Microwave Assisted Synthesis of Highly Substituted Aminomethylated 2-Pyridones

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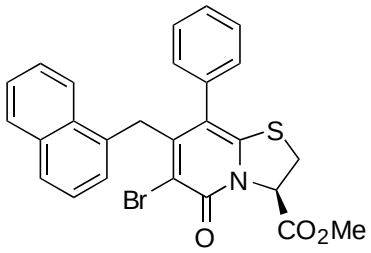

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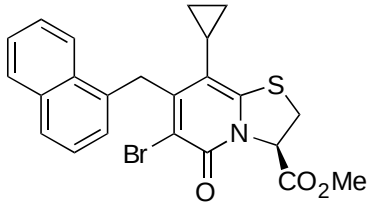

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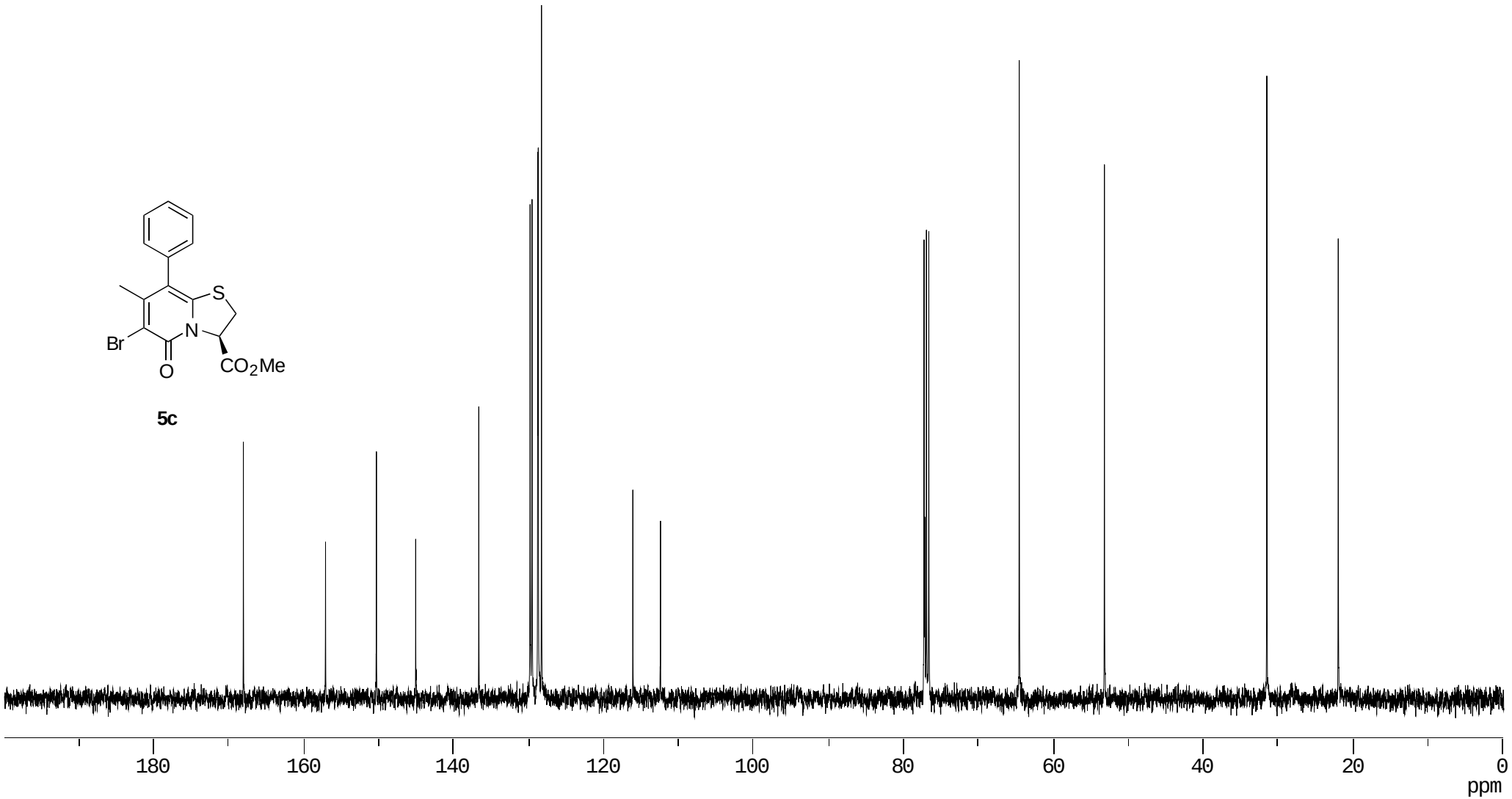

