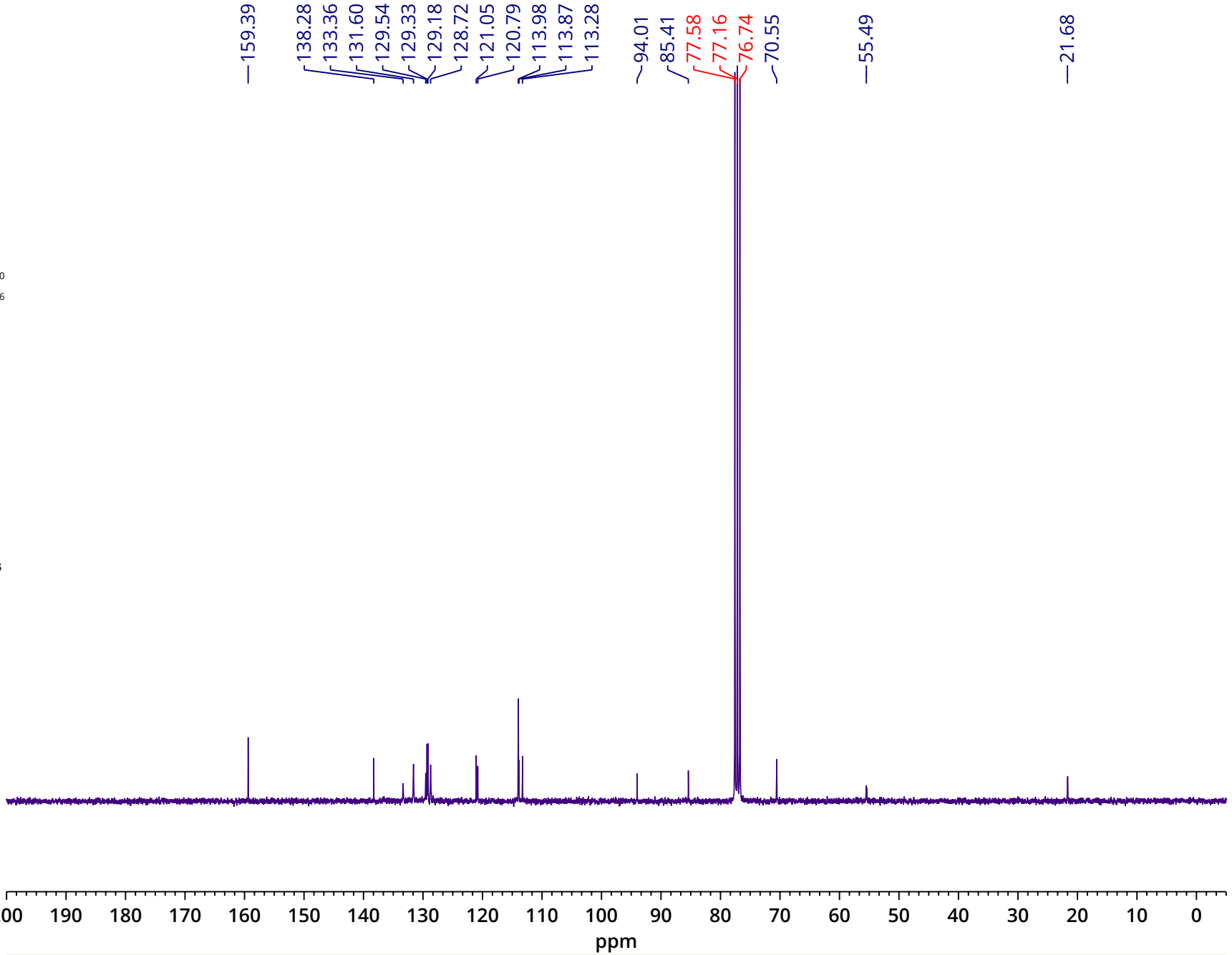


^{1}H NMR (300 MHz, $CDCl_3$) δ 7.54 – 7.37 (m, 5H), 7.32 – 7.20 (m, 1H), 7.19 – 7.10 (m, 2H), 6.99 – 6.87 (m, 4H), 5.14 (s, 2H), 3.82 (s, 3H), 2.37 (s, 3H).

Parameter	Value
Title	JAW-090.102.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	297.3
Pulse Sequence	zgpg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	4096
Receiver Gain	501.2
Relaxation Delay	2.0000
Pulse Width	11.0000
Acquisition Date	2019-06-06T19:32:00
Modification Date	2019-06-06T23:23:46
Spectrometer Frequency	75.49
Spectral Width	24414.1
Nucleus	13C
Spectral Size	65536

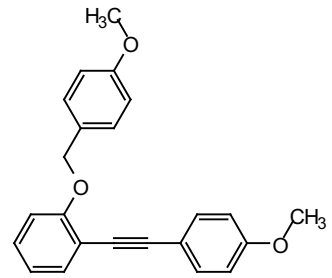


Compound 9b

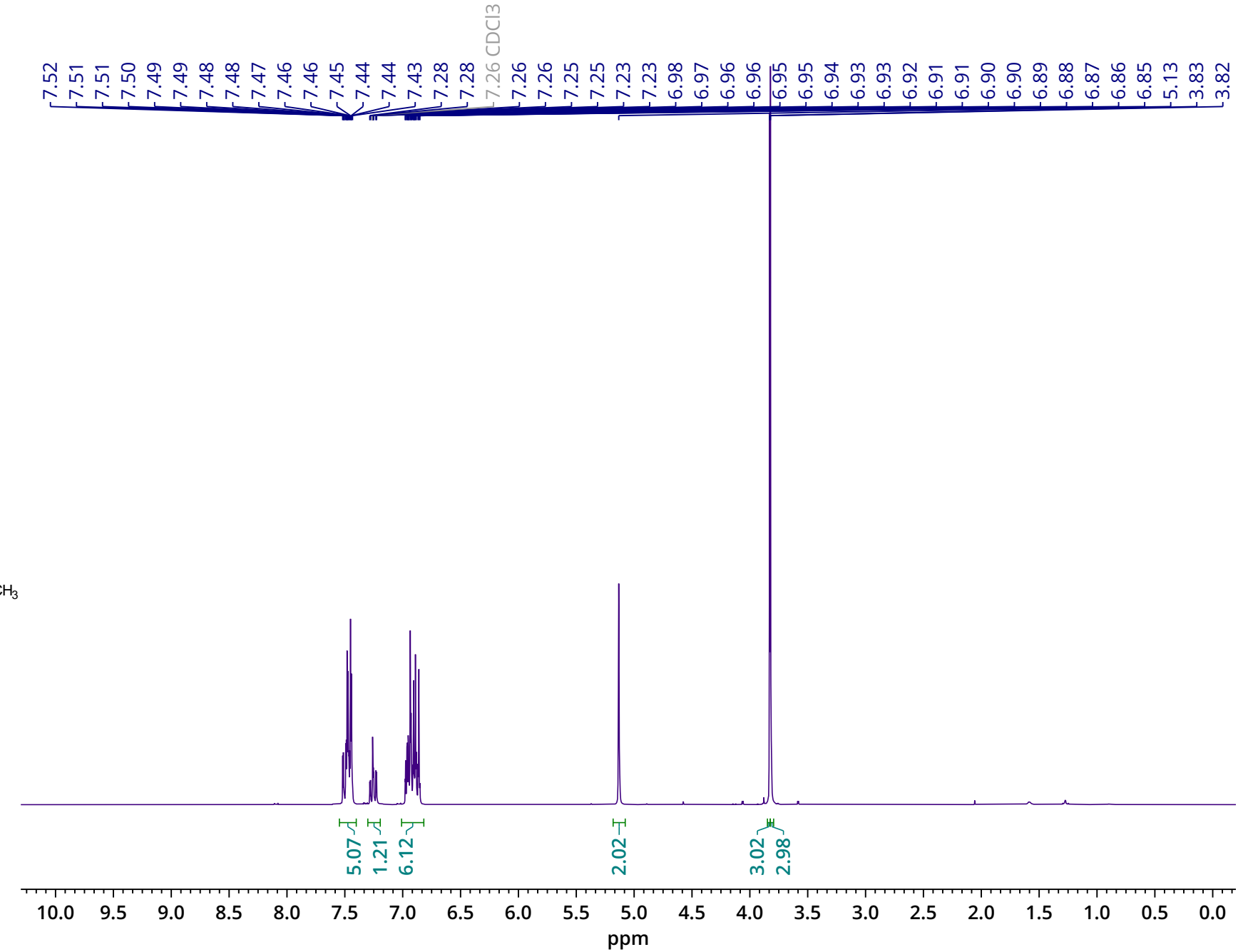


^{13}C NMR (75 MHz, $CDCl_3$) δ 159.39, 138.28, 133.36, 131.60, 129.54, 129.33, 129.18, 128.72, 121.05, 120.79, 113.98, 113.87, 113.28, 94.01, 85.41, 70.55, 55.49, 21.68.

Parameter	Value
Title	QDL-327.13.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	358.6
Pulse Sequence	zg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	64
Receiver Gain	20.6
Relaxation Delay	1.0000
Pulse Width	11.7500
Acquisition Date	2019-09-06T12:21:00
Modification Date	2019-09-06T13:28:34
Spectrometer Frequency	300.18
Spectral Width	6103.5
Nucleus	1H
Spectral Size	65536

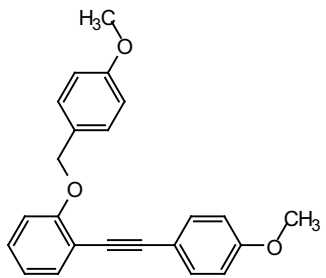


Compound 9c

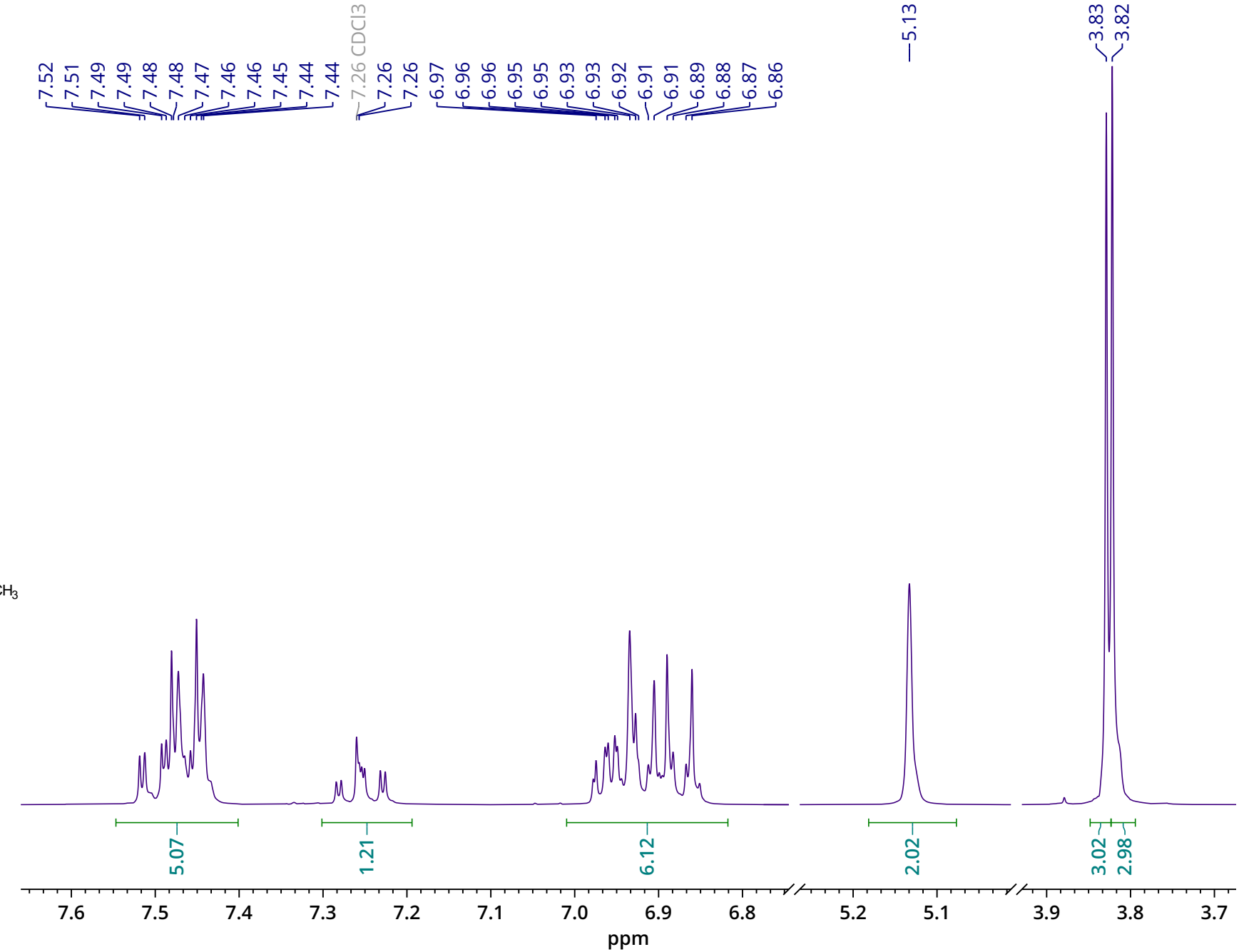


^{1}H NMR (300 MHz, $CDCl_3$) δ 7.55 – 7.40 (m, 5H), 7.26 (ddd, *J* = 8.4, 7.3, 1.7 Hz, 1H), 7.00 – 6.83 (m, 6H), 5.13 (s, 2H), 3.83 (s, 3H), 3.82 (s, 3H).

Parameter	Value
Title	QDL-327.13.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	358.6
Pulse Sequence	zg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	64
Receiver Gain	20.6
Relaxation Delay	1.0000
Pulse Width	11.7500
Acquisition Date	2019-09-06T12:21:00
Modification Date	2019-09-06T13:28:34
Spectrometer Frequency	300.18
Spectral Width	6103.5
Nucleus	1H
Spectral Size	65536

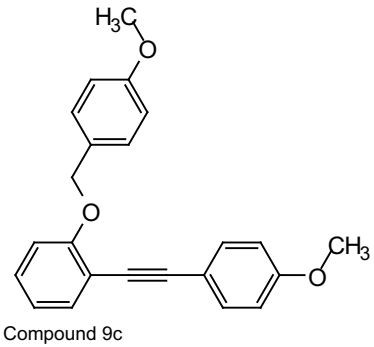


Compound 9c

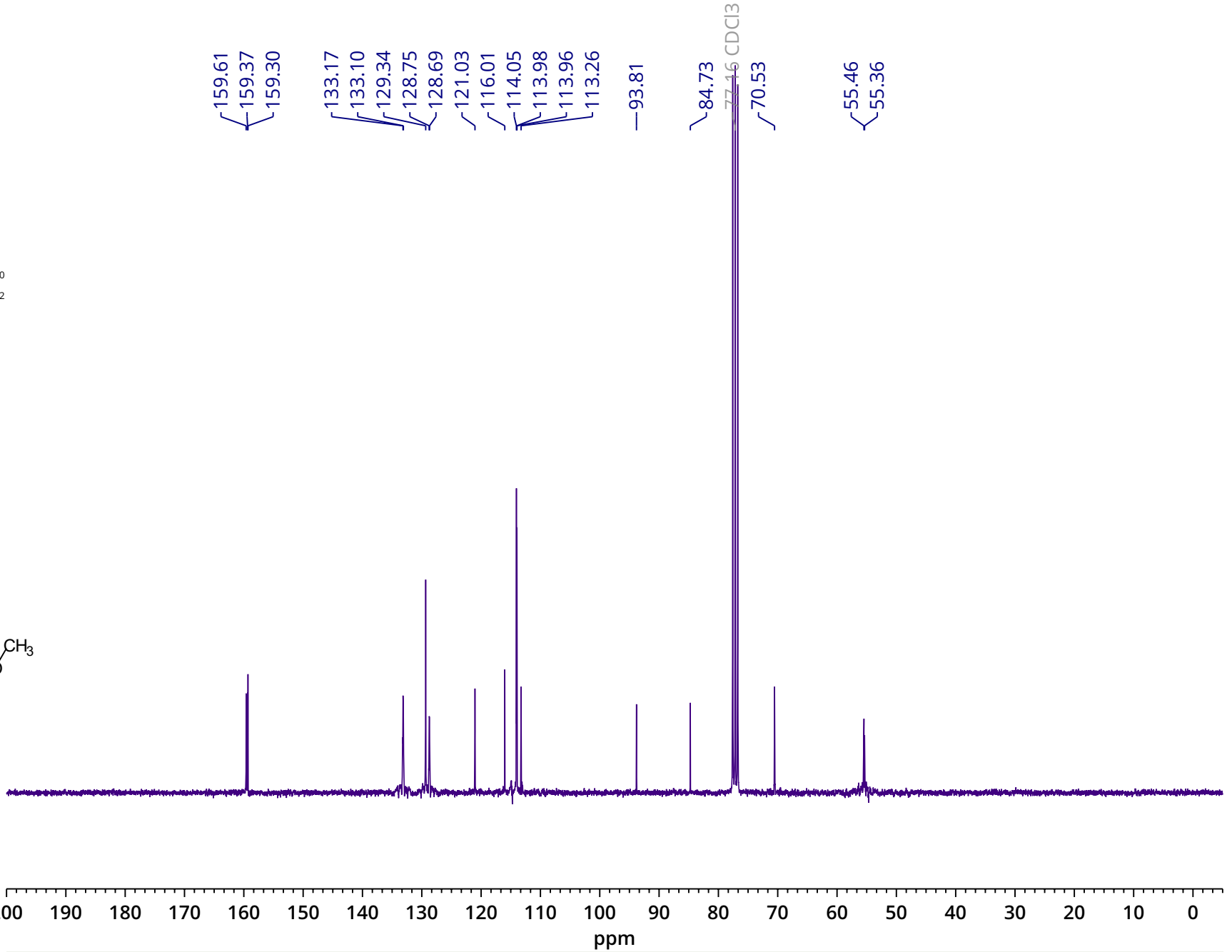


^{1}H NMR (300 MHz, $CDCl_3$) δ 7.55 – 7.40 (m, 5H), 7.26 (ddd, J = 8.4, 7.3, 1.7 Hz, 1H), 7.00 – 6.83 (m, 6H), 5.13 (s, 2H), 3.83 (s, 3H), 3.82 (s, 3H).

Parameter	Value
Title	QDL-327.101.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	1031.4
Pulse Sequence	zgpg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	4096
Receiver Gain	501.2
Relaxation Delay	2.0000
Pulse Width	10.7500
Acquisition Date	2019-09-07T01:07:00
Modification Date	2019-09-07T05:58:22
Spectrometer Frequency	75.49
Spectral Width	24414.1
Nucleus	13C
Spectral Size	65536

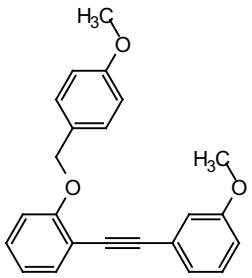


Compound 9c

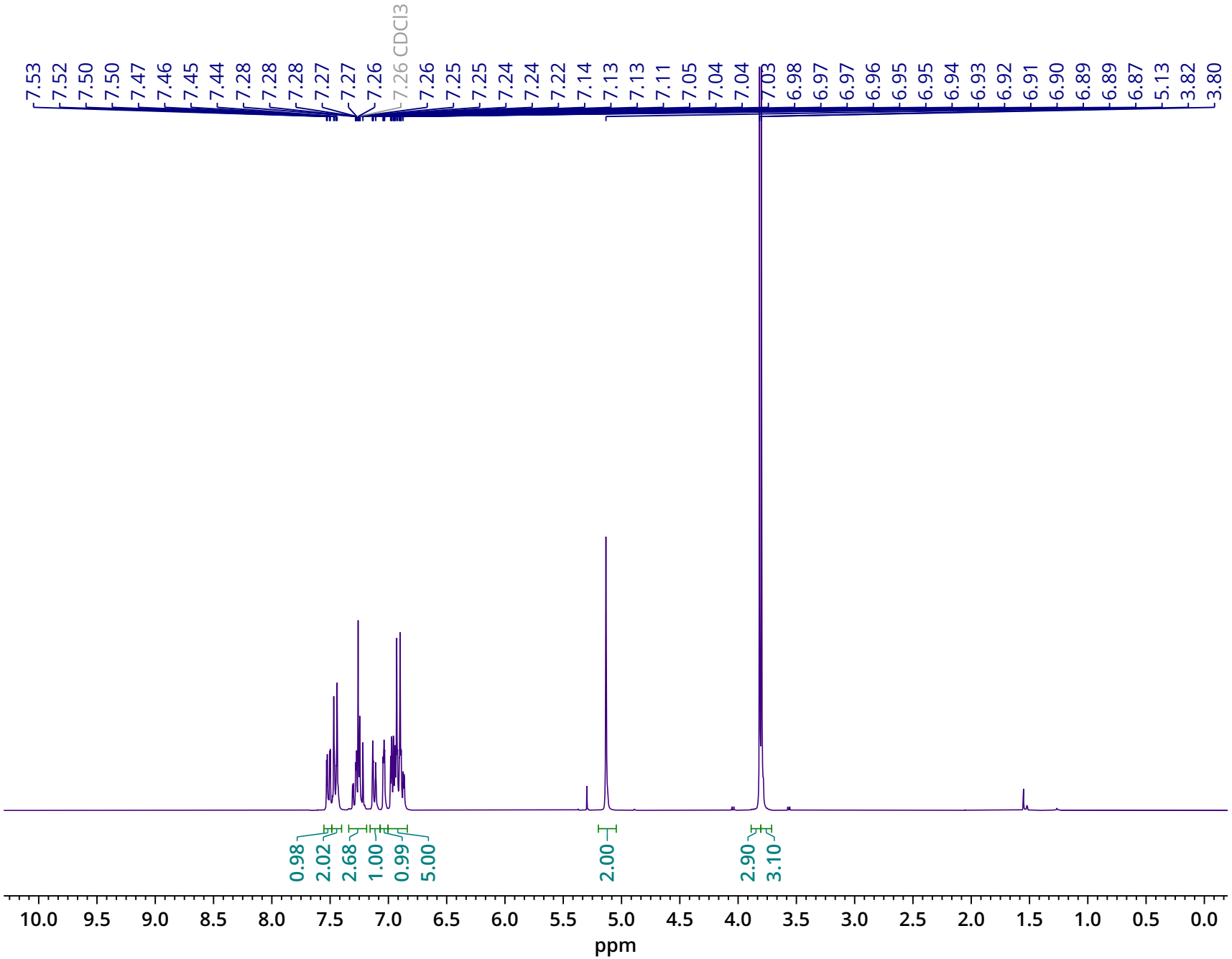


^{13}C NMR (75 MHz, $CDCl_3$) δ 159.61, 159.37, 159.30, 133.17, 133.10, 129.34, 128.75, 128.69, 121.03, 116.01, 114.05, 113.98, 113.96, 113.26, 93.81, 84.73, 70.53, 55.46, 55.36.

Parameter	Value
Title	QDL-326(2-24).12.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	1005.3
Pulse Sequence	zg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	64
Receiver Gain	67.3
Relaxation Delay	1.0000
Pulse Width	10.2000
Acquisition Date	2019-08-28T19:12:00
Modification Date	2019-08-28T19:19:38
Spectrometer Frequency	300.18
Spectral Width	6103.5
Nucleus	1H
Spectral Size	65536

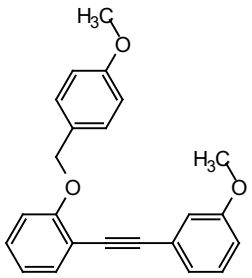


Compound 9d

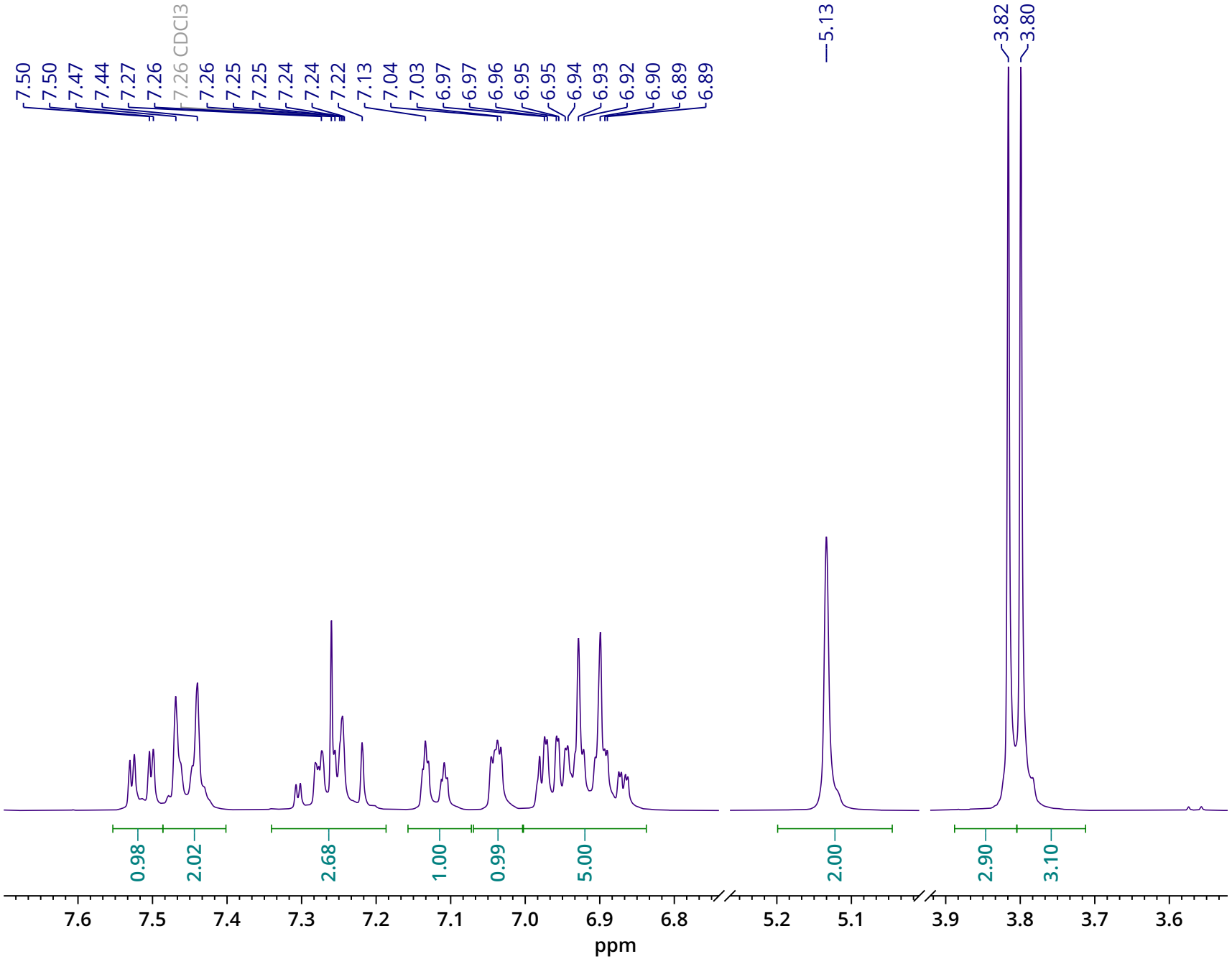


^{1}H NMR (300 MHz, $CDCl_3$) δ 7.51 (dd, J = 7.8, 1.7 Hz, 1H), 7.47 – 7.40 (m, 2H), 7.34 – 7.17 (m, 2H), 7.12 (dt, J = 7.6, 1.3 Hz, 1H), 7.04 (dd, J = 2.7, 1.4 Hz, 1H), 7.01 – 6.83 (m, 5H), 5.13 (s, 2H), 3.82 (s, 3H), 3.80 (s, 3H).

Parameter	Value
Title	QDL-326(2-24).12.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	1005.3
Pulse Sequence	zg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	64
Receiver Gain	67.3
Relaxation Delay	1.0000
Pulse Width	10.2000
Acquisition Date	2019-08-28T19:12:00
Modification Date	2019-08-28T19:19:38
Spectrometer Frequency	300.18
Spectral Width	6103.5
Nucleus	1H
Spectral Size	65536

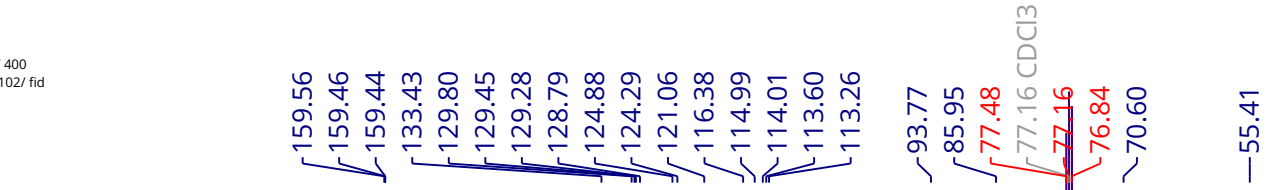


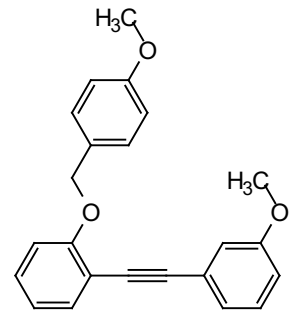
Compound 9d



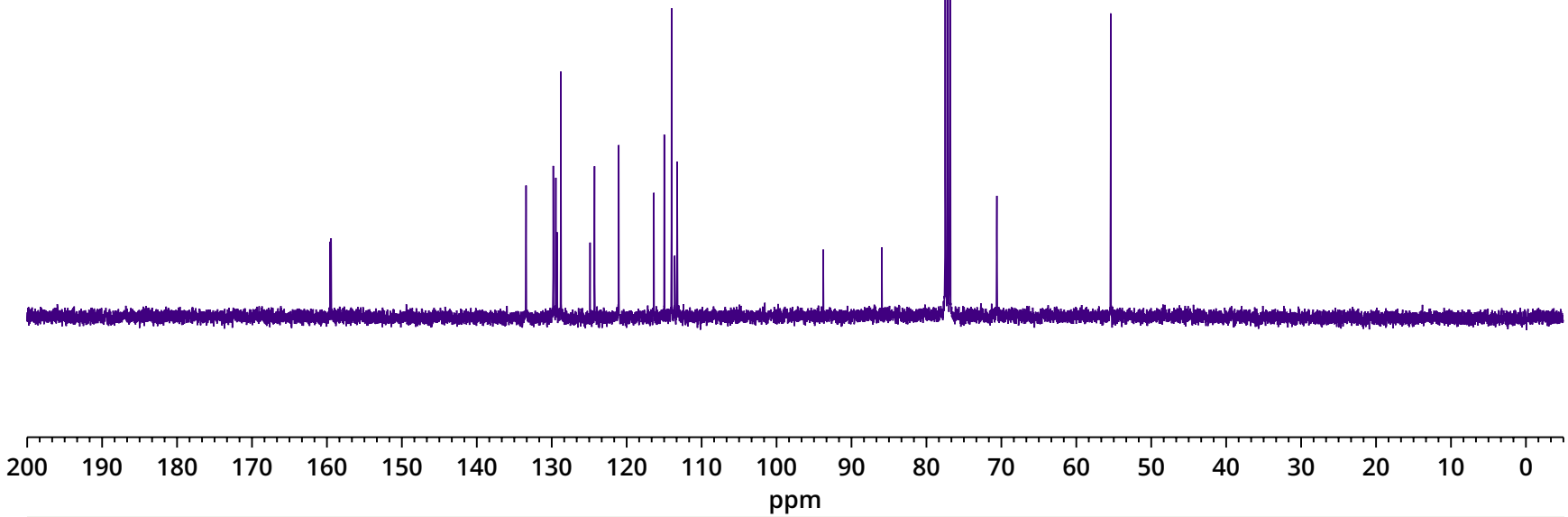
^{1}H NMR (300 MHz, $CDCl_3$) δ 7.51 (dd, J = 7.8, 1.7 Hz, 1H), 7.47 – 7.40 (m, 2H), 7.34 – 7.17 (m, 2H), 7.12 (dt, J = 7.6, 1.3 Hz, 1H), 7.04 (dd, J = 2.7, 1.4 Hz, 1H), 7.01 – 6.83 (m, 5H), 5.13 (s, 2H), 3.82 (s, 3H), 3.80 (s, 3H).

Parameter	Value
Data File Name	/ Volumes/ HMNMR/ 400 NMR FID/ QDL-326/ 102/ fid
Title	102
Comment	
Origin	Varian
Instrument	vnmrs
Solvent	cdcl3
Temperature	25.0
Pulse Sequence	s2pul
Experiment	1D
Probe	MR0905W021_OneNMR
Number of Scans	1024
Receiver Gain	30
Relaxation Delay	1.0000
Pulse Width	6.6500
Acquisition Time	1.3107



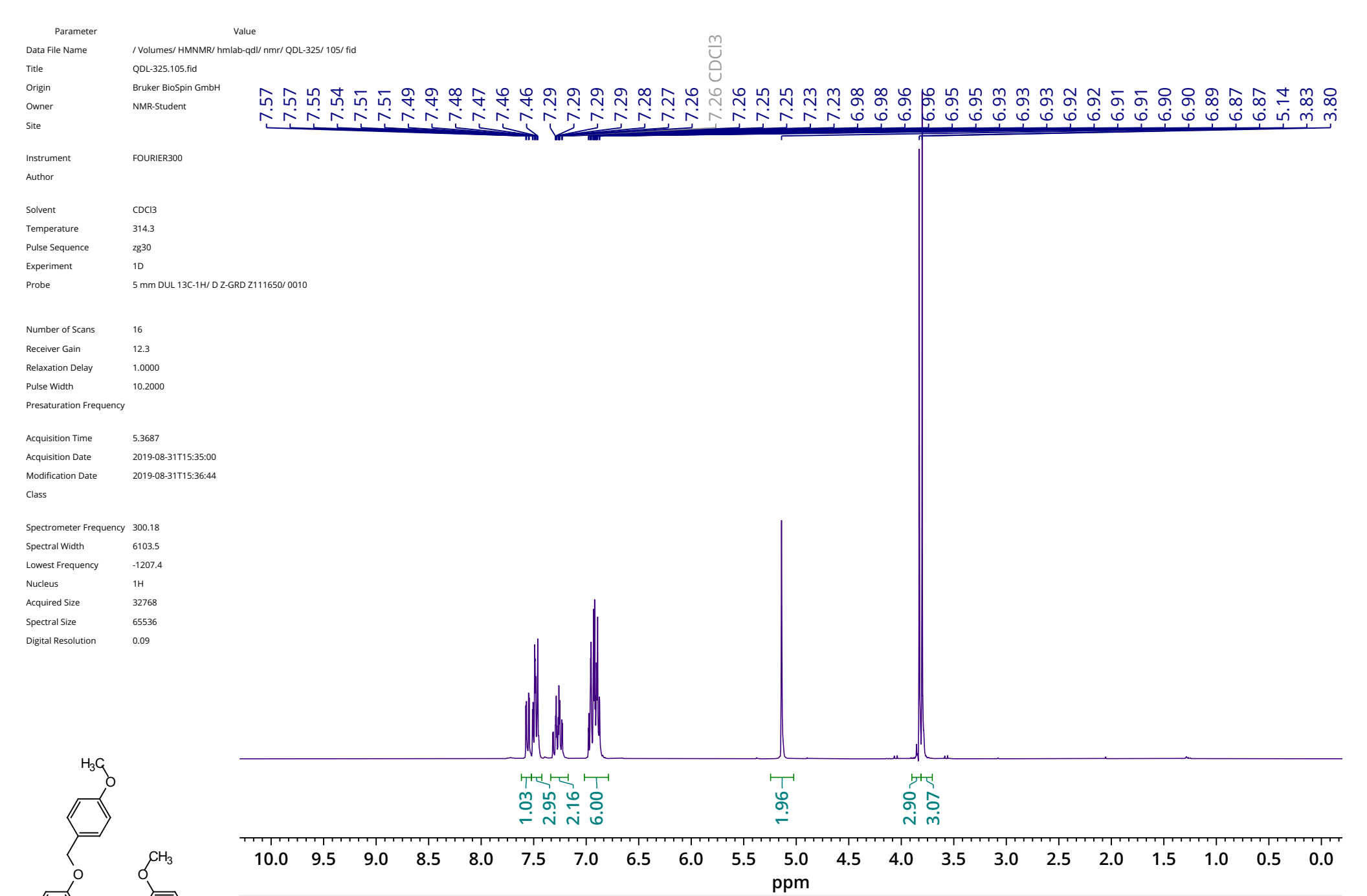


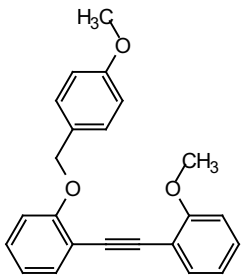
Compound 9d



^{13}C NMR (101 MHz, $CDCl_3$) δ 159.56, 159.46, 159.44, 133.43, 129.80, 129.45, 129.28, 128.79, 124.88, 124.29, 121.06, 116.38, 114.99, 114.01, 113.60, 113.26, 93.77, 85.95, 70.60, 55.41.

Parameter	Value
Data File Name	/ Volumes/ HMNMR/ hmlab-qdl/ nmr/ QDL-325/ 105/ fid
Title	QDL-325.105.fid
Origin	Bruker BioSpin GmbH
Owner	NMR-Student
Site	
Instrument	FOURIER300
Author	
Solvent	CDCl3
Temperature	314.3
Pulse Sequence	zg30
Experiment	1D
Probe	5 mm DUL 13C-1H/ D Z-GRD Z111650/ 0010
Number of Scans	16
Receiver Gain	12.3
Relaxation Delay	1.0000
Pulse Width	10.2000
Presaturation Frequency	
Acquisition Time	5.3687
Acquisition Date	2019-08-31T15:35:00
Modification Date	2019-08-31T15:36:44
Class	
Spectrometer Frequency	300.18
Spectral Width	6103.5
Lowest Frequency	-1207.4
Nucleus	1H
Acquired Size	32768
Spectral Size	65536
Digital Resolution	0.09

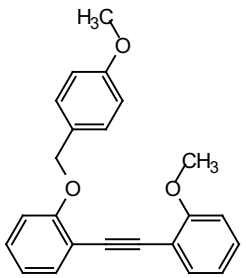




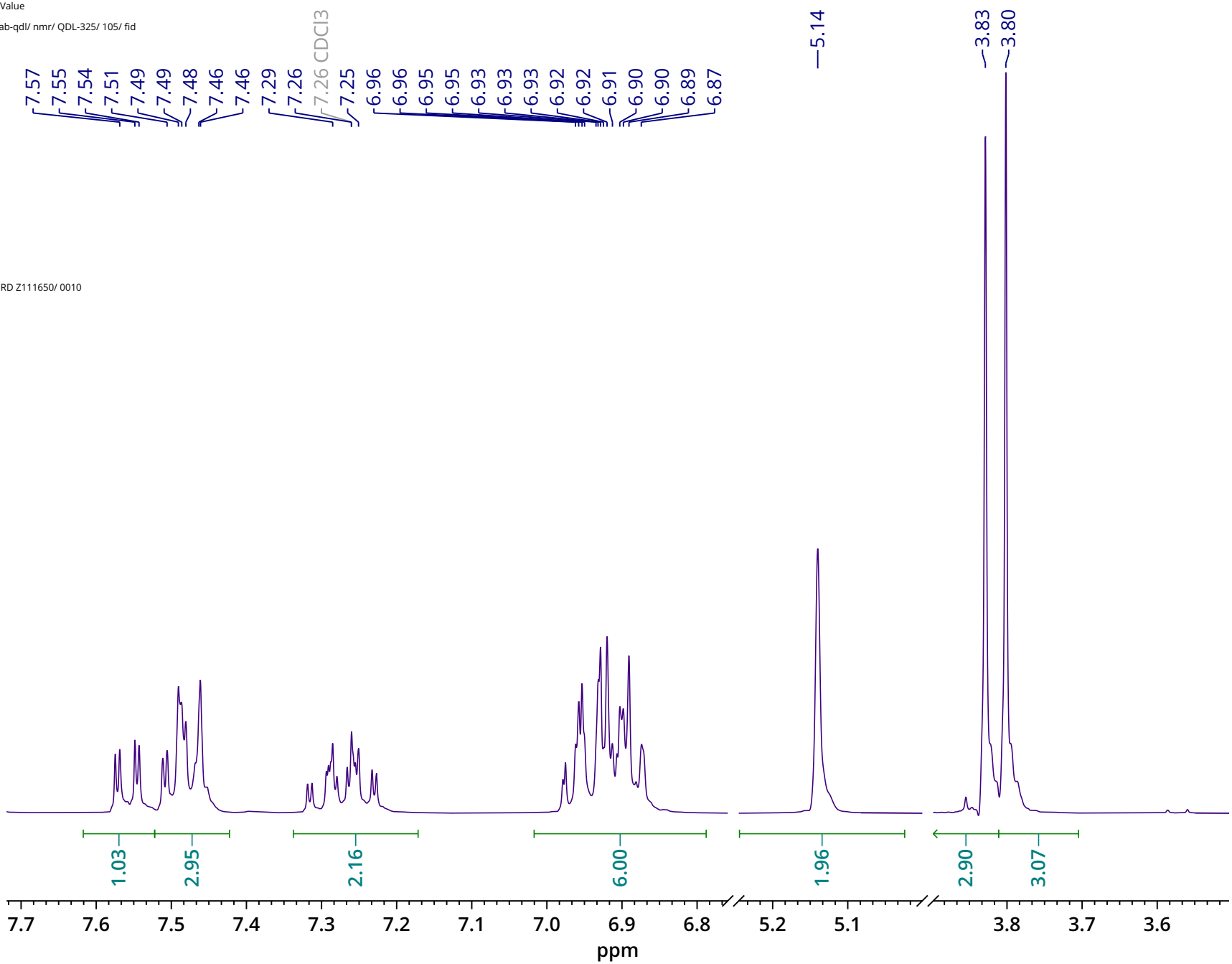
Compound 9e

^{1}H NMR (300 MHz, $CDCl_3$) δ 7.56 (dd, J = 7.8, 1.7 Hz, 1H), 7.52 – 7.42 (m, 3H), 7.35 – 7.19 (m, 2H), 7.01 – 6.81 (m, 6H), 5.14 (s, 2H), 3.83 (s, 3H), 3.80 (s, 3H).

Parameter	Value
Data File Name	/ Volumes/ HMNMR/ hmlab-qdl/ nmr/ QDL-325/ 105/ fid
Title	QDL-325.105.fid
Origin	Bruker BioSpin GmbH
Owner	NMR-Student
Site	
Instrument	FOURIER300
Author	
Solvent	CDCl3
Temperature	314.3
Pulse Sequence	zg30
Experiment	1D
Probe	5 mm DUL 13C-1H/ D Z-GRD Z111650/ 0010
Number of Scans	16
Receiver Gain	12.3
Relaxation Delay	1.0000
Pulse Width	10.2000
Presaturation Frequency	
Acquisition Time	5.3687
Acquisition Date	2019-08-31T15:35:00
Modification Date	2019-08-31T15:36:44
Class	
Spectrometer Frequency	300.18
Spectral Width	6103.5
Lowest Frequency	-1207.4
Nucleus	1H
Acquired Size	32768
Spectral Size	65536
Digital Resolution	0.09

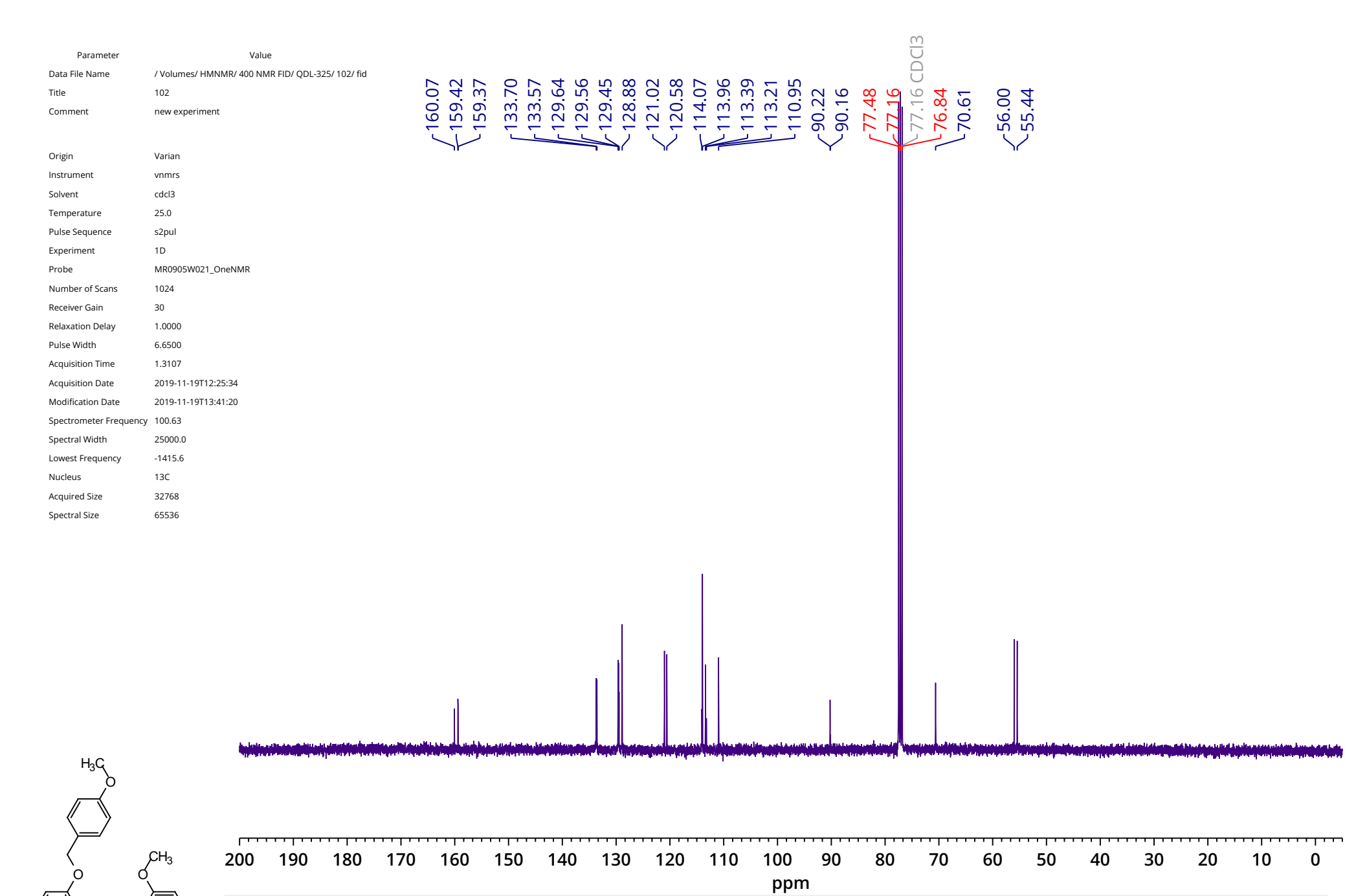


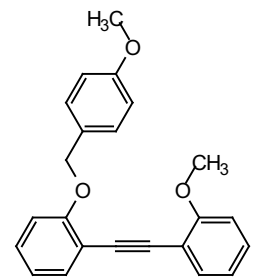
Compound 9e



^{1}H NMR (300 MHz, $CDCl_3$) δ 7.56 (dd, J = 7.8, 1.7 Hz, 1H), 7.52 – 7.42 (m, 3H), 7.35 – 7.19 (m, 2H), 7.01 – 6.81 (m, 6H), 5.14 (s, 2H), 3.83 (s, 3H), 3.80 (s, 3H).

Parameter	Value
Data File Name	/ Volumes/ HMNMR/ 400 NMR FID/ QDL-325/ 102/ fid
Title	102
Comment	new experiment
Origin	Varian
Instrument	vnmrs
Solvent	cdcl3
Temperature	25.0
Pulse Sequence	s2pul
Experiment	1D
Probe	MR0905W021_OneNMR
Number of Scans	1024
Receiver Gain	30
Relaxation Delay	1.0000
Pulse Width	6.6500
Acquisition Time	1.3107
Acquisition Date	2019-11-19T12:25:34
Modification Date	2019-11-19T13:41:20
Spectrometer Frequency	100.63
Spectral Width	25000.0
Lowest Frequency	-1415.6
Nucleus	13C
Acquired Size	32768
Spectral Size	65536

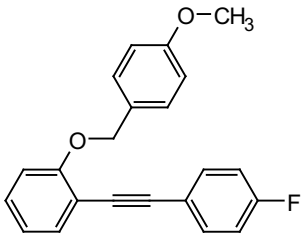




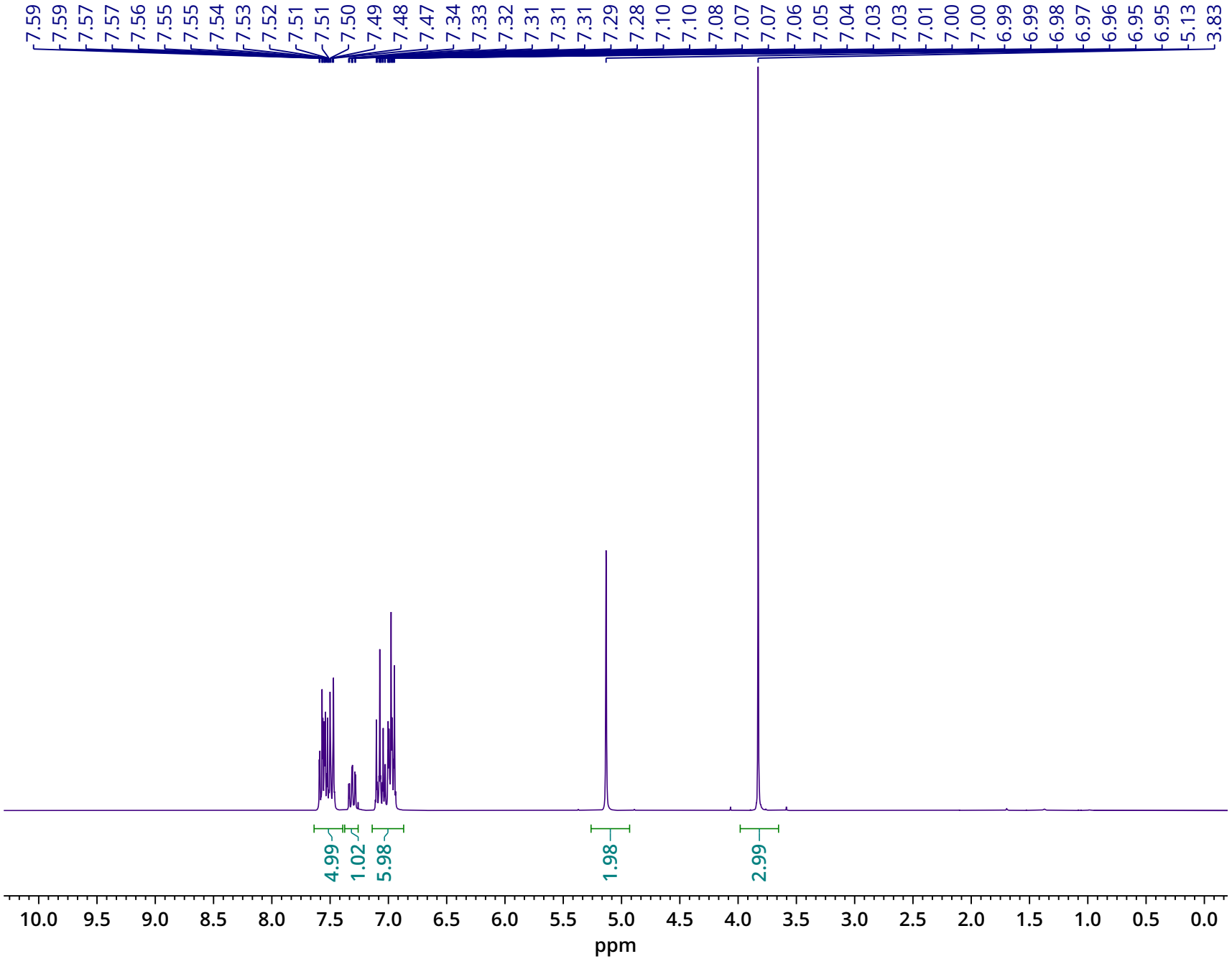
Compound 9e

^{13}C NMR (100 MHz, $CDCl_3$) δ 160.07, 159.42, 159.37, 133.70, 133.57, 129.64, 129.56, 129.45, 128.88, 121.02, 120.58, 114.07, 113.96, 113.39, 113.21, 110.95, 90.22, 90.16, 70.61, 56.00, 55.44.

Parameter	Value
Title	CCD-130.11.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	297.2
Pulse Sequence	zg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	64
Receiver Gain	5.0
Relaxation Delay	1.0000
Pulse Width	10.2000
Acquisition Date	2019-03-16T13:58:00
Modification Date	2019-03-16T14:05:38
Spectrometer Frequency	300.18
Spectral Width	6103.5
Nucleus	1H
Spectral Size	65536

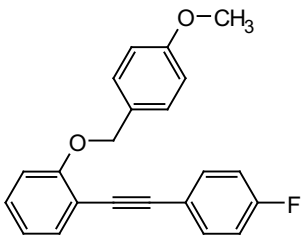


Compound 9f

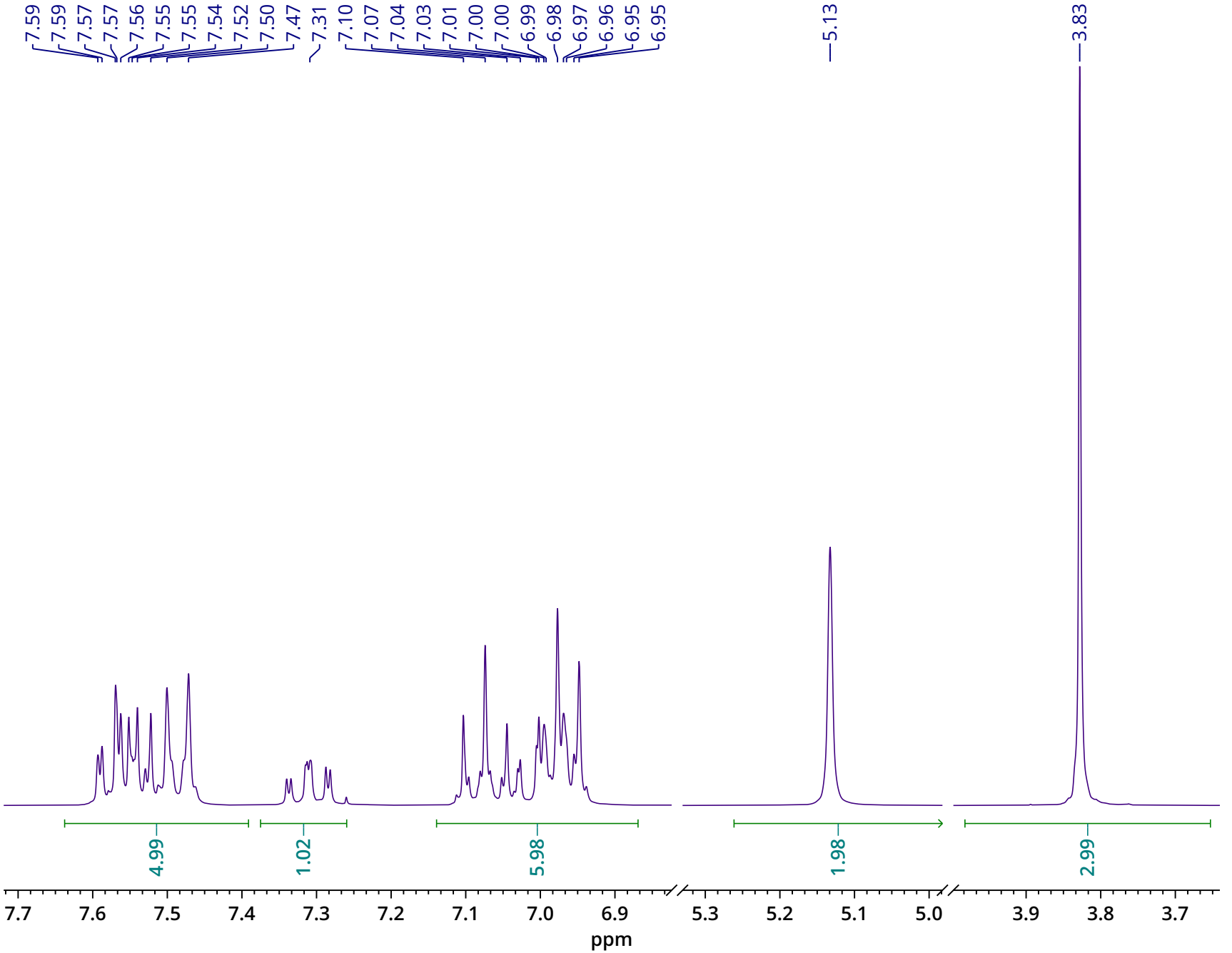


^{1}H NMR (300 MHz, $CDCl_3$) δ 7.64 – 7.44 (m, 5H), 7.31 (ddd, J = 8.2, 7.5, 1.7 Hz, 1H), 7.13 – 7.01 (m, 2H), 7.01 – 6.85 (m, 4H), 5.13 (s, 2H), 3.83 (s, 3H).

Parameter	Value
Title	CCD-130.11.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	297.2
Pulse Sequence	zg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	64
Receiver Gain	5.0
Relaxation Delay	1.0000
Pulse Width	10.2000
Acquisition Date	2019-03-16T13:58:00
Modification Date	2019-03-16T14:05:38
Spectrometer Frequency	300.18
Spectral Width	6103.5
Nucleus	1H
Spectral Size	65536

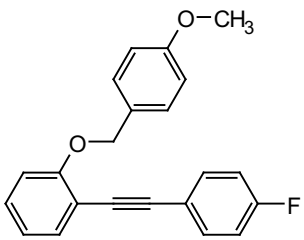


Compound 9f

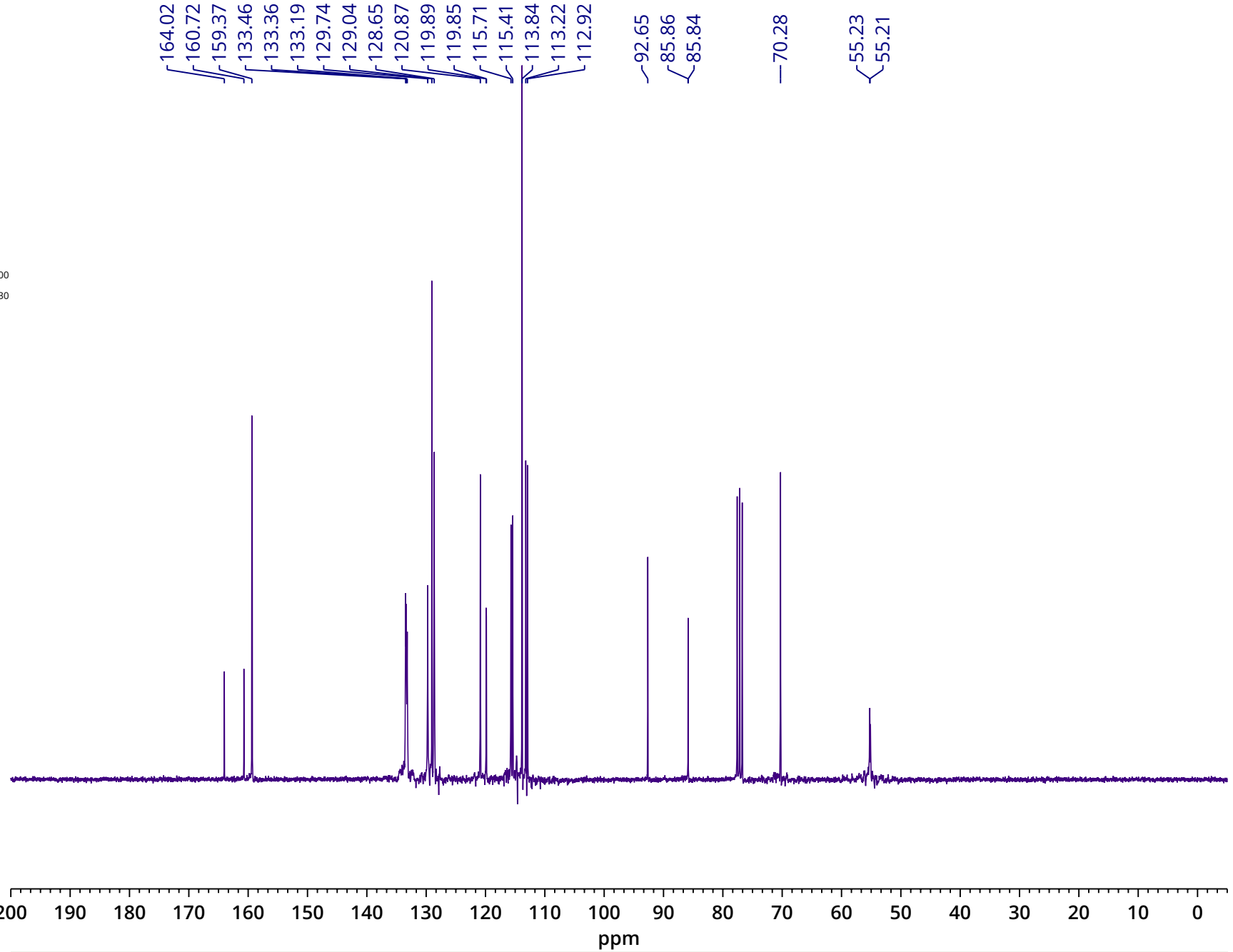


^{1}H NMR (300 MHz, $CDCl_3$) δ 7.64 – 7.44 (m, 5H), 7.31 (ddd, J = 8.2, 7.5, 1.7 Hz, 1H), 7.13 – 7.01 (m, 2H), 7.01 – 6.85 (m, 4H), 5.13 (s, 2H), 3.83 (s, 3H).

Parameter	Value
Title	CCD-130.111.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	297.3
Pulse Sequence	zgpg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	1024
Receiver Gain	501.2
Relaxation Delay	2.0000
Pulse Width	11.0000
Acquisition Date	2019-03-16T14:26:00
Modification Date	2019-03-16T15:24:30
Spectrometer Frequency	75.49
Spectral Width	24414.1
Nucleus	13C
Spectral Size	65536

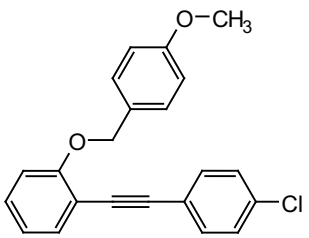


Compound 9f

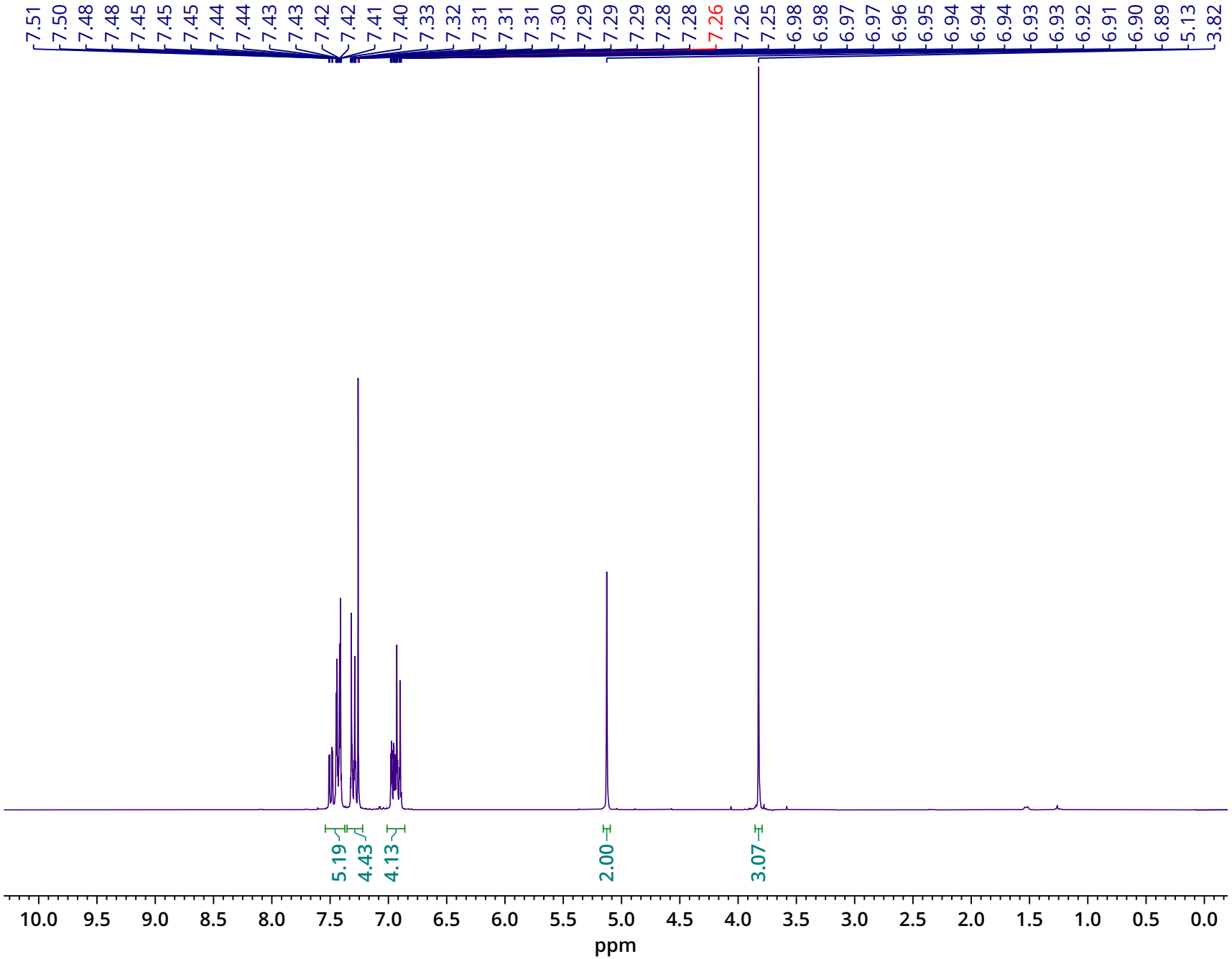


^{13}C NMR (75 MHz, $CDCl_3$) δ 162.37 (d, J = 249.2 Hz), 159.37, 133.46, 133.36, 133.19, 129.74, 129.04, 128.65, 120.87, 119.87 (d, J = 3.4 Hz), 115.56 (d, J = 22.0 Hz), 113.84, 113.07 (d, J = 22.3 Hz), 92.65, 85.85 (d, J = 1.5 Hz), 70.28, 55.23.

Parameter	Value
Title	CCD-125.13.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	298.5
Pulse Sequence	zg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	16
Receiver Gain	62.8
Relaxation Delay	1.0000
Pulse Width	10.2000
Acquisition Date	2019-03-19T14:37:00
Modification Date	2019-03-19T14:39:06
Spectrometer Frequency	300.18
Spectral Width	6103.5
Nucleus	1H
Spectral Size	65536

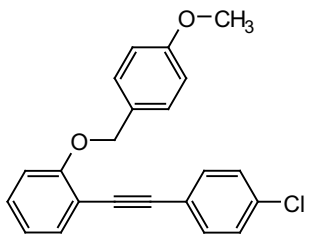


Compound 9g

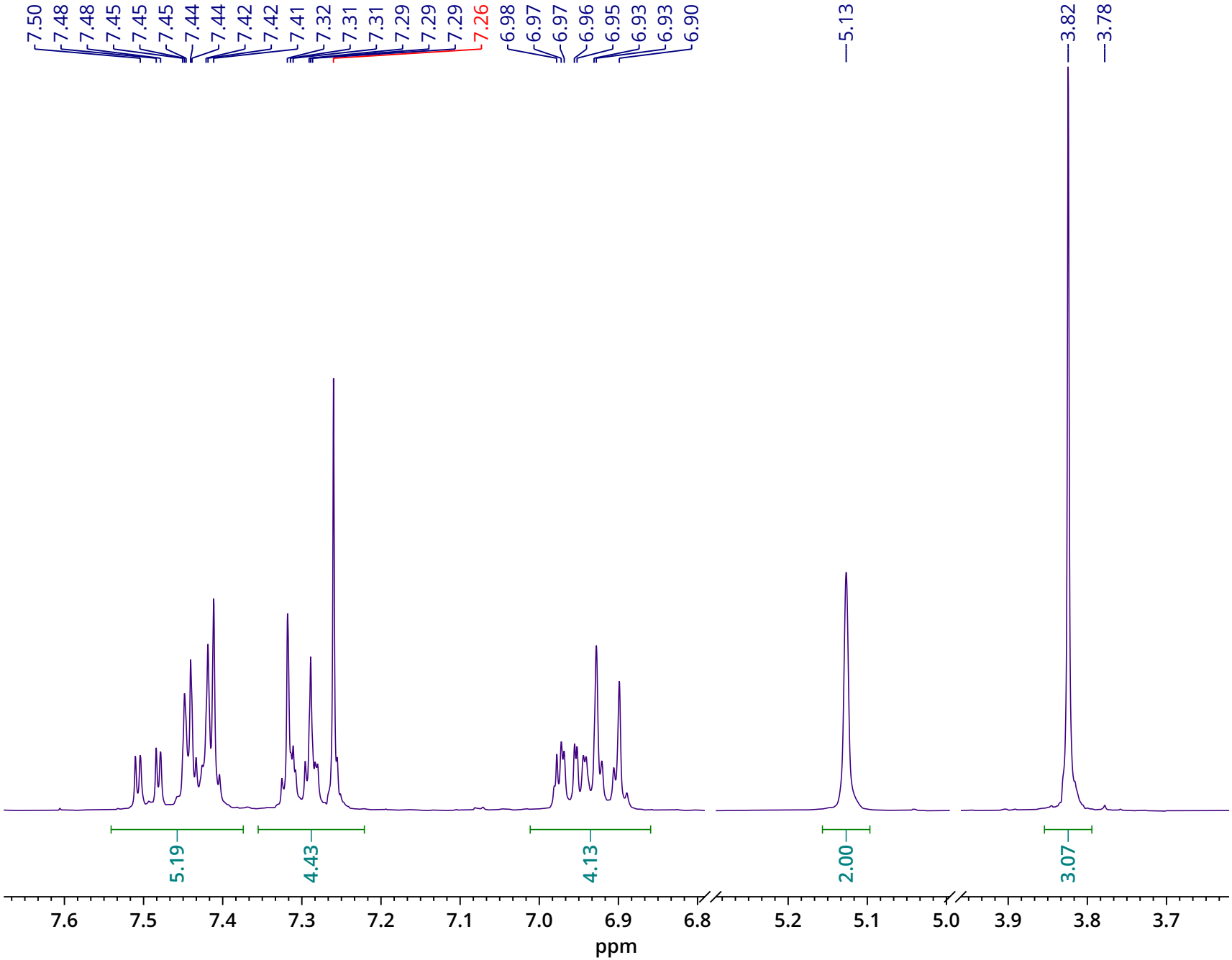


^{1}H NMR (300 MHz, $CDCl_3$) δ 7.49 (dd, J = 7.8, 1.7 Hz, 1H), 7.49 – 7.37 (m, 4H), 7.36 – 7.22 (m, 3H), 7.01 – 6.86 (m, 4H), 5.13 (s, 2H), 3.82 (s, 3H).

Parameter	Value
Title	CCD-125.13.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	298.5
Pulse Sequence	zg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	16
Receiver Gain	62.8
Relaxation Delay	1.0000
Pulse Width	10.2000
Acquisition Date	2019-03-19T14:37:00
Modification Date	2019-03-19T14:39:06
Spectrometer Frequency	300.18
Spectral Width	6103.5
Nucleus	1H
Spectral Size	65536

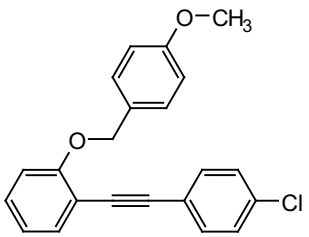


Compound 9g

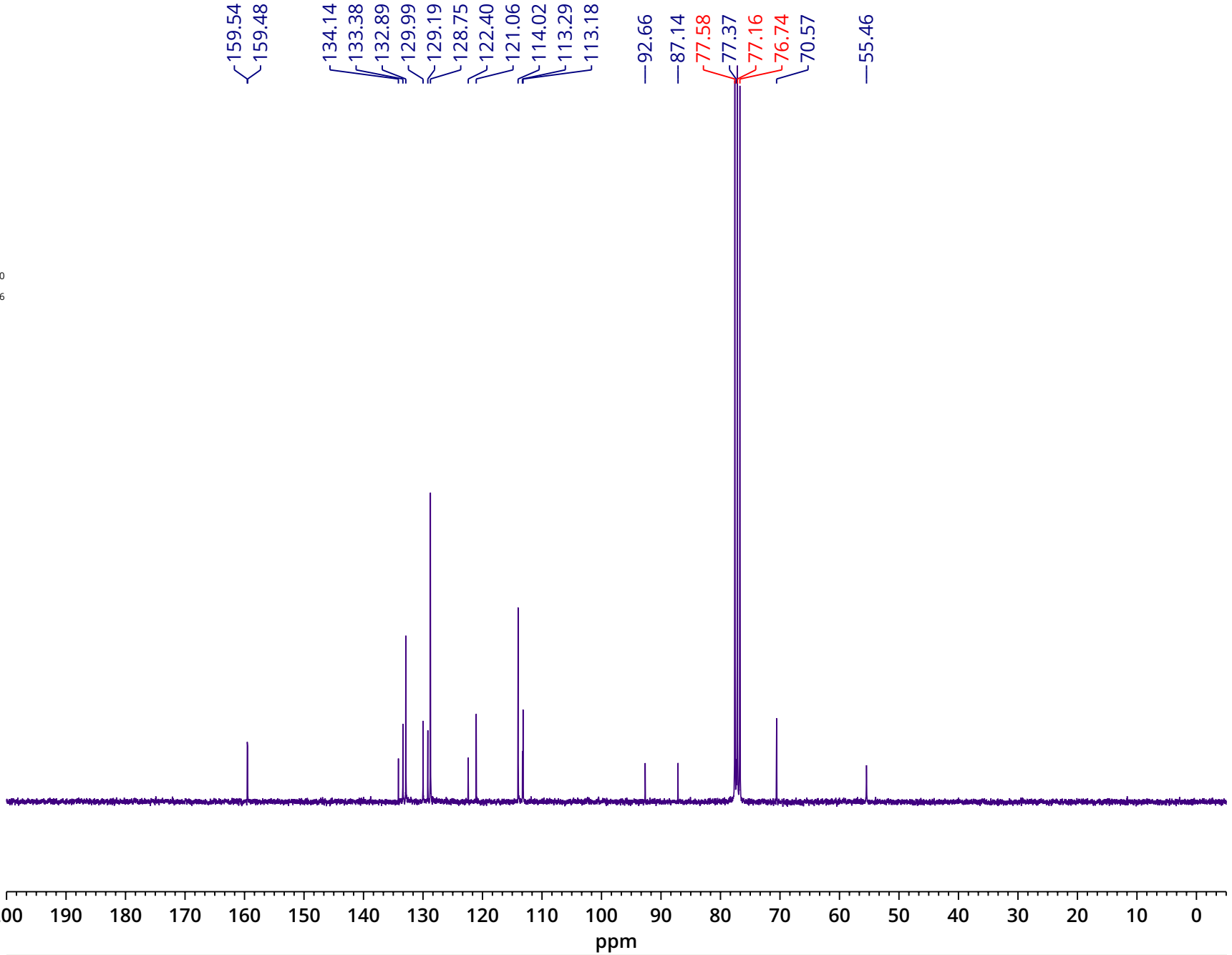


^{1}H NMR (300 MHz, $CDCl_3$) δ 7.49 (dd, J = 7.8, 1.7 Hz, 1H), 7.49 – 7.37 (m, 4H), 7.36 – 7.22 (m, 3H), 7.01 – 6.86 (m, 4H), 5.13 (s, 2H), 3.82 (s, 3H).

