

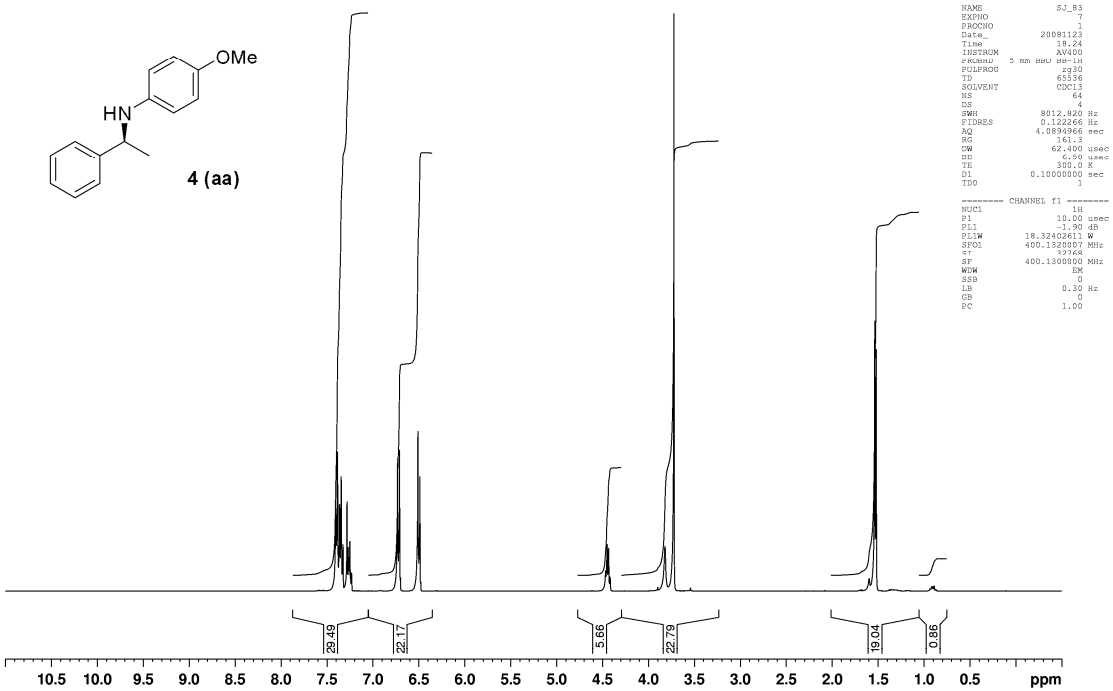
Scope of the organocatalyzed asymmetric reductive amination of ketones with trichlorosilane

François-Moana Gautier, Simon Jones, Xianfu Li and Stephen J Martin

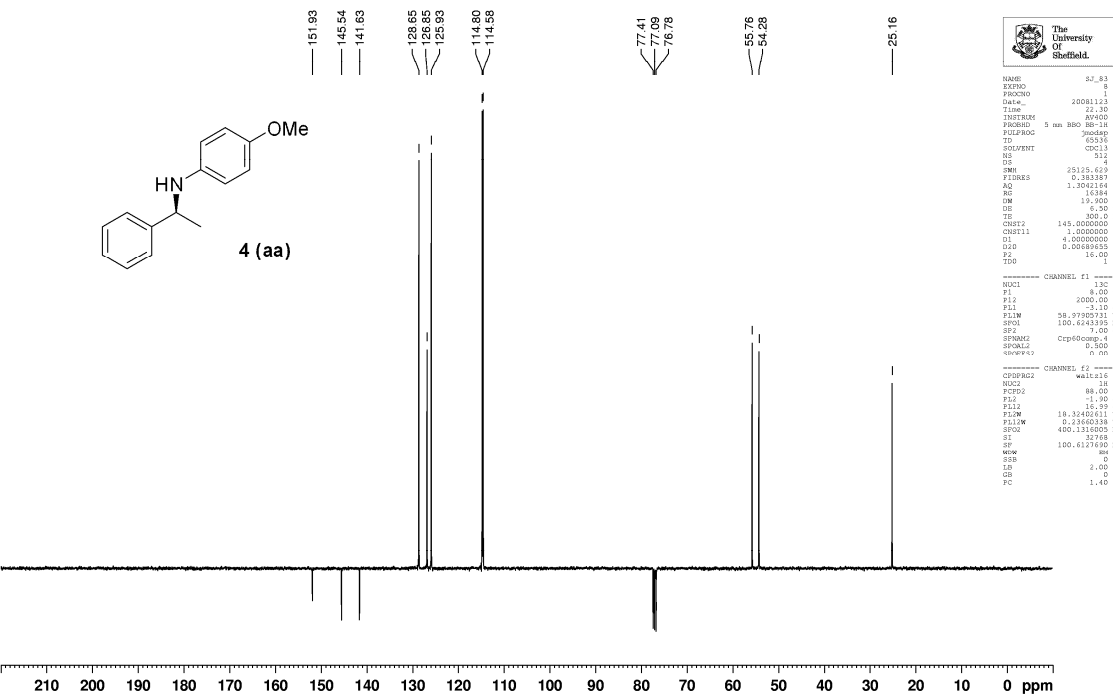
Department of Chemistry, Dainton Building, University of Sheffield, Brook Hill, Sheffield S3 7HF, U.K.

Copies of spectra of amines (^1H NMR, ^{13}C NMR, enantiopurity HPLC or NMR)

xl018 after column
PRO CDCl3 {C:\11no2008\ ch3sj 31



XL018 -carbon 400MHz
JMOD250PPM CDCl3 {C:\11no2008\ ch3sj 35



10/01/2010 15:23

Chromatogram XL3-32

Page 1 of 1

Created : 10/01/2010 12:34:15
Project : Work3
Sample ID : XL3-32
Calibration : XL3-32

By : Clarity
Report Style : Instrument
Sample : XL3-32
Chromatogram : DATA\XL3-32

Method : Cellulose-1
Description : Cellulose-1
Created : 24/08/2004 16:25

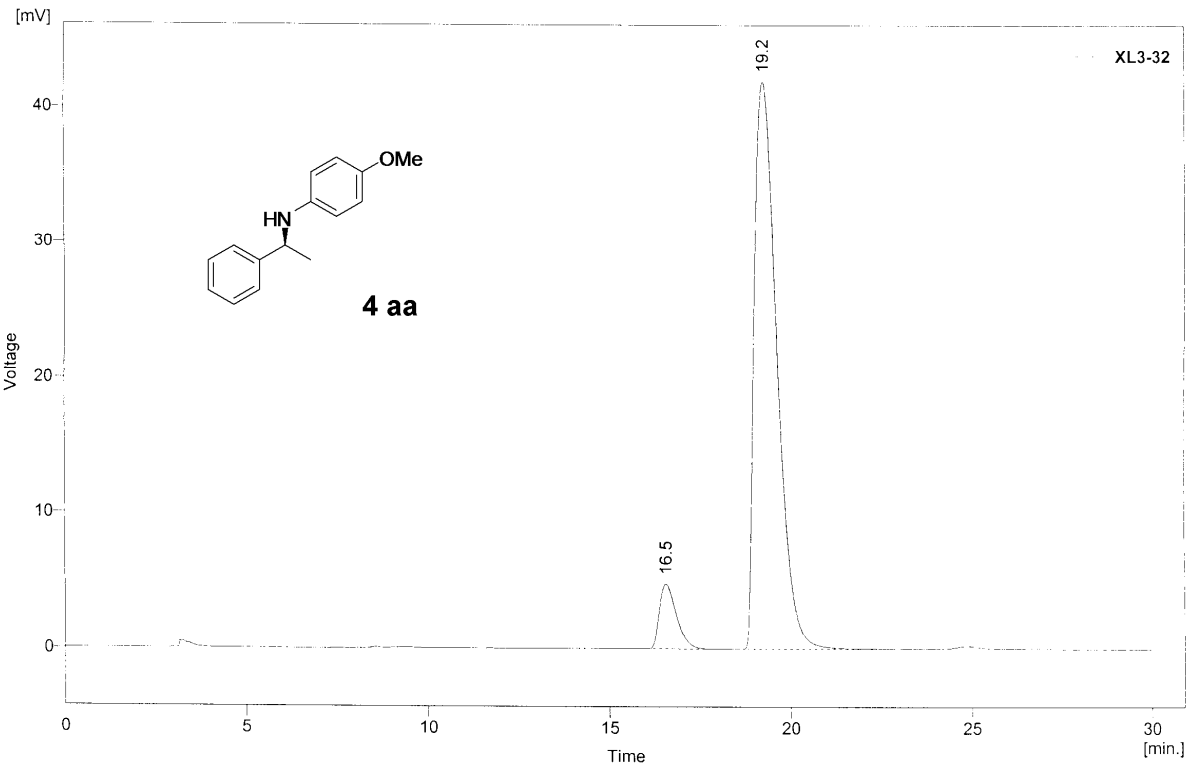
By : Clarity
Modified : 10/01/2010 15:21

Column : Phenomenex Lux 3um Cellulose-1
Mobile Phase : 2% ipa in hexane
Flow Rate : 1mL/min
Note :

Detection : UV@254nm
Temperature : RT
Pressure :

Autostop : 30.00, min
Detector 1 : Signal 1
Subtraction chromatogram : (None)

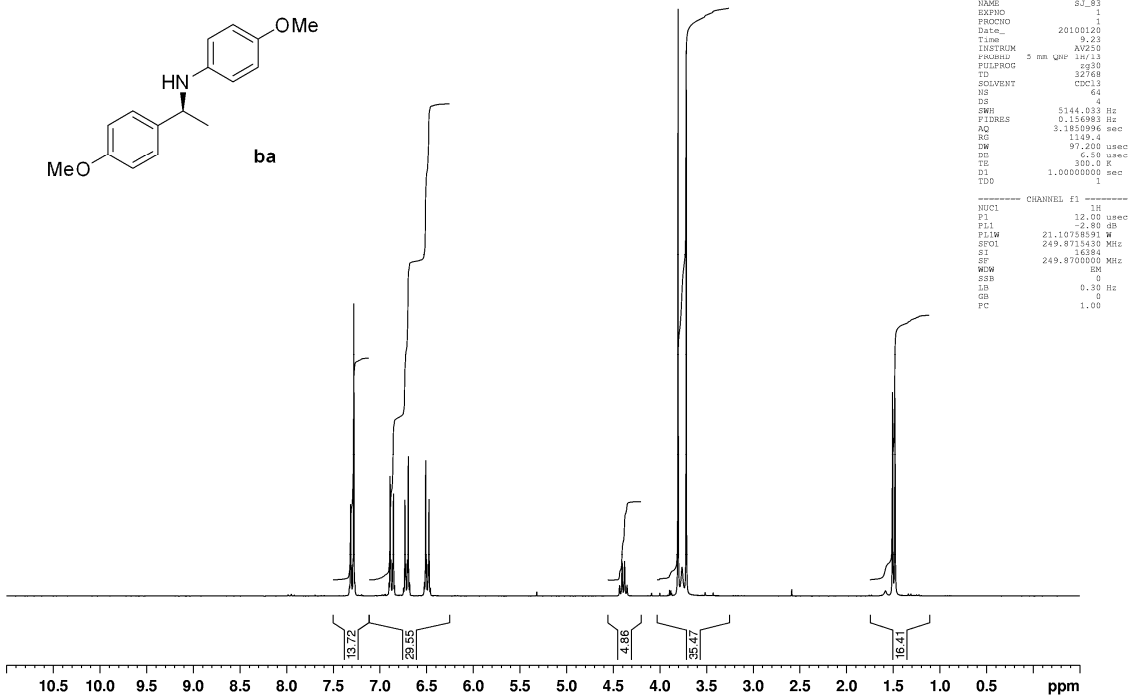
External Start : Start Only, Down
Range 1 : Bipolar, 10000 mV, 10 Samp. per Sec.
Matching : No Change



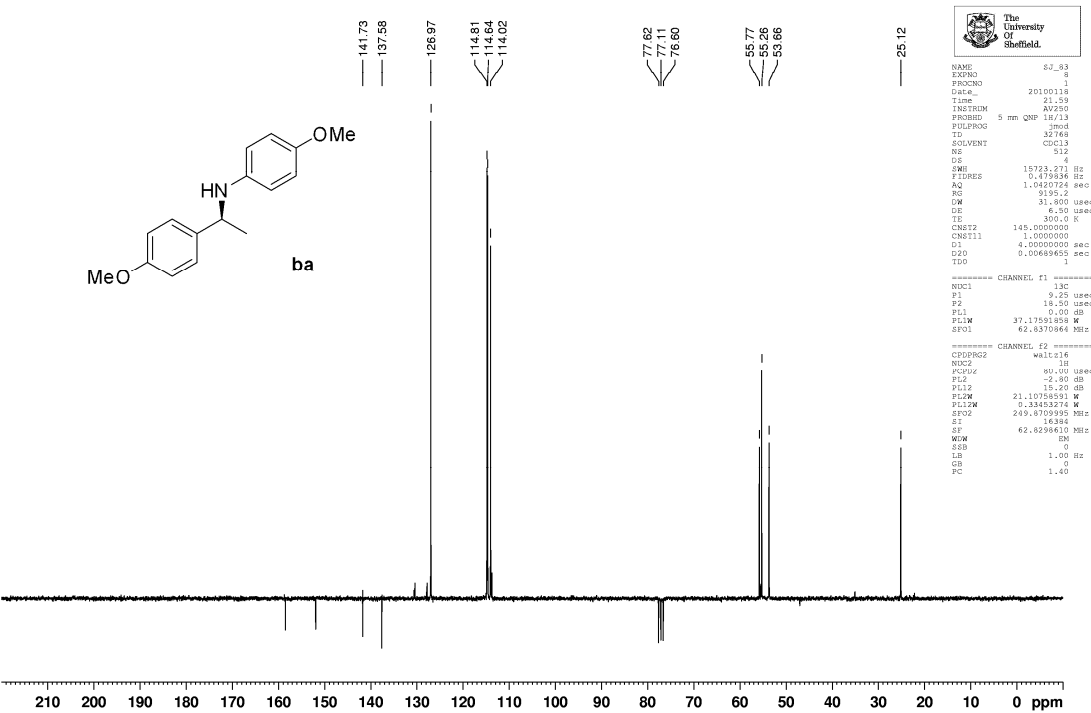
Result Table - Calculation Method Uncal

	Reten. Time [min]	Area [mV.s]	Height [mV]	Area [%]	Height [%]	W05 [min]
1	16.547	1589.334	48.278	8.1	10.3	0.51
2	19.233	17979.914	419.226	91.9	89.7	0.68
	Total	19569.247	467.504	100.0	100.0	

XL3-37 250MHz
PRO CDCl3 {C:\01ja2010} ch3sj 1



XL3-39 250MHz
JMOD250PPM CDCl3 {C:\01ja2010} ch3sj 48



18/01/2010 16:54

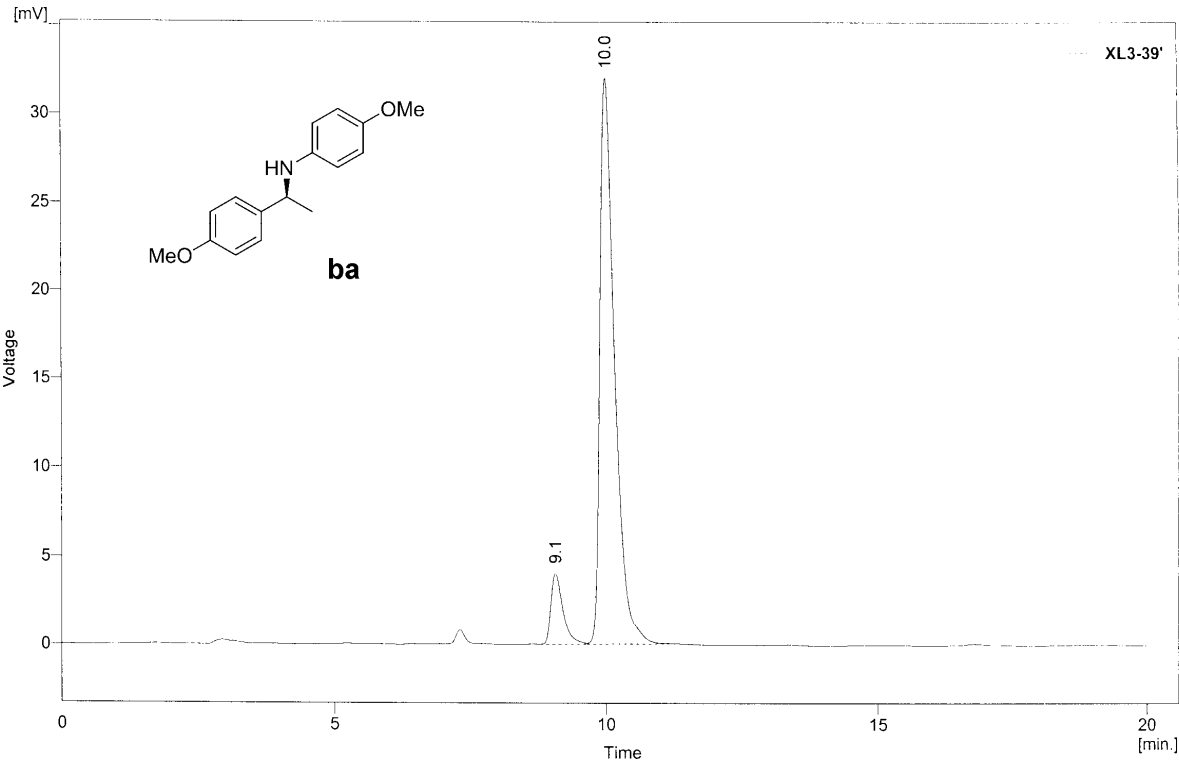
Chromatogram XL3-39'

Page 1 of 1

Created : 18/01/2010 16:21:15 By : Clarity
Project : Work3 Report Style : Instrument
Sample ID : XL3-39 Sample : XL3-39
Calibration : XL3-39' Chromatogram : DATA\XL3-39'

Method : Cellulose-1 By : Clarity
Description : Cellulose-1
Created : 24/08/2004 16:25 Modified : 18/01/2010 16:21
Column : Phenomenex Lux 3um Cellulose-1 Detection : UV@254nm
Mobile Phase : 10% ipa in hexane Temperature : RT
Flow Rate : 1mL/min Pressure :
Note :

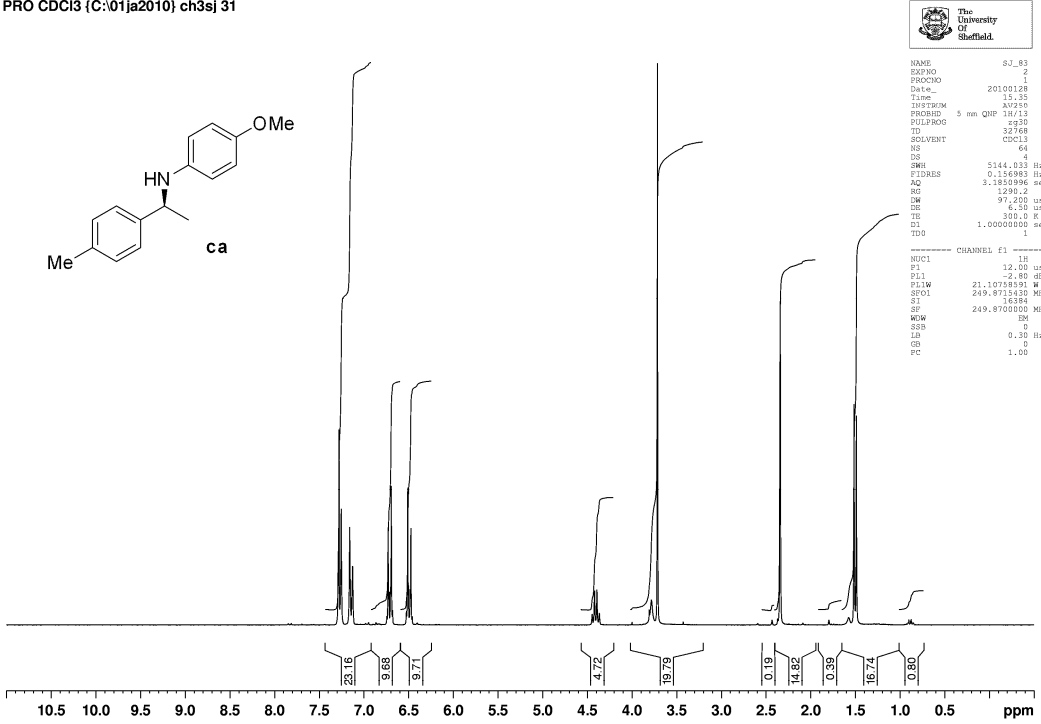
Autostop : 20.00, min External Start : Start Only, Down
Detector 1 : Signal 1 Range 1 : Bipolar, 10000 mV, 10 Samp. per Sec.
Subtraction chromatogram : (None) Matching : No Change



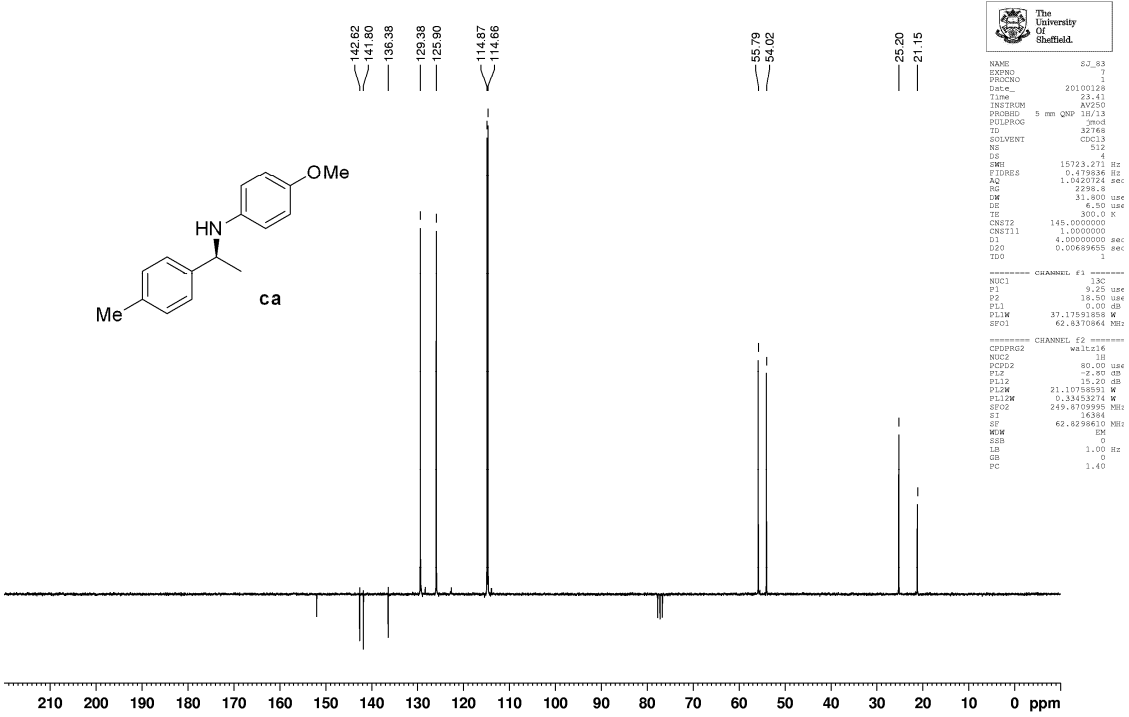
Result Table - Calculation Method Uncal

	Reten. Time [min]	Area [mV.s]	Height [mV]	Area [%]	Height [%]	W05 [min]
1	9.067	628.355	40.468	9.4	11.2	0.23
2	10.007	6042.472	320.080	90.6	88.8	0.28
	Total	6670.827	360.548	100.0	100.0	

XL3-47 250MHz
PRO CDCl3 {C:\01ja2010} ch3sj 31



XL3-47 250MHz
JMOD250PPM CDCl3 {C:\01ja2010} ch3sj 54



29/01/2010 12:51

Chromatogram XL3-47 chiral

Page 1 of 1

Created : 29/01/2010 12:47:47
Project : Work3
Sample ID : XL3-47 chiral
Calibration : XL3-47 chiral

By : Clarity
Report Style : Instrument
Sample : XL3-47 chiral
Chromatogram : DATA\XL3-47 chiral

Method : Chiralcel OD
Description : Chiralcel OD-H
Created : 24/08/2004 16:25

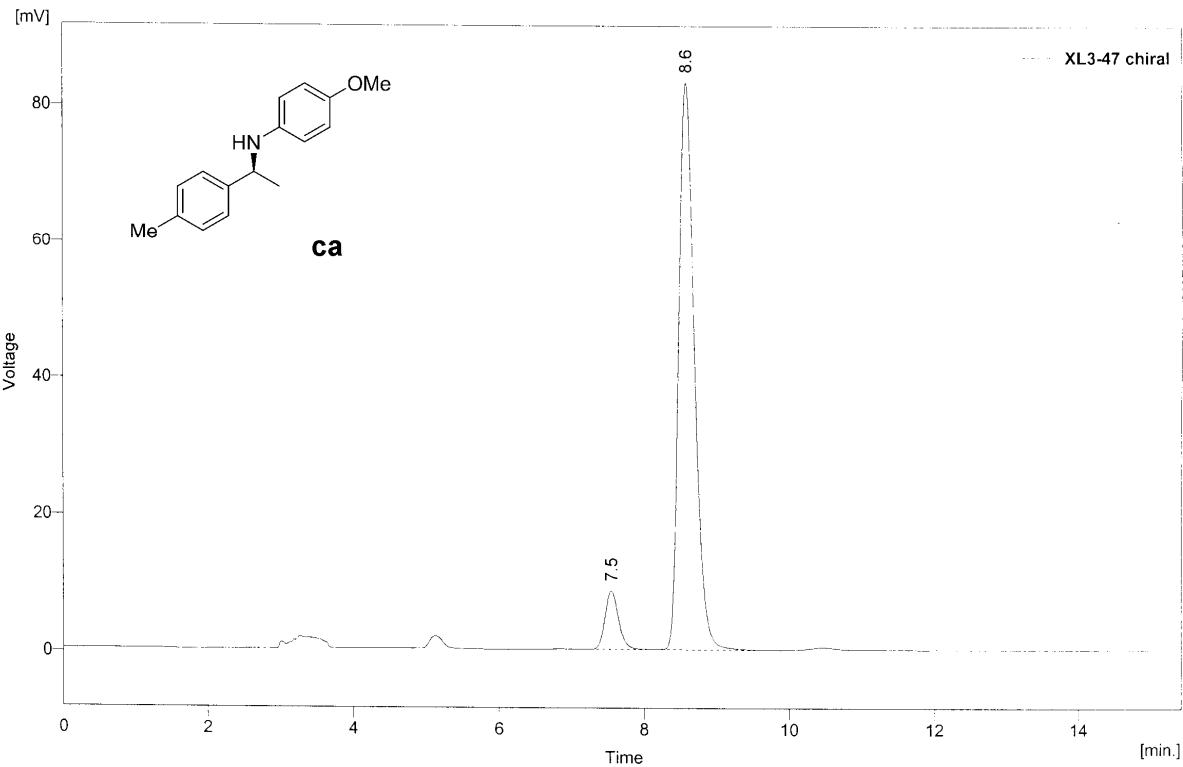
By : Clarity
Modified : 29/01/2010 12:47

Column : Chiralcel OD-H
Mobile Phase : 5% ipa in Hexane
Flow Rate : 1mL/min
Note :

Detection : UV@254nm
Temperature : RT
Pressure :

Autostop : 15.00, min
Detector 1 : Signal 1
Subtraction chromatogram : (None)

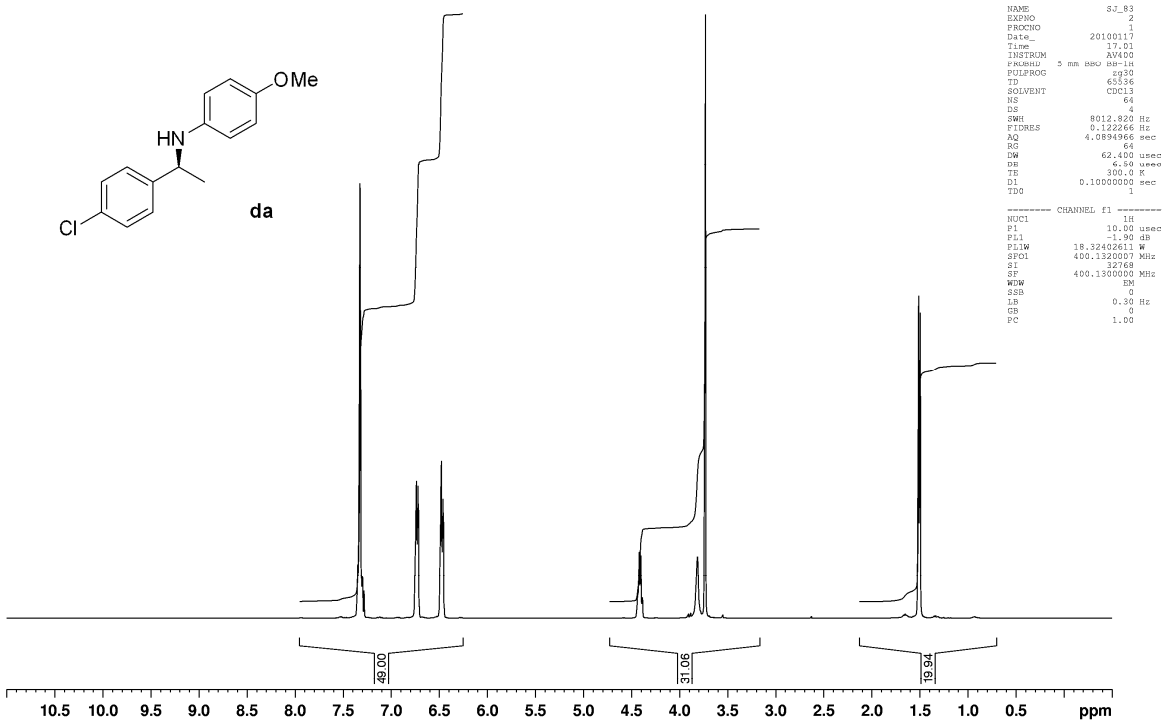
External Start : Start Only, Down
Range 1 : Bipolar, 10000 mV, 10 Samp. per Sec.
Matching : No Change