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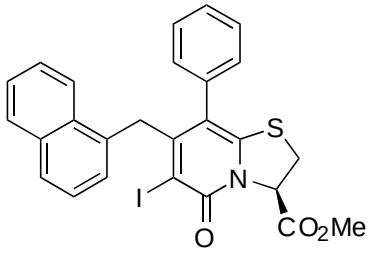

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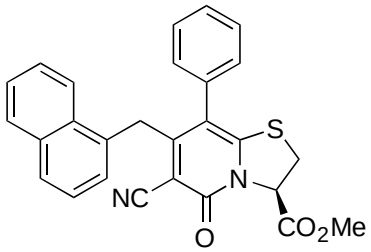

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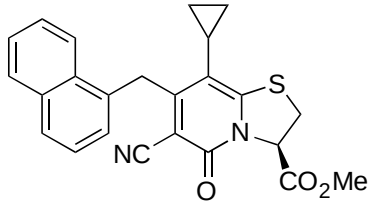

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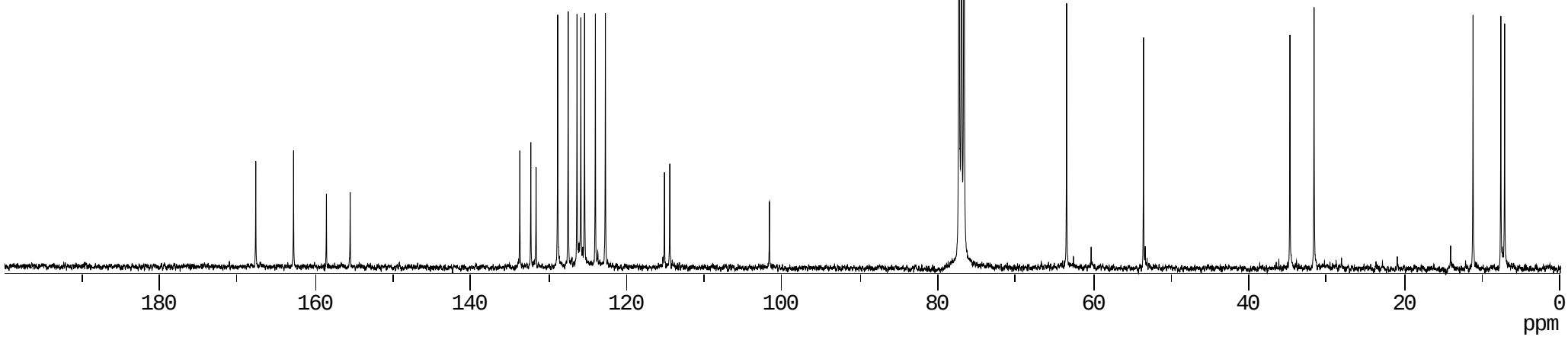

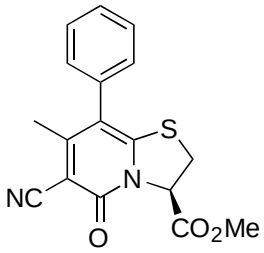

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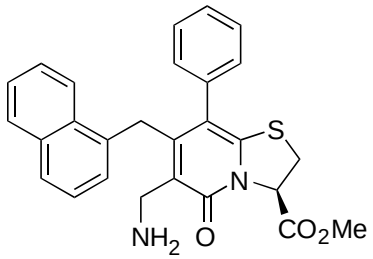