Parameter	Value
Title	CCD-125.111.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	298.6
Pulse Sequence	zgpg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	4096
Receiver Gain	501.2
Relaxation Delay	2.0000
Pulse Width	11.0000
Acquisition Date	2019-03-19T18:04:00
Modification Date	2019-03-19T21:55:06
Spectrometer Frequency	75.49
Spectral Width	24414.1
Nucleus	13C
Spectral Size	65536

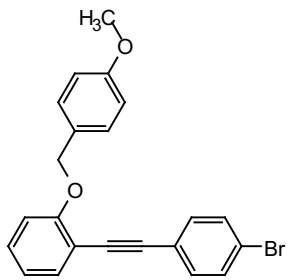


Compound 9g

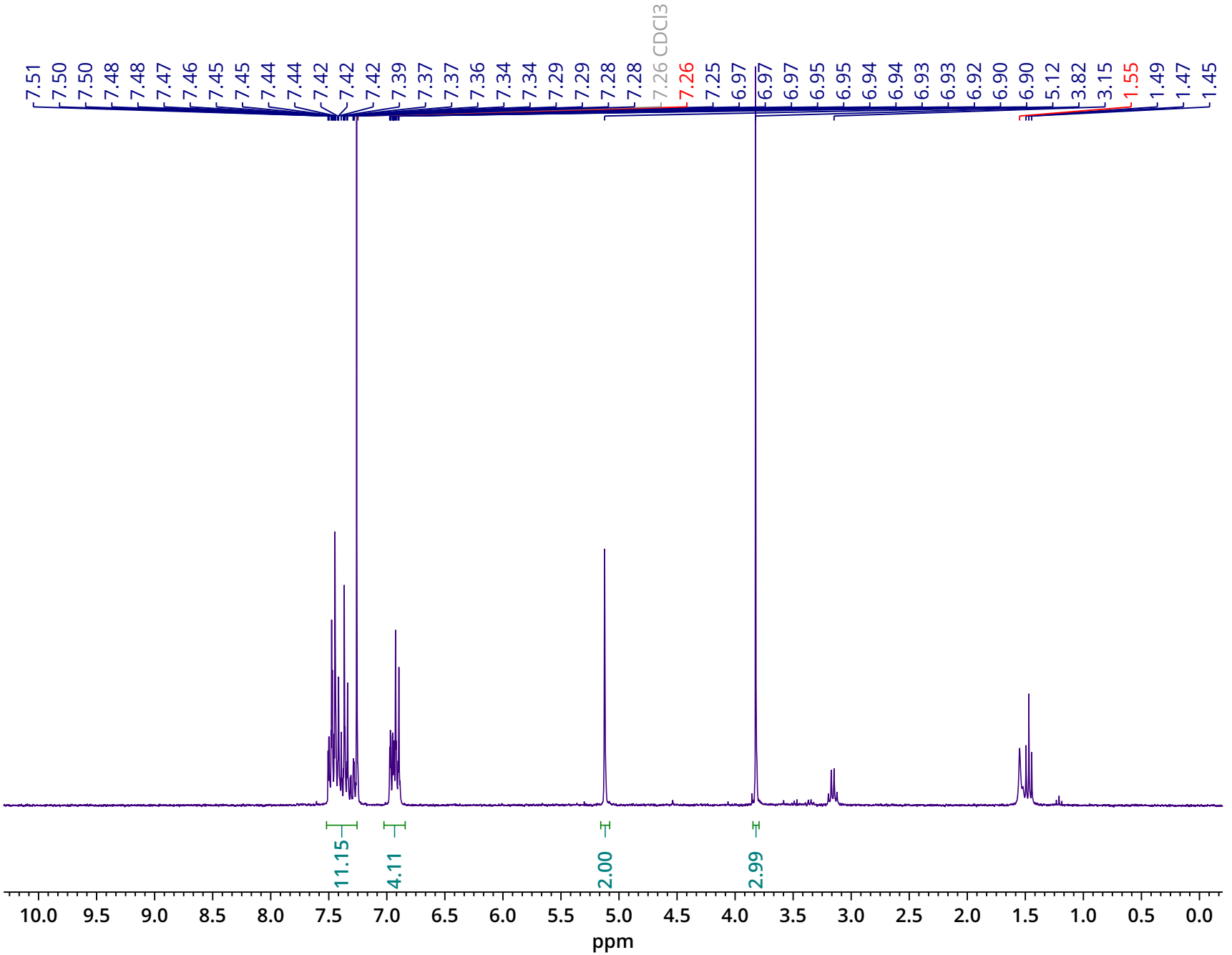


^{13}C NMR (75 MHz, $CDCl_3$) δ 159.54, 159.48, 134.14, 133.38, 132.89, 129.99, 129.19, 128.75, 122.40, 121.06, 114.02, 113.29, 113.18, 92.66, 87.14, 70.57, 55.46.

Parameter	Value
Title	KNB-037.1.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	1032.2
Pulse Sequence	zg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	16
Receiver Gain	119.5
Relaxation Delay	1.0000
Pulse Width	11.7500
Acquisition Date	2019-11-20T10:27:00
Modification Date	2019-11-20T10:29:20
Spectrometer Frequency	300.18
Spectral Width	6103.5
Nucleus	1H
Spectral Size	65536

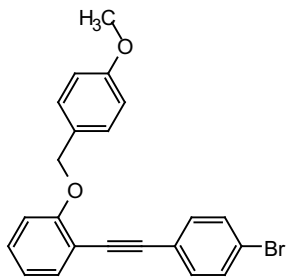


Compound 9h

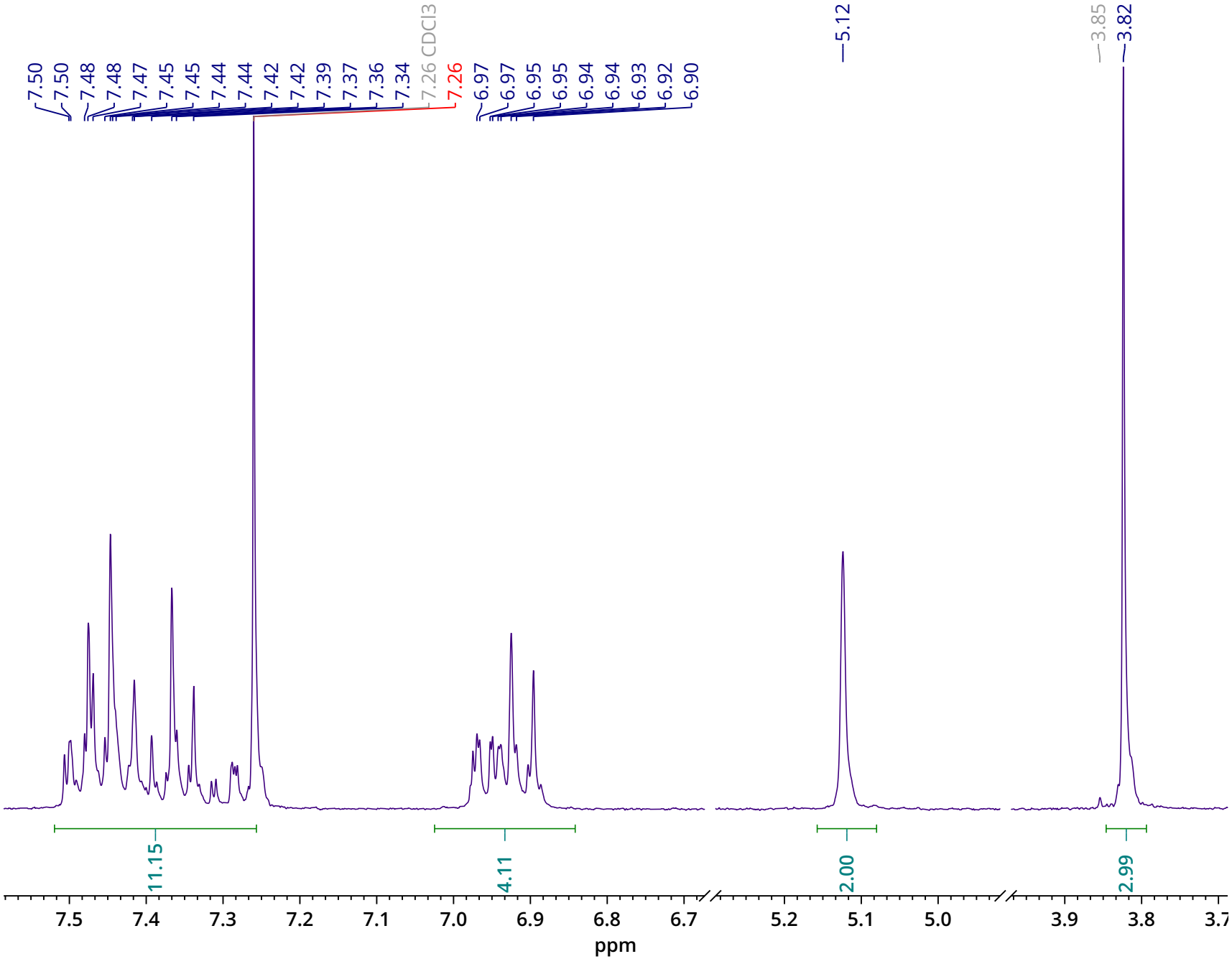


^{1}H NMR (300 MHz, $CDCl_3$) δ 7.54 – 7.26 (m, 8H), 7.01 – 6.86 (m, 4H), 5.12 (s, 2H), 3.82 (s, 3H).

Parameter	Value
Title	KNB-037.1.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	1032.2
Pulse Sequence	zg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	16
Receiver Gain	119.5
Relaxation Delay	1.0000
Pulse Width	11.7500
Acquisition Date	2019-11-20T10:27:00
Modification Date	2019-11-20T10:29:20
Spectrometer Frequency	300.18
Spectral Width	6103.5
Nucleus	1H
Spectral Size	65536

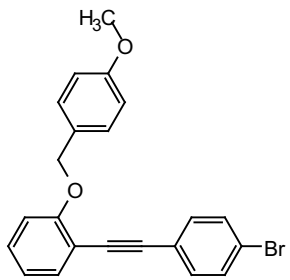


Compound 9h

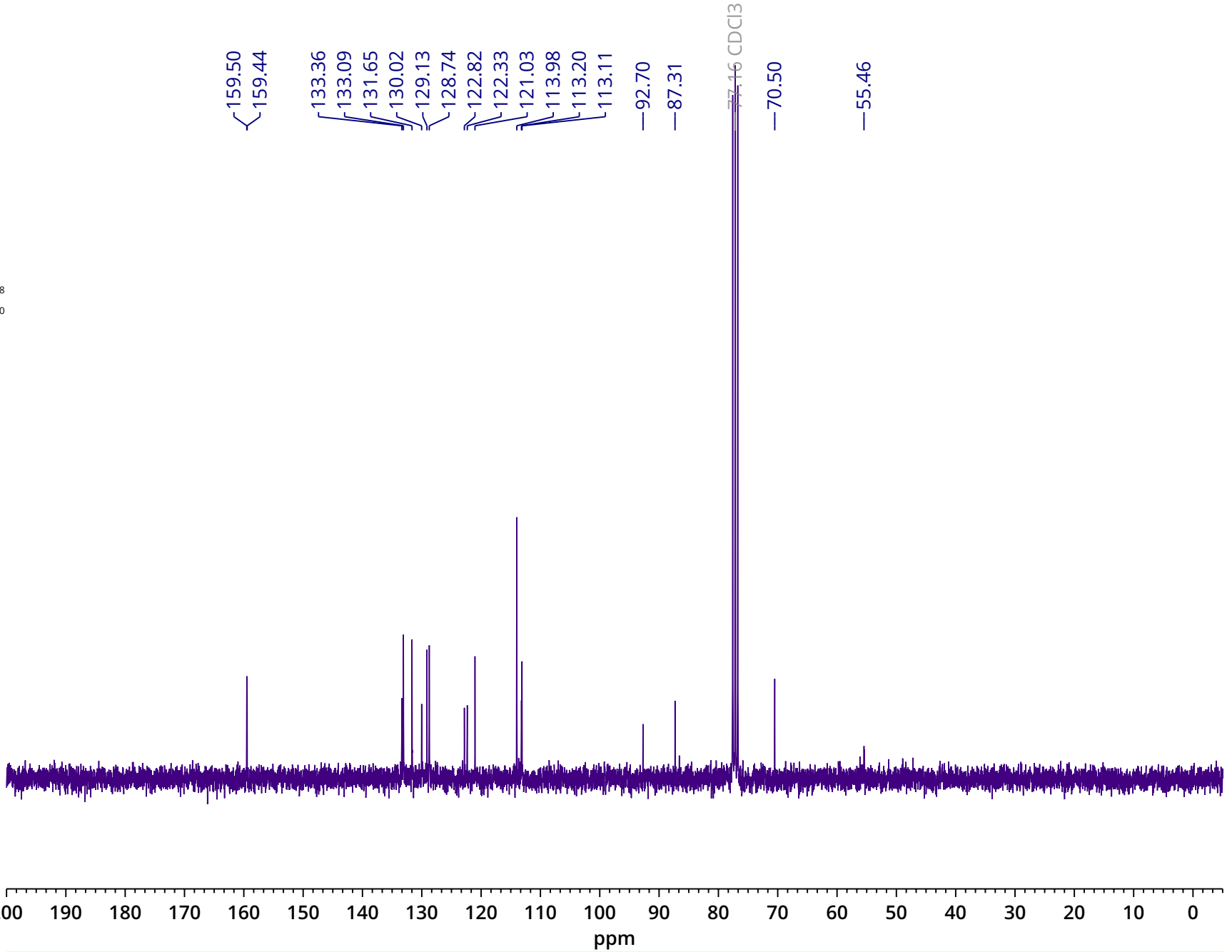


^{1}H NMR (300 MHz, $CDCl_3$) δ 7.54 – 7.26 (m, 8H), 7.01 – 6.86 (m, 4H), 5.12 (s, 2H), 3.82 (s, 3H).

Parameter	Value
Title	KNB-037.102.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	1030.5
Pulse Sequence	zgpg30
Experiment	1D
Probe	
Number of Scans	276
Receiver Gain	501.2
Relaxation Delay	2.0000
Pulse Width	10.7500
Acquisition Date	2020-01-03T12:29:38
Modification Date	2020-01-03T12:45:10
Spectrometer Frequency	75.49
Spectral Width	24414.1
Nucleus	13C

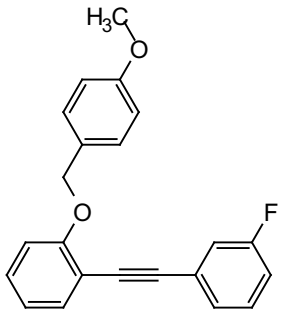


Compound 9h

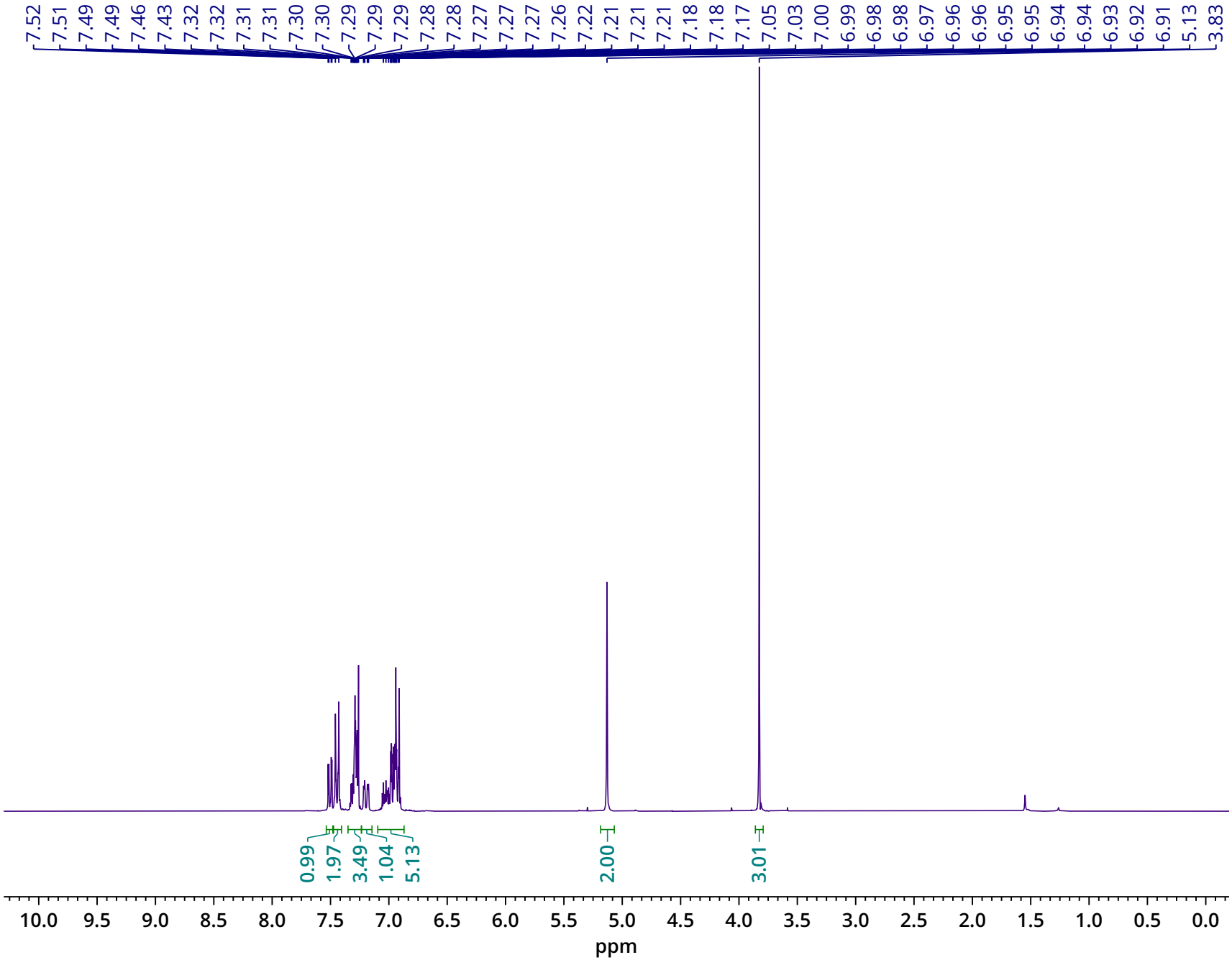


^{13}C NMR (75 MHz, $CDCl_3$) δ 159.50, 159.44, 133.36, 133.09, 131.65, 130.02, 129.13, 128.74, 122.82, 122.33, 121.03, 113.98, 113.20, 113.11, 92.70, 87.31, 70.50, 55.46.

Parameter	Value
Title	CCD-161.101.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	357.2
Pulse Sequence	zg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	16
Receiver Gain	54.5
Relaxation Delay	1.0000
Pulse Width	11.7500
Acquisition Date	2019-09-06T11:52:00
Modification Date	2019-09-06T12:54:34
Spectrometer Frequency	300.18
Spectral Width	6103.5
Nucleus	1H
Spectral Size	65536

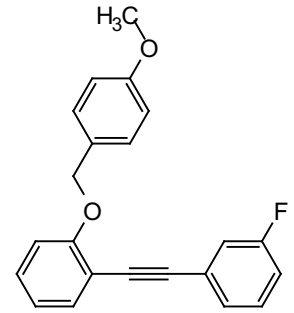


Compound 9i

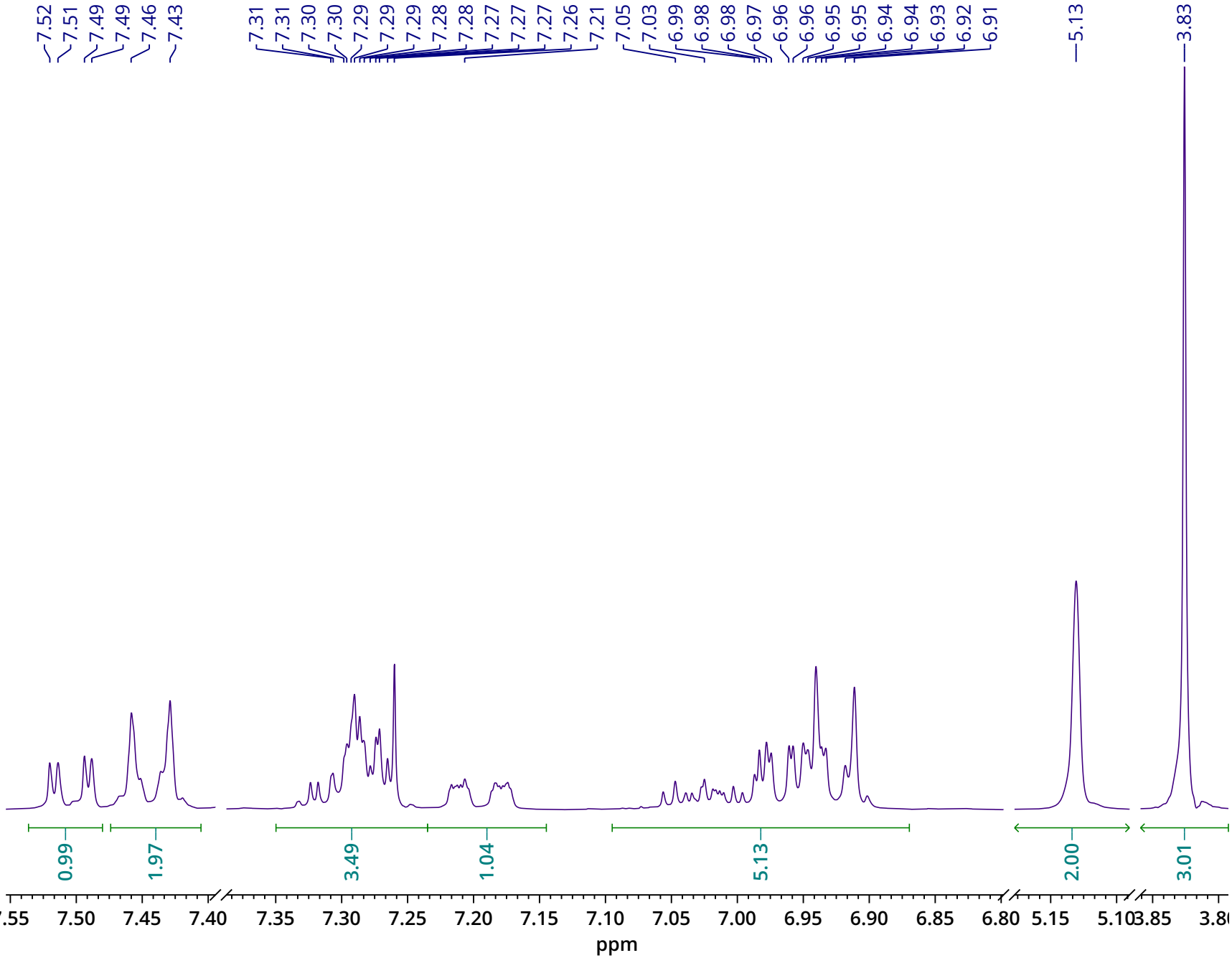


^{1}H NMR (300 MHz, $CDCl_3$) δ 7.50 (dd, J = 7.8, 1.8 Hz, 1H), 7.44 (d, J = 8.9 Hz, 2H), 7.34 – 7.24 (m, 3H), 7.19 (ddt, J = 9.7, 2.9, 0.8 Hz, 1H), 7.11 – 6.87 (m, 5H), 5.13 (s, 2H), 3.83 (s, 3H).

Parameter	Value
Title	CCD-161.101.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	357.2
Pulse Sequence	zg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	16
Receiver Gain	54.5
Relaxation Delay	1.0000
Pulse Width	11.7500
Acquisition Date	2019-09-06T11:52:00
Modification Date	2019-09-06T12:54:34
Spectrometer Frequency	300.18
Spectral Width	6103.5
Nucleus	1H
Spectral Size	65536

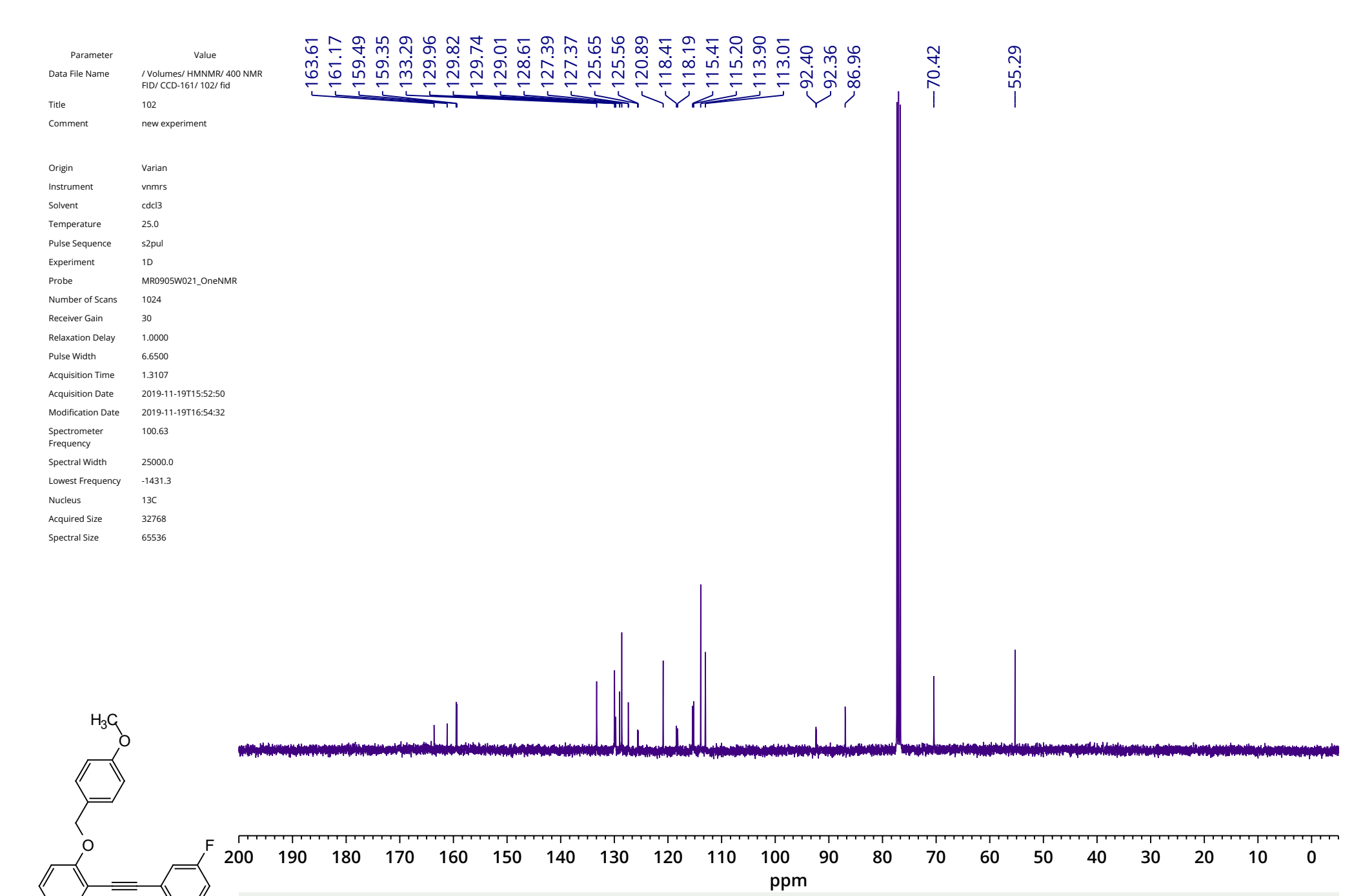


Compound 9i



^{1}H NMR (300 MHz, $CDCl_3$) δ 7.50 (dd, *J* = 7.8, 1.8 Hz, 1H), 7.44 (d, *J* = 8.9 Hz, 2H), 7.34 – 7.24 (m, 3H), 7.19 (ddt, *J* = 9.7, 2.9, 0.8 Hz, 1H), 7.11 – 6.87 (m, 5H), 5.13 (s, 2H), 3.83 (s, 3H).

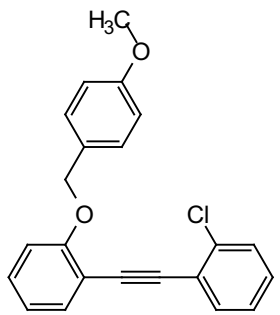
Parameter	Value
Data File Name	/ Volumes/ HMNMR/ 400 NMR FID/ CCD-161/ 102/ fid
Title	102
Comment	new experiment
Origin	Varian
Instrument	vnmrs
Solvent	cdcl3
Temperature	25.0
Pulse Sequence	s2pul
Experiment	1D
Probe	MR0905W021_OneNMR
Number of Scans	1024
Receiver Gain	30
Relaxation Delay	1.0000
Pulse Width	6.6500
Acquisition Time	1.3107
Acquisition Date	2019-11-19T15:52:50
Modification Date	2019-11-19T16:54:32
Spectrometer Frequency	100.63
Spectral Width	25000.0
Lowest Frequency	-1431.3
Nucleus	13C
Acquired Size	32768
Spectral Size	65536



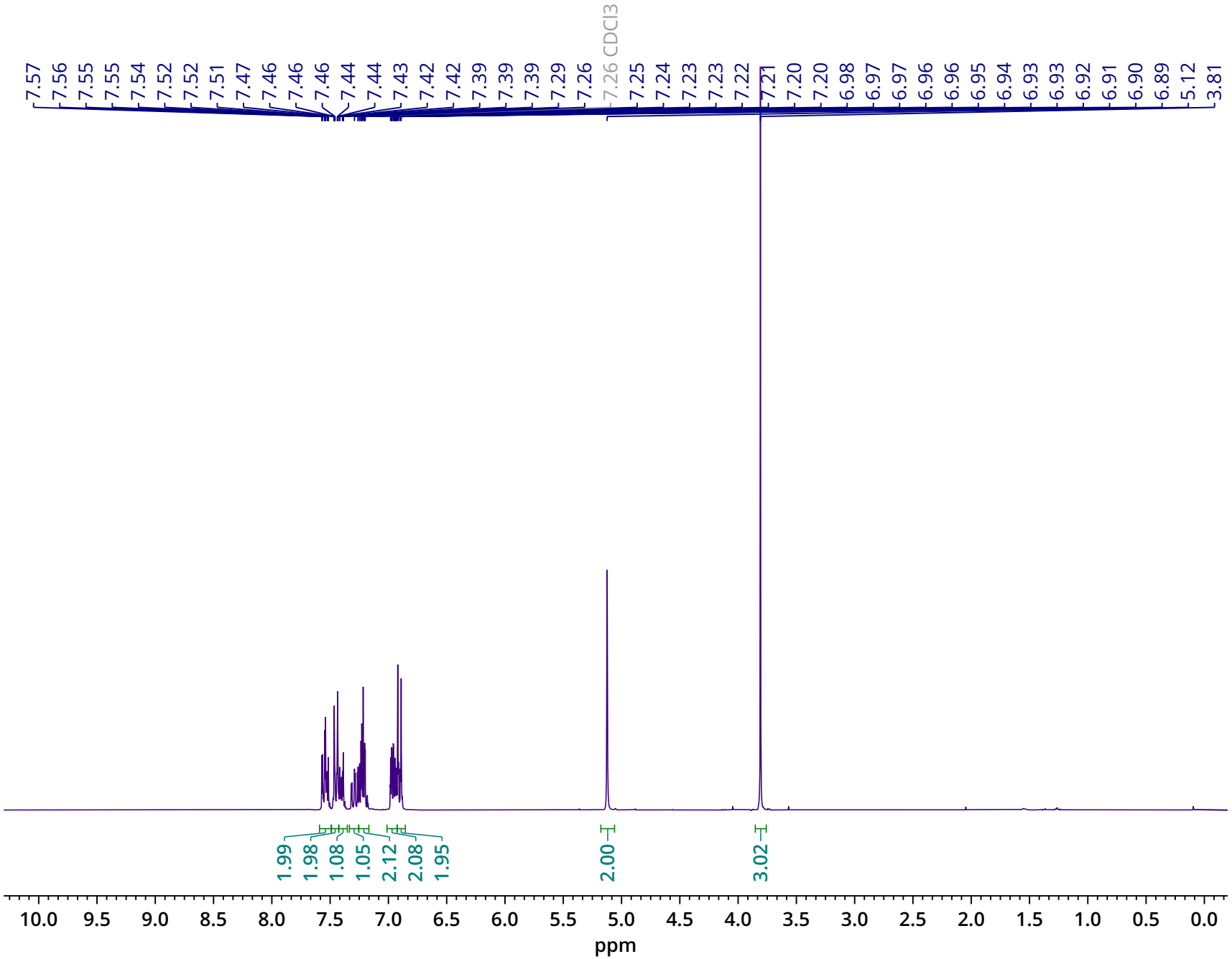
Compound 9i

^{13}C NMR (100 MHz, $CDCl_3$) δ 162.39 (d, J = 246.1 Hz), 159.42 (d, J = 13.7 Hz), 133.29, 129.96, 129.78 (d, J = 8.8 Hz), 129.01, 128.61, 127.38 (d, J = 2.6 Hz), 125.60 (d, J = 9.4 Hz), 120.89, 118.41, 118.19, 115.30 (d, J = 21.4 Hz), 113.90, 113.01, 92.38 (d, J = 3.6 Hz), 86.96, 70.42, 55.29.

Parameter	Value
Title	QDL-296.103.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	297.9
Pulse Sequence	zg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	16
Receiver Gain	19.7
Relaxation Delay	1.0000
Pulse Width	10.2000
Acquisition Date	2019-03-15T16:24:00
Modification Date	2019-03-15T17:26:24
Spectrometer Frequency	300.18
Spectral Width	6103.5
Nucleus	1H
Spectral Size	65536

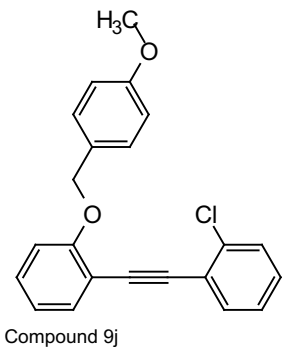


Compound 9j

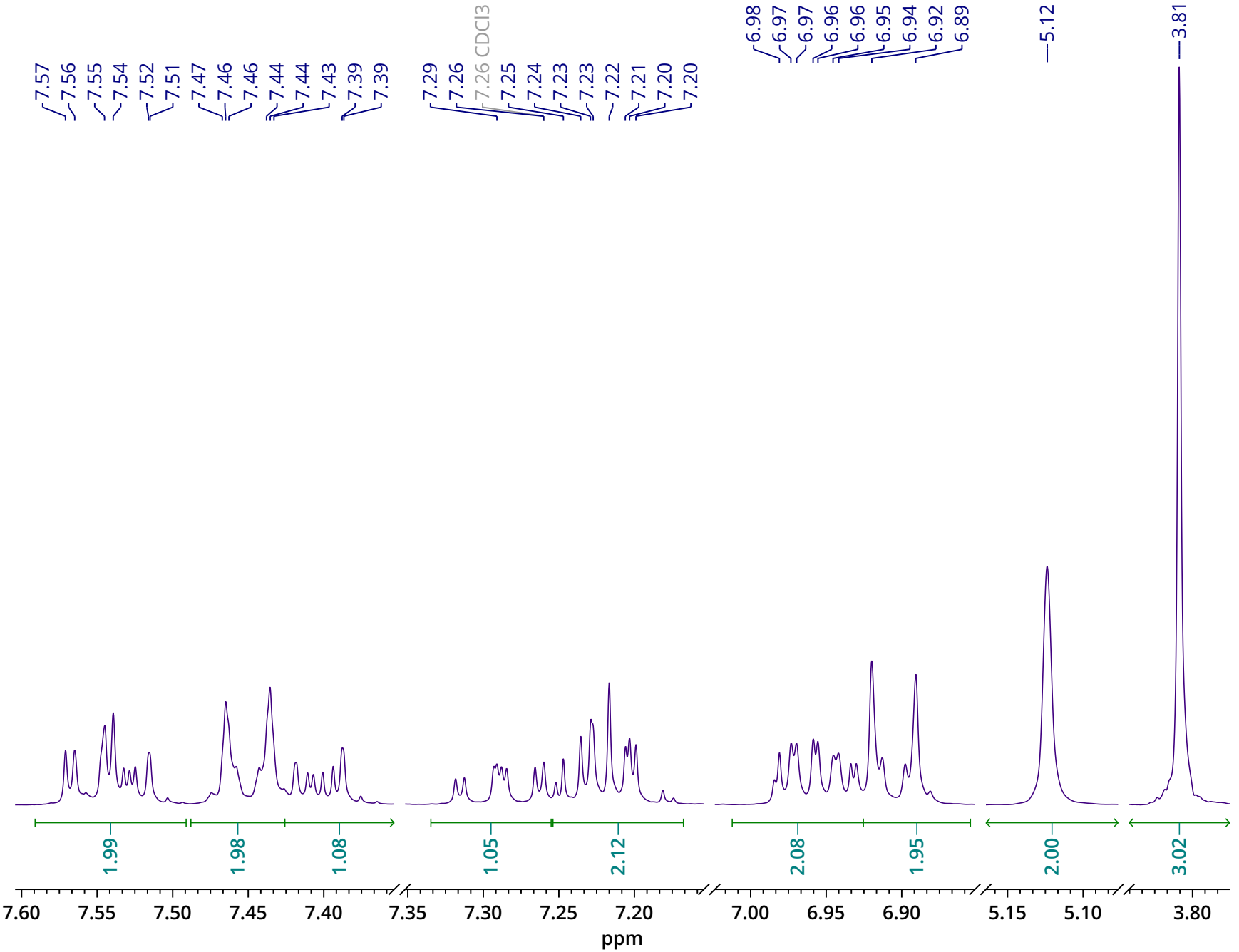


^{1}H NMR (300 MHz, $CDCl_3$) δ 7.59 – 7.50 (m, 2H), 7.48 – 7.42 (m, 2H), 7.43 – 7.37 (m, 1H), 7.29 (ddd, J = 8.4, 7.5, 1.7 Hz, 1H), 7.25 – 7.17 (m, 2H), 7.01 – 6.93 (m, 2H), 6.93 – 6.85 (m, 2H), 5.12 (s, 2H), 3.81 (s, 3H).

Parameter	Value
Title	QDL-296.103.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	297.9
Pulse Sequence	zg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	16
Receiver Gain	19.7
Relaxation Delay	1.0000
Pulse Width	10.2000
Acquisition Date	2019-03-15T16:24:00
Modification Date	2019-03-15T17:26:24
Spectrometer Frequency	300.18
Spectral Width	6103.5
Nucleus	1H
Spectral Size	65536

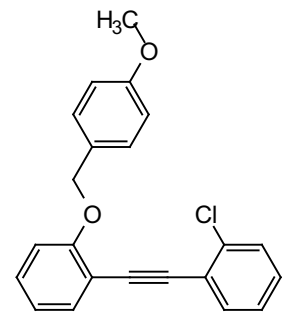


Compound 9j

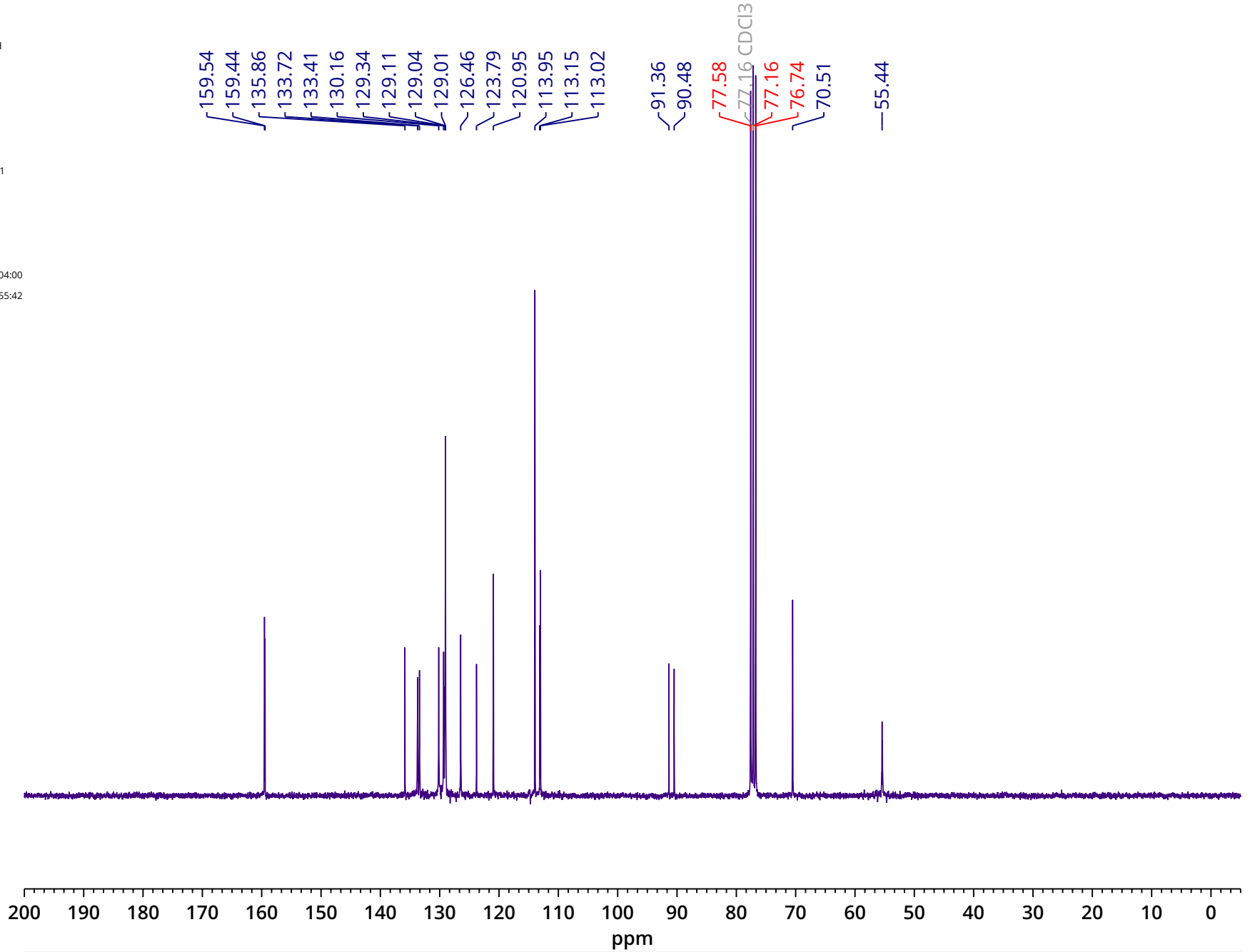


^{1}H NMR (300 MHz, $CDCl_3$) δ 7.59 – 7.50 (m, 2H), 7.48 – 7.42 (m, 2H), 7.43 – 7.37 (m, 1H), 7.29 (ddd, J = 8.4, 7.5, 1.7 Hz, 1H), 7.25 – 7.17 (m, 2H), 7.01 – 6.93 (m, 2H), 6.93 – 6.85 (m, 2H), 5.12 (s, 2H), 3.81 (s, 3H).

Parameter	Value
Title	QDL-296.105.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	297.9
Pulse Sequence	zgpg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	4096
Receiver Gain	501.2
Relaxation Delay	2.0000
Pulse Width	11.0000
Acquisition Date	2019-03-15T18:04:00
Modification Date	2019-03-15T22:55:42
Spectrometer Frequency	75.49
Spectral Width	24414.1
Nucleus	13C
Spectral Size	65536

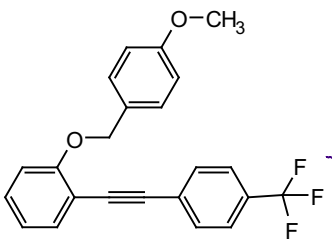


Compound 9j

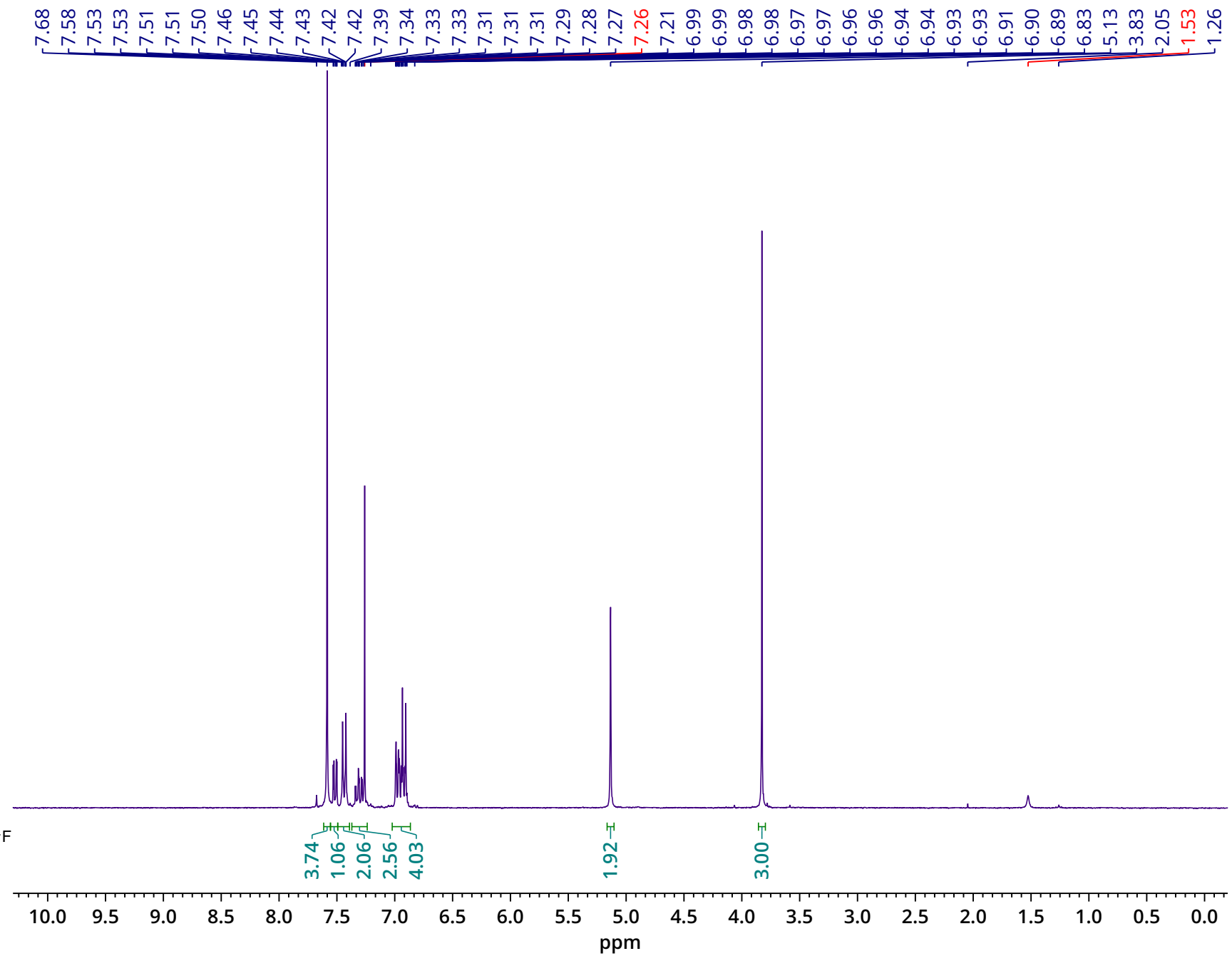


^{13}C NMR (75 MHz, $CDCl_3$) δ 159.54, 159.44, 135.86, 133.72, 133.41, 130.16, 129.34, 129.11, 129.04, 129.01, 126.46, 123.79, 120.95, 113.95, 113.15, 113.02, 91.36, 90.48, 70.51, 55.44.

Parameter	Value
Title	QDL-CCD-131.1.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	297.9
Pulse Sequence	zg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	16
Receiver Gain	133.3
Relaxation Delay	1.0000
Pulse Width	10.2000
Acquisition Date	2019-03-21T15:51:00
Modification Date	2019-03-21T15:52:38
Spectrometer Frequency	300.18
Spectral Width	6103.5
Nucleus	1H
Spectral Size	65536

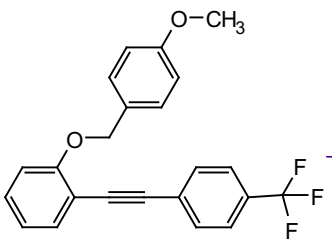


Compound 9k

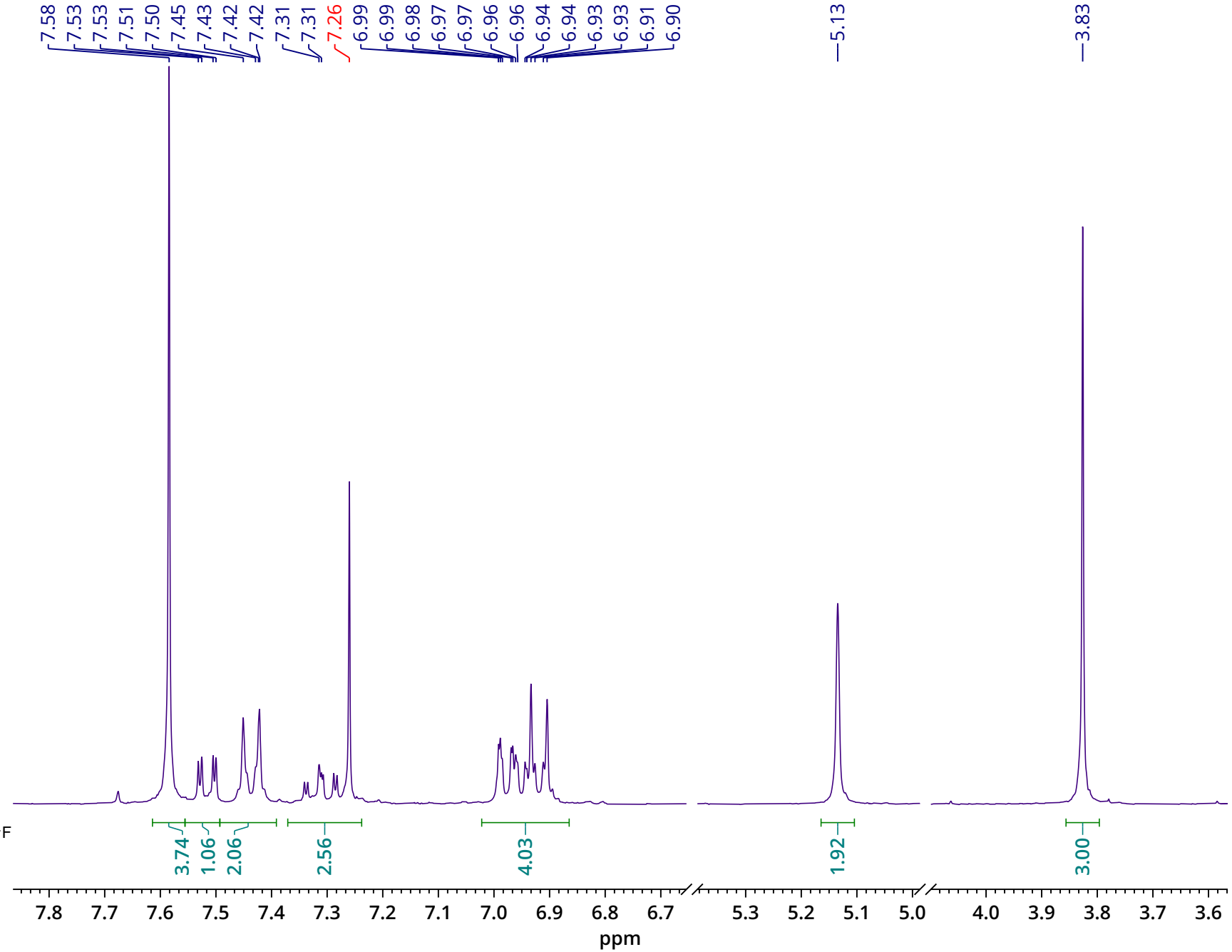


^{1}H NMR (300 MHz, $CDCl_3$) δ 7.58 (s, 4H), 7.54 – 7.49 (m, 1H), 7.53 – 7.39 (m, 2H), 7.37 – 7.24 (m, 1H), 7.02 – 6.86 (m, 4H), 5.13 (s, 2H), 3.83 (s, 3H).

Parameter	Value
Title	QDL-CCD-131.1.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	297.9
Pulse Sequence	zg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	16
Receiver Gain	133.3
Relaxation Delay	1.0000
Pulse Width	10.2000
Acquisition Date	2019-03-21T15:51:00
Modification Date	2019-03-21T15:52:38
Spectrometer Frequency	300.18
Spectral Width	6103.5
Nucleus	1H
Spectral Size	65536

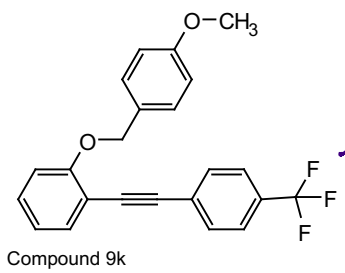


Compound 9k

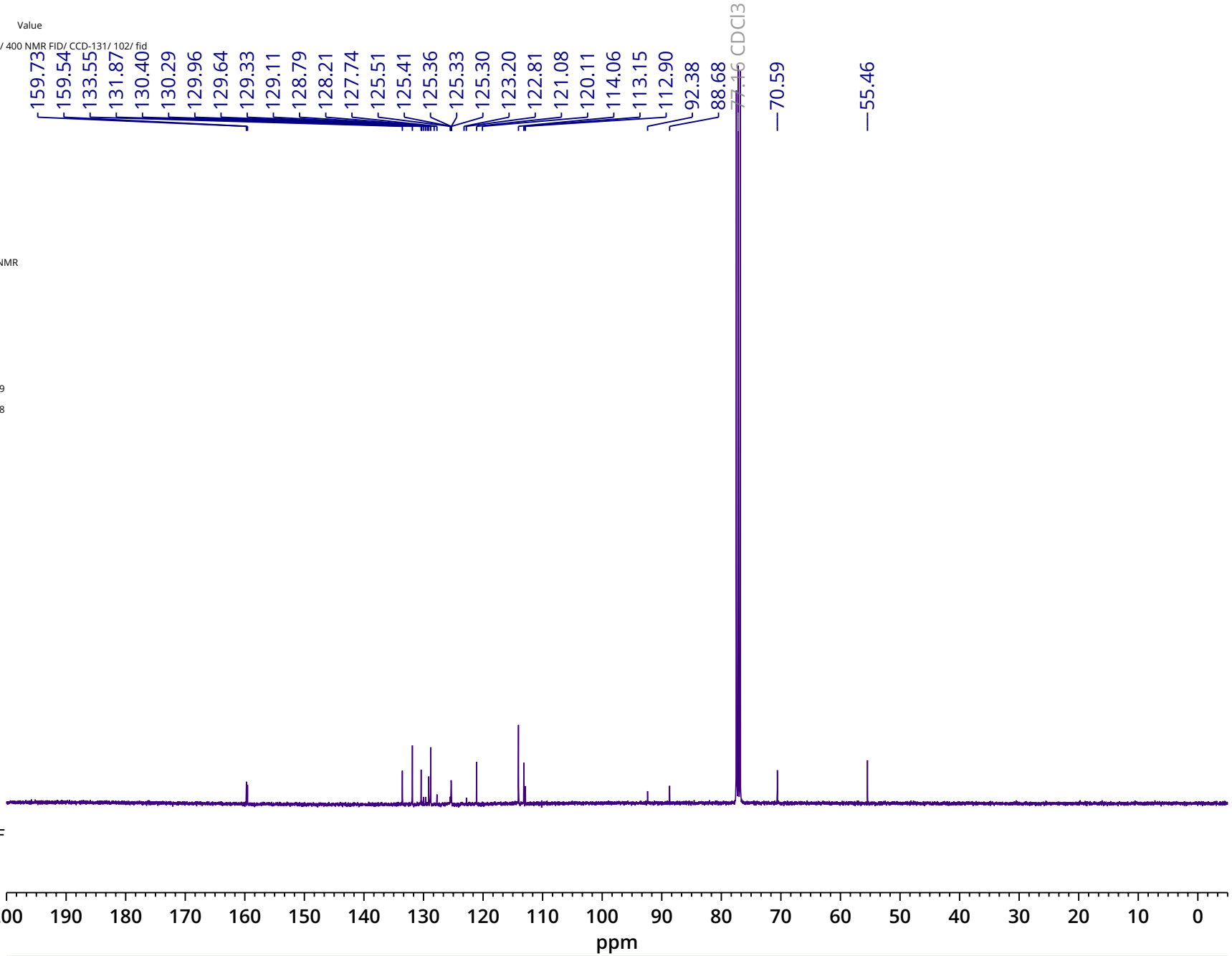


^{1}H NMR (300 MHz, $CDCl_3$) δ 7.58 (s, 4H), 7.54 – 7.49 (m, 1H), 7.53 – 7.39 (m, 2H), 7.37 – 7.24 (m, 1H), 7.02 – 6.86 (m, 4H), 5.13 (s, 2H), 3.83 (s, 3H).

Parameter	Value
Data File Name	/ Volumes/ HMNMR/ 400 NMR FID/ CCD-131/ 102/ fid
Title	102
Comment	new experiment
Origin	Varian
Instrument	vnmrs
Solvent	cdcl3
Temperature	25.0
Pulse Sequence	s2pul
Experiment	1D
Probe	MR0905W021_OneNMR
Number of Scans	8192
Receiver Gain	30
Relaxation Delay	1.0000
Pulse Width	6.6500
Acquisition Time	1.3107
Acquisition Date	2019-11-29T22:14:49
Modification Date	2019-12-01T14:16:18
Spectrometer Frequency	100.63
Spectral Width	25000.0
Lowest Frequency	-1414.4
Nucleus	13C
Acquired Size	32768
Spectral Size	65536

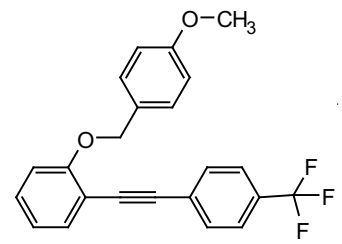


Compound 9k

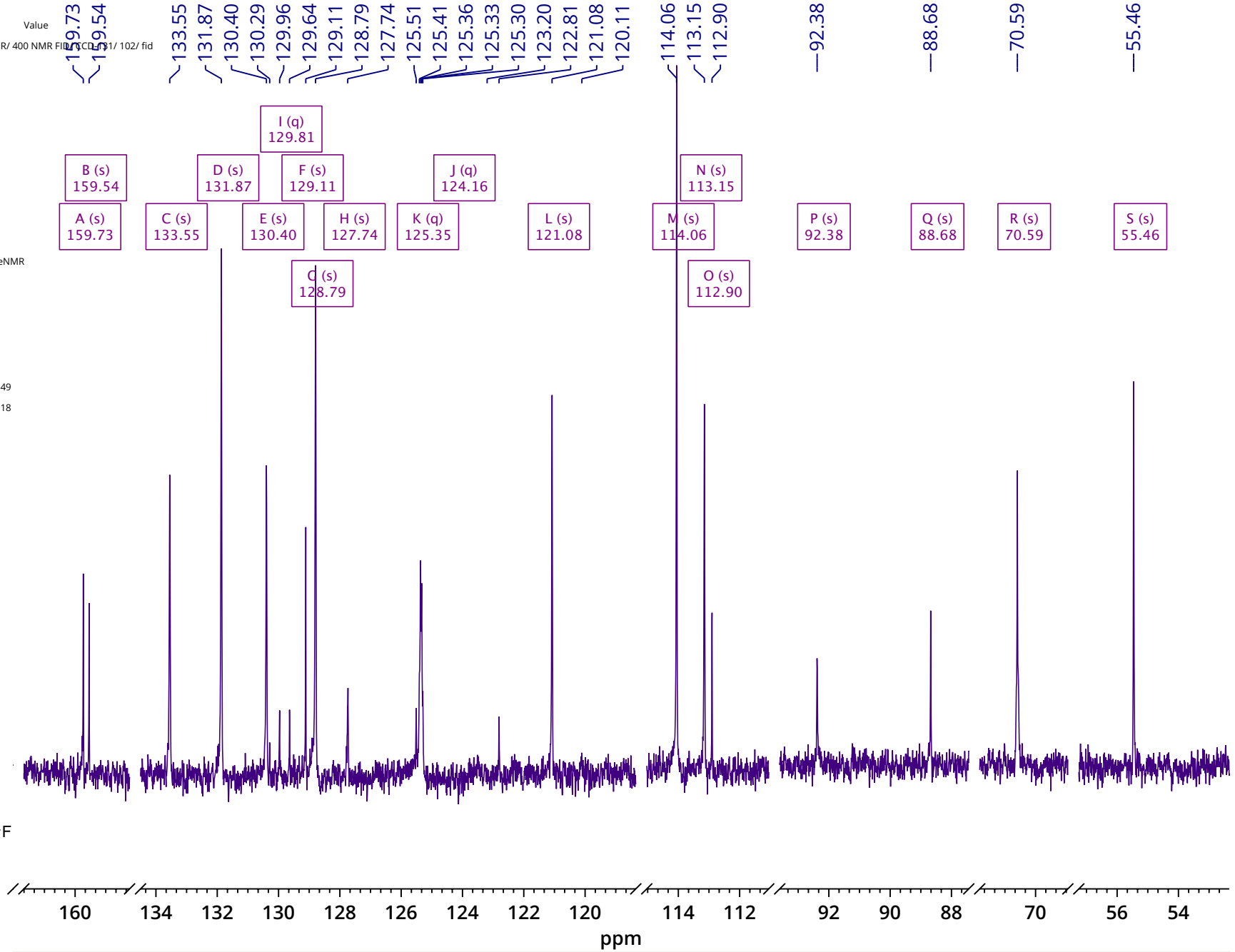


^{13}C NMR (100 MHz, $CDCl_3$) δ 159.73, 159.54, 133.55, 131.87, 130.40, 129.81 (q, J = 32.0 Hz), 129.11, 128.79, 127.74, 125.35 (q, J = 3.7 Hz), 123.97 (q, J = 272.0 Hz), 121.08, 114.06, 113.15, 112.90, 92.38, 88.68, 70.59, 55.46.

Parameter	Value
Data File Name	/ Volumes/ HMNMR/ 400 NMR FILES/CDCl3/1/ 102/ fid
Title	102
Comment	new experiment
Origin	Varian
Instrument	vnmrs
Solvent	cdcl3
Temperature	25.0
Pulse Sequence	s2pul
Experiment	1D
Probe	MR0905W021_OneNMR
Number of Scans	8192
Receiver Gain	30
Relaxation Delay	1.0000
Pulse Width	6.6500
Acquisition Time	1.3107
Acquisition Date	2019-11-29T22:14:49
Modification Date	2019-12-01T14:16:18
Spectrometer Frequency	100.63
Spectral Width	25000.0
Lowest Frequency	-1414.4
Nucleus	13C
Acquired Size	32768
Spectral Size	65536

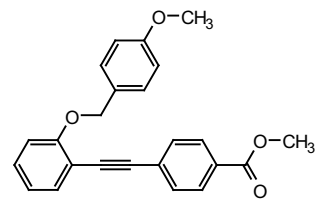


Compound 9k

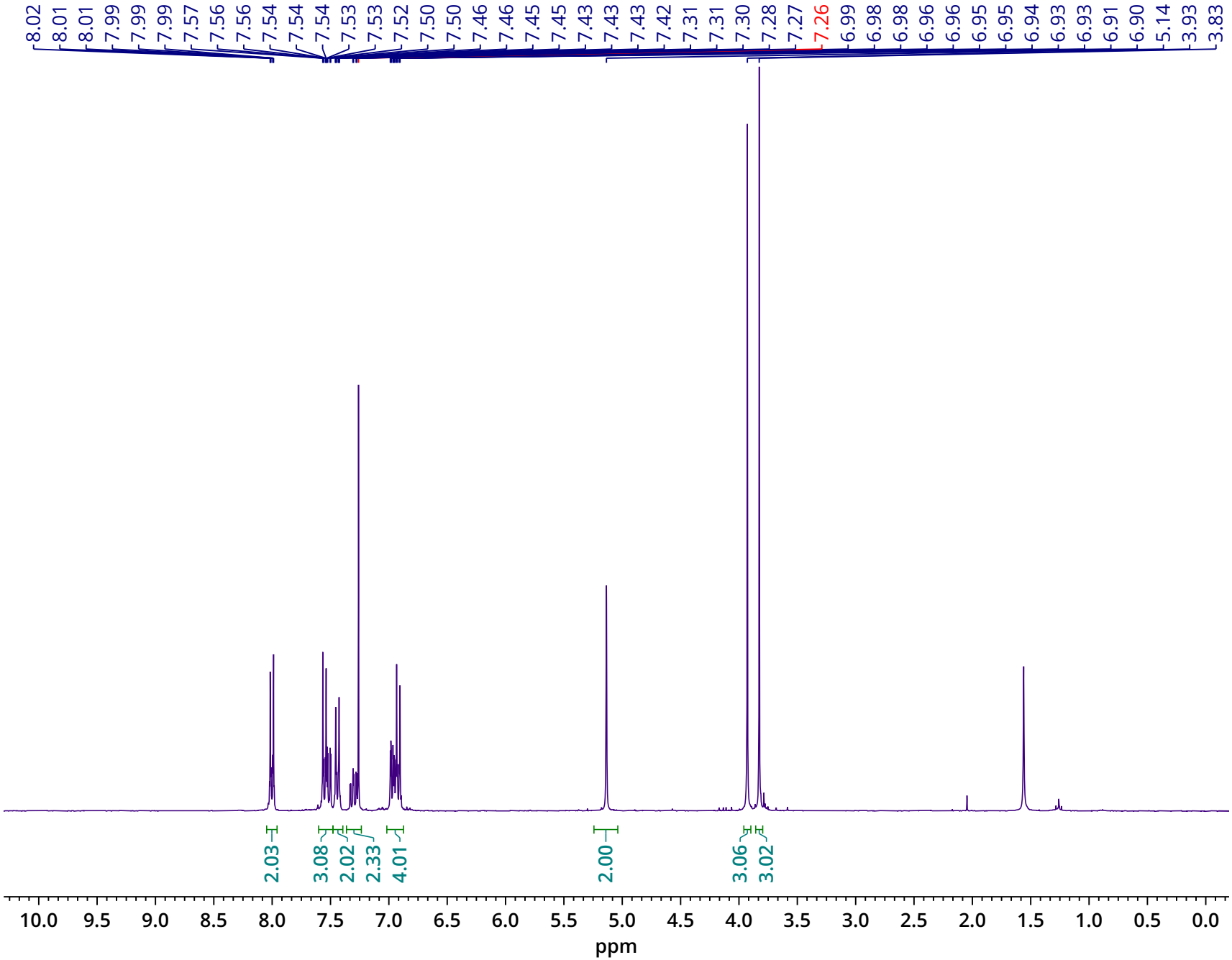


^{13}C NMR (100 MHz, $CDCl_3$) δ 159.73, 159.54, 133.55, 131.87, 130.40, 129.81 (q, J = 32.0 Hz), 129.11, 128.79, 127.74, 125.35 (q, J = 3.7 Hz), 123.97 (q, J = 272.0 Hz), 121.08, 114.06, 113.15, 112.90, 92.38, 88.68, 70.59, 55.46.

Parameter	Value
Title	KNB-033.101.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	297.1
Pulse Sequence	zg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	64
Receiver Gain	136.2
Relaxation Delay	1.0000
Pulse Width	10.2000
Acquisition Date	2019-03-23T02:30:00
Modification Date	2019-03-23T02:37:30
Spectrometer Frequency	300.18
Spectral Width	6103.5
Nucleus	1H
Spectral Size	65536

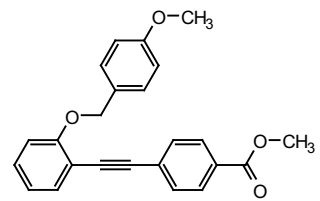


Compound 9l

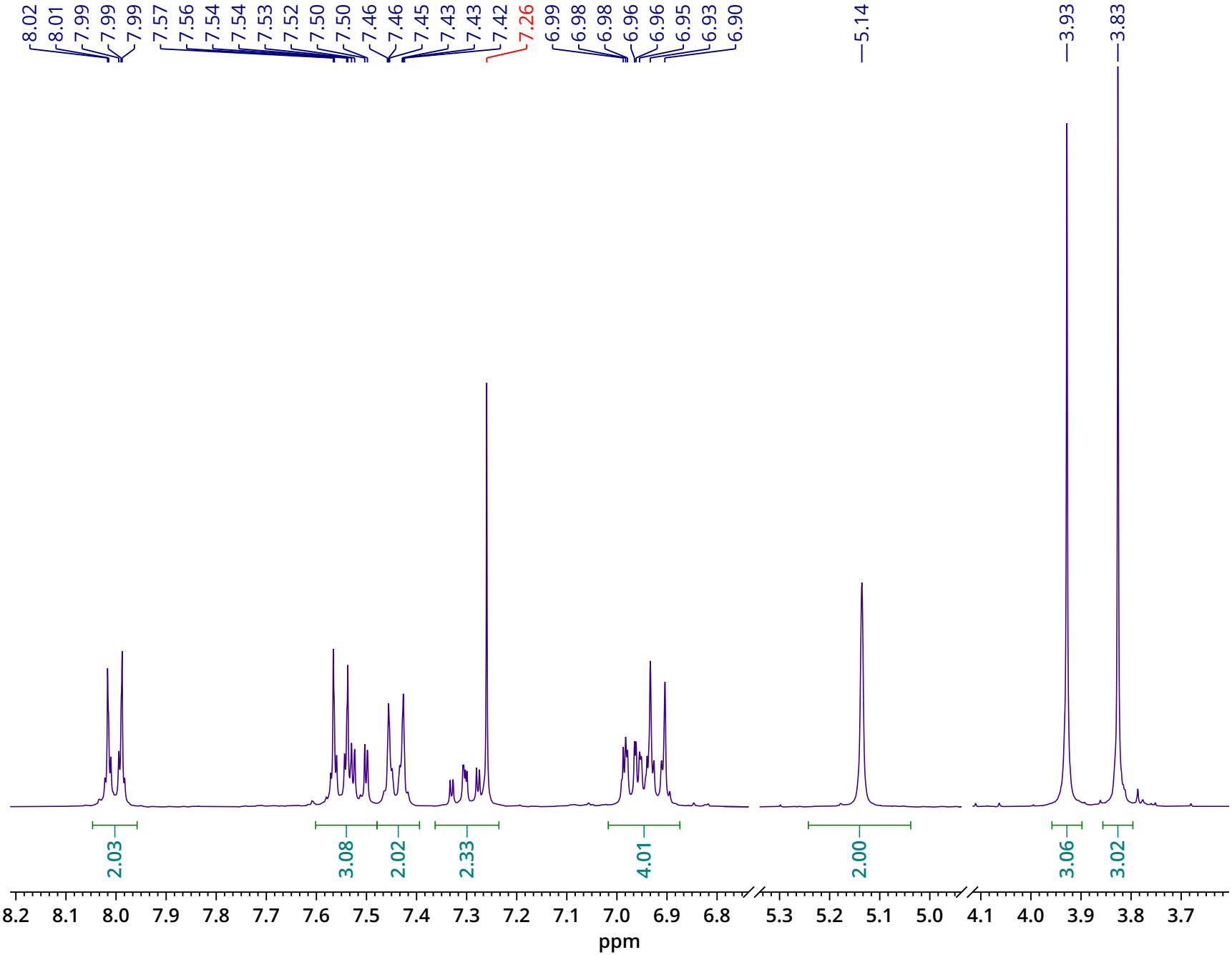


^{1}H NMR (300 MHz, $CDCl_3$) δ 8.07 – 7.92 (m, 2H), 7.63 – 7.48 (m, 3H), 7.48 – 7.40 (m, 2H), 7.36 – 7.23 (m, 1H), 7.03 – 6.86 (m, 4H), 5.14 (s, 2H), 3.93 (s, 3H), 3.83 (s, 3H).