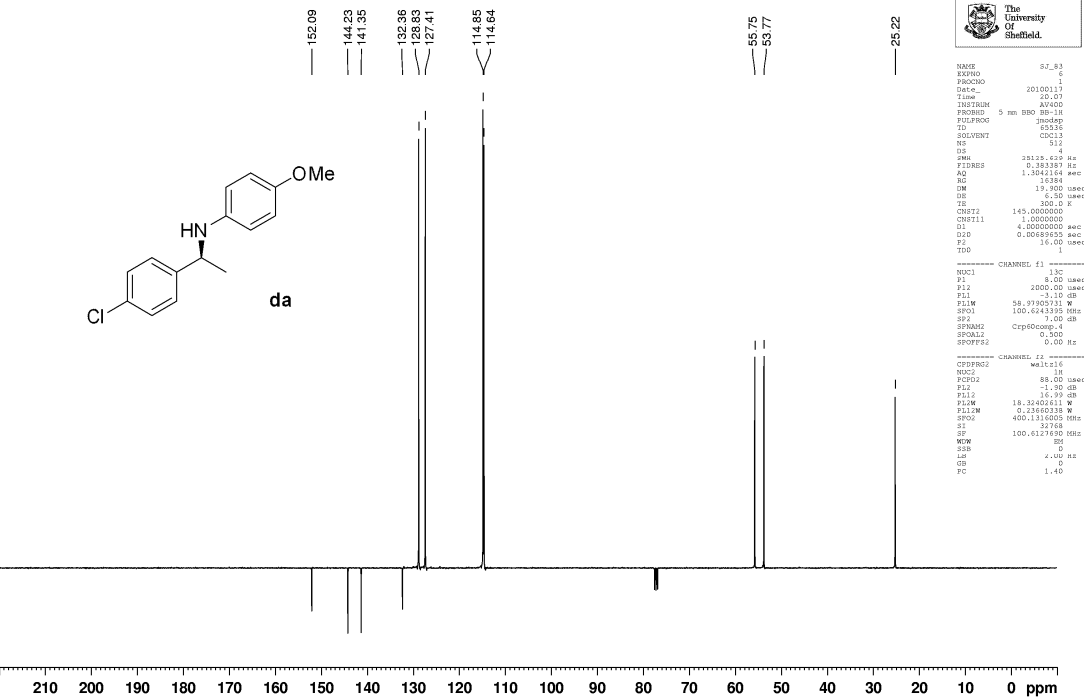
Result Table - Calculation Method Uncal

	Reten. Time [min]	Area [mV.s]	Height [mV]	Area [%]	Height [%]	W05 [min]
1	7.547	1125.566	86.169	8.3	9.4	0.20
2	8.577	12484.625	830.915	91.7	90.6	0.23
	Total	13610.191	917.084	100.0	100.0	

XL3-33 400MHz
PRO CDCl3 {C:\01ja2010\} ch3sj 26



XL3-33 MHz
JMOD250PPM CDCl3 {C:\01ja2010\} ch3sj 29



14/01/2010 20:16

Chromatogram XL3-33

Page 1 of 1

Created : 14/01/2010 20:10:28
Project : Work3
Sample ID : XL3-33
Calibration : XL3-33

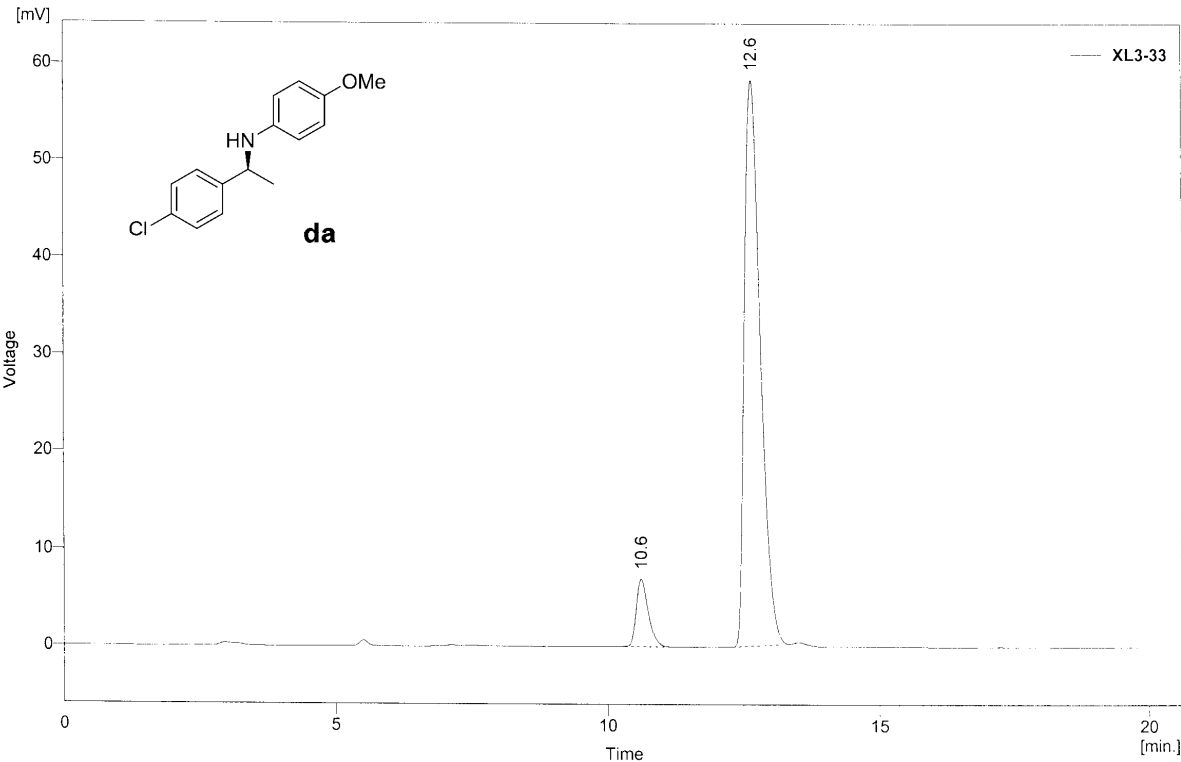
By : Clarity
Report Style : Instrument
Sample : XL3-33
Chromatogram : DATA\XL3-33

Method : Cellulose-1
Description : Cellulose-1
Created : 24/08/2004 16:25
Column : Phenomenex Lux 3um Cellulose-1
Mobile Phase : 8% ipa in hexane
Flow Rate : 1mL/min
Note :

By : Clarity
Modified : 14/01/2010 20:10
Detection : UV@254nm
Temperature : RT
Pressure :

Autostop : 20.00, min
Detector 1 : Signal 1
Subtraction chromatogram : (None)

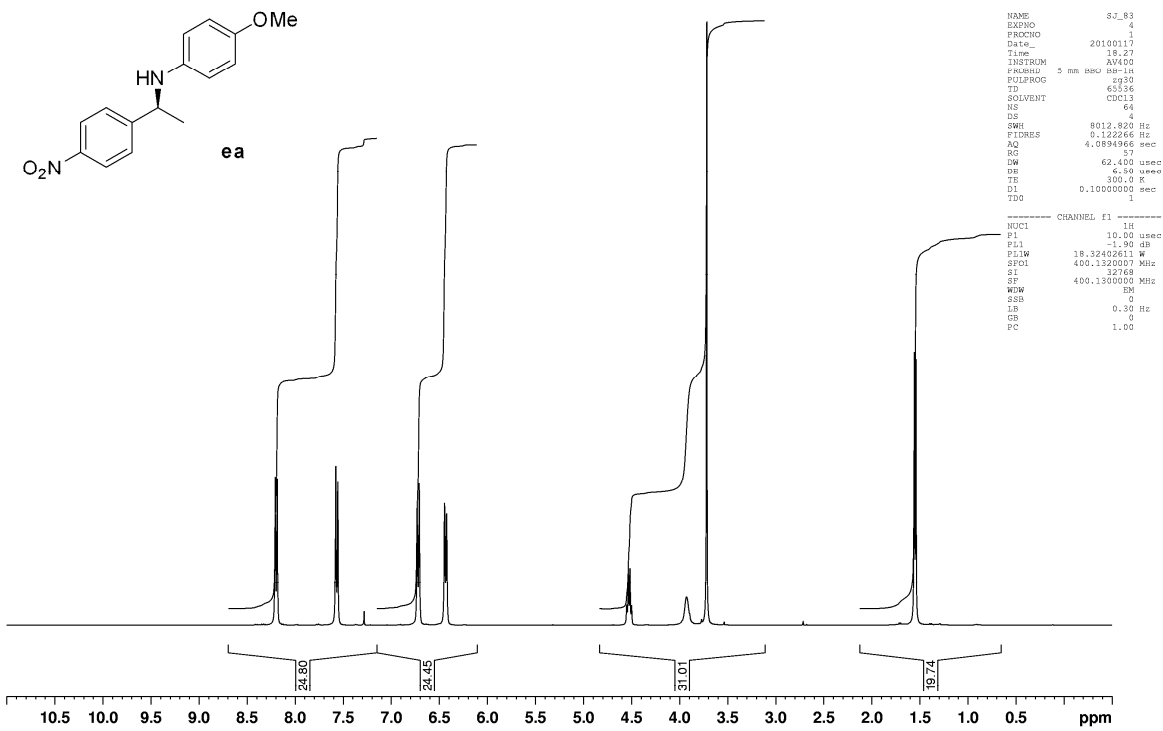
External Start : Start Only, Down
Range 1 : Bipolar, 10000 mV, 10 Samp. per Sec.
Matching : No Change



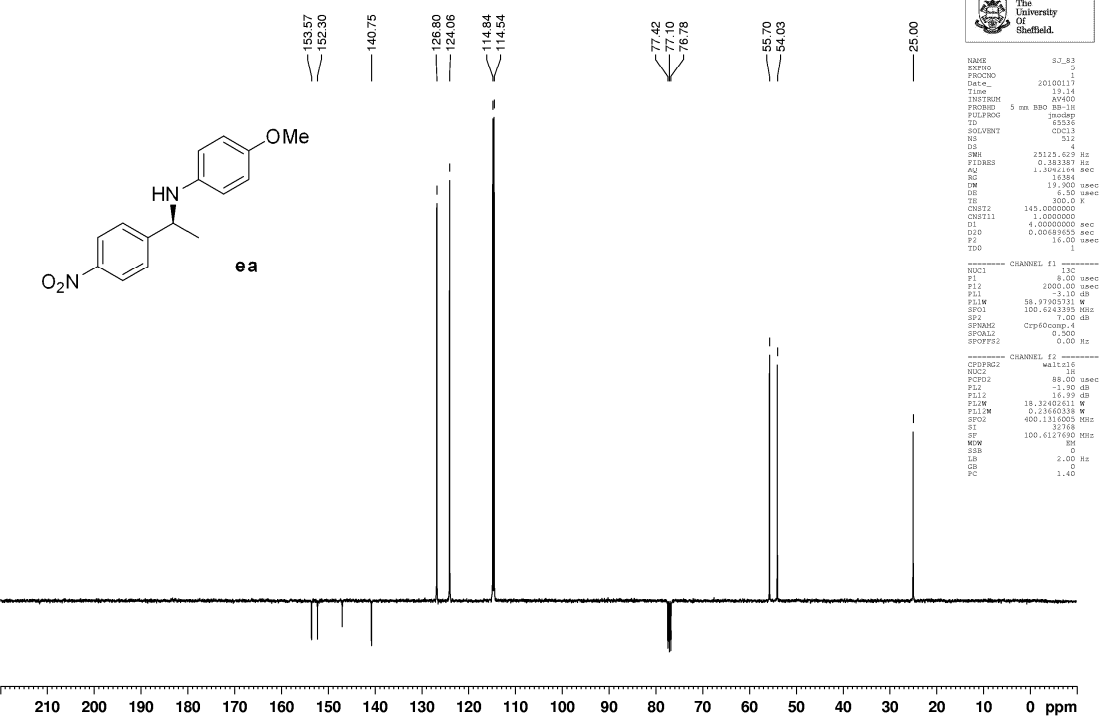
Result Table - Calculation Method Uncal

	Reten. Time [min]	Area [mV.s]	Height [mV]	Area [%]	Height [%]	W05 [min]
1	10.613	1105.293	70.769	8.5	10.8	0.24
2	12.637	11876.015	583.530	91.5	89.2	0.32
Total		12981.308	654.299	100.0	100.0	

XL3-34 400MHz
PRO CDCl3 {C:\01ja2010} ch3sj 28



XL3-34 400MHz
JMOD250PPM CDCl3 {C:\01ja2010} ch3sj 28



15/01/2010 14:12

Chromatogram XL3-34

Page 1 of 1

Created : 15/01/2010 14:09:53
Project : Work3
Sample ID : XL3-34
Calibration : XL3-34

By : Clarity
Report Style : Instrument
Sample : XL3-34
Chromatogram : DATA\XL3-34

Method : Cellulose-1
Description : Cellulose-1
Created : 24/08/2004 16:25

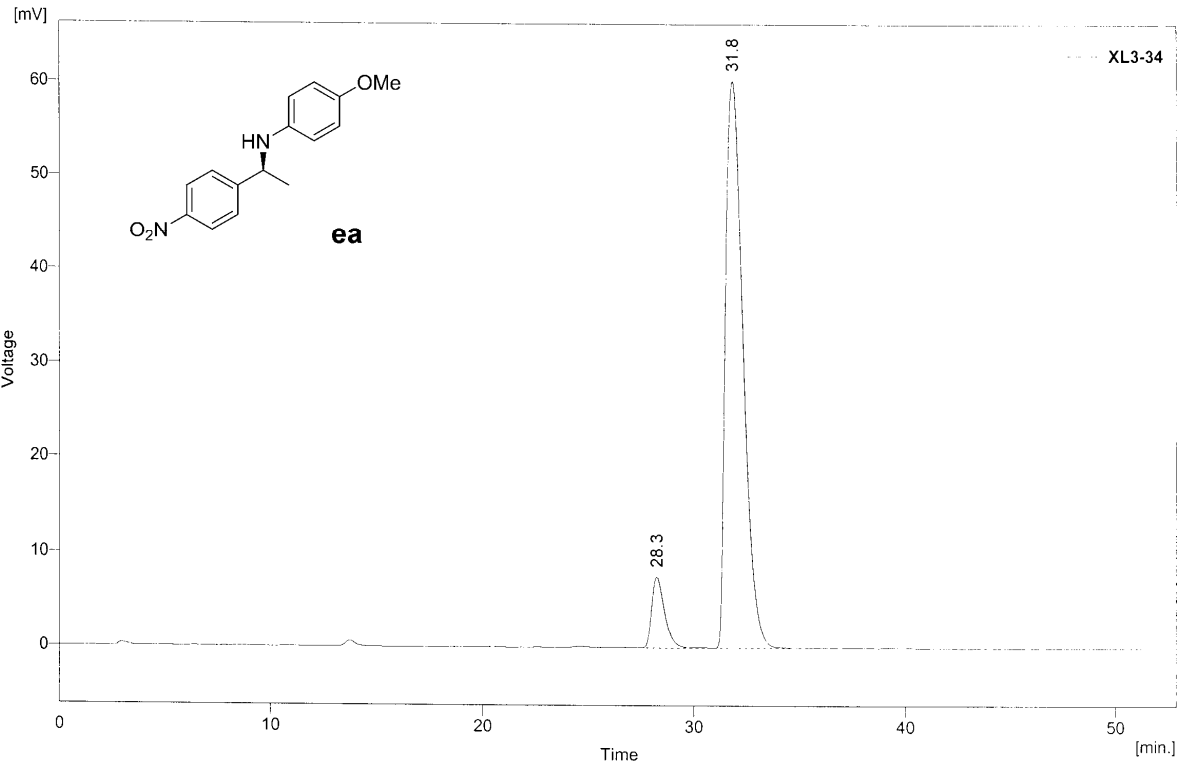
By : Clarity
Modified : 15/01/2010 14:11

Column : Phenomenex Lux 3um Cellulose-1
Mobile Phase : 10% ipa in hexane
Flow Rate : 1mL/min
Note :

Detection : UV@254nm
Temperature : RT
Pressure :

Autostop : 60.00, min
Detector 1 : Signal 1
Subtraction chromatogram : (None)

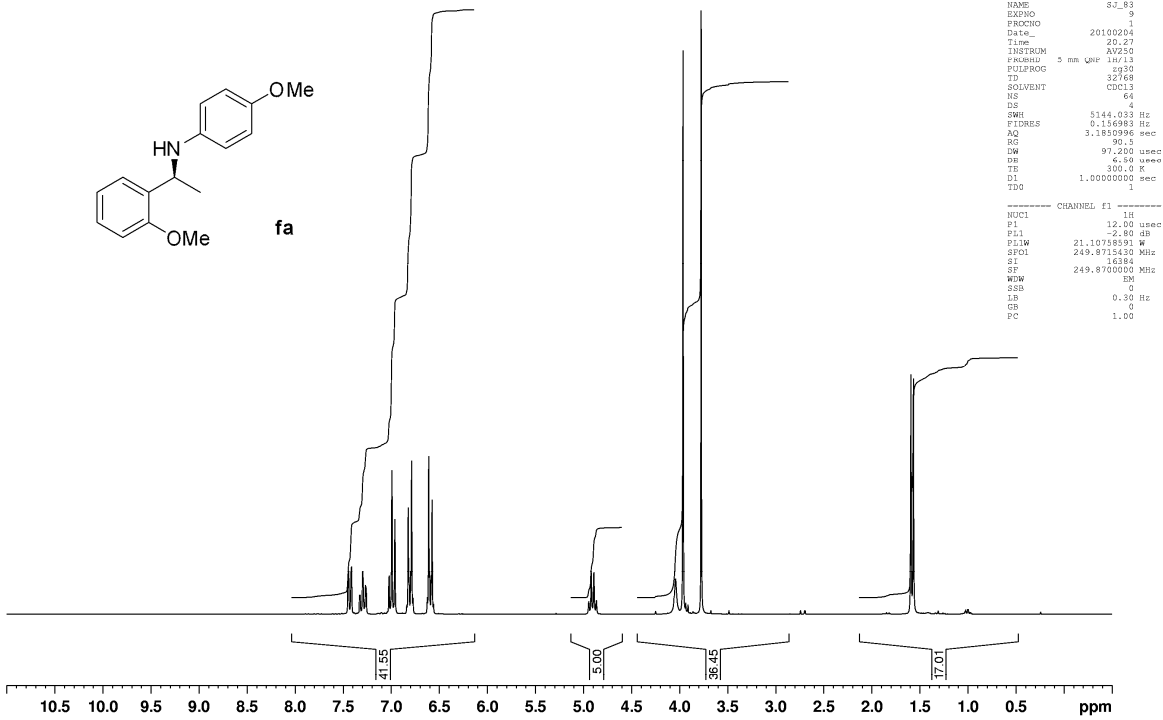
External Start : Start Only, Down
Range 1 : Bipolar, 10000 mV, 10 Samp. per Sec.
Matching : No Change



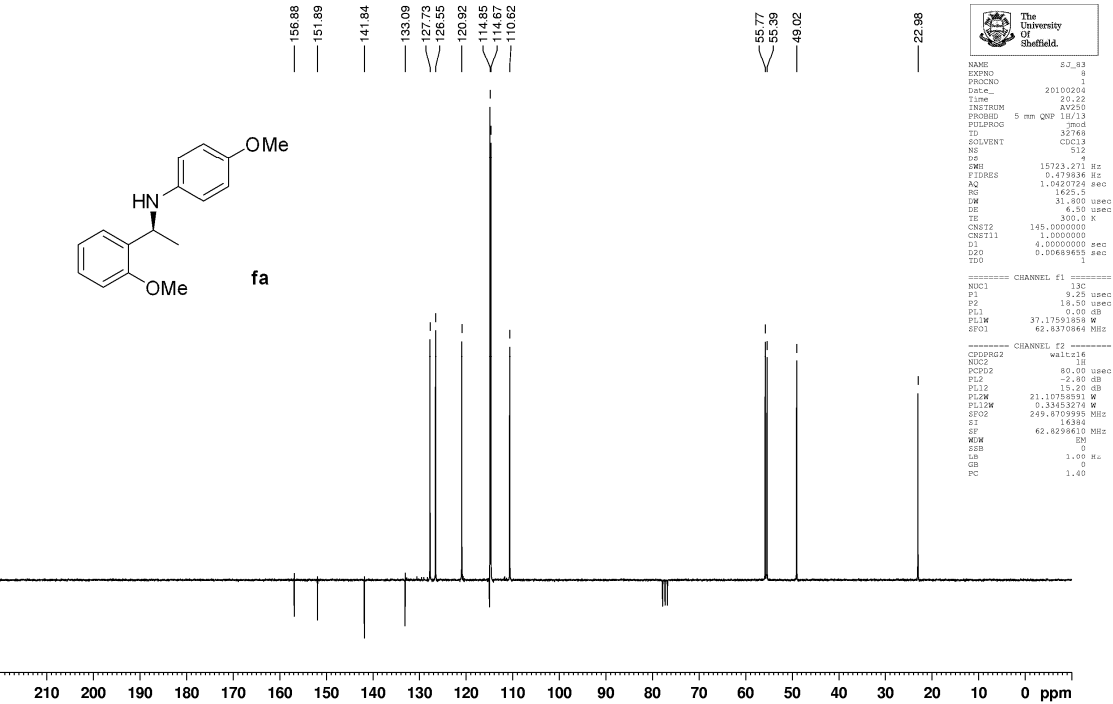
Result Table - Calculation Method Uncal

	Reten. Time [min]	Area [mV.s]	Height [mV]	Area [%]	Height [%]	W05 [min]
1	28.250	3245.013	75.631	8.6	11.1	0.65
2	31.830	34463.271	602.775	91.4	88.9	0.91
	Total	37708.284	678.406	100.0	100.0	

XL3-52 250MHz
PRO CDCl3 {C:\Bruker\TOPSPIN213} ch3sj 55



XL3-52 250MHz
JMOD250PPM CDCl3 {C:\Bruker\TOPSPIN213} ch3sj 55



07/02/2010 11:52

Chromatogram XL3-52 chiral

Page 1 of 1

Created : 07/02/2010 11:45:00
Project : Work3
Sample ID : XL3-52 chiral
Calibration : XL3-52 chiral

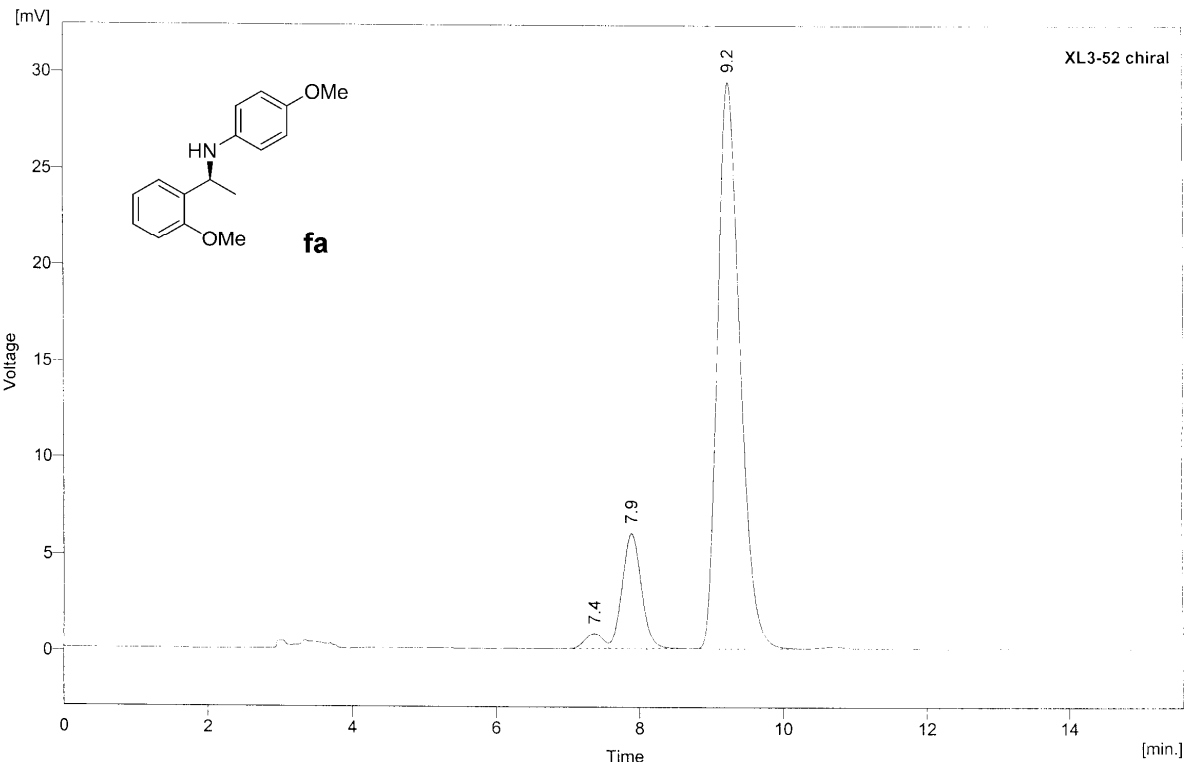
By : Clarity
Report Style : Instrument
Sample : XL3-52 chiral
Chromatogram : DATA\XL3-52 chiral

Method : Chiralcel OD
Description : Chiralcel OD-H
Created : 24/08/2004 16:25
Column : Chiralcel OD-H
Mobile Phase : 5% ipa in Hexane
Flow Rate : 1mL/min
Note :

By : Clarity
Modified : 07/02/2010 11:45
Detection : UV@254nm
Temperature : RT
Pressure :

Autostop : 30.00, min
Detector 1 : Signal 1
Subtraction chromatogram : (None)

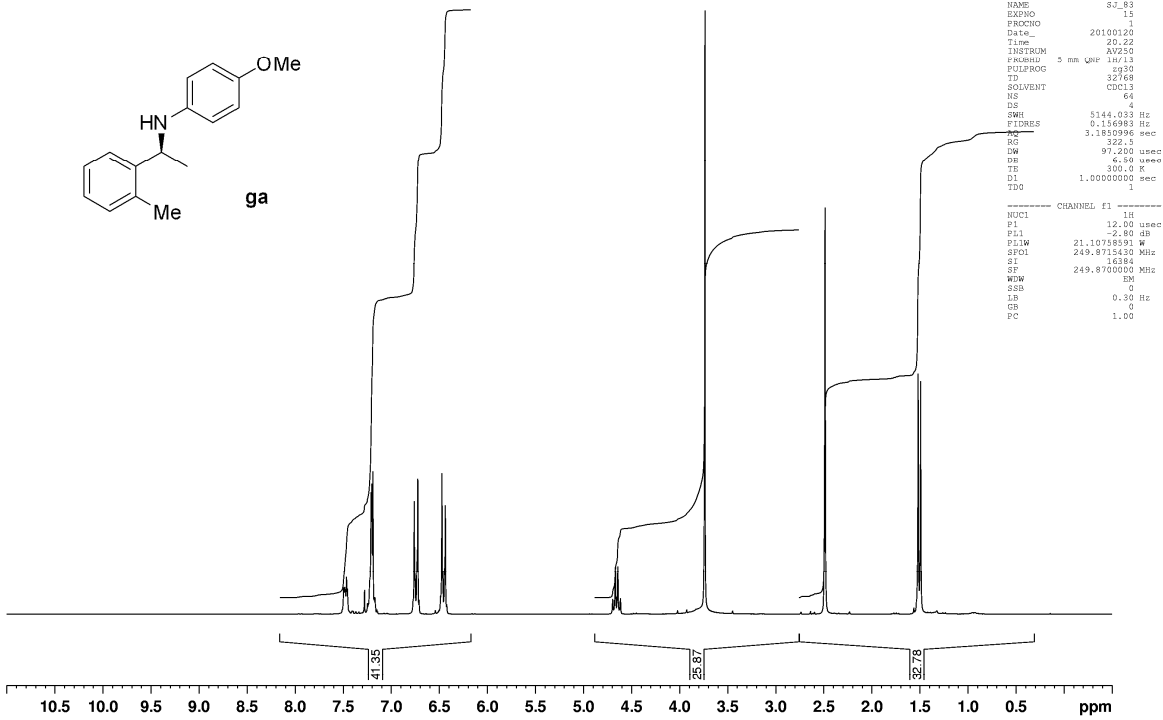
External Start : Start Only, Down
Range 1 : Bipolar, 10000 mV, 10 Samp. per Sec.
Matching : No Change



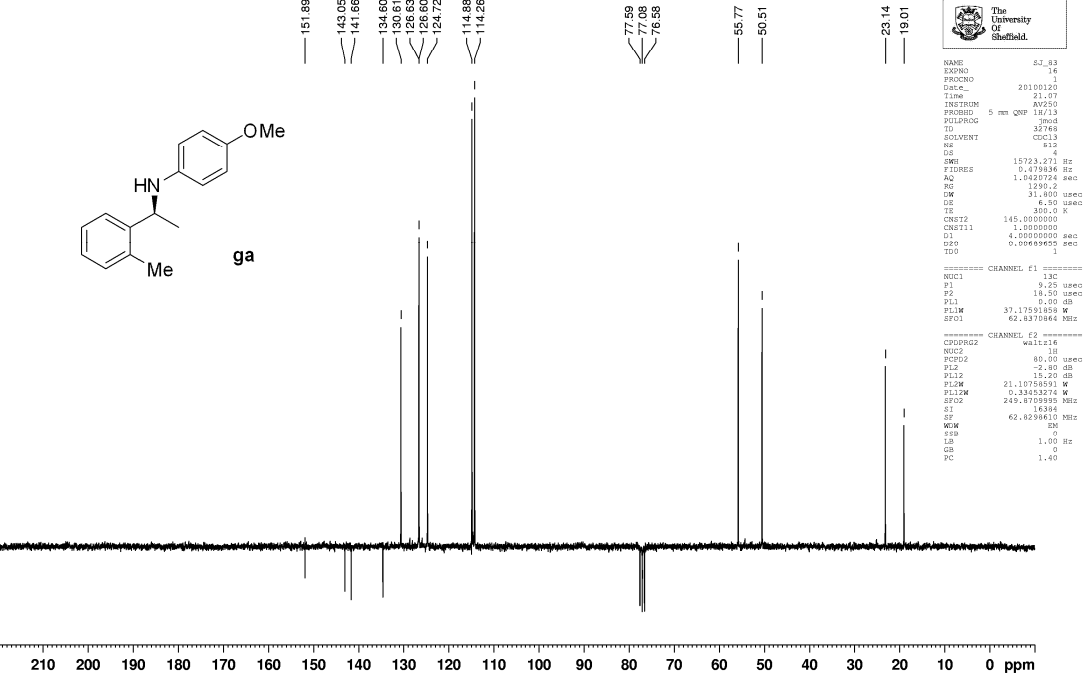
Result Table - Calculation Method Uncal

	Reten. Time [min]	Area [mV.s]	Height [mV]	Area [%]	Height [%]	W05 [min]
2	7.890	1119.560	59.578	15.0	16.9	0.29
3	9.237	6358.300	293.559	85.0	83.1	0.34
	Total	7477.860	353.136	100.0	100.0	