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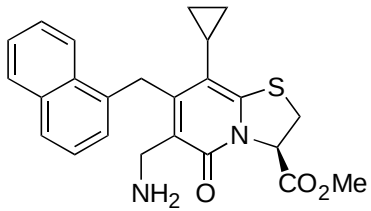

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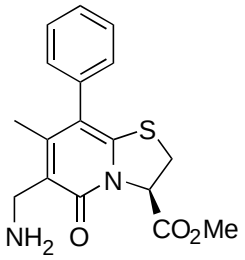

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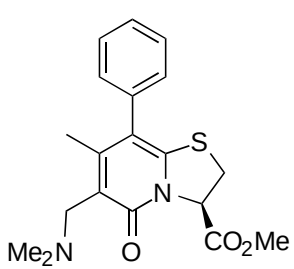

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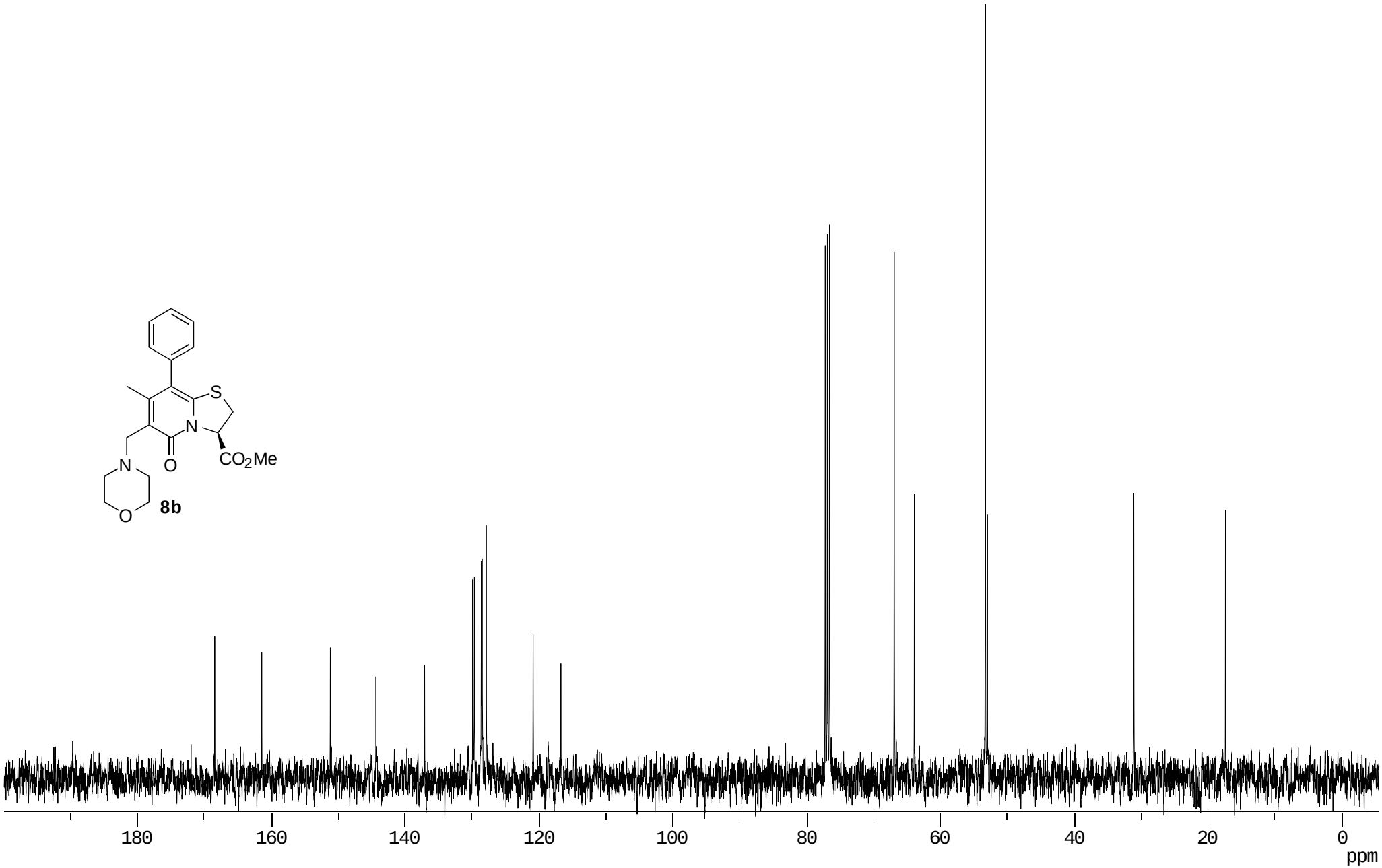
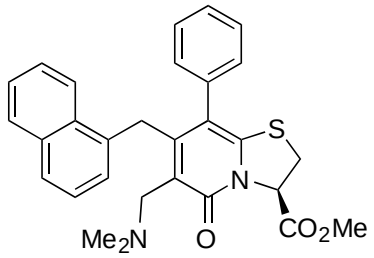