Parameter	Value
Title	KNB-033.101.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	297.1
Pulse Sequence	zg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	64
Receiver Gain	136.2
Relaxation Delay	1.0000
Pulse Width	10.2000
Acquisition Date	2019-03-23T02:30:00
Modification Date	2019-03-23T02:37:30
Spectrometer Frequency	300.18
Spectral Width	6103.5
Nucleus	1H
Spectral Size	65536

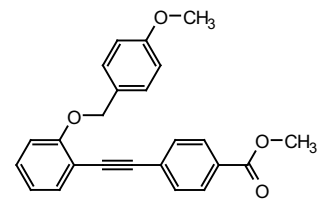


Compound 9l

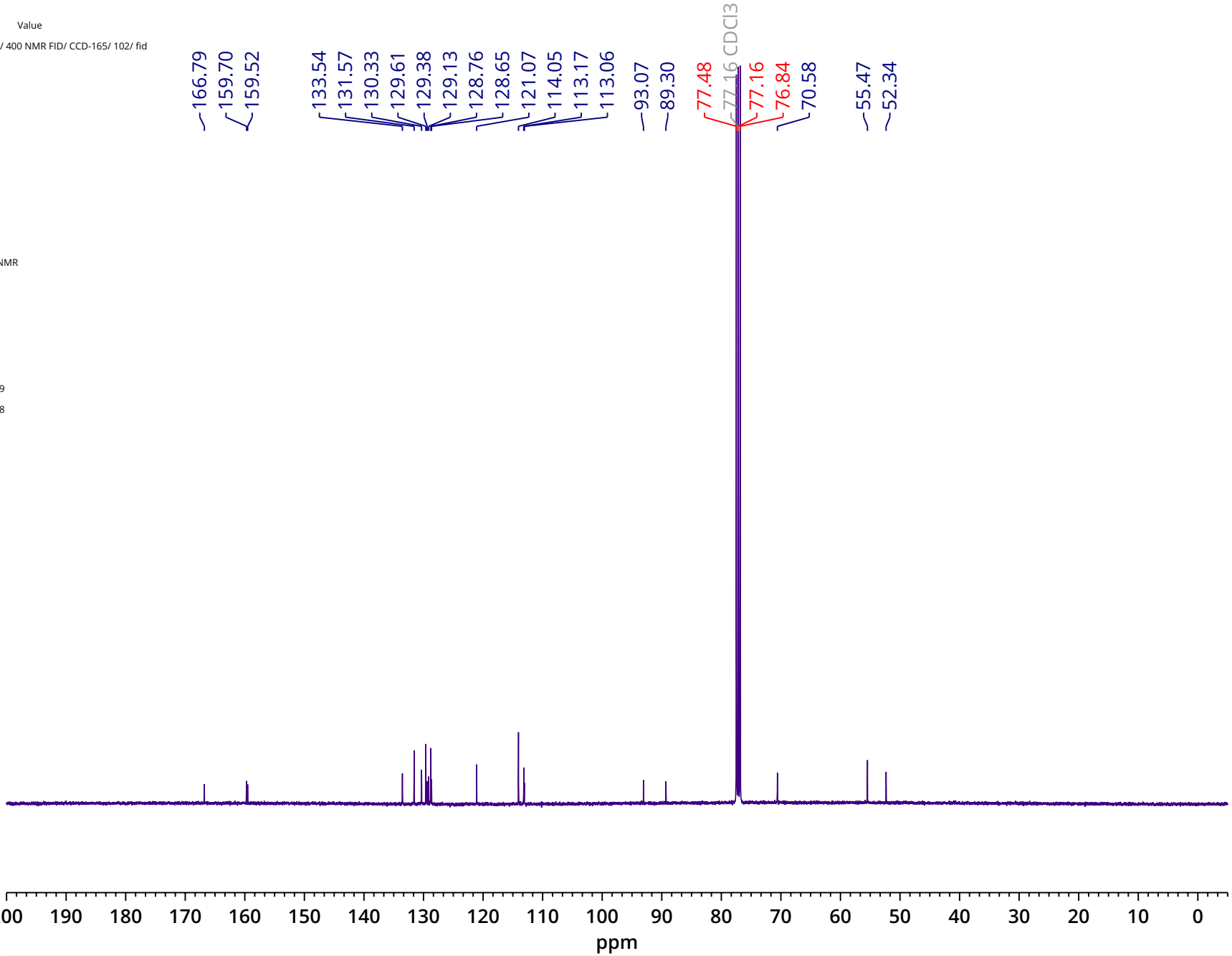


^{1}H NMR (300 MHz, $CDCl_3$) δ 8.07 – 7.92 (m, 2H), 7.63 – 7.48 (m, 3H), 7.48 – 7.40 (m, 2H), 7.36 – 7.23 (m, 1H), 7.03 – 6.86 (m, 4H), 5.14 (s, 2H), 3.93 (s, 3H), 3.83 (s, 3H).

Parameter	Value
Data File Name	/ Volumes/ HMNMR/ 400 NMR FID/ CCD-165/ 102/ fid
Title	102
Comment	new experiment
Origin	Varian
Instrument	vnmrs
Solvent	cdcl3
Temperature	25.0
Pulse Sequence	s2pul
Experiment	1D
Probe	MR0905W021_OneNMR
Number of Scans	8192
Receiver Gain	30
Relaxation Delay	1.0000
Pulse Width	6.6500
Acquisition Time	1.3107
Acquisition Date	2019-11-20T22:08:49
Modification Date	2019-11-21T10:32:48
Spectrometer Frequency	100.63
Spectral Width	25000.0
Lowest Frequency	-1414.8
Nucleus	13C
Acquired Size	32768
Spectral Size	65536

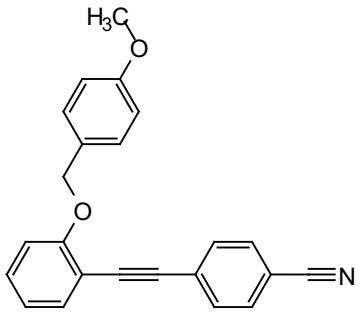


Compound 9l

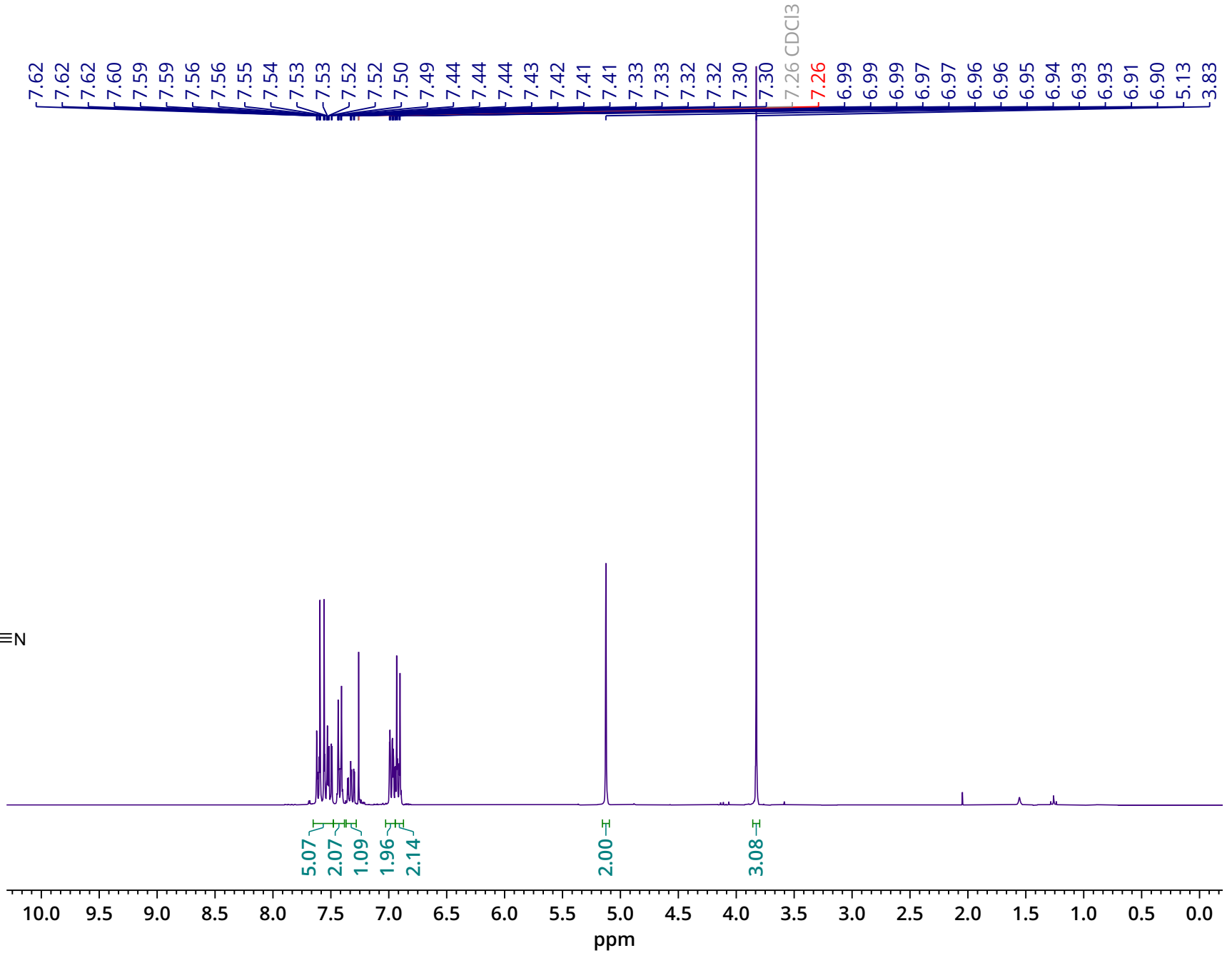


^{13}C NMR (100 MHz, $CDCl_3$) δ 166.79, 159.70, 159.52, 133.54, 131.57, 130.33, 129.61, 129.38, 129.13, 128.76, 128.65, 121.07, 114.05, 113.17, 113.06, 93.07, 89.30, 70.58, 55.47, 52.34.

Parameter	Value
Title	CCD-156.101.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	1031.2
Pulse Sequence	zg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	16
Receiver Gain	61.6
Relaxation Delay	1.0000
Pulse Width	10.2000
Acquisition Date	2019-08-09T16:01:00
Modification Date	2019-08-09T17:03:34
Spectrometer Frequency	300.18
Spectral Width	6103.5
Nucleus	1H
Spectral Size	65536

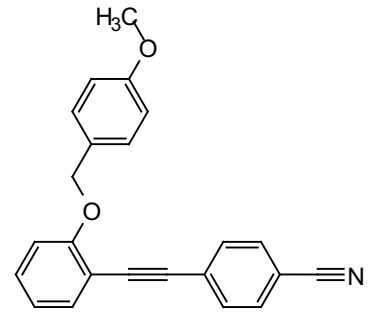


Compound 9m

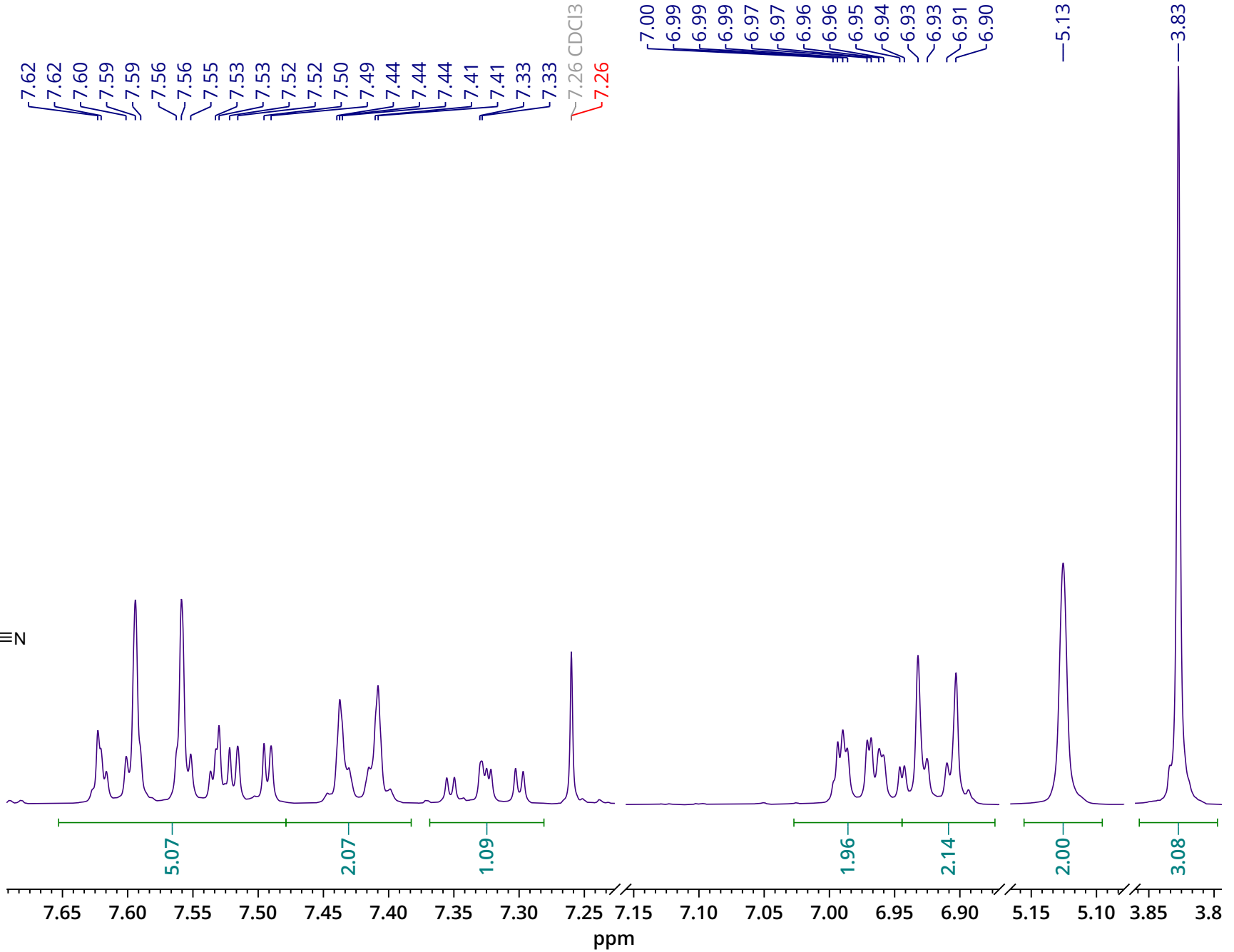


^{1}H NMR (300 MHz, $CDCl_3$) δ 7.66 – 7.48 (m, 5H), 7.46 – 7.39 (m, 2H), 7.33 (ddd, J = 8.4, 7.5, 1.7 Hz, 1H), 7.03 – 6.94 (m, 2H), 6.94 – 6.87 (m, 2H), 5.13 (s, 2H), 3.83 (s, 3H).

Parameter	Value
Title	CCD-156.101.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	1031.2
Pulse Sequence	zg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	16
Receiver Gain	61.6
Relaxation Delay	1.0000
Pulse Width	10.2000
Acquisition Date	2019-08-09T16:01:00
Modification Date	2019-08-09T17:03:34
Spectrometer Frequency	300.18
Spectral Width	6103.5
Nucleus	1H
Spectral Size	65536

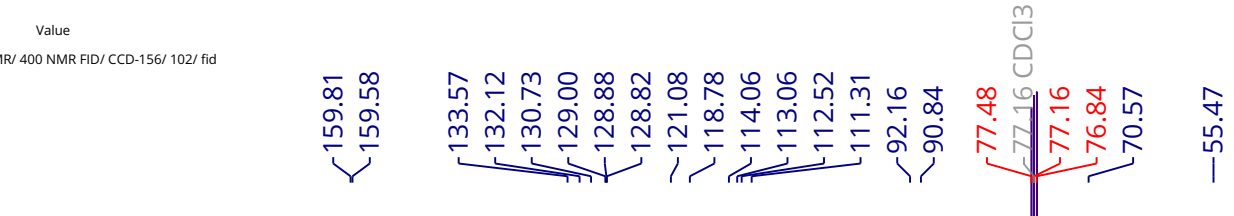


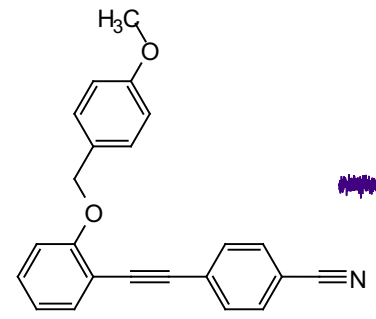
Compound 9m



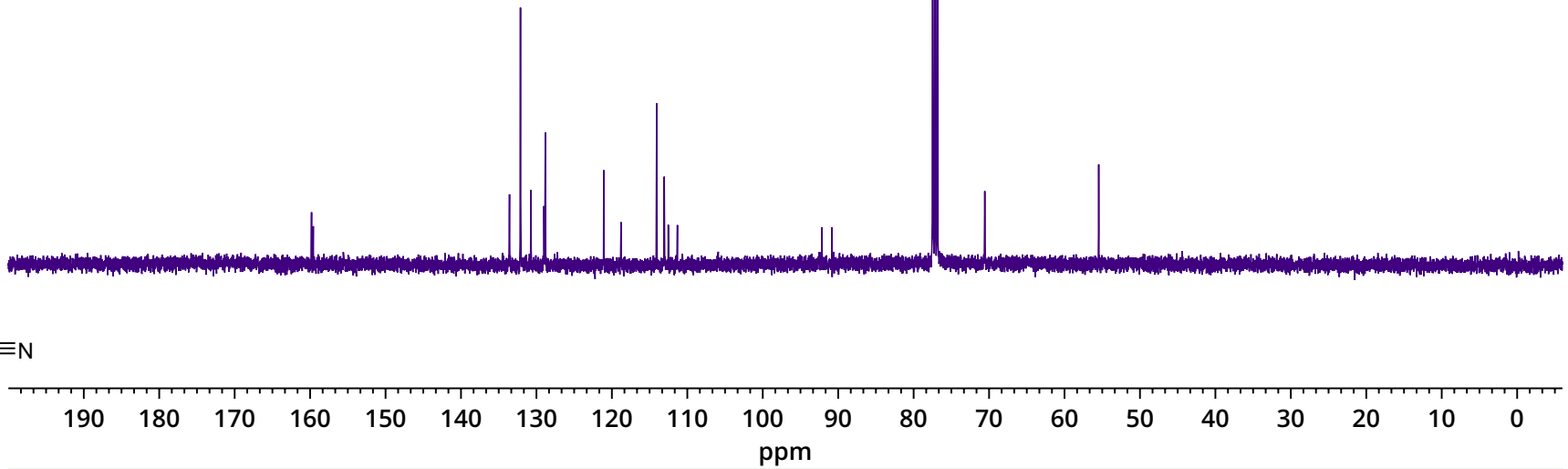
^{1}H NMR (300 MHz, $CDCl_3$) δ 7.66 – 7.48 (m, 5H), 7.46 – 7.39 (m, 2H), 7.33 (ddd, J = 8.4, 7.5, 1.7 Hz, 1H), 7.03 – 6.94 (m, 2H), 6.94 – 6.87 (m, 2H), 5.13 (s, 2H), 3.83 (s, 3H).

Parameter	Value
Data File Name	/ Volumes/ HMNMR/ 400 NMR FID/ CCD-156/ 102/ fid
Title	102
Comment	new experiment
Origin	Varian
Instrument	vnmrs
Solvent	cdcl3
Temperature	25.0
Pulse Sequence	s2pul
Experiment	1D
Probe	MR0905W021_OneNMR
Number of Scans	1024
Receiver Gain	30
Relaxation Delay	1.0000
Pulse Width	6.6500
Acquisition Time	1.3107
Acquisition Date	2019-11-20T14:10:21
Modification Date	2019-11-20T15:56:12
Spectrometer Frequency	100.63
Spectral Width	25000.0
Lowest Frequency	-1415.2
Nucleus	13C
Acquired Size	32768
Spectral Size	65536



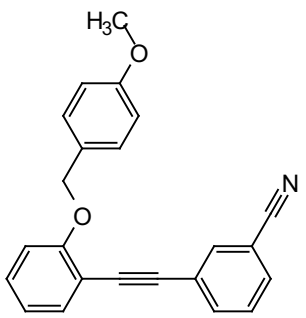


Compound 9m

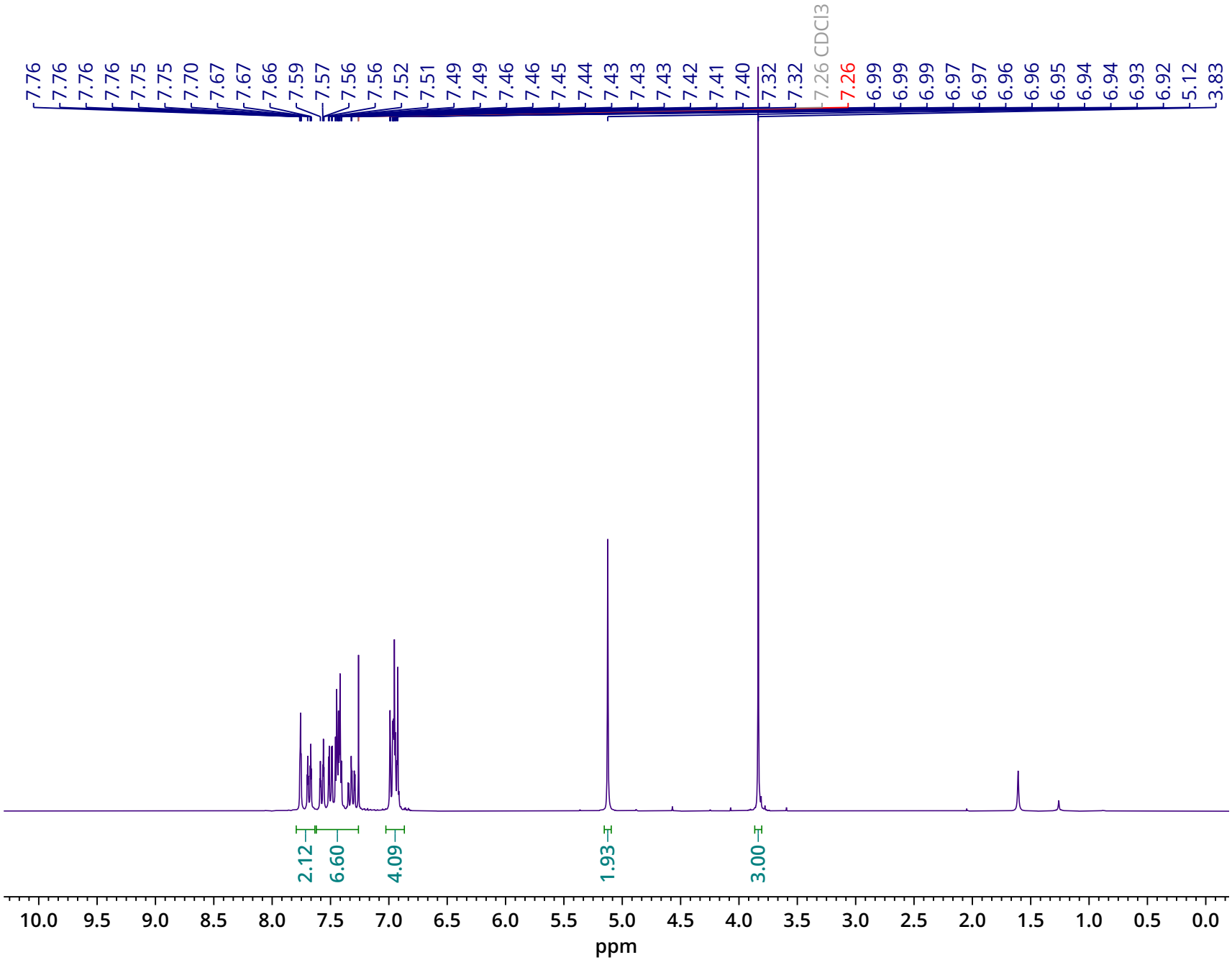


^{13}C NMR (100 MHz, $CDCl_3$) δ 159.81, 159.58, 133.57, 132.12, 130.73, 129.00, 128.88, 128.82, 121.08, 118.78, 114.06, 113.06, 112.52, 111.31, 92.16, 90.84, 70.57, 55.47.

Parameter	Value
Title	CCD-158.107.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	296.4
Pulse Sequence	zg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	16
Receiver Gain	31.6
Relaxation Delay	1.0000
Pulse Width	10.2000
Acquisition Date	2019-08-13T14:19:00
Modification Date	2019-08-13T14:21:20
Spectrometer Frequency	300.18
Spectral Width	6103.5
Nucleus	1H
Spectral Size	65536

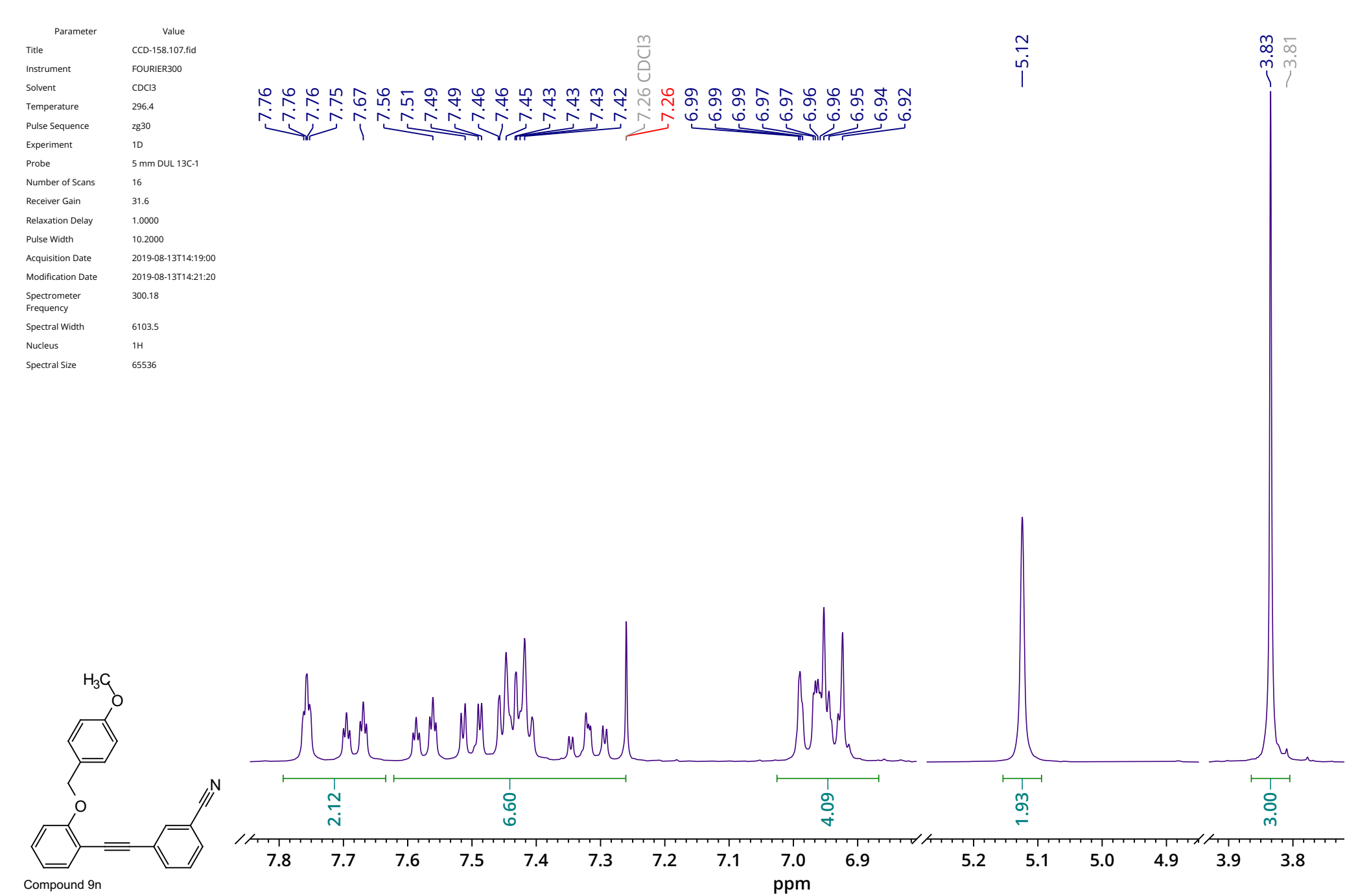


Compound 9n



^{1}H NMR (300 MHz, $CDCl_3$) δ 7.76 (td, J = 1.7, 0.6 Hz, 1H), 7.68 (dt, J = 7.9, 1.4 Hz, 1H), 7.57 (dt, J = 7.8, 1.4 Hz, 1H), 7.50 (dd, J = 7.8, 1.7 Hz, 1H), 7.47 – 7.38 (m, 3H), 7.37 – 7.27 (m, 1H), 7.03 – 6.87 (m, 4H), 5.12 (s, 2H), 3.83 (s, 3H).

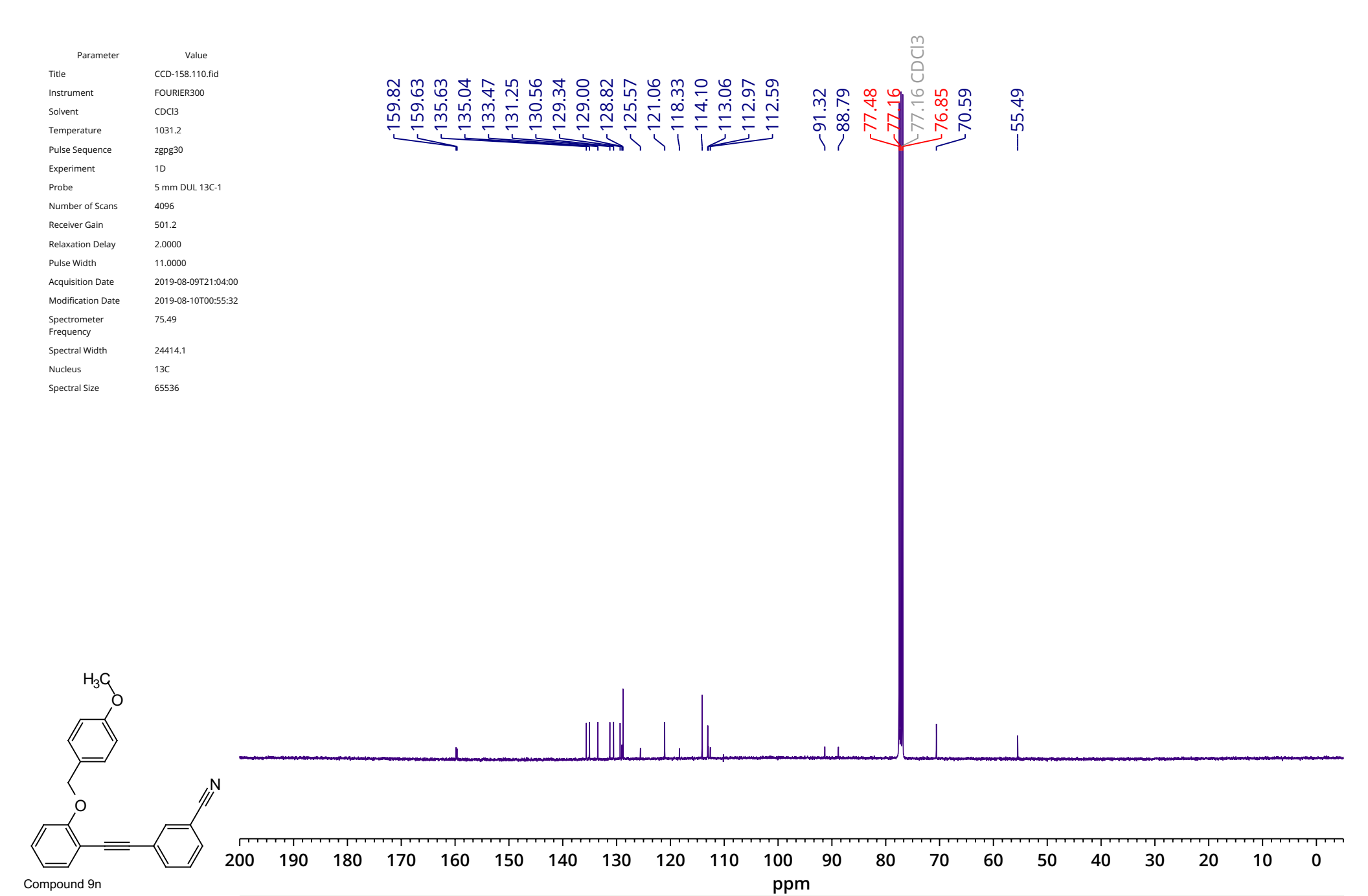
Parameter	Value
Title	CCD-158.107.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	296.4
Pulse Sequence	zg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	16
Receiver Gain	31.6
Relaxation Delay	1.0000
Pulse Width	10.2000
Acquisition Date	2019-08-13T14:19:00
Modification Date	2019-08-13T14:21:20
Spectrometer Frequency	300.18
Spectral Width	6103.5
Nucleus	1H
Spectral Size	65536



Compound 9n

^{1}H NMR (300 MHz, $CDCl_3$) δ 7.76 (td, J = 1.7, 0.6 Hz, 1H), 7.68 (dt, J = 7.9, 1.4 Hz, 1H), 7.57 (dt, J = 7.8, 1.4 Hz, 1H), 7.50 (dd, J = 7.8, 1.7 Hz, 1H), 7.47 – 7.38 (m, 3H), 7.37 – 7.27 (m, 1H), 7.03 – 6.87 (m, 4H), 5.12 (s, 2H), 3.83 (s, 3H).

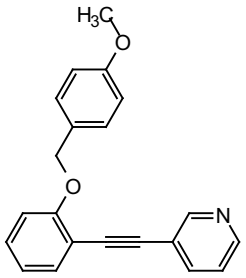
Parameter	Value
Title	CCD-158.110.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	1031.2
Pulse Sequence	zgpg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	4096
Receiver Gain	501.2
Relaxation Delay	2.0000
Pulse Width	11.0000
Acquisition Date	2019-08-09T21:04:00
Modification Date	2019-08-10T00:55:32
Spectrometer Frequency	75.49
Spectral Width	24414.1
Nucleus	13C
Spectral Size	65536



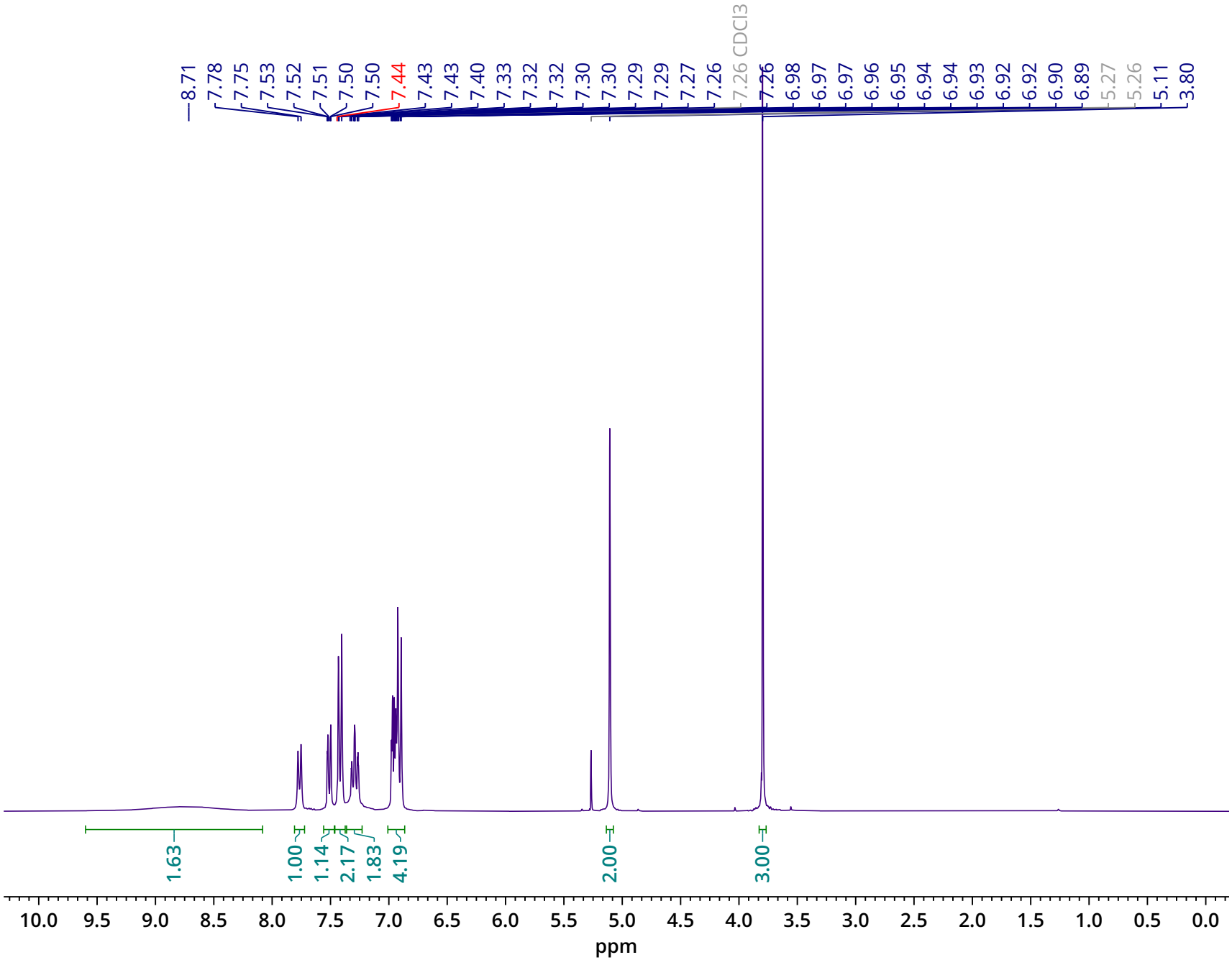
Compound 9n

^{13}C NMR (100 MHz, $CDCl_3$) δ 159.82, 159.63, 135.63, 135.04, 133.47, 131.25, 130.56, 129.34, 129.00, 128.82, 125.57, 121.06, 118.33, 114.10, 113.06, 112.97, 112.59, 91.32, 88.79, 70.59, 55.49.

Parameter	Value
Title	DAL2-078.101.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	1030.5
Pulse Sequence	zg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	128
Receiver Gain	53.1
Relaxation Delay	1.0000
Pulse Width	11.7500
Acquisition Date	2020-01-14T20:03:00
Modification Date	2020-01-14T20:17:06
Spectrometer Frequency	300.18
Spectral Width	6103.5
Nucleus	1H
Spectral Size	65536

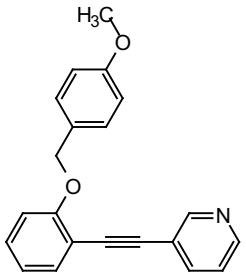


Compound 9o

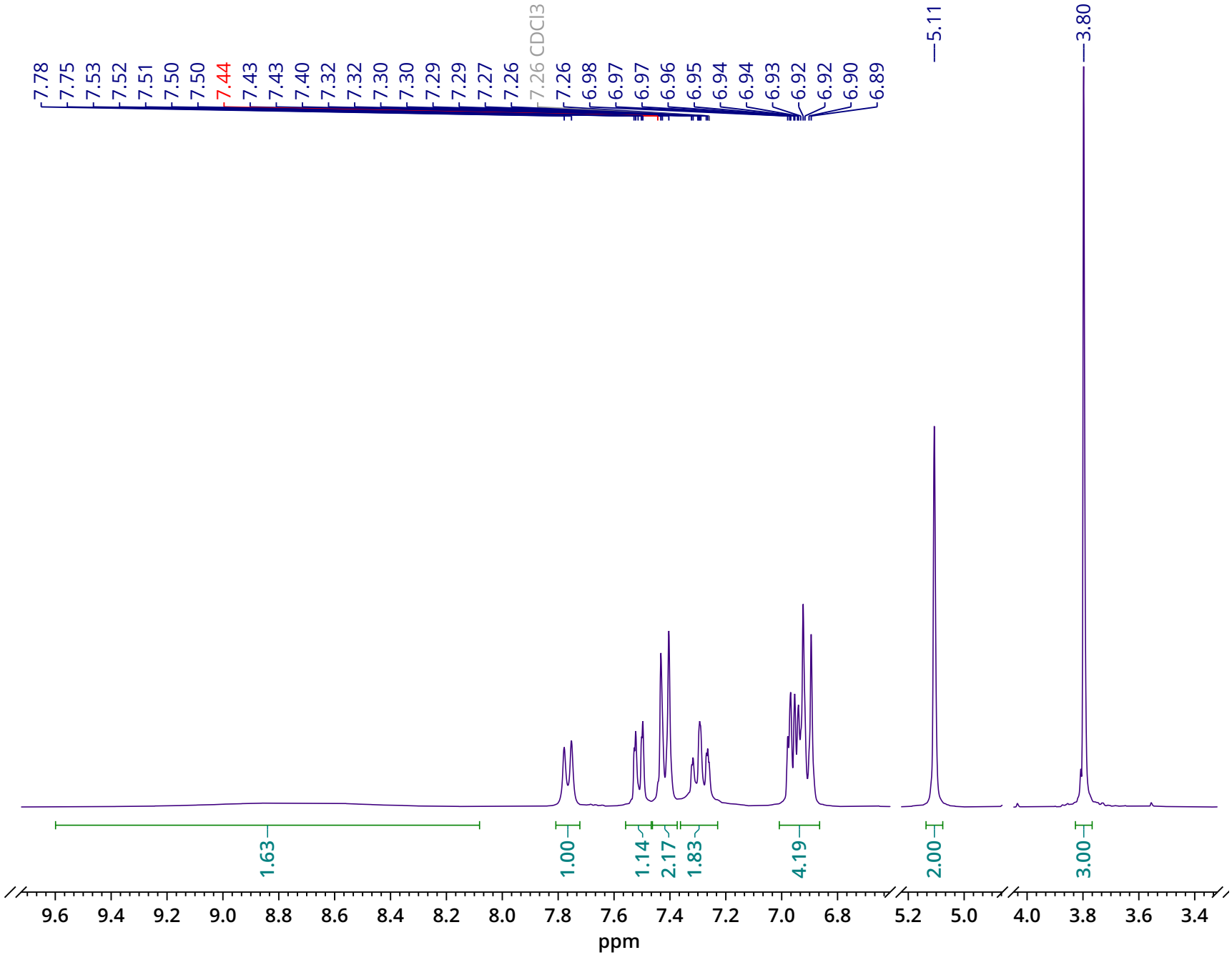


^{1}H NMR (300 MHz, $CDCl_3$) δ 8.71 (brs, 2H), 7.77 (d, J = 7.8 Hz, 1H), 7.51 (dd, J = 7.8, 1.7 Hz, 1H), 7.46 – 7.37 (m, 2H), 7.36 – 7.14 (m, 2H), 7.01 – 6.86 (m, 4H), 5.11 (s, 2H), 3.80 (s, 3H).

Parameter	Value
Title	DAL2-078.101.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	1030.5
Pulse Sequence	zg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	128
Receiver Gain	53.1
Relaxation Delay	1.0000
Pulse Width	11.7500
Acquisition Date	2020-01-14T20:03:00
Modification Date	2020-01-14T20:17:06
Spectrometer Frequency	300.18
Spectral Width	6103.5
Nucleus	1H
Spectral Size	65536



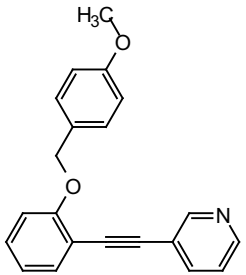
Compound 9o



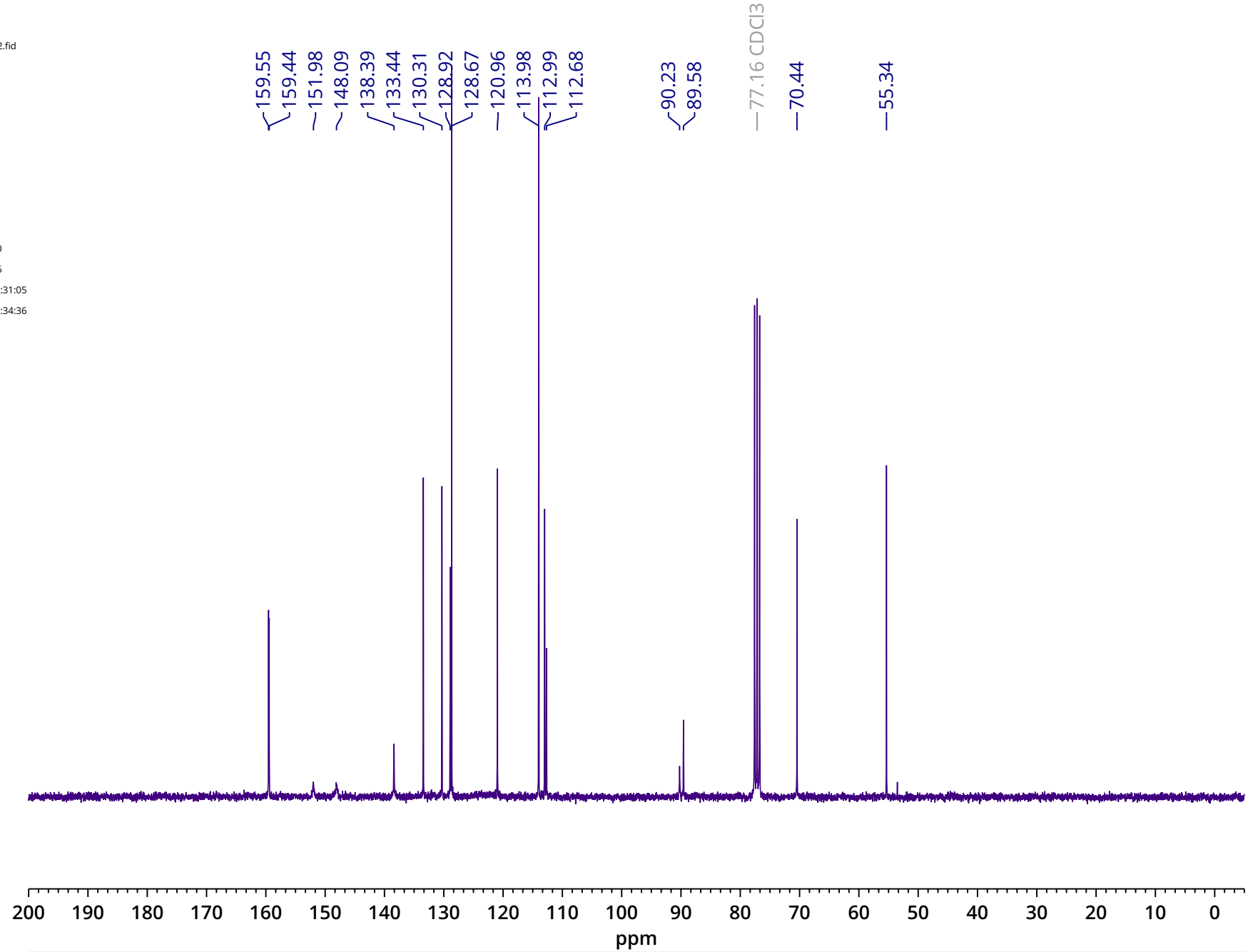
^{1}H NMR (300 MHz, $CDCl_3$) δ 8.71 (brs, 2H), 7.77 (d, *J* = 7.8 Hz, 1H), 7.51 (dd, *J* = 7.8, 1.7 Hz, 1H), 7.46 – 7.37 (m, 2H), 7.36 – 7.14 (m, 2H), 7.01 – 6.86 (m, 4H), 5.11 (s, 2H), 3.80 (s, 3H).

Parameter	Value
Title	DAL2-078.101.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	297.8
Pulse Sequence	zgpg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	1126
Receiver Gain	199.5
Relaxation Delay	2.0000
Pulse Width	11.7500
Acquisition Date	2020-03-10T20:03:00
Modification Date	2020-03-10T20:17:06
Spectrometer Frequency	75.49
Nucleus	13C
Spectral Width	24414.1
Acquired Size	65536

Parameter	Value
Title	CCD2-006.1302.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	297.8
Pulse Sequence	zgpg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	1126
Receiver Gain	199.5
Relaxation Delay	2.0000
Pulse Width	11.7500
Acquisition Date	2020-03-10T14:31:05
Modification Date	2020-03-10T15:34:36
Spectrometer Frequency	75.49
Nucleus	13C
Spectral Width	24414.1
Acquired Size	65536

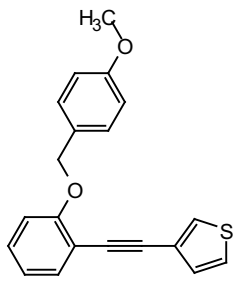


Compound 9o

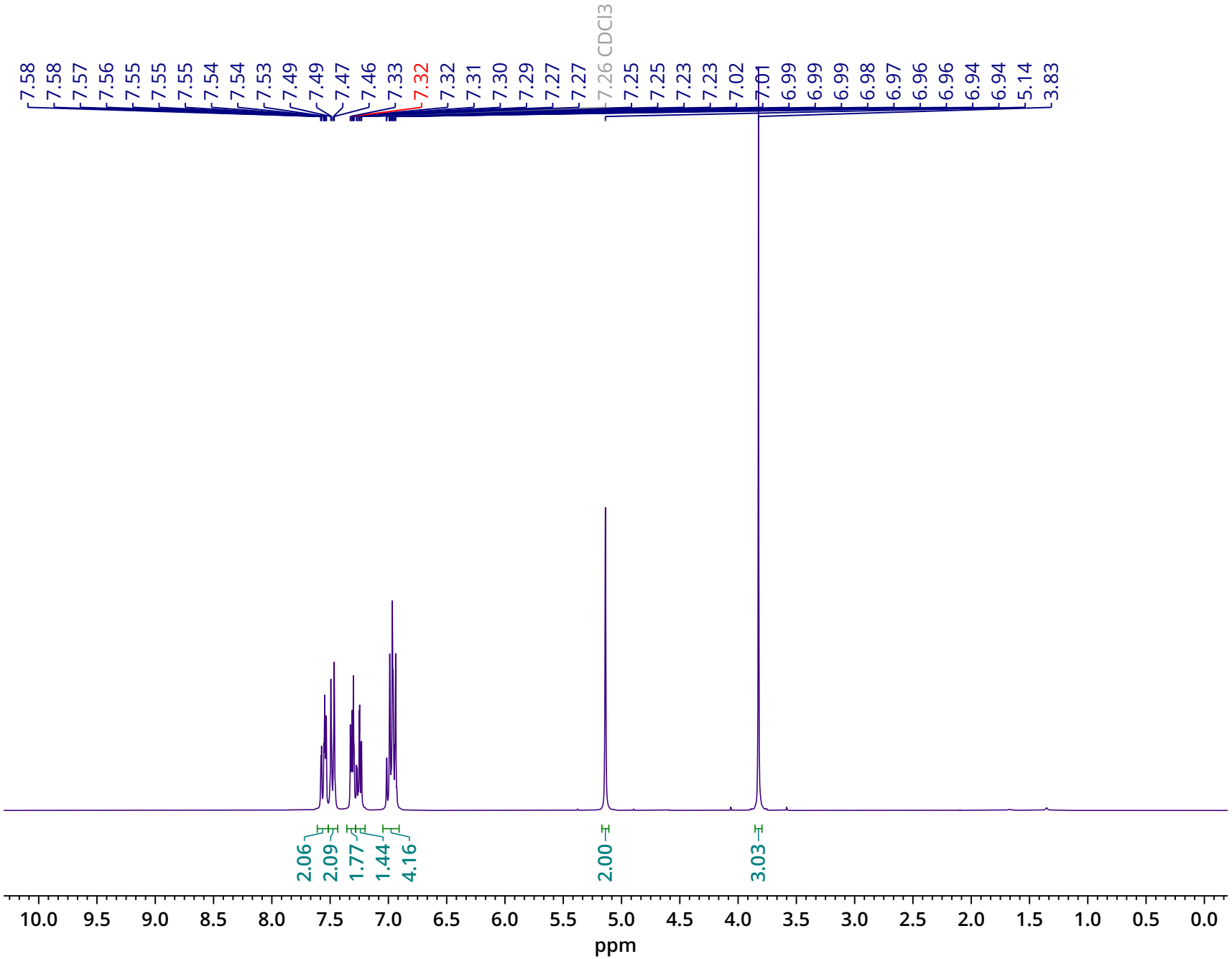


^{13}C NMR (75 MHz, $CDCl_3$) δ 159.55, 159.44, 151.98, 148.09, 138.39, 133.44, 130.31, 128.92, 128.67, 120.96, 113.98, 112.99, 112.68, 90.23, 89.58, 70.44, 55.34.

Parameter	Value
Title	DAL2-080.101.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	1018.0
Pulse Sequence	zg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	16
Receiver Gain	5.7
Relaxation Delay	1.0000
Pulse Width	11.7500
Acquisition Date	2020-01-27T09:39:00
Modification Date	2020-01-27T09:41:04
Spectrometer Frequency	300.18
Spectral Width	6103.5
Nucleus	1H
Spectral Size	65536

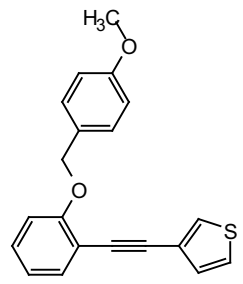


Compound 9p

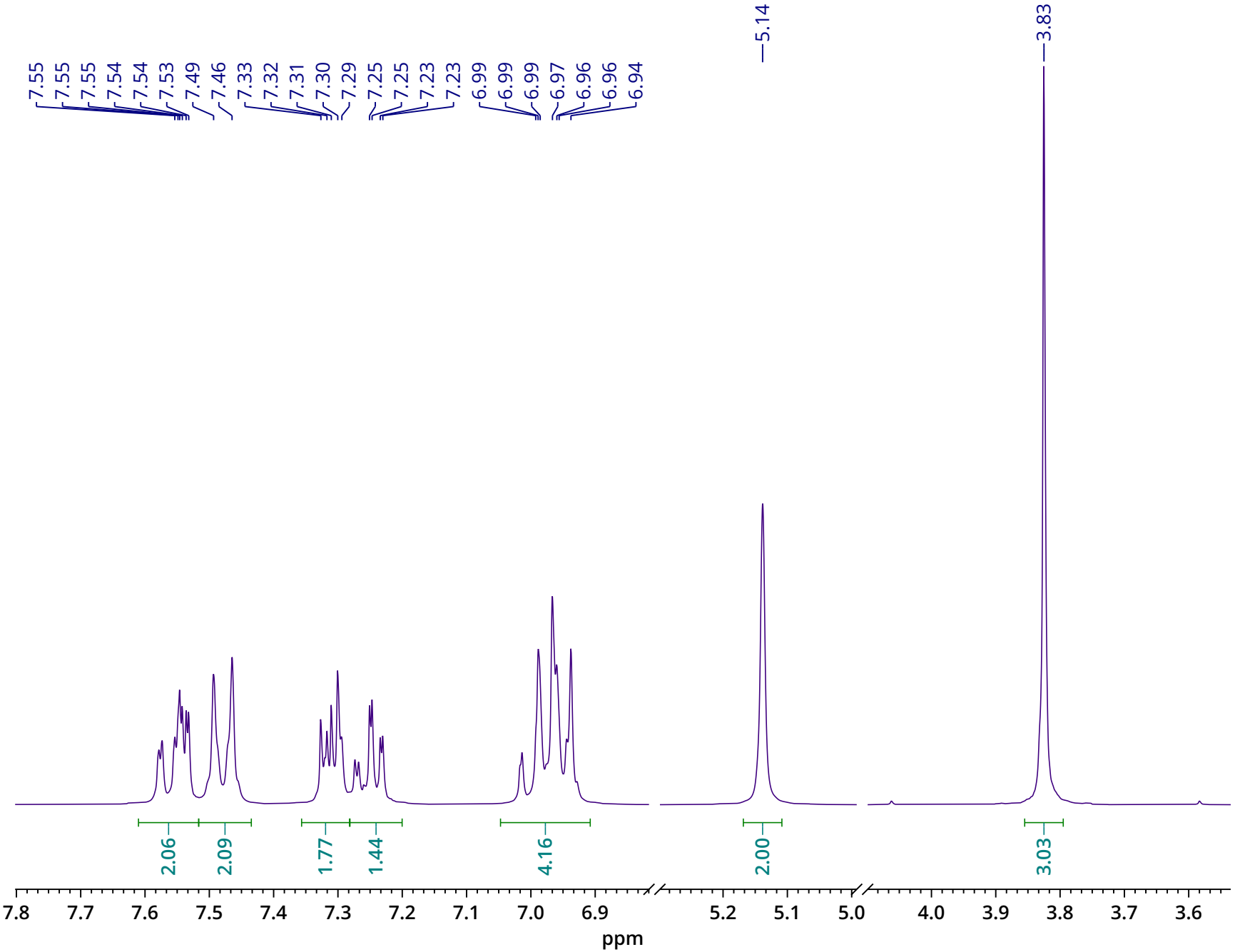


^{1}H NMR (300 MHz, $CDCl_3$) δ 7.61 – 7.43 (m, 4H), 7.36 – 7.27 (m, 1H), 7.32 – 7.20 (m, 2H), 7.05 – 6.91 (m, 4H), 5.14 (s, 2H), 3.83 (s, 3H).

Parameter	Value
Title	DAL2-080.101.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	1018.0
Pulse Sequence	zg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	16
Receiver Gain	5.7
Relaxation Delay	1.0000
Pulse Width	11.7500
Acquisition Date	2020-01-27T09:39:00
Modification Date	2020-01-27T09:41:04
Spectrometer Frequency	300.18
Spectral Width	6103.5
Nucleus	1H
Spectral Size	65536

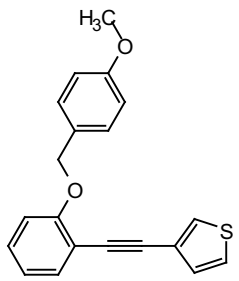


Compound 9p

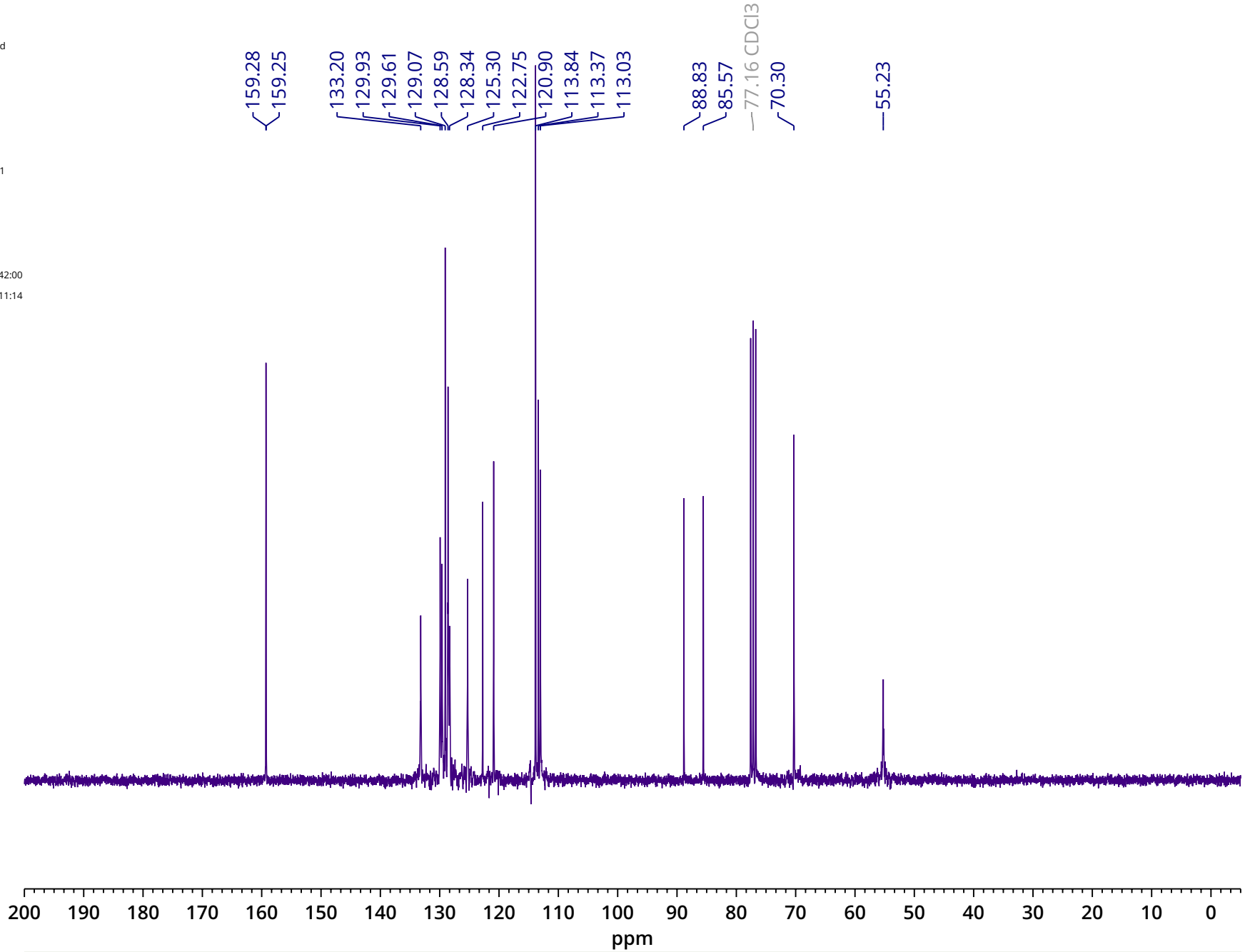


^{1}H NMR (300 MHz, $CDCl_3$) δ 7.61 – 7.43 (m, 4H), 7.36 – 7.27 (m, 1H), 7.32 – 7.20 (m, 2H), 7.05 – 6.91 (m, 4H), 5.14 (s, 2H), 3.83 (s, 3H).

Parameter	Value
Title	DAL2-080.102.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	1018.0
Pulse Sequence	zgpg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	512
Receiver Gain	501.2
Relaxation Delay	2.0000
Pulse Width	10.7500
Acquisition Date	2020-01-27T09:42:00
Modification Date	2020-01-27T10:11:14
Spectrometer Frequency	75.49
Spectral Width	24414.1
Nucleus	13C
Spectral Size	65536

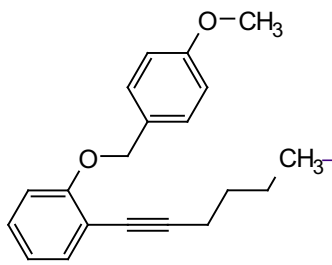


Compound 9p

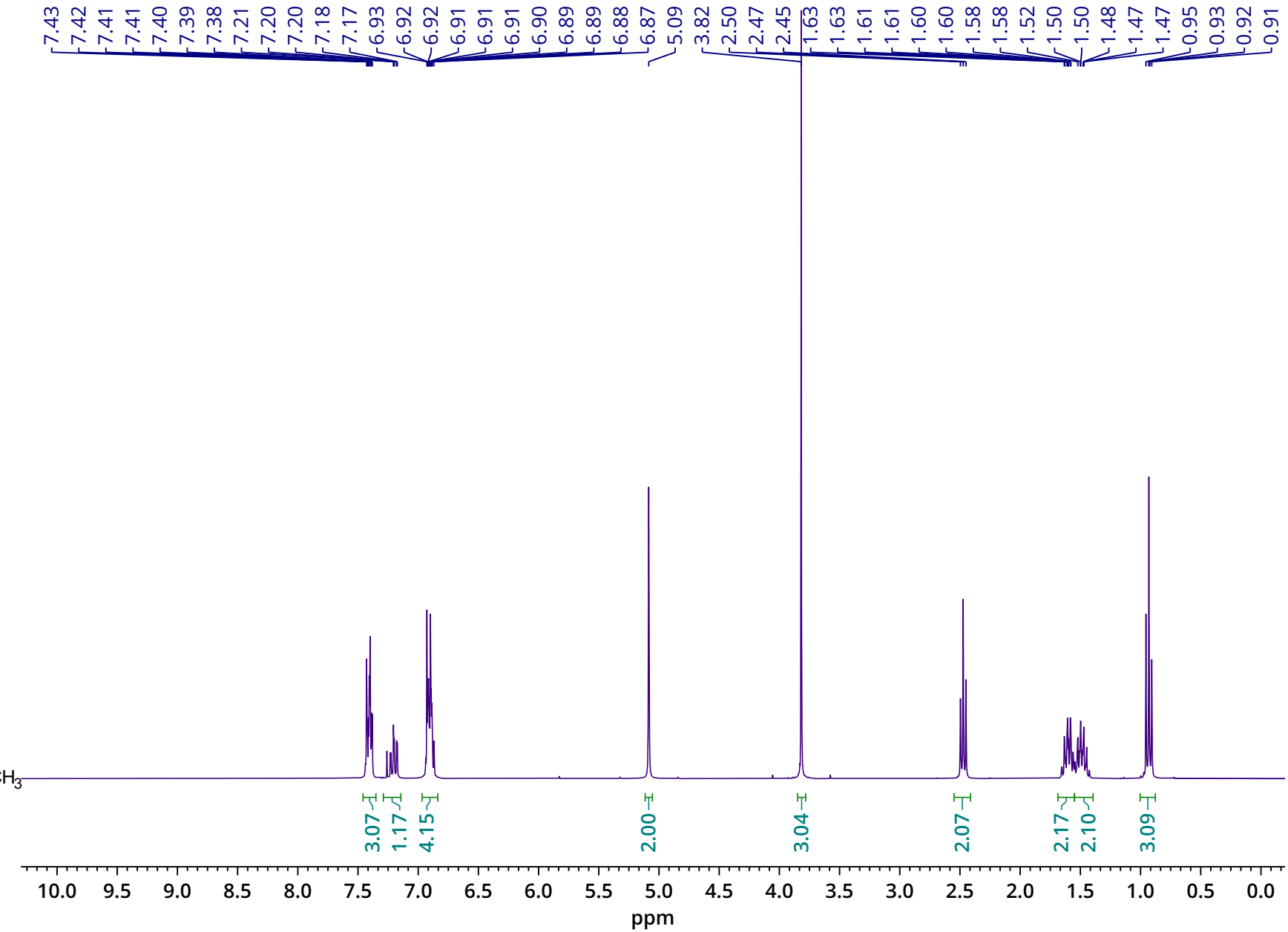


^{13}C NMR (75 MHz, $CDCl_3$) δ 159.28, 159.25, 133.20, 129.93, 129.61, 129.07, 128.59, 128.34, 125.30, 122.75, 120.90, 113.84, 113.37, 113.03, 88.83, 85.57, 70.30, 55.23.

Parameter	Value
Title	JAW-078.101.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	1030.5
Pulse Sequence	zg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	16
Receiver Gain	15.8
Relaxation Delay	1.0000
Pulse Width	11.7500
Acquisition Date	2020-01-03T11:33:00
Modification Date	2020-01-03T11:35:10
Spectrometer Frequency	300.18
Spectral Width	6103.5
Nucleus	1H
Spectral Size	65536

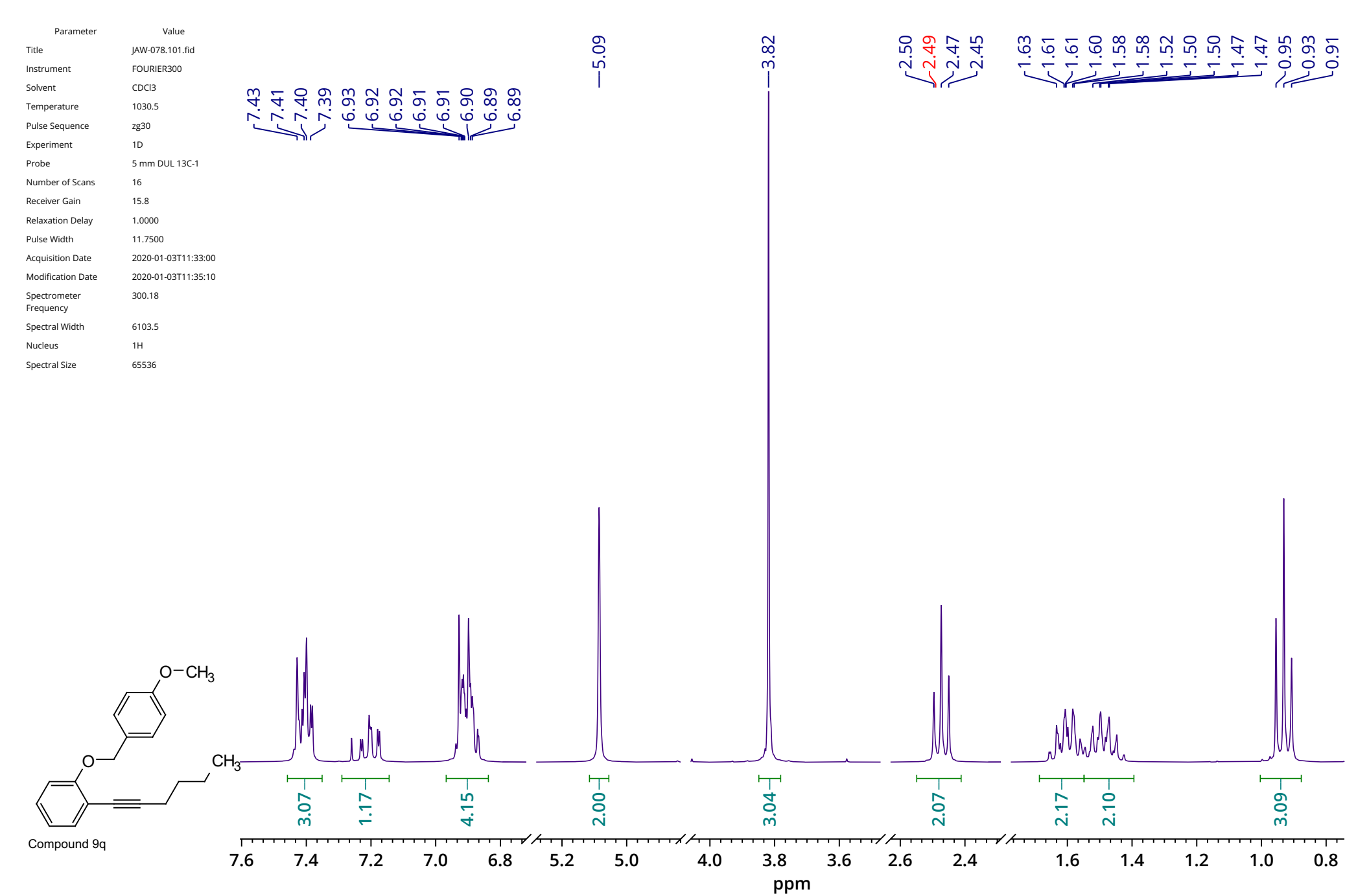


Compound 9q



^{1}H NMR (300 MHz, $CDCl_3$) δ 7.46 – 7.35 (m, 3H), 7.29 – 7.14 (m, 1H), 6.97 – 6.84 (m, 4H), 5.09 (s, 2H), 3.82 (s, 3H), 2.47 (t, J = 6.9 Hz, 2H), 1.69 – 1.54 (m, 2H), 1.54 – 1.39 (m, 2H), 0.93 (t, J = 7.2 Hz, 3H).

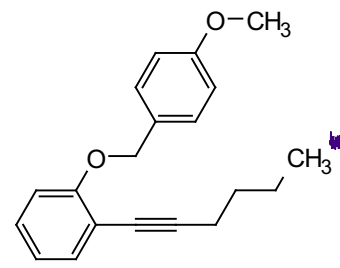
Parameter	Value
Title	JAW-078.101.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	1030.5
Pulse Sequence	zg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	16
Receiver Gain	15.8
Relaxation Delay	1.0000
Pulse Width	11.7500
Acquisition Date	2020-01-03T11:33:00
Modification Date	2020-01-03T11:35:10
Spectrometer Frequency	300.18
Spectral Width	6103.5
Nucleus	1H
Spectral Size	65536



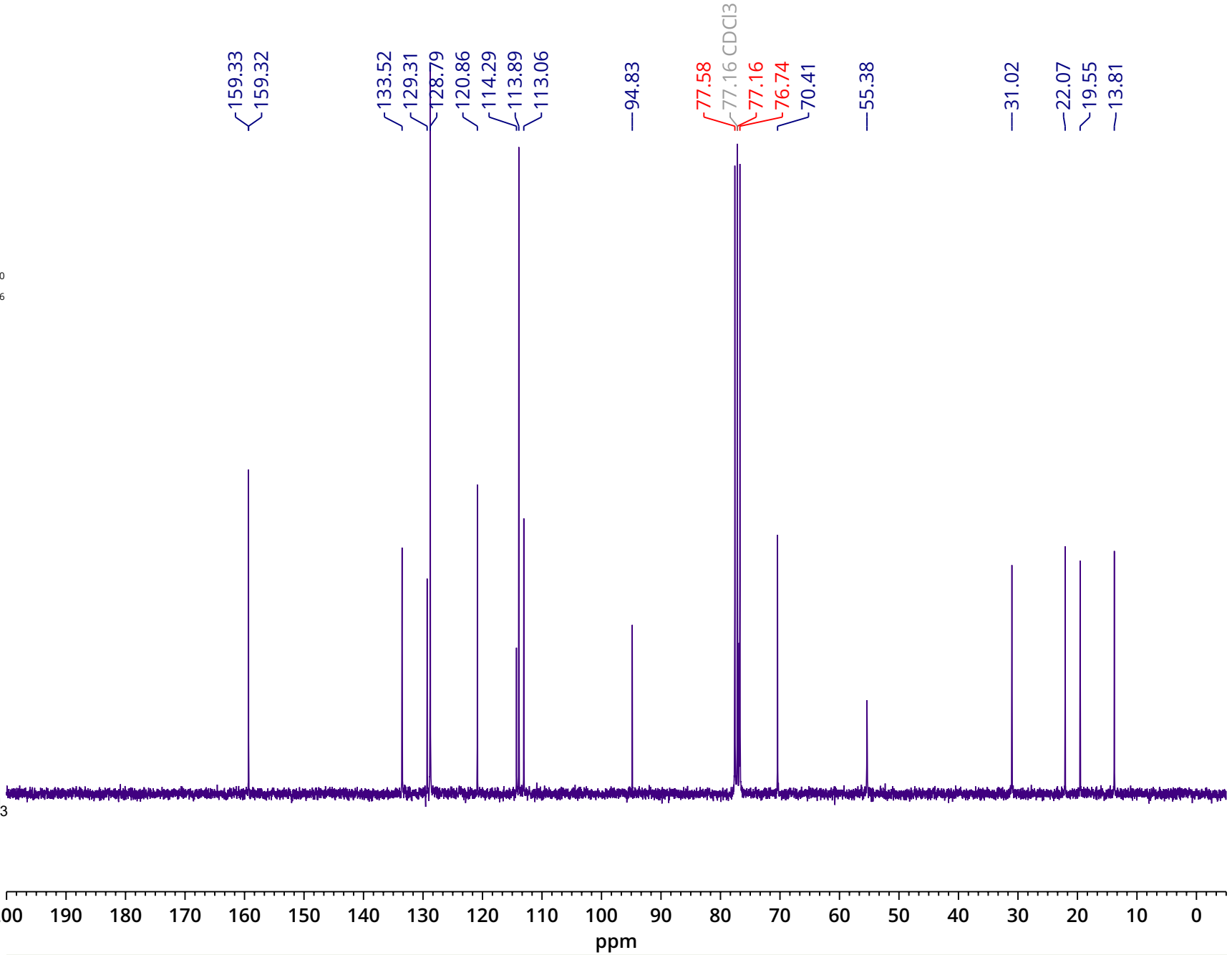
Compound 9q

^{1}H NMR (300 MHz, $CDCl_3$) δ 7.46 – 7.35 (m, 3H), 7.29 – 7.14 (m, 1H), 6.97 – 6.84 (m, 4H), 5.09 (s, 2H), 3.82 (s, 3H), 2.47 (t, J = 6.9 Hz, 2H), 1.69 – 1.54 (m, 2H), 1.54 – 1.39 (m, 2H), 0.93 (t, J = 7.2 Hz, 3H).