XL3-40 250MHz
PRO CDCl3 {C:\01ja2010} ch3sj 43



XL3-40 250MHz
JMOD250PPM CDCl3 {C:\01ja2010} ch3sj 43



19/01/2010 14:01

Chromatogram XL3-40

Page 1 of 1

Created : 19/01/2010 14:01:09
Project : Work3
Sample ID : XL3-40
Calibration : XL3-40

By : Clarity
Report Style : Instrument
Sample : XL3-40
Chromatogram : DATA\XL3-40

Method : Cellulose-1
Description : Cellulose-1
Created : 24/08/2004 16:25

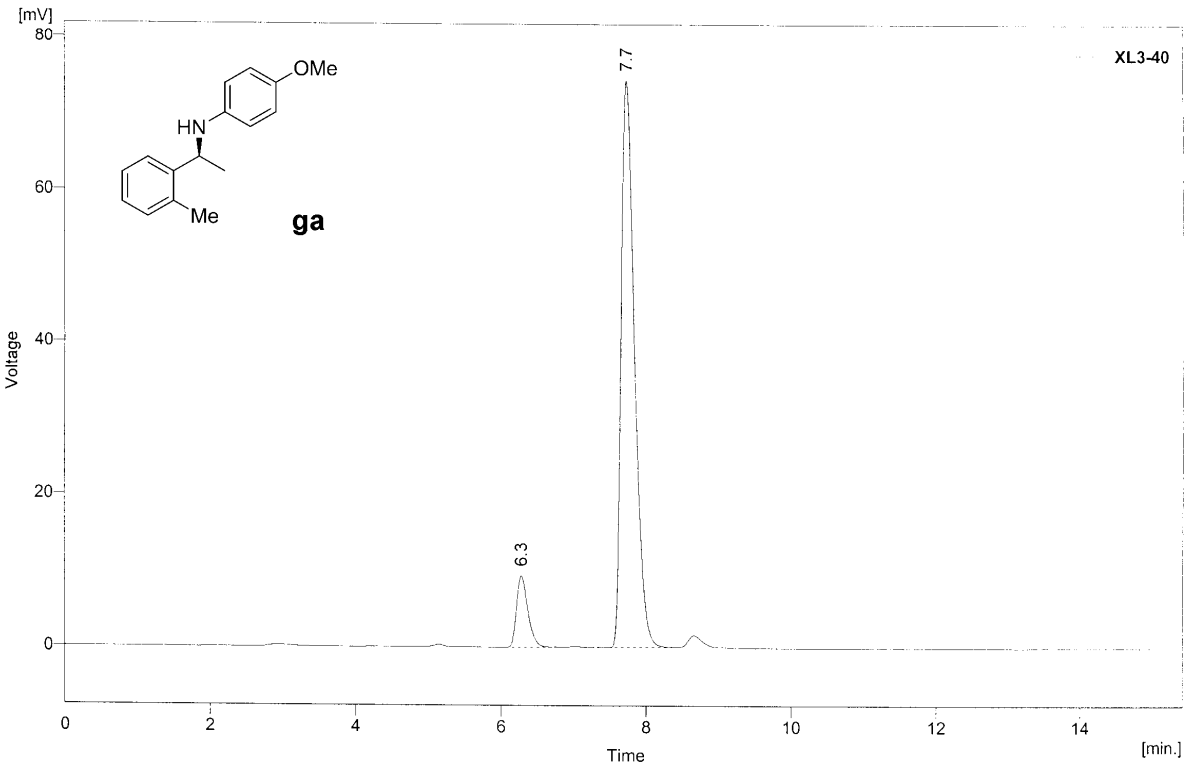
By : Clarity
Modified : 19/01/2010 14:01

Column : Phenomenex Lux 3um Cellulose-1
Mobile Phase : 10% ipa in hexane
Flow Rate : 1mL/min
Note :

Detection : UV@254nm
Temperature : RT
Pressure :

Autostop : 15.00, min
Detector 1 : Signal 1
Subtraction chromatogram : (None)

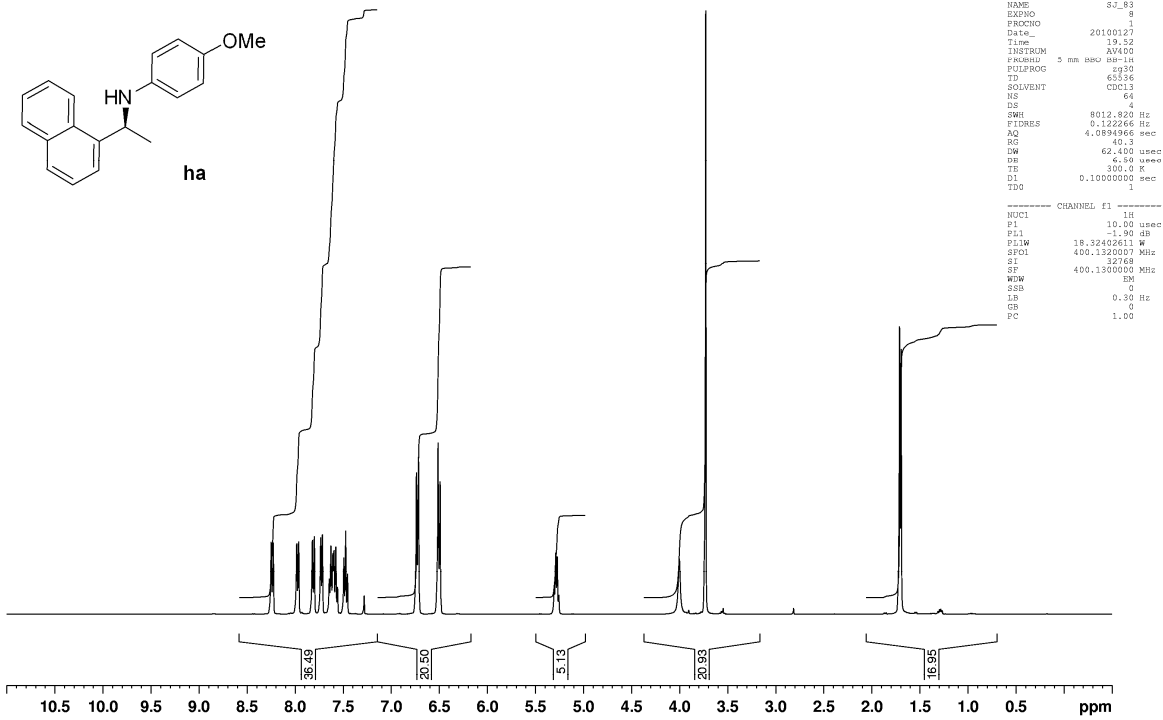
External Start : Start Only, Down
Range 1 : Bipolar, 10000 mV, 10 Samp. per Sec.
Matching : No Change



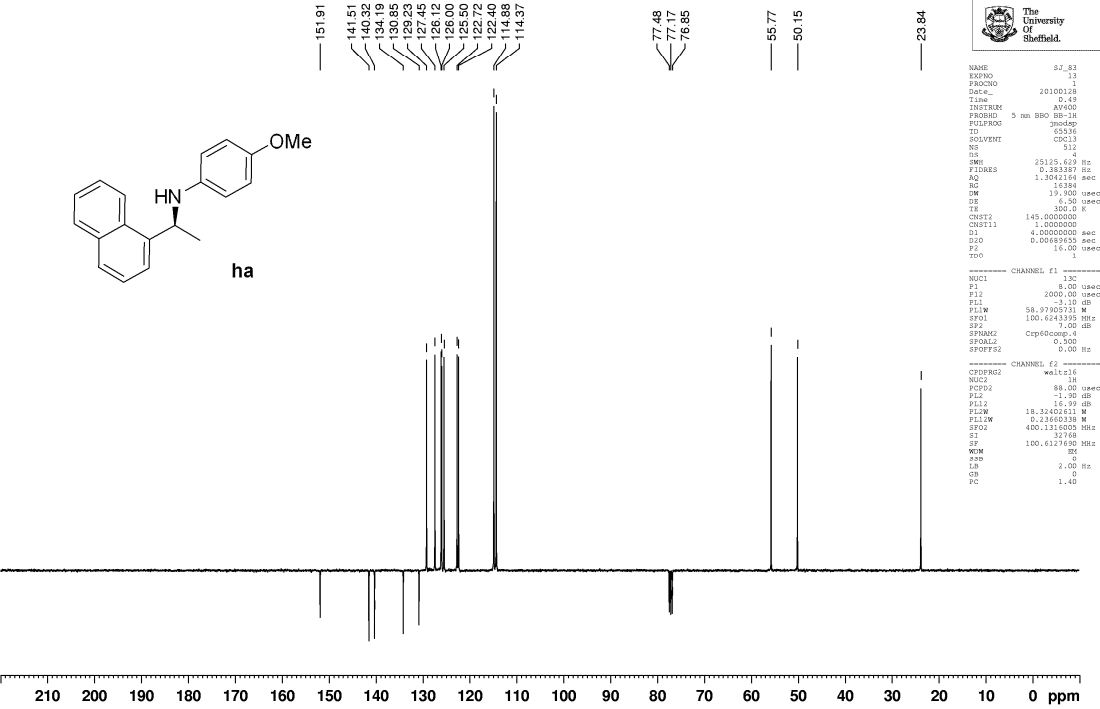
Result Table - Calculation Method Uncal

	Reten. Time [min]	Area [mV.s]	Height [mV]	Area [%]	Height [%]	W05 [min]
1	6.277	1027.891	94.290	9.7	11.3	0.17
2	7.733	9543.971	743.618	90.3	88.7	0.20
	Total	10571.862	837.908	100.0	100.0	

XL3-45 400MHz
PRO CDCl3 {C:\01ja2010} ch3sj 50



XL3-45 400MHz
JMOD250PPM CDCl3 {C:\01ja2010} ch3sj 4



26/01/2010 17:41

Chromatogram XL3-45

Page 1 of 1

Created : 26/01/2010 16:36:28
Project : Work3
Sample ID : XL3-45
Calibration : XL3-45

By : Clarity
Report Style : Instrument
Sample : XL3-45
Chromatogram : DATA\XL3-45

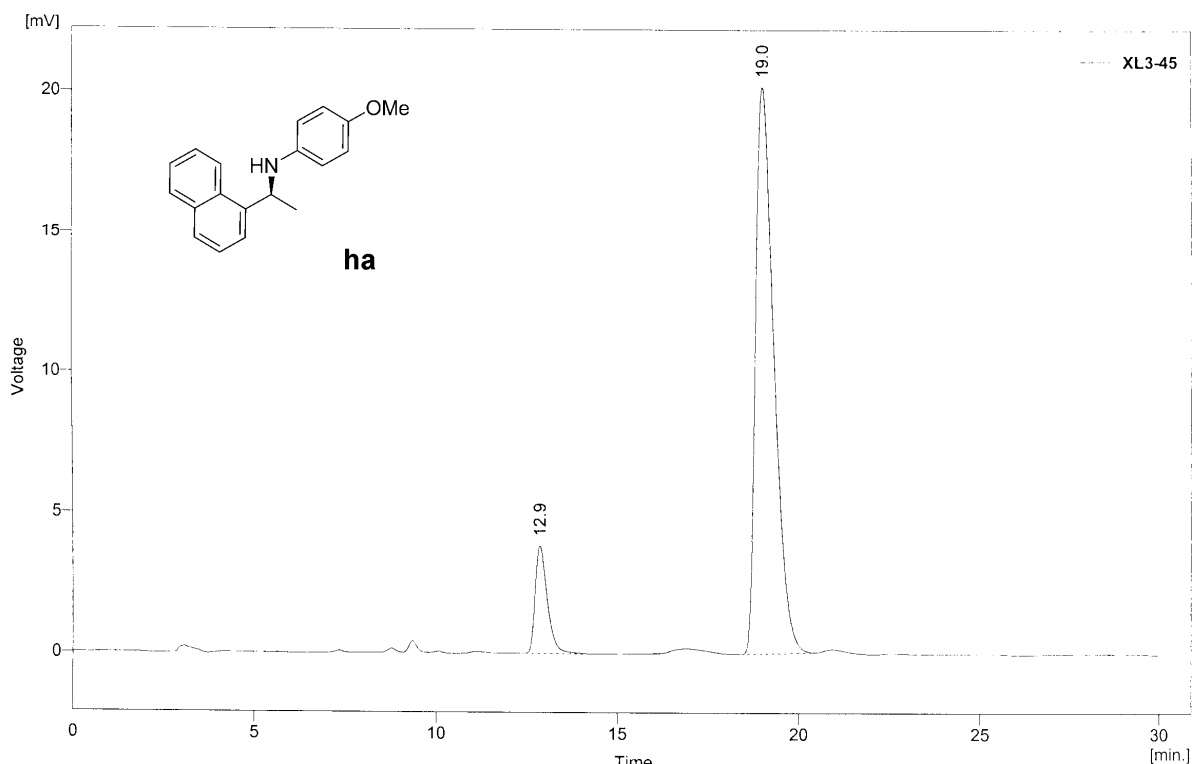
Method : Cellulose-1
Description : Cellulose-1
Created : 24/08/2004 16:25
Column : Phenomenex Lux 3um Cellulose-1
Mobile Phase : 5% ipa in hexane
Flow Rate : 1mL/min
Note :

By : Clarity
Modified : 26/01/2010 17:40

Detection : UV@254nm
Temperature : RT
Pressure :

Autostop : 30.00, min
Detector 1 : Signal 1
Subtraction chromatogram : (None)

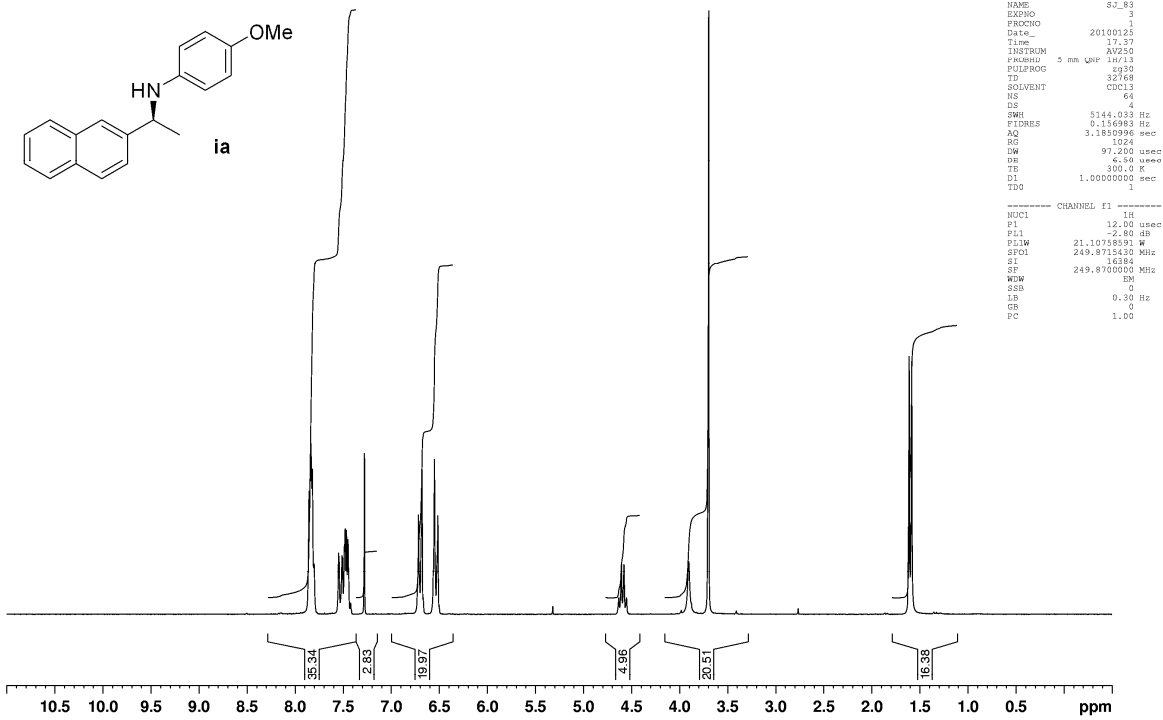
External Start : Start Only, Down
Range 1 : Bipolar, 10000 mV, 10 Samp. per Sec.
Matching : No Change



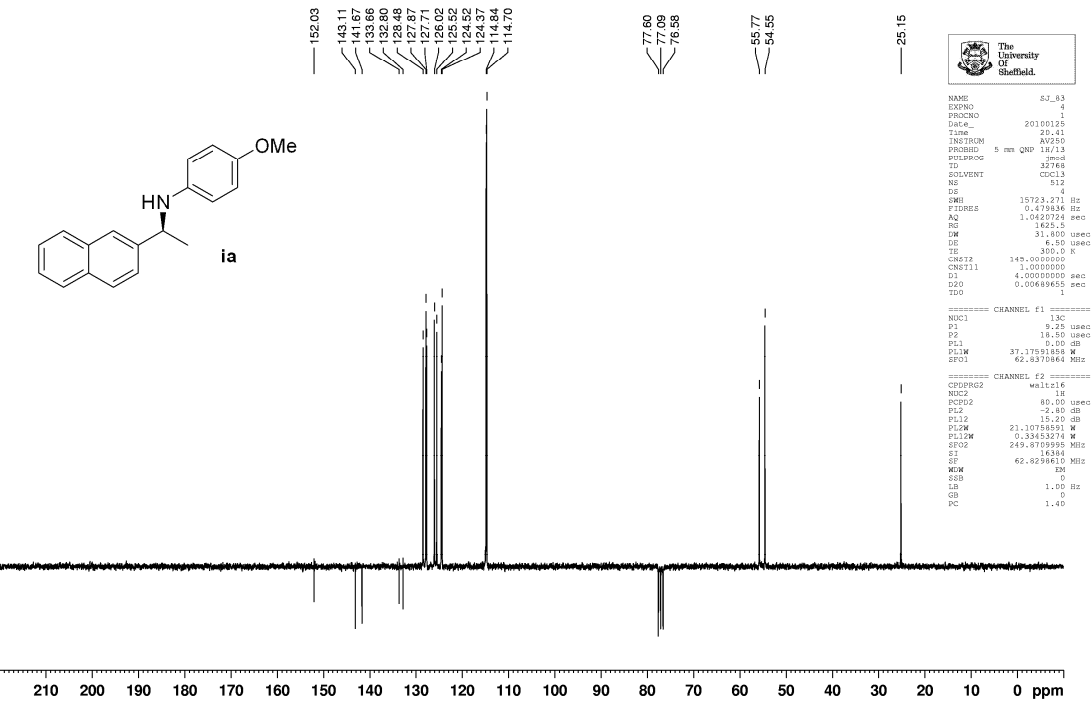
Result Table - Calculation Method Uncal

	Reten. Time [min]	Area [mV.s]	Height [mV]	Area [%]	Height [%]	W05 [min]
1	12.873	898.840	38.426	11.3	16.0	0.35
2	19.030	7056.132	201.852	88.7	84.0	0.54
Total		7954.972	240.279	100.0	100.0	

XL3-43 250MHz
PRO CDCl3 {C:\01ja2010} ch3sj 21



XL3-43 250MHz
JMOD250PPM CDCl3 {C:\01ja2010} ch3sj 24



22/01/2010 12:29

Chromatogram XL3-43

Page 1 of 1

Created : 22/01/2010 12:28:17
Project : Work3
Sample ID : XL3-43
Calibration : XL3-43

By : Clarity
Report Style : Instrument
Sample : XL3-43
Chromatogram : DATA\XL3-43

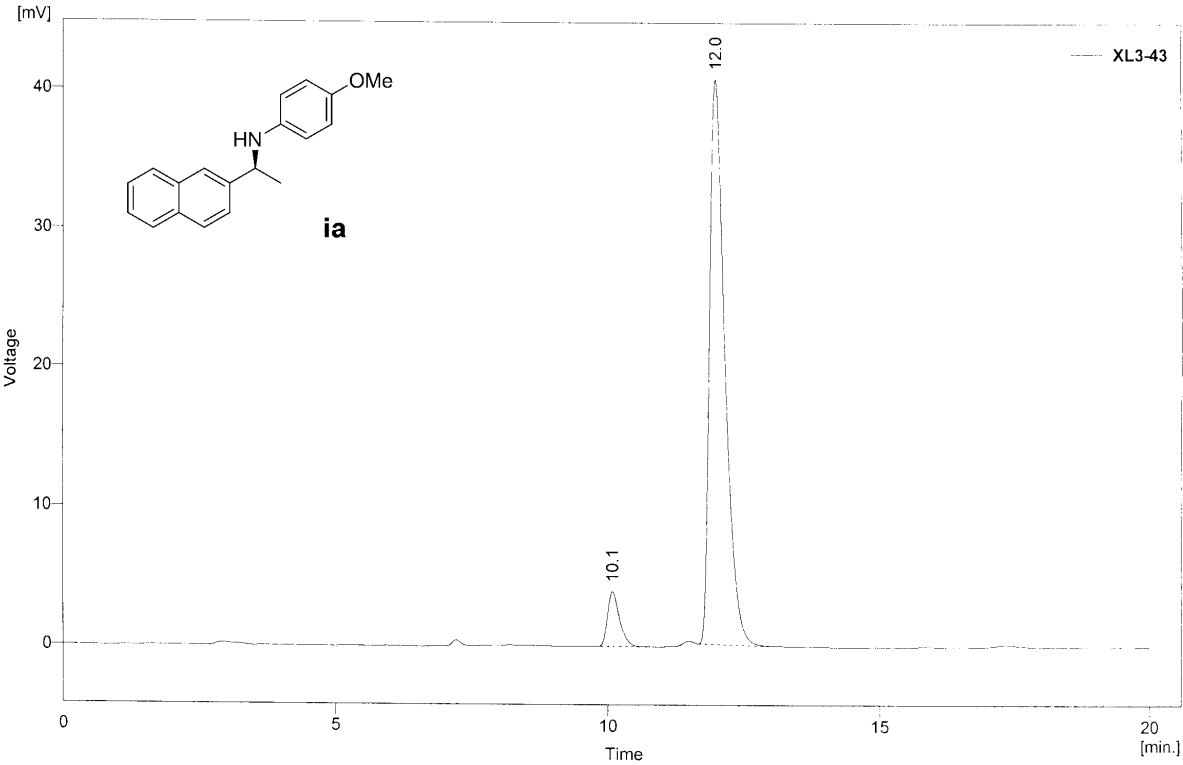
Method : Cellulose-1
Description : Cellulose-1
Created : 24/08/2004 16:25
Column : Phenomenex Lux 3um Cellulose-1
Mobile Phase : 10% ipa in hexane
Flow Rate : 1mL/min
Note :

By : Clarity
Modified : 22/01/2010 12:28

Detection : UV@254nm
Temperature : RT
Pressure :

Autostop : 20.00, min
Detector 1 : Signal 1
Subtraction chromatogram : (None)

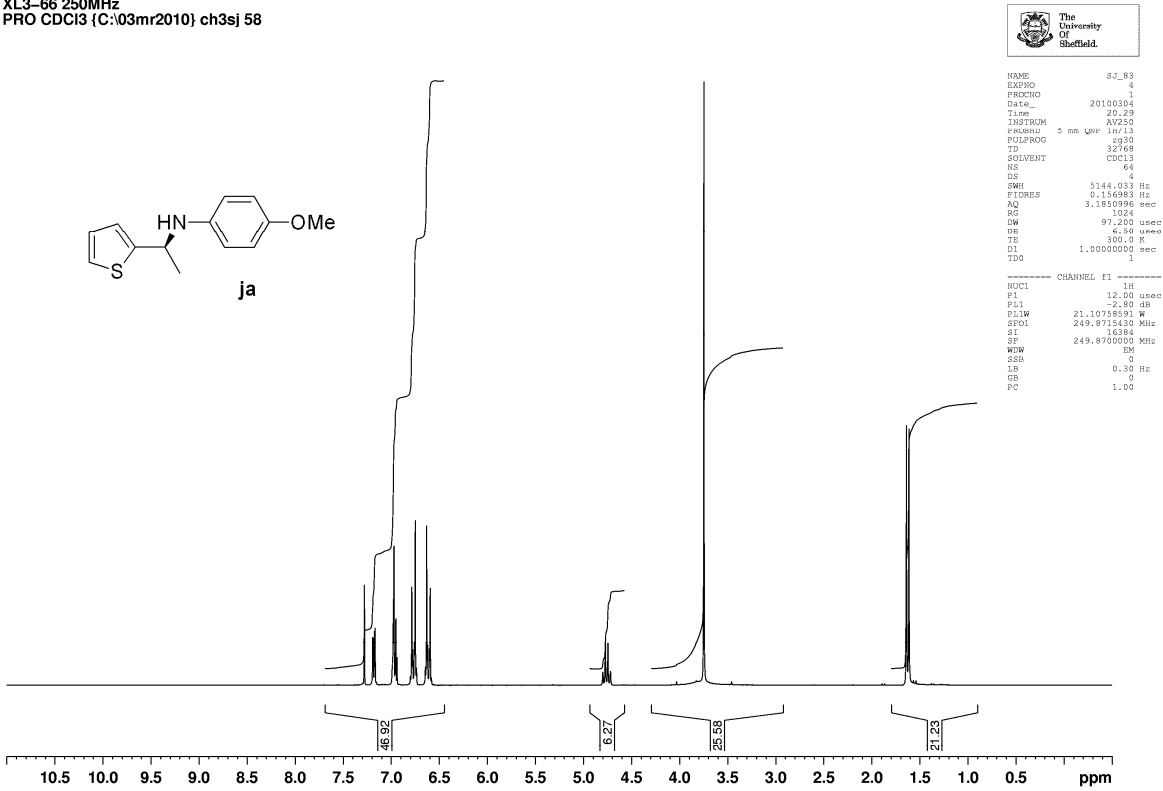
External Start : Start Only, Down
Range 1 : Bipolar, 10000 mV, 10 Samp. per Sec.
Matching : No Change



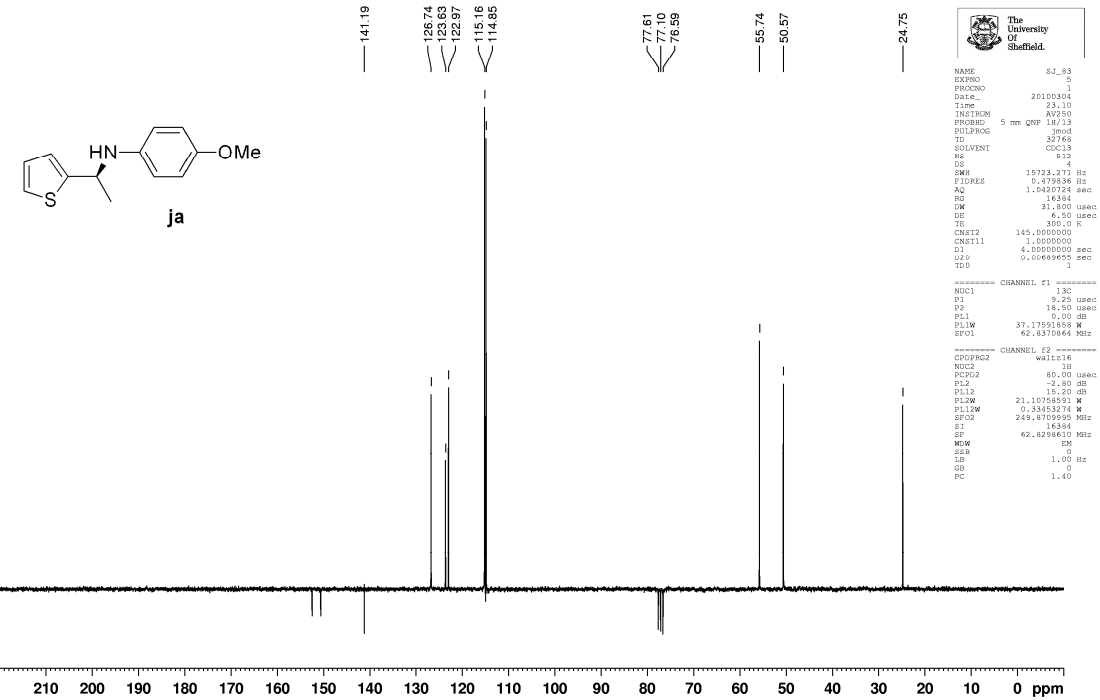
Result Table - Calculation Method Uncal

	Reten. Time [min]	Area [mV.s]	Height [mV]	Area [%]	Height [%]	W05 [min]
1	10.083	615.479	39.985	7.2	9.0	0.23
2	11.990	7925.095	406.441	92.8	91.0	0.30
	Total	8540.574	446.426	100.0	100.0	

XL3-66 250MHz
PRO CDCl3 {C:\03mr2010} ch3sj 58



XL3-66 250MHz
JMOD250PPM CDCl3 {C:\03mr2010} ch3sj 3



04/03/2010 21:40

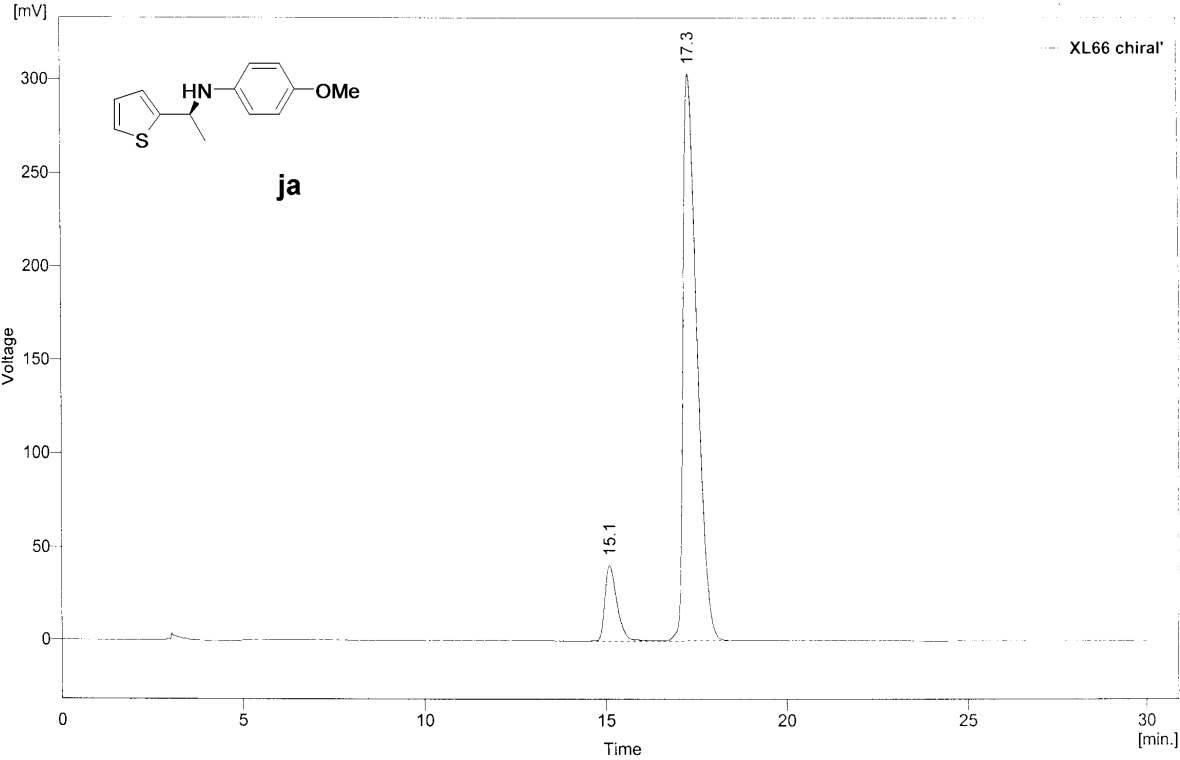
Chromatogram XL66 chiral'