S
N
O
CO2Me
N
O
8b
180
160
140
120
100
80
60
40
20
0
ppm



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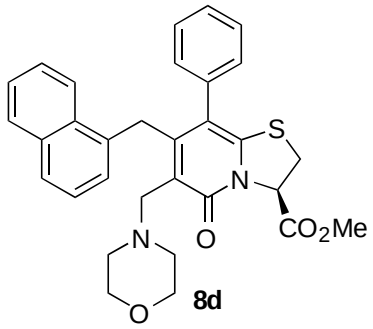

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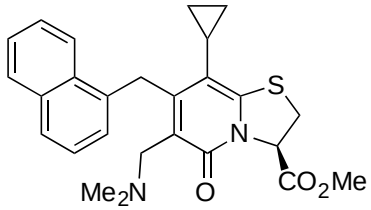

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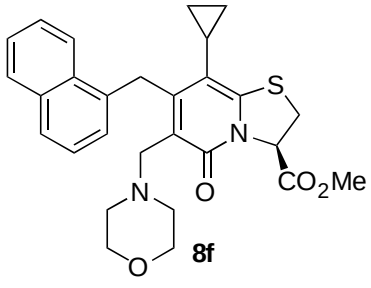

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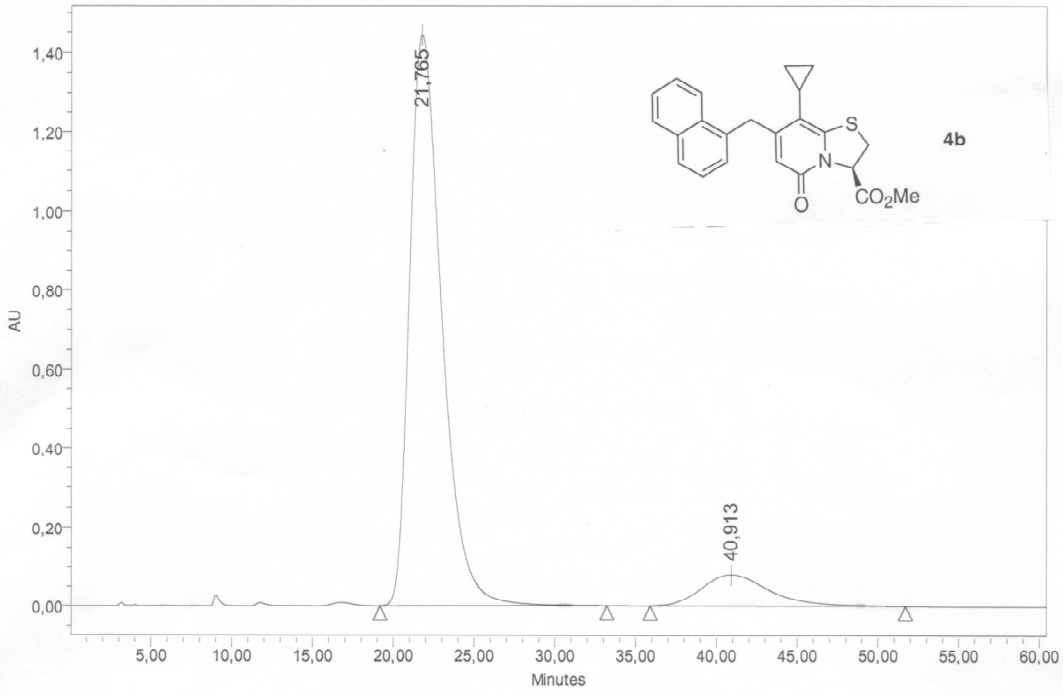
Project: övrigt
Sample Name: EB00000685 , C10-CO_2Me