Parameter	Value
Title	JAW-078.102.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	1030.5
Pulse Sequence	zgpg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	841
Receiver Gain	501.2
Relaxation Delay	2.0000
Pulse Width	10.7500
Acquisition Date	2020-01-03T11:36:00
Modification Date	2020-01-03T12:23:56
Spectrometer Frequency	75.49
Spectral Width	24414.1
Nucleus	13C
Spectral Size	65536

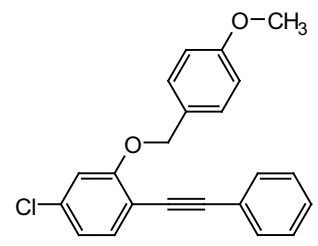


Compound 9q

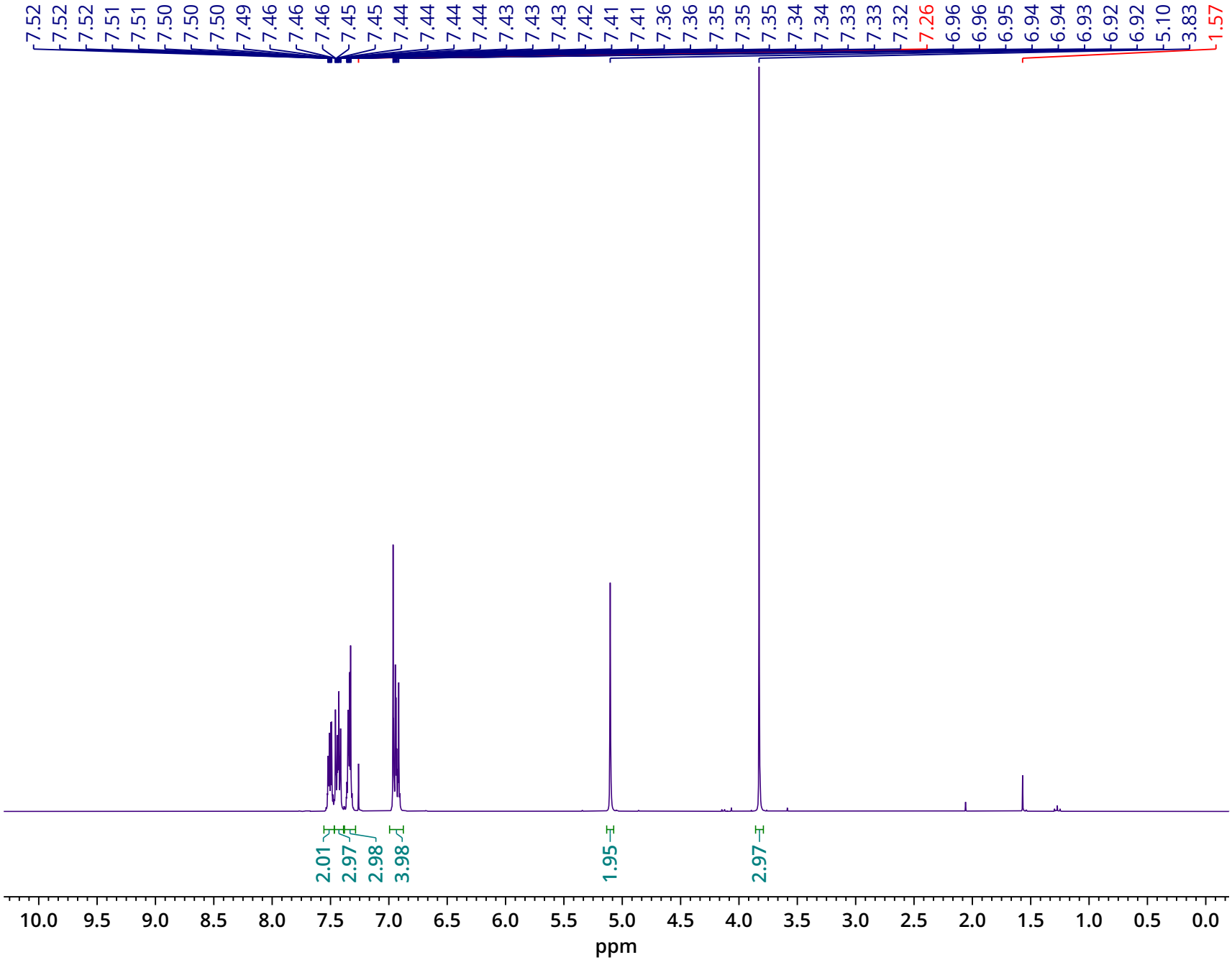


^{13}C NMR (75 MHz, $CDCl_3$) δ 159.33, 159.32, 133.52, 129.31, 128.79, 120.86, 114.29, 113.89, 113.06, 94.83, 70.41, 55.38, 31.02, 22.07, 19.55, 13.81.

Parameter	Value
Title	CCD-144.11.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	295.2
Pulse Sequence	zg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	64
Receiver Gain	31.6
Relaxation Delay	1.0000
Pulse Width	10.2000
Acquisition Date	2019-07-11T11:20:00
Modification Date	2019-07-11T11:27:42
Spectrometer Frequency	300.18
Spectral Width	6103.5
Nucleus	1H
Spectral Size	65536

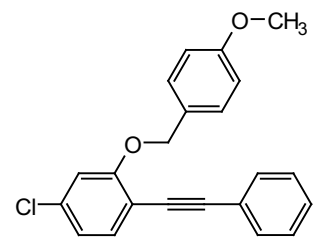


Compound 9r

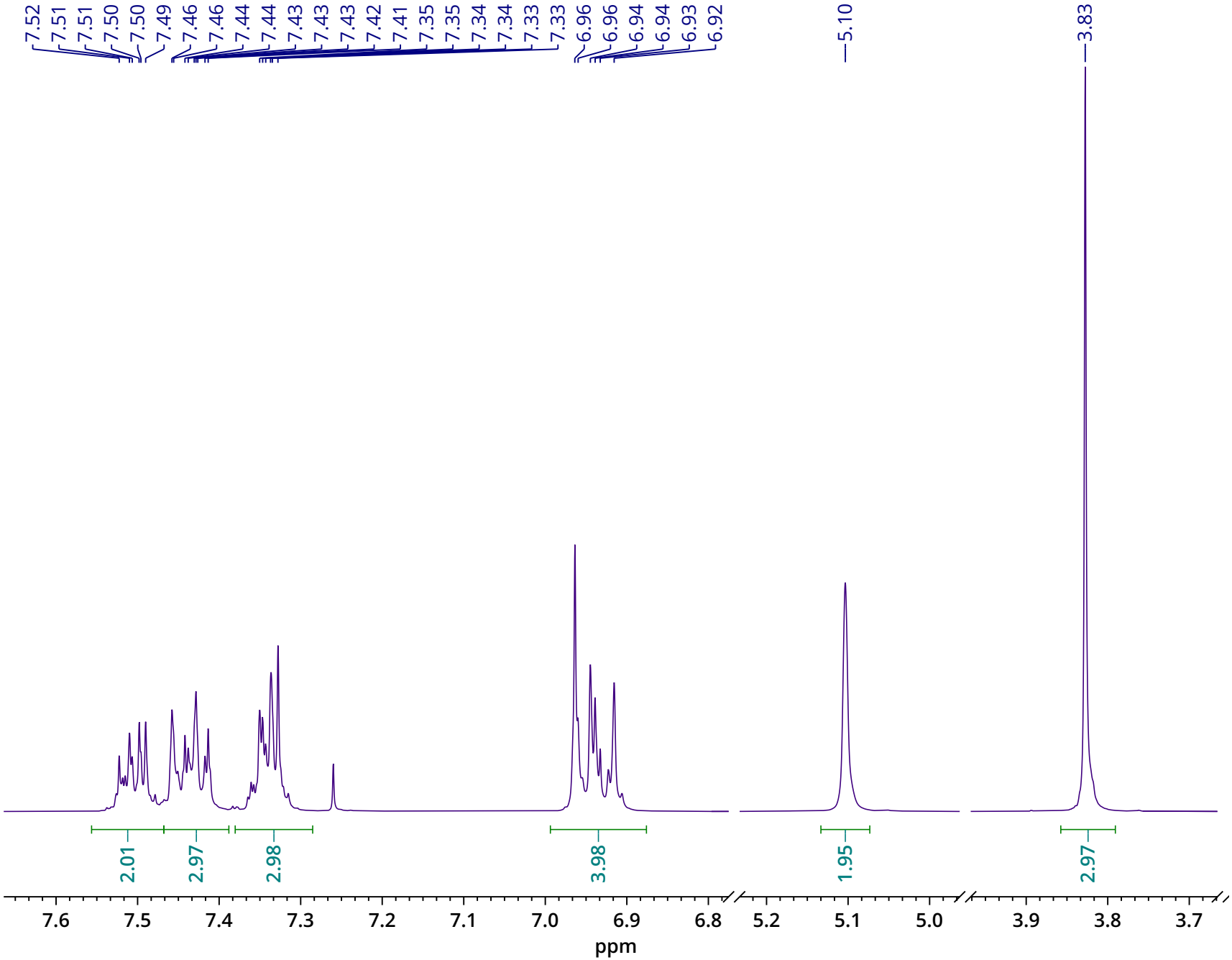


^{1}H NMR (300 MHz, $CDCl_3$) δ 7.55 – 7.47 (m, 2H), 7.47 – 7.39 (m, 3H), 7.38 – 7.28 (m, 3H), 7.00 – 6.87 (m, 4H), 5.10 (s, 2H), 3.83 (s, 3H).

Parameter	Value
Title	CCD-144.11.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	295.2
Pulse Sequence	zg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	64
Receiver Gain	31.6
Relaxation Delay	1.0000
Pulse Width	10.2000
Acquisition Date	2019-07-11T11:20:00
Modification Date	2019-07-11T11:27:42
Spectrometer Frequency	300.18
Spectral Width	6103.5
Nucleus	1H
Spectral Size	65536

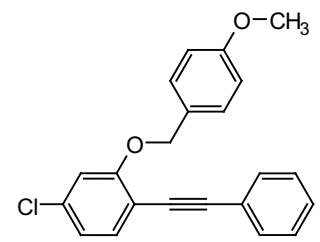


Compound 9r

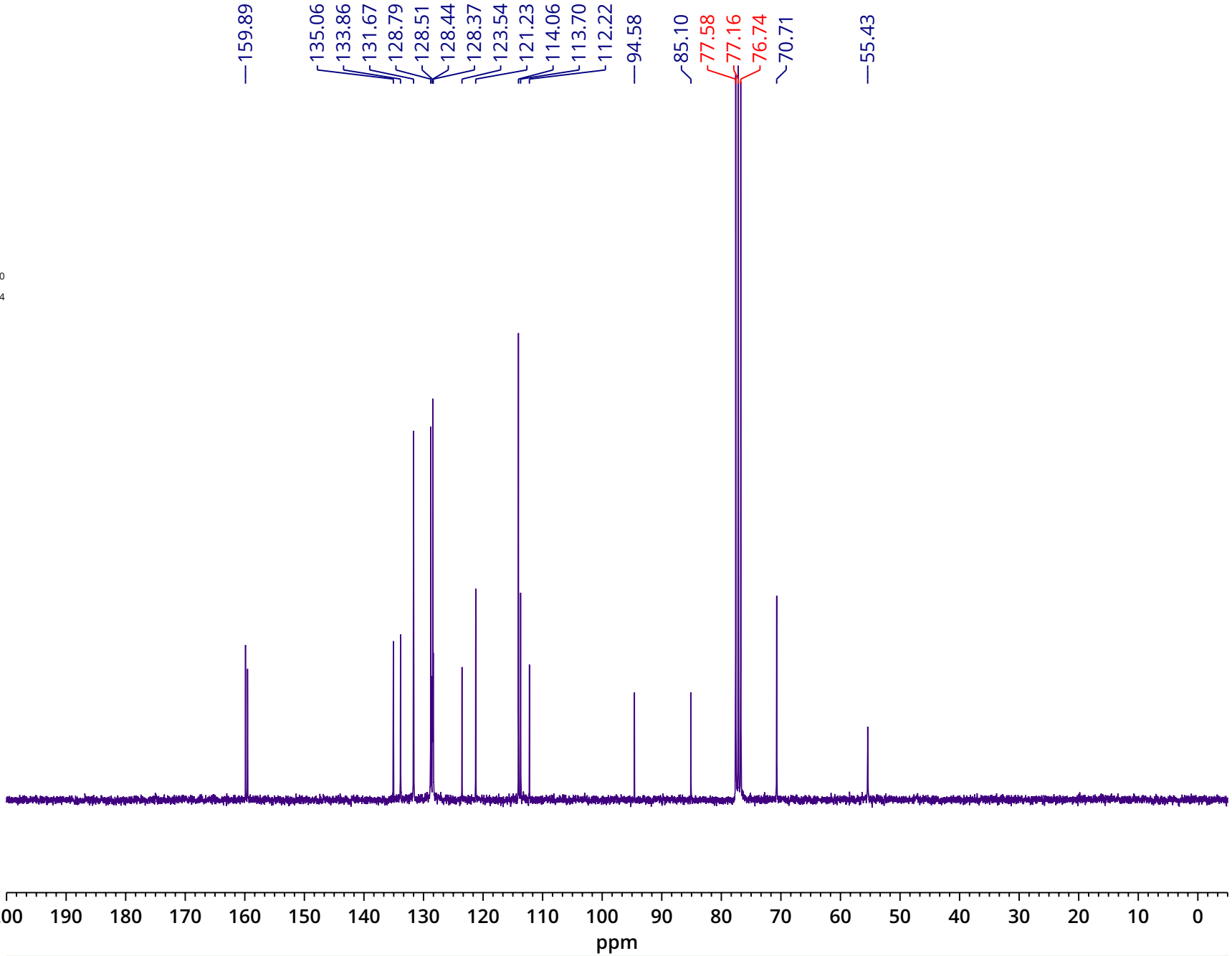


^{1}H NMR (300 MHz, $CDCl_3$) δ 7.55 – 7.47 (m, 2H), 7.47 – 7.39 (m, 3H), 7.38 – 7.28 (m, 3H), 7.00 – 6.87 (m, 4H), 5.10 (s, 2H), 3.83 (s, 3H).

Parameter	Value
Title	CCD-144.101.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	295.8
Pulse Sequence	zgpg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	1843
Receiver Gain	501.2
Relaxation Delay	2.0000
Pulse Width	11.0000
Acquisition Date	2019-07-11T18:04:00
Modification Date	2019-07-11T19:48:04
Spectrometer Frequency	75.49
Spectral Width	24414.1
Nucleus	13C
Spectral Size	65536

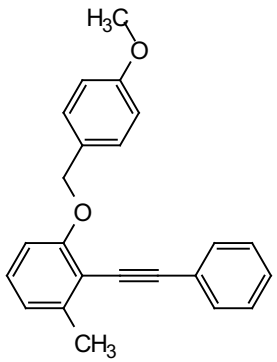


Compound 9r

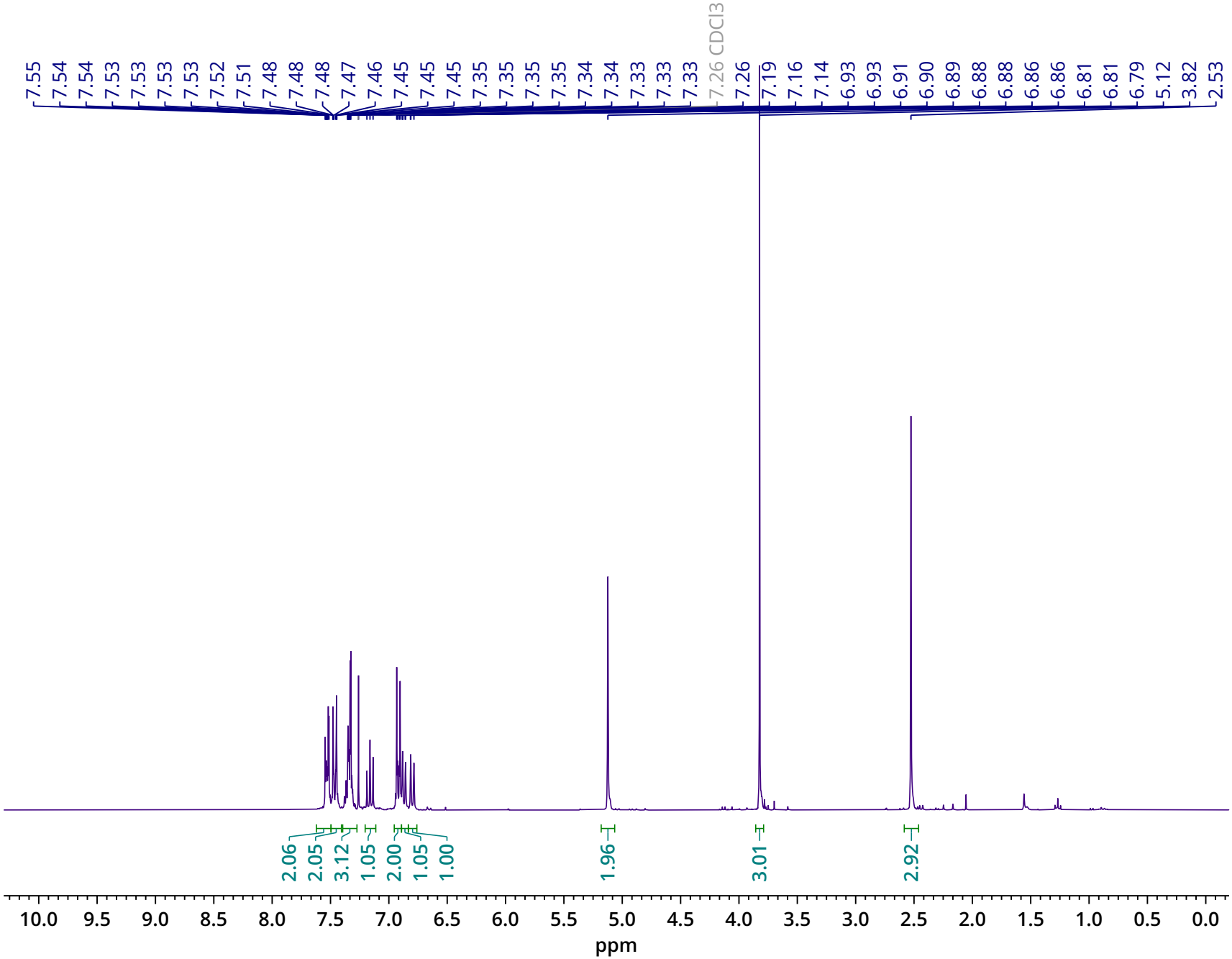


^{13}C NMR (75 MHz, $CDCl_3$) δ 159.89, 135.06, 133.86, 131.67, 128.79, 128.51, 128.44, 128.37, 123.54, 121.23, 114.06, 113.70, 112.22, 94.58, 85.10, 70.71, 55.43.

Parameter	Value
Title	QDL-322(2-20).201.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	1030.7
Pulse Sequence	zg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	16
Receiver Gain	31.6
Relaxation Delay	1.0000
Pulse Width	10.2000
Acquisition Date	2019-08-01T14:17:00
Modification Date	2019-08-01T15:18:54
Spectrometer Frequency	300.18
Spectral Width	6103.5
Nucleus	1H
Spectral Size	65536

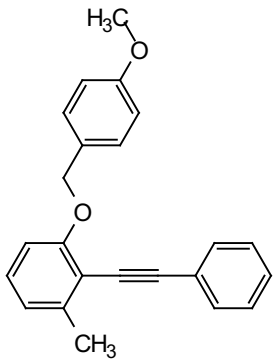


Compound 9s

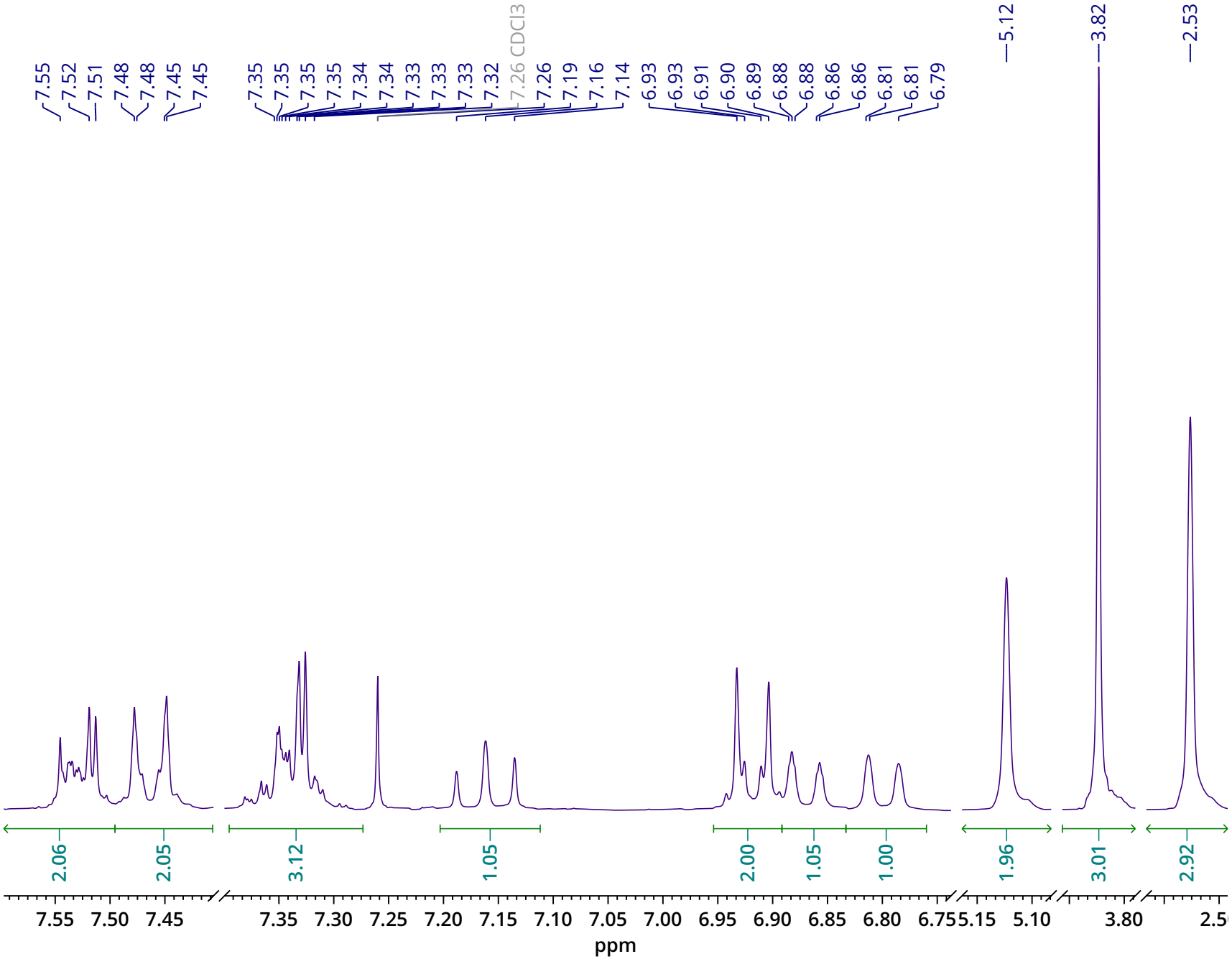


^{1}H NMR (300 MHz, $CDCl_3$) δ 7.56 – 7.49 (m, 2H), 7.49 – 7.42 (m, 2H), 7.39 – 7.28 (m, 3H), 7.16 (t, J = 7.9 Hz, 1H), 6.95 – 6.89 (m, 2H), 6.87 (dt, J = 7.6, 0.9 Hz, 1H), 6.83 – 6.76 (m, 1H), 5.12 (s, 2H), 3.82 (s, 3H), 2.53 (s, 3H).

Parameter	Value
Title	QDL-322(2-20).201.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	1030.7
Pulse Sequence	zg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	16
Receiver Gain	31.6
Relaxation Delay	1.0000
Pulse Width	10.2000
Acquisition Date	2019-08-01T14:17:00
Modification Date	2019-08-01T15:18:54
Spectrometer Frequency	300.18
Spectral Width	6103.5
Nucleus	1H
Spectral Size	65536

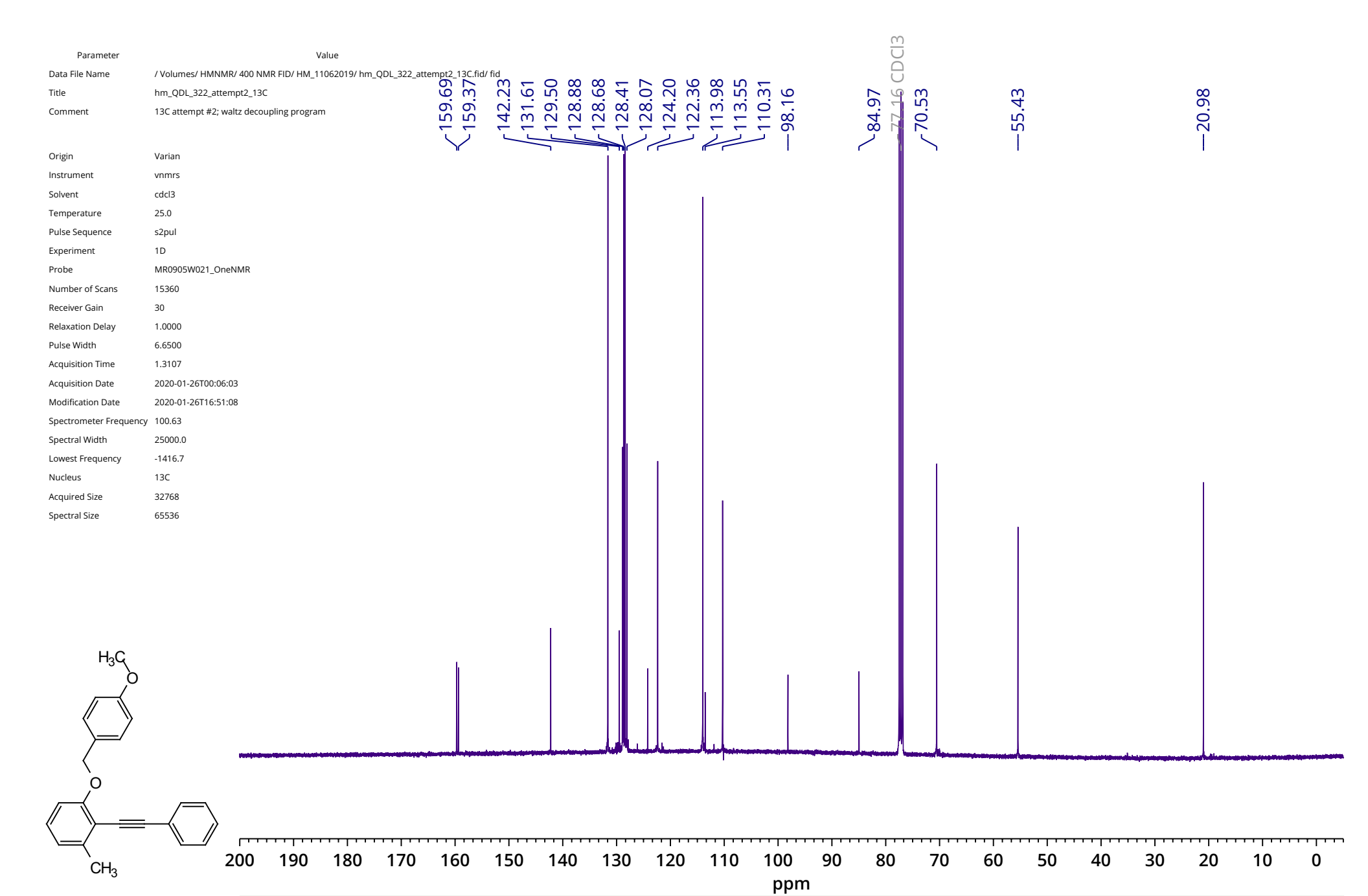


Compound 9s



^{1}H NMR (300 MHz, $CDCl_3$) δ 7.56 – 7.49 (m, 2H), 7.49 – 7.42 (m, 2H), 7.39 – 7.28 (m, 3H), 7.16 (t, J = 7.9 Hz, 1H), 6.95 – 6.89 (m, 2H), 6.87 (dt, J = 7.6, 0.9 Hz, 1H), 6.83 – 6.76 (m, 1H), 5.12 (s, 2H), 3.82 (s, 3H), 2.53 (s, 3H).

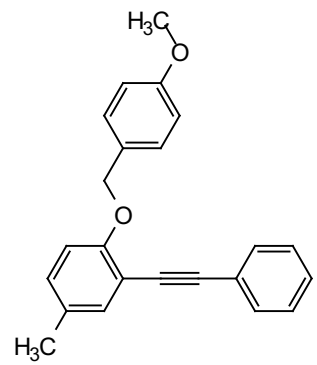
Parameter	Value
Data File Name	/ Volumes/ HMNMR/ 400 NMR FID/ HM_11062019/ hm_QDL_322_attempt2_13C.fid/ fid
Title	hm_QDL_322_attempt2_13C
Comment	13C attempt #2; waltz decoupling program
Origin	Varian
Instrument	vnmrs
Solvent	cdcl3
Temperature	25.0
Pulse Sequence	s2pul
Experiment	1D
Probe	MR0905W021_OneNMR
Number of Scans	15360
Receiver Gain	30
Relaxation Delay	1.0000
Pulse Width	6.6500
Acquisition Time	1.3107
Acquisition Date	2020-01-26T00:06:03
Modification Date	2020-01-26T16:51:08
Spectrometer Frequency	100.63
Spectral Width	25000.0
Lowest Frequency	-1416.7
Nucleus	13C
Acquired Size	32768
Spectral Size	65536



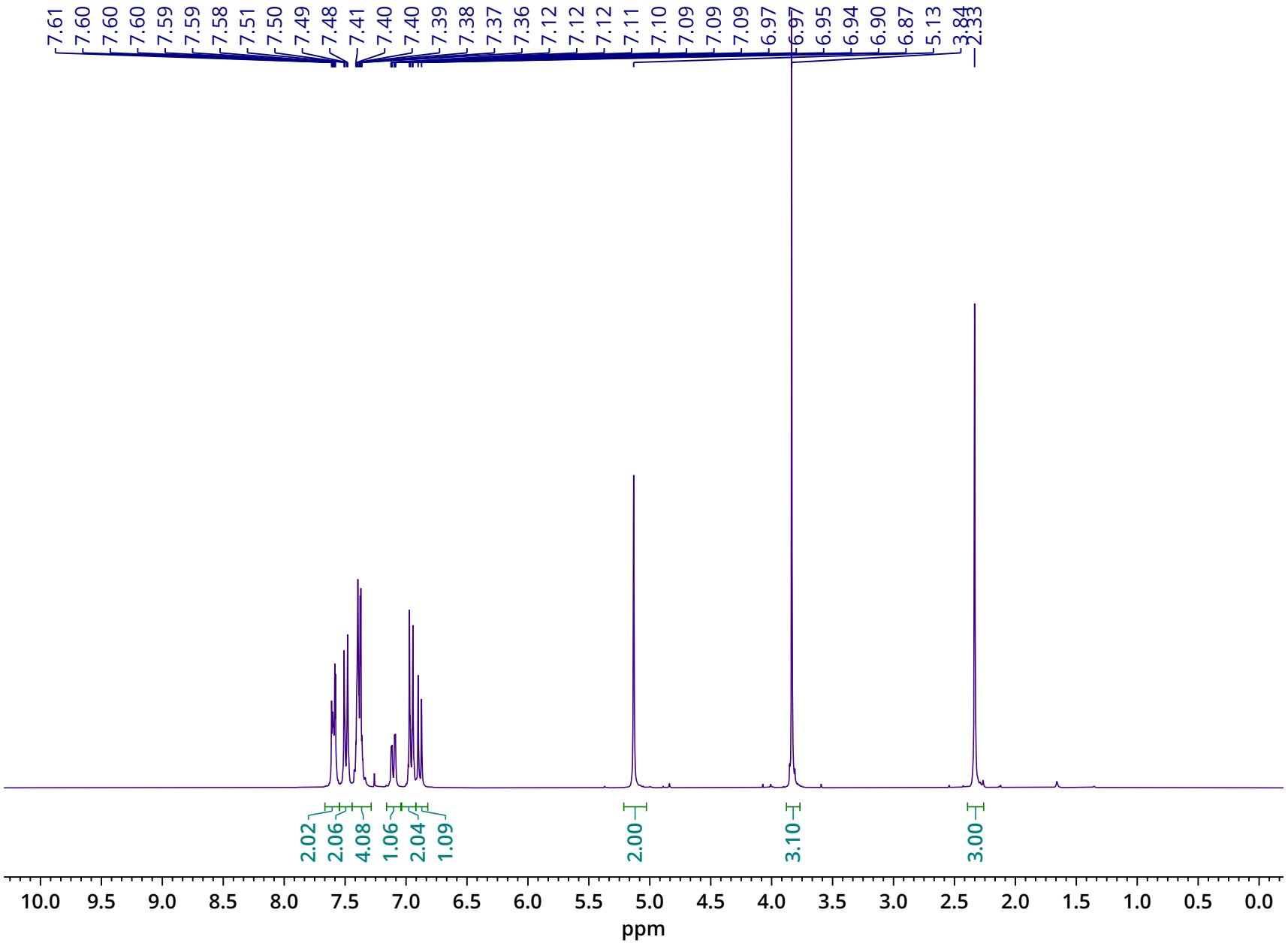
Compound 9s

^{13}C NMR (101 MHz, $CDCl_3$) δ 159.69, 159.37, 142.23, 131.61, 129.50, 128.88, 128.68, 128.41, 128.07, 124.20, 122.36, 113.98, 113.55, 110.31, 98.16, 84.97, 70.53, 55.43, 20.98.

Parameter	Value
Title	QDL-001-CCD-147.101.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	698.1
Pulse Sequence	zg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	16
Receiver Gain	7.2
Relaxation Delay	1.0000
Pulse Width	10.2000
Acquisition Date	2019-07-18T15:17:00
Modification Date	2019-07-18T16:19:32
Spectrometer Frequency	300.18
Spectral Width	6103.5
Nucleus	1H
Spectral Size	65536

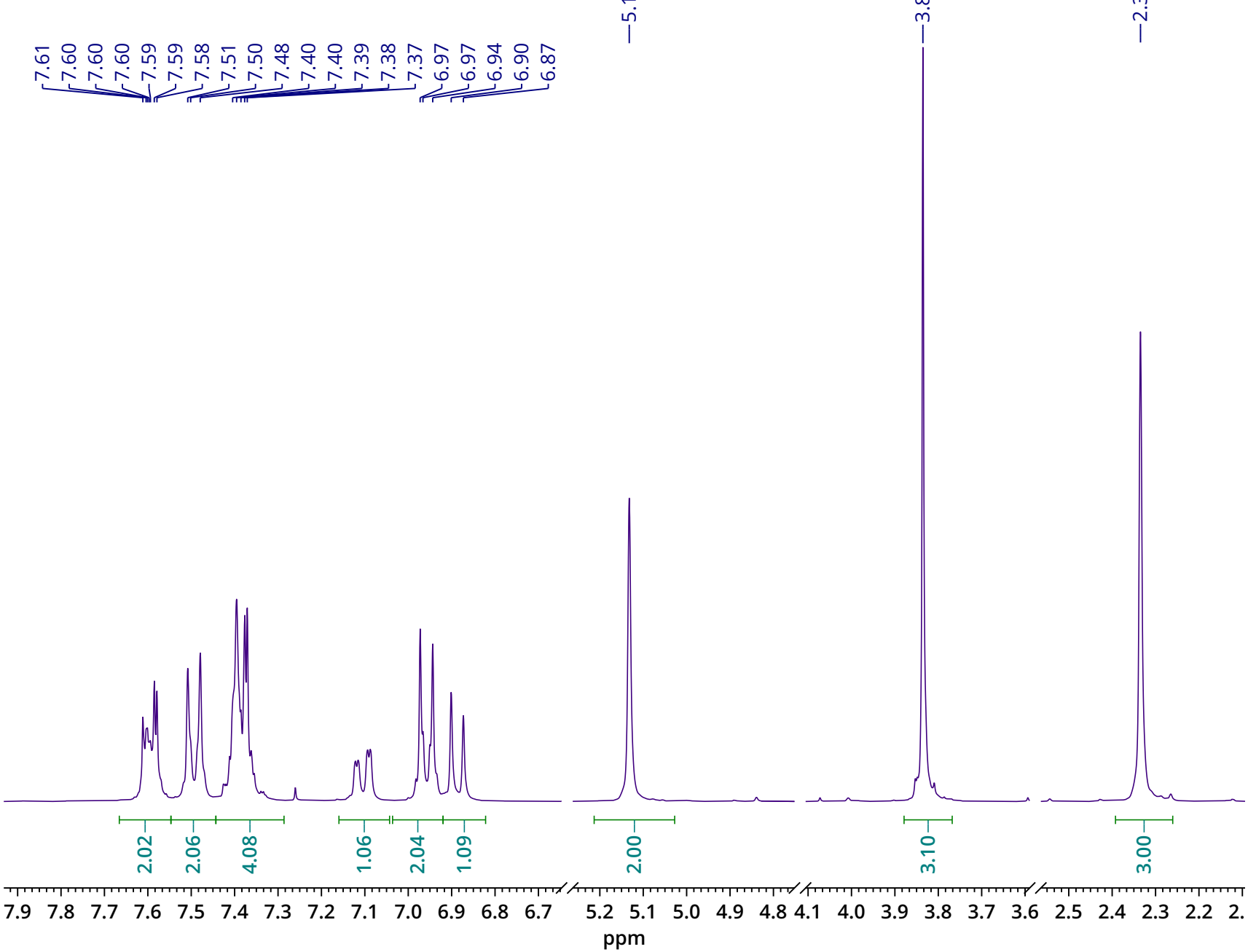


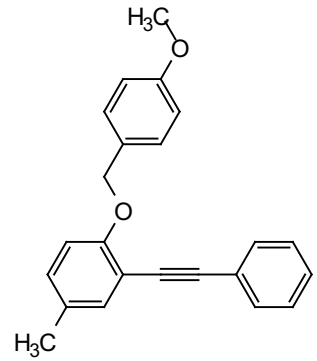
Compound 9t



^{1}H NMR (300 MHz, $CDCl_3$) δ 7.65 – 7.55 (m, 2H), 7.54 – 7.45 (m, 2H), 7.45 – 7.32 (m, 4H), 7.15 – 7.06 (m, 1H), 7.03 – 6.92 (m, 2H), 6.89 (d, J = 8.4 Hz, 1H), 5.13 (s, 2H), 3.84 (s, 3H), 2.33 (s, 3H).

Parameter	Value
Title	QDL-001-CCD-147.101.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	698.1
Pulse Sequence	zg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	16
Receiver Gain	7.2
Relaxation Delay	1.0000
Pulse Width	10.2000
Acquisition Date	2019-07-18T15:17:00
Modification Date	2019-07-18T16:19:32
Spectrometer Frequency	300.18
Spectral Width	6103.5
Nucleus	1H
Spectral Size	65536

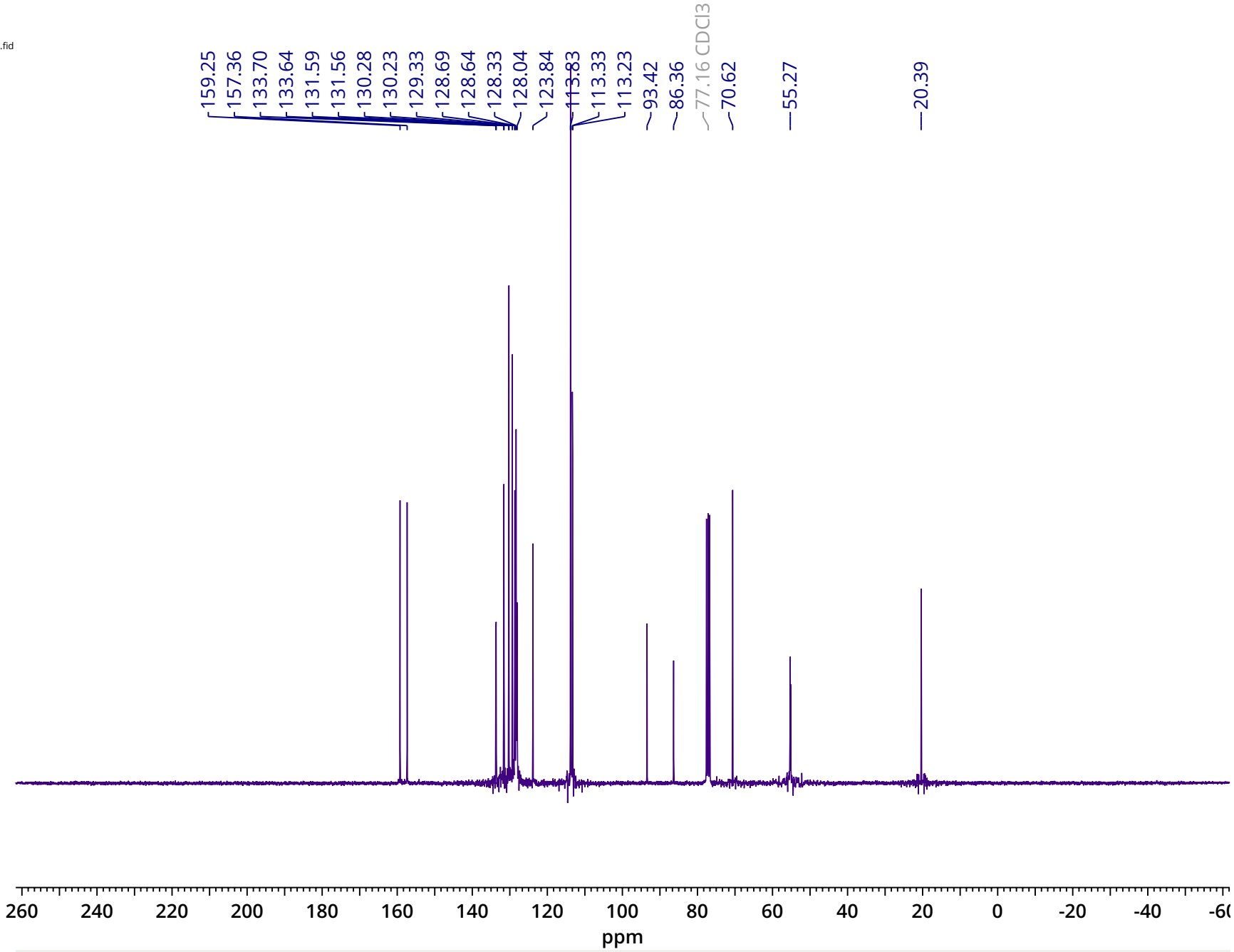


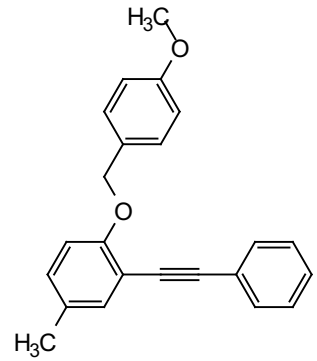


Compound 9t

^{1}H NMR (300 MHz, $CDCl_3$) δ 7.65 – 7.55 (m, 2H), 7.54 – 7.45 (m, 2H), 7.45 – 7.32 (m, 4H), 7.15 – 7.06 (m, 1H), 7.03 – 6.92 (m, 2H), 6.89 (d, J = 8.4 Hz, 1H), 5.13 (s, 2H), 3.84 (s, 3H), 2.33 (s, 3H).

Parameter	Value
Title	QDL-001-CCD-147.102.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	297.0
Pulse Sequence	zgpg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	4096
Receiver Gain	501.2
Relaxation Delay	2.0000
Pulse Width	11.0000
Acquisition Date	2019-07-21T21:04:00
Modification Date	2019-07-22T01:54:54
Spectrometer Frequency	75.49
Spectral Width	24414.1
Nucleus	13C
Spectral Size	65536

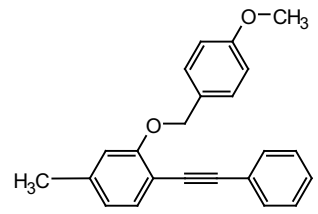




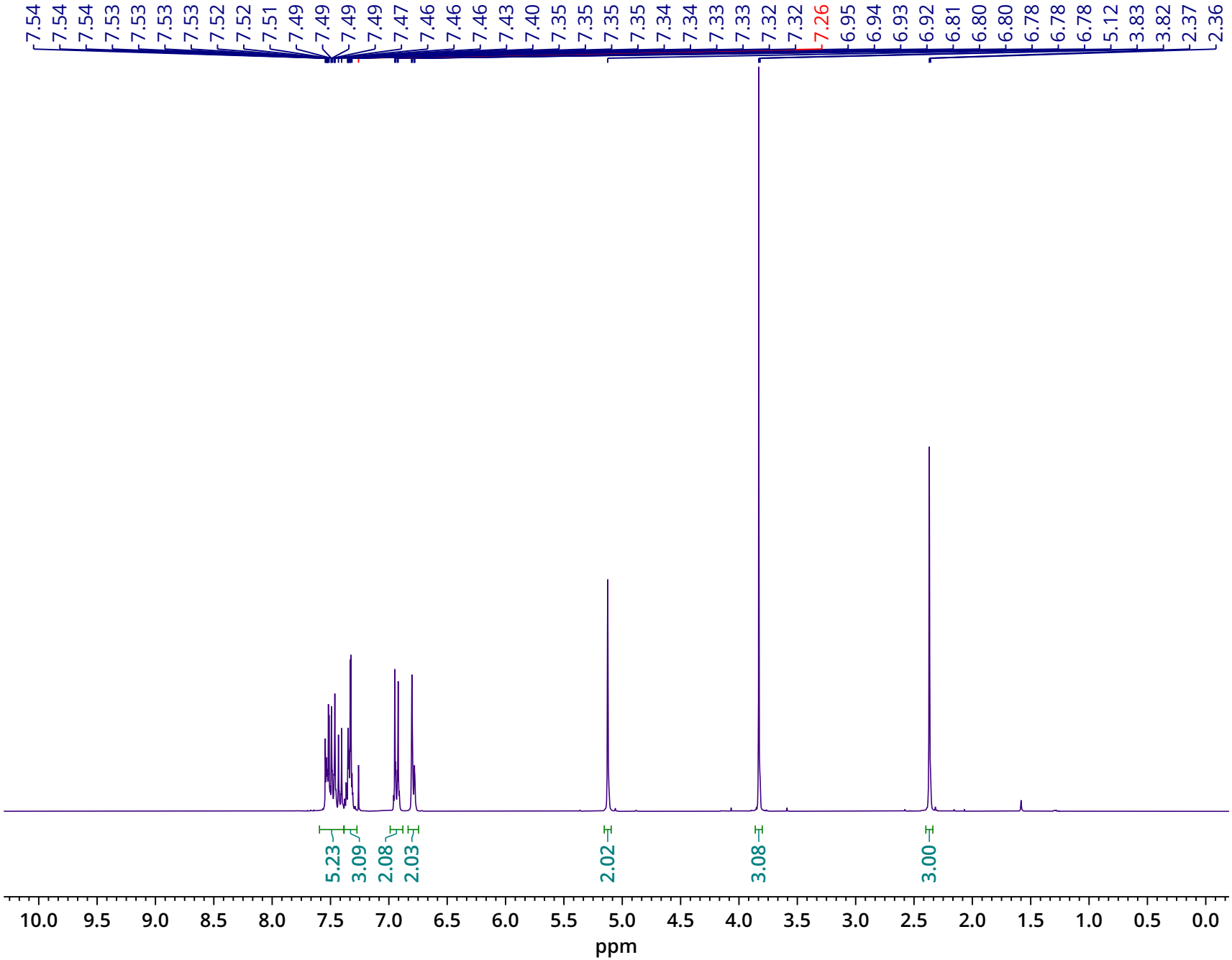
Compound 9t

^{13}C NMR (75 MHz, $CDCl_3$) δ 159.25, 157.36, 133.70, 131.59, 130.28, 130.23, 129.33, 128.69, 128.33, 128.04, 123.84, 113.83, 113.33, 113.23, 93.42, 86.36, 70.62, 55.27, 20.39.

Parameter	Value
Title	CCD-141.11.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	1019.8
Pulse Sequence	zg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	64
Receiver Gain	16.4
Relaxation Delay	1.0000
Pulse Width	10.2000
Acquisition Date	2019-06-28T10:39:00
Modification Date	2019-06-28T10:46:20
Spectrometer Frequency	300.18
Spectral Width	6103.5
Nucleus	1H
Spectral Size	65536

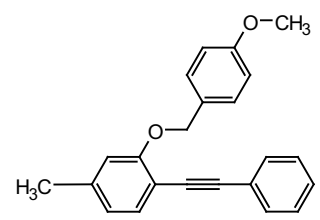


Compound 9u

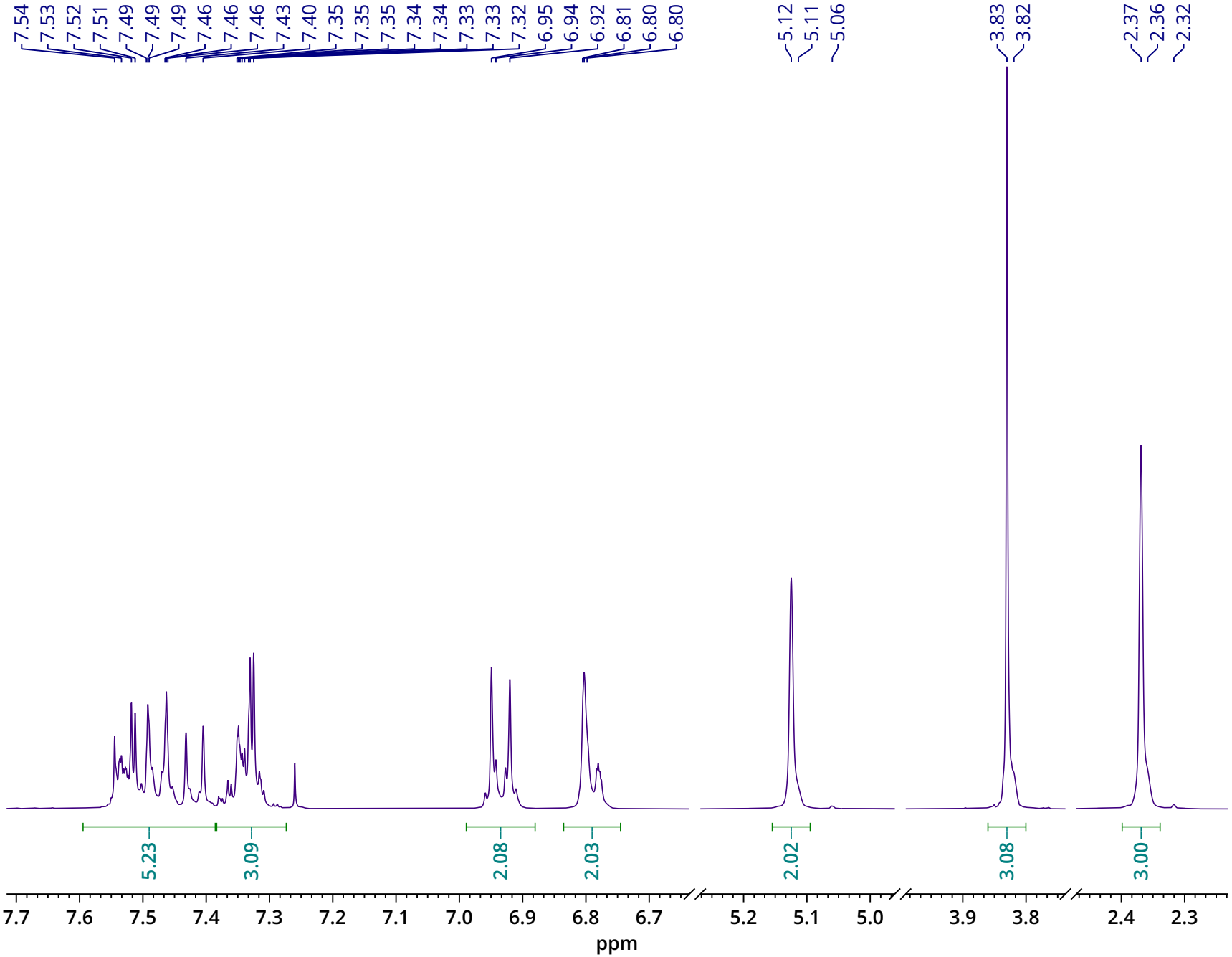


^{1}H NMR (300 MHz, $CDCl_3$) δ 7.58 – 7.39 (m, 5H), 7.39 – 7.30 (m, 3H), 6.99 – 6.88 (m, 2H), 6.83 – 6.76 (m, 2H), 5.12 (s, 2H), 3.83 (s, 3H), 2.37 (s, 3H).

Parameter	Value
Title	CCD-141.11.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	1019.8
Pulse Sequence	zg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	64
Receiver Gain	16.4
Relaxation Delay	1.0000
Pulse Width	10.2000
Acquisition Date	2019-06-28T10:39:00
Modification Date	2019-06-28T10:46:20
Spectrometer Frequency	300.18
Spectral Width	6103.5
Nucleus	1H
Spectral Size	65536

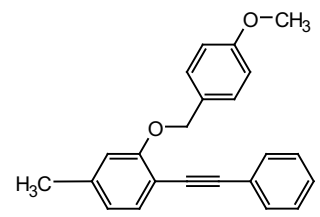


Compound 9u

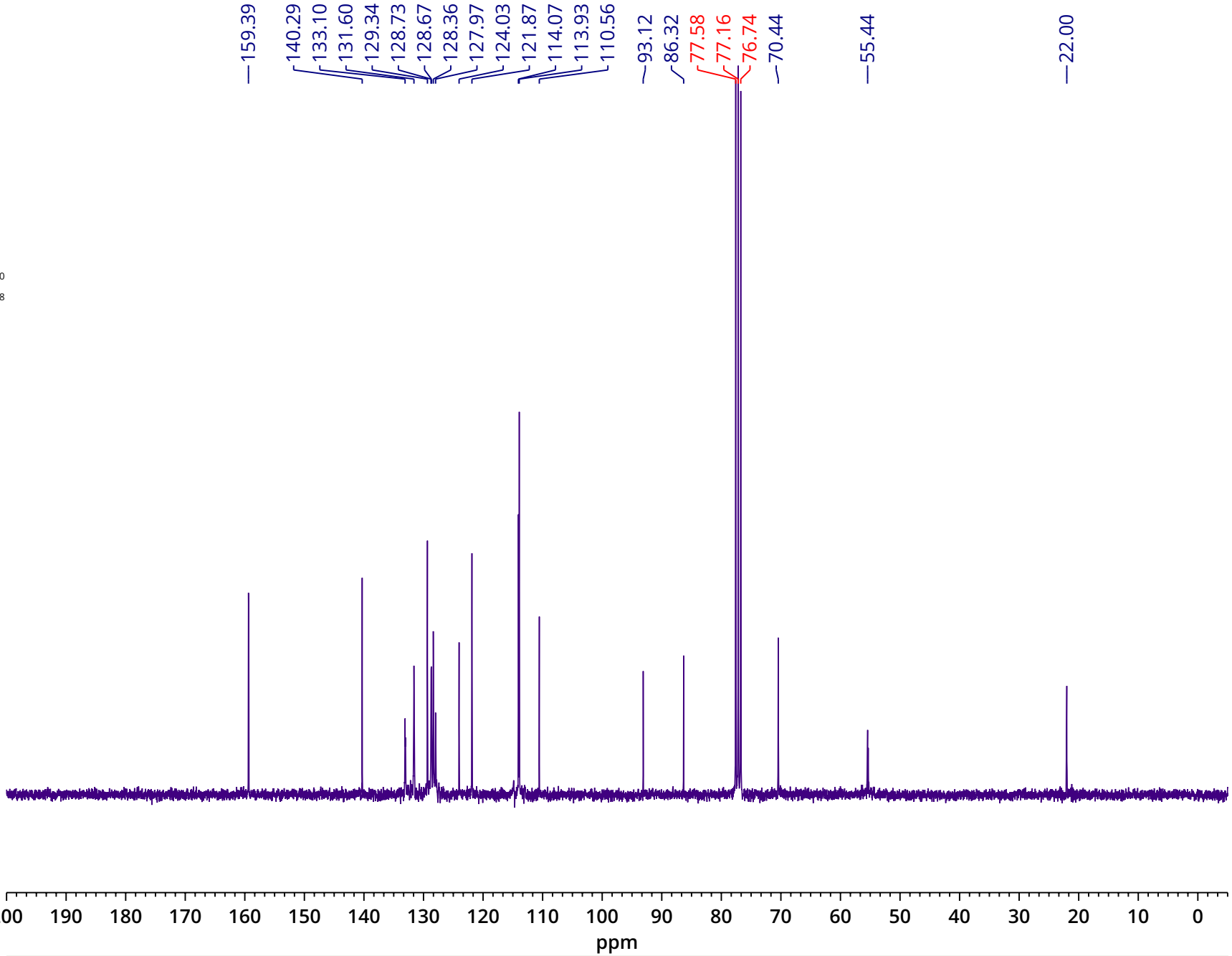


^{1}H NMR (300 MHz, $CDCl_3$) δ 7.58 – 7.39 (m, 5H), 7.39 – 7.30 (m, 3H), 6.99 – 6.88 (m, 2H), 6.83 – 6.76 (m, 2H), 5.12 (s, 2H), 3.83 (s, 3H), 2.37 (s, 3H).

Parameter	Value
Title	CCD-141.101.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	1019.8
Pulse Sequence	zgpg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	1024
Receiver Gain	501.2
Relaxation Delay	2.0000
Pulse Width	11.0000
Acquisition Date	2019-06-28T18:05:00
Modification Date	2019-06-28T19:03:08
Spectrometer Frequency	75.49
Spectral Width	24414.1
Nucleus	13C
Spectral Size	65536

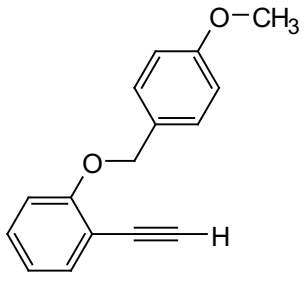


Compound 9u

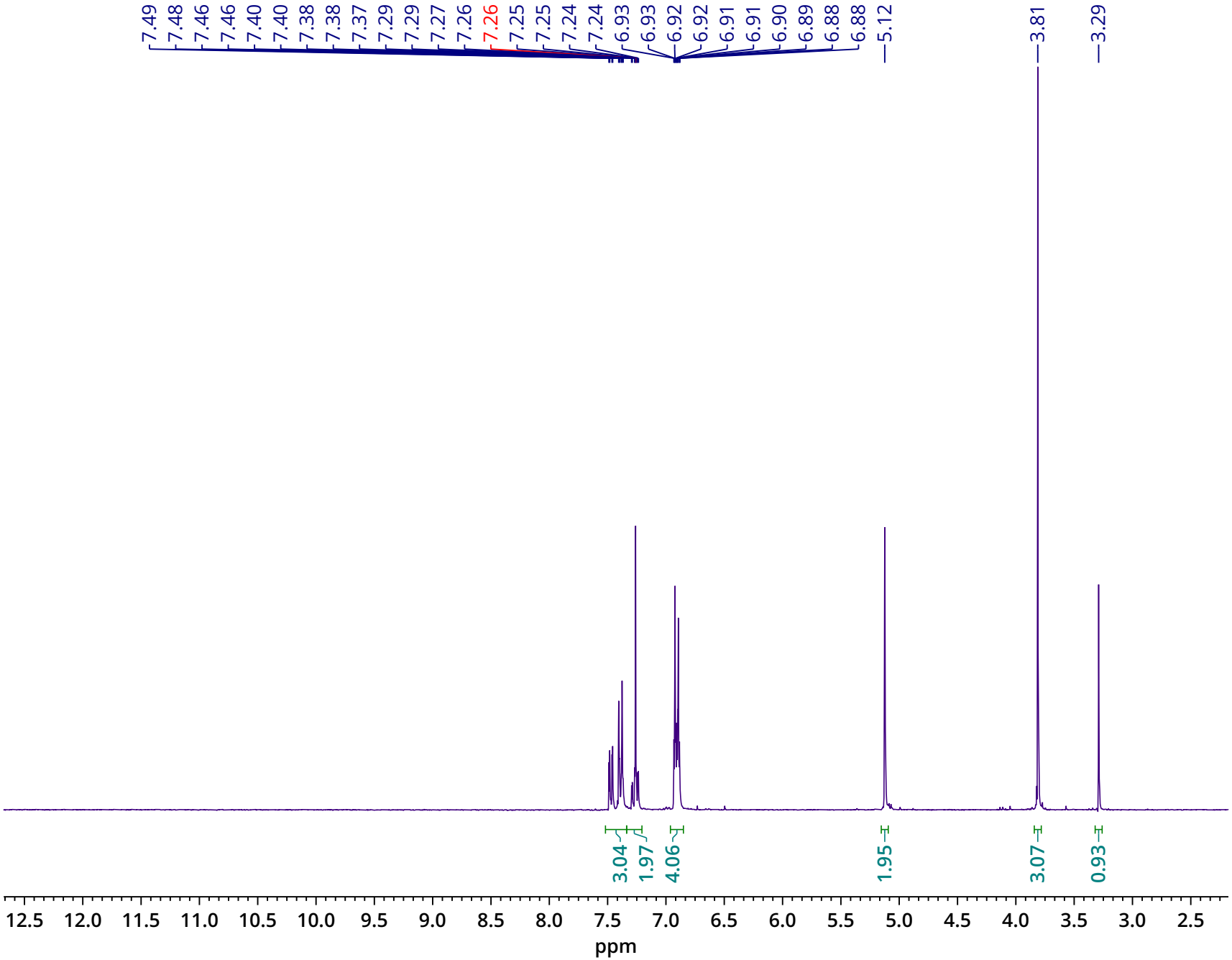


^{13}C NMR (75 MHz, $CDCl_3$) δ 159.39, 140.29, 133.10, 131.60, 129.34, 128.73, 128.67, 128.36, 127.97, 124.03, 121.87, 114.07, 113.93, 110.56, 93.12, 86.32, 70.44, 55.44, 22.00.

Parameter	Value
Title	QDL-295.101.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	297.3
Pulse Sequence	zg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	16
Receiver Gain	112.7
Relaxation Delay	1.0000
Pulse Width	10.2000
Acquisition Date	2019-03-14T15:21:00
Modification Date	2019-03-14T15:23:02
Spectrometer Frequency	300.18
Spectral Width	6103.5
Nucleus	1H
Spectral Size	65536

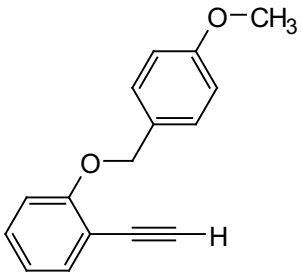


Compound S1

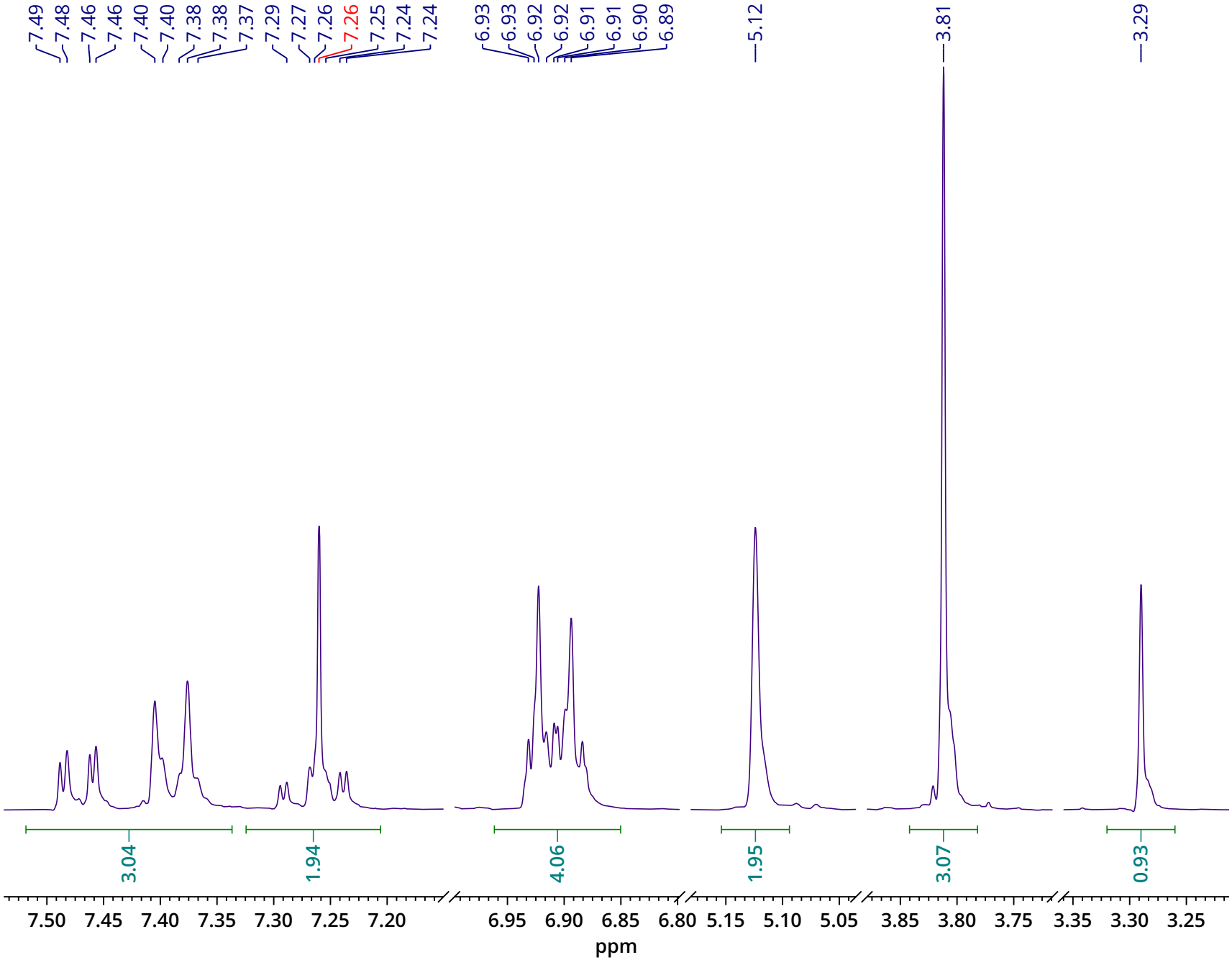


^{1}H NMR (300 MHz, $CDCl_3$) δ 7.52 – 7.34 (m, 3H), 7.32 – 7.21 (m, 1H), 6.96 – 6.85 (m, 4H), 5.12 (s, 2H), 3.81 (s, 3H), 3.29 (s, 1H).

Parameter	Value
Title	QDL-295.101.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	297.3
Pulse Sequence	zg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	16
Receiver Gain	112.7
Relaxation Delay	1.0000
Pulse Width	10.2000
Acquisition Date	2019-03-14T15:21:00
Modification Date	2019-03-14T15:23:02
Spectrometer Frequency	300.18
Spectral Width	6103.5
Nucleus	1H
Spectral Size	65536

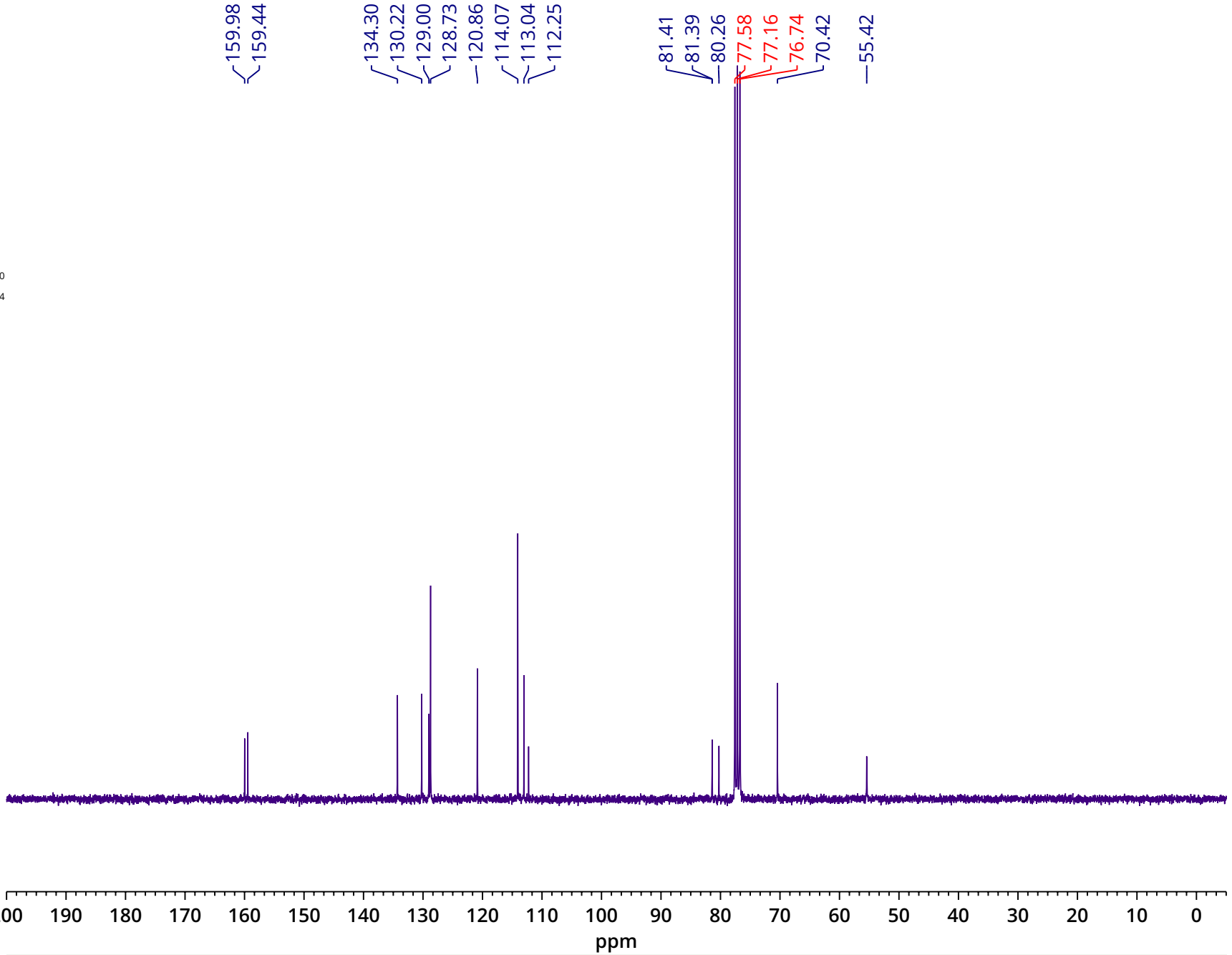


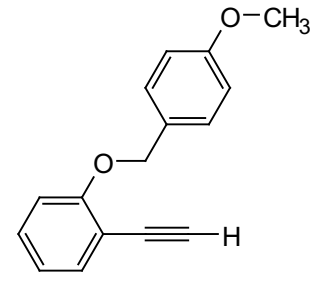
Compound S1



^{1}H NMR (300 MHz, $CDCl_3$) δ 7.52 – 7.34 (m, 3H), 7.32 – 7.21 (m, 1H), 6.96 – 6.85 (m, 4H), 5.12 (s, 2H), 3.81 (s, 3H), 3.29 (s, 1H).