Page 1 of 1

Created : 04/03/2010 19:40:58 By : Clarity
Project : Work3 Report Style : Instrument
Sample ID : XL66 chiral Sample : XL66 chiral
Calibration : XL66 chiral' Chromatogram : DATA\XL66 chiral'

Method : Cellulose-1 By : Clarity
Description : Cellulose-1
Created : 24/08/2004 16:25 Modified : 04/03/2010 19:40
Column : Phenomenex Lux 3um Cellulose-1
Mobile Phase : 2% ipa in hexane
Flow Rate : 1mL/min
Note :
Detection : UV@254nm
Temperature : RT
Pressure :

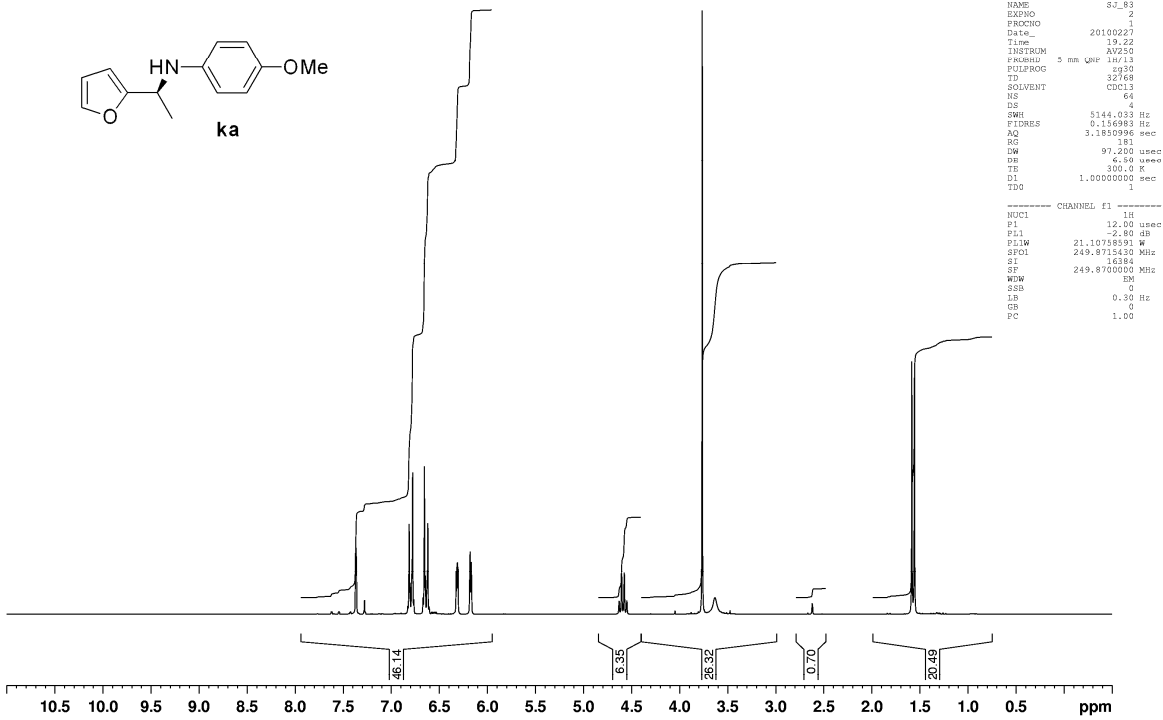
Autostop : 30.00, min External Start : Start Only, Down
Detector 1 : Signal 1 Range 1 : Bipolar, 10000 mV, 10 Samp. per Sec.
Subtraction chromatogram : (None) Matching : No Change



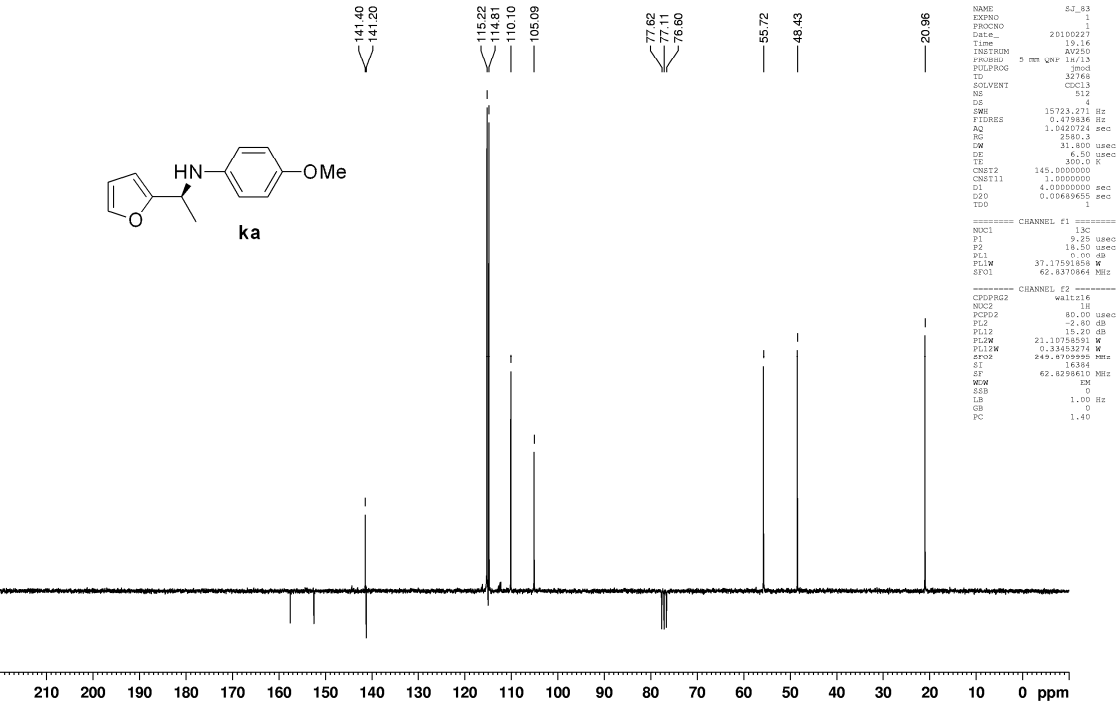
Result Table - Calculation Method Uncal

	Reten. Time [min]	Area [mV.s]	Height [mV]	Area [%]	Height [%]	W05 [min]
1	15.113	959.038	40.887	10.7	11.9	0.35
2	17.337	8031.051	303.354	89.3	88.1	0.41
	Total	8990.090	344.241	100.0	100.0	

XL3-65 250MHz
PRO CDCl3 {C:\02fe2010} ch3sj 5



XL3-65 250MHz
JMOD250PPM CDCl3 {C:\02fe2010} ch3sj 5



05/03/2010 12:36

Chromatogram XL65 chiral'

Page 1 of 1

Created : 05/03/2010 12:25:50
Project : WORK4
ISTD Amount : 0
Sample ID : XL65
Calibration : XL65 chiral'

By : Clarity
Report Style : Full
Inj. Volume : 0.025
Sample : XL65
Chromatogram : DATA\XL65 chiral'

Method : Chiralcel OD
Description : Chiralcel OJ
Created : 28/06/2005 18:02

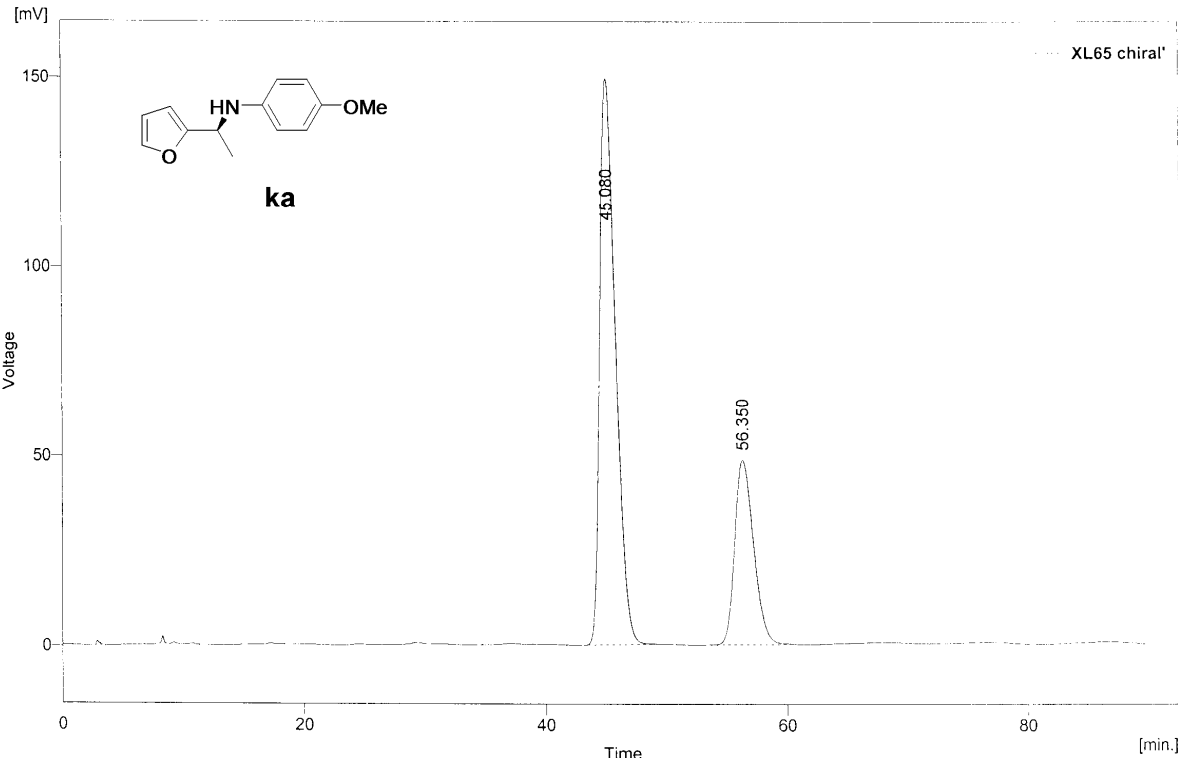
By : Clarity
Modified : 05/03/2010 12:25

Column : Chiralcel OJ
Mobile Phase : 10%isopropanol
Flow Rate : 1.0mL/min
Note :

Detection : UV@254nm
Temperature : RT
Pressure :

Autostop : 90.00, min
Detector 1 : Signal 1
Subtraction chromatogram : (None)

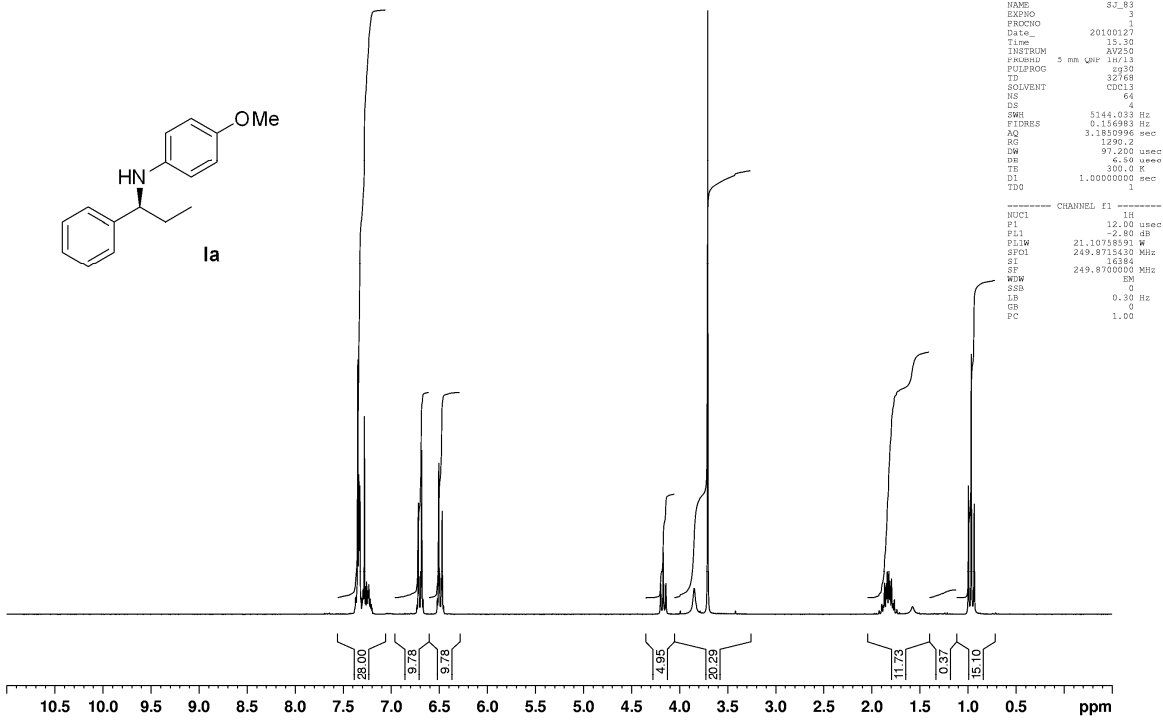
External Start : Start Only, Down
Range 1 : Bipolar, 10000 mV, 10 Samp. per Sec.
Matching : No Change



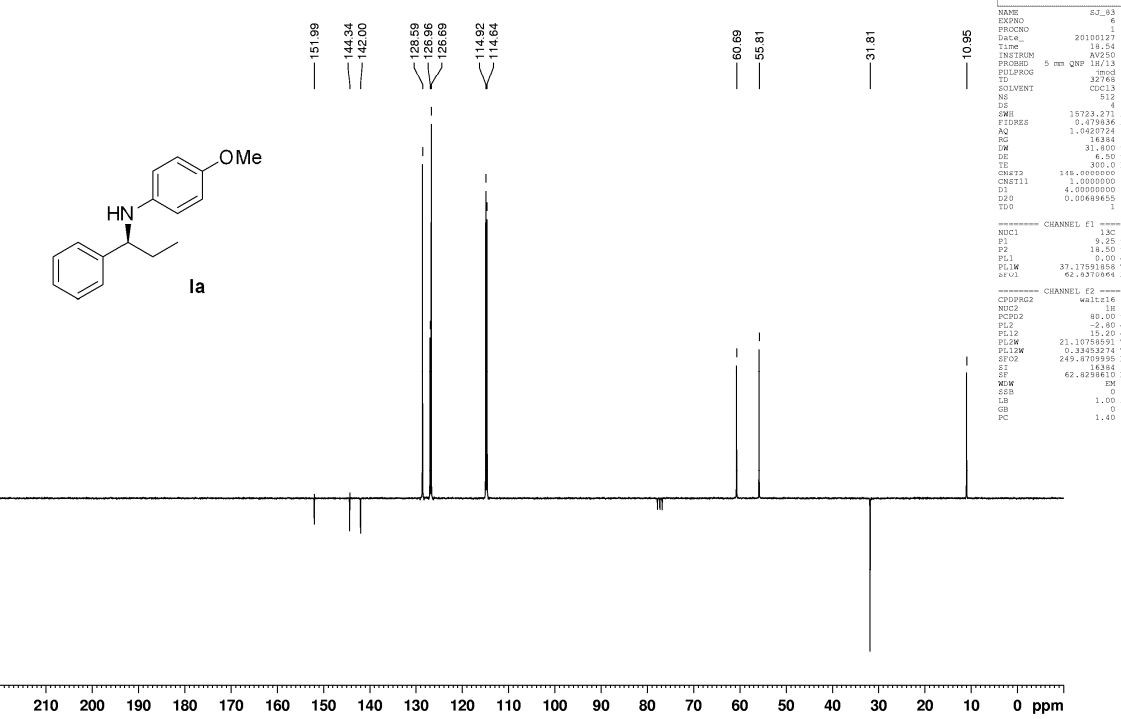
Result Table - Calculation Method Uncal

	Reten. Time [min]	Area [mV.s]	Height [mV]	Area [%]	Height [%]	W05 [min]
1	45.080	13467.052	149.312	71.8	75.5	1.41
2	56.350	5292.055	48.487	28.2	24.5	1.69
Total		18759.107	197.799	100.0	100.0	

XL3-46
PRO CDCl3 {C:\01\ja2010\ ch3sj 29



XL3-46 250MHz
JMOD250PPM CDCl3 {C:\01\ja2010\ ch3sj 39



29/01/2010 13:45

Chromatogram XL3-46 chiral

Page 1 of 1

Created : 29/01/2010 13:44:48
Project : Work3
Sample ID : XL3-46 chiral
Calibration : XL3-46 chiral

By : Clarity
Report Style : Instrument
Sample : XL3-46 chiral
Chromatogram : DATA\XL3-46 chiral

Method : Chiralcel OD
Description : Chiralcel OD-H
Created : 24/08/2004 16:25

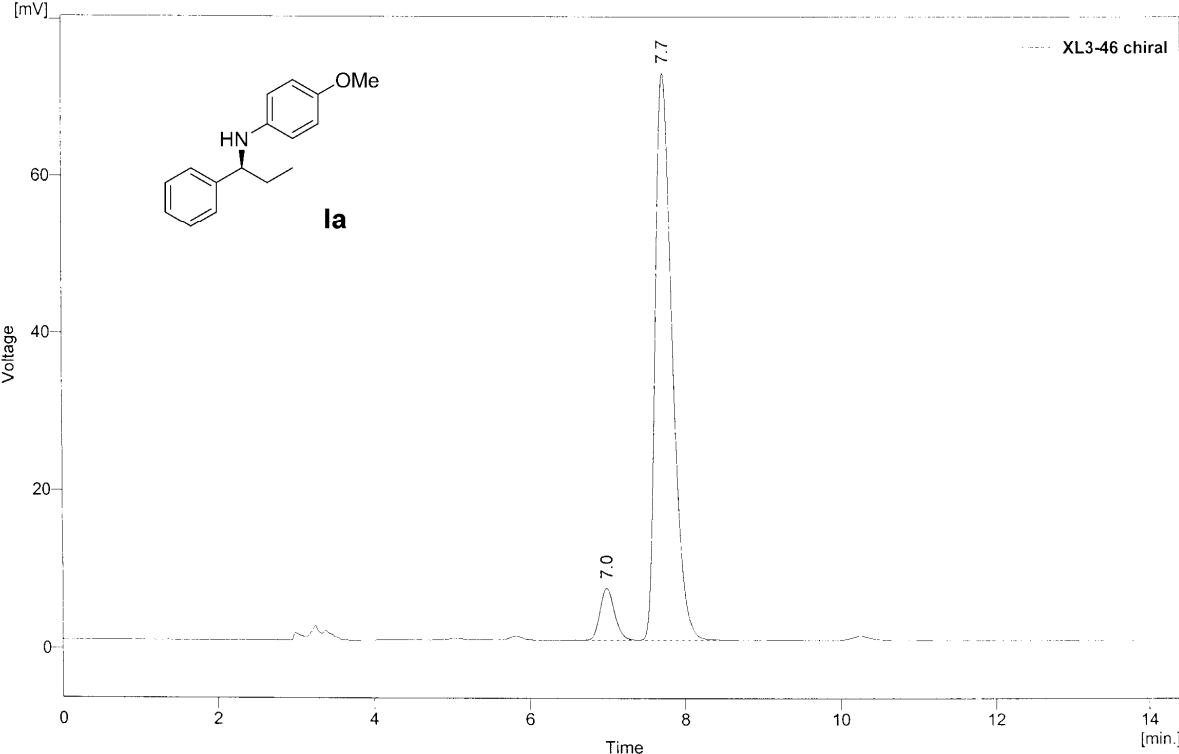
By : Clarity
Modified : 29/01/2010 13:44

Column : Chiralcel OD-H
Mobile Phase : 5% ipa in Hexane
Flow Rate : 1mL/min
Note :

Detection : UV@254nm
Temperature : RT
Pressure :

Autostop : 14.00, min
Detector 1 : Signal 1
Subtraction chromatogram : (None)

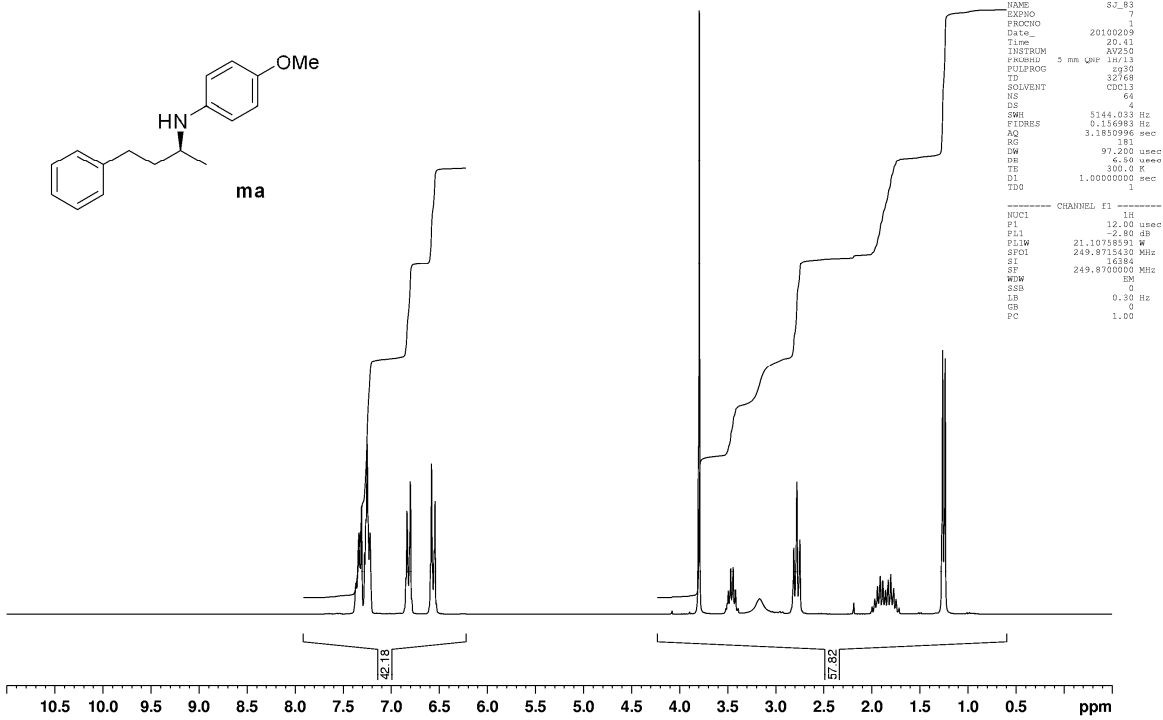
External Start : Start Only, Down
Range 1 : Bipolar, 10000 mV, 10 Samp. per Sec.
Matching : No Change



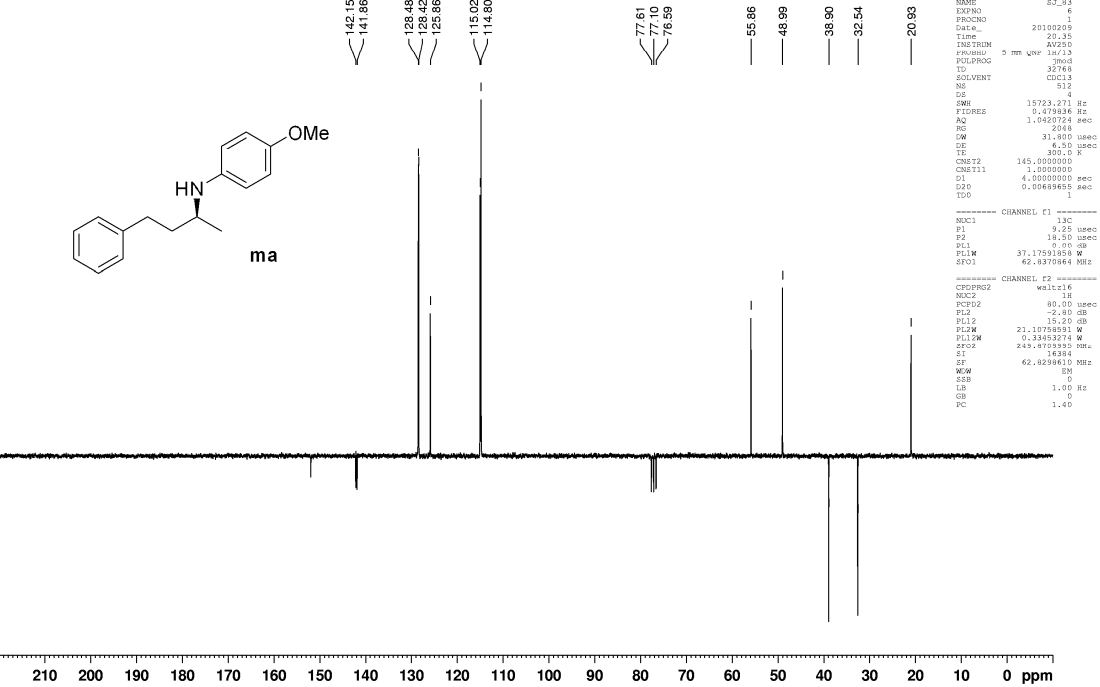
Result Table - Calculation Method Uncal

	Reten. Time [min]	Area [mV.s]	Height [mV]	Area [%]	Height [%]	W05 [min]
1	6.987	870.763	66.163	7.4	8.4	0.20
2	7.723	10917.634	720.222	92.6	91.6	0.24
	Total	11788.397	786.385	100.0	100.0	

XL3-51 250MHz
PRO CDCl3 {C:\Bruker\TOPSPIN213} ch3sj 53



XL3-51 250MHz
JMOD250PPM CDCl3 {C:\Bruker\TOPSPIN213} ch3sj 53



07/02/2010 12:12

Chromatogram XL3-51 chiral

Page 1 of 1

Created : 07/02/2010 12:10:22
Project : Work3
Sample ID : XL3-51 chiral
Calibration : XL3-51 chiral

By : Clarity
Report Style : Instrument
Sample : XL3-51 chiral
Chromatogram : DATA\XL3-51 chiral

Method : Chiralcel OD
Description : Chiralcel OD-H
Created : 24/08/2004 16:25

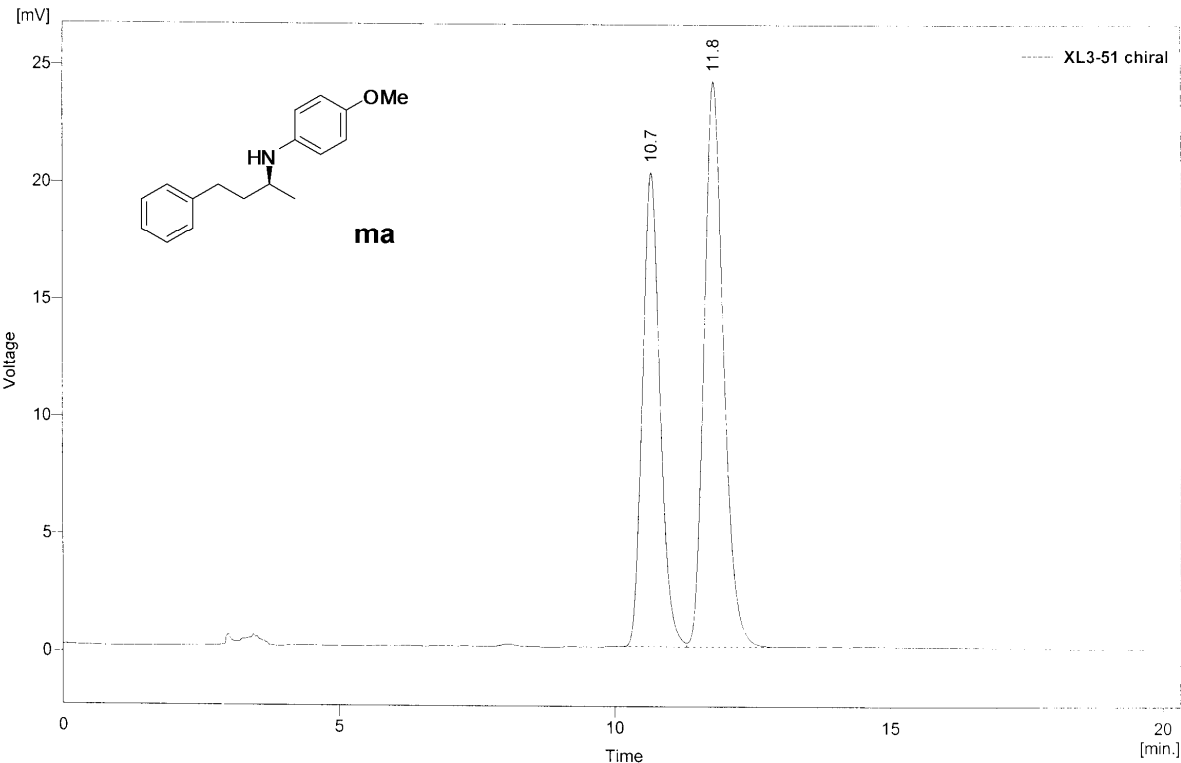
By : Clarity
Modified : 07/02/2010 12:10

Column : Chiralcel OD-H
Mobile Phase : 5% ipa in Hexane
Flow Rate : 1mL/min
Note :

Detection : UV@254nm
Temperature : RT
Pressure :

Autostop : 30.00, min
Detector 1 : Signal 1
Subtraction chromatogram : (None)