Acquired By: LindaT 1 of 1
Project Name: Kiral_4
Date Acquired: 2004-08-12 15:04:45

Column:	Chiralcel OJ	**Column ID:**	AE035
Mobile Phase :	Hep/IPA 75/25	**Column Dimension:**	4.6 * 250
Sample Concentration:	sample in IPA	**Particle Size:**	10
Vial:	1	**Flow:**	1 ml/min
Injection volume:	10,00 ul	**Wavelength:**	PDA 225.0 nm
Temperature:	rt		

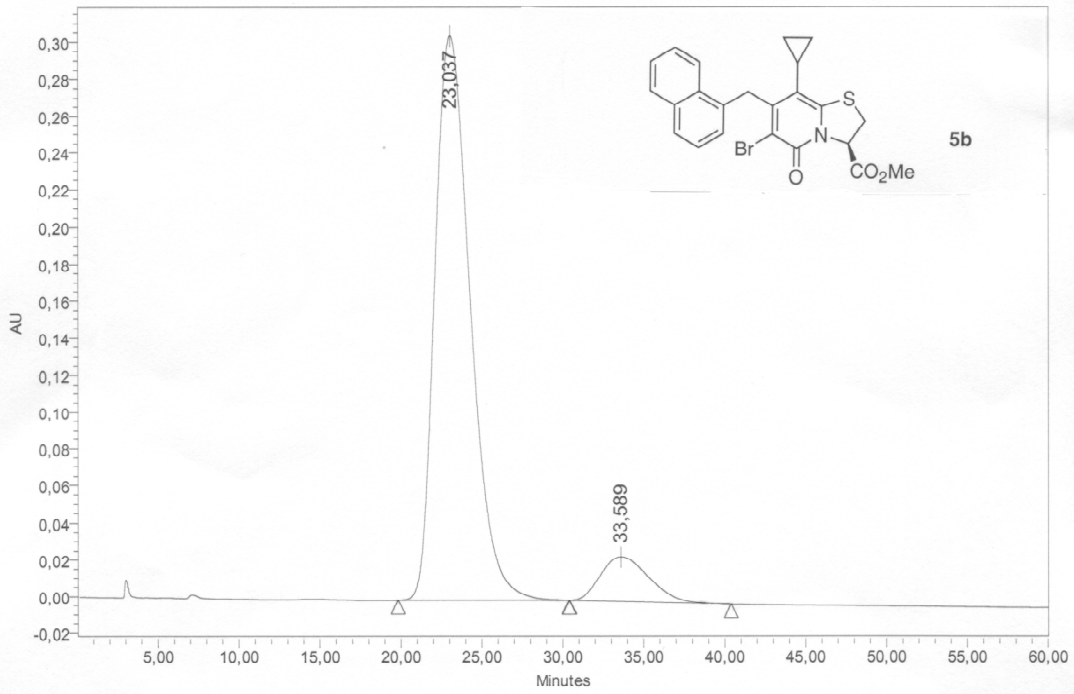


	Retention Time	Area	% Area	k'	N	USP Resolution
1	21,765	199970546	89,45	0,000	595,9	
2	40,913	23573631	10,55	0,880	468,3	3,364