Parameter	Value
Title	QDL-295.102.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	297.5
Pulse Sequence	zgpg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	2048
Receiver Gain	501.2
Relaxation Delay	2.0000
Pulse Width	11.0000
Acquisition Date	2019-03-14T18:04:00
Modification Date	2019-03-14T19:59:44
Spectrometer Frequency	75.49
Spectral Width	24414.1
Nucleus	13C
Spectral Size	65536

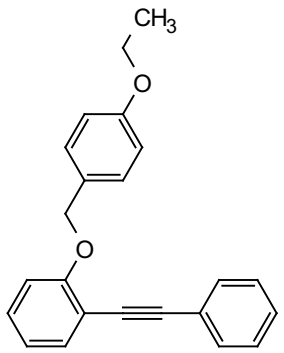




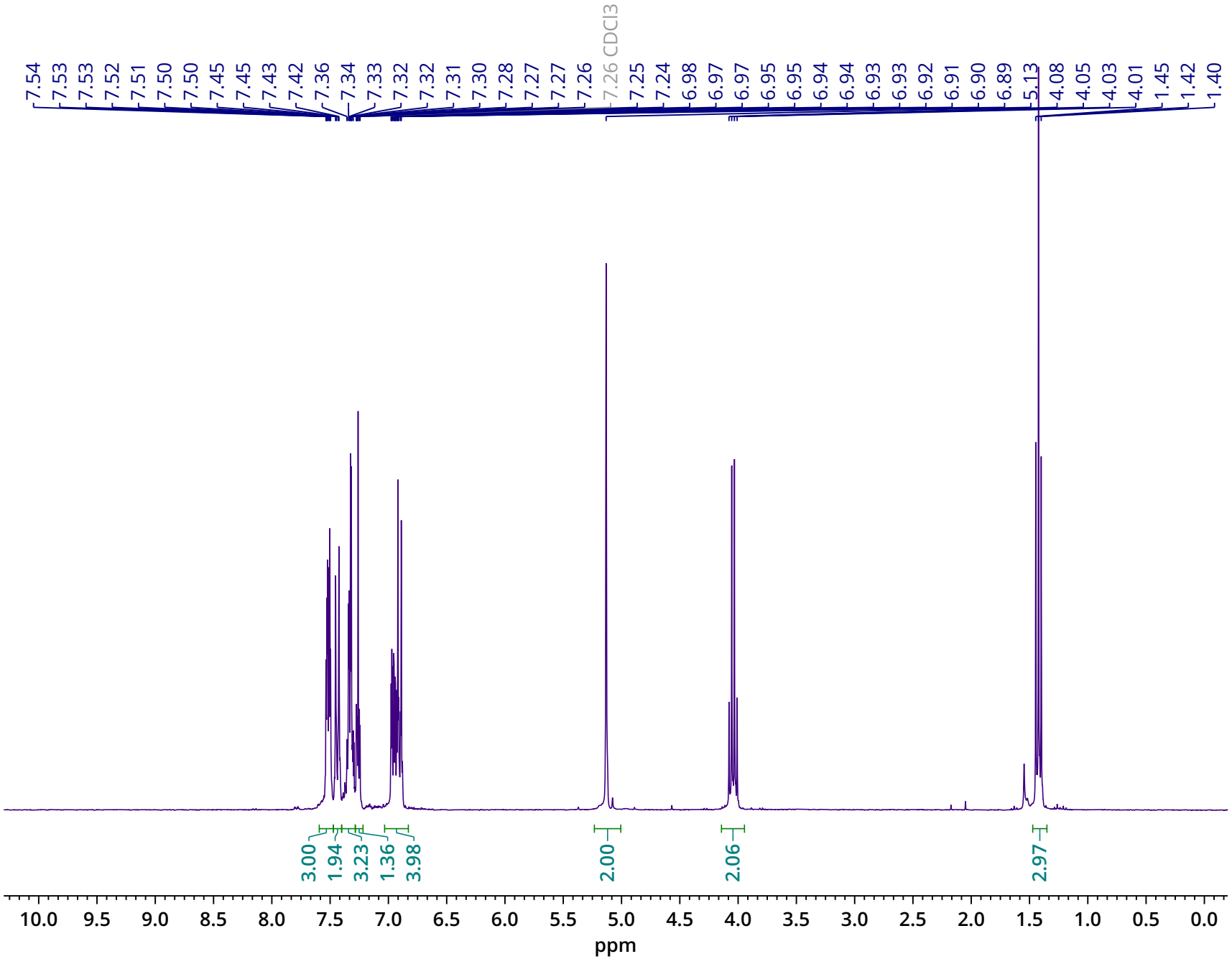
Compound S1

^{13}C NMR (75 MHz, $CDCl_3$) δ 159.98, 159.44, 134.30, 130.22, 129.00, 128.73, 120.86, 114.07, 113.04, 112.25, 81.41, 81.39, 80.26, 70.42, 55.42.

Parameter	Value
Title	CCD2-014.12.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	1018.0
Pulse Sequence	zg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	64
Receiver Gain	91.3
Relaxation Delay	1.0000
Pulse Width	11.7500
Acquisition Date	2020-02-16T13:21:00
Modification Date	2020-02-16T13:27:50
Spectrometer Frequency	300.18
Spectral Width	6103.5
Nucleus	1H
Spectral Size	65536

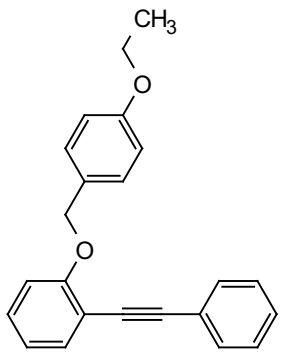


Compound 13

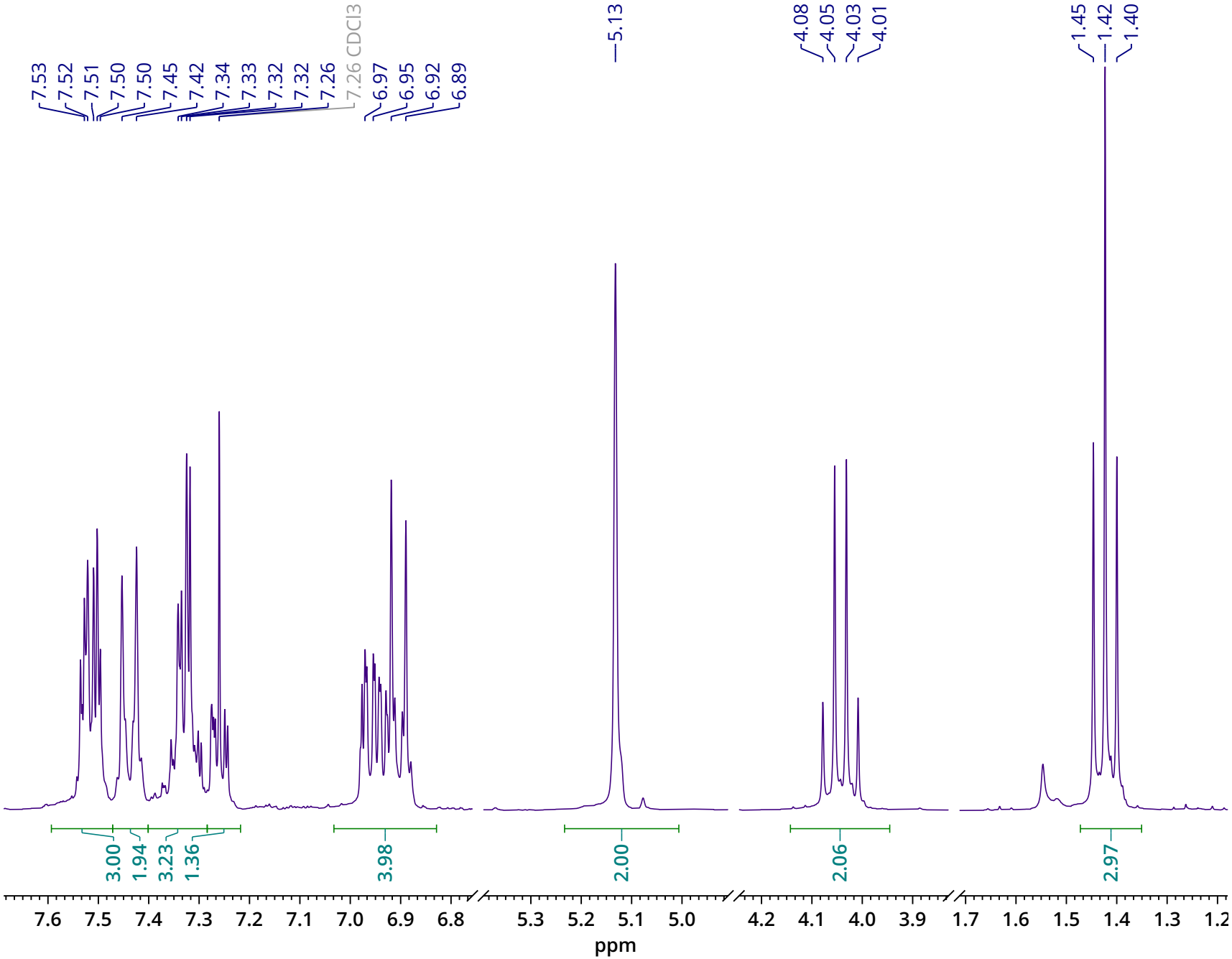


^{1}H NMR (300 MHz, $CDCl_3$) δ 7.55 – 7.48 (m, 3H), 7.48 – 7.39 (m, 2H), 7.38 – 7.28 (m, 3H), 7.29 – 7.23 (m, 1H), 7.03 – 6.85 (m, 4H), 5.13 (s, 2H), 4.04 (q, J = 7.0 Hz, 2H), 1.42 (t, J = 7.0 Hz, 3H).

Parameter	Value
Title	CCD2-014.12.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	1018.0
Pulse Sequence	zg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	64
Receiver Gain	91.3
Relaxation Delay	1.0000
Pulse Width	11.7500
Acquisition Date	2020-02-16T13:21:00
Modification Date	2020-02-16T13:27:50
Spectrometer Frequency	300.18
Spectral Width	6103.5
Nucleus	1H
Spectral Size	65536

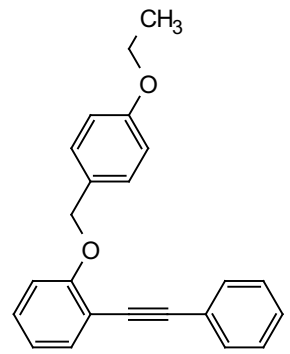


Compound 13

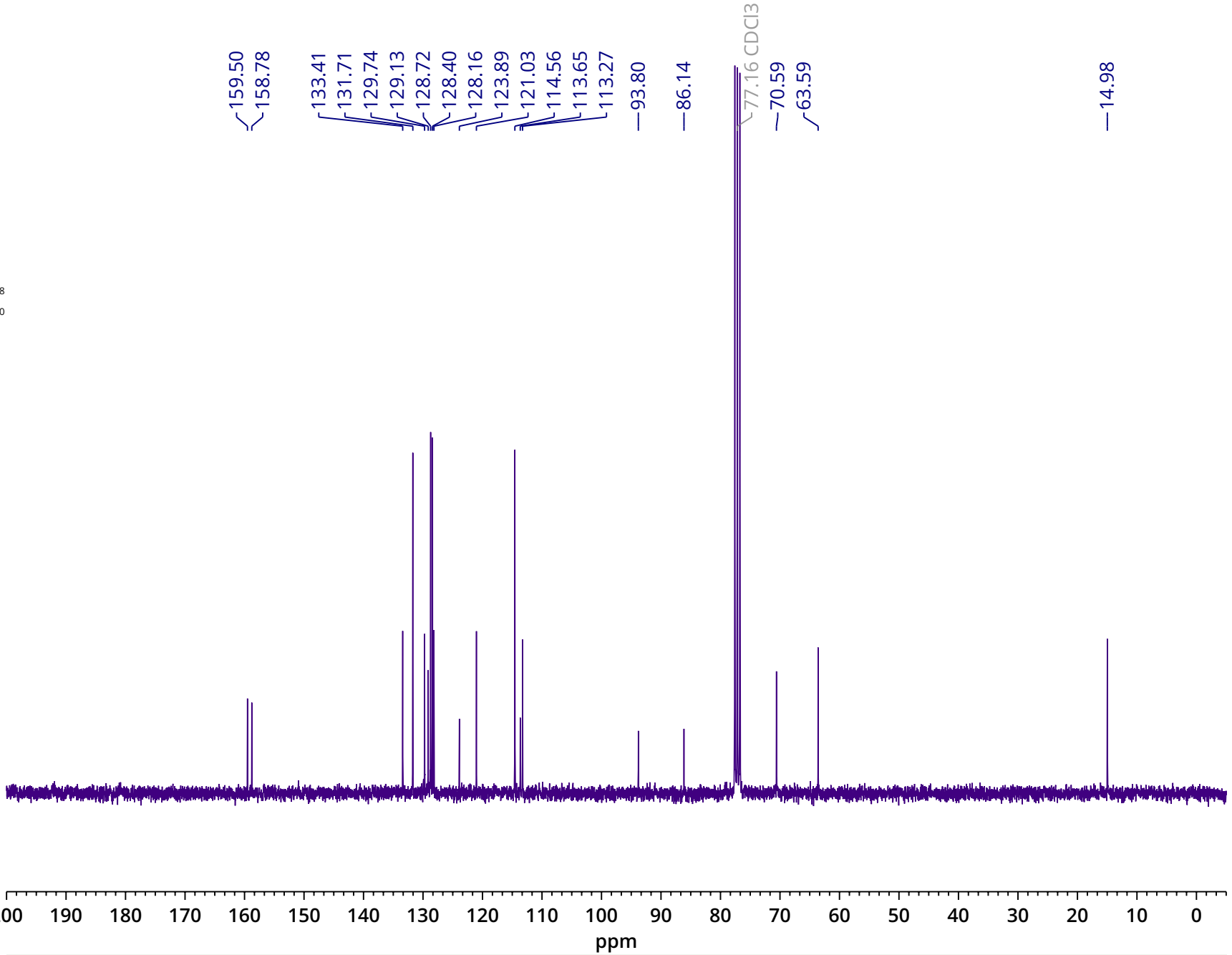


^{1}H NMR (300 MHz, $CDCl_3$) δ 7.55 – 7.48 (m, 3H), 7.48 – 7.39 (m, 2H), 7.38 – 7.28 (m, 3H), 7.29 – 7.23 (m, 1H), 7.03 – 6.85 (m, 4H), 5.13 (s, 2H), 4.04 (q, J = 7.0 Hz, 2H), 1.42 (t, J = 7.0 Hz, 3H).

Parameter	Value
Title	CCD2-014.1102.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	296.0
Pulse Sequence	zgpg30
Experiment	1D
Probe	
Number of Scans	1013
Receiver Gain	199.5
Relaxation Delay	2.0000
Pulse Width	10.7500
Acquisition Date	2020-03-11T11:53:58
Modification Date	2020-03-11T12:39:40
Spectrometer Frequency	75.49
Spectral Width	24414.1
Nucleus	13C

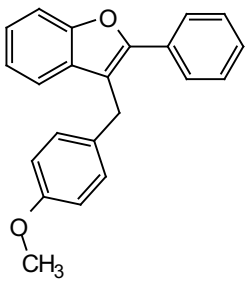


Compound 13

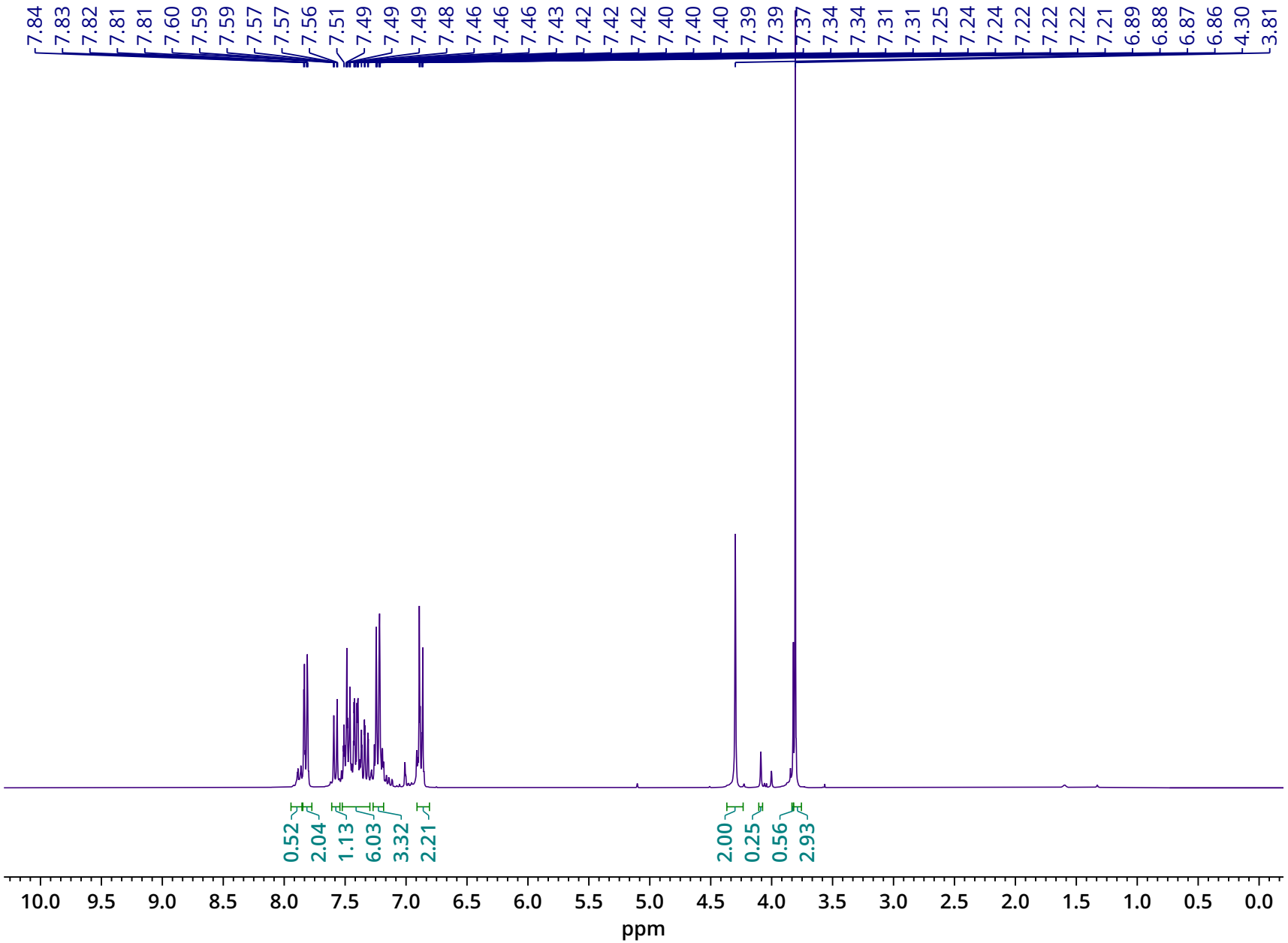


^{13}C NMR (75 MHz, $CDCl_3$) δ 159.50, 158.78, 133.41, 131.71, 129.74, 129.13, 128.72, 128.40, 128.16, 123.89, 121.03, 114.56, 113.65, 113.27, 93.80, 86.14, 70.59, 63.59, 14.98.

Parameter	Value
Title	CCD2-011.11.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	297.6
Pulse Sequence	zg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	64
Receiver Gain	17.3
Relaxation Delay	1.0000
Pulse Width	11.7500
Acquisition Date	2020-02-29T13:36:00
Modification Date	2020-02-29T13:42:44
Spectrometer Frequency	300.18
Spectral Width	6103.5
Nucleus	1H
Spectral Size	65536

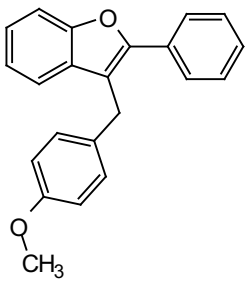


Compound 11a

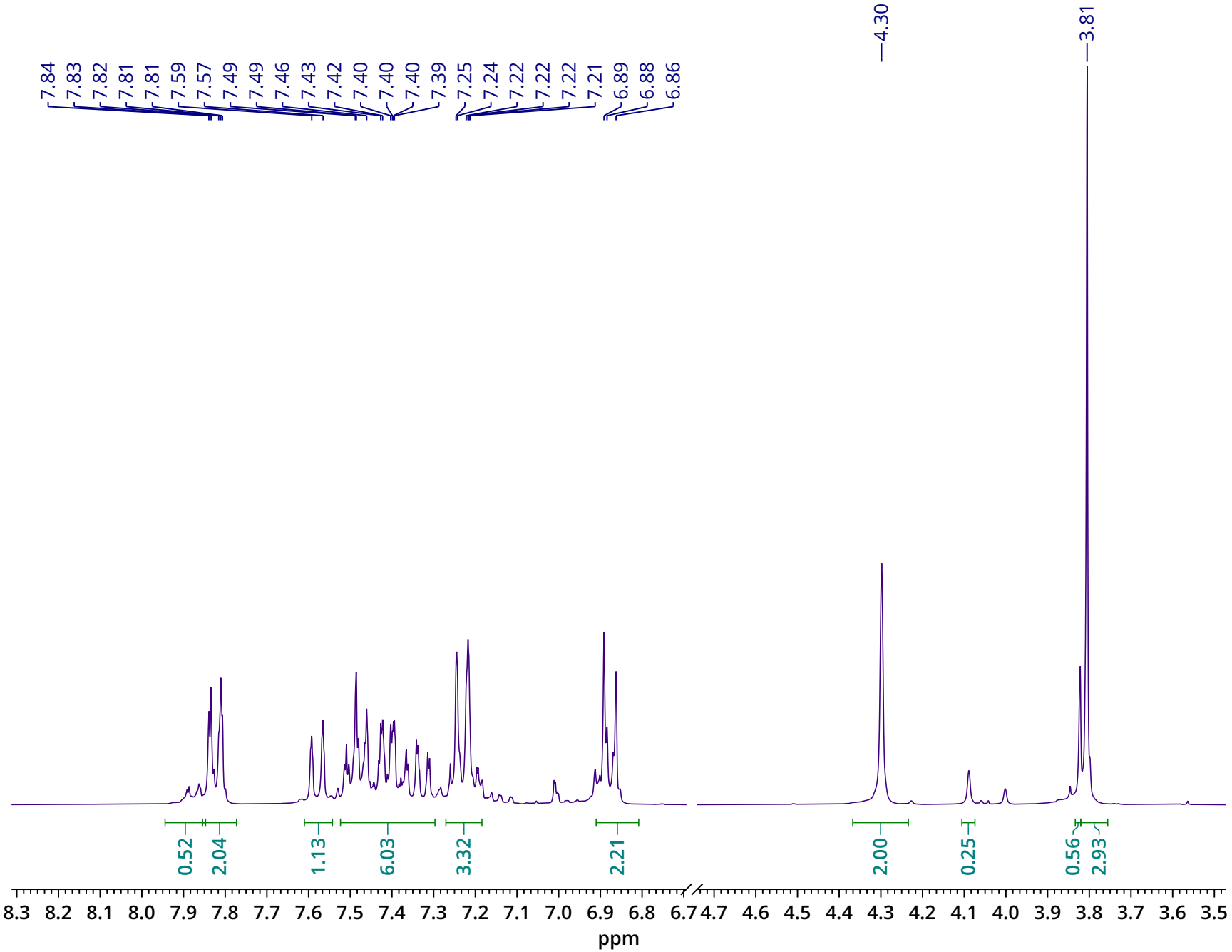


^{1}H NMR (300 MHz, $CDCl_3$) δ 7.85 – 7.73 (m, 2H), 7.58 (dt, *J* = 8.2, 0.9 Hz, 1H), 7.52 – 7.30 (m, 5H), 7.27 – 7.17 (m, 3H), 6.94 – 6.82 (m, 2H), 4.30 (s, 2H), 3.81 (s, 3H).

Parameter	Value
Title	CCD2-011.11.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	297.6
Pulse Sequence	zg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	64
Receiver Gain	17.3
Relaxation Delay	1.0000
Pulse Width	11.7500
Acquisition Date	2020-02-29T13:36:00
Modification Date	2020-02-29T13:42:44
Spectrometer Frequency	300.18
Spectral Width	6103.5
Nucleus	1H
Spectral Size	65536

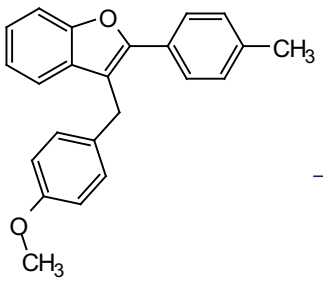


Compound 11a

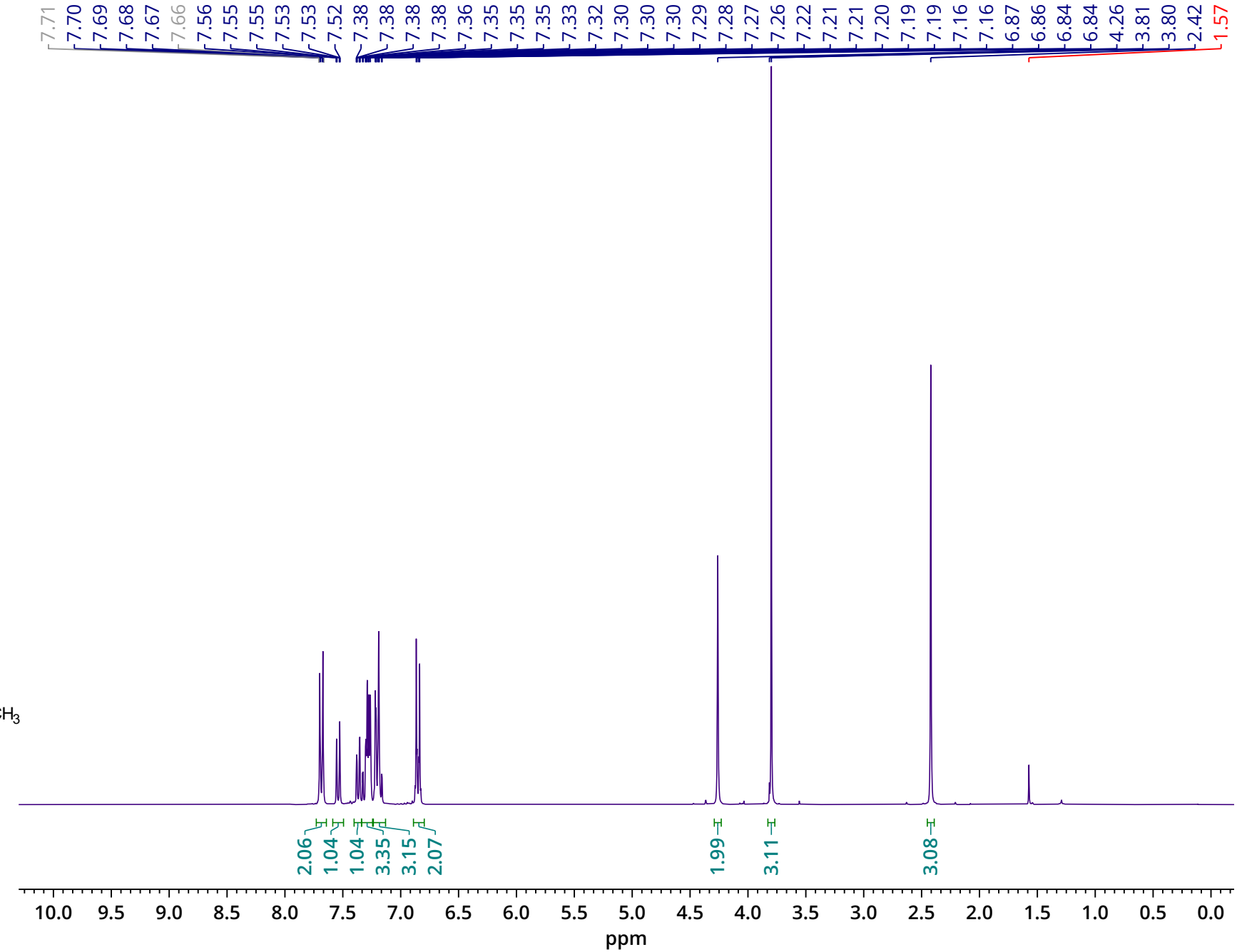


^{1}H NMR (300 MHz, $CDCl_3$) δ 7.85 – 7.73 (m, 2H), 7.58 (dt, *J* = 8.2, 0.9 Hz, 1H), 7.52 – 7.30 (m, 5H), 7.27 – 7.17 (m, 3H), 6.94 – 6.82 (m, 2H), 4.30 (s, 2H), 3.81 (s, 3H).f

Parameter	Value
Title	CCD-191.101.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	1030.5
Pulse Sequence	zg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	64
Receiver Gain	31.6
Relaxation Delay	1.0000
Pulse Width	11.7500
Acquisition Date	2019-12-30T12:57:00
Modification Date	2019-12-30T13:04:22
Spectrometer Frequency	300.18
Spectral Width	6103.5
Nucleus	1H
Spectral Size	65536

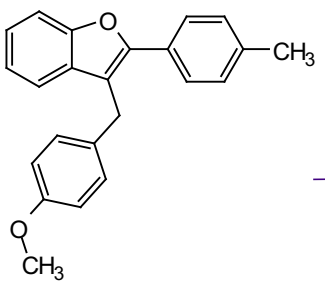


Compound 11b

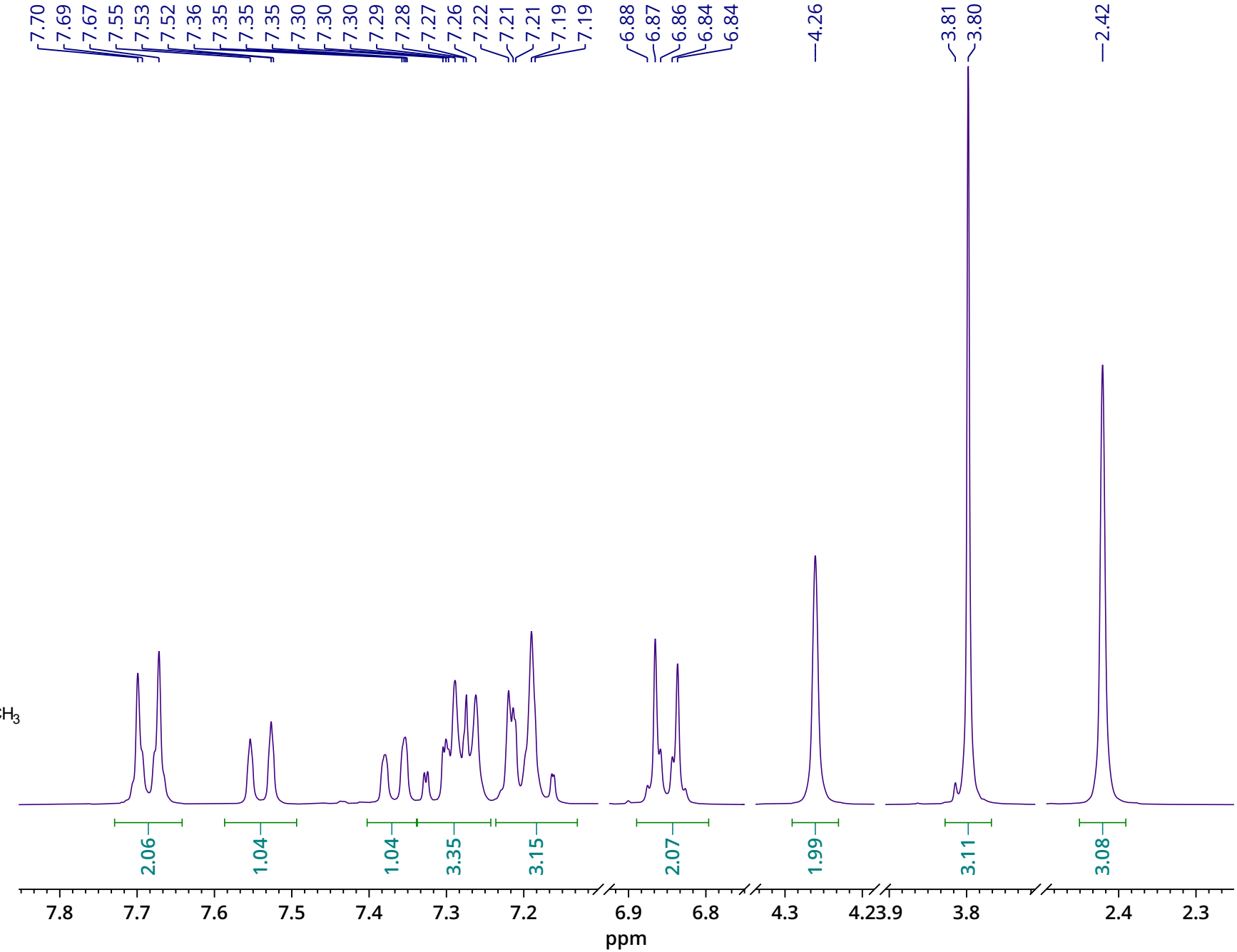


^{1}H NMR (300 MHz, $CDCl_3$) δ 7.69 (d, J = 8.2 Hz, 2H), 7.54 (d, J = 8.1 Hz, 1H), 7.37 (d, J = 7.7 Hz, 1H), 7.34 – 7.24 (m, 3H), 7.24 – 7.14 (m, 3H), 6.88 – 6.82 (m, 2H), 4.26 (s, 2H), 3.80 (s, 3H), 2.42 (s, 3H).

Parameter	Value
Title	CCD-191.101.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	1030.5
Pulse Sequence	zg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	64
Receiver Gain	31.6
Relaxation Delay	1.0000
Pulse Width	11.7500
Acquisition Date	2019-12-30T12:57:00
Modification Date	2019-12-30T13:04:22
Spectrometer Frequency	300.18
Spectral Width	6103.5
Nucleus	1H
Spectral Size	65536

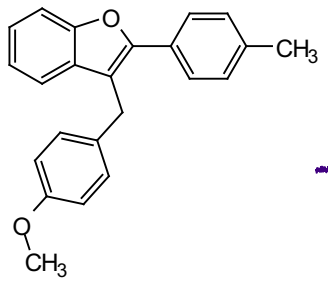


Compound 11b

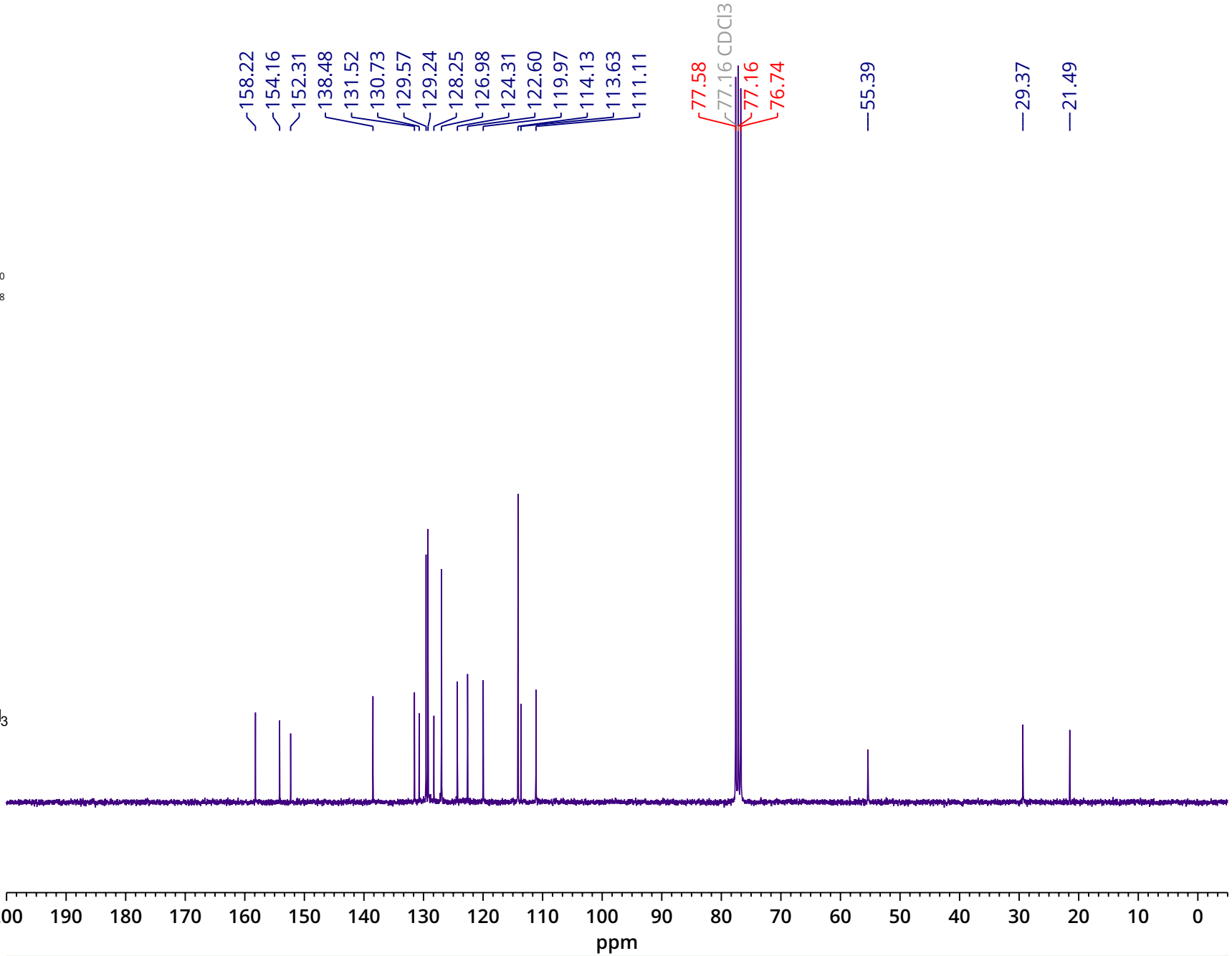


^{1}H NMR (300 MHz, $CDCl_3$) δ 7.69 (d, J = 8.2 Hz, 2H), 7.54 (d, J = 8.1 Hz, 1H), 7.37 (d, J = 7.7 Hz, 1H), 7.34 – 7.24 (m, 3H), 7.24 – 7.14 (m, 3H), 6.88 – 6.82 (m, 2H), 4.26 (s, 2H), 3.80 (s, 3H), 2.42 (s, 3H).

Parameter	Value
Title	CCD-191.102.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	1030.5
Pulse Sequence	zgpg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	4096
Receiver Gain	501.2
Relaxation Delay	2.0000
Pulse Width	10.7500
Acquisition Date	2019-12-31T20:06:00
Modification Date	2019-12-31T23:57:08
Spectrometer Frequency	75.49
Spectral Width	24414.1
Nucleus	13C
Spectral Size	65536

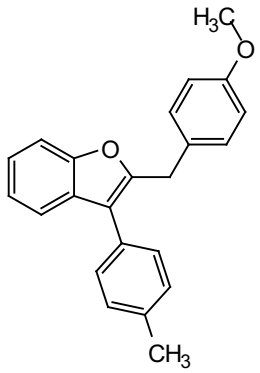


Compound 11b

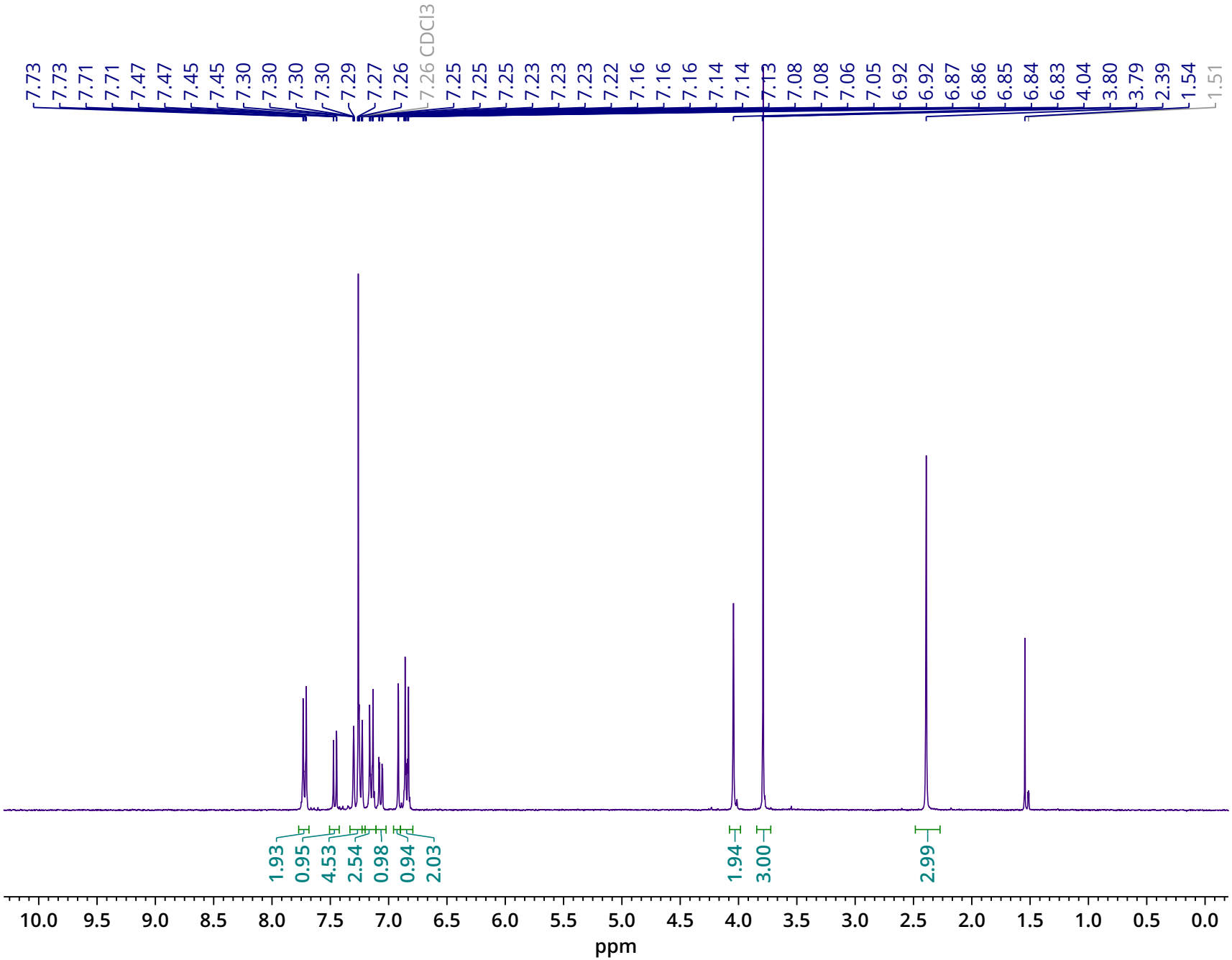


^{13}C NMR (75 MHz, $CDCl_3$) δ 158.22, 154.16, 152.31, 138.48, 131.52, 130.73, 129.57, 129.24, 128.25, 126.98, 124.31, 122.60, 119.97, 114.13, 113.63, 111.11, 55.39, 29.37, 21.49.

Parameter	Value
Title	CCD-191.21.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	1030.5
Pulse Sequence	zg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	16
Receiver Gain	120.8
Relaxation Delay	1.0000
Pulse Width	11.7500
Acquisition Date	2019-12-30T12:25:00
Modification Date	2019-12-30T12:26:48
Spectrometer Frequency	300.18
Spectral Width	6103.5
Nucleus	1H
Spectral Size	65536

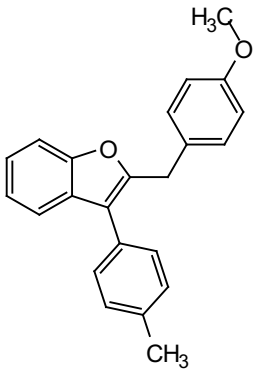


Compound 12b

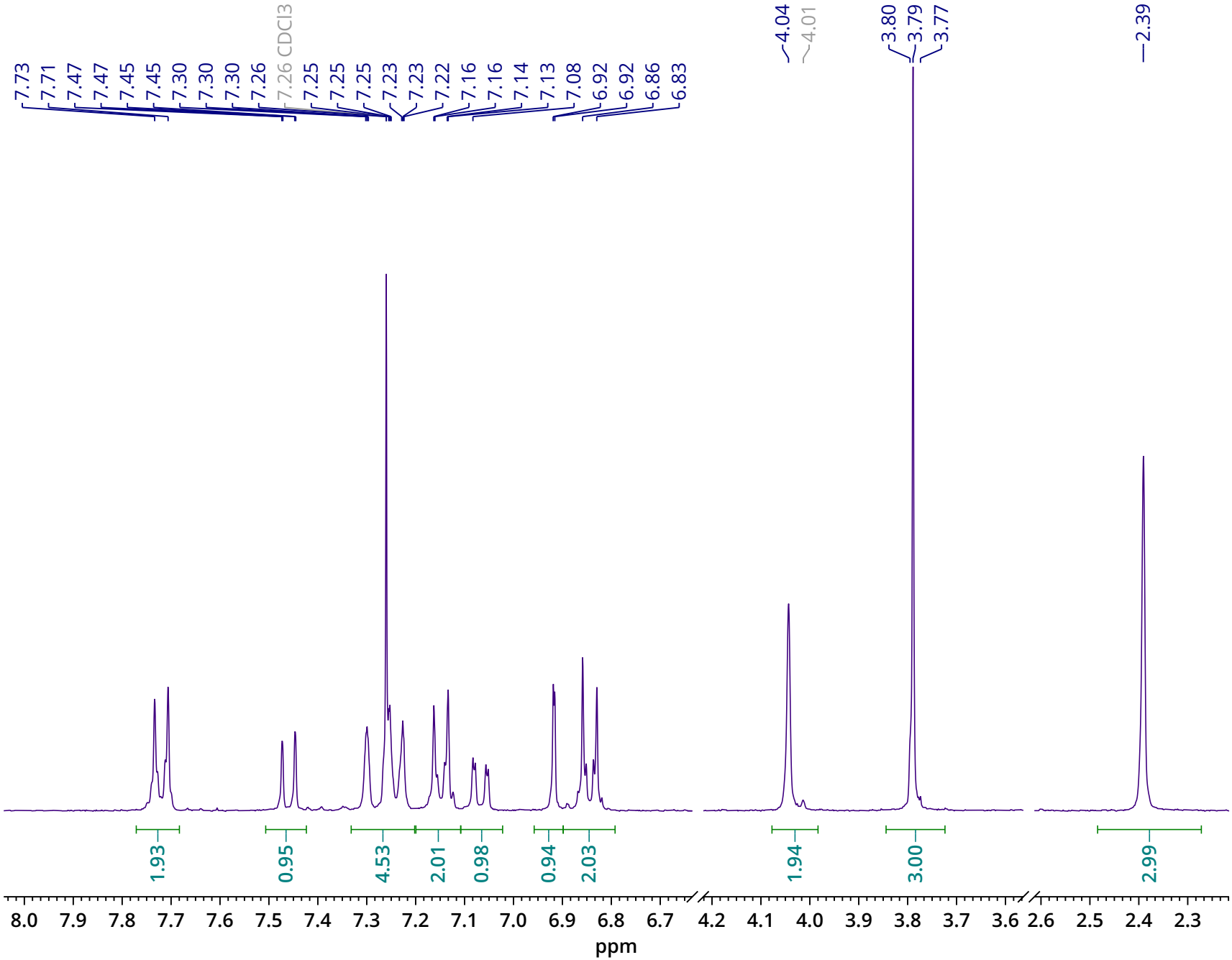


^{1}H NMR (300 MHz, $CDCl_3$) δ 7.76 – 7.68 (m, 2H), 7.46 (dd, *J* = 7.9, 0.6 Hz, 1H), 7.33 – 7.21 (m, 3H), 7.19 – 7.11 (m, 2H), 7.07 (dd, *J* = 7.9, 1.5 Hz, 1H), 6.92 (d, *J* = 1.0 Hz, 1H), 6.88 – 6.81 (m, 2H), 4.04 (s, 2H), 3.79 (s, 3H), 2.39 (s, 3H).

Parameter	Value
Title	CCD-191.21.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	1030.5
Pulse Sequence	zg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	16
Receiver Gain	120.8
Relaxation Delay	1.0000
Pulse Width	11.7500
Acquisition Date	2019-12-30T12:25:00
Modification Date	2019-12-30T12:26:48
Spectrometer Frequency	300.18
Spectral Width	6103.5
Nucleus	1H
Spectral Size	65536

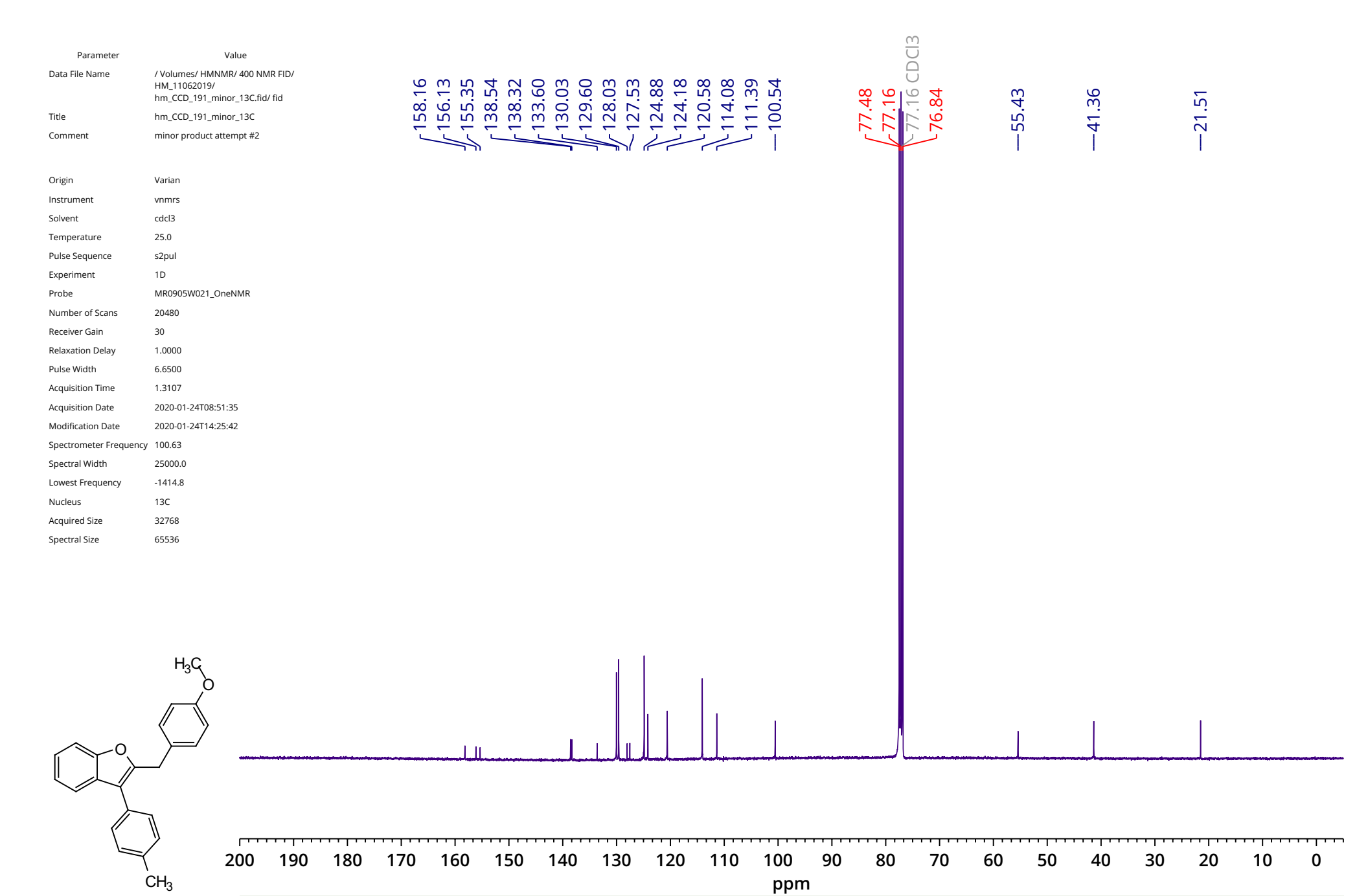


Compound 12b



^{1}H NMR (300 MHz, $CDCl_3$) δ 7.76 – 7.68 (m, 2H), 7.46 (dd, *J* = 7.9, 0.6 Hz, 1H), 7.33 – 7.21 (m, 3H), 7.19 – 7.11 (m, 2H), 7.07 (dd, *J* = 7.9, 1.5 Hz, 1H), 6.92 (d, *J* = 1.0 Hz, 1H), 6.88 – 6.81 (m, 2H), 4.04 (s, 2H), 3.79 (s, 3H), 2.39 (s, 3H).

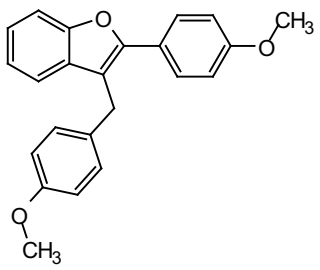
Parameter	Value
Data File Name	/ Volumes/ HMNMR/ 400 NMR FID/ HM_11062019/ hm_CCD_191_minor_13C.fid/ fid
Title	hm_CCD_191_minor_13C
Comment	minor product attempt #2
Origin	Varian
Instrument	vnmrs
Solvent	cdcl3
Temperature	25.0
Pulse Sequence	s2pul
Experiment	1D
Probe	MR0905W021_OneNMR
Number of Scans	20480
Receiver Gain	30
Relaxation Delay	1.0000
Pulse Width	6.6500
Acquisition Time	1.3107
Acquisition Date	2020-01-24T08:51:35
Modification Date	2020-01-24T14:25:42
Spectrometer Frequency	100.63
Spectral Width	25000.0
Lowest Frequency	-1414.8
Nucleus	13C
Acquired Size	32768
Spectral Size	65536



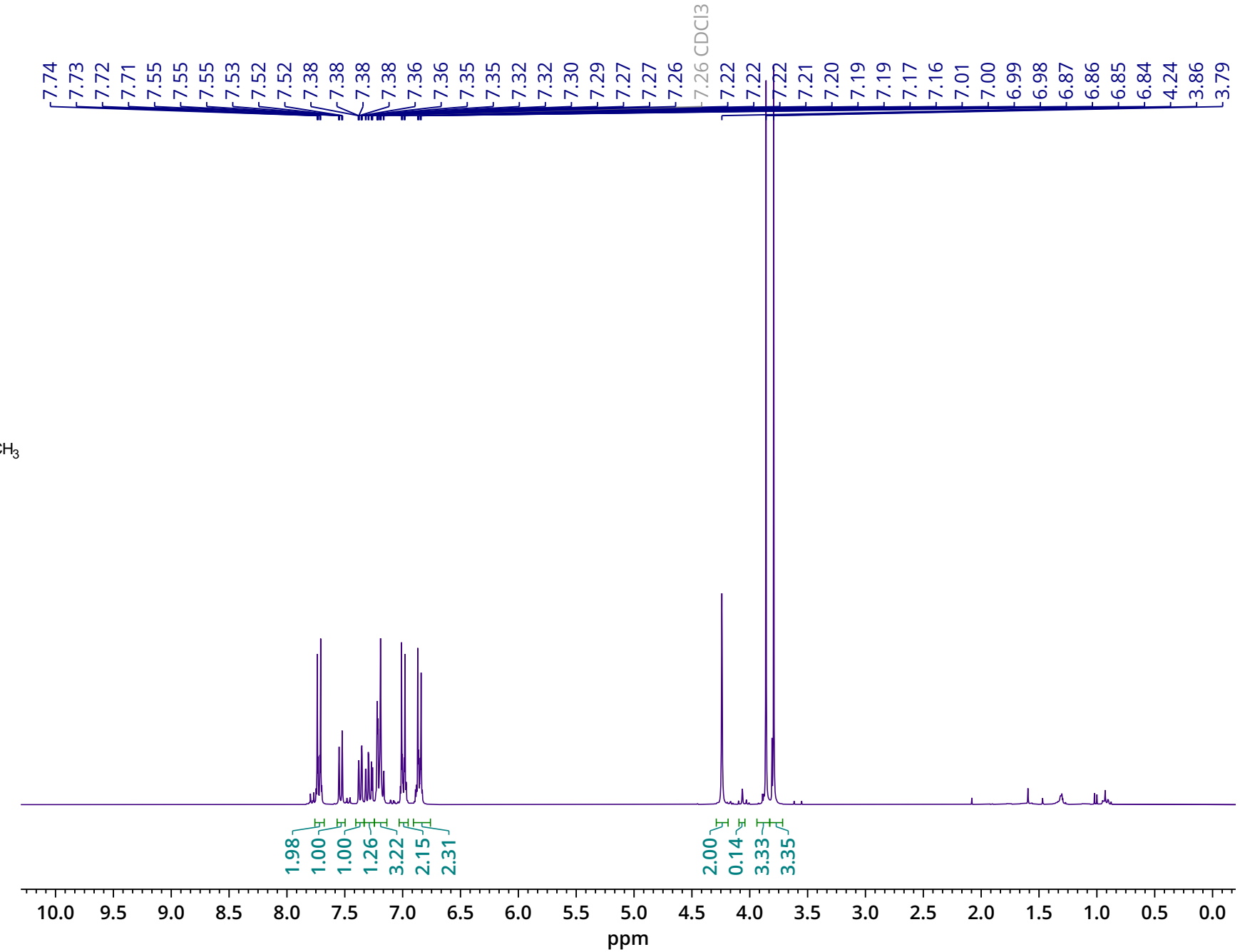
Compound 12b

^{13}C NMR (101 MHz, $CDCl_3$) δ 158.16, 156.13, 155.35, 138.54, 138.32, 133.60, 130.03, 129.60, 128.03, 127.53, 124.88, 124.18, 120.58, 114.08, 111.39, 100.54, 55.43, 41.36, 21.51.

Parameter	Value
Title	CCD-192.101.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	1030.5
Pulse Sequence	zg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	64
Receiver Gain	13.1
Relaxation Delay	1.0000
Pulse Width	11.7500
Acquisition Date	2019-12-31T09:58:00
Modification Date	2019-12-31T10:04:44
Spectrometer Frequency	300.18
Spectral Width	6103.5
Nucleus	1H
Spectral Size	65536

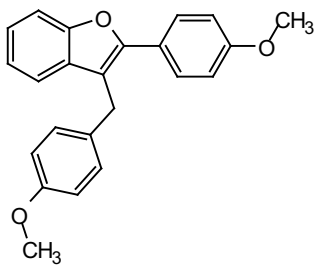


Compound 11c

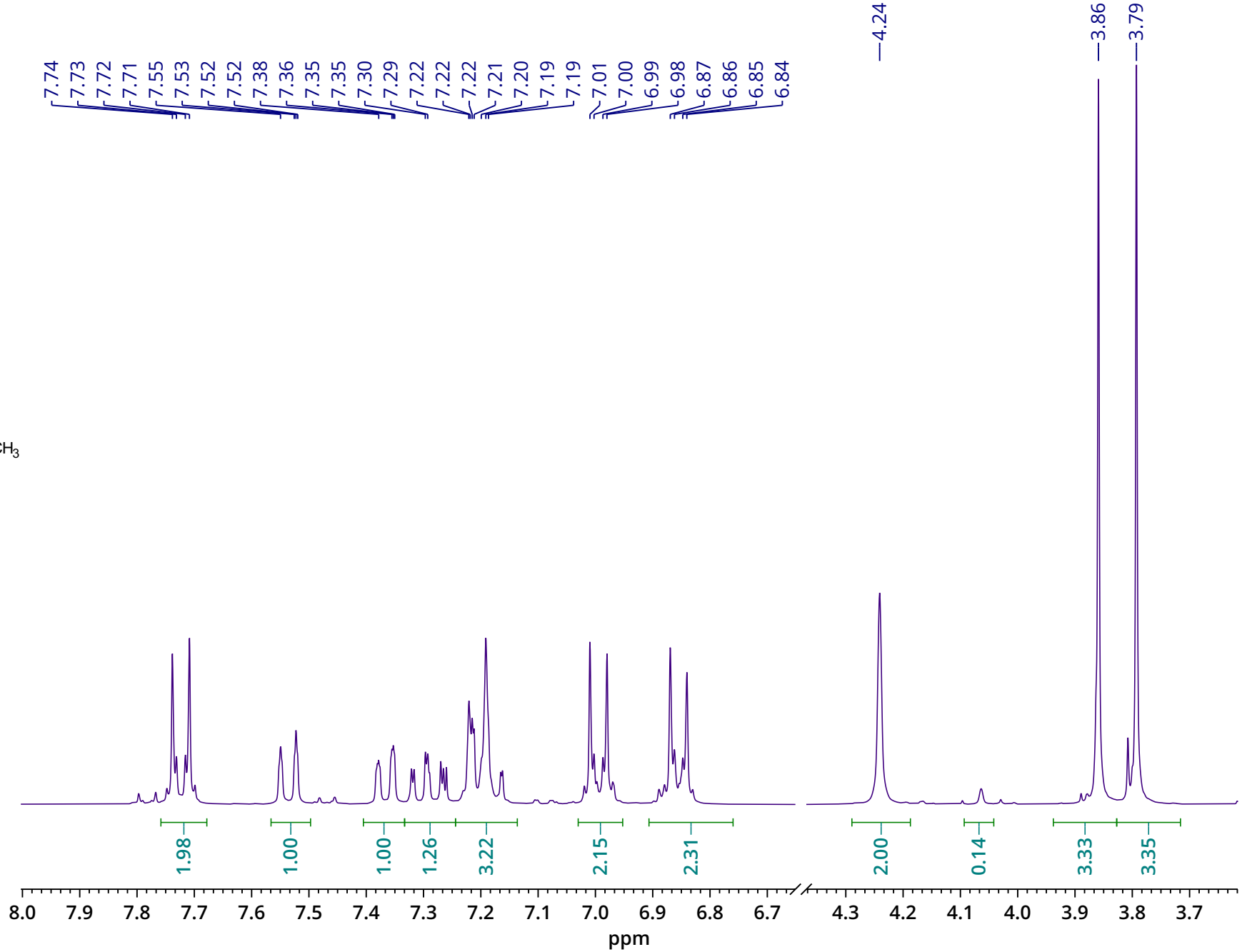


^{1}H NMR (300 MHz, $CDCl_3$) δ 7.76 – 7.68 (m, 2H), 7.54 (d, *J* = 8.1 Hz, 1H), 7.37 (ddd, *J* = 7.7, 1.4, 0.7 Hz, 1H), 7.29 (ddd, *J* = 8.2, 7.2, 1.4 Hz, 1H), 7.26 – 7.13 (m, 3H), 7.08 – 6.93 (m, 2H), 6.92 – 6.81 (m, 2H), 4.24 (s, 2H), 3.86 (s, 3H), 3.79 (s, 3H).

Parameter	Value
Title	CCD-192.101.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	1030.5
Pulse Sequence	zg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	64
Receiver Gain	13.1
Relaxation Delay	1.0000
Pulse Width	11.7500
Acquisition Date	2019-12-31T09:58:00
Modification Date	2019-12-31T10:04:44
Spectrometer Frequency	300.18
Spectral Width	6103.5
Nucleus	1H
Spectral Size	65536

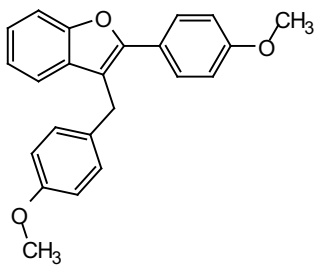


Compound 11c

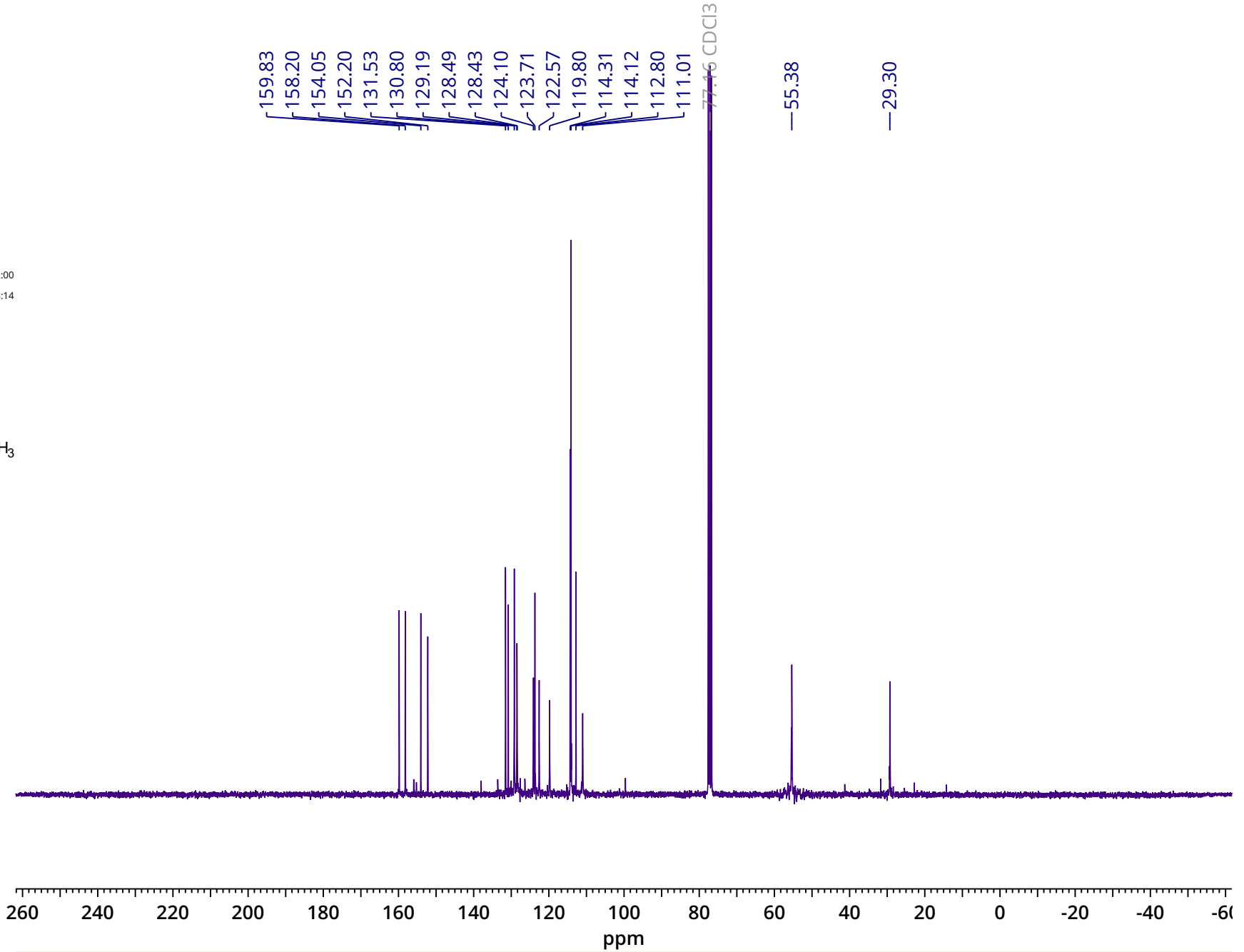


^{1}H NMR (300 MHz, $CDCl_3$) δ 7.76 – 7.68 (m, 2H), 7.54 (d, *J* = 8.1 Hz, 1H), 7.37 (ddd, *J* = 7.7, 1.4, 0.7 Hz, 1H), 7.29 (ddd, *J* = 8.2, 7.2, 1.4 Hz, 1H), 7.26 – 7.13 (m, 3H), 7.08 – 6.93 (m, 2H), 6.92 – 6.81 (m, 2H), 4.24 (s, 2H), 3.86 (s, 3H), 3.79 (s, 3H).

Parameter	Value
Title	CCD-192.102.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	1030.5
Pulse Sequence	zgpg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	4096
Receiver Gain	501.2
Relaxation Delay	2.0000
Pulse Width	10.7500
Acquisition Date	2020-01-01T00:02:00
Modification Date	2020-01-01T03:53:14
Spectrometer Frequency	75.49
Spectral Width	24414.1
Nucleus	13C
Spectral Size	65536

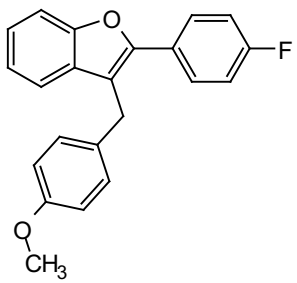


Compound 11c

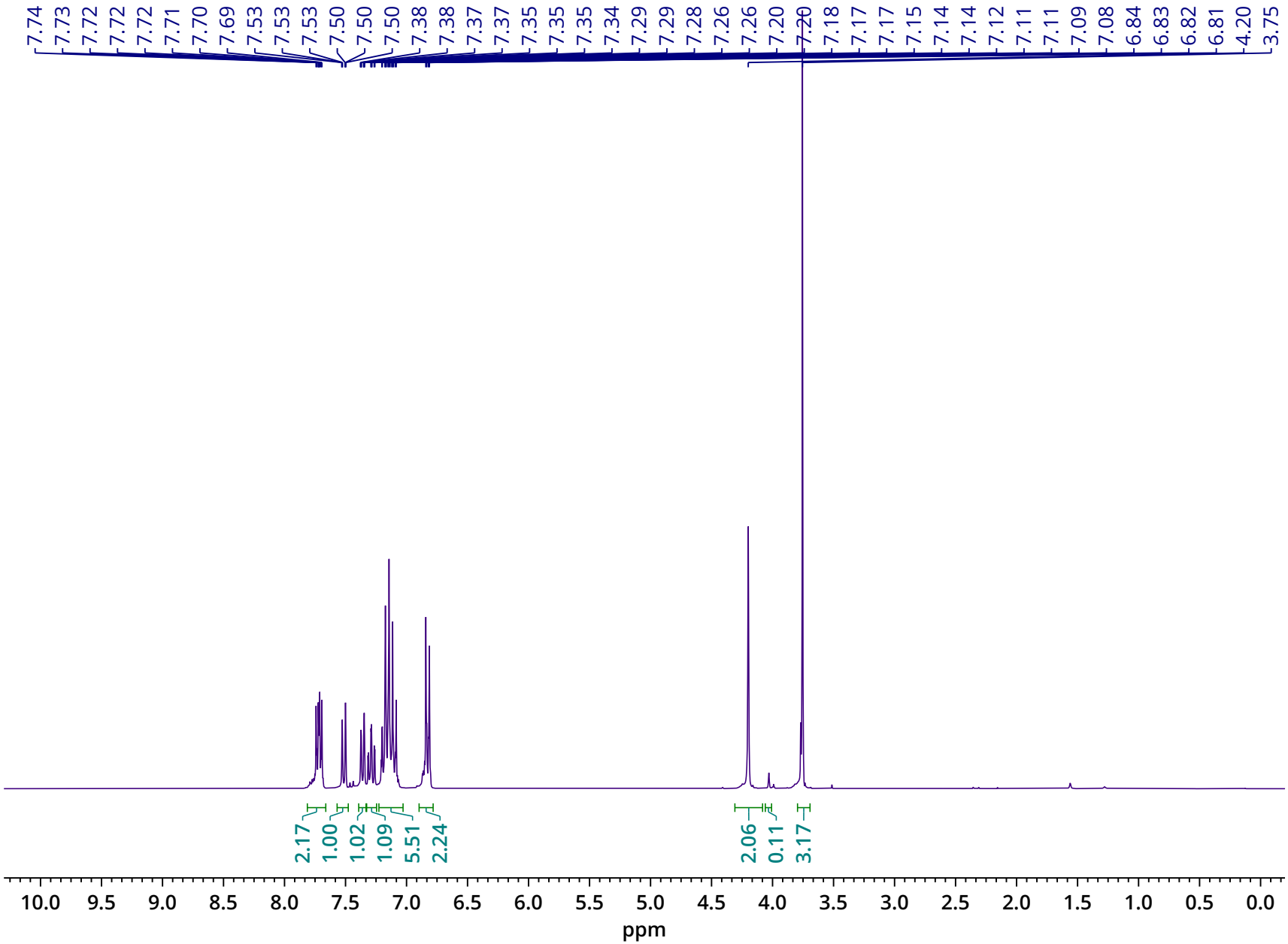


^{13}C NMR (75 MHz, $CDCl_3$) δ 159.83, 158.20, 154.05, 152.20, 131.53, 130.80, 129.19, 128.49, 128.43, 124.10, 123.71, 122.57, 119.80, 114.31, 114.12, 112.80, 111.01, 55.38, 29.30.

Parameter	Value
Title	CCD2-017.11.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	1018.0
Pulse Sequence	zg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	64
Receiver Gain	13.7
Relaxation Delay	1.0000
Pulse Width	11.7500
Acquisition Date	2020-02-25T10:48:00
Modification Date	2020-02-25T10:55:00
Spectrometer Frequency	300.18
Spectral Width	6103.5
Nucleus	1H
Spectral Size	65536

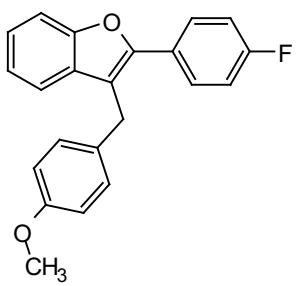


Compound 11f

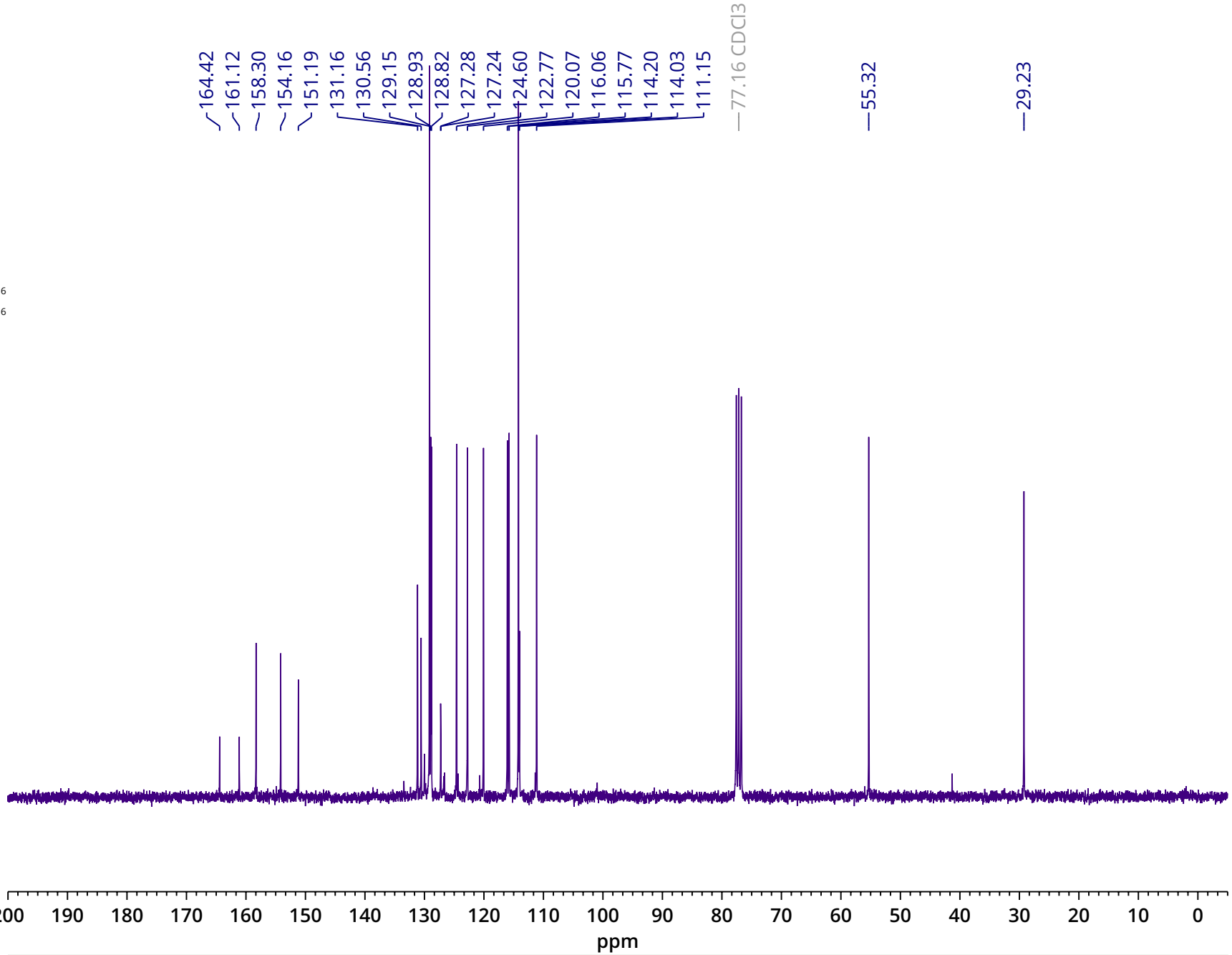


^{1}H NMR (300 MHz, $CDCl_3$) δ 7.77 – 7.66 (m, 2H), 7.51 (dt, *J* = 8.2, 0.9 Hz, 1H), 7.36 (ddd, *J* = 7.7, 1.4, 0.7 Hz, 1H), 7.29 (ddd, *J* = 8.3, 7.2, 1.4 Hz, 1H), 7.24 – 7.03 (m, 5H), 6.86 – 6.78 (m, 2H), 4.20 (s, 2H), 3.75 (s, 3H).