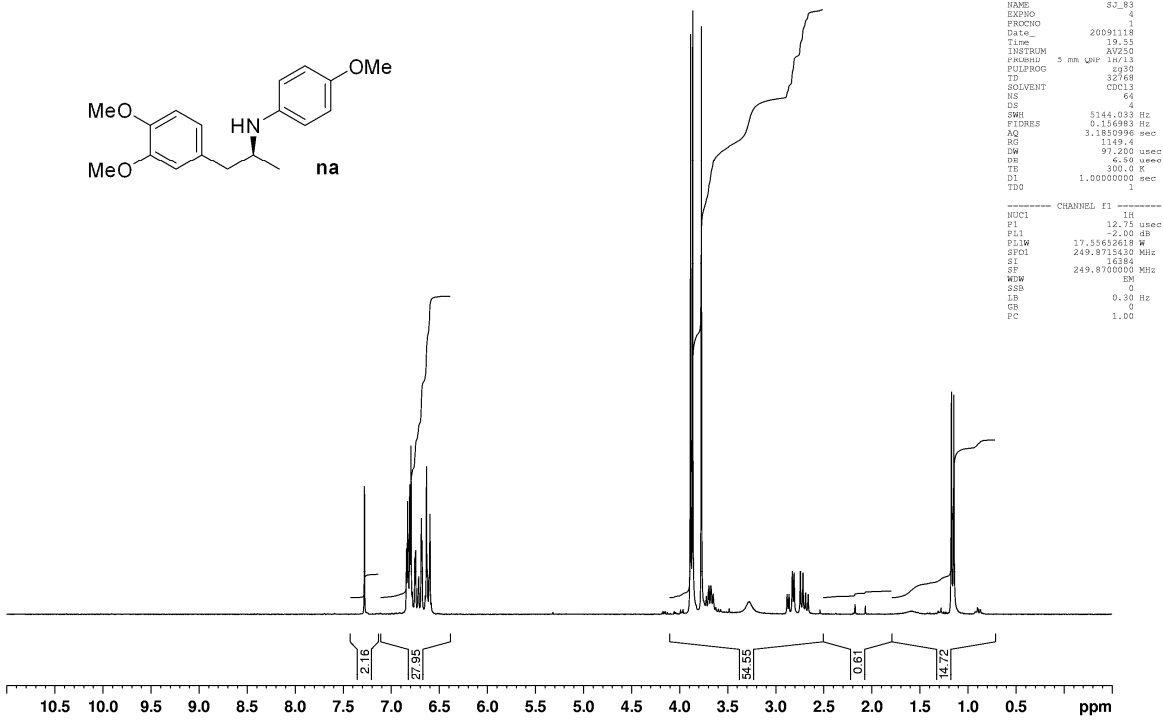
External Start : Start Only, Down
Range 1 : Bipolar, 10000 mV, 10 Samp. per Sec.
Matching : No Change



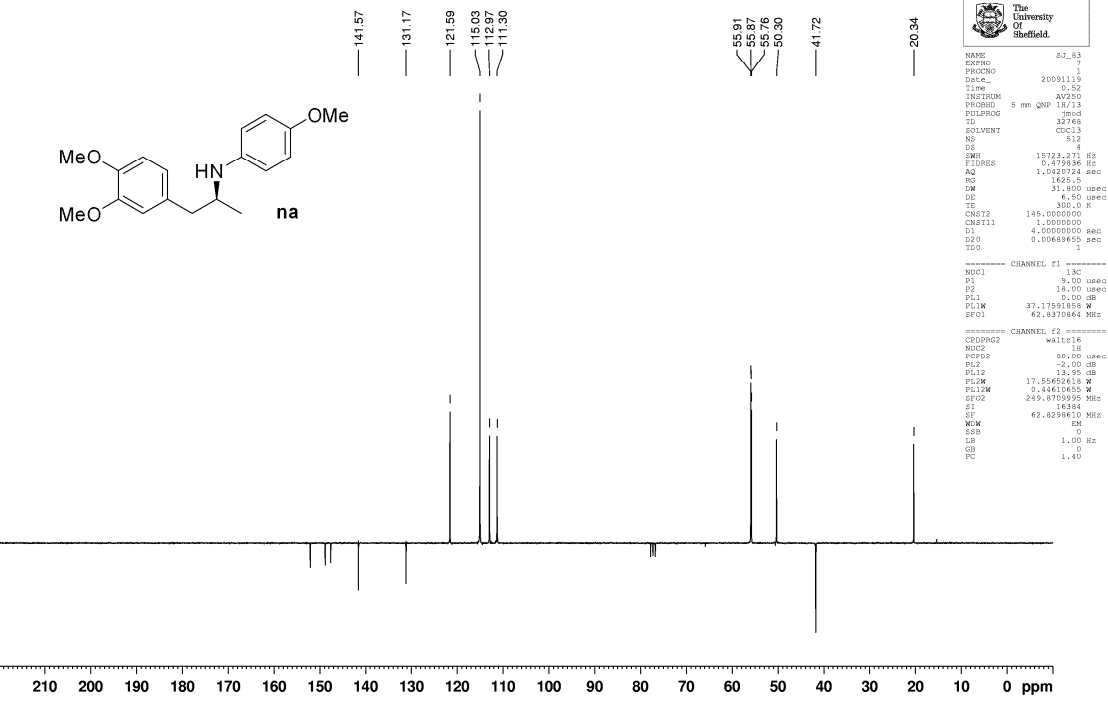
Result Table - Calculation Method Uncal

	Reten. Time [min]	Area [mV.s]	Height [mV]	Area [%]	Height [%]	W05 [min]
1	10.670	4478.038	202.330	43.1	45.6	0.34
2	11.800	5923.620	241.094	56.9	54.4	0.38
	Total	10401.658	443.424	100.0	100.0	

XL3-1 (2nd)
PRO CDCl3 {C:\11no2009} ch3sj 42



XL3-1 (2nd)
JMOD250PPM CDCl3 {C:\11no2009} ch3sj 52



17/11/2009 23:13

Chromatogram XL3-1 (2nd)

Page 1 of 1

Created : 17/11/2009 23:13:03
Project : WORK4
ISTD Amount : 0
Sample ID : XL3-1
Calibration : XL3-1 (2nd)

By : Clarity
Report Style : Full
Inj. Volume : 0.025
Sample : XL3-1
Chromatogram : DATA\XL3-1 (2nd)

Method : Cellulose-2
Description : Cellulose 2
Created : 28/06/2005 18:02

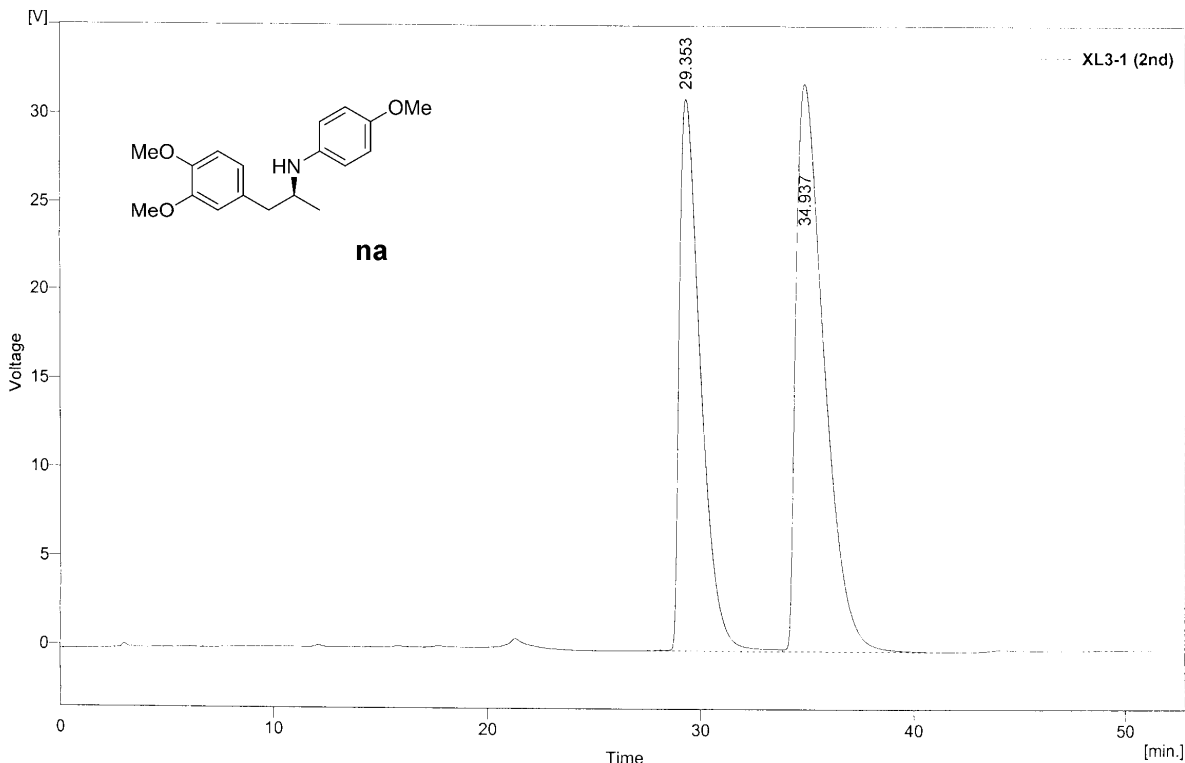
By : Clarity
Modified : 17/11/2009 23:13

Column : Phenomenex Lux Cellulose 2
Mobile Phase : 5% ipa in hexane
Flow Rate : 1mL/min
Note :

Detection : UV@254nm
Temperature : 22
Pressure :

Autostop : 60.00, min
Detector 1 : Signal 1
Subtraction chromatogram : (None)

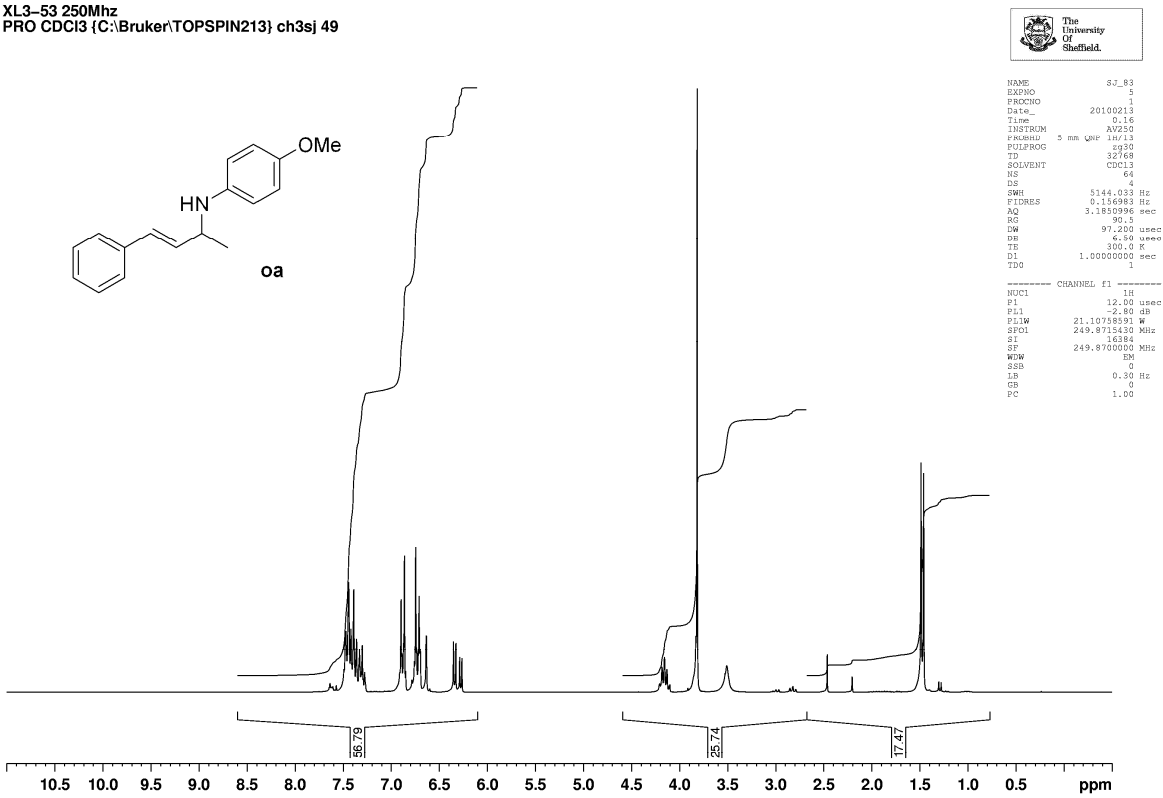
External Start : Start Only, Down
Range 1 : Bipolar, 10000 mV, 10 Samp. per Sec.
Matching : No Change



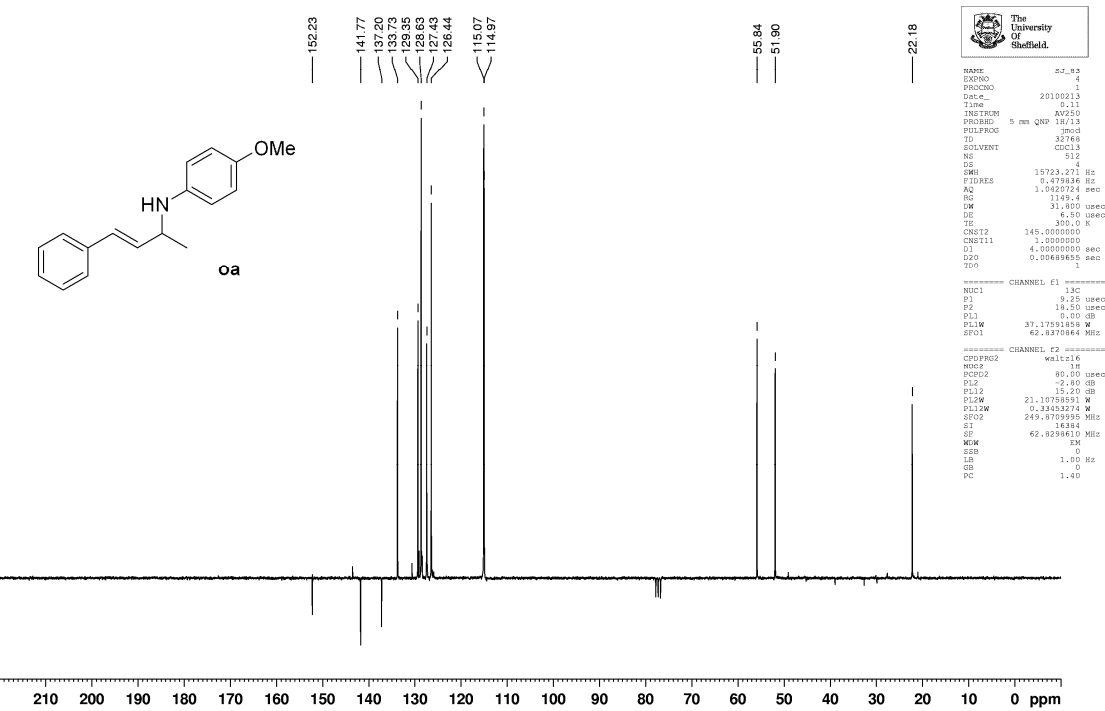
Result Table - Calculation Method Uncal

	Reten. Time [min]	Area [mV.s]	Height [mV]	Area [%]	Height [%]	W05 [min]
1	29.353	21437.657	311.465	42.3	49.3	1.04
2	34.937	29185.999	320.373	57.7	50.7	1.40
Total		50623.656	631.838	100.0	100.0	

XL3-53 250Mhz
PRO CDCl3 {C:\Bruker\TOPSPIN213} ch3sj 49



XL3-53 250Mhz
JMOD250PPM CDCl3 {C:\Bruker\TOPSPIN213} ch3sj 49



10/02/2010 20:17

Chromatogram XL3-53 chiral'

Page 1 of 1

Created : 10/02/2010 20:07:30
Project : Work3
Sample ID : XL3-53 chiral
Calibration : XL3-53 chiral'

By : Clarity
Report Style : Instrument
Sample : XL3-53 chiral
Chromatogram : DATA\XL3-53 chiral'

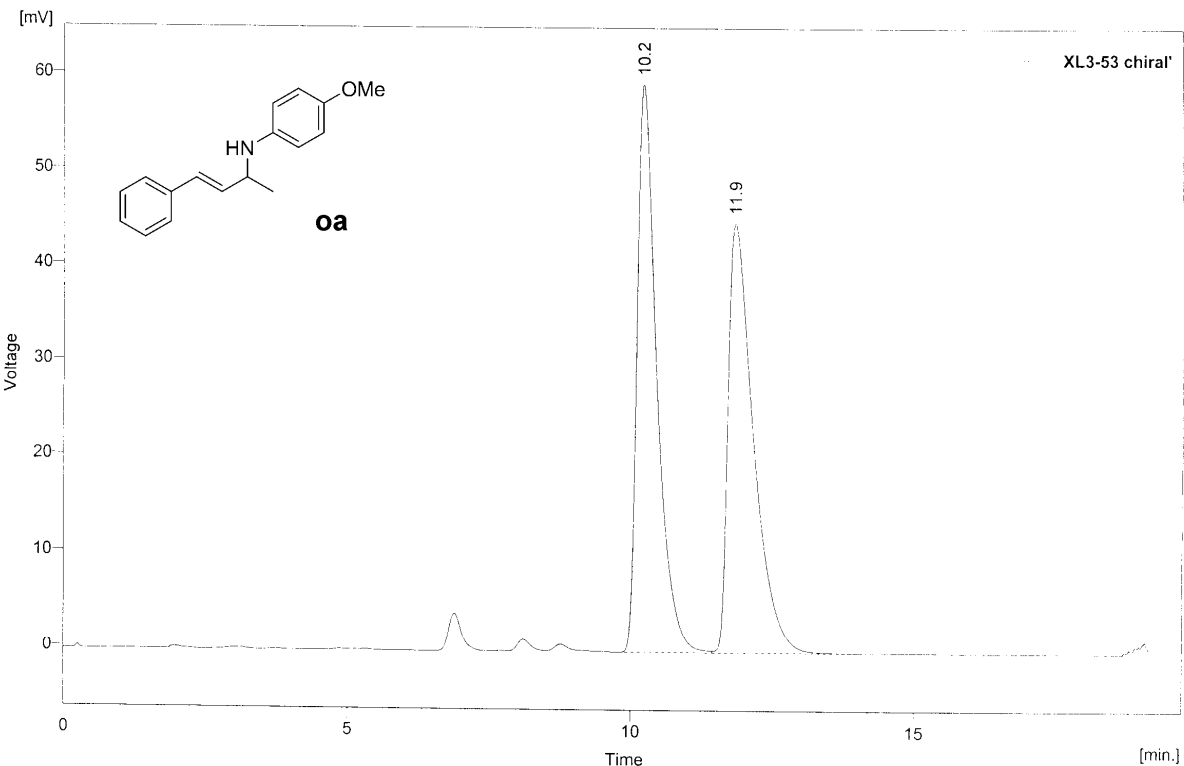
Method : Cellucoat
Description : Kromasil OD
Created : 24/08/2004 16:25
Column : Kromasil 3-Cellucoat OD
Mobile Phase : 5% ipa in hexane
Flow Rate : 1mL/min
Note :

By : Clarity
Modified : 10/02/2010 20:12

Detection : UV@254nm
Temperature : RT
Pressure :

Autostop : 20.00, min
Detector 1 : Signal 1
Subtraction chromatogram : (None)

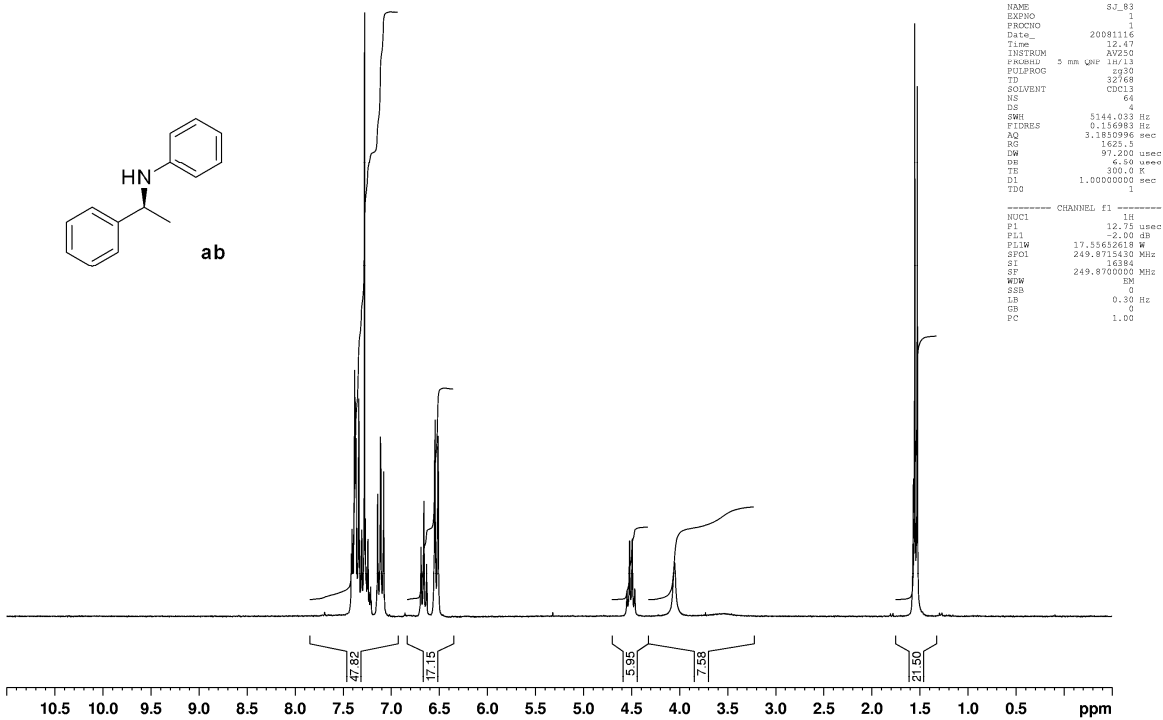
External Start : Start Only, Down
Range 1 : Bipolar, 10000 mV, 10 Samp. per Sec.
Matching : No Change



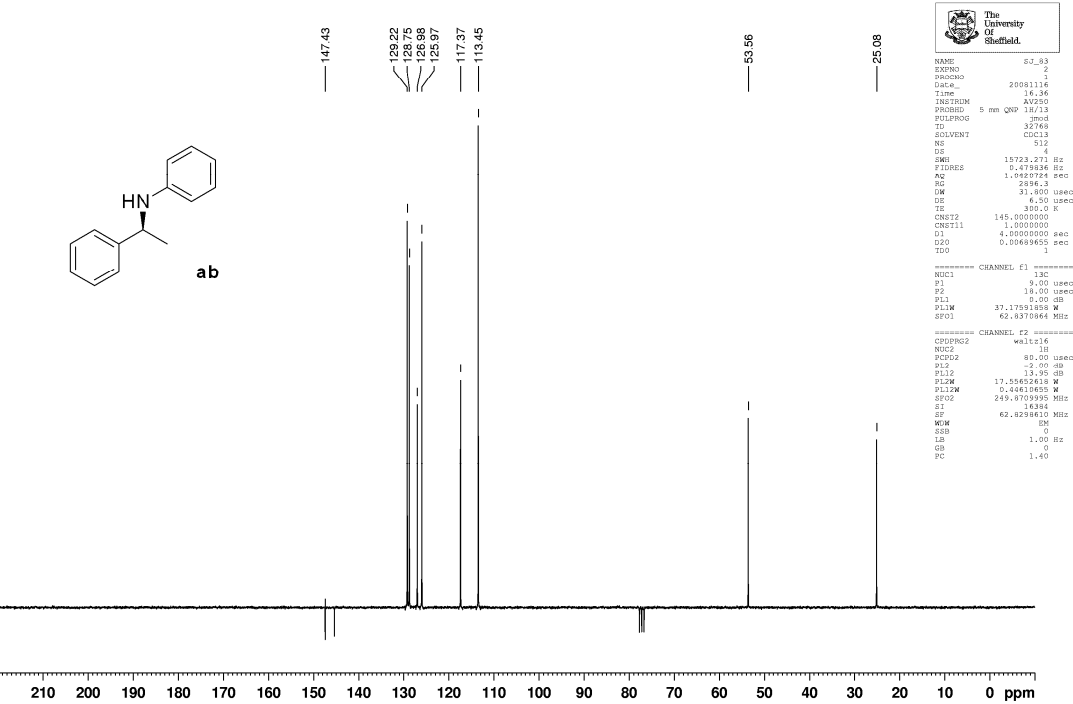
Result Table - Calculation Method Uncal

	Reten. Time [min]	Area [mV.s]	Height [mV]	Area [%]	Height [%]	W05 [min]
1	10.230	14365.062	592.790	50.8	56.9	0.36
2	11.853	13931.161	448.551	49.2	43.1	0.47
	Total	28296.223	1041.341	100.0	100.0	

xl013-after column 250MHz
PRO CDCl3 {C:\11no2008} ch3sj 2



xl013 carbon 250
JMOD250PPM CDCl3 {C:\11no2008} ch3sj 13



18/08/2010 15:18

Chromatogram XL4-36a

Page 1 of 1

Created : 18/08/2010 15:02:00
Project : Work3
Sample ID : XL4-36
Calibration : XL4-36a

By : Clarity
Report Style : Instrument
Sample : XL4-36
Chromatogram : DATA\XL4-36a

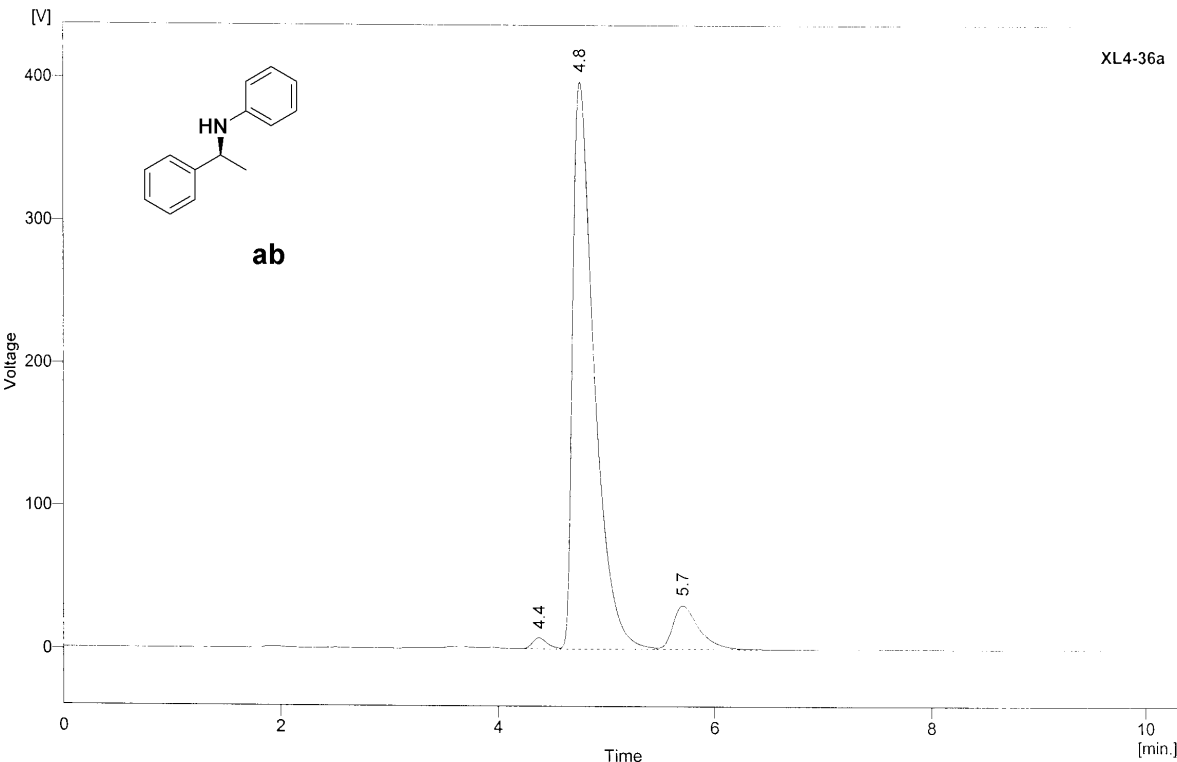
Method : Cellucoat
Description : Kromasil OD
Created : 24/08/2004 16:25
Column : Kromasil 3-Cellucoat OD
Mobile Phase : 5% ipa in hexane
Flow Rate : 1mL/min
Note :

By : Clarity
Modified : 18/08/2010 15:02

Detection : UV@254nm
Temperature : RT
Pressure :

Autostop : 10.00, min
Detector 1 : Signal 1
Subtraction chromatogram : (None)

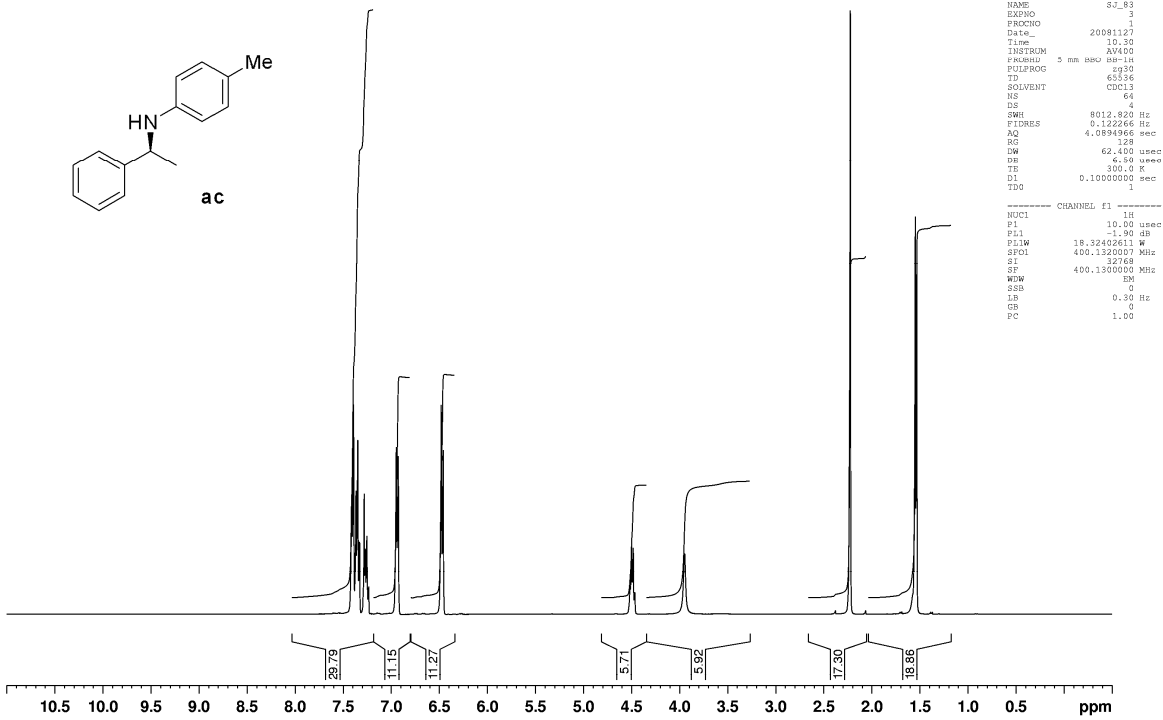
External Start : Start Only, Down
Range 1 : Bipolar, 10000 mV, 10 Samp. per Sec.
Matching : No Change