Project: övrigt
Sample Name: EB00000686, vab 072:2 (bromerad)

Acquired By: LindaT 1 of 1
Project Name: Kiral_4
Date Acquired: 2004-08-12 08:43:40

Column:	Chiralpak AS	**Column ID:**	BC002
Mobile Phase :	Hep/IPA 85/15	**Column Dimension:**	4.6 * 250
Sample Concentration:	sample in IPA	**Particle Size:**	10
Vial:	2	**Flow:**	1 ml/min
Injection volume:	10,00 ul	**Wavelength:**	PDA 225.0 nm
Temperature:	rt		

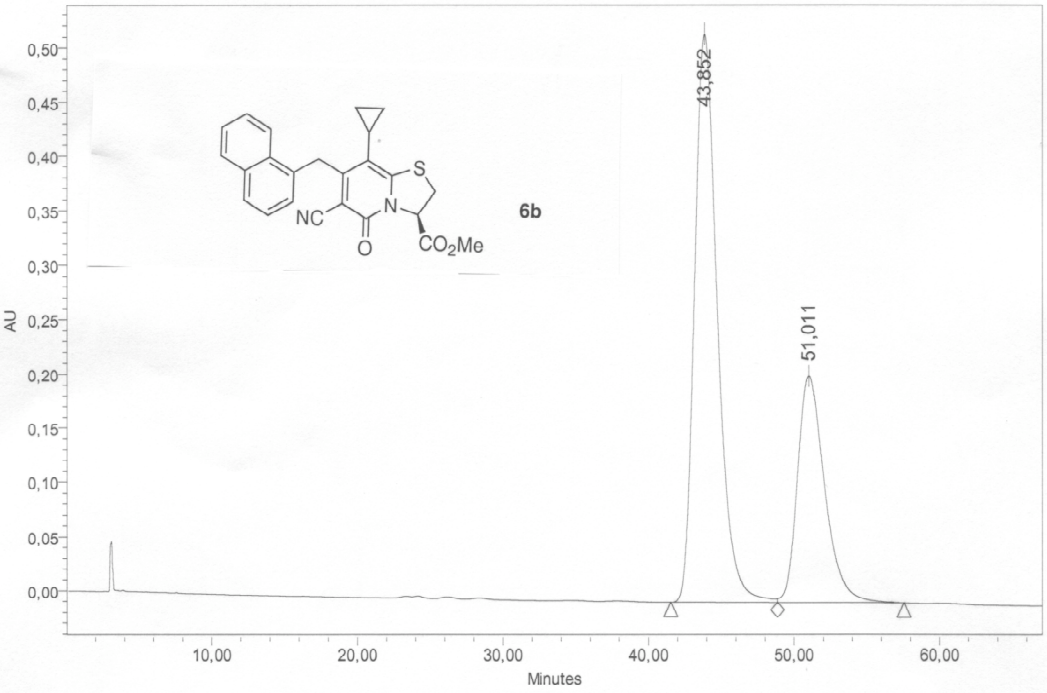


	Retention Time	Area	% Area	k'	N	USP Resolution
1	23,037	46564469	90,08	0,000	537,7	
2	33,589	5126690	9,92	0,458	581,2	2,187

Project: övrigt
Sample Name: EB00000687, vab 073:2 (cyanerad)

Acquired By: LindaT 1 of 1
Project Name: Kiral_4
Date Acquired: 2004-08-11 14:47:53

Column:	Chiralpak AD	**Column ID:**	DI004
Mobile Phase :	Hep/IPA 90/10	**Column Dimension:**	4.6 * 250
Sample Concentration:	sample in IPA	**Particle Size:**	10
Vial:	3	**Flow:**	1 ml/min
Injection volume:	10,00 ul	**Wavelength:**	PDA 225.0 nm
Temperature:	rt		