Parameter	Value
Title	CCD2-017.102.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	297.5
Pulse Sequence	zgpg30
Experiment	1D
Probe	
Number of Scans	843
Receiver Gain	199.5
Relaxation Delay	2.0000
Pulse Width	12.1250
Acquisition Date	2020-03-06T11:14:16
Modification Date	2020-03-06T11:52:16
Spectrometer Frequency	75.49
Spectral Width	24414.1
Nucleus	13C

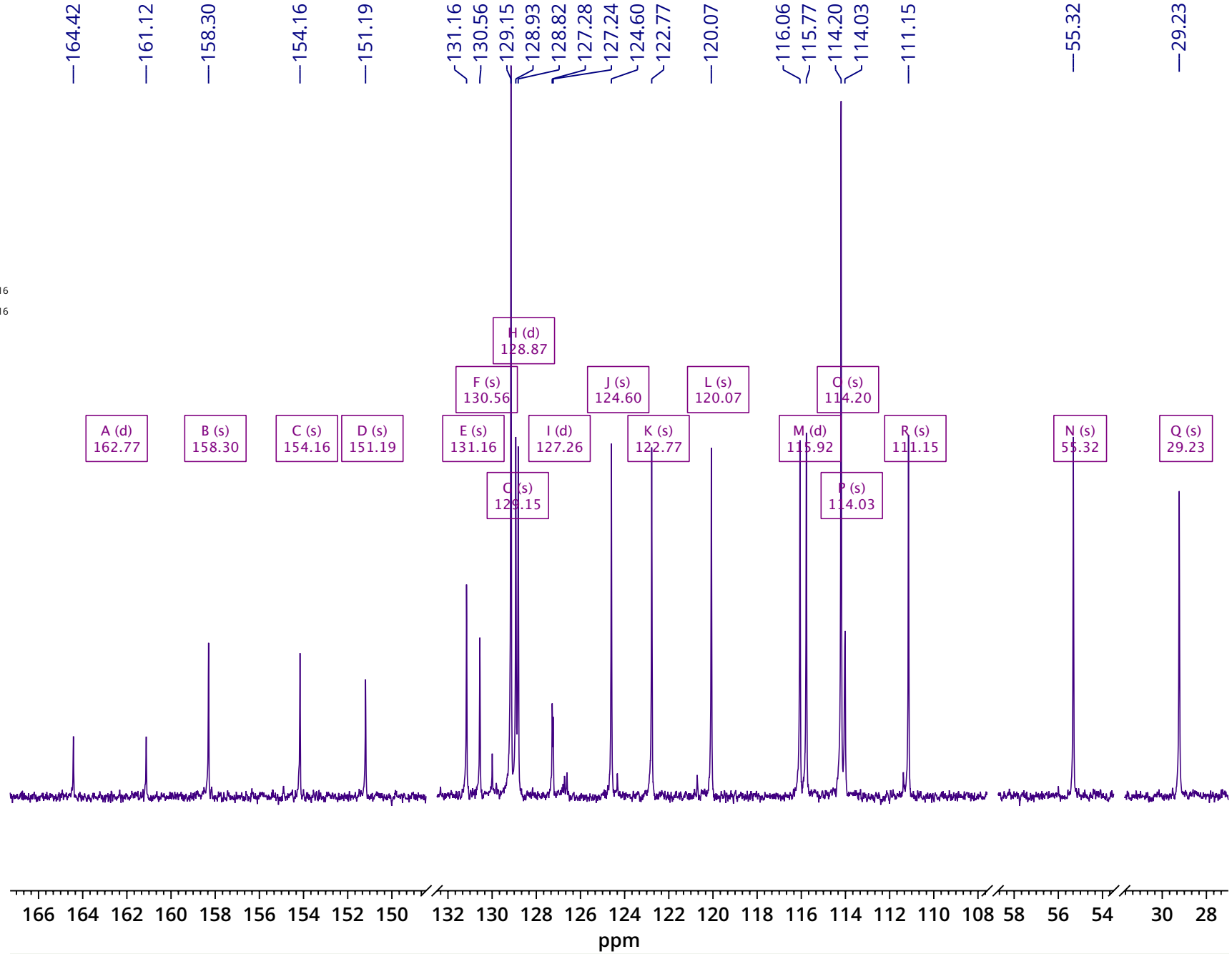


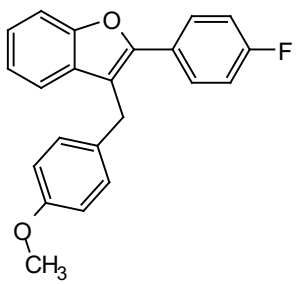
Compound 11f



^{13}C NMR (75 MHz, $CDCl_3$) δ 162.77 (d, J = 248.8 Hz), 158.30, 154.16, 151.19, 131.16, 130.56, 129.15, 128.87 (d, J = 8.1 Hz), 127.26 (d, J = 3.3 Hz), 124.60, 122.77, 120.07, 115.92 (d, J = 21.8 Hz), 114.20, 114.03, 111.15, 55.32, 29.23.

Parameter	Value
Title	CCD2-017.102.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	297.5
Pulse Sequence	zgpg30
Experiment	1D
Probe	
Number of Scans	843
Receiver Gain	199.5
Relaxation Delay	2.0000
Pulse Width	12.1250
Acquisition Date	2020-03-06T11:14:16
Modification Date	2020-03-06T11:52:16
Spectrometer Frequency	75.49
Spectral Width	24414.1
Nucleus	13C

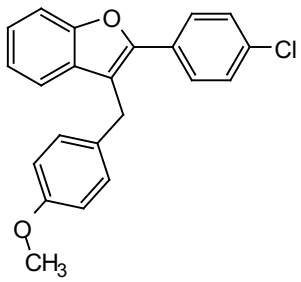




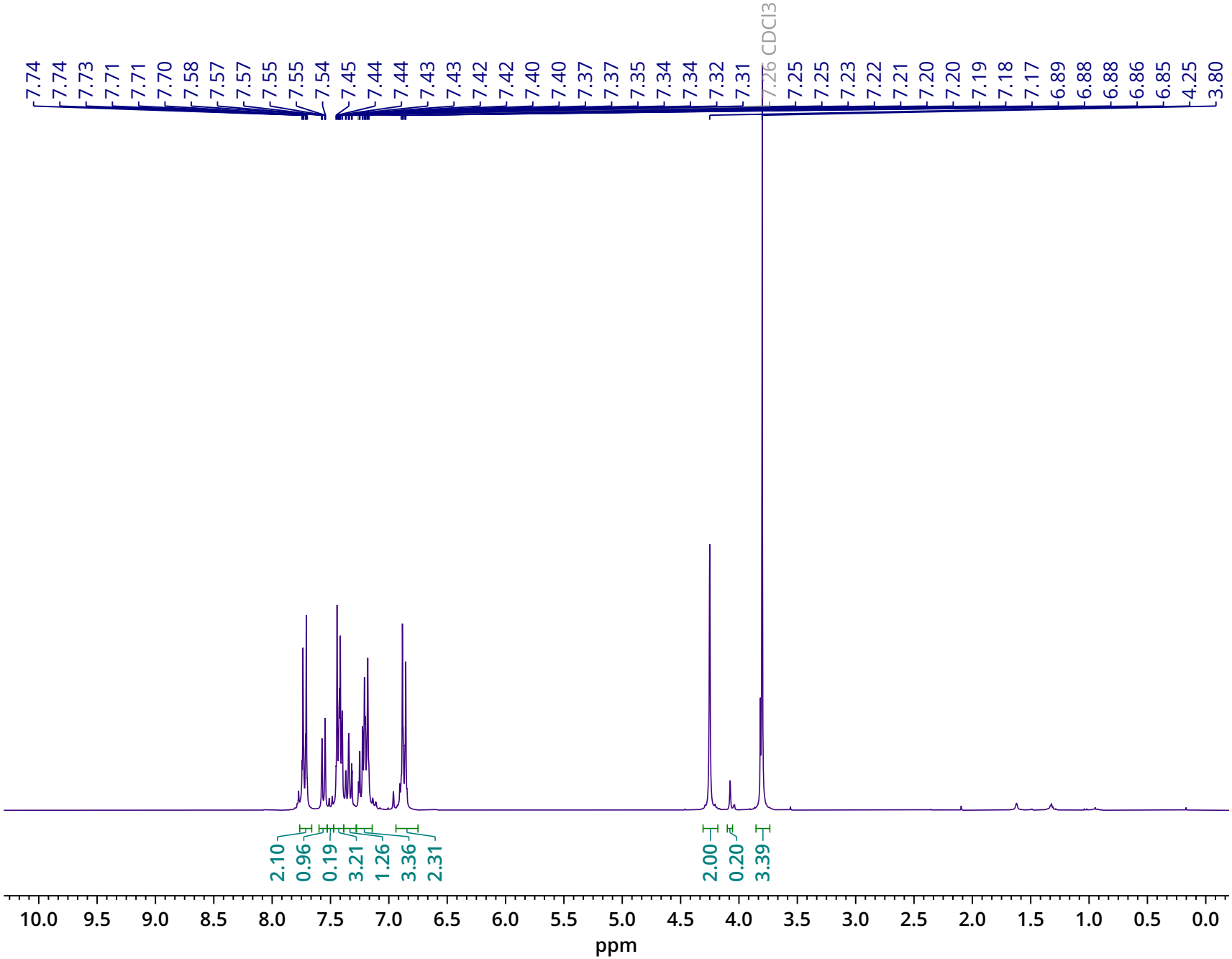
Compound 11f

^{13}C NMR (75 MHz, $CDCl_3$) δ 162.77 (d, J = 248.8 Hz), 158.30, 154.16, 151.19, 131.16, 130.56, 129.15, 128.87 (d, J = 8.1 Hz), 127.26 (d, J = 3.3 Hz), 124.60, 122.77, 120.07, 115.92 (d, J = 21.8 Hz), 114.20, 114.03, 111.15, 55.32, 29.23.

Parameter	Value
Title	DAL2-072.2.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	1011.8
Pulse Sequence	zg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	16
Receiver Gain	8.9
Relaxation Delay	1.0000
Pulse Width	11.7500
Acquisition Date	2019-10-09T14:46:00
Modification Date	2019-10-09T15:47:40
Spectrometer Frequency	300.18
Spectral Width	6103.5
Nucleus	1H
Spectral Size	65536

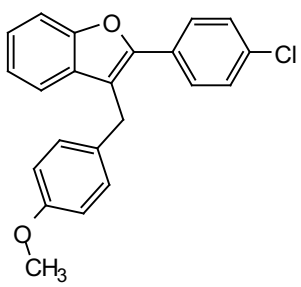


Compound 11g

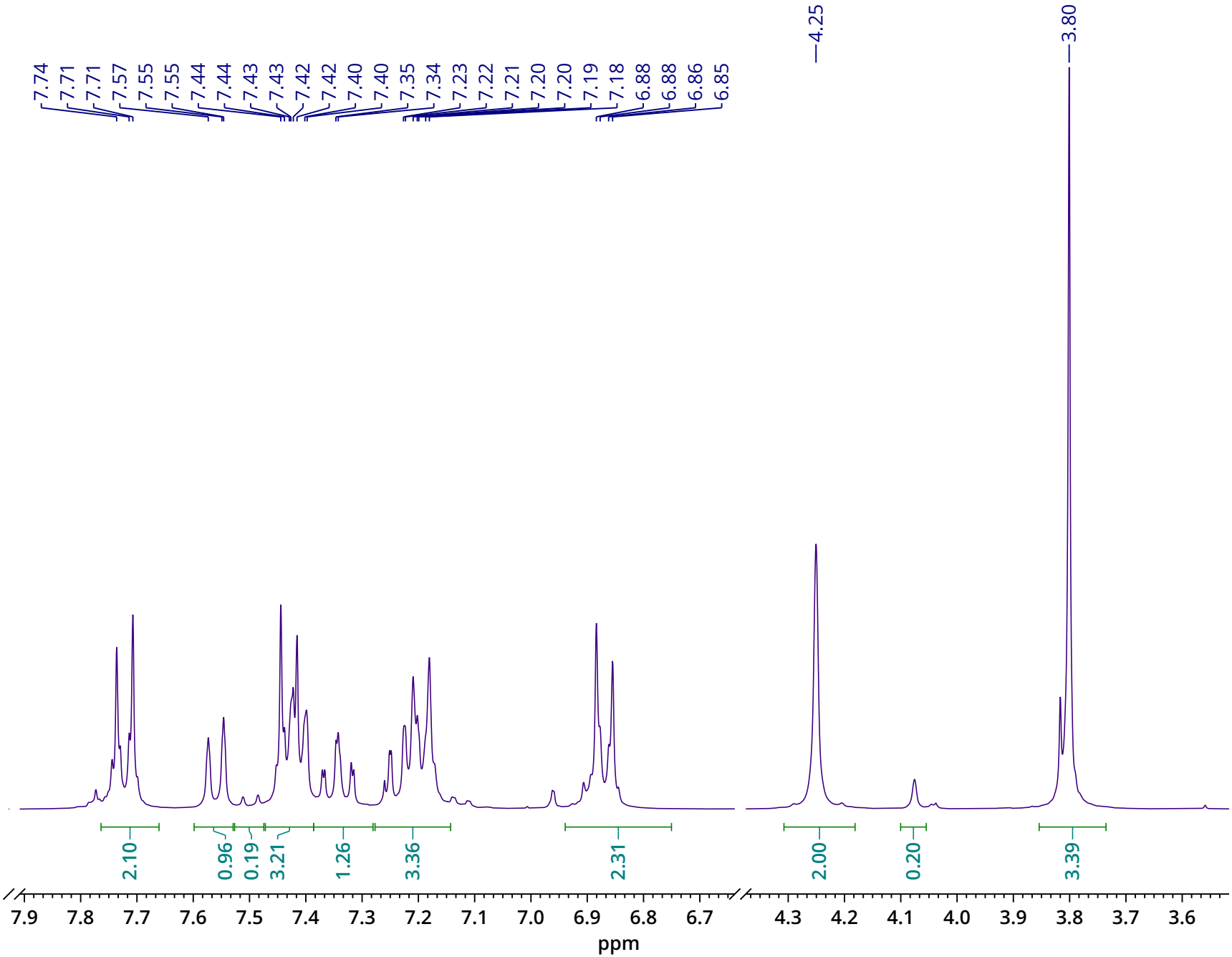


^{1}H NMR (300 MHz, $CDCl_3$) δ 7.82 – 7.67 (m, 2H), 7.56 (d, J = 8.2 Hz, 1H), 7.47 – 7.39 (m, 3H), 7.34 (ddd, J = 8.3, 7.2, 1.4 Hz, 1H), 7.29 – 7.15 (m, 3H), 6.92 – 6.81 (m, 2H), 4.25 (s, 2H), 3.80 (s, 3H).

Parameter	Value
Title	DAL2-072.2.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	1011.8
Pulse Sequence	zg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	16
Receiver Gain	8.9
Relaxation Delay	1.0000
Pulse Width	11.7500
Acquisition Date	2019-10-09T14:46:00
Modification Date	2019-10-09T15:47:40
Spectrometer Frequency	300.18
Spectral Width	6103.5
Nucleus	1H
Spectral Size	65536

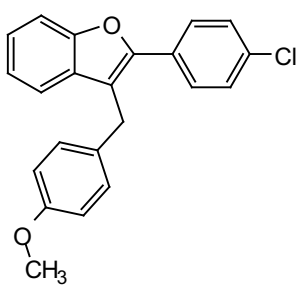


Compound 11g

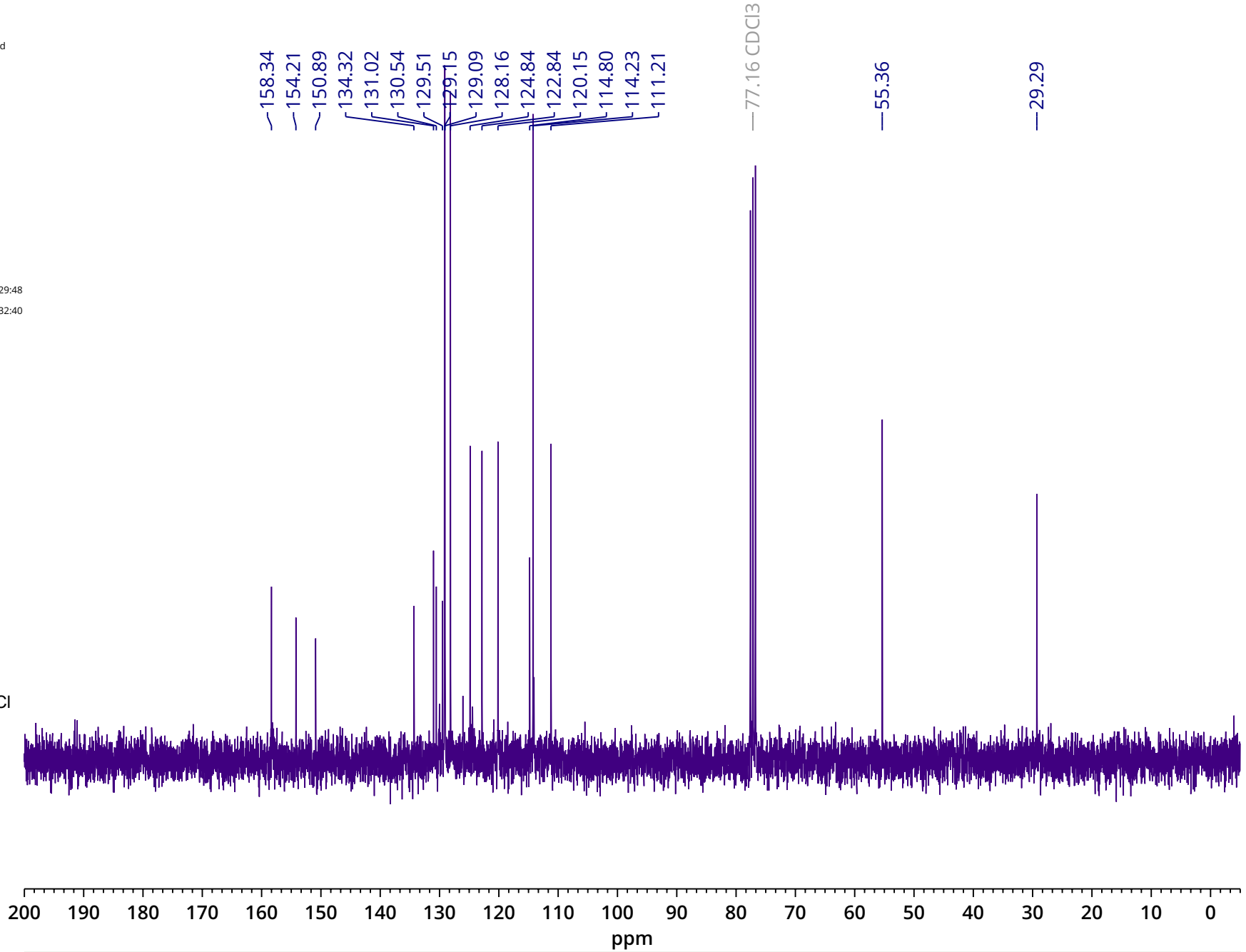


^{1}H NMR (300 MHz, $CDCl_3$) δ 7.82 – 7.67 (m, 2H), 7.56 (d, J = 8.2 Hz, 1H), 7.47 – 7.39 (m, 3H), 7.34 (ddd, J = 8.3, 7.2, 1.4 Hz, 1H), 7.29 – 7.15 (m, 3H), 6.92 – 6.81 (m, 2H), 4.25 (s, 2H), 3.80 (s, 3H).

Parameter	Value
Title	DAL2-072.906.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	298.7
Pulse Sequence	zgpg30
Experiment	1D
Probe	
Number of Scans	64
Receiver Gain	199.5
Relaxation Delay	2.0000
Pulse Width	12.6000
Acquisition Date	2020-03-05T19:29:48
Modification Date	2020-03-05T19:32:40
Spectrometer Frequency	75.49
Spectral Width	24414.1
Nucleus	13C

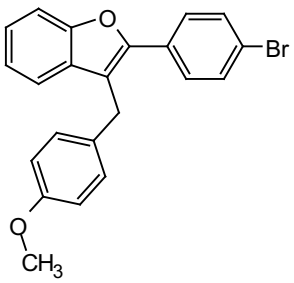


Compound 11g

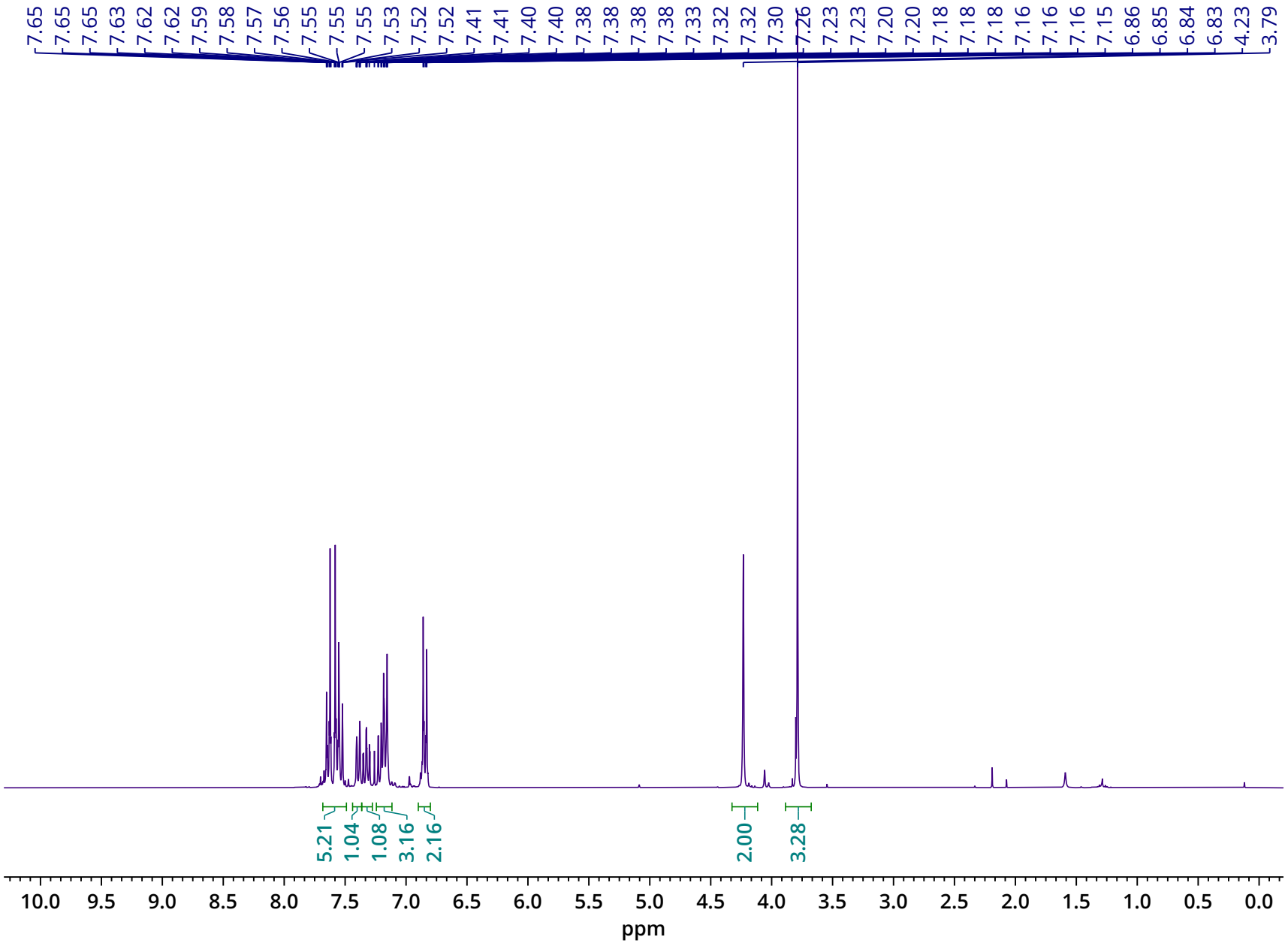


^{13}C NMR (75 MHz, $CDCl_3$) δ 158.34, 154.21, 150.89, 134.32, 131.02, 130.54, 129.51, 129.15, 129.09, 128.16, 124.84, 122.84, 120.15, 114.80, 114.23, 111.21, 55.36, 29.29.

Parameter	Value
Title	CCD2-001.11.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	1018.0
Pulse Sequence	zg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	64
Receiver Gain	31.6
Relaxation Delay	1.0000
Pulse Width	11.7500
Acquisition Date	2020-01-29T12:28:00
Modification Date	2020-01-29T12:35:38
Spectrometer Frequency	300.18
Spectral Width	6103.5
Nucleus	1H
Spectral Size	65536

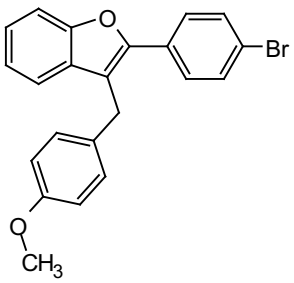


Compound 11h

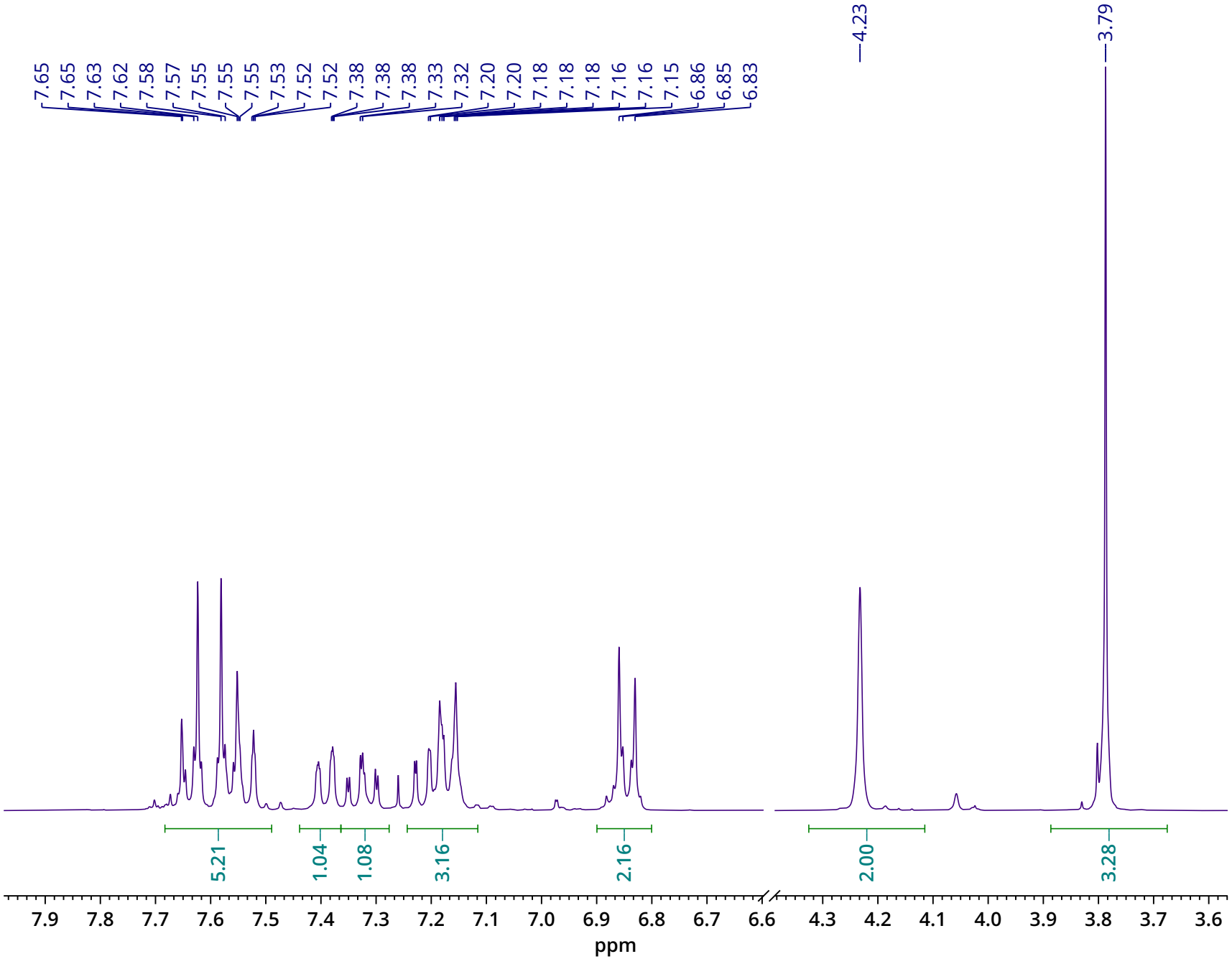


^{1}H NMR (300 MHz, $CDCl_3$) δ 7.73 – 7.46 (m, 5H), 7.39 (ddd, J = 7.7, 1.3, 0.7 Hz, 1H), 7.32 (ddd, J = 8.3, 7.2, 1.4 Hz, 1H), 7.25 – 7.11 (m, 3H), 6.91 – 6.79 (m, 2H), 4.23 (s, 2H), 3.79 (s, 3H).

Parameter	Value
Title	CCD2-001.11.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	1018.0
Pulse Sequence	zg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	64
Receiver Gain	31.6
Relaxation Delay	1.0000
Pulse Width	11.7500
Acquisition Date	2020-01-29T12:28:00
Modification Date	2020-01-29T12:35:38
Spectrometer Frequency	300.18
Spectral Width	6103.5
Nucleus	1H
Spectral Size	65536

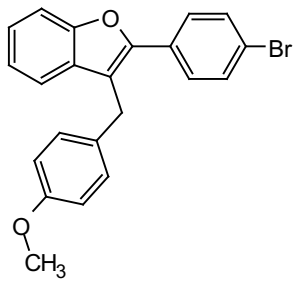


Compound 11h

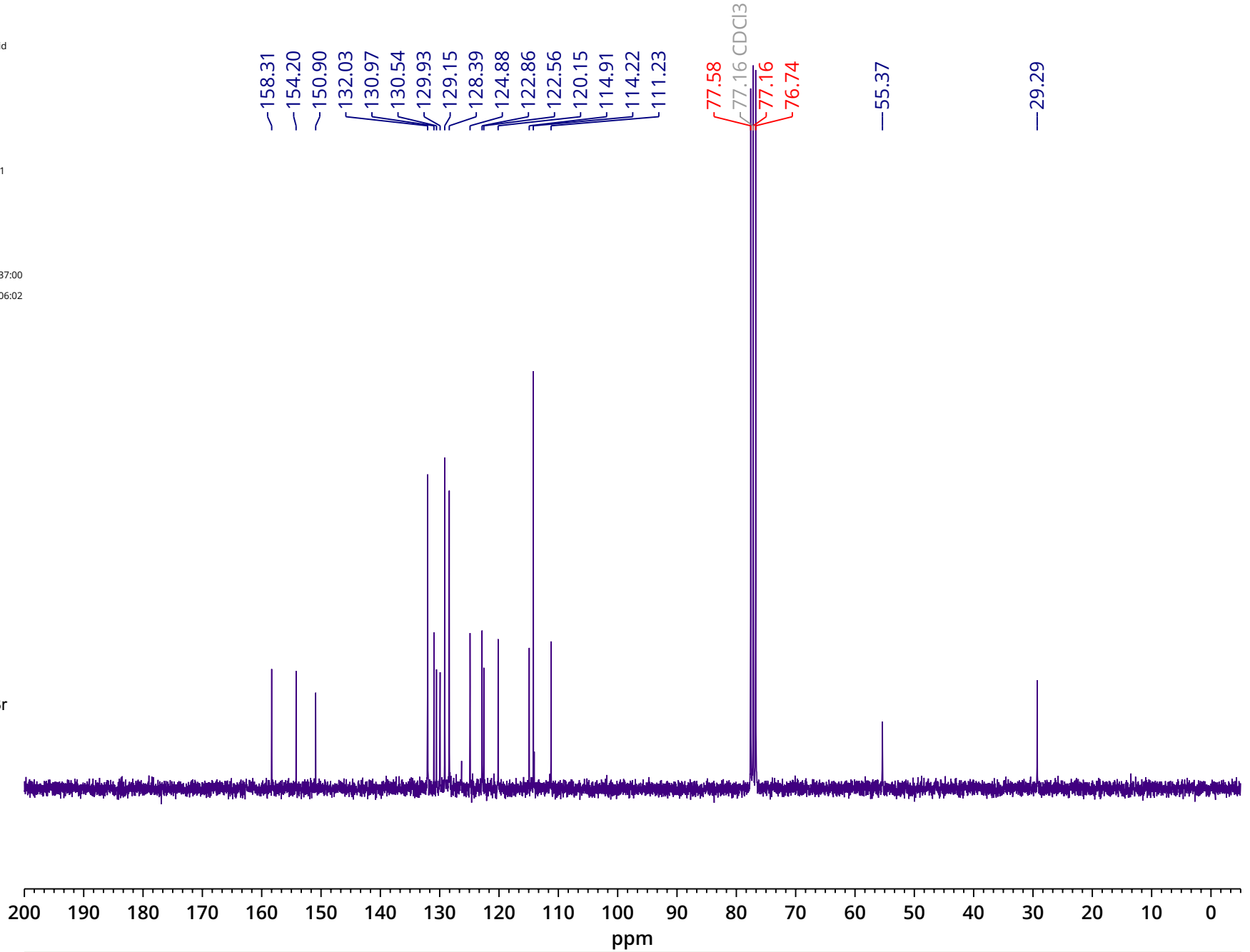


^{1}H NMR (300 MHz, $CDCl_3$) δ 7.73 – 7.46 (m, 5H), 7.39 (ddd, J = 7.7, 1.3, 0.7 Hz, 1H), 7.32 (ddd, J = 8.3, 7.2, 1.4 Hz, 1H), 7.25 – 7.11 (m, 3H), 6.91 – 6.79 (m, 2H), 4.23 (s, 2H), 3.79 (s, 3H).

Parameter	Value
Title	CCD2-001.101.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	1018.0
Pulse Sequence	zgpg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	512
Receiver Gain	501.2
Relaxation Delay	2.0000
Pulse Width	10.7500
Acquisition Date	2020-01-30T15:37:00
Modification Date	2020-01-30T16:06:02
Spectrometer Frequency	75.49
Spectral Width	24414.1
Nucleus	13C
Spectral Size	65536

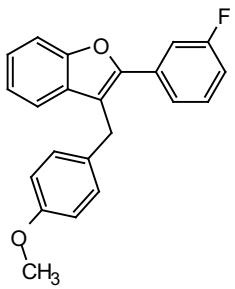


Compound 11h

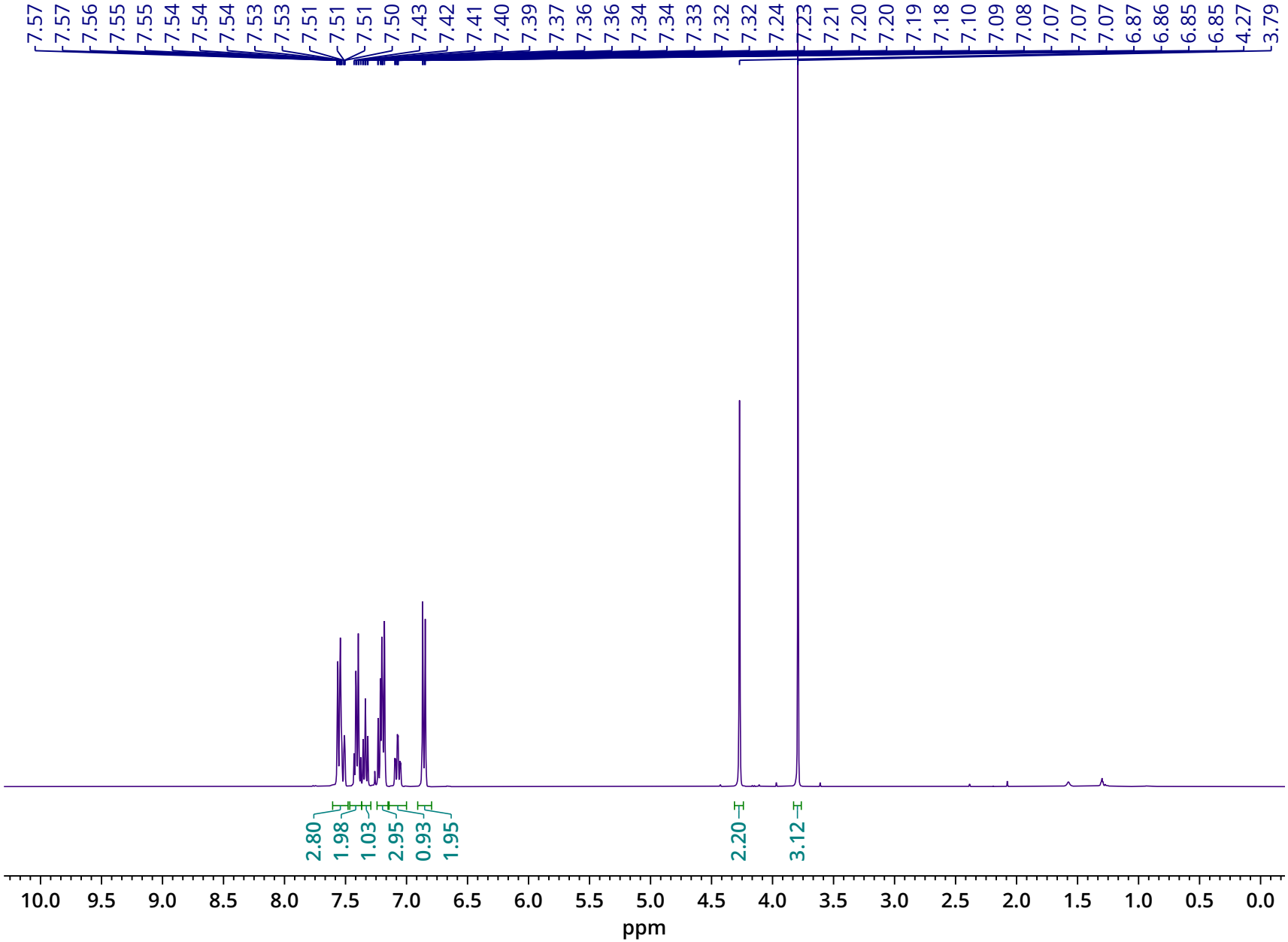


^{13}C NMR (75 MHz, $CDCl_3$) δ 158.31, 154.20, 150.90, 132.03, 130.97, 130.54, 129.93, 129.15, 128.39, 124.88, 122.86, 122.56, 120.15, 114.91, 114.22, 111.23, 55.37, 29.29.

Parameter	Value
Data File Name	/ Volumes/ HMNMR/ 400 NMR FID/ CCD-186/ 101.fid/ fid
Title	101
Comment	
Origin	Varian
Instrument	vnmrs
Solvent	cdcl3
Temperature	25.0
Pulse Sequence	s2pul
Experiment	1D
Probe	MR0905W021_OneNMR
Number of Scans	64
Receiver Gain	26
Relaxation Delay	2.0000
Pulse Width	11.3500

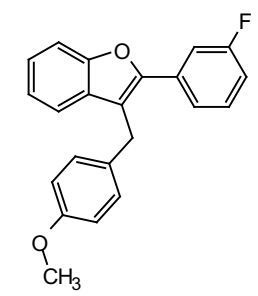


Compound 11i

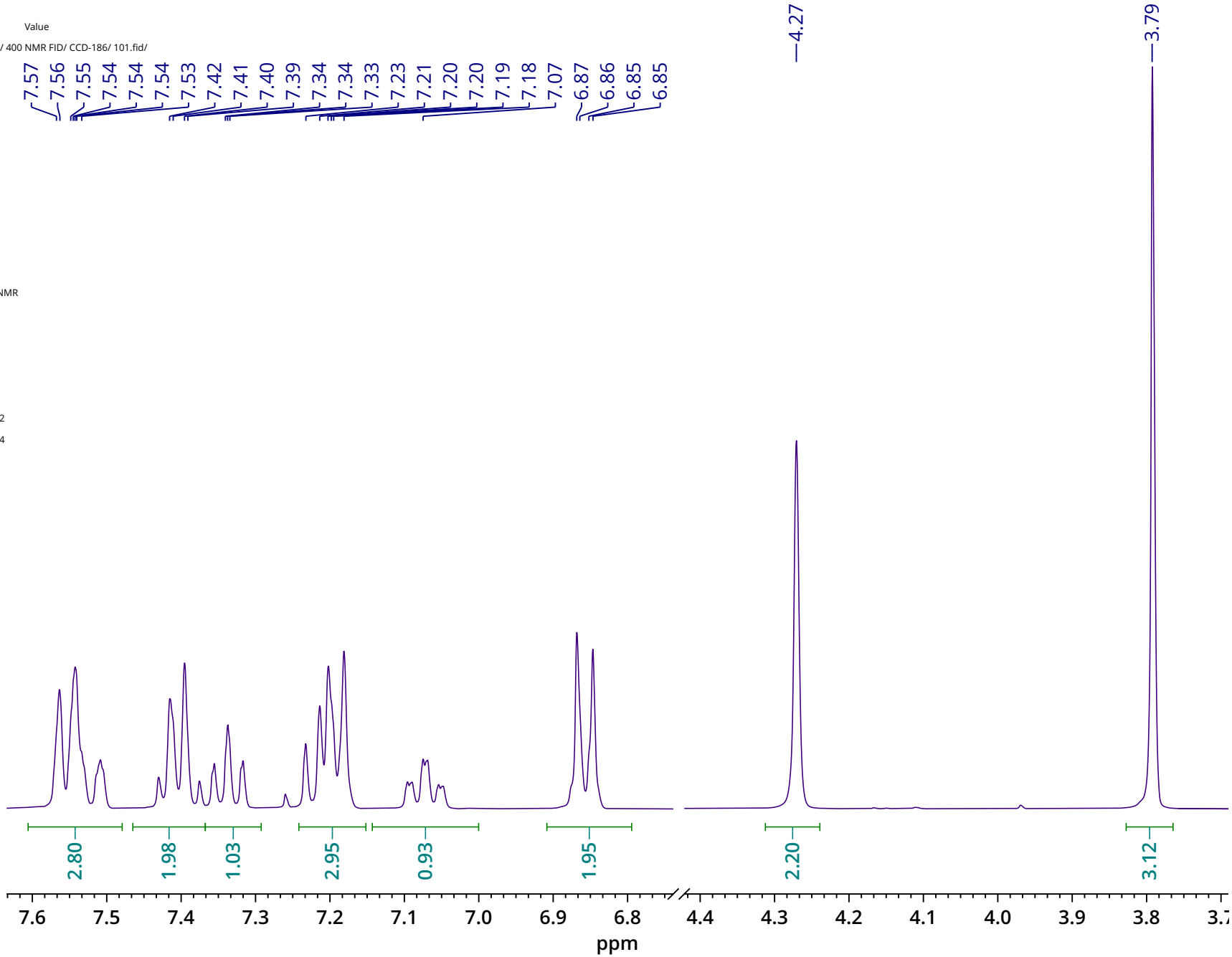


^{1}H NMR (400 MHz, $CDCl_3$) δ 7.59 – 7.48 (m, 3H), 7.40 (td, *J* = 8.0, 6.1 Hz, 2H), 7.34 (ddd, *J* = 8.4, 7.2, 1.4 Hz, 1H), 7.25 – 7.16 (m, 3H), 7.07 (tdd, *J* = 8.4, 2.6, 1.1 Hz, 1H), 6.90 – 6.82 (m, 2H), 4.27 (s, 2H), 3.79 (s, 3H).

Parameter	Value
Data File Name	/ Volumes/ HMNMR/ 400 NMR FID/ CCD-186/ 101.fid/ fid
Title	101
Comment	
Origin	Varian
Instrument	vnmrs
Solvent	cdcl3
Temperature	25.0
Pulse Sequence	s2pul
Experiment	1D
Probe	MR0905W021_OneNMR
Number of Scans	64
Receiver Gain	26
Relaxation Delay	2.0000
Pulse Width	11.3500
Acquisition Time	2.0447
Acquisition Date	2019-12-20T13:24:42
Modification Date	2019-12-20T13:25:14
Spectrometer Frequency	400.16
Spectral Width	6410.3
Lowest Frequency	-803.6
Nucleus	1H
Acquired Size	13107
Spectral Size	65536

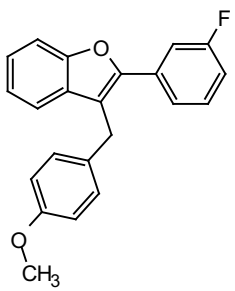


Compound 11i

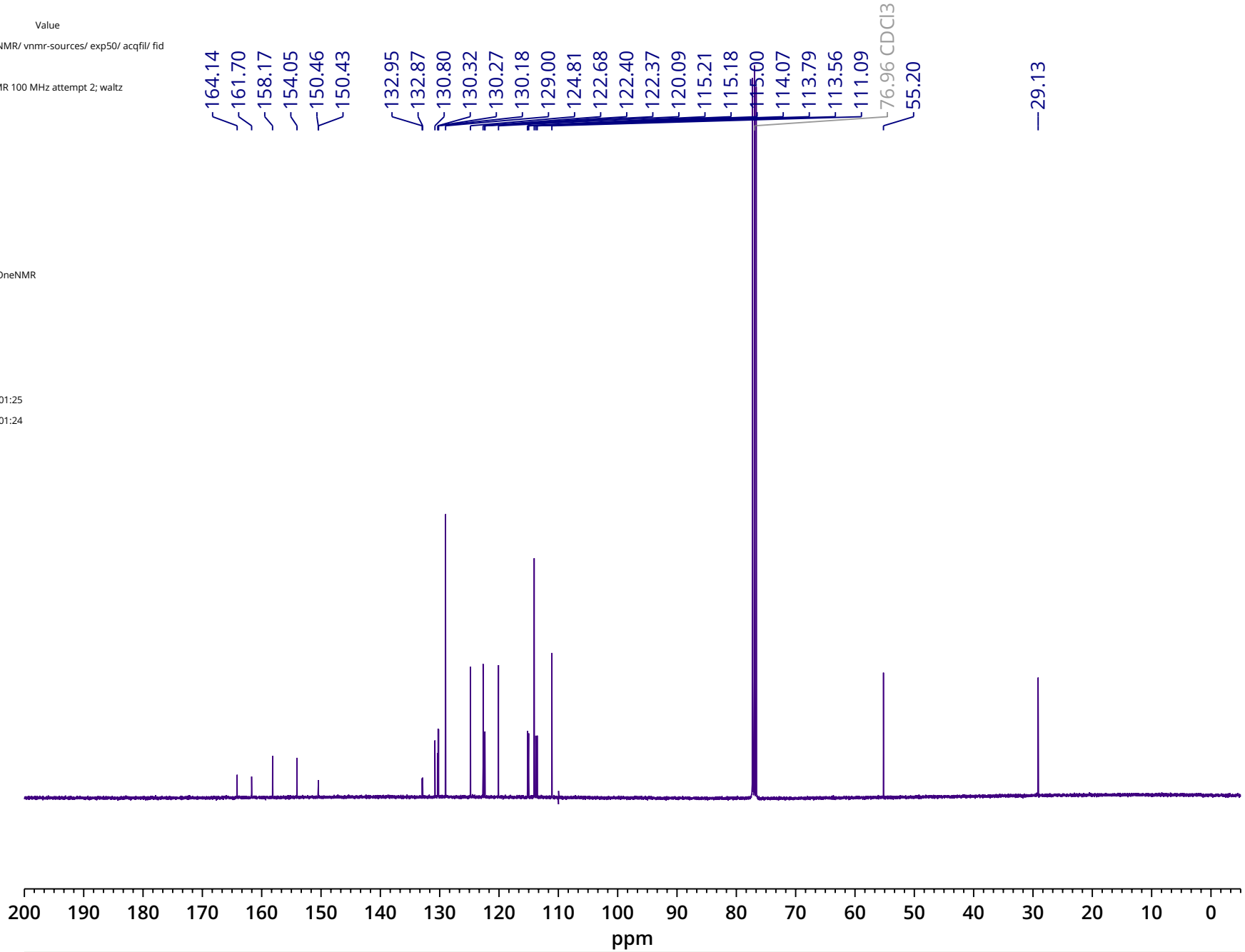


^{1}H NMR (400 MHz, $CDCl_3$) δ 7.59 – 7.48 (m, 3H), 7.40 (td, *J* = 8.0, 6.1 Hz, 2H), 7.34 (ddd, *J* = 8.4, 7.2, 1.4 Hz, 1H), 7.25 – 7.16 (m, 3H), 7.07 (tdd, *J* = 8.4, 2.6, 1.1 Hz, 1H), 6.90 – 6.82 (m, 2H), 4.27 (s, 2H), 3.79 (s, 2H).

Parameter	Value
Data File Name	/ Volumes/ HMNMR/ vnmr-sources/ exp50/ acqfil/ fid
Title	acqfil
Comment	F: 13-15;13C NMR 100 MHz attempt 2; waltz decoupling
Origin	Varian
Instrument	vnmrs
Solvent	cdcl3
Temperature	25.0
Pulse Sequence	s2pul
Experiment	1D
Probe	MR0905W021_OneNMR
Number of Scans	0
Receiver Gain	30
Relaxation Delay	1.0000
Pulse Width	6.6500
Acquisition Time	1.3107
Acquisition Date	2020-01-27T14:01:25
Modification Date	2020-01-27T14:01:24
Spectrometer Frequency	100.63
Spectral Width	25000.0
Lowest Frequency	-1435.0
Nucleus	13C
Acquired Size	32768
Spectral Size	65536

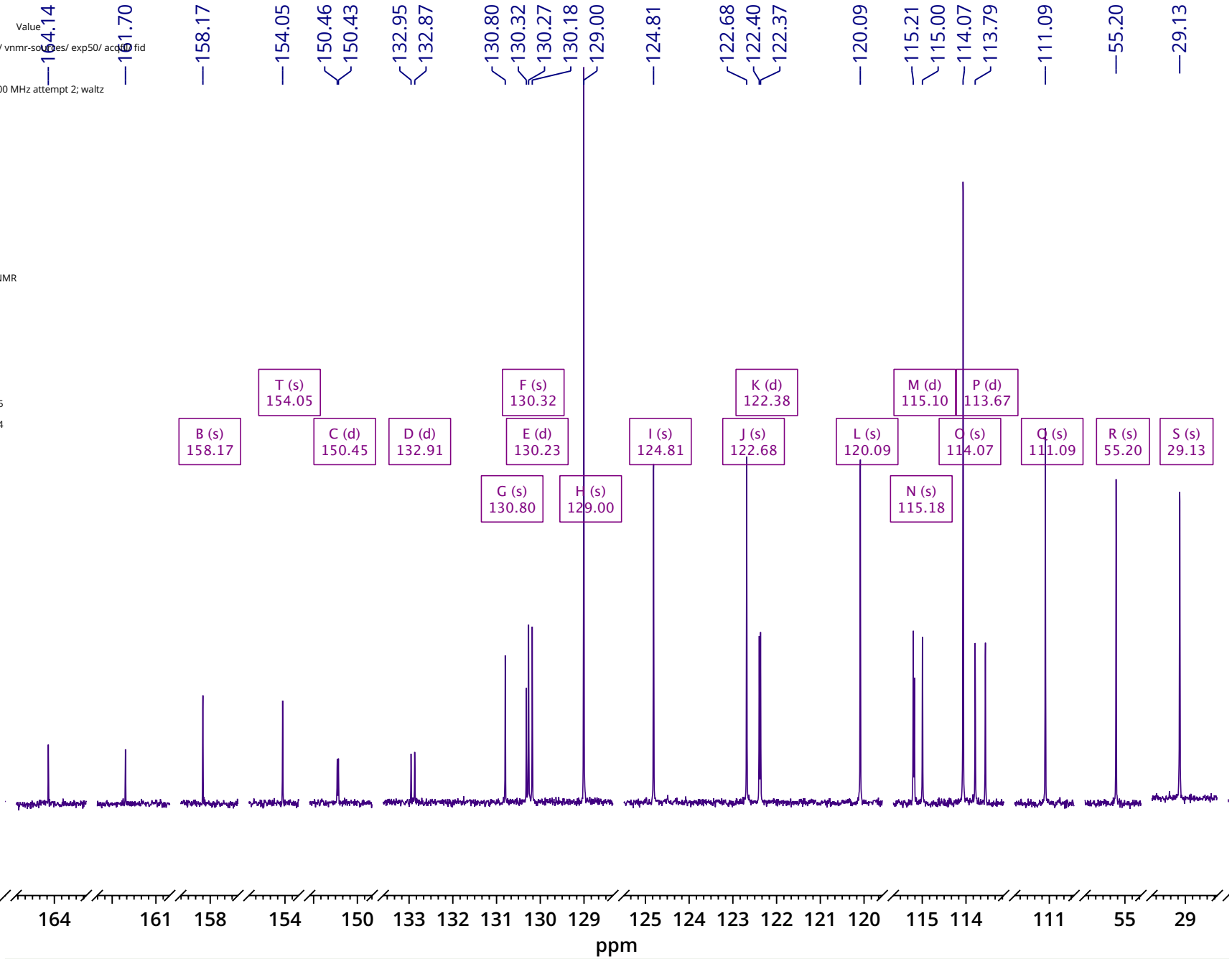


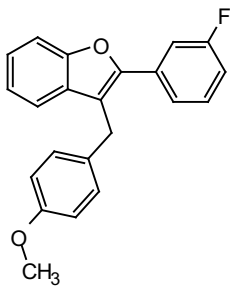
Compound 11i



^{13}C NMR (101 MHz, $CDCl_3$) δ 162.92 (d, J = 245.7 Hz), 158.17, 154.05, 150.45 (d, J = 2.7 Hz), 132.91 (d, J = 8.5 Hz), 130.80, 130.32, 130.23 (d, J = 8.4 Hz), 129.00, 124.81, 122.68, 122.38 (d, J = 3.0 Hz), 120.09, 115.18, 115.10 (d, J = 21.1 Hz), 114.07, 113.67 (d, J = 23.5 Hz), 111.09, 55.20, 29.13.

Parameter	Value
Data File Name	/ Volumes/ HMNMR/ vnmr-sources/ exp50/ acqfil fid
Title	acqfil
Comment	F: 13-15;13C NMR 100 MHz attempt 2; waltz decoupling
Origin	Varian
Instrument	vnmrs
Solvent	cdcl3
Temperature	25.0
Pulse Sequence	s2pul
Experiment	1D
Probe	MR0905W021_OneNMR
Number of Scans	0
Receiver Gain	30
Relaxation Delay	1.0000
Pulse Width	6.6500
Acquisition Time	1.3107
Acquisition Date	2020-01-27T14:01:25
Modification Date	2020-01-27T14:01:24
Spectrometer Frequency	100.63
Spectral Width	25000.0
Lowest Frequency	-1435.0
Nucleus	13C
Acquired Size	32768
Spectral Size	65536

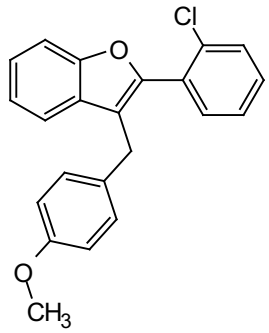




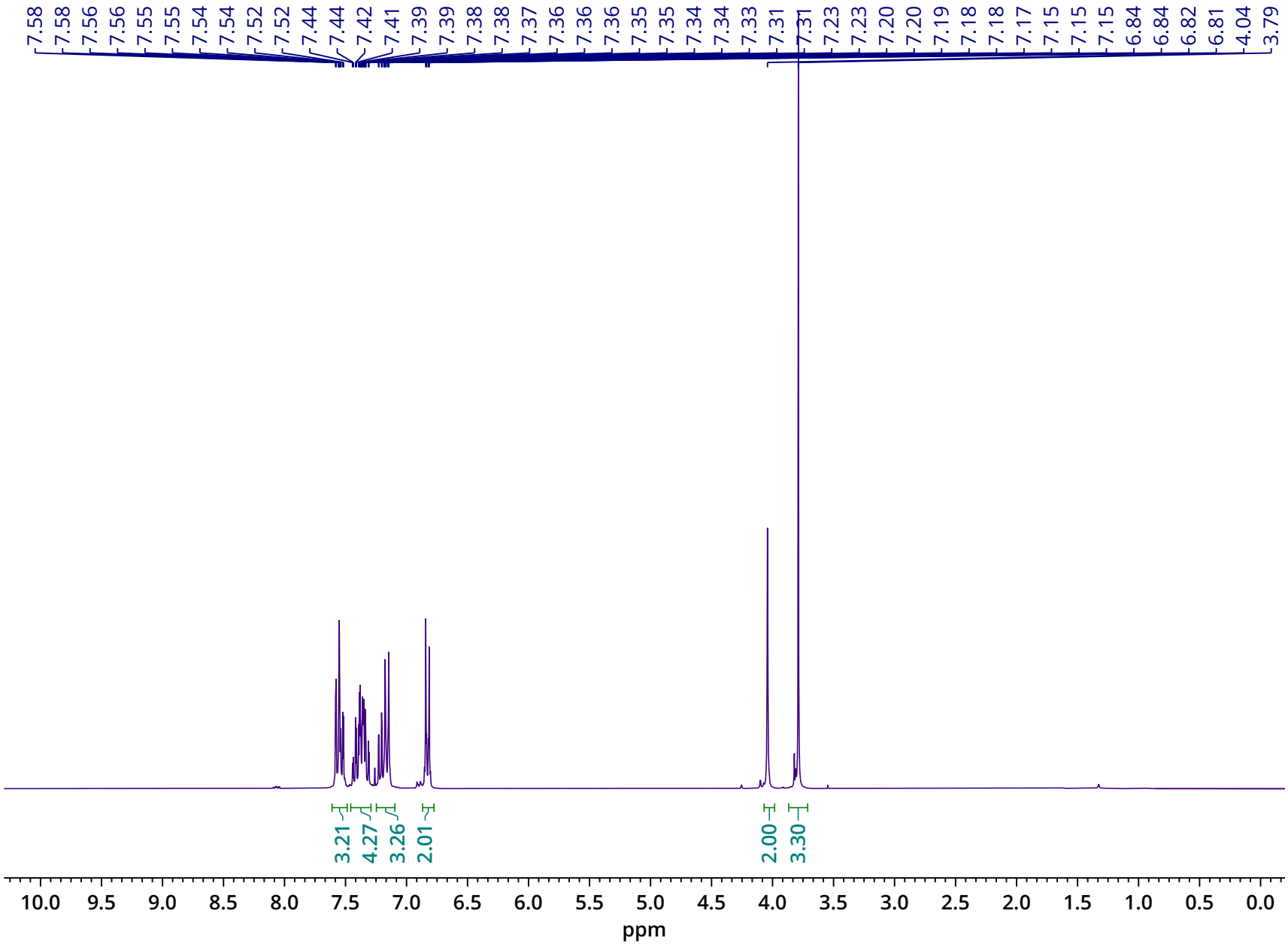
Compound 11i

^{13}C NMR (101 MHz, $CDCl_3$) δ 162.92 (d, J = 245.7 Hz), 158.17, 154.05, 150.45 (d, J = 2.7 Hz), 132.91 (d, J = 8.5 Hz), 130.80, 130.32, 130.23 (d, J = 8.4 Hz), 129.00, 124.81, 122.68, 122.38 (d, J = 3.0 Hz), 120.09, 115.18, 115.10 (d, J = 21.1 Hz), 114.07, 113.67 (d, J = 23.5 Hz), 111.09, 55.20, 29.13.

Parameter	Value
Title	CCD-187.11.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	1018.0
Pulse Sequence	zg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	64
Receiver Gain	10.4
Relaxation Delay	1.0000
Pulse Width	11.7500
Acquisition Date	2020-02-11T11:57:00
Modification Date	2020-02-11T12:03:50
Spectrometer Frequency	300.18
Spectral Width	6103.5
Nucleus	1H
Spectral Size	65536

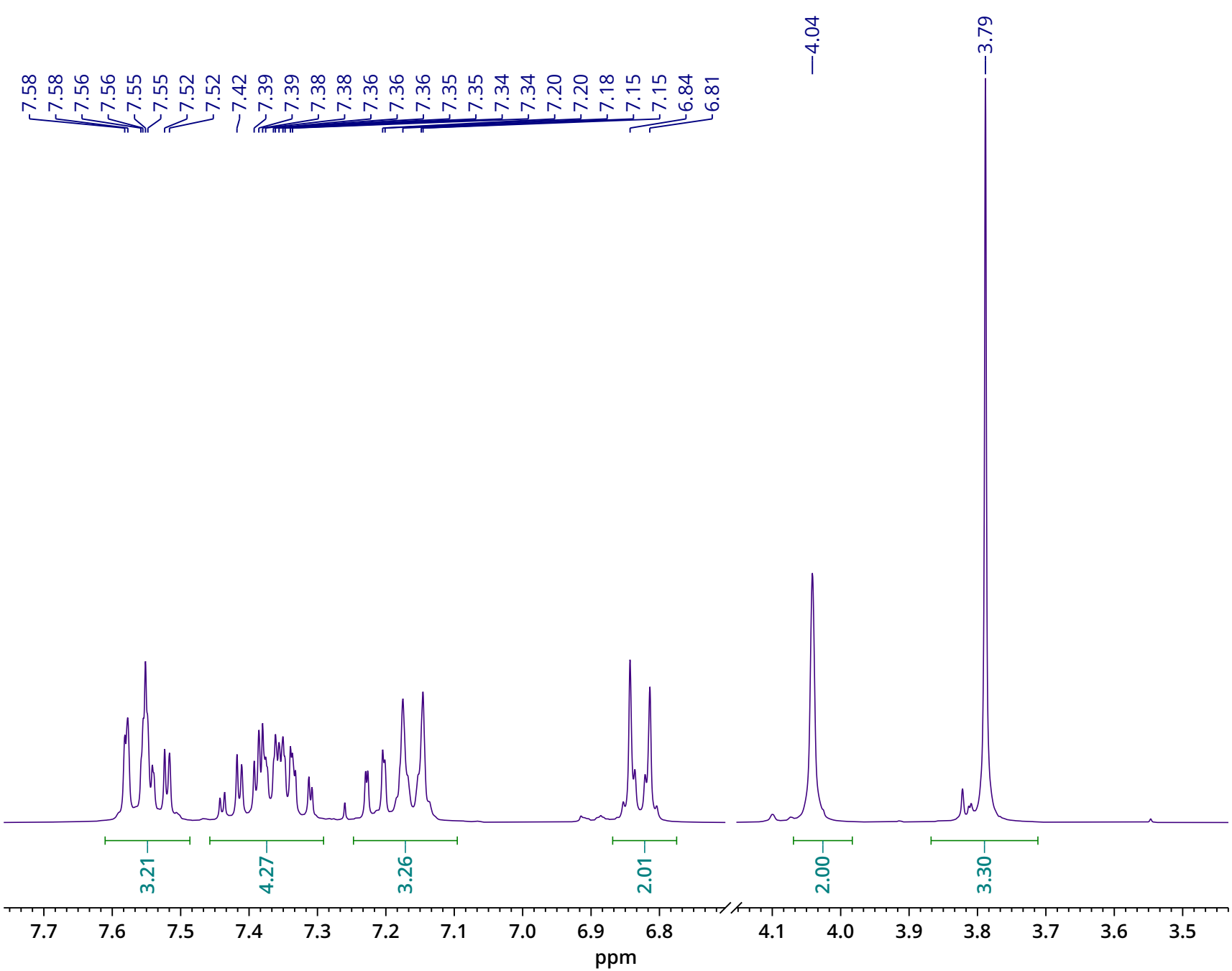


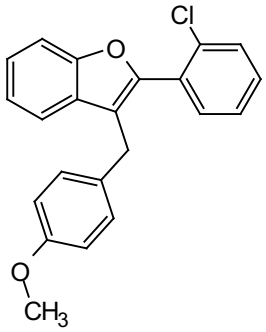
Compound 11j



^{1}H NMR (300 MHz, $CDCl_3$) δ 7.61 – 7.48 (m, 3H), 7.46 – 7.29 (m, 4H), 7.24 – 7.11 (m, 3H), 6.86 – 6.79 (m, 2H), 4.04 (s, 2H), 3.79 (s, 3H).

Parameter	Value
Title	CCD-187.11.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	1018.0
Pulse Sequence	zg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	64
Receiver Gain	10.4
Relaxation Delay	1.0000
Pulse Width	11.7500
Acquisition Date	2020-02-11T11:57:00
Modification Date	2020-02-11T12:03:50
Spectrometer Frequency	300.18
Spectral Width	6103.5
Nucleus	1H
Spectral Size	65536

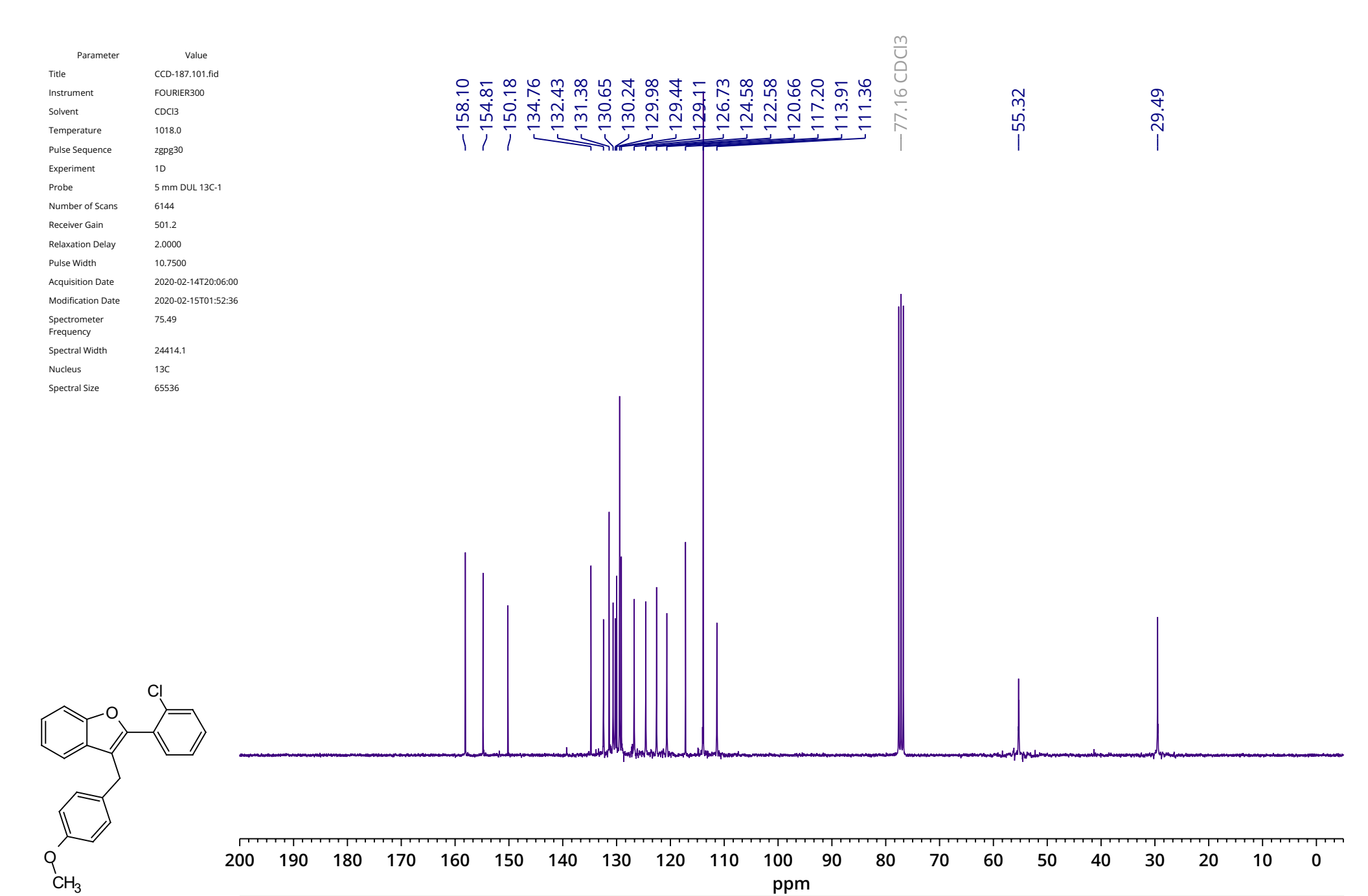




Compound 11j

^{1}H NMR (300 MHz, $CDCl_3$) δ 7.61 – 7.48 (m, 3H), 7.46 – 7.29 (m, 4H), 7.24 – 7.11 (m, 3H), 6.86 – 6.79 (m, 2H), 4.04 (s, 2H), 3.79 (s, 3H).

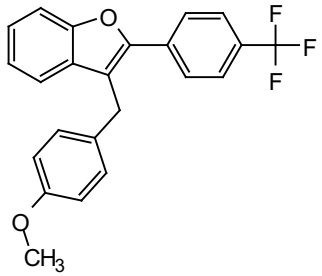
Parameter	Value
Title	CCD-187.101.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	1018.0
Pulse Sequence	zgpg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	6144
Receiver Gain	501.2
Relaxation Delay	2.0000
Pulse Width	10.7500
Acquisition Date	2020-02-14T20:06:00
Modification Date	2020-02-15T01:52:36
Spectrometer Frequency	75.49
Spectral Width	24414.1
Nucleus	13C
Spectral Size	65536



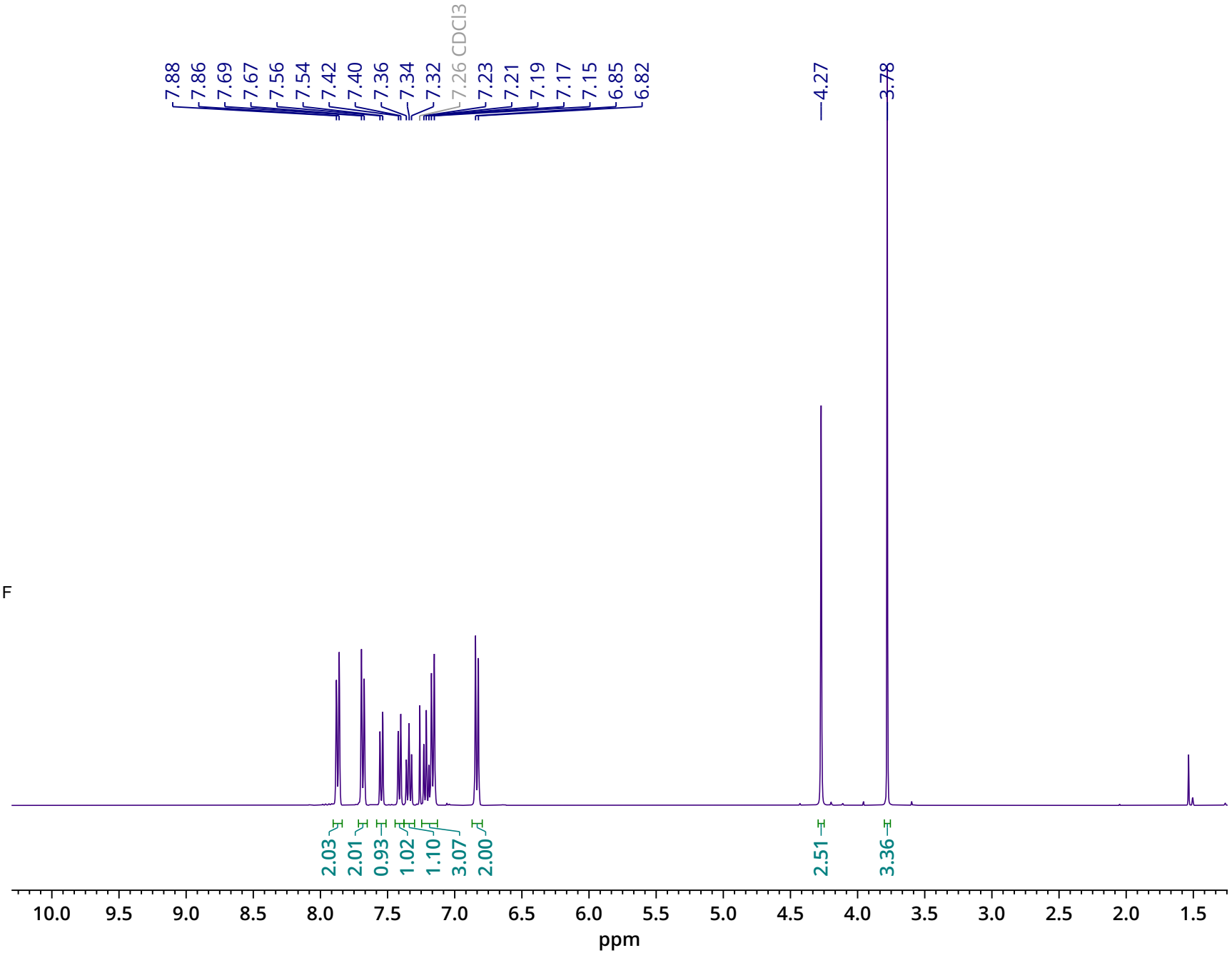
Compound 11j

^{13}C NMR (75 MHz, $CDCl_3$) δ 158.10, 154.81, 150.18, 134.76, 132.43, 131.38, 130.65, 130.24, 129.98, 129.44, 129.11, 126.73, 124.58, 122.58, 120.66, 117.20, 113.91, 111.36, 55.32, 29.49.