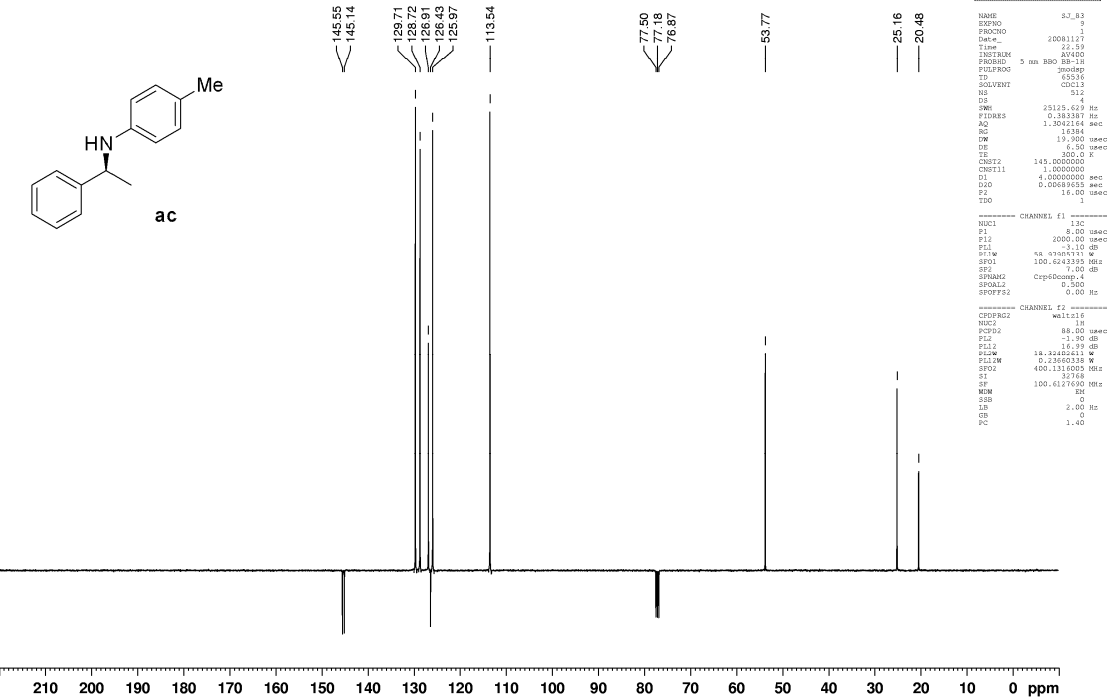
Result Table - Calculation Method Uncal

	Reten. Time [min]	Area [mV.s]	Height [mV]	Area [%]	Height [%]	W05 [min]
1	4.377	145.992	15.510	1.2	1.8	0.14
2	4.760	10947.292	793.937	90.1	91.1	0.21
3	5.707	1051.468	62.029	8.7	7.1	0.25
Total		12144.752	871.476	100.0	100.0	

XL020-400MHz
PRO CDCl3 {C:\11no2008} ch3sj 7



XL020 Carbon 400MHz
JMOD250PPM CDCl3 {C:\11no2008} ch3sj 59



20/08/2010 17:01

Chromatogram XL4-38

Page 1 of 1

Created : 20/08/2010 17:00:46
Project : Work3
Sample ID : XL4-38
Calibration : XL4-38

By : Clarity
Report Style : Instrument
Sample : XL4-38
Chromatogram : DATA\XL4-38

Method : Cellucoat
Description : Cellulose-1
Created : 24/08/2004 16:25

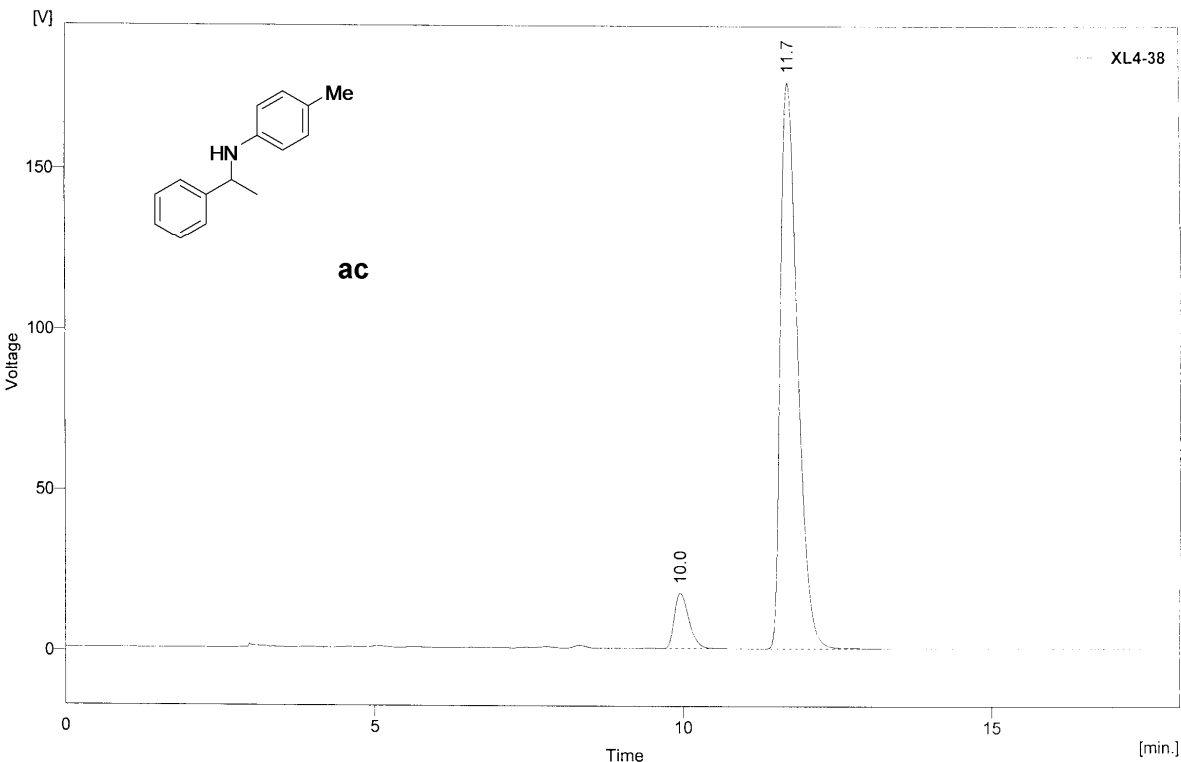
By : Clarity
Modified : 20/08/2010 17:00

Column : Cellulose-1
Mobile Phase : 2% ipa in hexane
Flow Rate : 1.0mL/min
Note :

Detection : UV@254nm
Temperature : RT
Pressure :

Autostop : 20.00, min
Detector 1 : Signal 1
Subtraction chromatogram : (None)

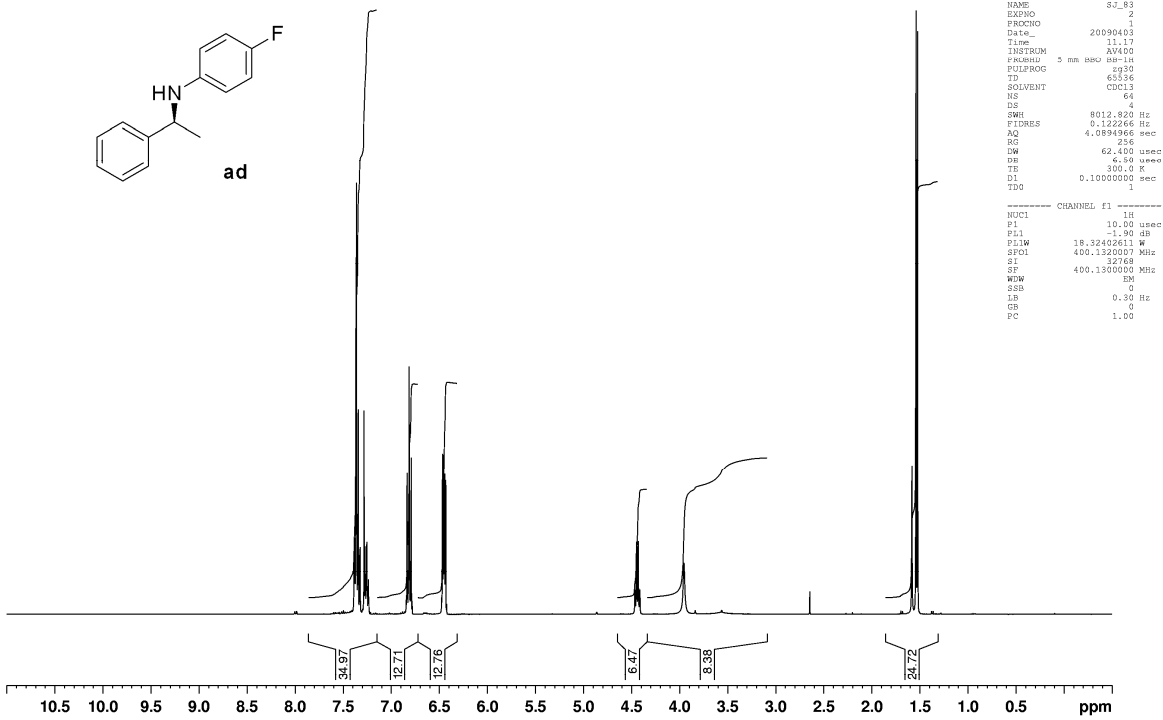
External Start : Start Only, Down
Range 1 : Bipolar, 10000 mV, 10 Samp. per Sec.
Matching : No Change



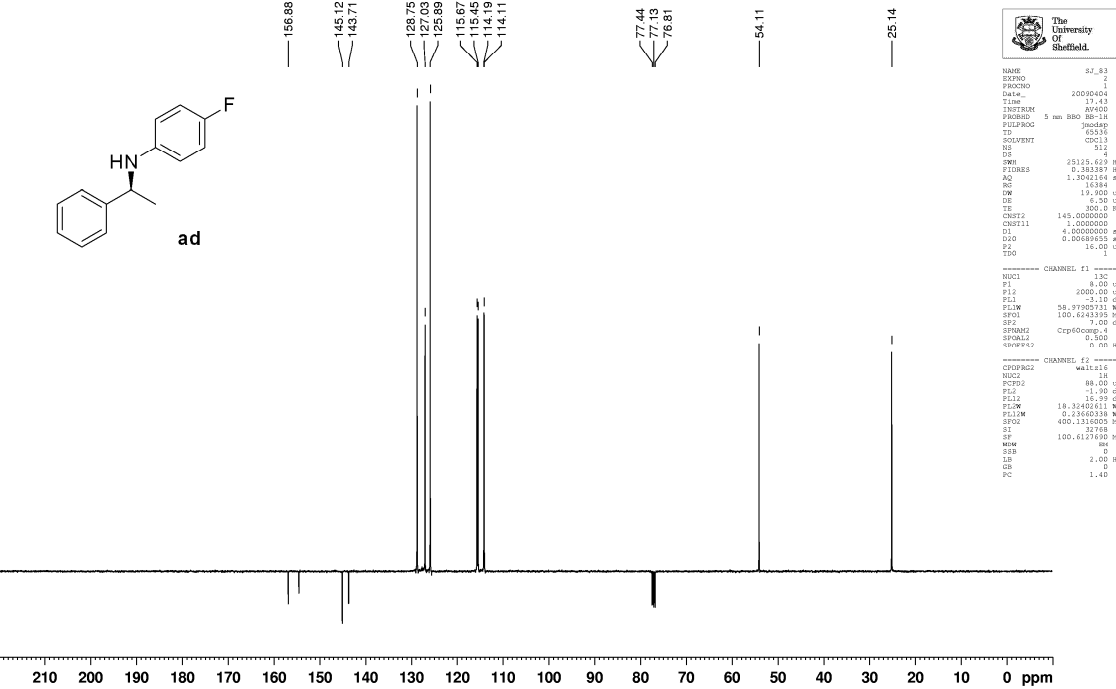
Result Table - Calculation Method Uncal

	Reten. Time [min]	Area [mV.s]	Height [mV]	Area [%]	Height [%]	W05 [min]
1	9.953	577.684	34.942	7.8	9.0	0.26
2	11.703	6813.576	352.665	92.2	91.0	0.30
	Total	7391.260	387.607	100.0	100.0	

XLp-F using XI006 as catalyst
PRO CDCl3 {C:\04ap2009} ch3sj 8



XL078 400MHz
JMOD250PPM CDCl3 {C:\04ap2009} ch3sj 53



19/08/2010 14:09

Chromatogram XL4-37'

Page 1 of 1

Created : 19/08/2010 14:06:27
Project : Work3
Sample ID : XL4-37
Calibration : XL4-37'

By : Clarity
Report Style : Instrument
Sample : XL4-37
Chromatogram : DATA\XL4-37'

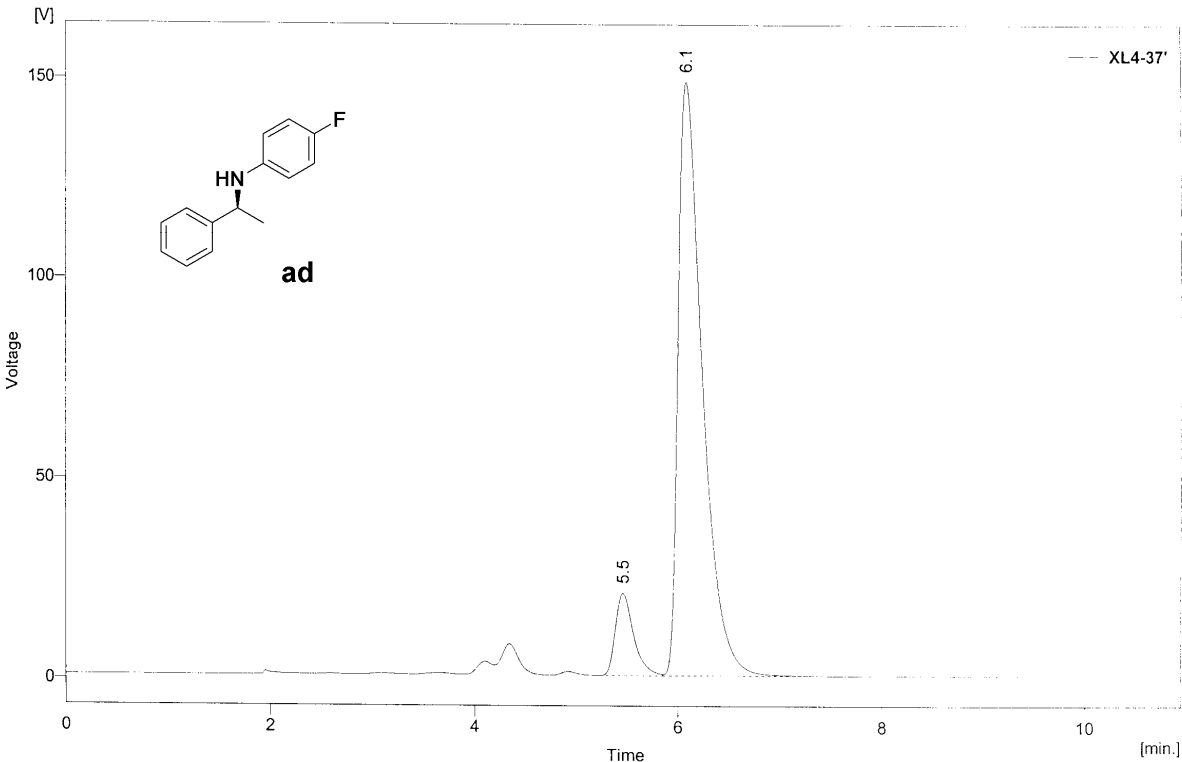
Method : Cellucoat
Description : Kromasil OD
Created : 24/08/2004 16:25
Column : Kromasil 3-Cellucoat OD
Mobile Phase : 2% ipa in hexane
Flow Rate : 1mL/min
Note :

By : Clarity
Modified : 19/08/2010 14:06

Detection : UV@254nm
Temperature : RT
Pressure :

Autostop : 15.00, min
Detector 1 : Signal 1
Subtraction chromatogram : (None)

External Start : Start Only, Down
Range 1 : Bipolar, 10000 mV, 10 Samp. per Sec.
Matching : No Change



Result Table - Calculation Method Uncal

	Reten. Time [min]	Area [mV.s]	Height [mV]	Area [%]	Height [%]	W05 [min]
1	5.460	517.356	41.253	9.5	12.2	0.19
2	6.090	4904.965	296.722	90.5	87.8	0.25
	Total	5422.321	337.975	100.0	100.0	

26/08/2010 16:18

Chromatogram XL4-42'

Page 1 of 1

Created : 26/08/2010 15:24:59
Project : Work3
Sample ID : XL4-42
Calibration : XL4-42'

By : Clarity
Report Style : Instrument
Sample : XL4-42
Chromatogram : DATA\XL4-42'

Method : Cellucoat
Description : Cellulose-1
Created : 24/08/2004 16:25

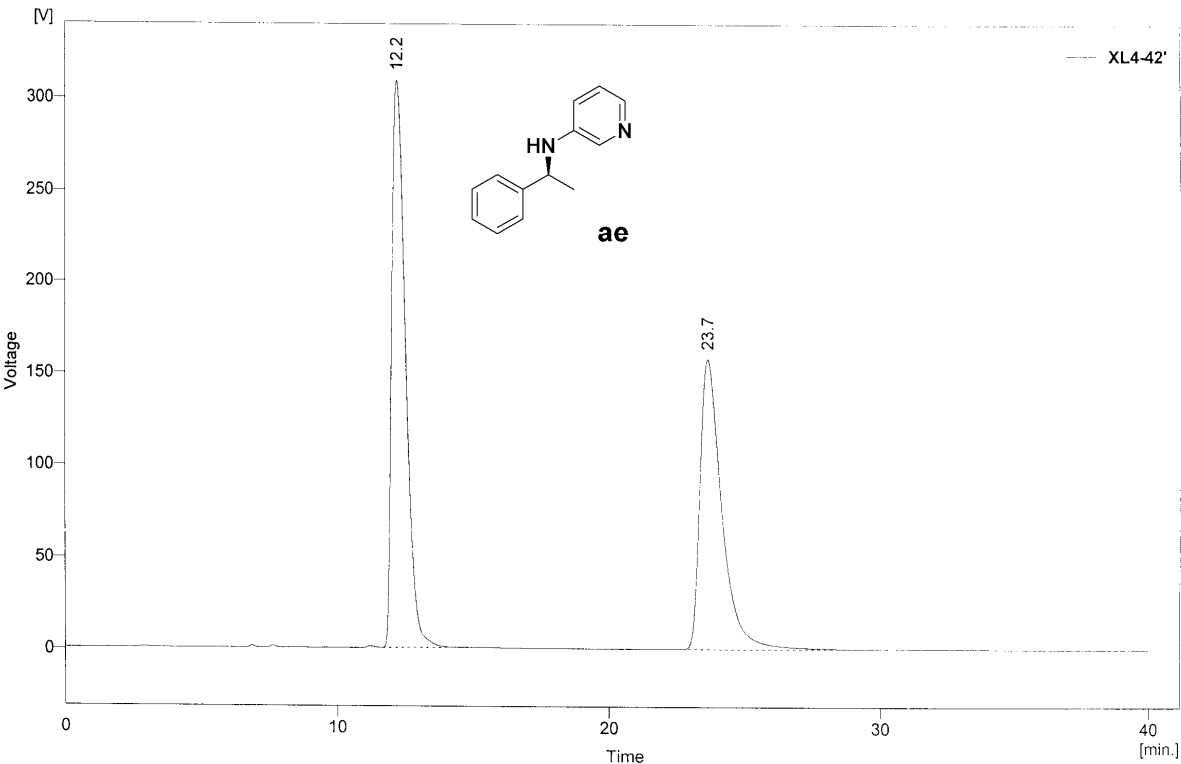
By : Clarity
Modified : 26/08/2010 15:24

Column : Cellulose-1
Mobile Phase : 15% ipa in hexane
Flow Rate : 1.0mL/min
Note :

Detection : UV@254nm
Temperature : RT
Pressure :

Autostop : 40.00, min
Detector 1 : Signal 1
Subtraction chromatogram : (None)

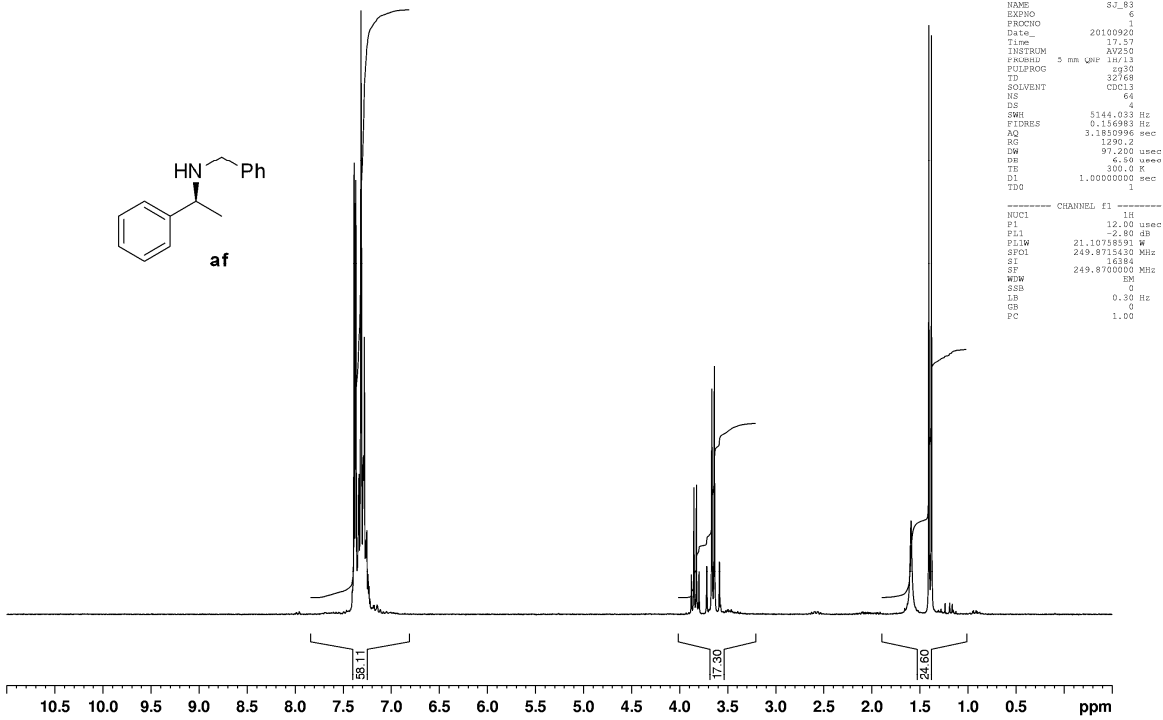
External Start : Start Only, Down
Range 1 : Bipolar, 10000 mV, 10 Samp. per Sec.
Matching : No Change



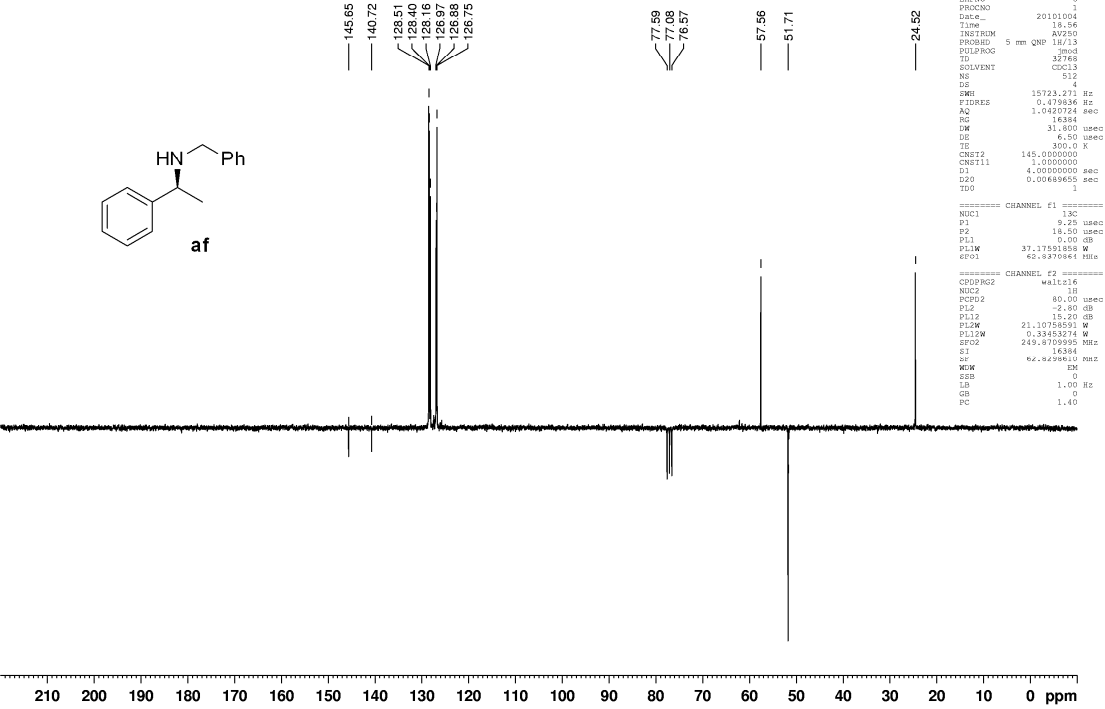
Result Table - Calculation Method Uncal

	Reten. Time [min]	Area [mV.s]	Height [mV]	Area [%]	Height [%]	W05 [min]
1	12.213	21725.194	617.952	55.1	66.2	0.55
2	23.677	17726.146	315.355	44.9	33.8	0.82
	Total	39451.341	933.308	100.0	100.0	

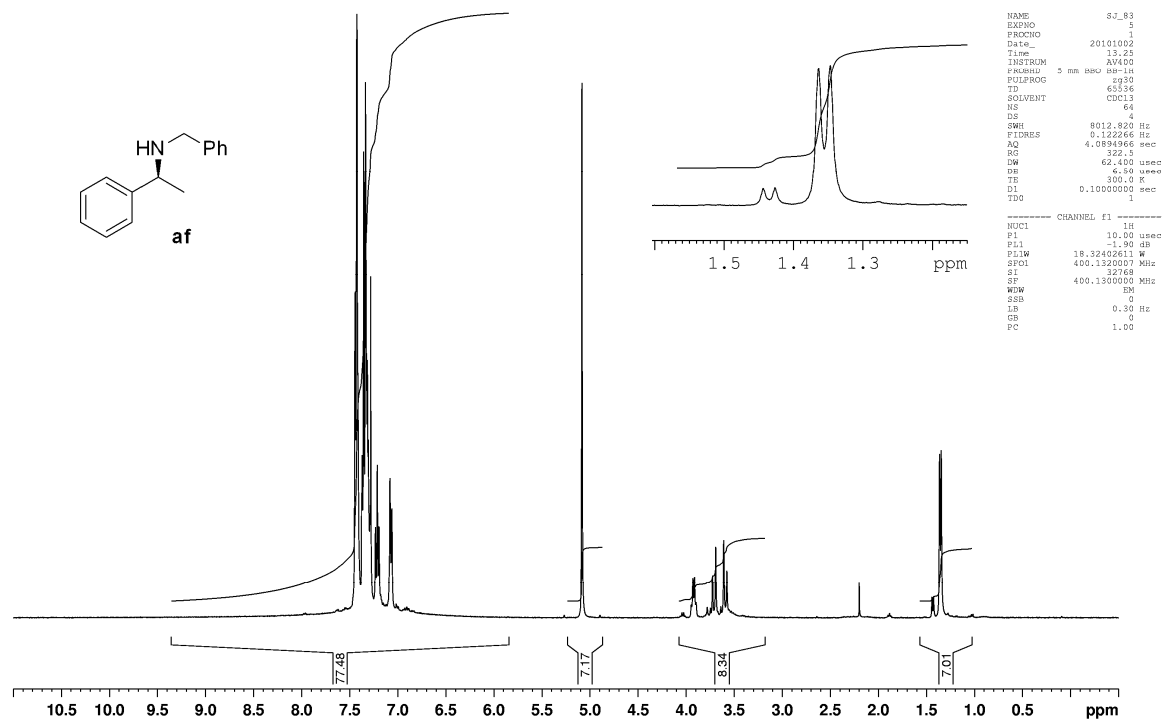
XL4-52 chiral
PRO CDCl3 {C:\09se2010\ ch3sj 35



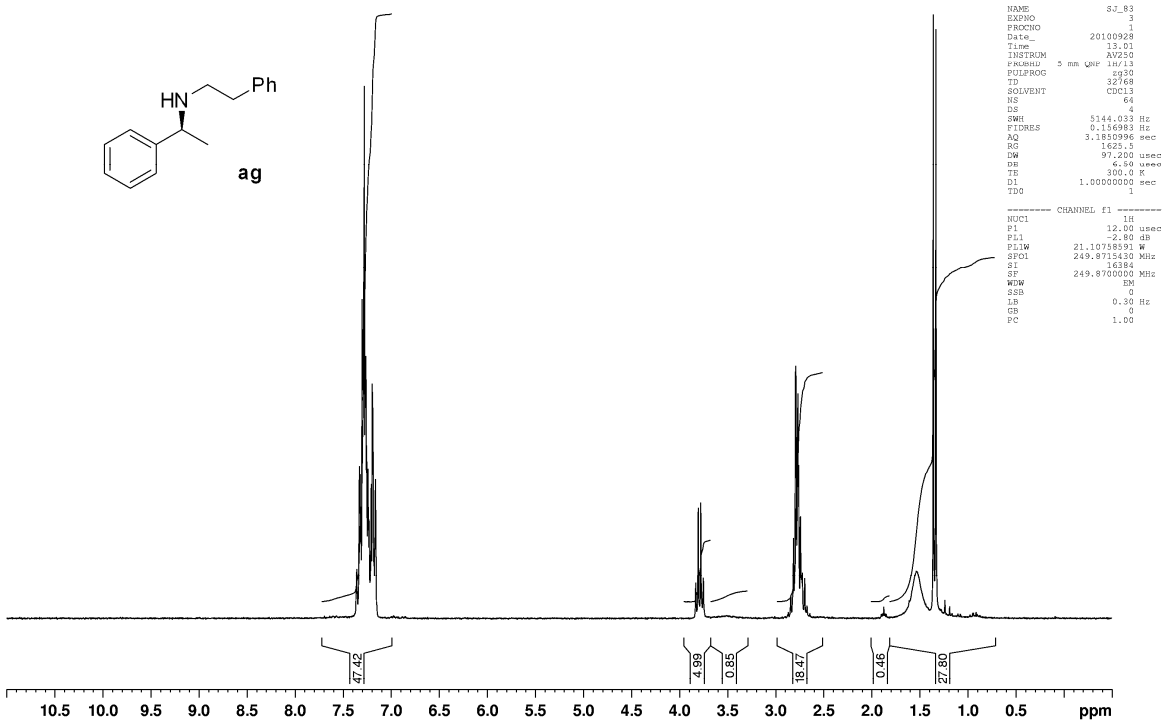
XL4-52
JMOD250PPM CDCl3 {C:\10oc2010\ ch3sj 29