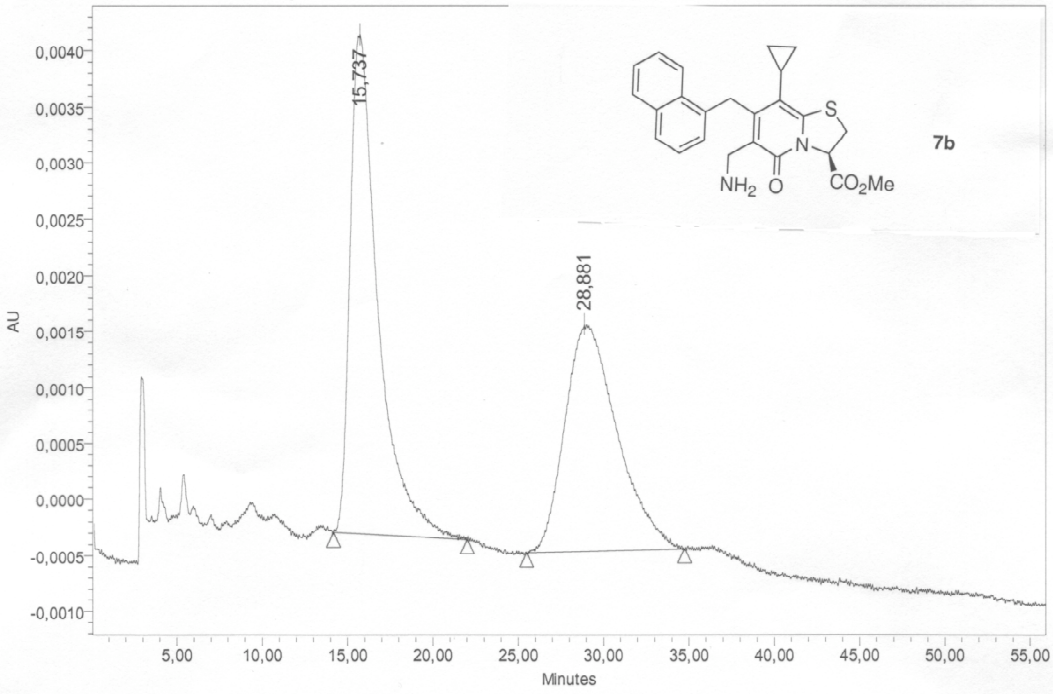


	Retention Time	Area	% Area	k'	N	USP Resolution
1	43,852	57470394	67,92	0,000	3829,5	
2	51,011	27148324	32,08	0,163	3740,8	2,266

Project: övrigt
Sample Name: EB00000688 , vab 071:3 (primär amin)

Acquired By: LindaT 1 of 1
Project Name: Kiral_4
Date Acquired: 2004-08-13 15:09:04

Column:	Chiralcel OD	**Column ID:**	JI001
Mobile Phase :	Hep/IPA/TEA 60/40/0.2	**Column Dimension:**	4.6 * 250
Sample Concentration:	sample in IPA	**Particle Size:**	10
Vial:	6	**Flow:**	1 ml/min
Injection volume:	10,00 ul	**Wavelength:**	PDA 300.0 nm
Temperature:	rt		