Parameter	Value
Data File Name	/ Volumes/ HMNMR/ 400 NMR FID/ CCD-177/ 101/ fid
Title	101
Comment	
Origin	Varian
Instrument	vnmrs
Solvent	cdcl3
Temperature	25.0
Pulse Sequence	s2pul
Experiment	1D
Probe	MR0905W021_OneNMR
Number of Scans	64
Receiver Gain	34
Relaxation Delay	2.0000
Pulse Width	9.8750
Acquisition Time	2.0447

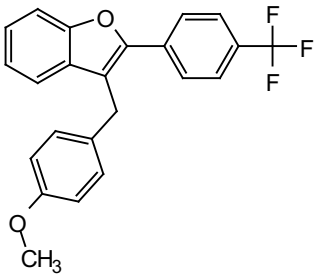


Compound 11k

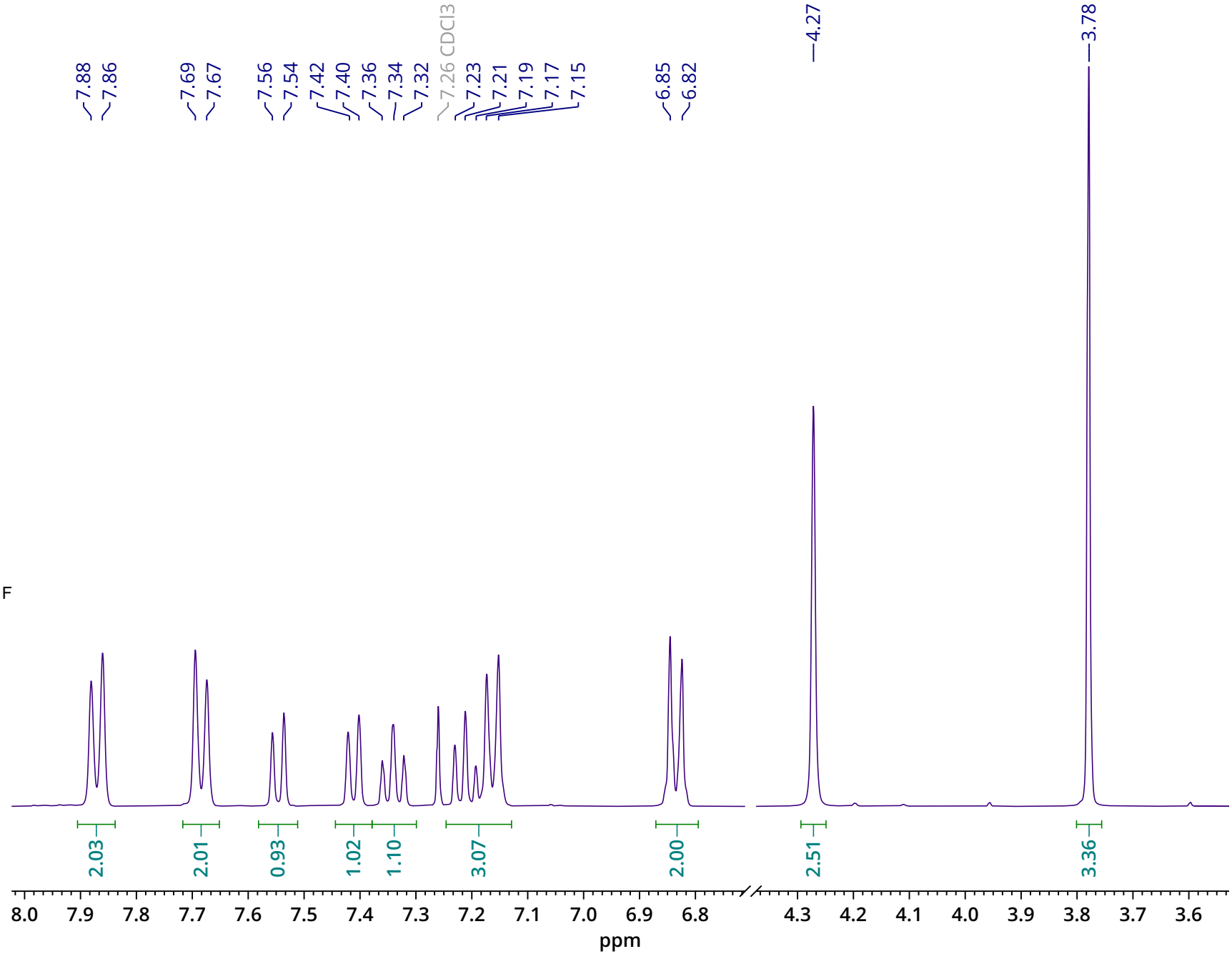


^{1}H NMR (400 MHz, $CDCl_3$) δ 7.87 (d, J = 8.1 Hz, 2H), 7.68 (d, J = 8.1 Hz, 2H), 7.55 (d, J = 8.2 Hz, 1H), 7.41 (d, J = 6.8 Hz, 1H), 7.37 – 7.31 (m, 1H), 7.24 – 7.12 (m, 3H), 6.83 (d, J = 8.6 Hz, 2H), 4.27 (s, 2H), 3.78 (s, 3H).

Parameter	Value
Data File Name	/ Volumes/ HMNMR/ 400 NMR FID/ CCD-177/ 101/ fid
Title	101
Comment	
Origin	Varian
Instrument	vnmrs
Solvent	cdcl3
Temperature	25.0
Pulse Sequence	s2pul
Experiment	1D
Probe	MR0905W021_OneNMR
Number of Scans	64
Receiver Gain	34
Relaxation Delay	2.0000
Pulse Width	9.8750
Acquisition Time	2.0447

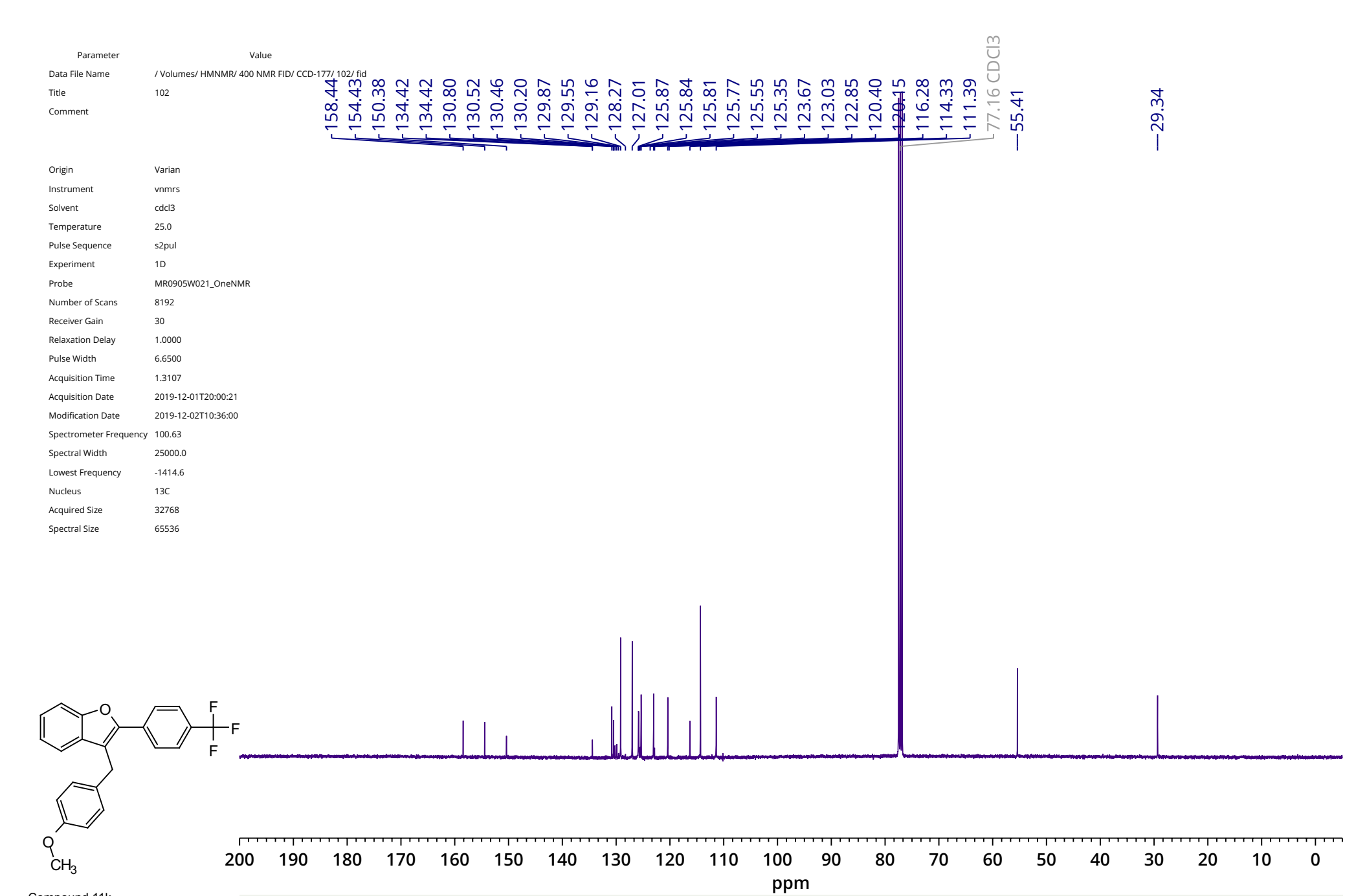


Compound 11k



^{1}H NMR (400 MHz, $CDCl_3$) δ 7.87 (d, J = 8.1 Hz, 2H), 7.68 (d, J = 8.1 Hz, 2H), 7.55 (d, J = 8.2 Hz, 1H), 7.41 (d, J = 6.8 Hz, 1H), 7.37 – 7.31 (m, 1H), 7.24 – 7.12 (m, 3H), 6.83 (d, J = 8.6 Hz, 2H), 4.27 (s, 2H), 3.78 (s, 3H).

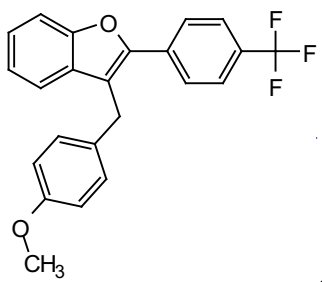
Parameter	Value
Data File Name	/ Volumes/ HMNMR/ 400 NMR FID/ CCD-177/ 102/ fid
Title	102
Comment	
Origin	Varian
Instrument	vnmrs
Solvent	cdcl3
Temperature	25.0
Pulse Sequence	s2pul
Experiment	1D
Probe	MR0905W021_OneNMR
Number of Scans	8192
Receiver Gain	30
Relaxation Delay	1.0000
Pulse Width	6.6500
Acquisition Time	1.3107
Acquisition Date	2019-12-01T20:00:21
Modification Date	2019-12-02T10:36:00
Spectrometer Frequency	100.63
Spectral Width	25000.0
Lowest Frequency	-1414.6
Nucleus	13C
Acquired Size	32768
Spectral Size	65536



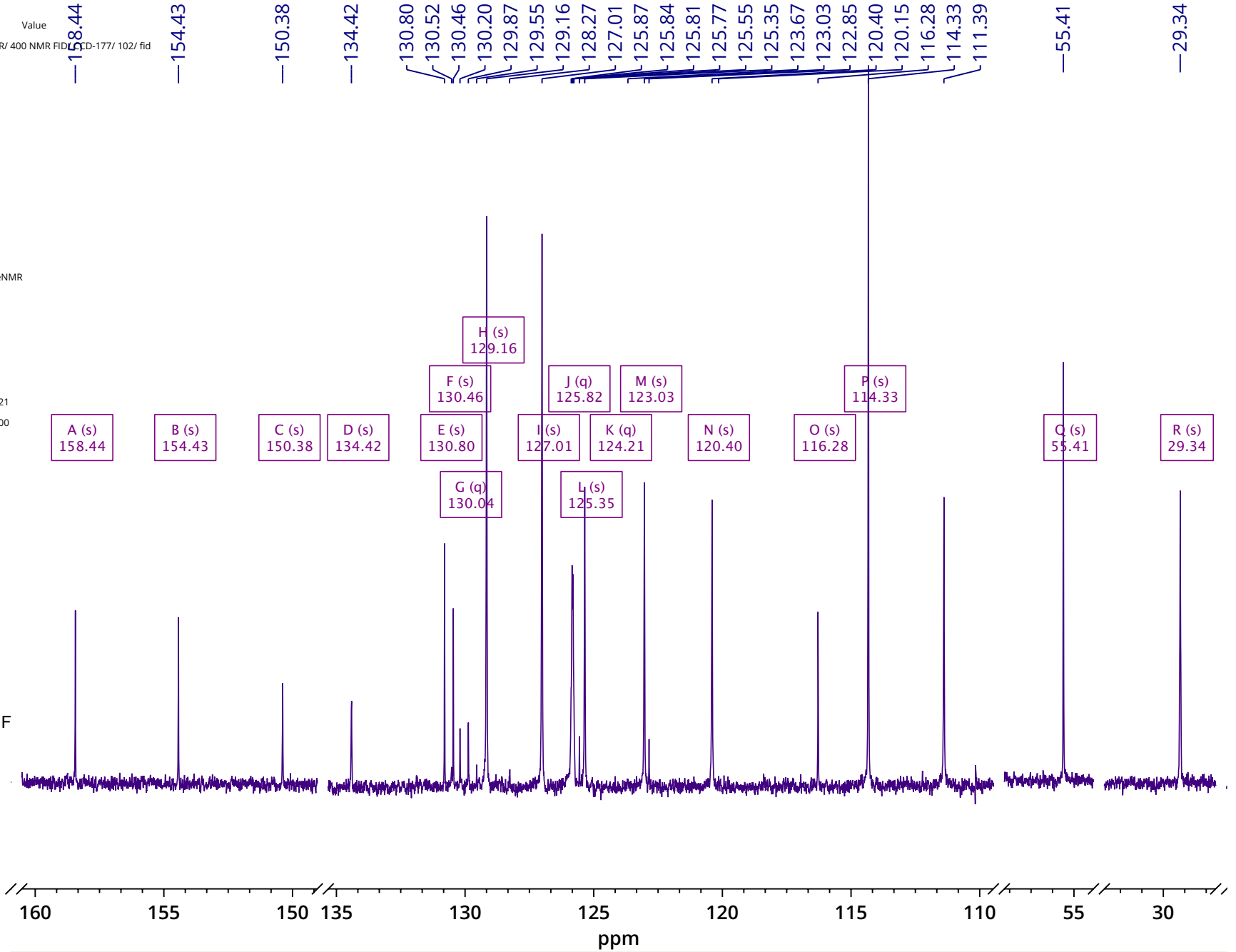
Compound 11k

^{13}C NMR (101 MHz, $CDCl_3$) δ 158.44, 154.43, 150.38, 134.42, 130.80, 130.46, 130.04 (q, J = 32.6 Hz), 129.16, 127.01, 125.82 (q, J = 3.5 Hz), 125.35, 124.21 (q, J = 273.0 Hz), 123.03, 120.40, 116.28, 114.33, 55.41, 29.34.

Parameter	Value
Data File Name	/ Volumes/ HMNMR/ 400 NMR FID/ CD-177/ 102/ fid
Title	102
Comment	
Origin	Varian
Instrument	vnmrs
Solvent	cdcl3
Temperature	25.0
Pulse Sequence	s2pul
Experiment	1D
Probe	MR0905W021_OneNMR
Number of Scans	8192
Receiver Gain	30
Relaxation Delay	1.0000
Pulse Width	6.6500
Acquisition Time	1.3107
Acquisition Date	2019-12-01T20:00:21
Modification Date	2019-12-02T10:36:00
Spectrometer Frequency	100.63
Spectral Width	25000.0
Lowest Frequency	-1414.6
Nucleus	13C
Acquired Size	32768
Spectral Size	65536

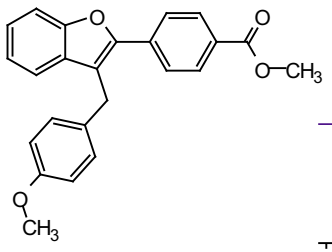


Compound 11k

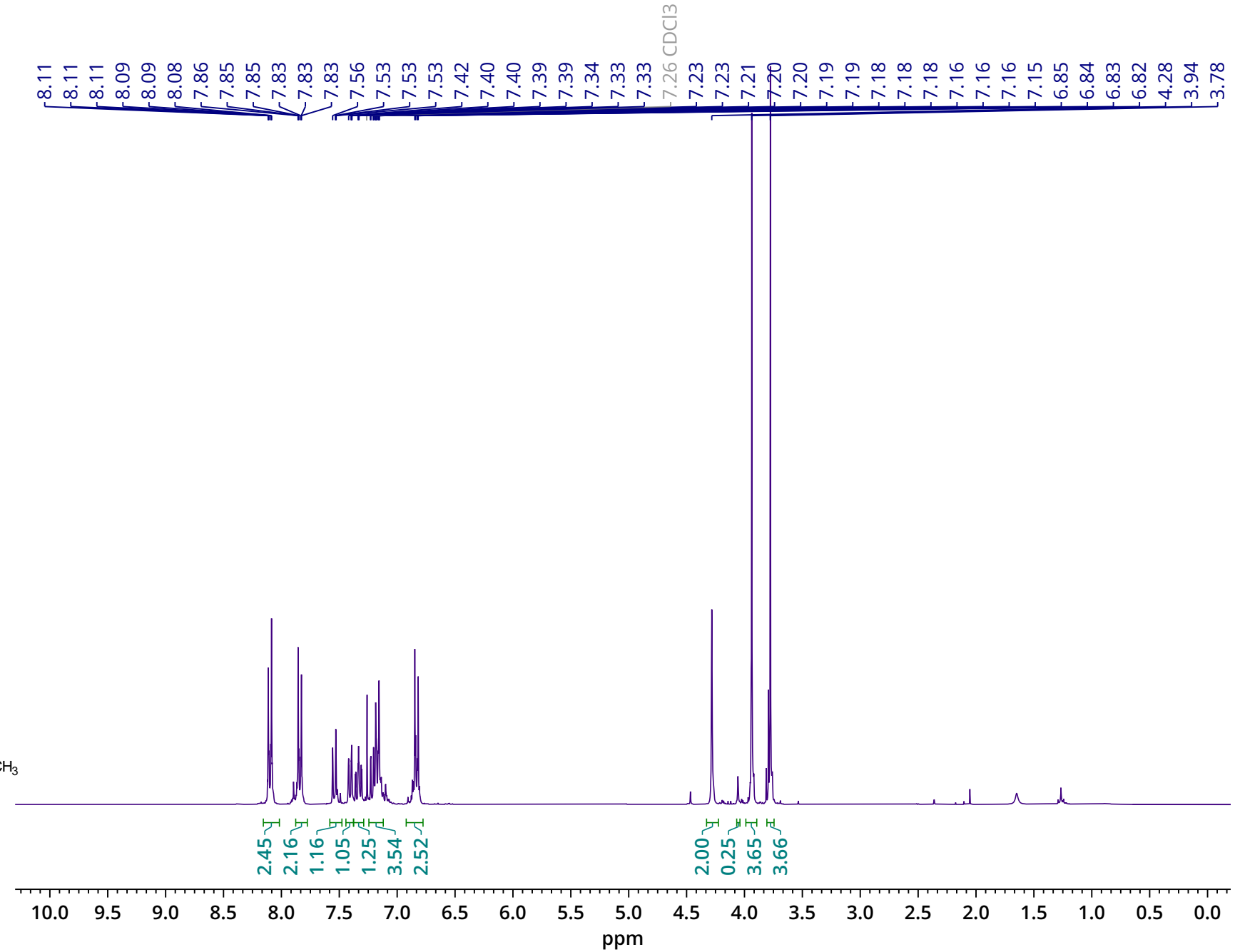


^{13}C NMR (101 MHz, $CDCl_3$) δ 158.44, 154.43, 150.38, 134.42, 130.80, 130.46, 130.04 (q, J = 32.6 Hz), 129.16, 127.01, 125.82 (q, J = 3.5 Hz), 125.35, 124.21 (q, J = 273.0 Hz), 123.03, 120.40, 116.28, 114.33, 55.41, 29.34.

Parameter	Value
Title	CCD-185.11.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	1030.5
Pulse Sequence	zg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	16
Receiver Gain	31.6
Relaxation Delay	1.0000
Pulse Width	11.7500
Acquisition Date	2019-12-16T19:04:00
Modification Date	2019-12-16T19:06:24
Spectrometer Frequency	300.18
Spectral Width	6103.5
Nucleus	1H
Spectral Size	65536

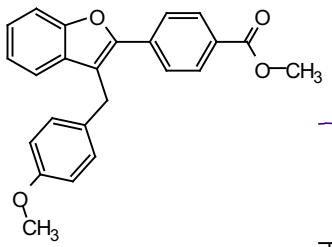


Compound 11l

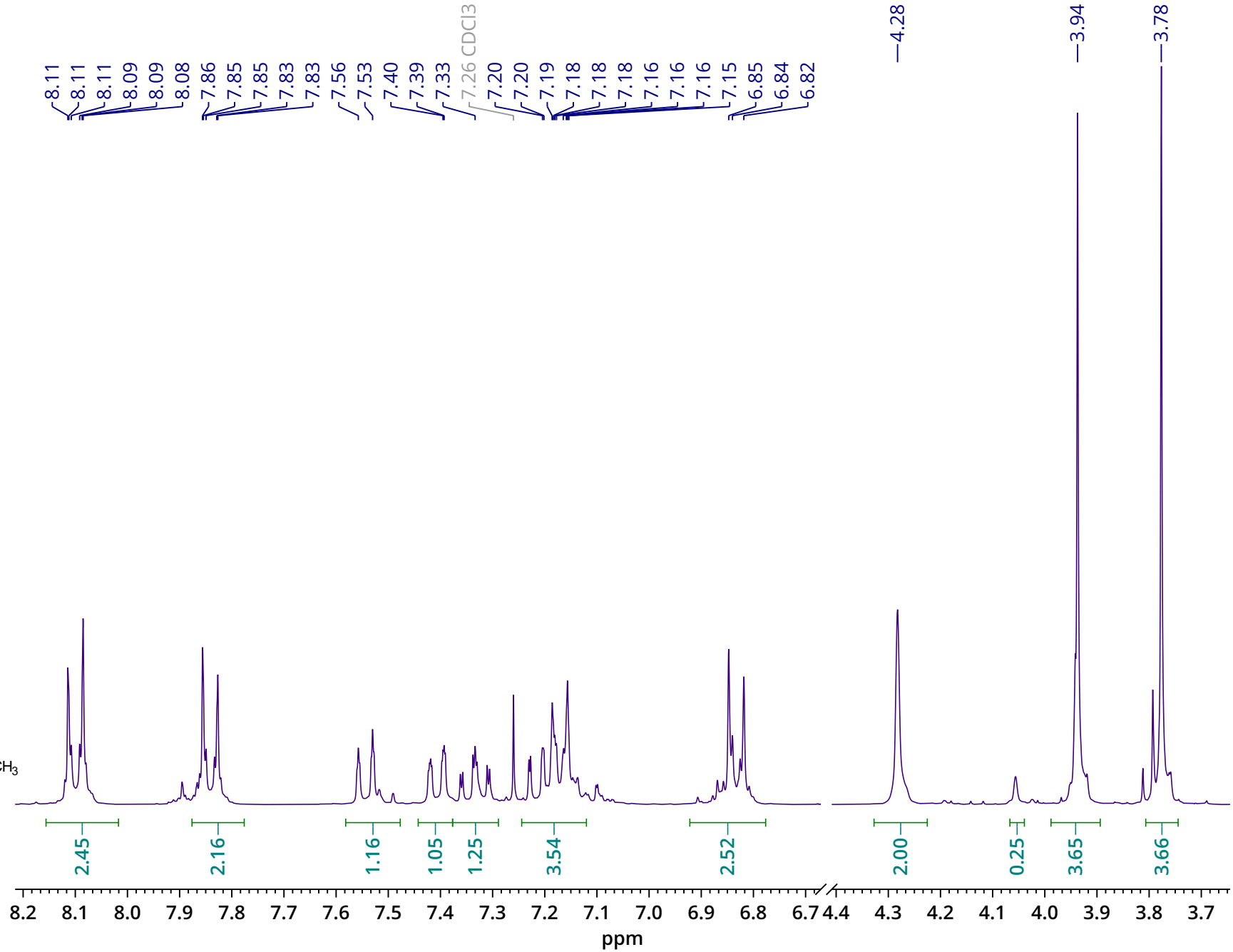


^{1}H NMR (300 MHz, $CDCl_3$) δ 8.15 – 8.04 (m, 2H), 7.87 – 7.80 (m, 2H), 7.54 (dt, *J* = 8.2, 0.9 Hz, 1H), 7.41 (ddd, *J* = 7.7, 1.4, 0.7 Hz, 1H), 7.33 (ddd, *J* = 8.4, 7.2, 1.4 Hz, 1H), 7.24 – 7.12 (m, 3H), 6.88 – 6.78 (m, 2H), 4.28 (s, 2H), 3.94 (s, 3H), 3.78 (s, 3H).

Parameter	Value
Title	CCD-185.11.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	1030.5
Pulse Sequence	zg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	16
Receiver Gain	31.6
Relaxation Delay	1.0000
Pulse Width	11.7500
Acquisition Date	2019-12-16T19:04:00
Modification Date	2019-12-16T19:06:24
Spectrometer Frequency	300.18
Spectral Width	6103.5
Nucleus	1H
Spectral Size	65536

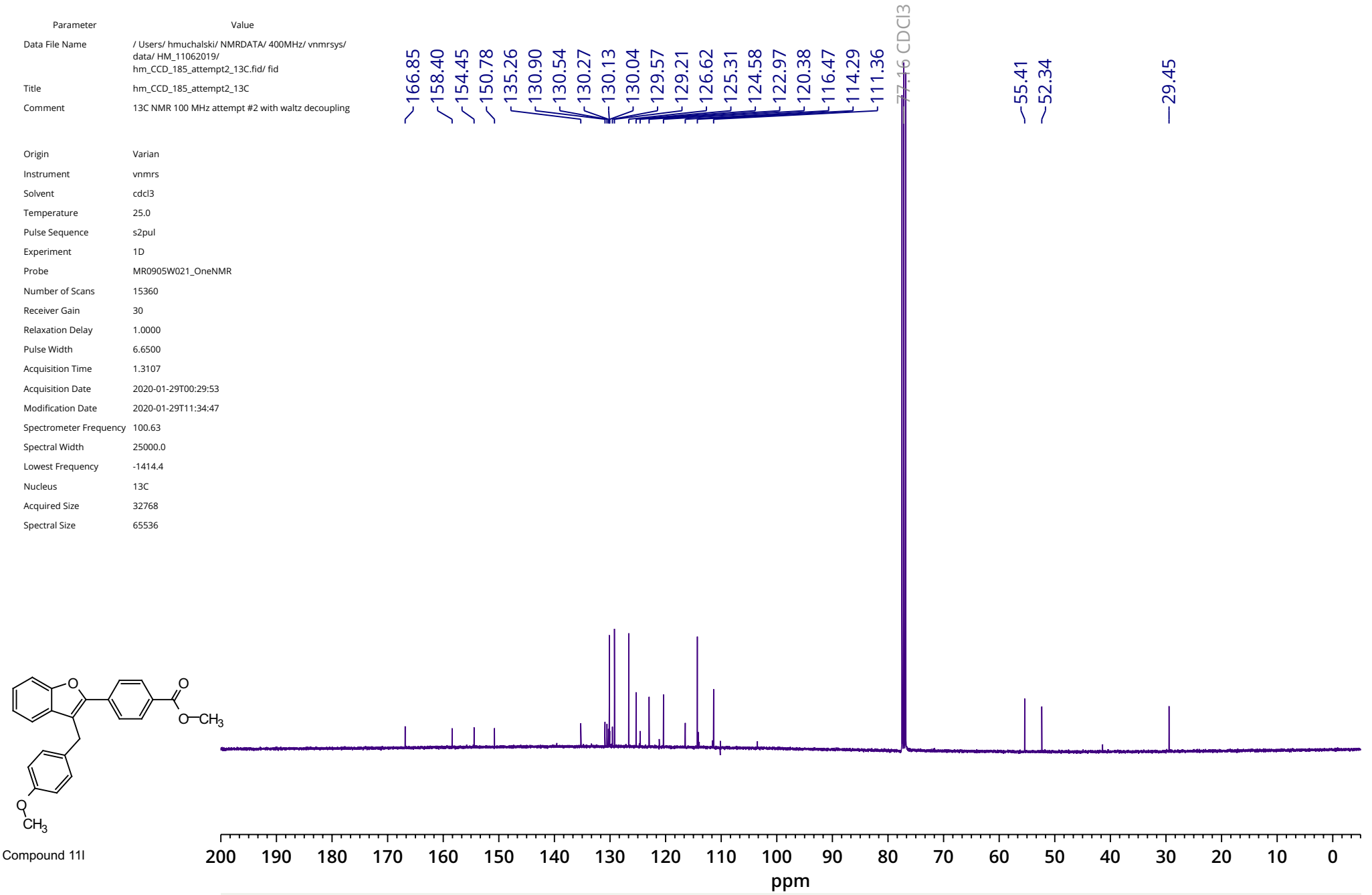


Compound 11l



^{1}H NMR (300 MHz, $CDCl_3$) δ 8.15 – 8.04 (m, 2H), 7.87 – 7.80 (m, 2H), 7.54 (dt, *J* = 8.2, 0.9 Hz, 1H), 7.41 (ddd, *J* = 7.7, 1.4, 0.7 Hz, 1H), 7.33 (ddd, *J* = 8.4, 7.2, 1.4 Hz, 1H), 7.24 – 7.12 (m, 3H), 6.88 – 6.78 (m, 2H), 4.28 (s, 2H), 3.94 (s, 3H), 3.78 (s, 3H).

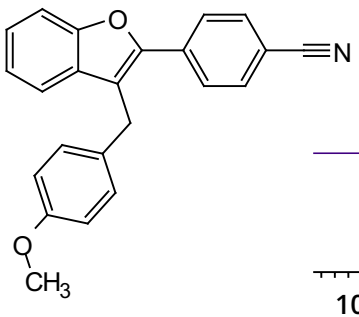
Parameter	Value
Data File Name	/ Users/ hmuchalski/ NMRDATA/ 400MHz/ vnmrsys/ data/ HM_11062019/ hm_CCD_185_attempt2_13C.fid/ fid
Title	hm_CCD_185_attempt2_13C
Comment	13C NMR 100 MHz attempt #2 with waltz decoupling
Origin	Varian
Instrument	vnmrs
Solvent	cdcl3
Temperature	25.0
Pulse Sequence	s2pul
Experiment	1D
Probe	MR0905W021_OneNMR
Number of Scans	15360
Receiver Gain	30
Relaxation Delay	1.0000
Pulse Width	6.6500
Acquisition Time	1.3107
Acquisition Date	2020-01-29T00:29:53
Modification Date	2020-01-29T11:34:47
Spectrometer Frequency	100.63
Spectral Width	25000.0
Lowest Frequency	-1414.4
Nucleus	13C
Acquired Size	32768
Spectral Size	65536



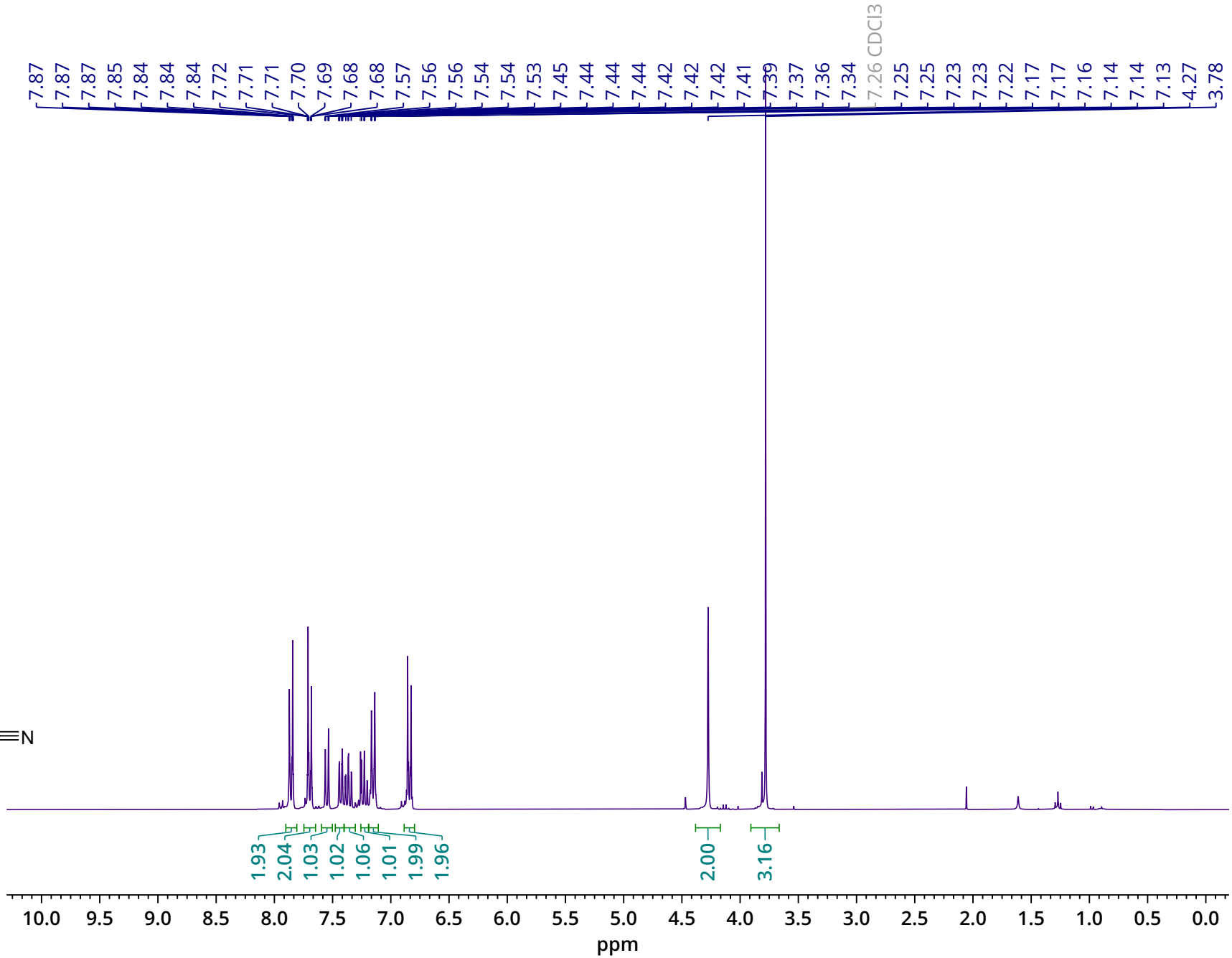
Compound 11l

^{13}C NMR (101 MHz, $CDCl_3$) δ 166.85, 158.40, 154.45, 150.78, 135.26, 130.90, 130.54, 130.13, 129.57, 129.21, 126.62, 125.31, 122.97, 120.38, 116.47, 114.29, 111.36, 55.41, 52.34, 29.45.

Parameter	Value
Title	CCD-175.13.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	295.3
Pulse Sequence	zg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	64
Receiver Gain	50.5
Relaxation Delay	1.0000
Pulse Width	11.7500
Acquisition Date	2020-03-30T15:51:00
Modification Date	2020-03-30T15:58:42
Spectrometer Frequency	300.18
Spectral Width	6103.5
Nucleus	1H
Spectral Size	65536

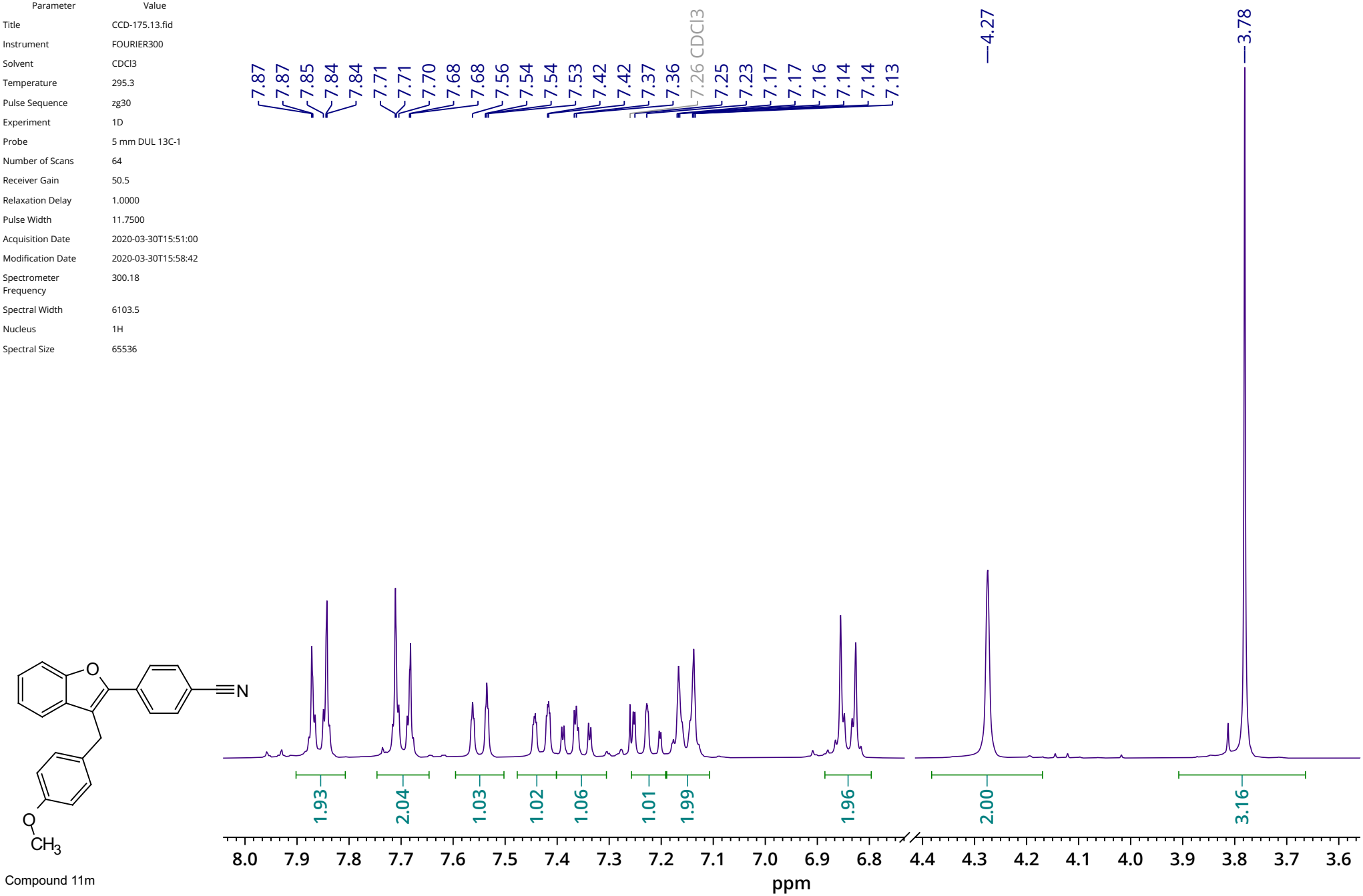


Compound 11m



^{1}H NMR (300 MHz, $CDCl_3$) δ 7.91 – 7.80 (m, 1H), 7.75 – 7.65 (m, 1H), 7.55 (dt, *J* = 8.2, 0.9 Hz, 1H), 7.43 (ddd, *J* = 7.8, 1.4, 0.7 Hz, 0H), 7.36 (ddd, *J* = 8.3, 7.2, 1.3 Hz, 0H), 7.23 (ddd, *J* = 8.1, 7.2, 1.0 Hz, 0H), 7.15 (dt, *J* = 8.9, 0.8 Hz, 1H), 4.27 (s, 1H), 3.78 (s, 1H).

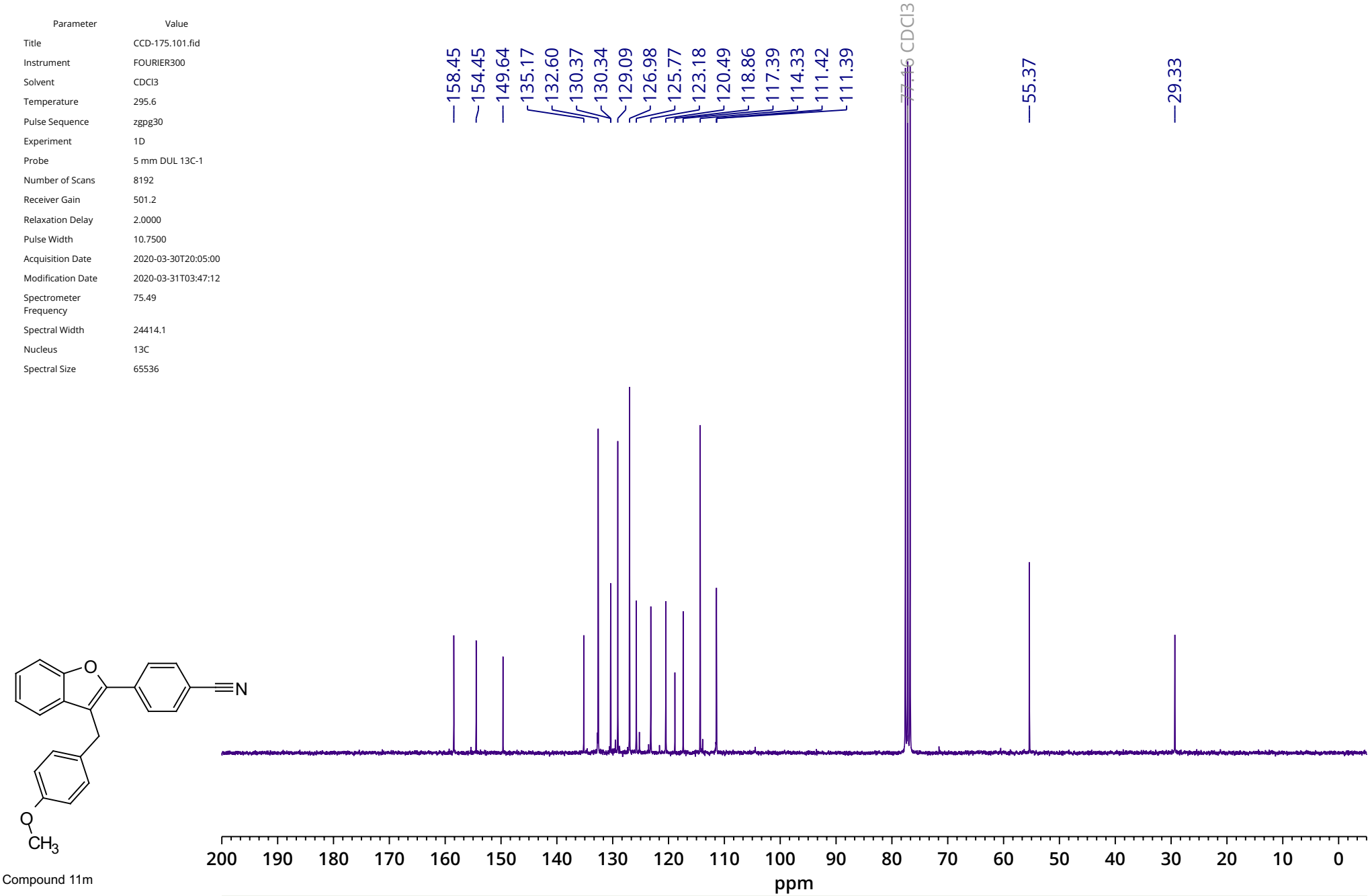
Parameter	Value
Title	CCD-175.13.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	295.3
Pulse Sequence	zg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	64
Receiver Gain	50.5
Relaxation Delay	1.0000
Pulse Width	11.7500
Acquisition Date	2020-03-30T15:51:00
Modification Date	2020-03-30T15:58:42
Spectrometer Frequency	300.18
Spectral Width	6103.5
Nucleus	1H
Spectral Size	65536



Compound 11m

^{1}H NMR (300 MHz, $CDCl_3$) δ 7.91 – 7.80 (m, 1H), 7.75 – 7.65 (m, 1H), 7.55 (dt, *J* = 8.2, 0.9 Hz, 1H), 7.43 (ddd, *J* = 7.8, 1.4, 0.7 Hz, 0H), 7.36 (ddd, *J* = 8.3, 7.2, 1.3 Hz, 0H), 7.23 (ddd, *J* = 8.1, 7.2, 1.0 Hz, 0H), 7.15 (dt, *J* = 8.9, 0.8 Hz, 1H), 4.27 (s, 1H), 3.78 (s, 1H).

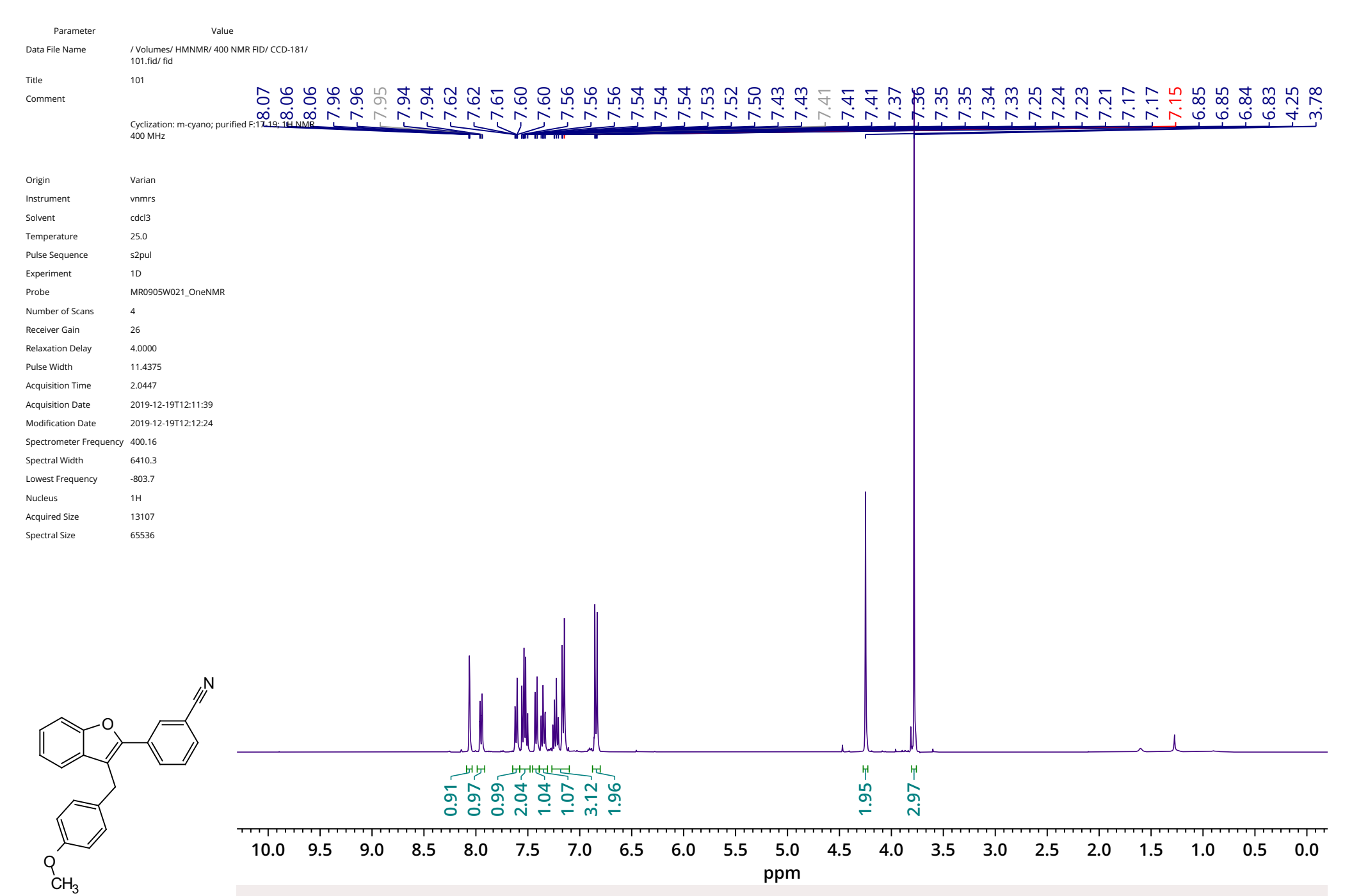
Parameter	Value
Title	CCD-175.101.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	295.6
Pulse Sequence	zgpg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	8192
Receiver Gain	501.2
Relaxation Delay	2.0000
Pulse Width	10.7500
Acquisition Date	2020-03-30T20:05:00
Modification Date	2020-03-31T03:47:12
Spectrometer Frequency	75.49
Spectral Width	24414.1
Nucleus	13C
Spectral Size	65536



Compound 11m

^{13}C NMR (75 MHz, $CDCl_3$) δ 158.45, 154.45, 149.64, 135.17, 132.60, 130.37, 130.34, 129.09, 126.98, 125.77, 123.18, 120.49, 118.86, 117.39, 114.33, 111.42, 111.39, 55.37, 29.33.

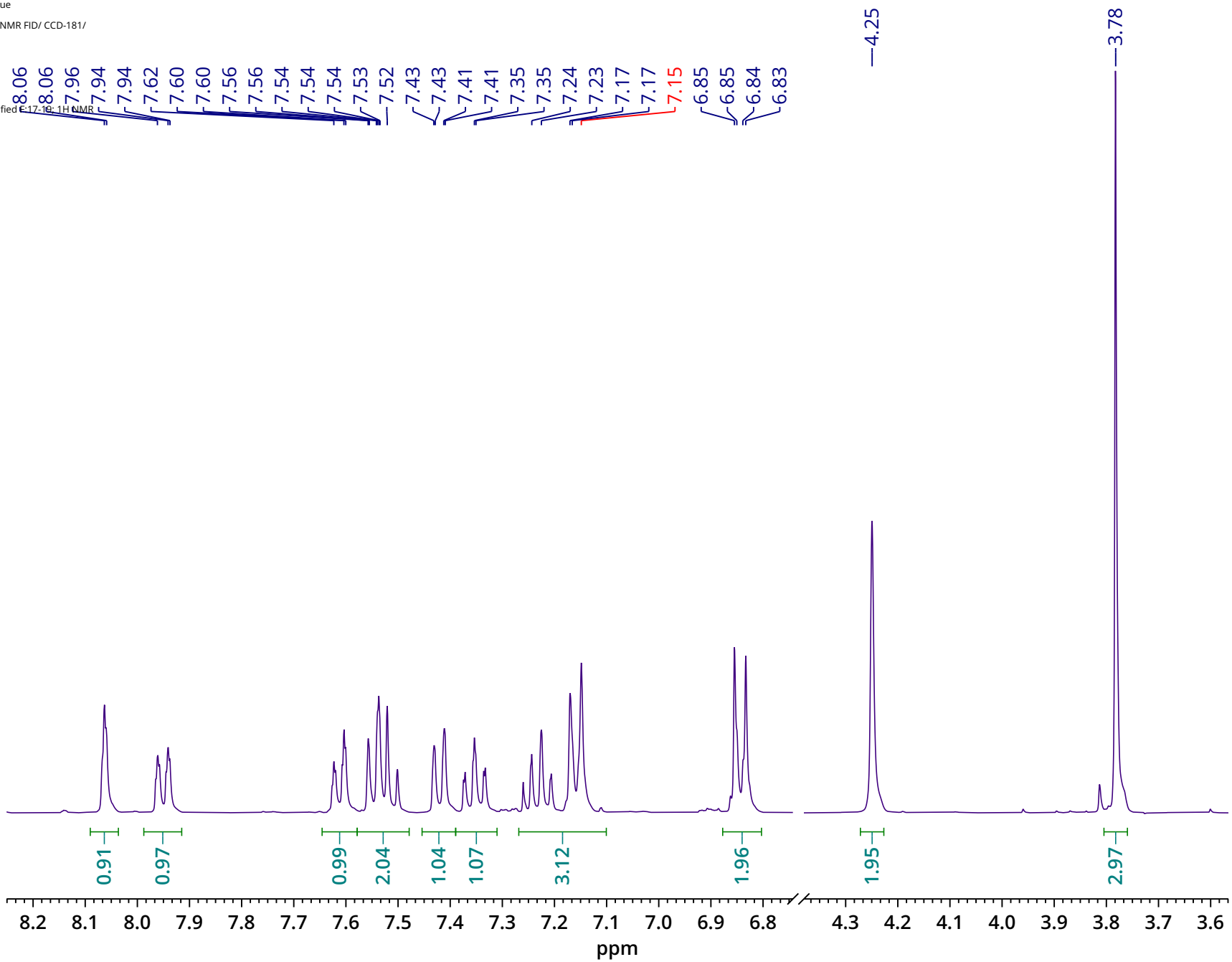
Parameter	Value
Data File Name	/ Volumes/ HMNMR/ 400 NMR FID/ CCD-181/ 101.fid/ fid
Title	101
Comment	Cyclization: m-cyano; purified F:17-19; 1H NMR 400 MHz
Origin	Varian
Instrument	vnmrs
Solvent	cdcl3
Temperature	25.0
Pulse Sequence	s2pul
Experiment	1D
Probe	MR0905W021_OneNMR
Number of Scans	4
Receiver Gain	26
Relaxation Delay	4.0000
Pulse Width	11.4375
Acquisition Time	2.0447
Acquisition Date	2019-12-19T12:11:39
Modification Date	2019-12-19T12:12:24
Spectrometer Frequency	400.16
Spectral Width	6410.3
Lowest Frequency	-803.7
Nucleus	1H
Acquired Size	13107
Spectral Size	65536

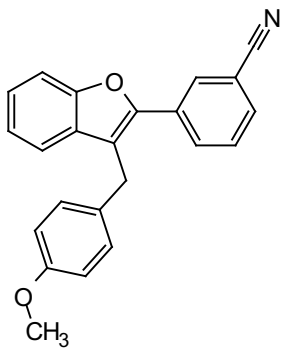


Compound 11n

^{1}H NMR (400 MHz, $CDCl_3$) δ 8.06 (d, J = 1.8 Hz, 1H), 7.99 – 7.91 (m, 1H), 7.61 (dd, J = 7.7, 1.4 Hz, 1H), 7.58 – 7.48 (m, 2H), 7.42 (dd, J = 7.7, 1.1 Hz, 1H), 7.35 (ddd, J = 8.4, 7.2, 1.3 Hz, 1H), 7.27 – 7.12 (m, 3H), 6.88 – 6.80 (m, 2H), 4.25 (s, 2H), 3.78 (s, 3H).

Parameter	Value
Data File Name	/ Volumes/ HMNMR/ 400 NMR FID/ CCD-181/ 101.fid/ fid
Title	101
Comment	Cyclization: m-cyano; purified E-17-10; 1H NMR 400 MHz
Origin	Varian
Instrument	vnmrs
Solvent	cdcl3
Temperature	25.0
Pulse Sequence	s2pul
Experiment	1D
Probe	MR0905W021_OneNMR
Number of Scans	4
Receiver Gain	26
Relaxation Delay	4.0000
Pulse Width	11.4375
Acquisition Time	2.0447
Acquisition Date	2019-12-19T12:11:39
Modification Date	2019-12-19T12:12:24
Spectrometer Frequency	400.16
Spectral Width	6410.3
Lowest Frequency	-803.7
Nucleus	1H
Acquired Size	13107
Spectral Size	65536

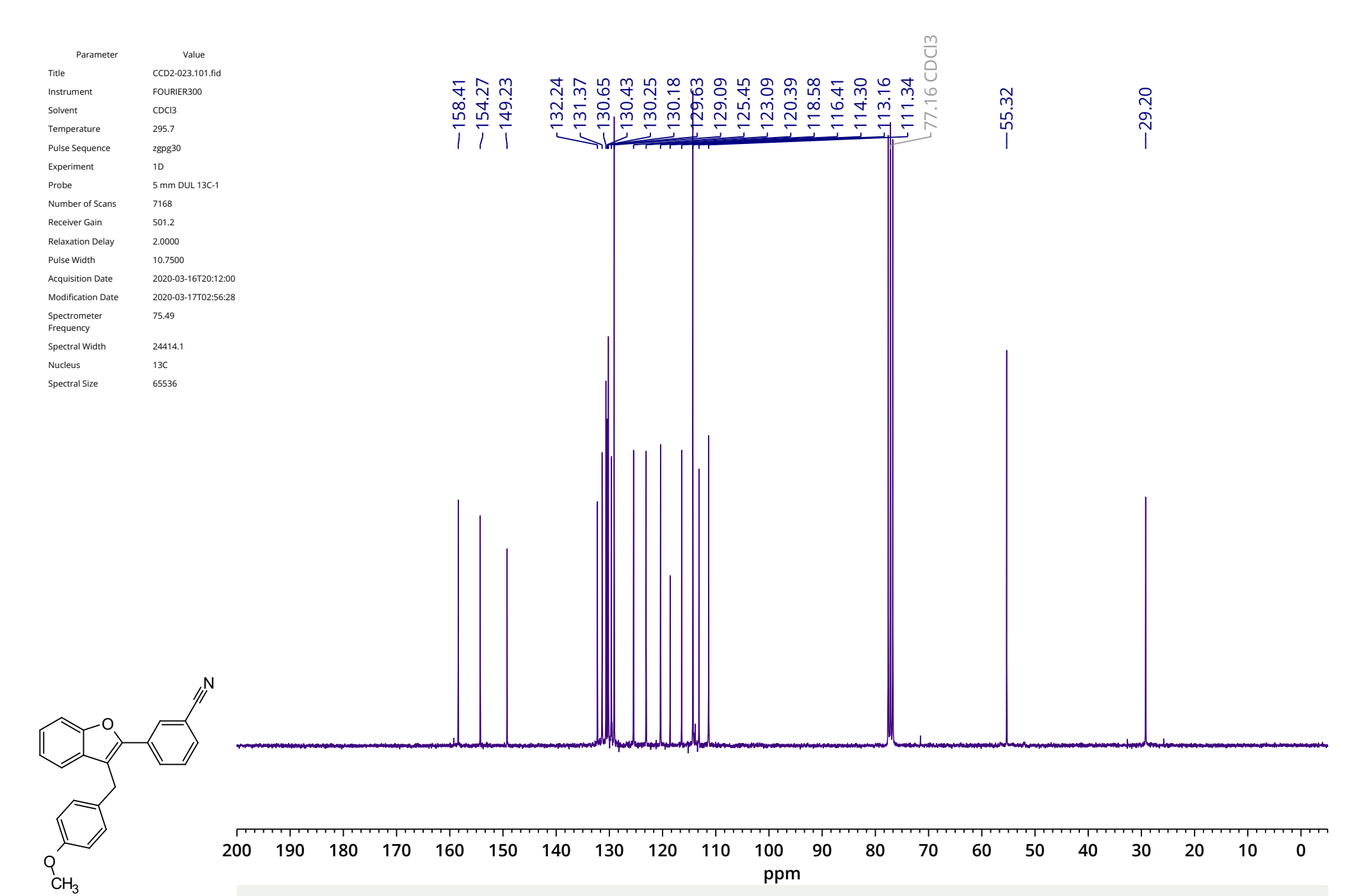




Compound 11n

^{1}H NMR (400 MHz, $CDCl_3$) δ 8.06 (d, J = 1.8 Hz, 1H), 7.99 – 7.91 (m, 1H), 7.61 (dd, J = 7.7, 1.4 Hz, 1H), 7.58 – 7.48 (m, 2H), 7.42 (dd, J = 7.7, 1.1 Hz, 1H), 7.35 (ddd, J = 8.4, 7.2, 1.3 Hz, 1H), 7.27 – 7.12 (m, 3H), 6.88 – 6.80 (m, 2H), 4.25 (s, 2H), 3.78 (s, 3H).

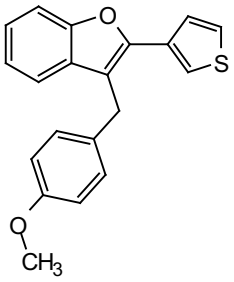
Parameter	Value
Title	CCD2-023.101.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	295.7
Pulse Sequence	zgpg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	7168
Receiver Gain	501.2
Relaxation Delay	2.0000
Pulse Width	10.7500
Acquisition Date	2020-03-16T20:12:00
Modification Date	2020-03-17T02:56:28
Spectrometer Frequency	75.49
Spectral Width	24414.1
Nucleus	13C
Spectral Size	65536



Compound 11n

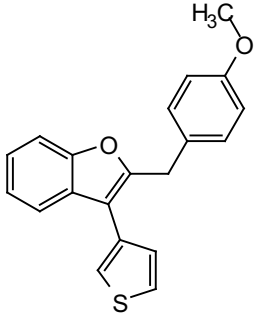
^{13}C NMR (75 MHz, $CDCl_3$) δ 158.41, 154.27, 149.23, 132.24, 131.37, 130.65, 130.43, 130.25, 130.18, 129.63, 129.09, 125.45, 123.09, 120.39, 118.58, 116.41, 114.30, 113.16, 111.34, 55.32, 29.20.

Parameter	Value
Title	DAL2-085.101.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	1018.0
Pulse Sequence	zg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	32
Receiver Gain	11.2
Relaxation Delay	1.0000
Pulse Width	11.7500
Acquisition Date	2020-02-04T10:41:00
Modification Date	2020-02-04T10:45:12
Spectrometer Frequency	300.18
Spectral Width	6103.5
Nucleus	1H
Spectral Size	65536

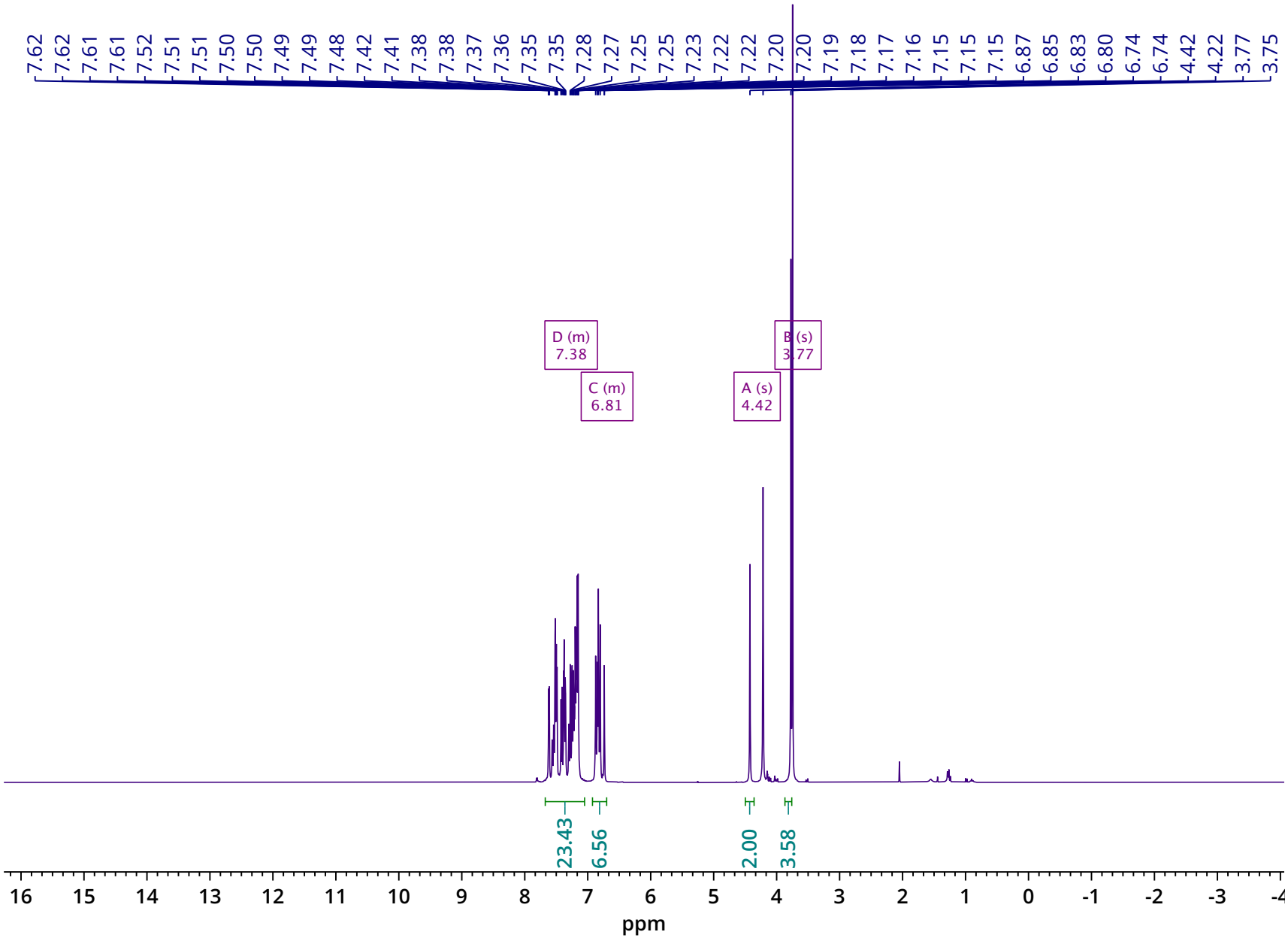


Compound 11p

inseparable mixture of isomers

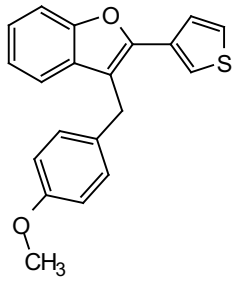


Compound 12p



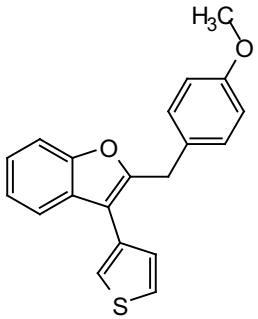
^{1}H NMR (300 MHz, $CDCl_3$) δ 7.65 – 7.11 (m, 9H), 6.92 – 6.71 (m, 2H), 4.42 (s, 2H), 3.77 (s, 3H).

Parameter	Value
Title	DAL2-085.101.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	1018.0
Pulse Sequence	zg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	32
Receiver Gain	11.2
Relaxation Delay	1.0000
Pulse Width	11.7500
Acquisition Date	2020-02-04T10:41:00
Modification Date	2020-02-04T10:45:12
Spectrometer Frequency	300.18
Spectral Width	6103.5
Nucleus	1H
Spectral Size	65536

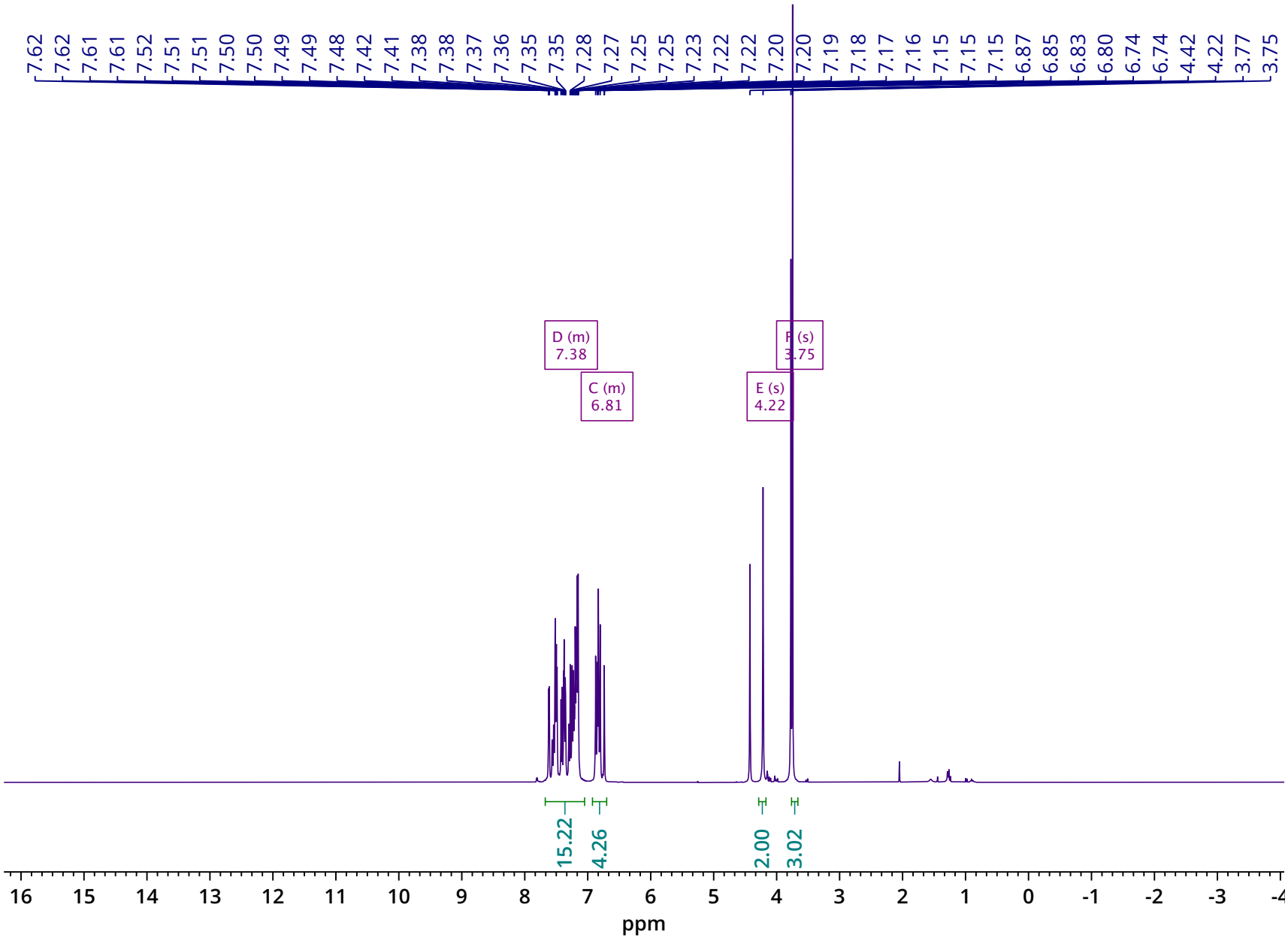


Compound 11p

inseparable mixture of isomers

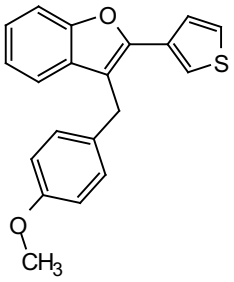


Compound 12p



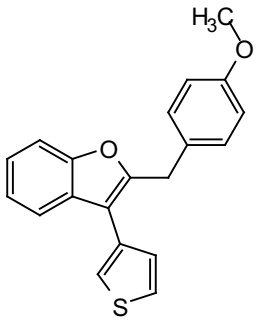
^{1}H NMR (300 MHz, $CDCl_3$) δ 7.65 – 7.11 (m, 9H), 6.92 – 6.71 (m, 2H), 4.22 (s, 2H), 3.75 (s, 3H).