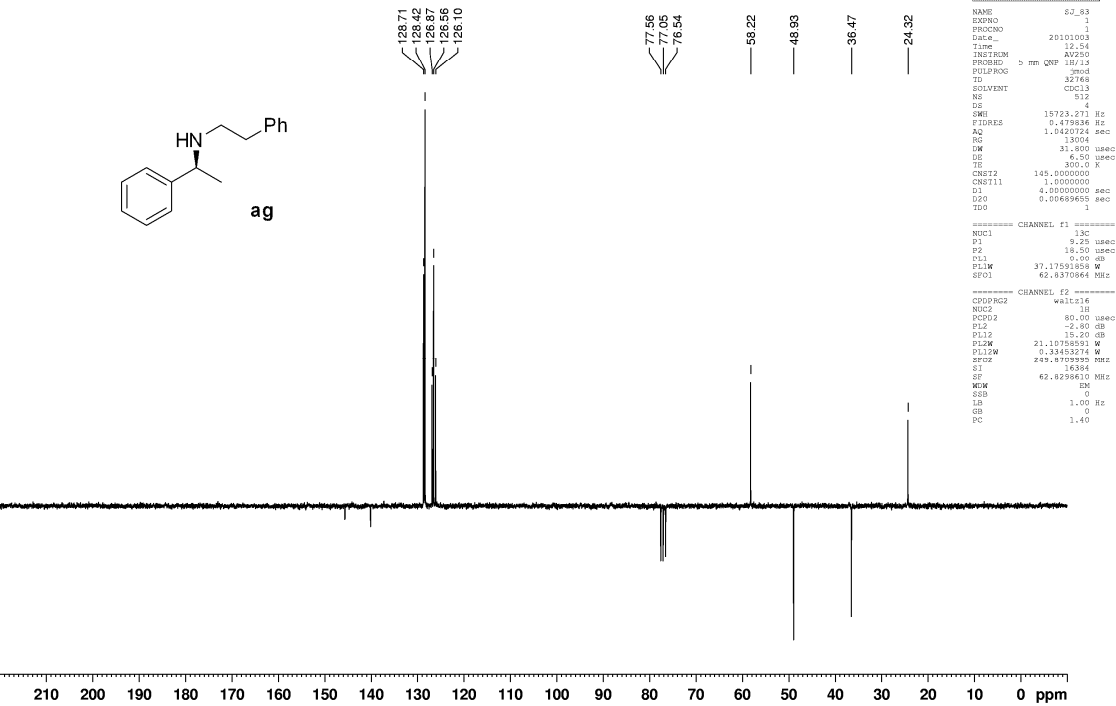
XL4-52 chiral with L-mandelic acid
PRO CDCl₃ {C:\10oc2010\ ch3sj 4



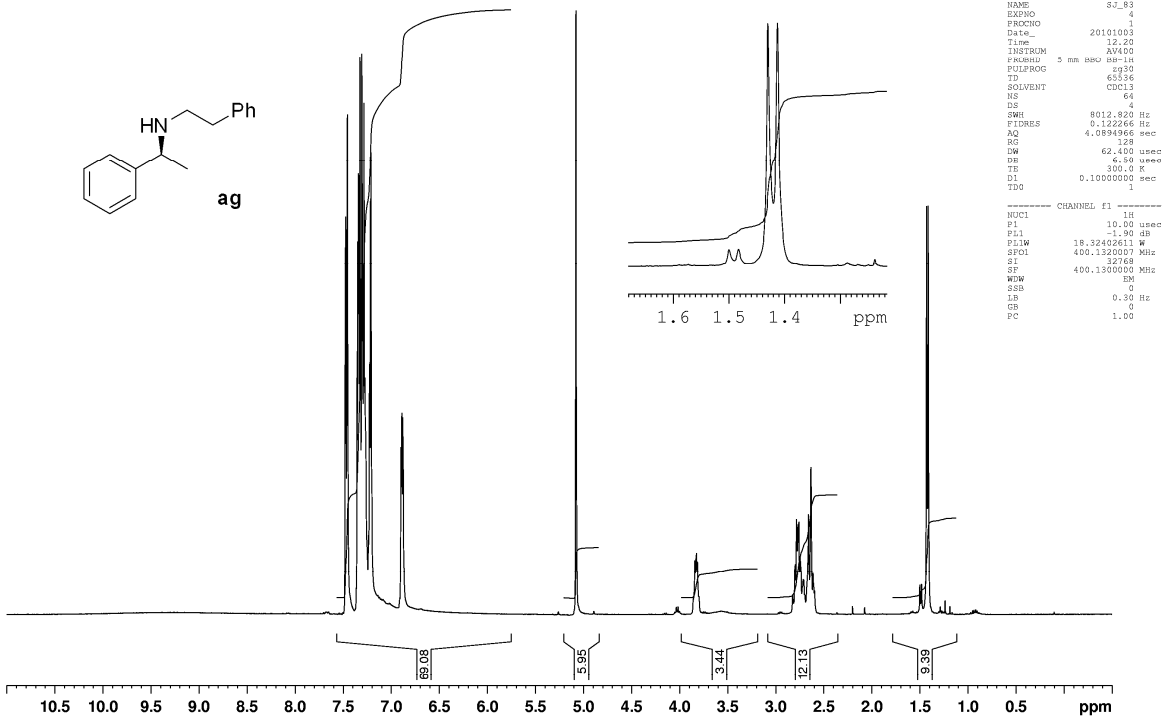
XL4-58
PRO CDCl3 {C:\09se2010\ ch3sj 11



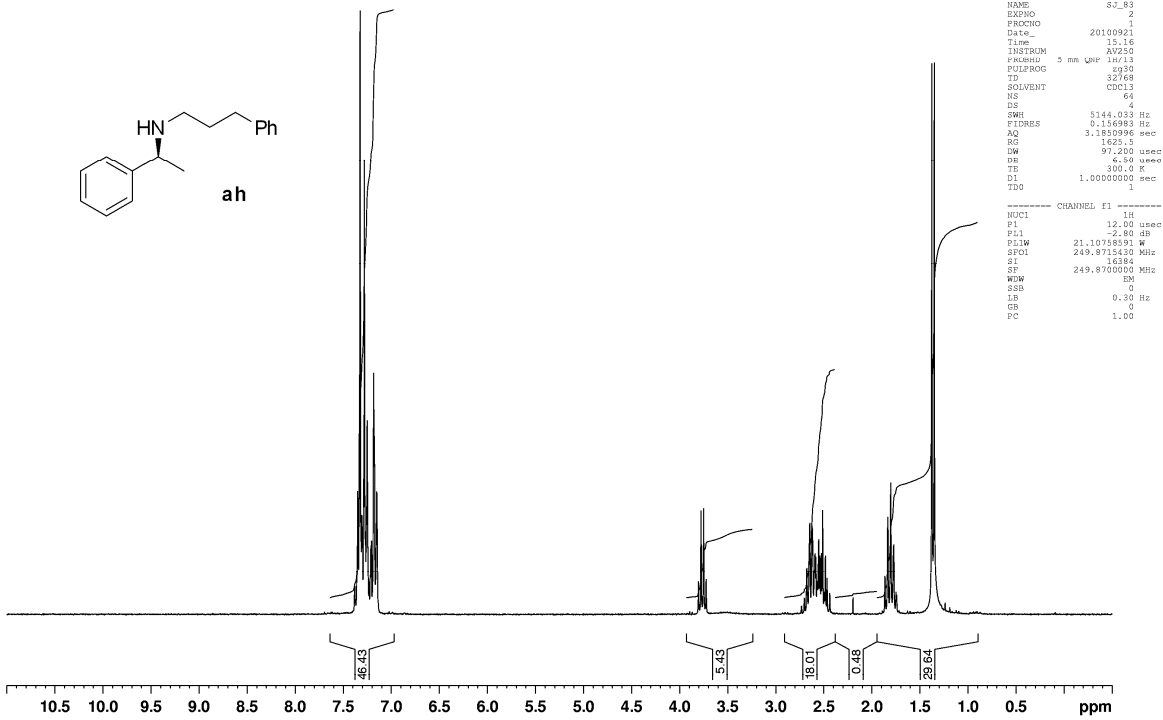
XL4-58
JMOD250PPM CDCl3 {C:\10oc2010\ ch3sj 48



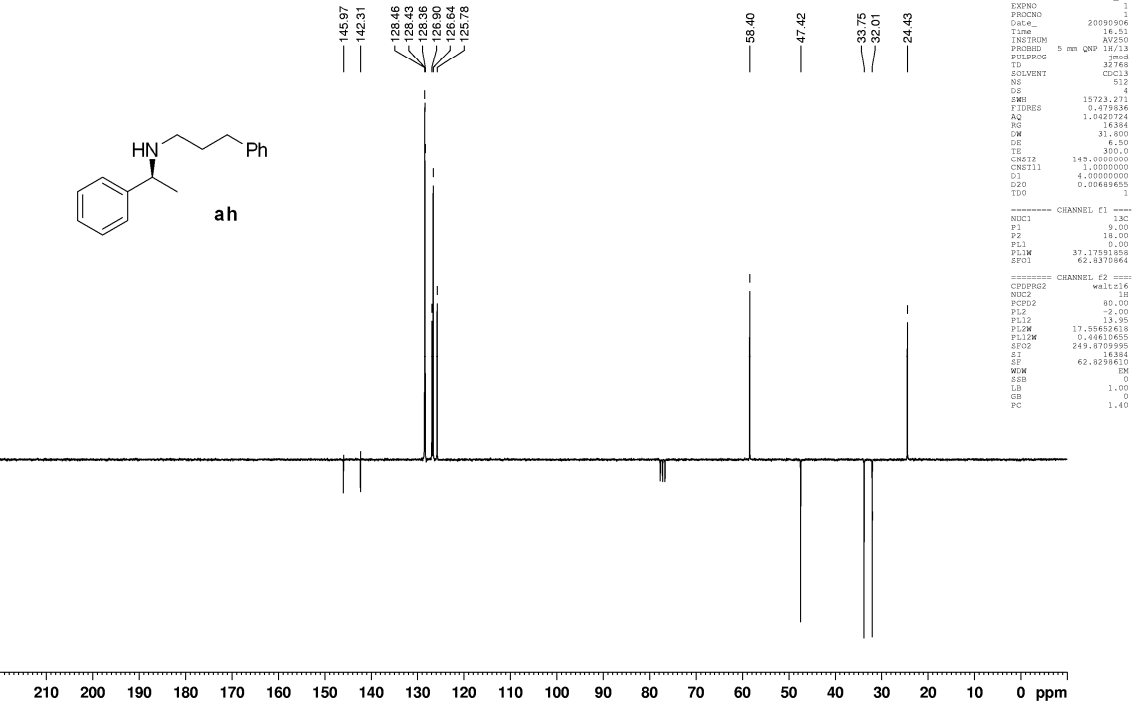
XL4-58 chiral with L-mandelic acid
PRO CDCl3 {C:\10oc2010} ch3sj 26



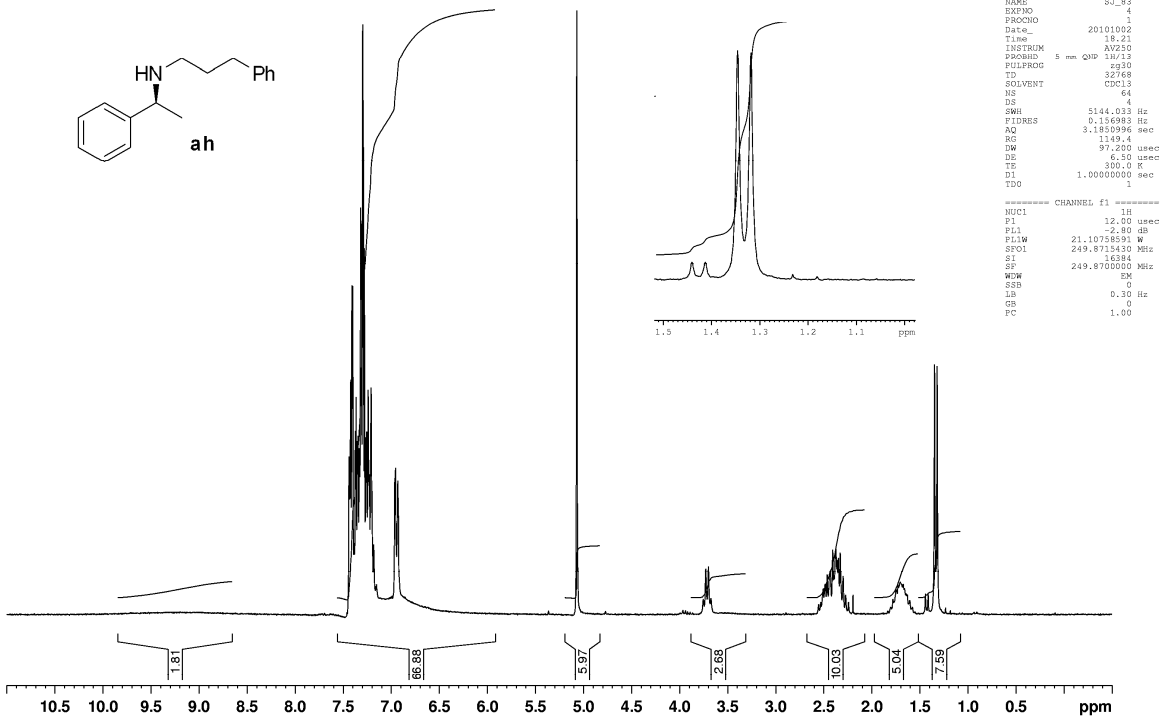
XL4-53
PRO CDCl3 {C:\09se2010} ch3sj 27



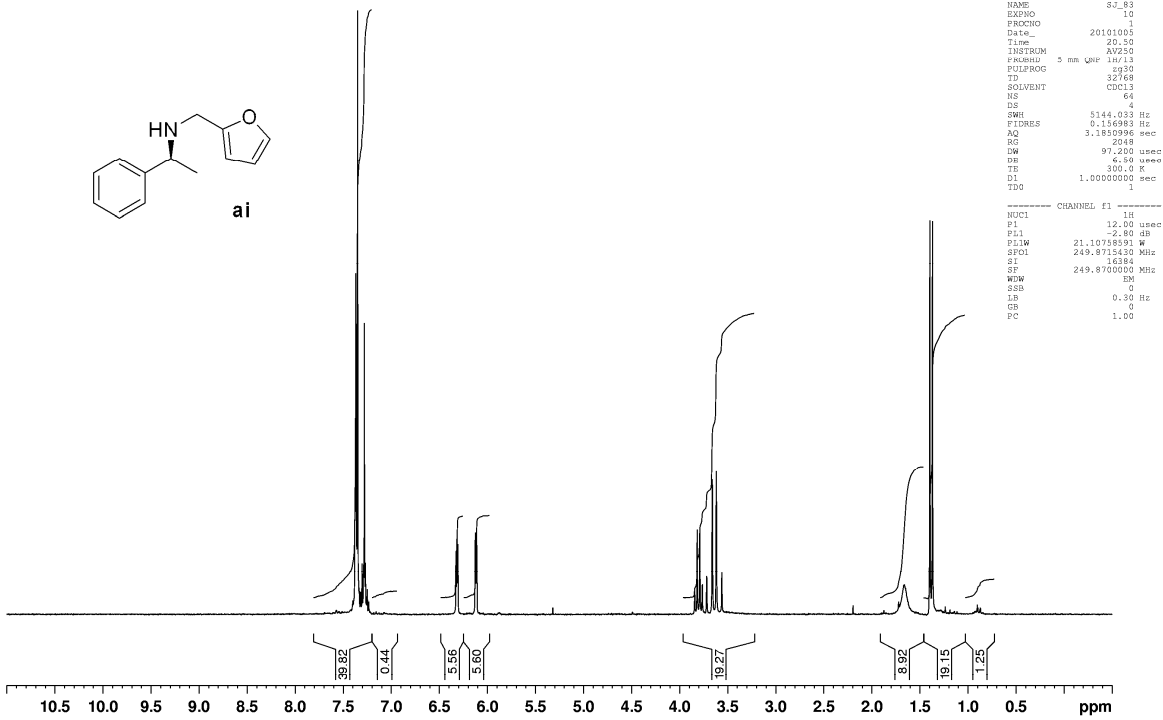
XL2-47 250MHz
JMOD250PPM CDCl3 {C:\09se2009} ch3sj 40



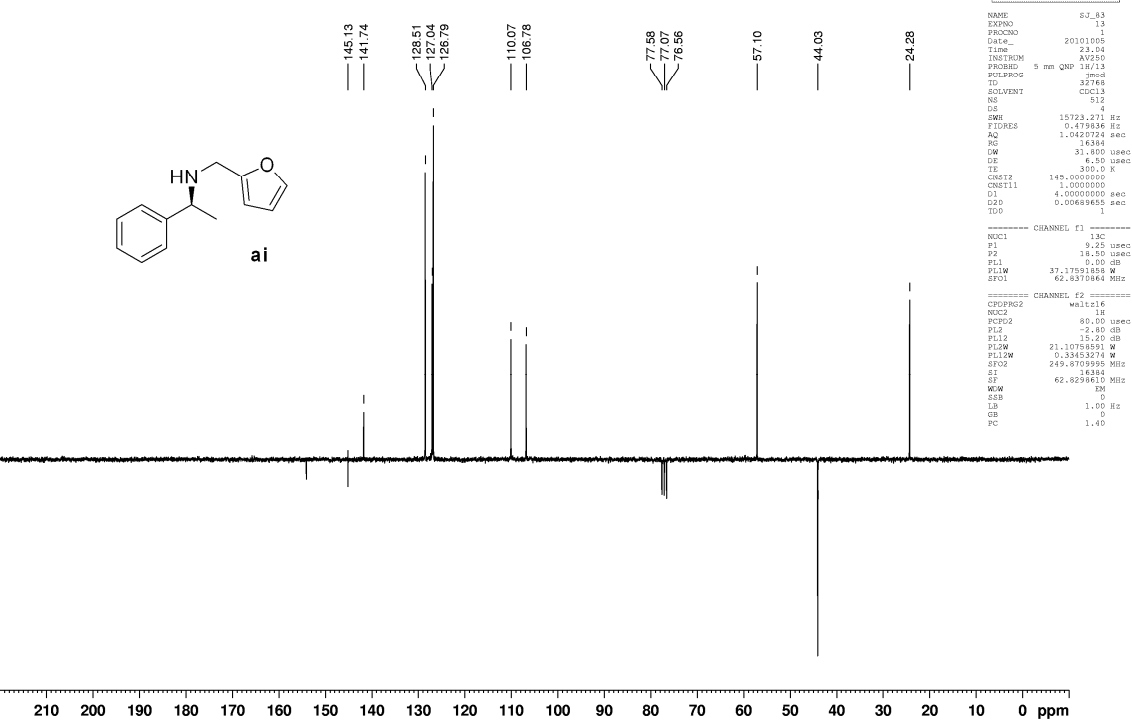
XL4-53 chiral with L-mandelic acid
PRO CDCl3 {C:\10oc2010\ ch3sj 43



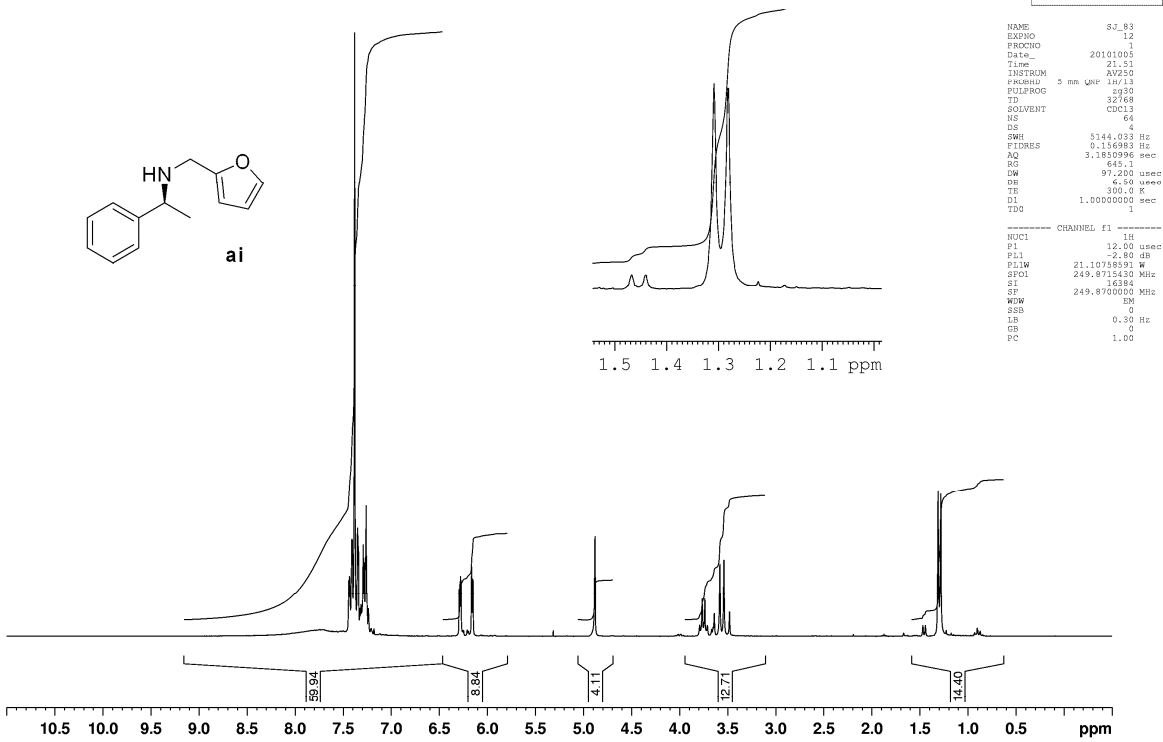
XL4-60
PRO CDCl3 {C:\10oc2010\ ch3sj 51



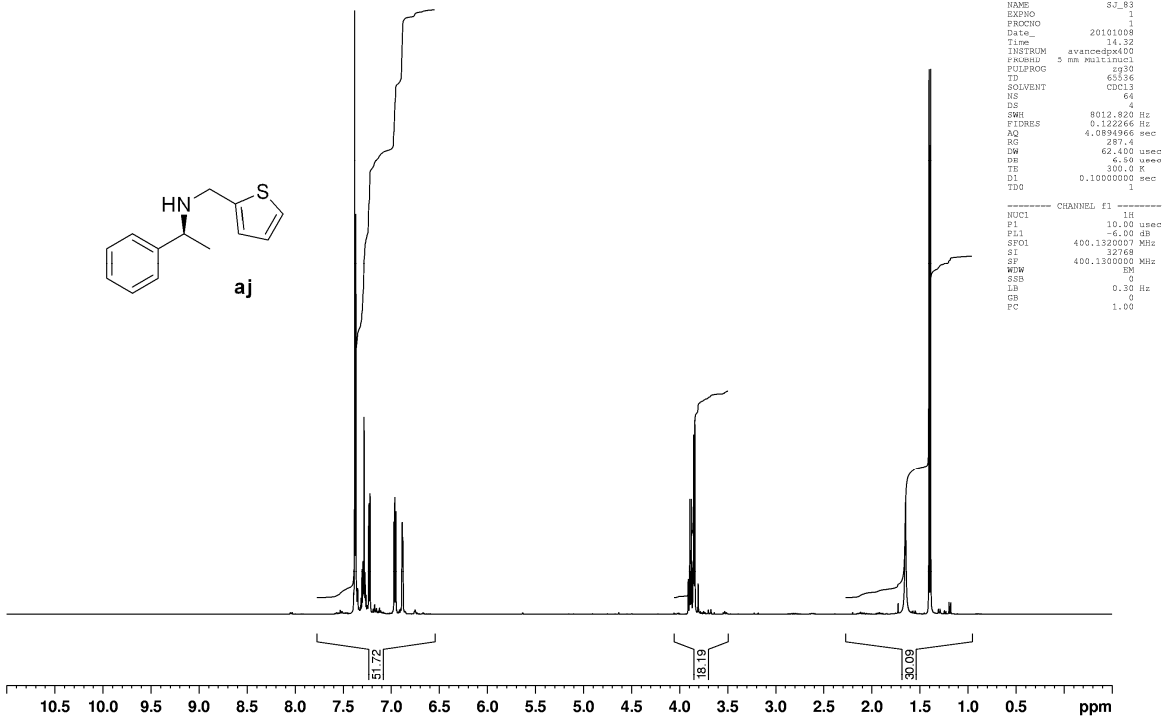
XL4-60
JMOD250PPM CDCl3 {C:\10oc2010\ ch3sj 52



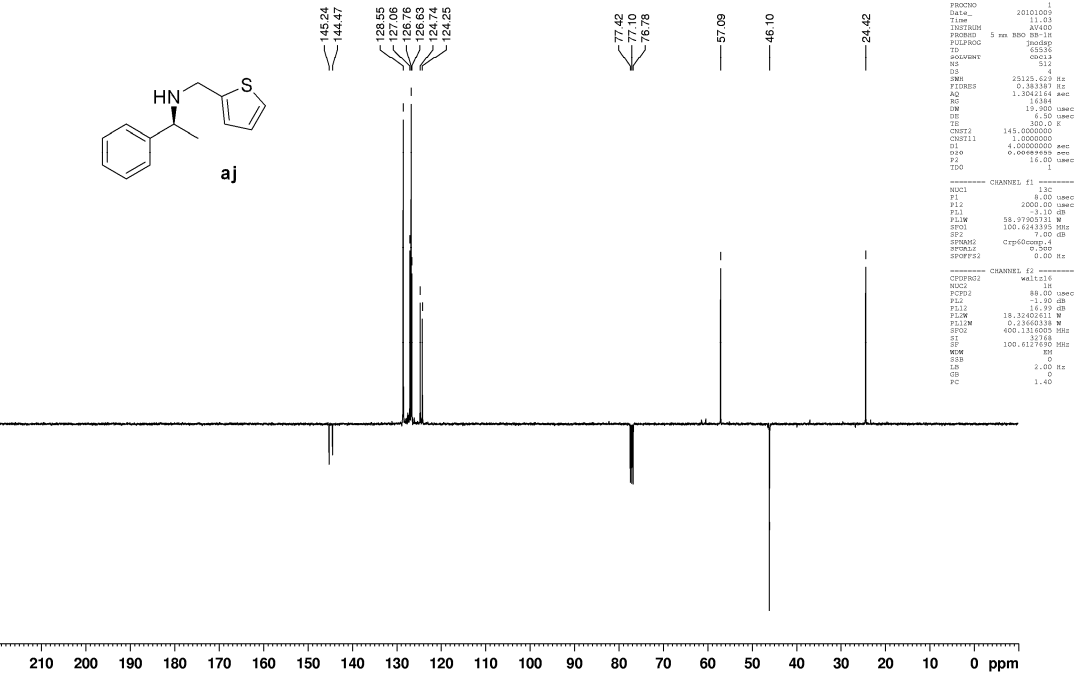
XL4-60 chiral with L-mandelic acid
PRO CDCl₃ {C:\10oc2010} ch3sj 52