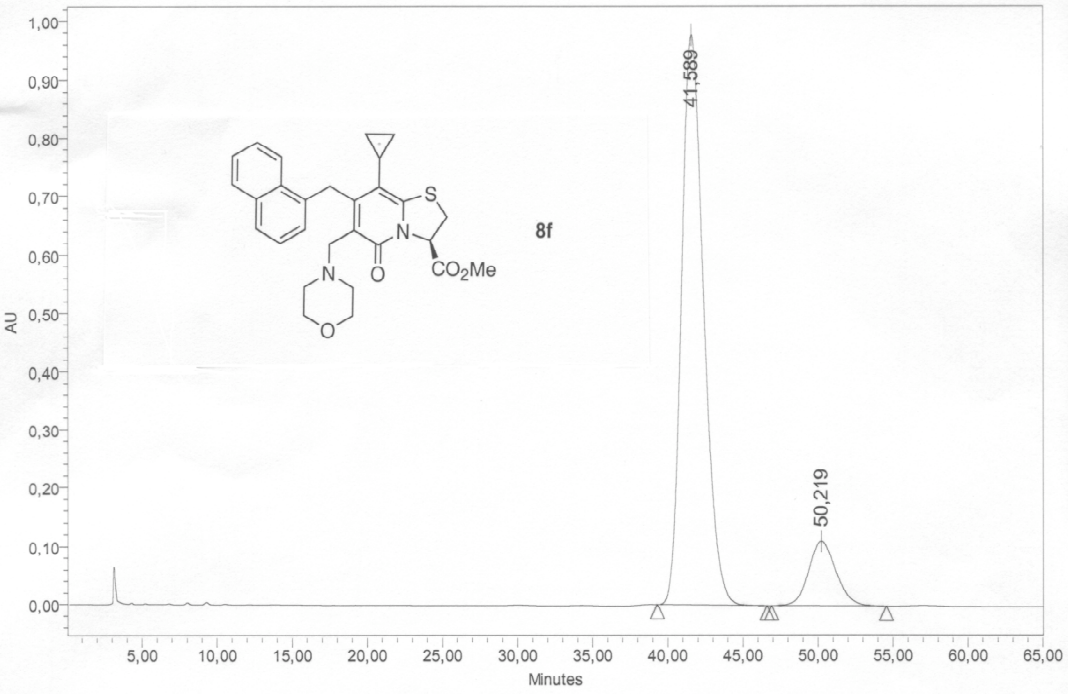


	Retention Time	Area	% Area	k'	N	USP Resolution
1	15,737	508481	54,12	0,000	524,0	
2	28,881	431001	45,88	0,835	360,3	3,033

Project: övrigt
Sample Name: EB00000689, np 045 (tertiär amin)

Acquired By: LindaT 1 of 1
Project Name: Kiral_4
Date Acquired: 2004-08-11 16:36:26

Column:	Chiralpak AD	**Column ID:**	DI004
Mobile Phase :	Hep/IPA 95/5	**Column Dimension:**	4.6 * 250
Sample Concentration:	sample in IPA	**Particle Size:**	10
Vial:	4	**Flow:**	1 ml/min
Injection volume:	10,00 ul	**Wavelength:**	PDA 225.0 nm
Temperature:	rt		



	Retention Time	Area	% Area	k'	N	USP Resolution
1	41,589	100570986	87,58	0,000	3768,7	
2	50,219	14265353	12,42	0,208	3657,6	2,800

General Experimental Section

General. All reactions were carried out under an inert atmosphere with dry solvents under anhydrous conditions, unless otherwise stated. CH_2Cl_2 was freshly distilled from calcium hydride, THF was freshly distilled from potassium and *N*-methyl-2-pyrrolidinone (NMP) was dried over 3Å molecular sieves. All microwave reactions were carried out in a monomode reactor using process vials (0.5-2.0 or 2.0-5.0 mL filling volume) sealed with teflon septa and an aluminum crimp top. TLC was performed on Silica Gel 60 F_{254} using UV light detection and staining with a solution of phosphomolybdic acid and cerium (IV) sulfate in 6% aqueous sulfuric acid or ninhydrin (0.2% in EtOH) and the compounds were visualized upon heating. Flash column chromatography (eluents given in brackets) employed normal phase silica gel (Matrex, 60 Å, 35-70 μm). Ion-exchange resin (Amberlyst 15, H^+-form, 20-50 mesh) was washed with MeOH prior to use. Organic extracts were dried over sodium sulphate before being concentrated. The ^1H and ^{13}C NMR spectra were recorded at 400 or 100 MHz respectively at 298 K in $CDCl_3$ [residual $CHCl_3$ (δ_H 7.26 ppm) or $CDCl_3$ (δ_C 77.0 ppm) as internal standard] or MeOH [residual CD_2HOD (δ_H 3.31 ppm) or CD_3OD (δ_C 49.0 ppm) as internal standard]. Optical rotations were measured at 20 °C. Mass spectra were recorded using EI, FAB or ES ionization.