Parameter	Value
Title	DAL2-085.102.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	1018.0
Pulse Sequence	zgpg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	512
Receiver Gain	501.2
Relaxation Delay	2.0000
Pulse Width	10.7500
Acquisition Date	2020-02-04T10:46:00
Modification Date	2020-02-04T11:15:26
Spectrometer Frequency	75.49
Spectral Width	24414.1
Nucleus	13C
Spectral Size	65536

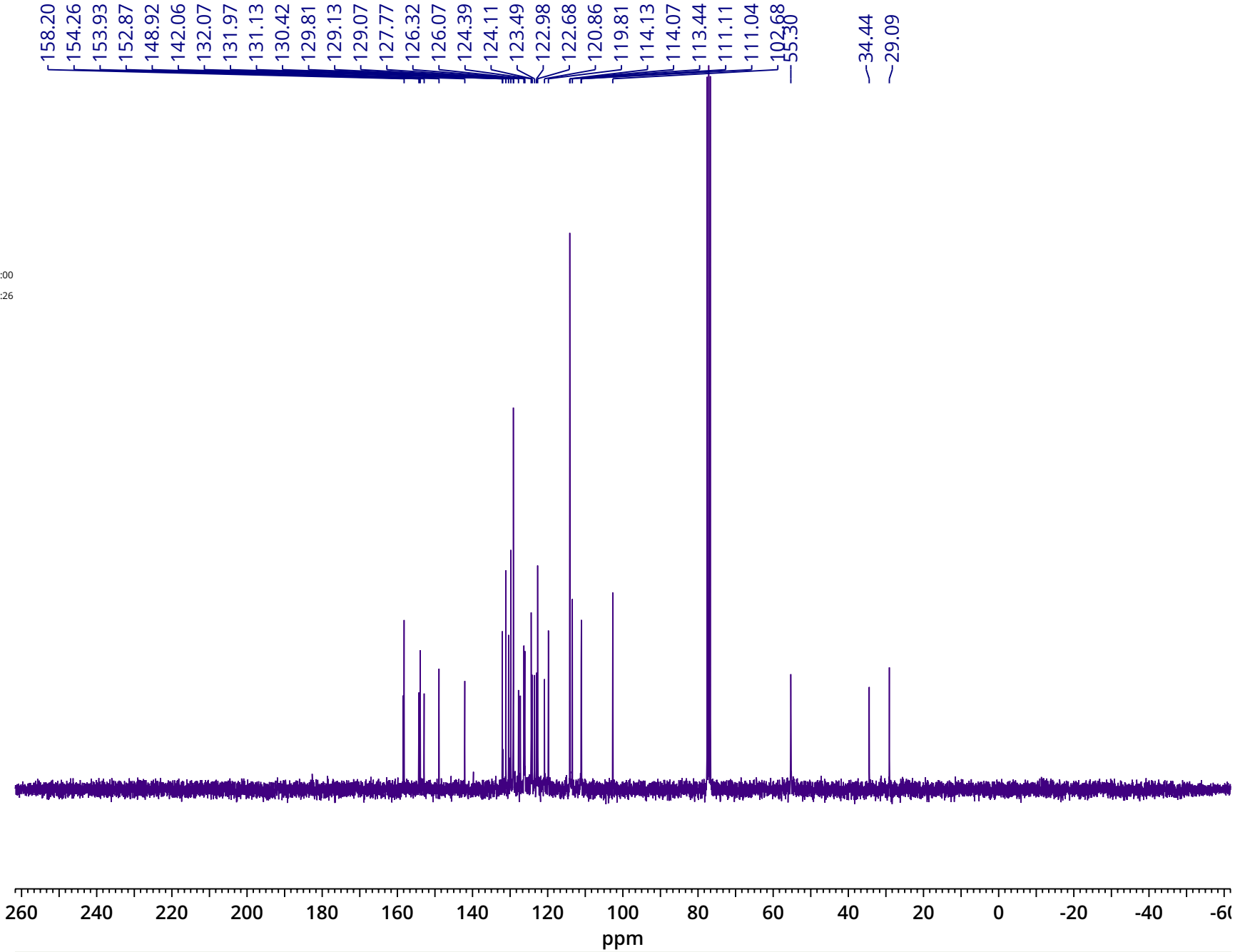


Compound 11p

inseparable mixture of isomers

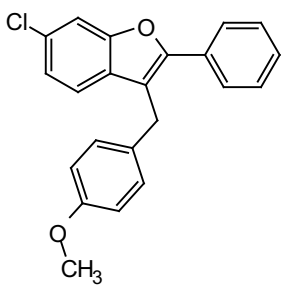


Compound 12p

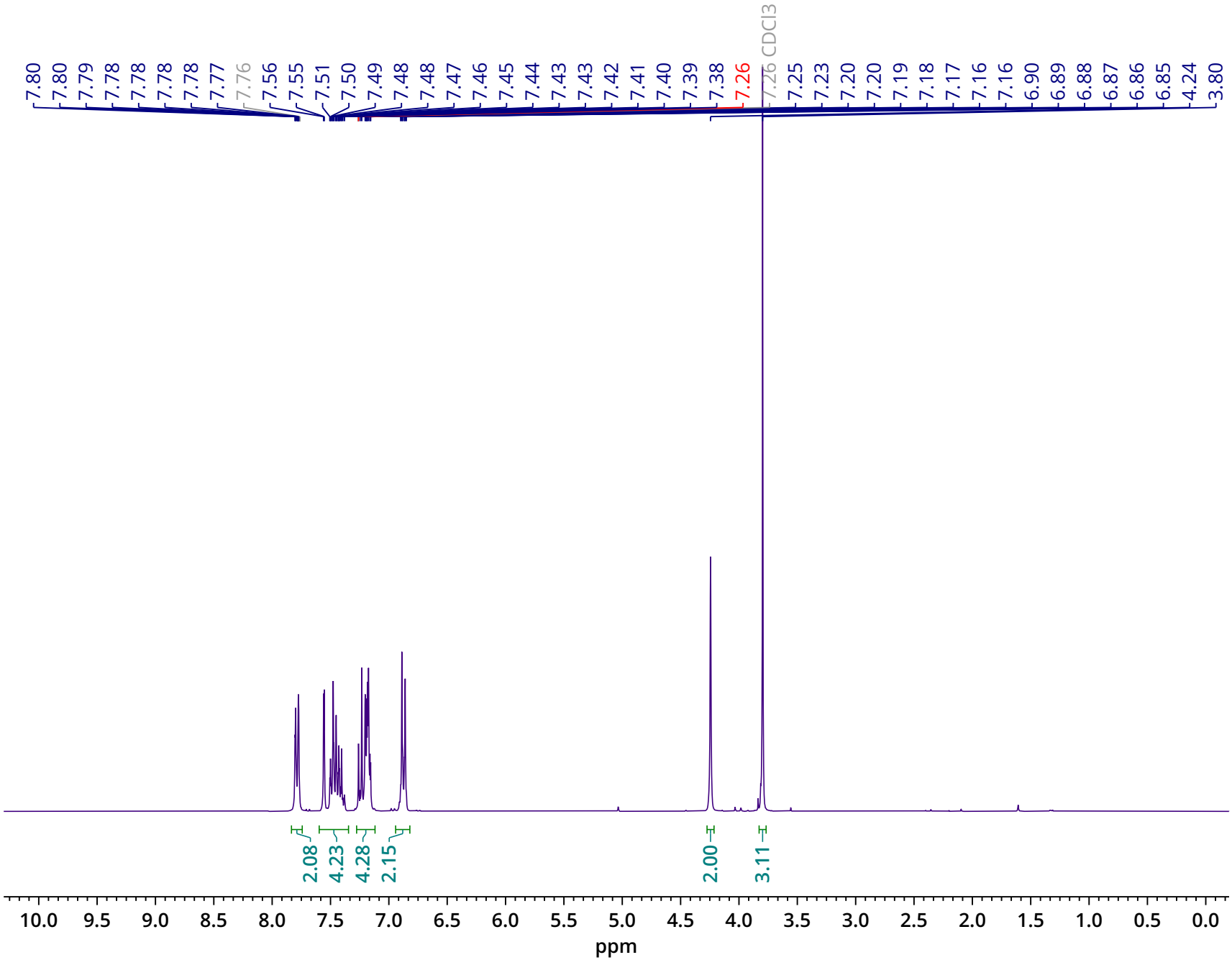


^{13}C NMR (75 MHz, $CDCl_3$) δ 158.43, 158.20, 154.26, 153.93, 152.87, 148.92, 142.06, 132.07, 131.97, 131.13, 130.42, 129.81, 129.13, 129.07, 127.77, 127.27, 126.32, 126.07, 124.39, 124.11, 123.49, 122.98, 122.68, 120.86, 119.81, 114.13, 114.07, 113.44, 111.11, 111.04, 102.68, 55.30, 34.44, 29.09.

Parameter	Value
Title	CCD-188.11.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	1030.5
Pulse Sequence	zg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	16
Receiver Gain	6.9
Relaxation Delay	1.0000
Pulse Width	11.7500
Acquisition Date	2019-12-31T12:03:00
Modification Date	2019-12-31T12:04:40
Spectrometer Frequency	300.18
Spectral Width	6103.5
Nucleus	1H
Spectral Size	65536

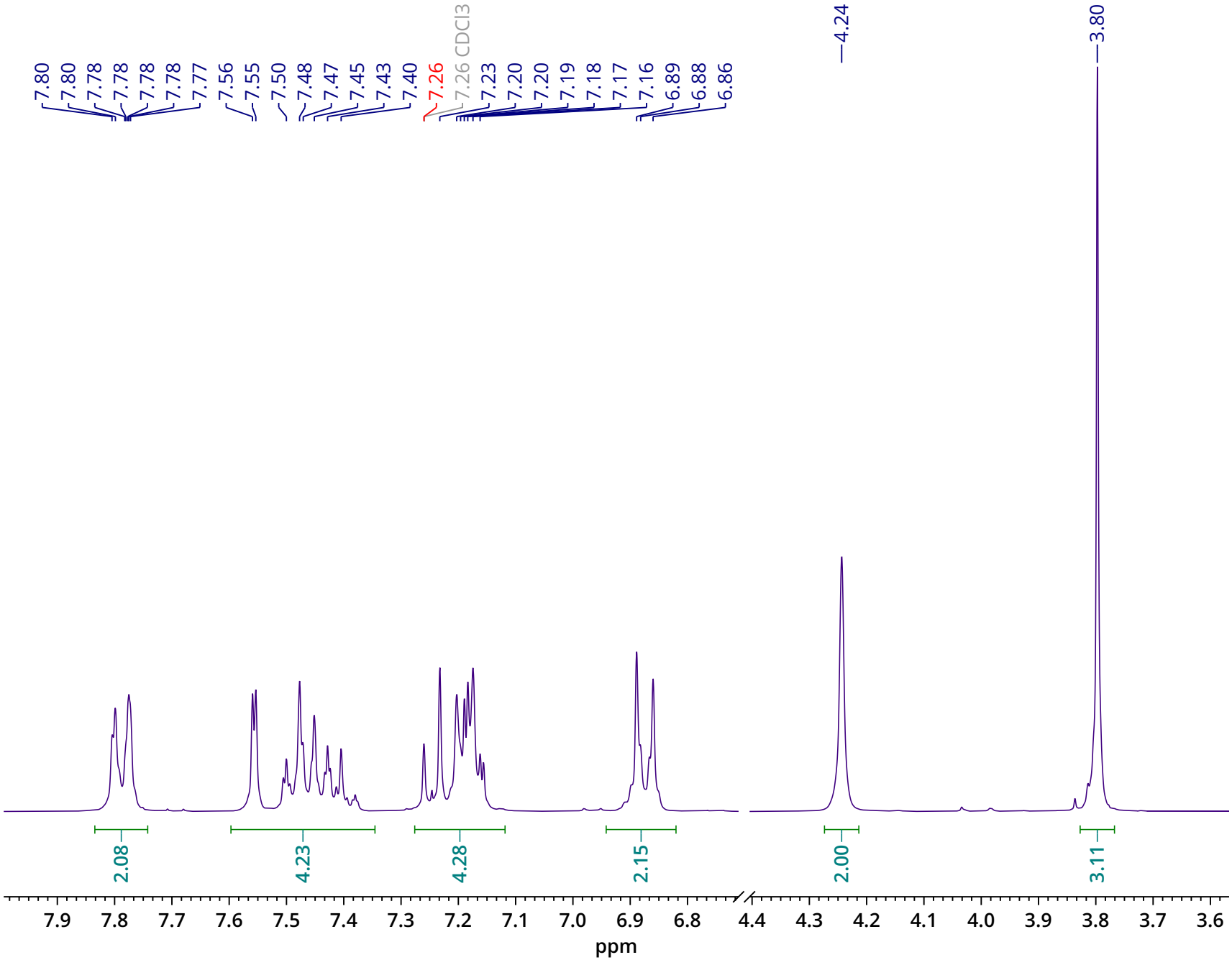


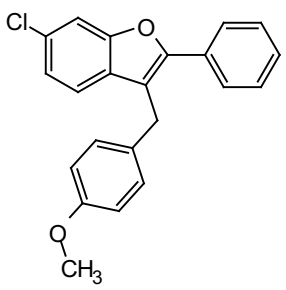
Compound 11r



^{1}H NMR (300 MHz, $CDCl_3$) δ 7.83 – 7.74 (m, 2H), 7.60 – 7.35 (m, 4H), 7.28 – 7.12 (m, 4H), 6.94 – 6.82 (m, 2H), 4.24 (s, 2H), 3.80 (s, 3H).

Parameter	Value
Title	CCD-188.11.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	1030.5
Pulse Sequence	zg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	16
Receiver Gain	6.9
Relaxation Delay	1.0000
Pulse Width	11.7500
Acquisition Date	2019-12-31T12:03:00
Modification Date	2019-12-31T12:04:40
Spectrometer Frequency	300.18
Spectral Width	6103.5
Nucleus	1H
Spectral Size	65536

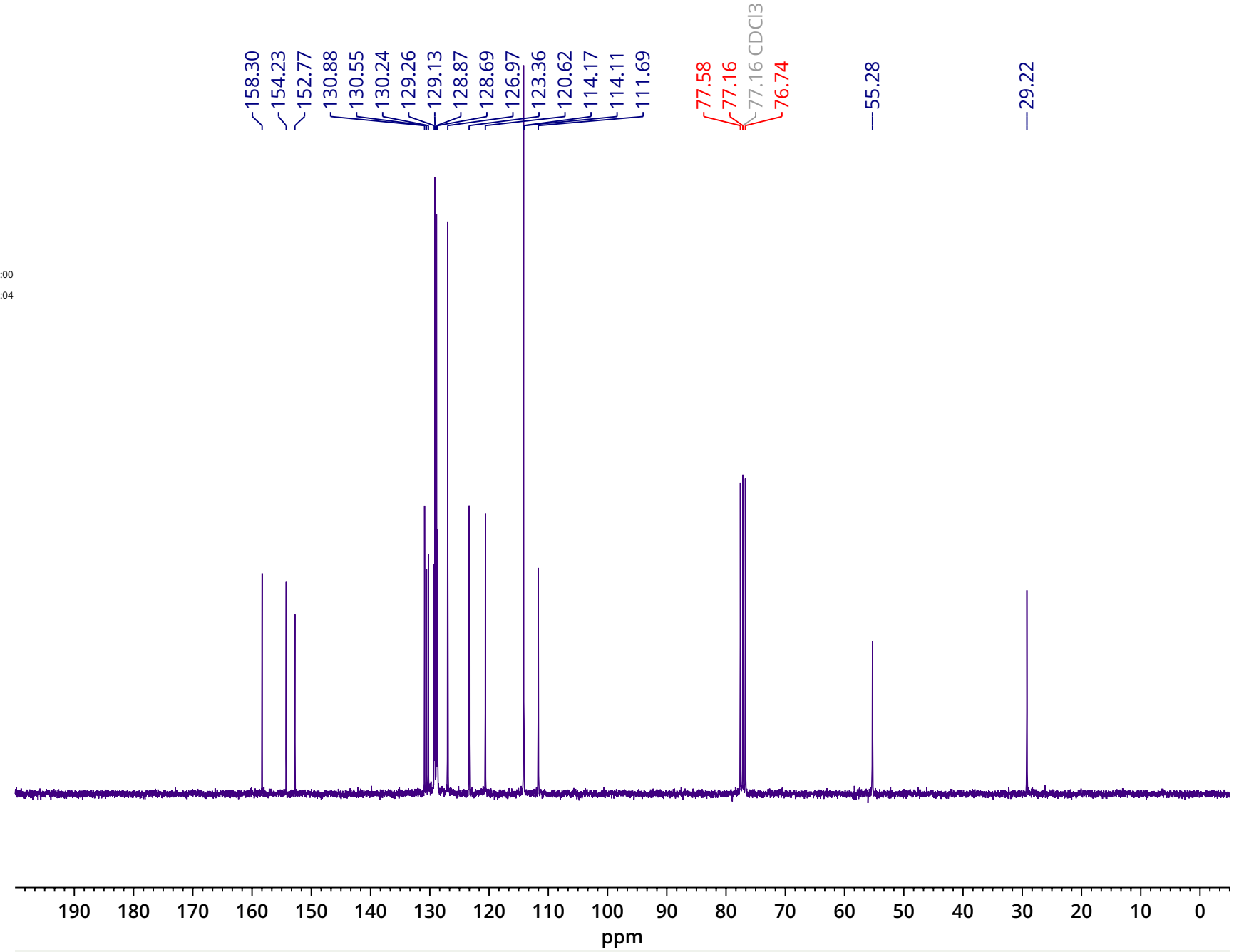


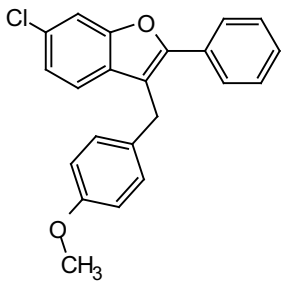


Compound 11r

^{1}H NMR (300 MHz, $CDCl_3$) δ 7.83 – 7.74 (m, 2H), 7.60 – 7.35 (m, 4H), 7.28 – 7.12 (m, 4H), 6.94 – 6.82 (m, 2H), 4.24 (s, 2H), 3.80 (s, 3H).

Parameter	Value
Title	CCD-188.999.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	1030.5
Pulse Sequence	zgpg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	400
Receiver Gain	501.2
Relaxation Delay	2.0000
Pulse Width	10.7500
Acquisition Date	2019-12-31T12:18:00
Modification Date	2019-12-31T12:41:04
Spectrometer Frequency	75.49
Spectral Width	24414.1
Nucleus	13C
Spectral Size	65536

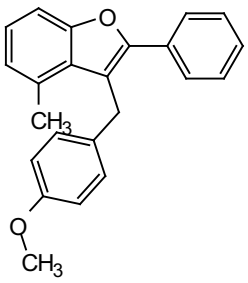




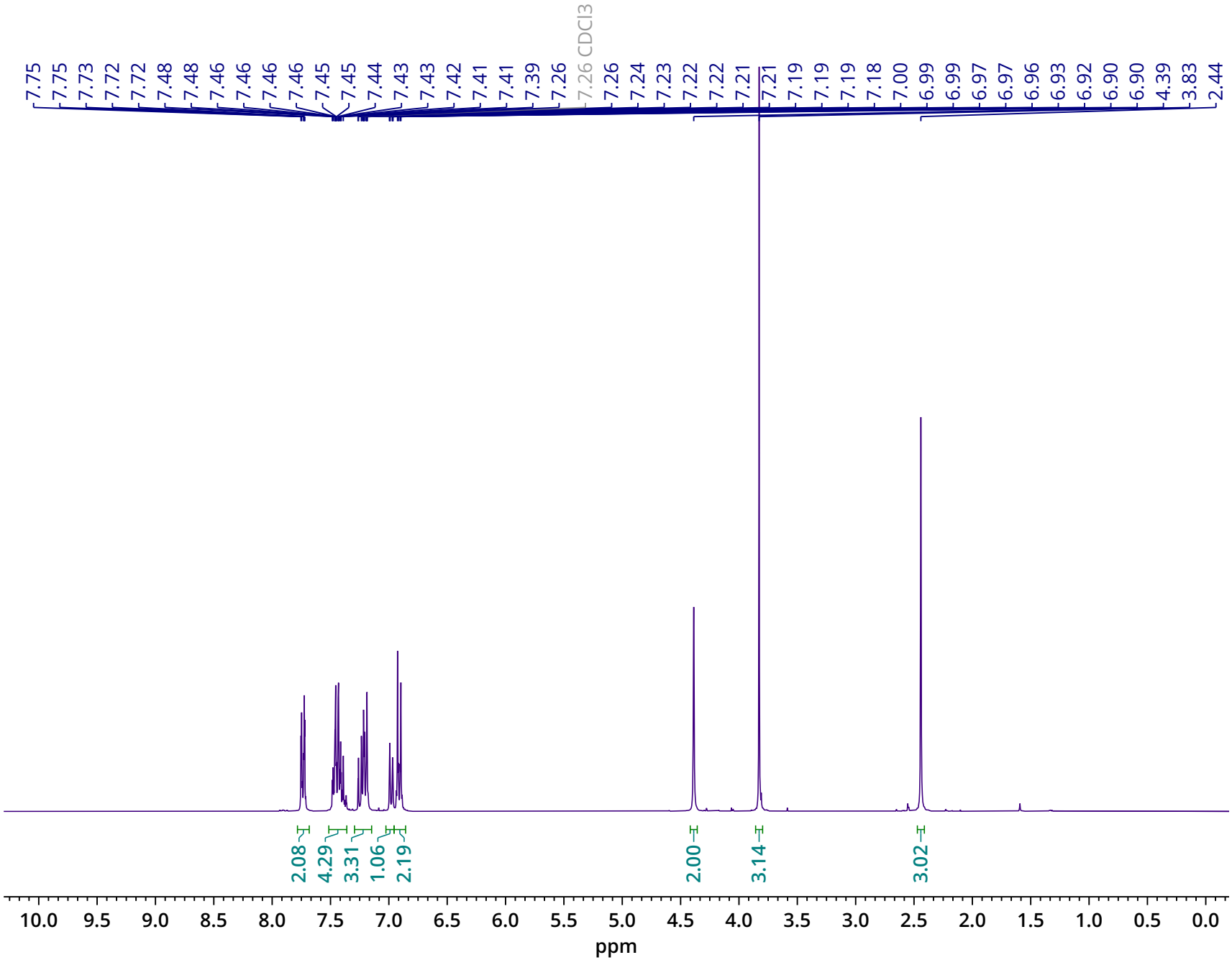
Compound 11r

^{13}C NMR (75 MHz, $CDCl_3$) δ 158.30, 154.23, 152.77, 130.88, 130.55, 130.24, 129.26, 129.13, 128.87, 128.69, 126.97, 123.36, 120.62, 114.17, 114.11, 111.69, 55.28, 29.22.

Parameter	Value
Title	CCD-190.11.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	1030.5
Pulse Sequence	zg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	16
Receiver Gain	14.3
Relaxation Delay	1.0000
Pulse Width	11.7500
Acquisition Date	2019-12-31T13:34:00
Modification Date	2019-12-31T13:36:36
Spectrometer Frequency	300.18
Spectral Width	6103.5
Nucleus	1H
Spectral Size	65536

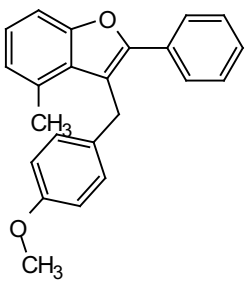


Compound 11s

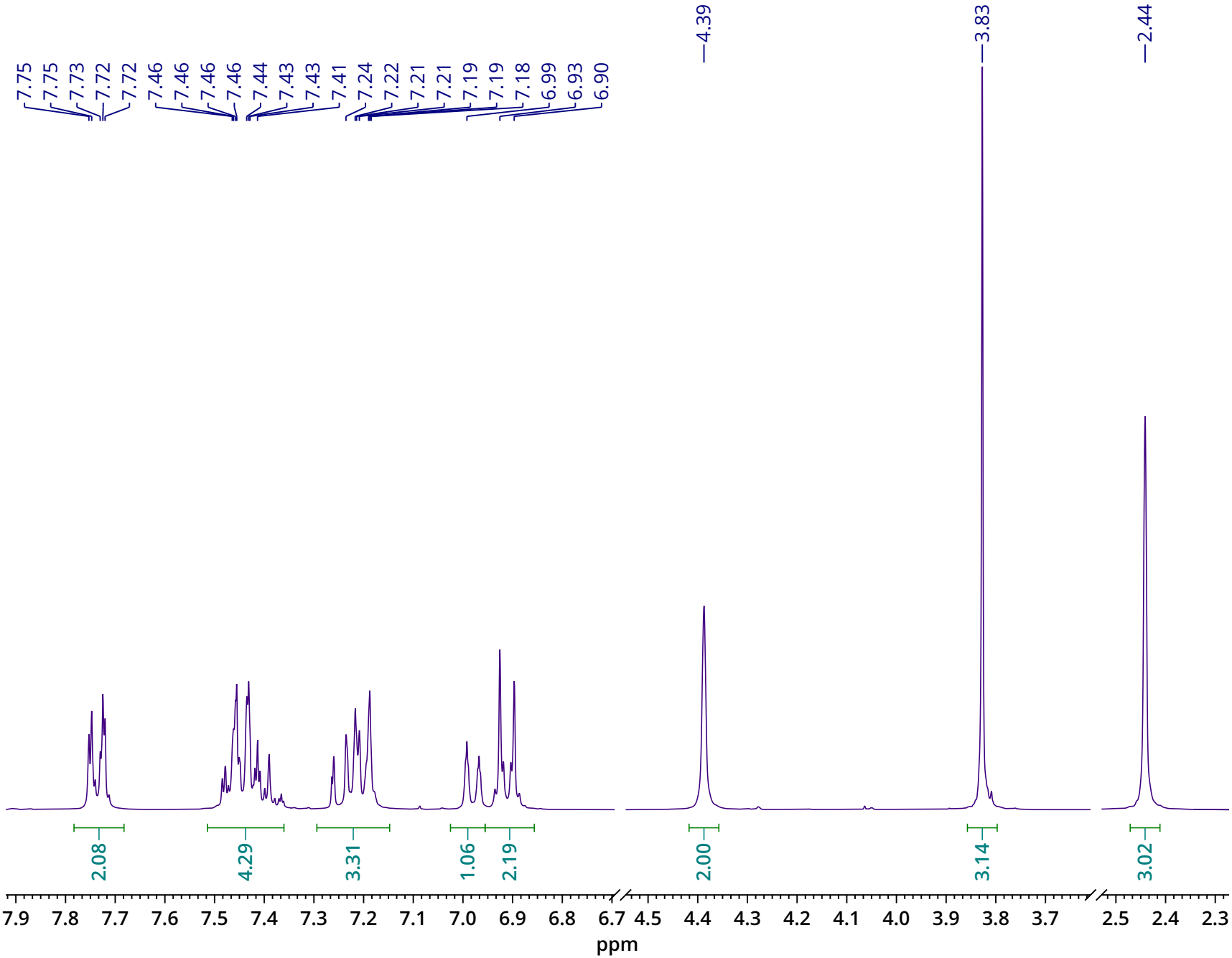


^{1}H NMR (300 MHz, $CDCl_3$) δ 7.78 – 7.68 (m, 2H), 7.51 – 7.36 (m, 4H), 7.29 – 7.15 (m, 3H), 6.98 (dt, J = 7.4, 0.9 Hz, 1H), 6.97 – 6.86 (m, 2H), 4.39 (s, 2H), 3.83 (s, 3H), 2.44 (s, 3H).

Parameter	Value
Title	CCD-190.11.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	1030.5
Pulse Sequence	zg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	16
Receiver Gain	14.3
Relaxation Delay	1.0000
Pulse Width	11.7500
Acquisition Date	2019-12-31T13:34:00
Modification Date	2019-12-31T13:36:36
Spectrometer Frequency	300.18
Spectral Width	6103.5
Nucleus	1H
Spectral Size	65536

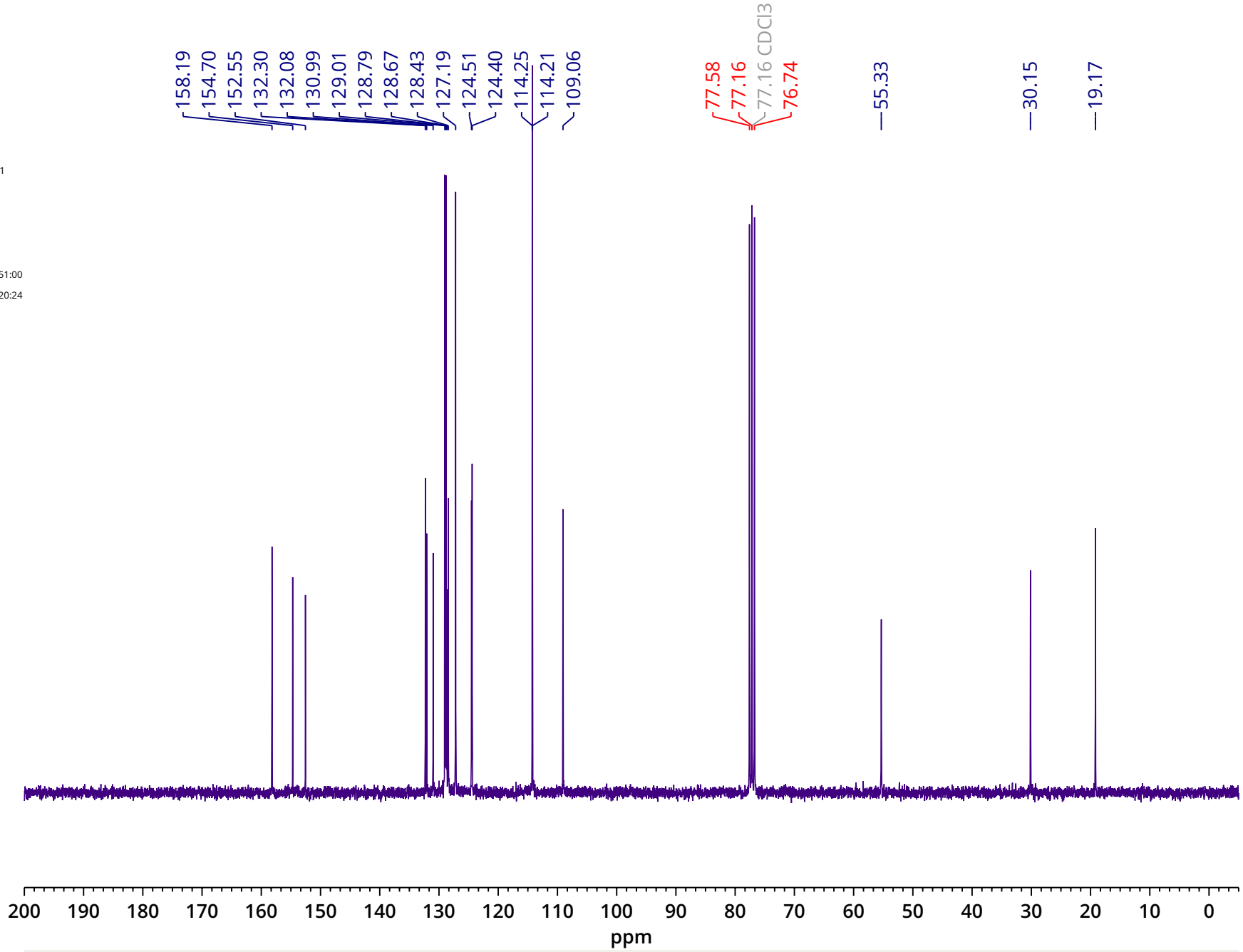


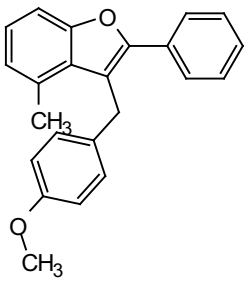
Compound 11s



^{1}H NMR (300 MHz, $CDCl_3$) δ 7.78 – 7.68 (m, 2H), 7.51 – 7.36 (m, 4H), 7.29 – 7.15 (m, 3H), 6.98 (dt, J = 7.4, 0.9 Hz, 1H), 6.97 – 6.86 (m, 2H), 4.39 (s, 2H), 3.83 (s, 3H), 2.44 (s, 3H).

Parameter	Value
Title	CCD-190.19.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	1030.5
Pulse Sequence	zgpg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	512
Receiver Gain	501.2
Relaxation Delay	2.0000
Pulse Width	10.7500
Acquisition Date	2019-12-31T13:51:00
Modification Date	2019-12-31T14:20:24
Spectrometer Frequency	75.49
Spectral Width	24414.1
Nucleus	13C
Spectral Size	65536

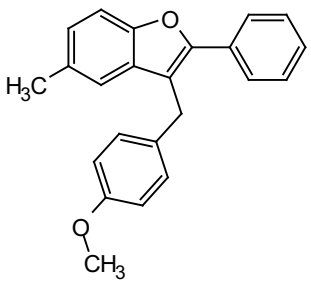




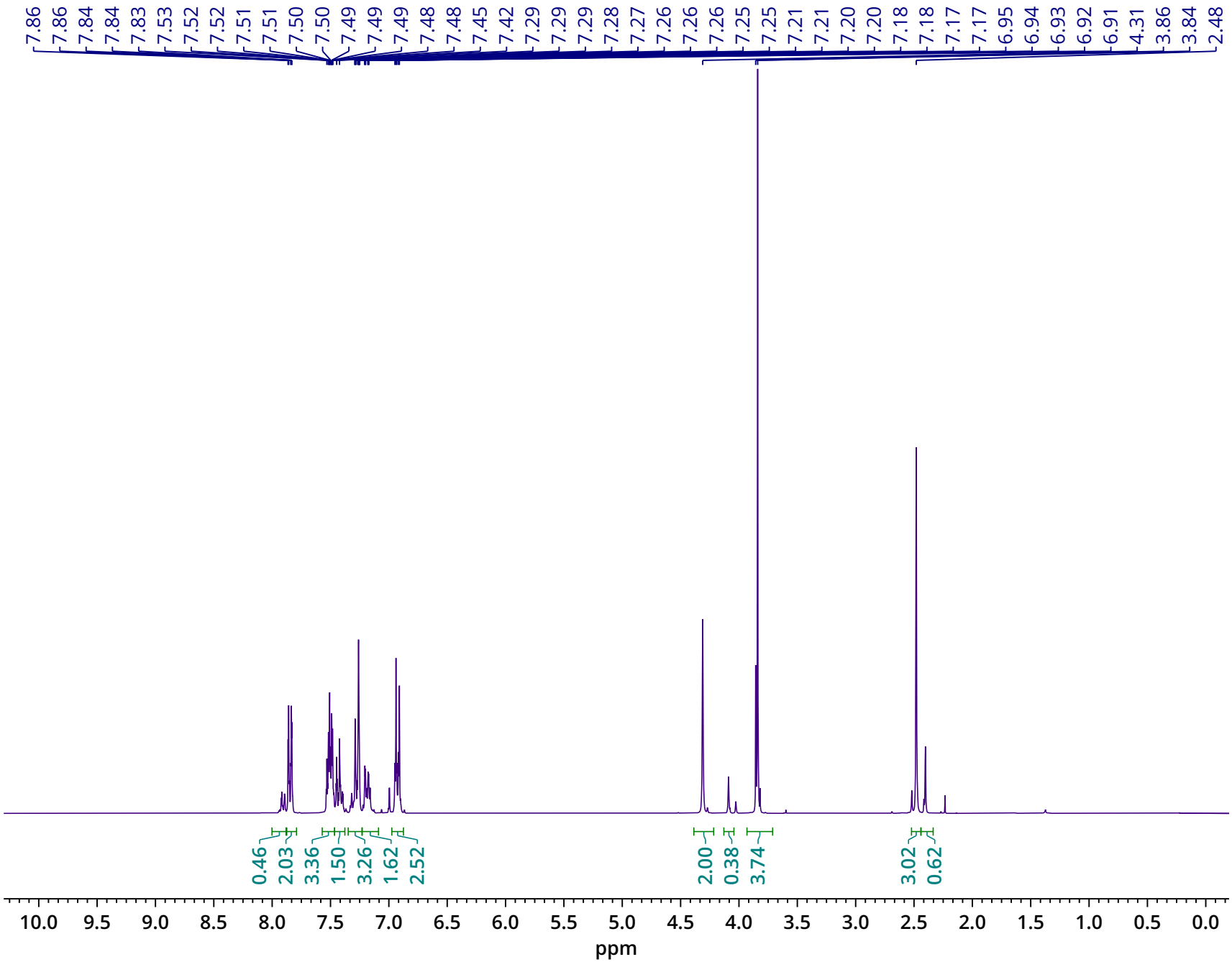
Compound 11s

^{13}C NMR (75 MHz, $CDCl_3$) δ 158.19, 154.70, 152.55, 132.30, 132.08, 130.99, 129.01, 128.79, 128.67, 128.43, 127.19, 124.51, 124.40, 114.25, 114.21, 109.06, 55.33, 30.15, 19.17.

Parameter	Value
Title	CCD2-008.11.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	1018.0
Pulse Sequence	zg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	64
Receiver Gain	12.7
Relaxation Delay	1.0000
Pulse Width	11.7500
Acquisition Date	2020-02-04T15:00:00
Modification Date	2020-02-04T15:07:14
Spectrometer Frequency	300.18
Spectral Width	6103.5
Nucleus	1H
Spectral Size	65536

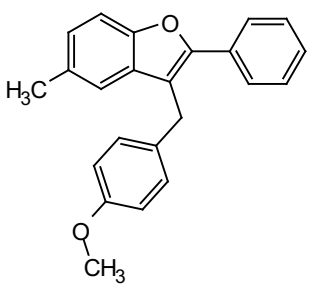


Compound 11t

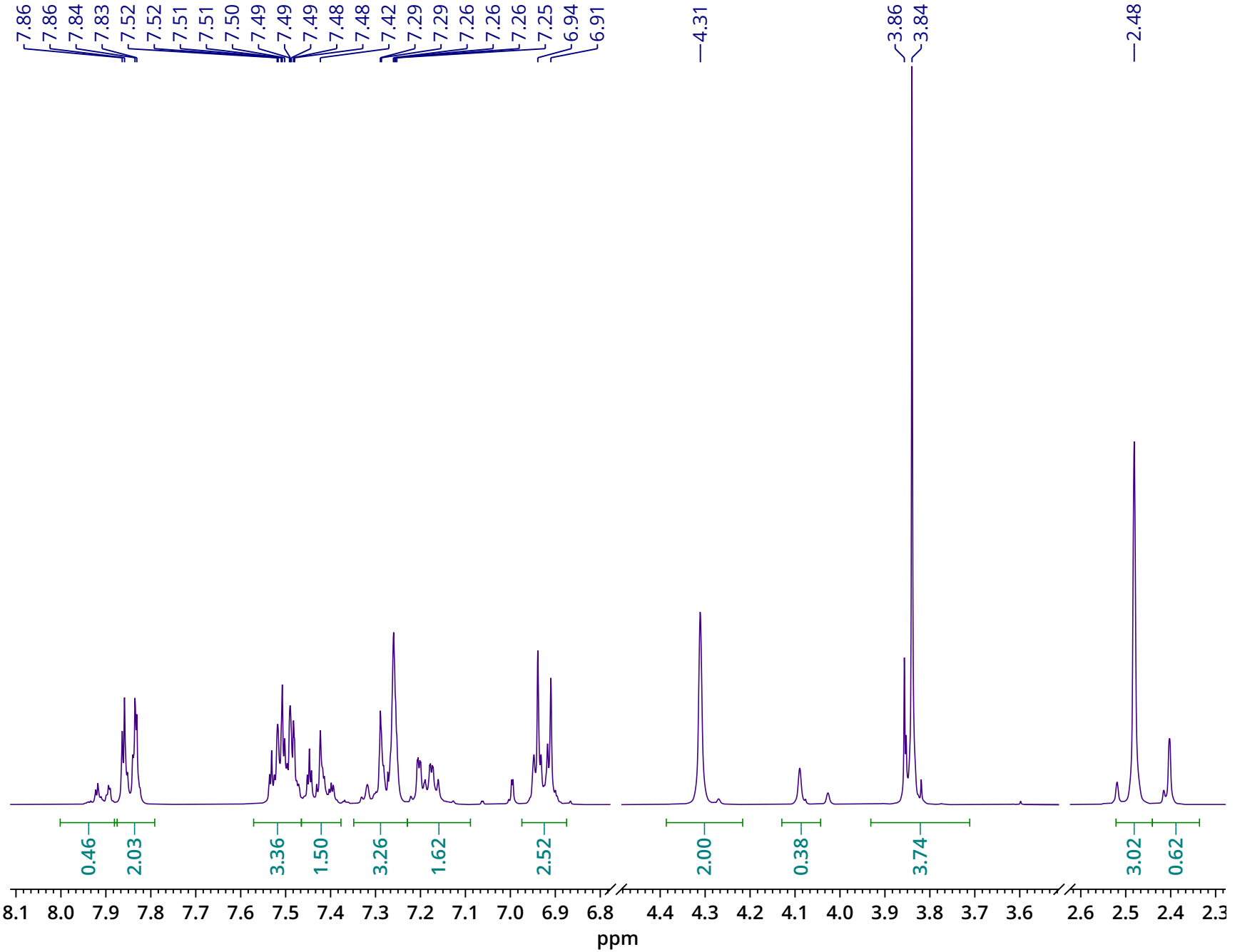


^{1}H NMR (300 MHz, $CDCl_3$) δ 7.87 – 7.79 (m, 2H), 7.57 – 7.48 (m, 3H), 7.47 – 7.34 (m, 1H), 7.34 – 7.25 (m, 3H), 7.25 – 7.13 (m, 1H), 6.93 (dd, J = 9.0, 2.5 Hz, 2H), 4.31 (s, 2H), 3.84 (s, 3H), 2.48 (s, 3H).

Parameter	Value
Title	CCD2-008.11.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	1018.0
Pulse Sequence	zg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	64
Receiver Gain	12.7
Relaxation Delay	1.0000
Pulse Width	11.7500
Acquisition Date	2020-02-04T15:00:00
Modification Date	2020-02-04T15:07:14
Spectrometer Frequency	300.18
Spectral Width	6103.5
Nucleus	1H
Spectral Size	65536

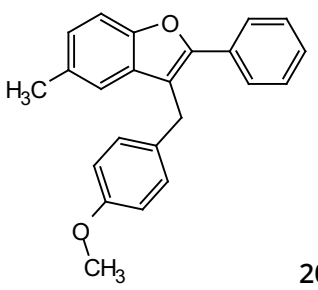


Compound 11t

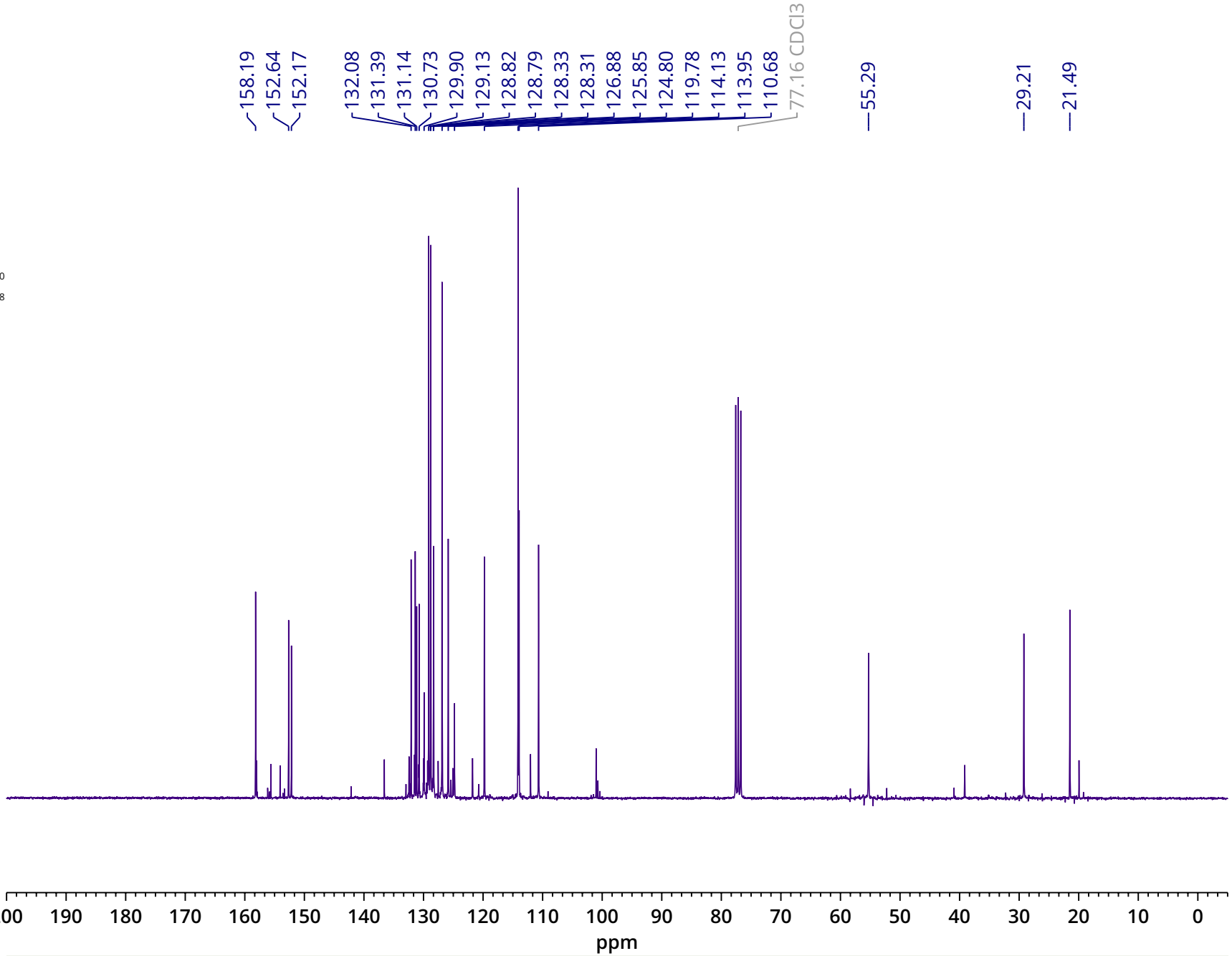


^{1}H NMR (300 MHz, $CDCl_3$) δ 7.87 – 7.79 (m, 2H), 7.57 – 7.48 (m, 3H), 7.47 – 7.34 (m, 1H), 7.34 – 7.25 (m, 3H), 7.25 – 7.13 (m, 1H), 6.93 (dd, J = 9.0, 2.5 Hz, 2H), 4.31 (s, 2H), 3.84 (s, 3H), 2.48 (s, 3H).

Parameter	Value
Title	CCD2-008.101.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	1018.0
Pulse Sequence	zgpg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	8192
Receiver Gain	501.2
Relaxation Delay	2.0000
Pulse Width	10.7500
Acquisition Date	2020-02-05T20:04:00
Modification Date	2020-02-06T03:46:48
Spectrometer Frequency	75.49
Spectral Width	24414.1
Nucleus	13C
Spectral Size	65536

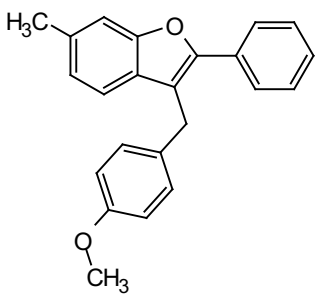


Compound 11t

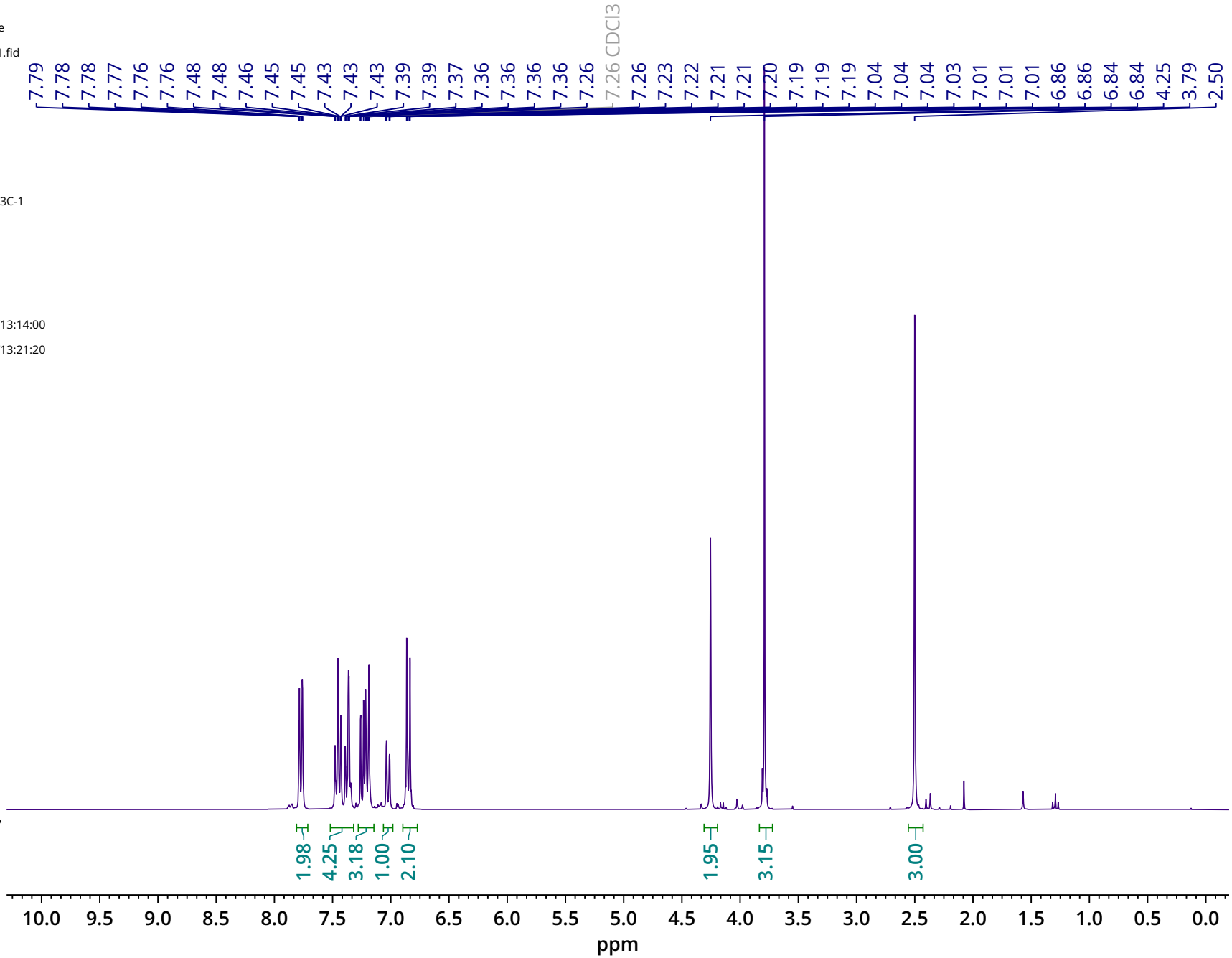


^{13}C NMR (75 MHz, $CDCl_3$) δ 158.19, 152.64, 152.17, 132.08, 131.39, 131.14, 130.73, 129.90, 129.13, 128.79, 128.31, 126.88, 125.85, 124.80, 119.78, 110.68, 55.29, 29.21, 21.49.

Parameter	Value
Title	CCD-189.101.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	1030.5
Pulse Sequence	zg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	64
Receiver Gain	20.9
Relaxation Delay	1.0000
Pulse Width	11.7500
Acquisition Date	2019-12-31T13:14:00
Modification Date	2019-12-31T13:21:20
Spectrometer Frequency	300.18
Spectral Width	6103.5
Nucleus	1H
Spectral Size	65536

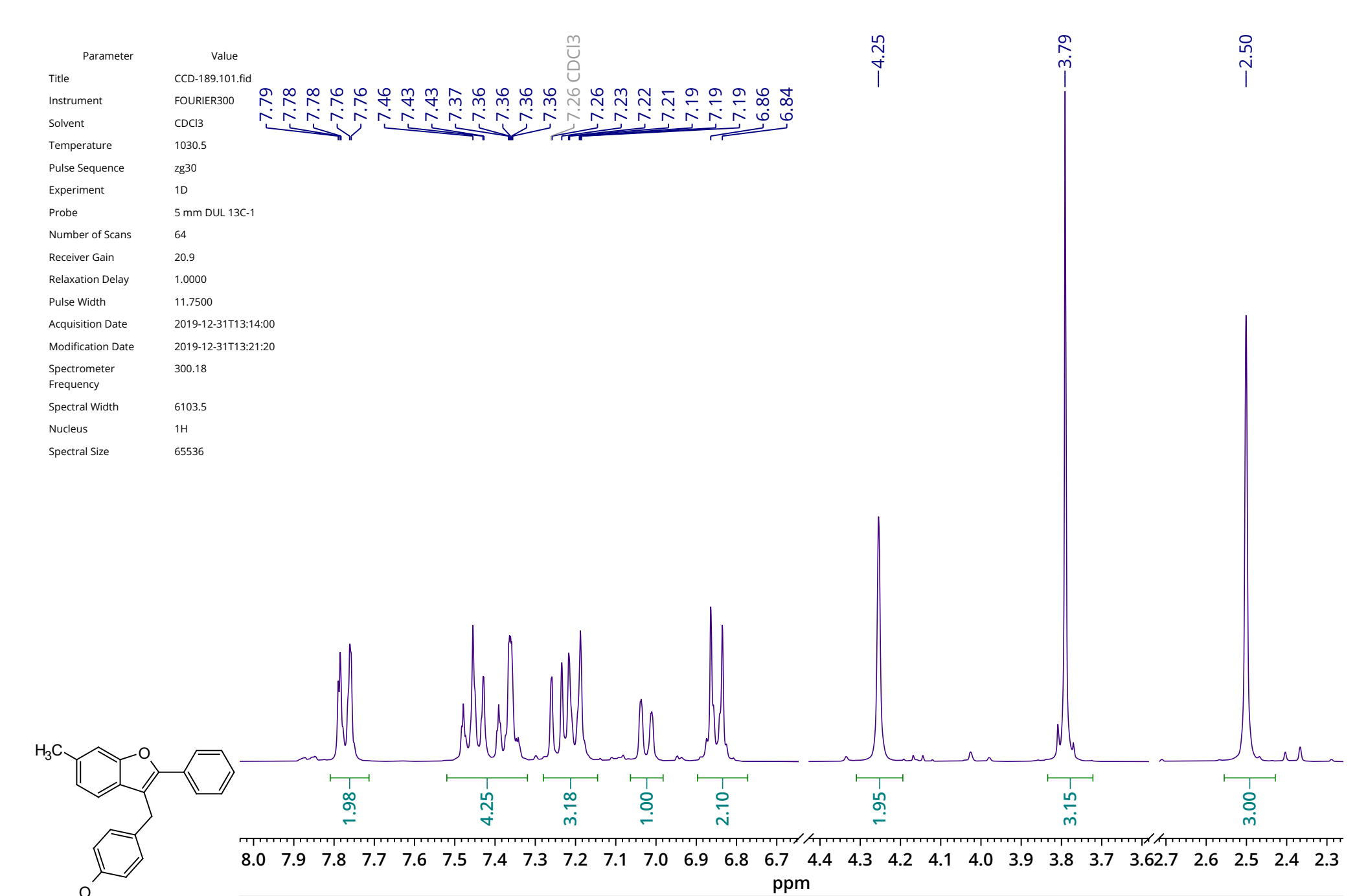


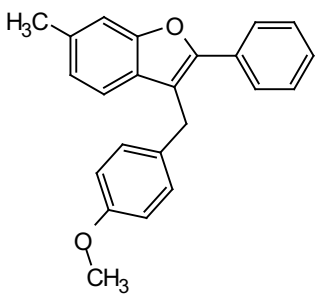
Compound 11u



^{1}H NMR (300 MHz, $CDCl_3$) δ 7.77 (dt, J = 7.6, 1.3 Hz, 2H), 7.52 – 7.33 (m, 4H), 7.28 – 7.15 (m, 3H), 7.02 (ddd, J = 7.9, 1.4, 0.7 Hz, 1H), 6.90 – 6.78 (m, 2H), 4.25 (s, 2H), 3.79 (s, 3H), 2.50 (s, 3H).

Parameter	Value
Title	CCD-189.101.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	1030.5
Pulse Sequence	zg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	64
Receiver Gain	20.9
Relaxation Delay	1.0000
Pulse Width	11.7500
Acquisition Date	2019-12-31T13:14:00
Modification Date	2019-12-31T13:21:20
Spectrometer Frequency	300.18
Spectral Width	6103.5
Nucleus	1H
Spectral Size	65536

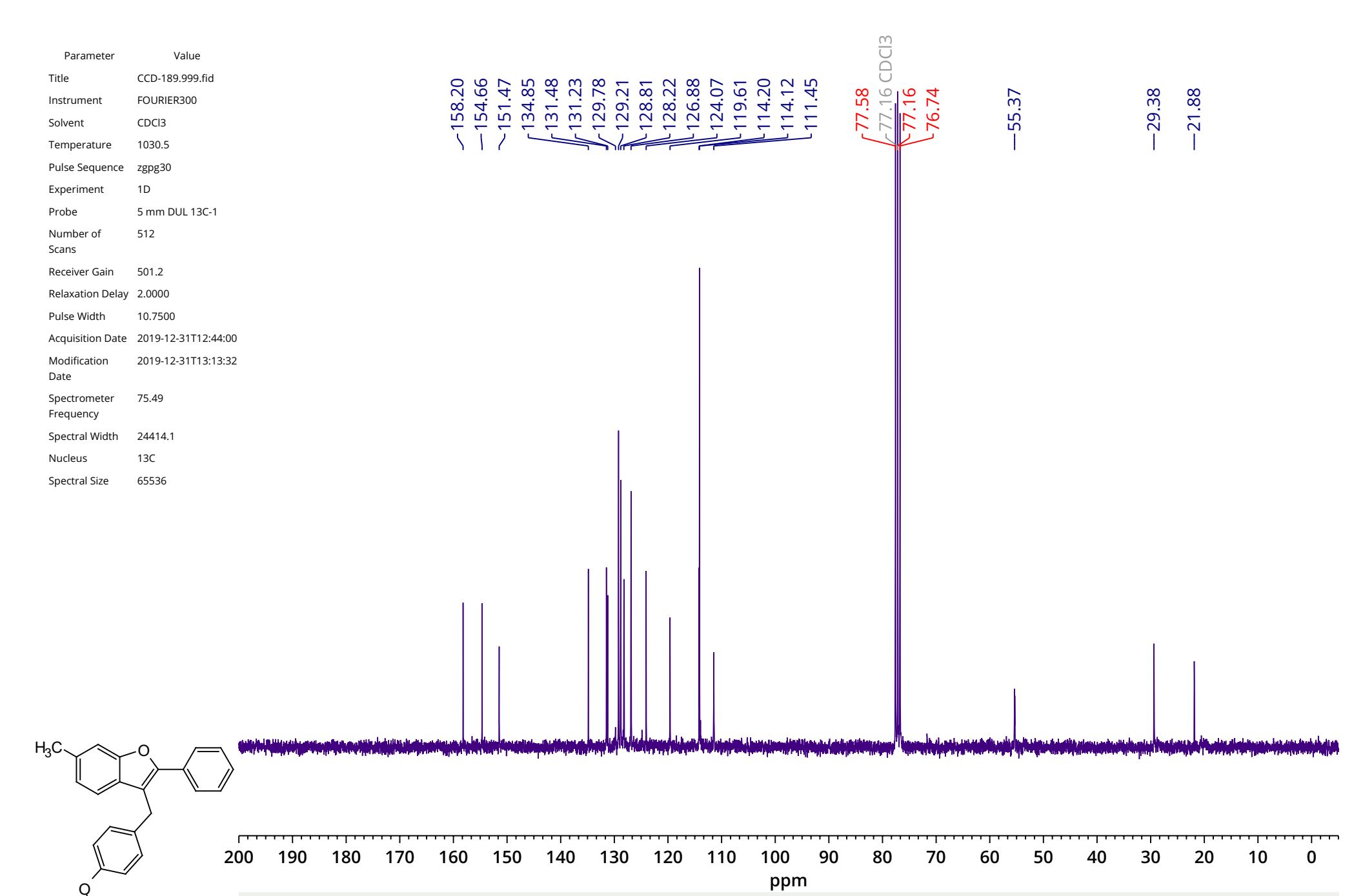


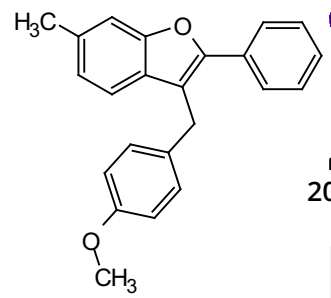


Compound 11u

^{1}H NMR (300 MHz, $CDCl_3$) δ 7.77 (dt, J = 7.6, 1.3 Hz, 2H), 7.52 – 7.33 (m, 4H), 7.28 – 7.15 (m, 3H), 7.02 (ddd, J = 7.9, 1.4, 0.7 Hz, 1H), 6.90 – 6.78 (m, 2H), 4.25 (s, 2H), 3.79 (s, 3H), 2.50 (s, 3H).

Parameter	Value
Title	CCD-189.999.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	1030.5
Pulse Sequence	zgpg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	512
Receiver Gain	501.2
Relaxation Delay	2.0000
Pulse Width	10.7500
Acquisition Date	2019-12-31T12:44:00
Modification Date	2019-12-31T13:13:32
Spectrometer Frequency	75.49
Spectral Width	24414.1
Nucleus	13C
Spectral Size	65536

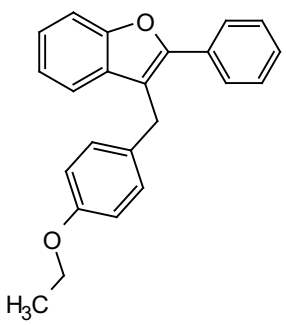




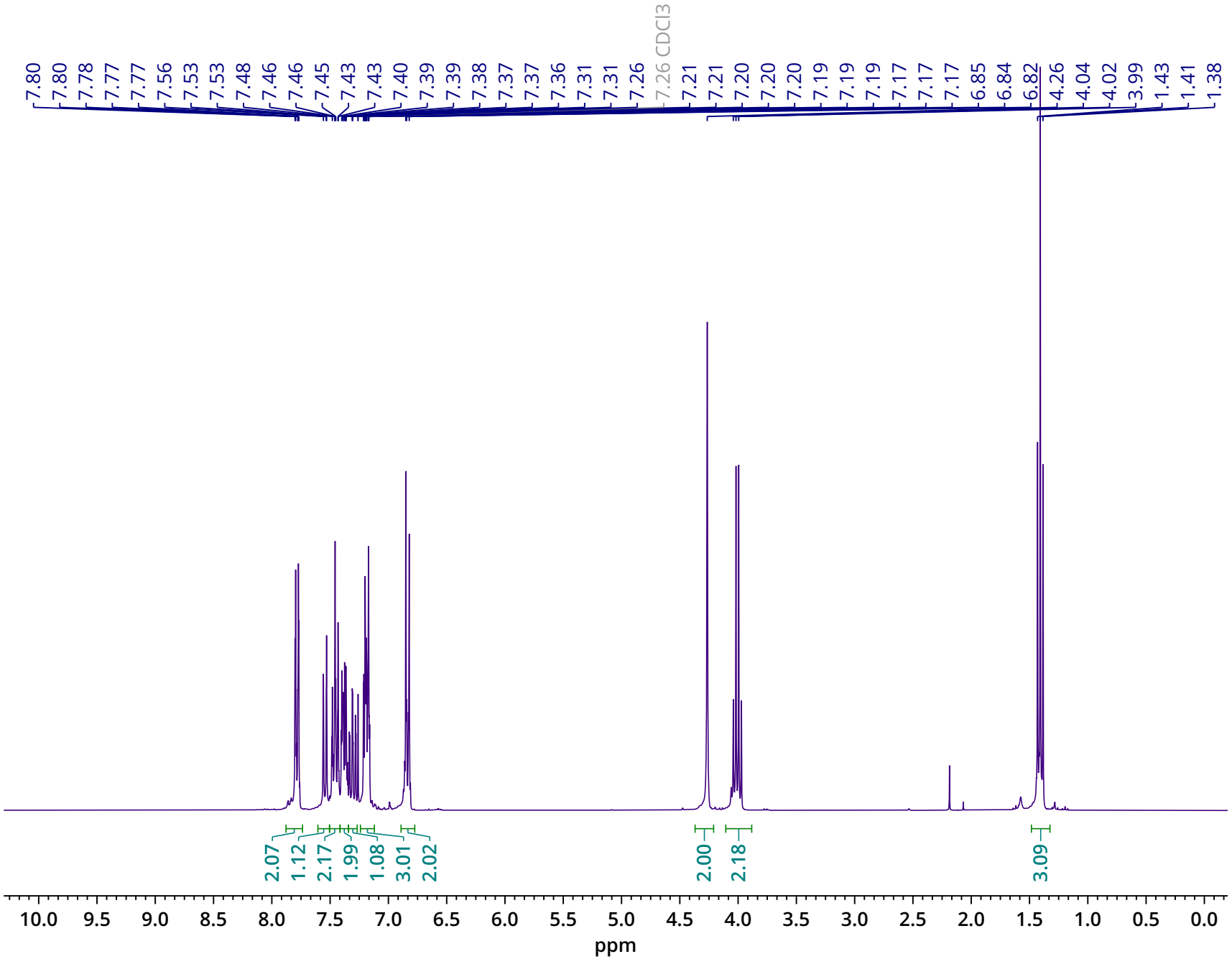
Compound 11u

^{13}C NMR (75 MHz, $CDCl_3$) δ 158.20, 154.66, 151.47, 134.85, 131.48, 131.23, 129.78, 129.21, 128.81, 128.22, 126.88, 124.07, 119.61, 114.20, 114.12, 111.45, 55.37, 29.38, 21.88.

Parameter	Value
Title	CCD2-015.11.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	1018.0
Pulse Sequence	zg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	64
Receiver Gain	31.6
Relaxation Delay	1.0000
Pulse Width	11.7500
Acquisition Date	2020-02-18T14:45:00
Modification Date	2020-02-18T14:51:50
Spectrometer Frequency	300.18
Spectral Width	6103.5
Nucleus	1H
Spectral Size	65536

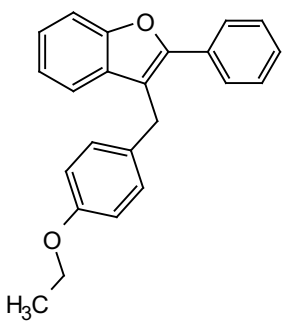


Compound 14

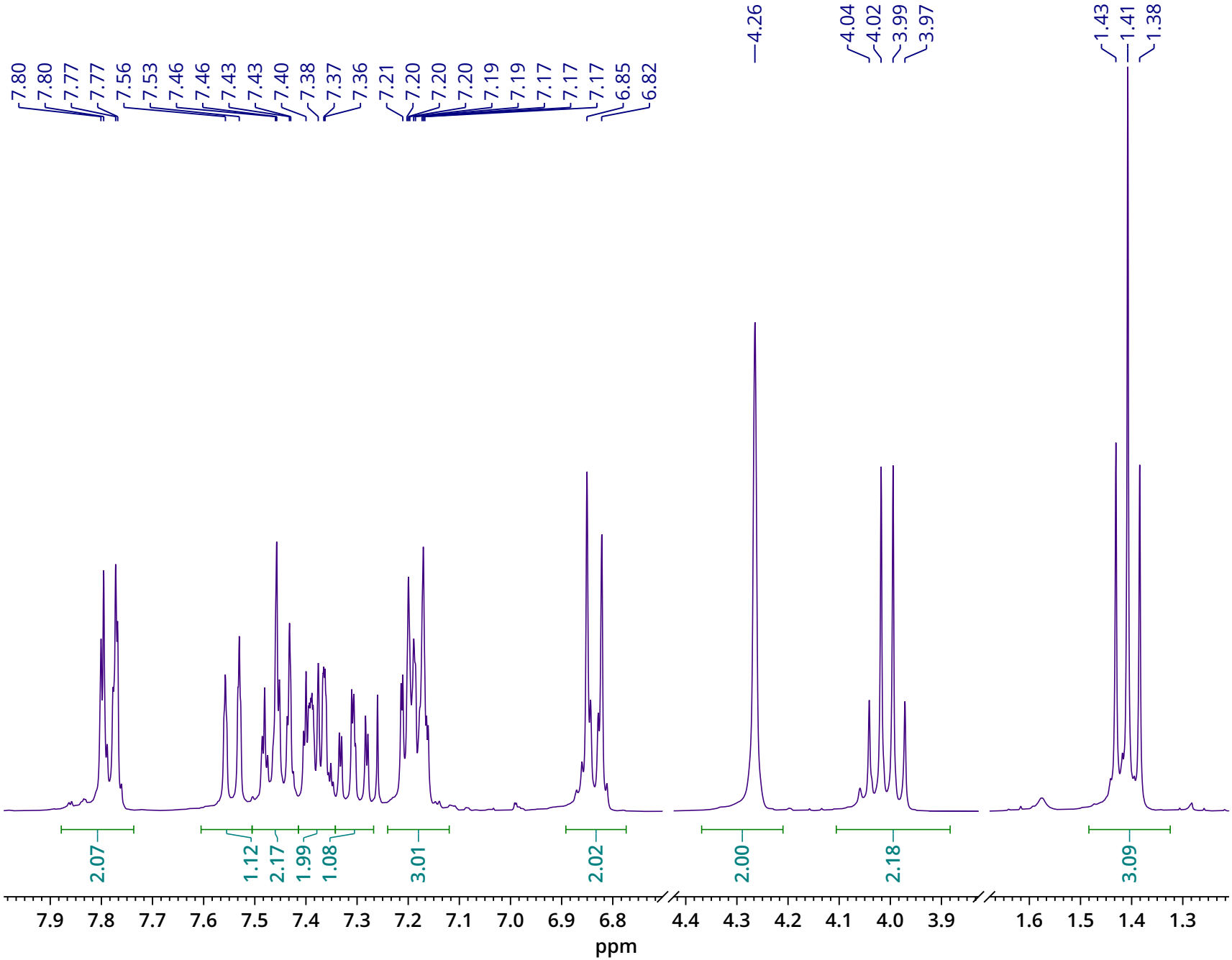


^{1}H NMR (300 MHz, $CDCl_3$) δ 7.84 – 7.73 (m, 2H), 7.54 (dt, *J* = 8.2, 0.9 Hz, 1H), 7.46 (ddt, *J* = 8.2, 6.6, 1.1 Hz, 2H), 7.42 – 7.34 (m, 2H), 7.31 (ddd, *J* = 8.3, 7.2, 1.4 Hz, 1H), 7.23 – 7.14 (m, 3H), 6.90 – 6.78 (m, 2H), 4.26 (s, 2H), 4.01 (q, *J* = 7.0 Hz, 2H), 1.41 (t, *J* = 7.0 Hz, 3H).

Parameter	Value
Title	CCD2-015.11.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	1018.0
Pulse Sequence	zg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	64
Receiver Gain	31.6
Relaxation Delay	1.0000
Pulse Width	11.7500
Acquisition Date	2020-02-18T14:45:00
Modification Date	2020-02-18T14:51:50
Spectrometer Frequency	300.18
Spectral Width	6103.5
Nucleus	1H
Spectral Size	65536

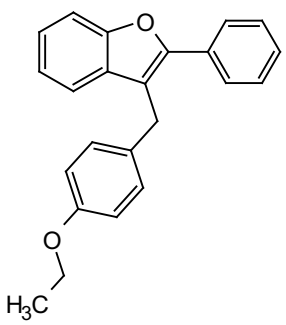


Compound 14

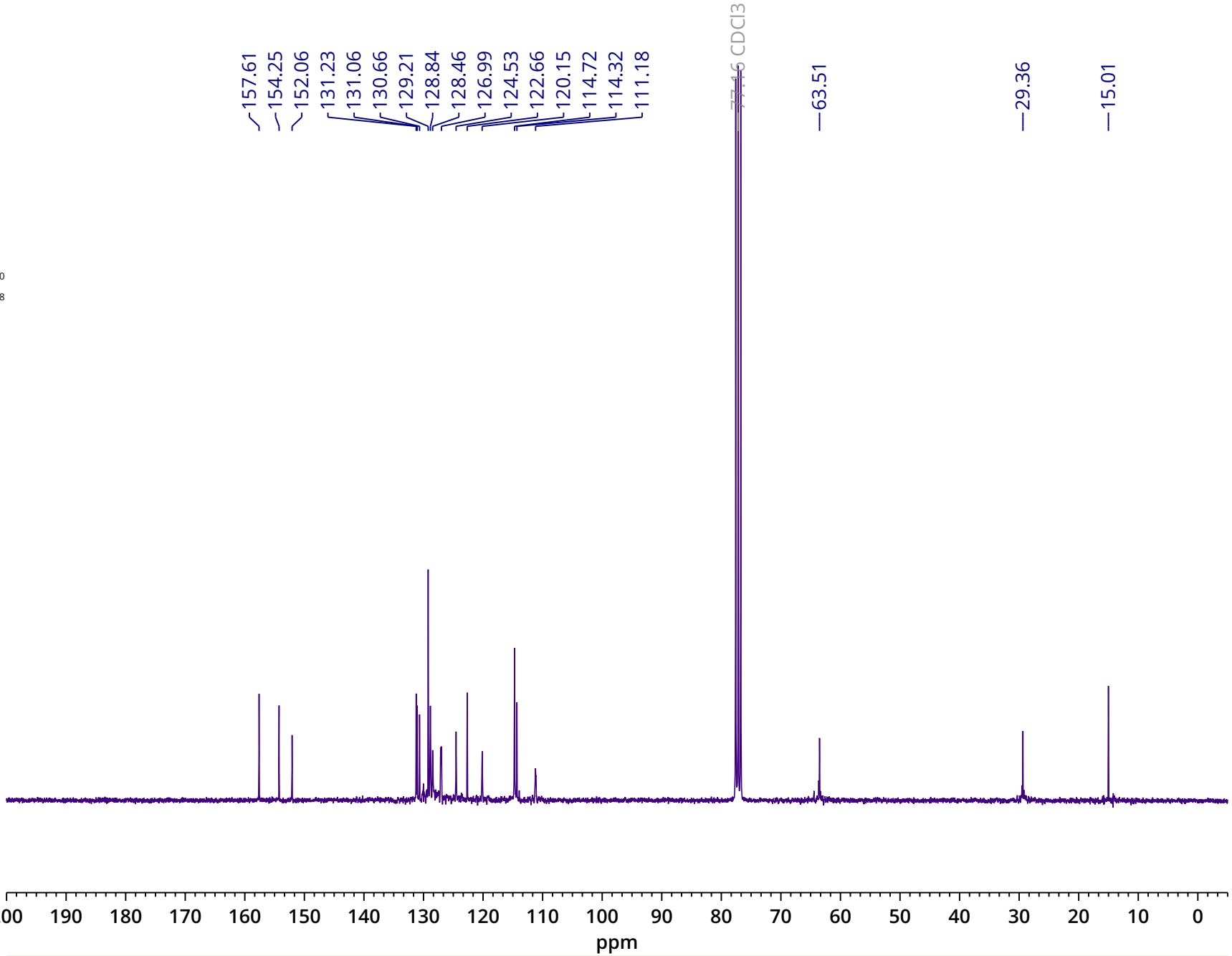


^{1}H NMR (300 MHz, $CDCl_3$) δ 7.84 – 7.73 (m, 2H), 7.54 (dt, *J* = 8.2, 0.9 Hz, 1H), 7.46 (ddt, *J* = 8.2, 6.6, 1.1 Hz, 2H), 7.42 – 7.34 (m, 2H), 7.31 (ddd, *J* = 8.3, 7.2, 1.4 Hz, 1H), 7.23 – 7.14 (m, 3H), 6.90 – 6.78 (m, 2H), 4.26 (s, 2H), 4.01 (q, *J* = 7.0 Hz, 2H), 1.41 (t, *J* = 7.0 Hz, 3H).

Parameter	Value
Title	CCD2-015.101.fid
Instrument	FOURIER300
Solvent	CDCl3
Temperature	1018.0
Pulse Sequence	zgpg30
Experiment	1D
Probe	5 mm DUL 13C-1
Number of Scans	8192
Receiver Gain	501.2
Relaxation Delay	2.0000
Pulse Width	10.7500
Acquisition Date	2020-02-18T20:06:00
Modification Date	2020-02-19T03:47:58
Spectrometer Frequency	75.49
Spectral Width	24414.1
Nucleus	13C
Spectral Size	65536



Compound 14



^{13}C NMR (75 MHz, $CDCl_3$) δ 157.61, 154.25, 152.06, 131.23, 131.06, 130.66, 129.21, 128.84, 128.46, 126.99, 124.53, 122.66, 120.15, 114.72, 114.32, 111.18, 63.51, 29.36, 15.01.