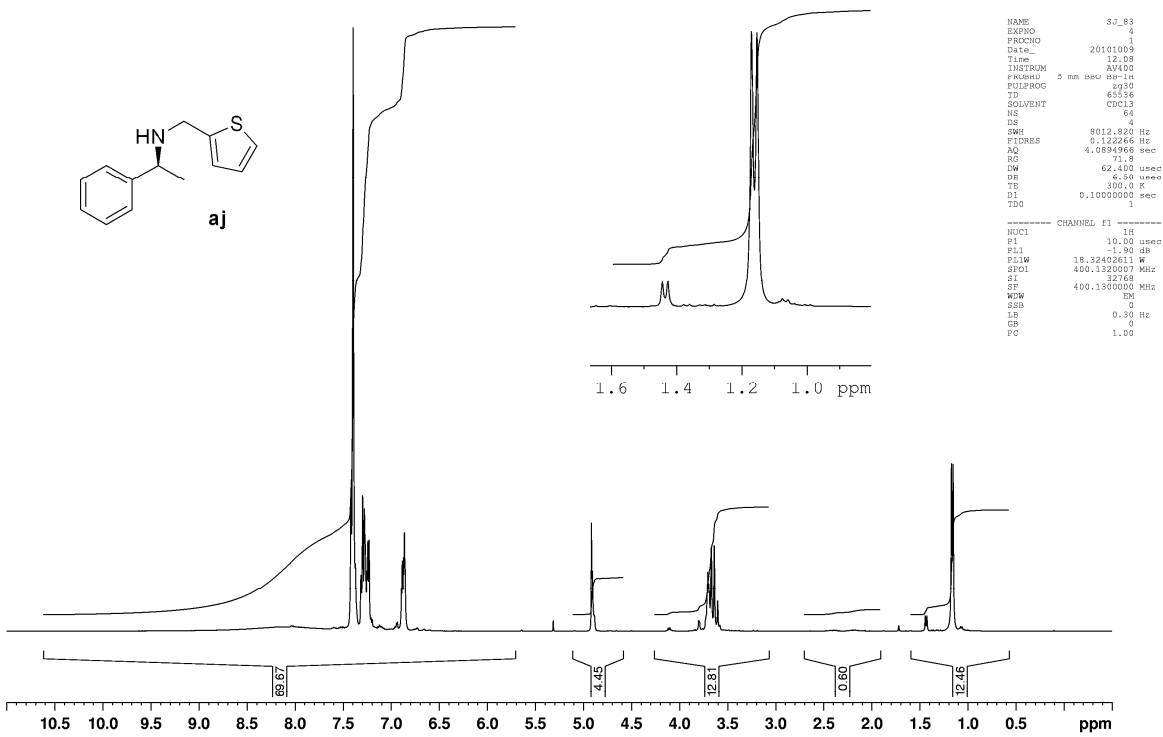
XL4-61
PRO CDCl3 {C:\10oc2010\} ch3sj 5



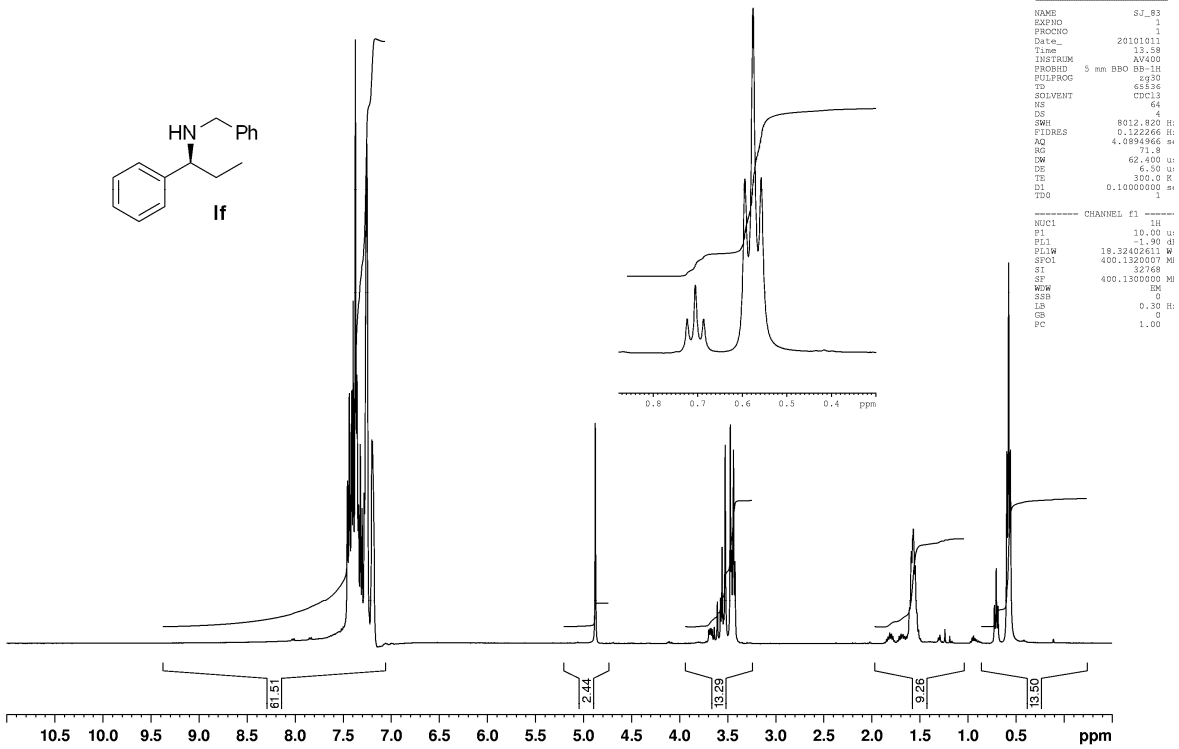
XL4-61
JMOD250PPM CDCl3 {C:\10oc2010\} ch3sj 26



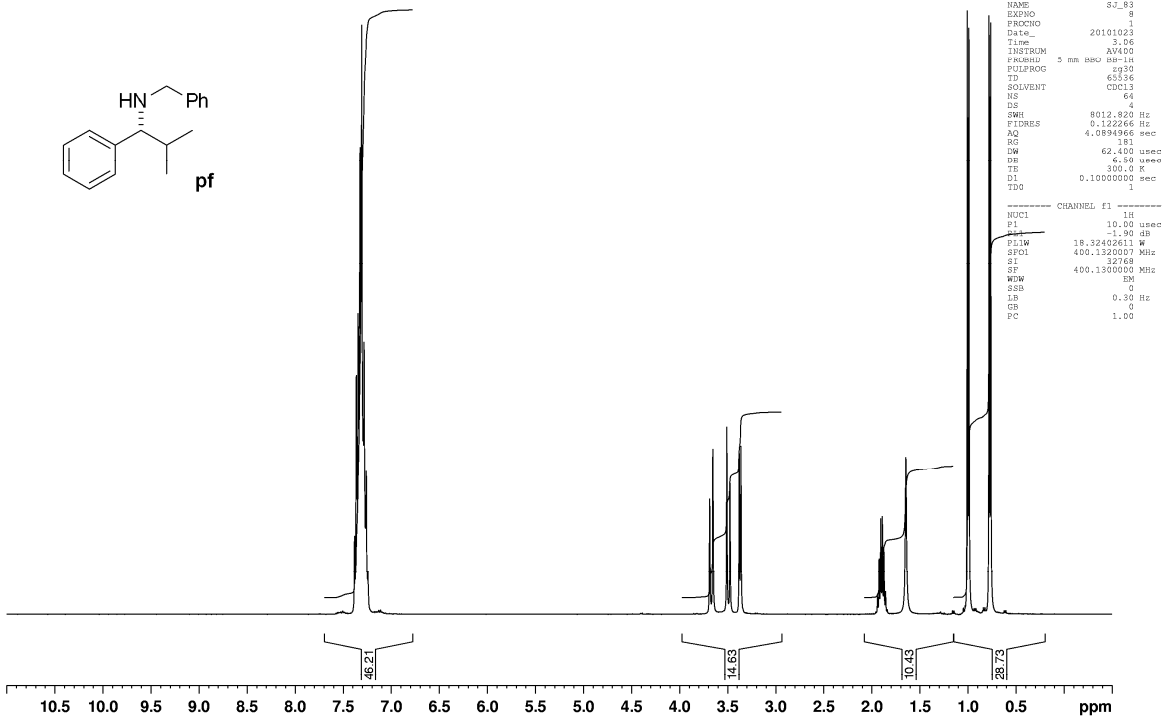
XL4-61 chiral with L-mandelic acid
PRO CDCl₃ {C:\10oc2010} ch3sj 29



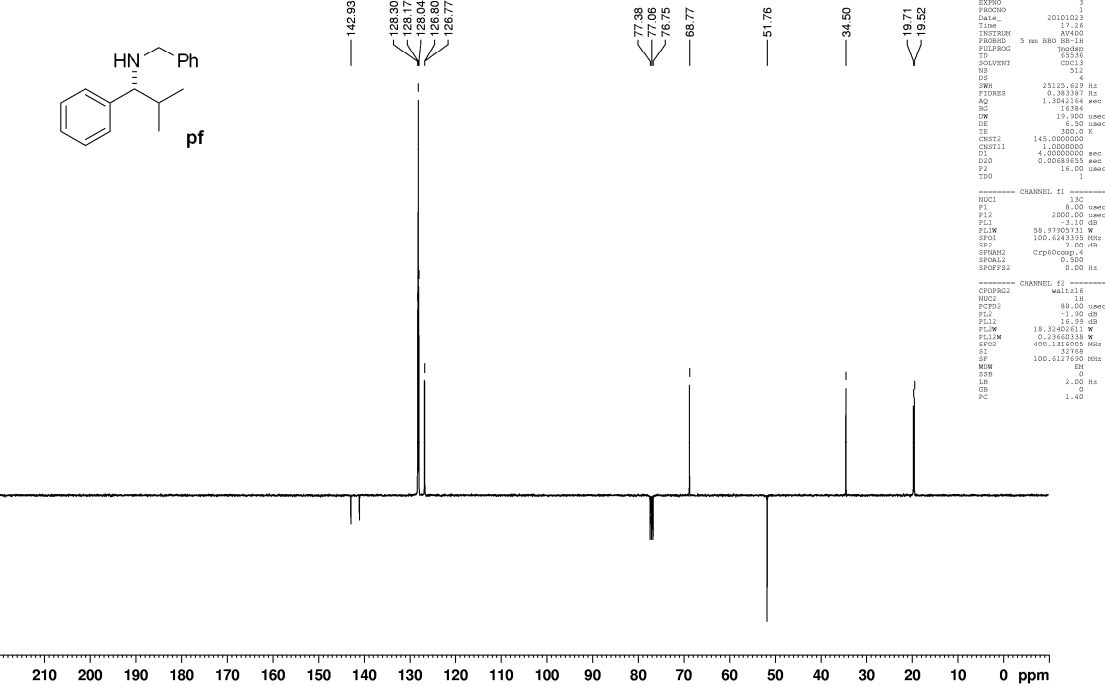
XL4-59 chiral with L-mandelic acid
PRO CDCl₃ {C:\10oc2010} ch3sj 23



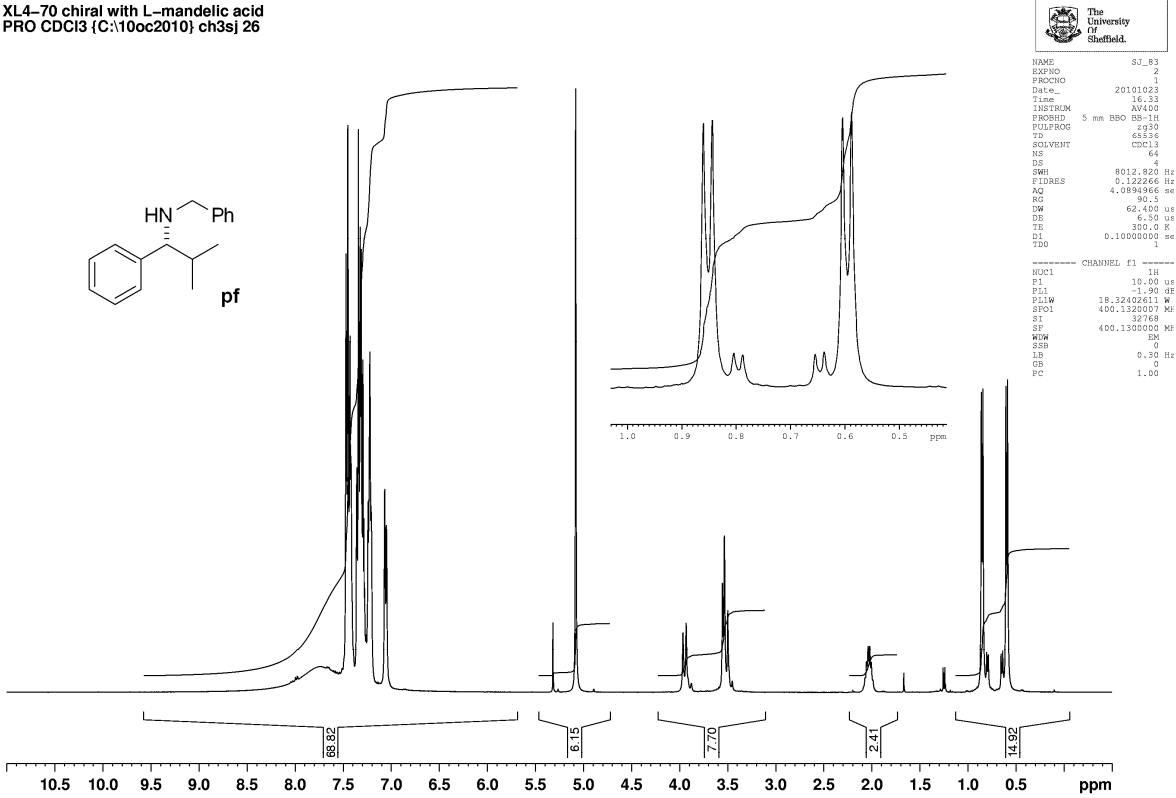
XL4-70
PRO CDCl3 {C:\10oc2010\ ch3sj 6



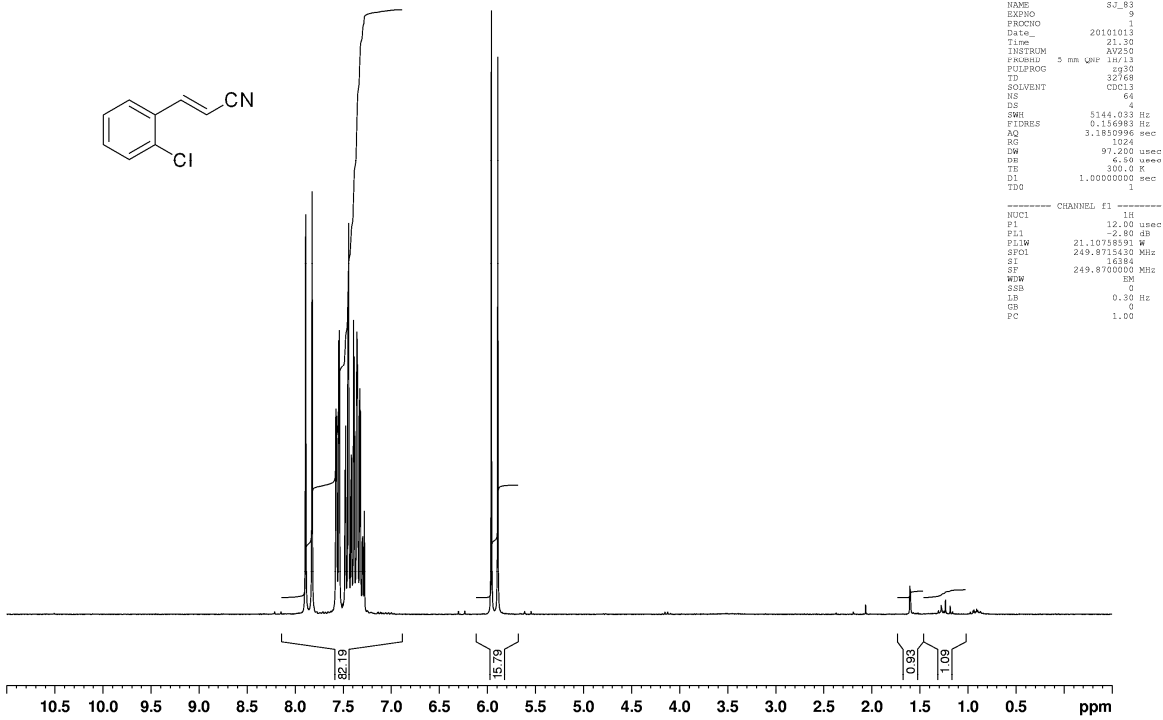
XL4-70
JMOD250PPM CDCl3 {C:\10oc2010\ ch3sj 27



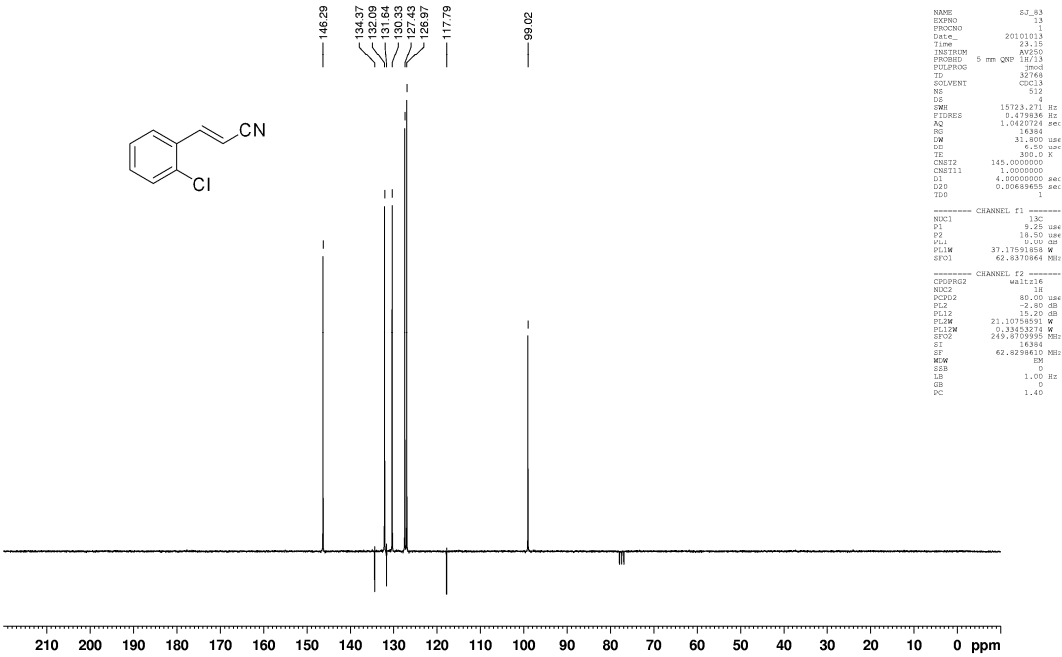
XL4-70 chiral with L-mandelic acid
PRO CDCl₃ {C:\10oc2010\ ch3sj 26



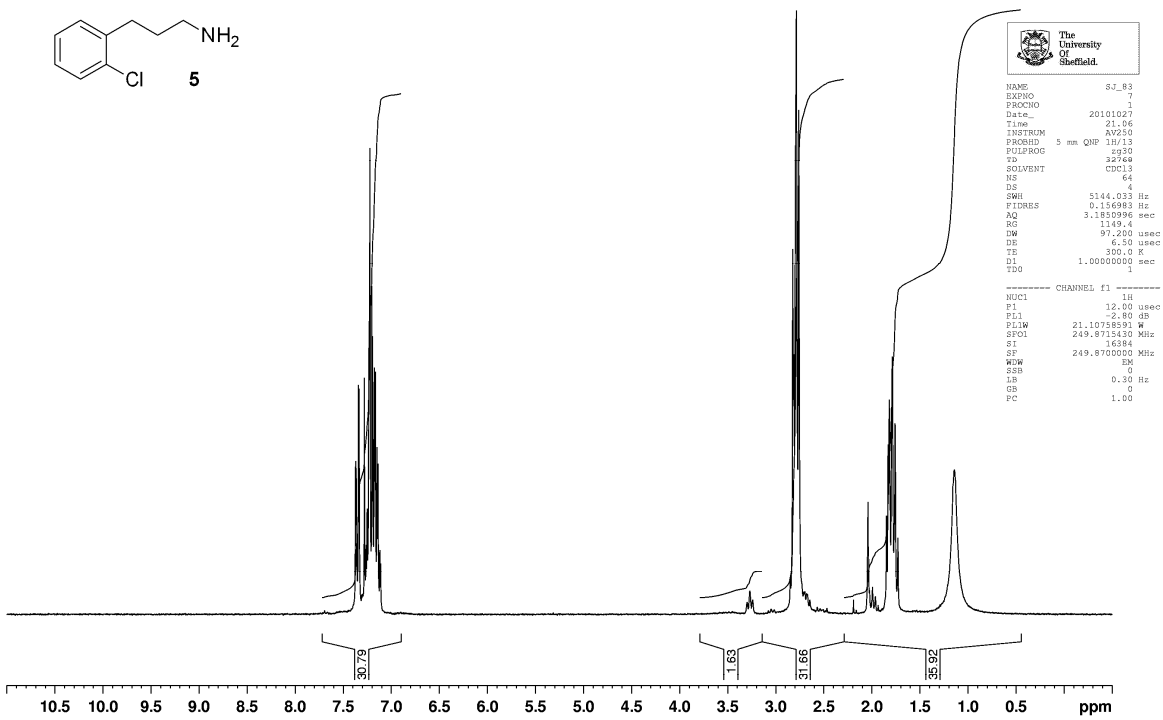
XL4-65
PRO CDCl3 {C:\10oc2010\ ch3sj 37



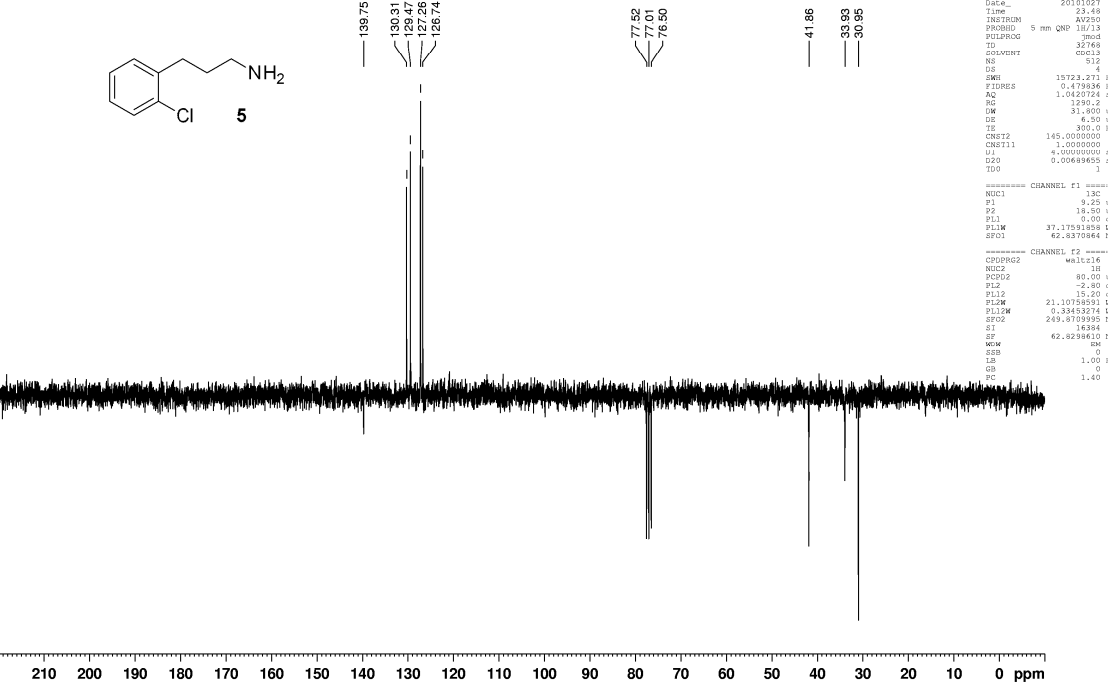
XL4-65
JMOD250PPM CDCl3 {C:\10oc2010\ ch3sj 41



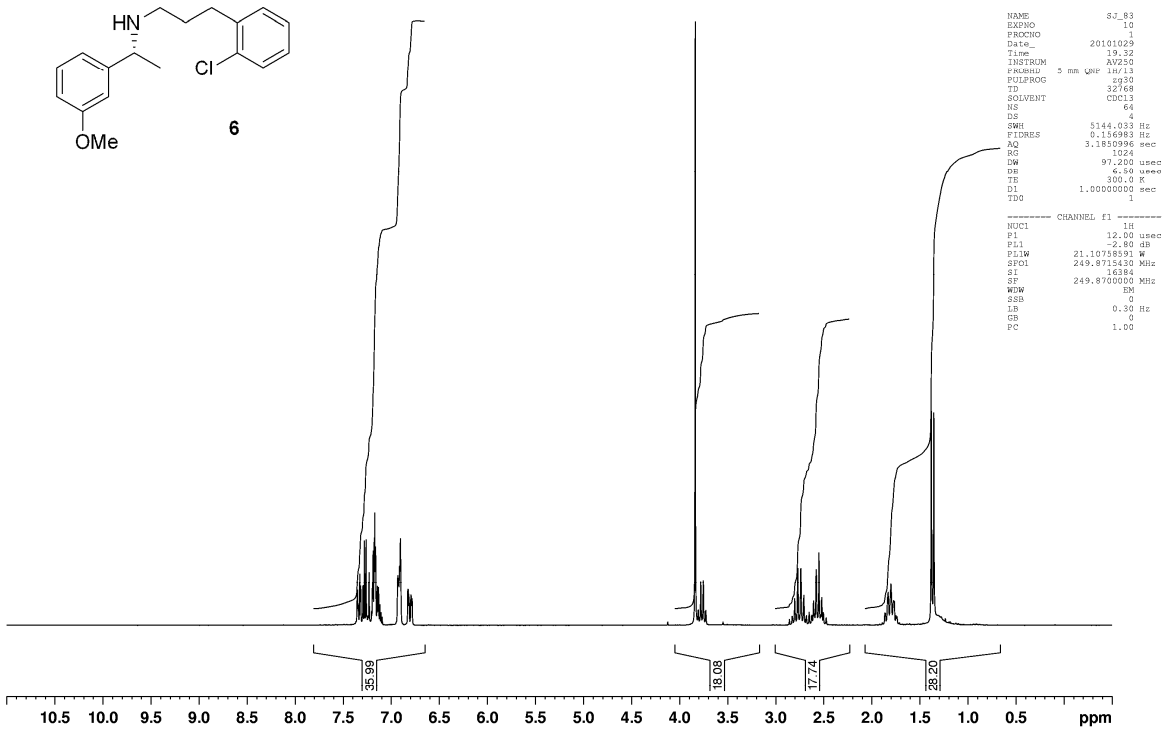
XL4-75
PRO CDCl3 {C:\10oc2010\ ch3sj 57



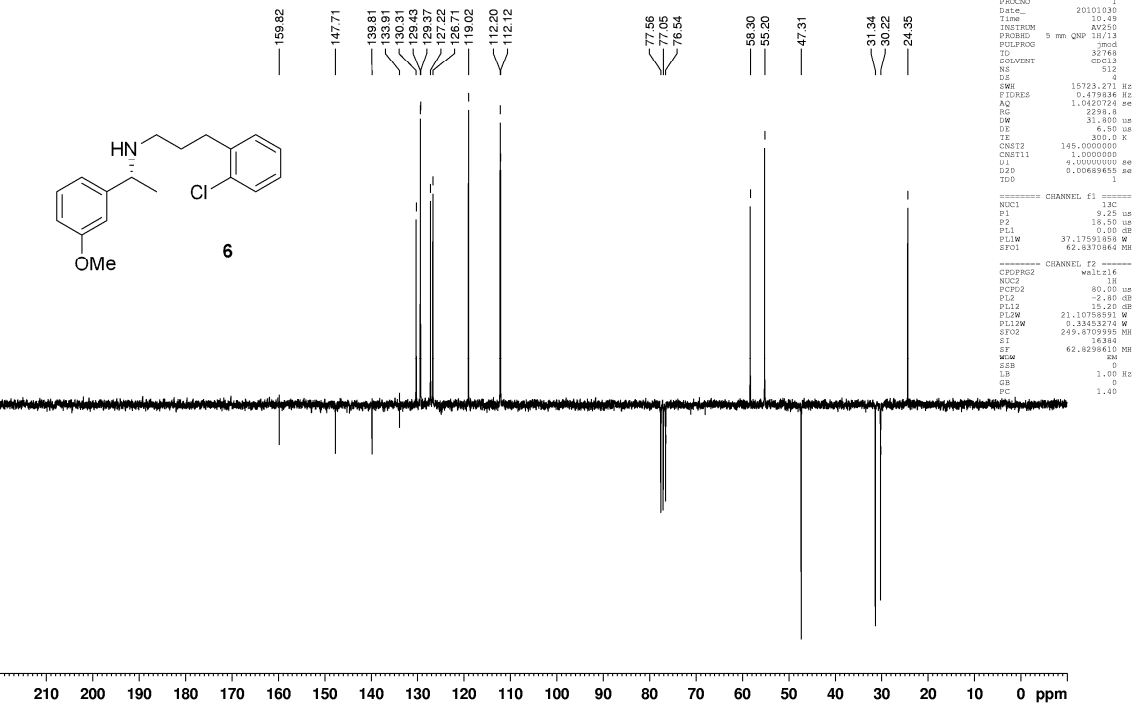
XL4-75
JMOD250PPM CDCl3 {C:\10oc2010\ ch3sj 8



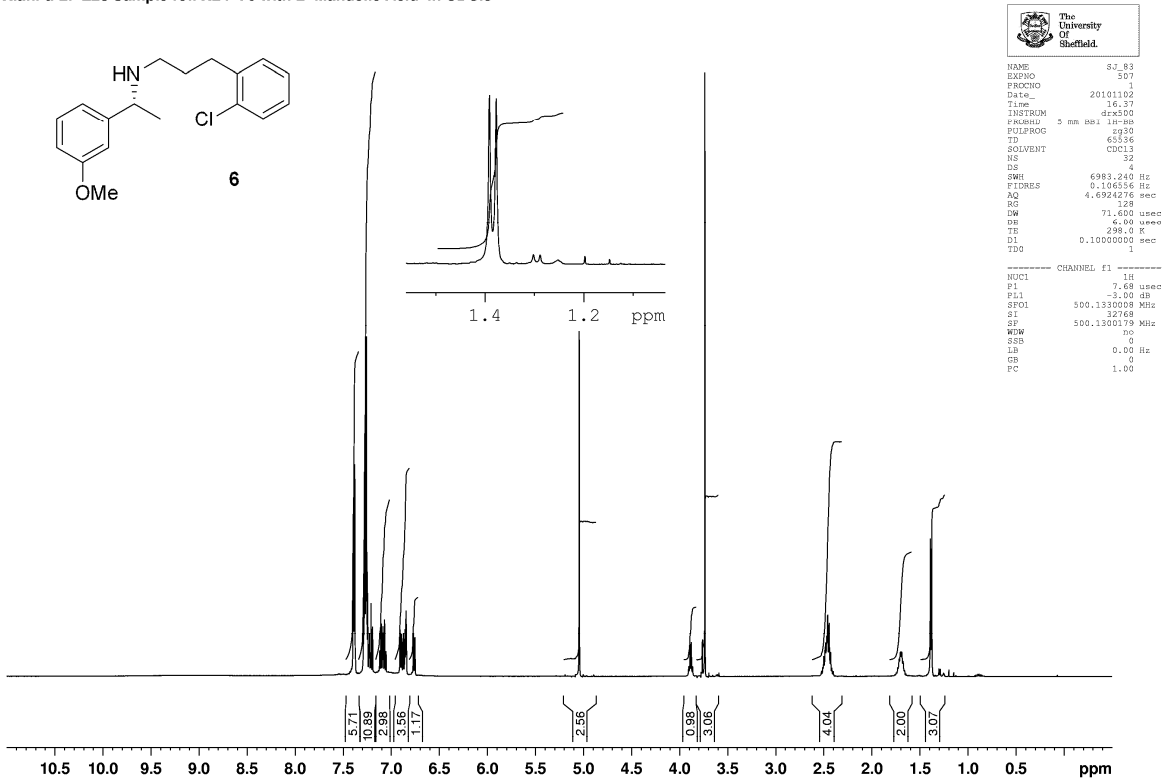
XL4-76
PRO CDCl₃ {C:\10oc2010\ ch3sj 47



XL4-76
JMOD250PPM CDCl₃ {C:\10oc2010\ ch3sj 59



XianFu Li E28 Sample ref. XL4-76 with L-Mandelic Acid in CDCl3



References

