Revisiting the sparteine surrogate: development of a resolution route to the (–)-sparteine surrogate

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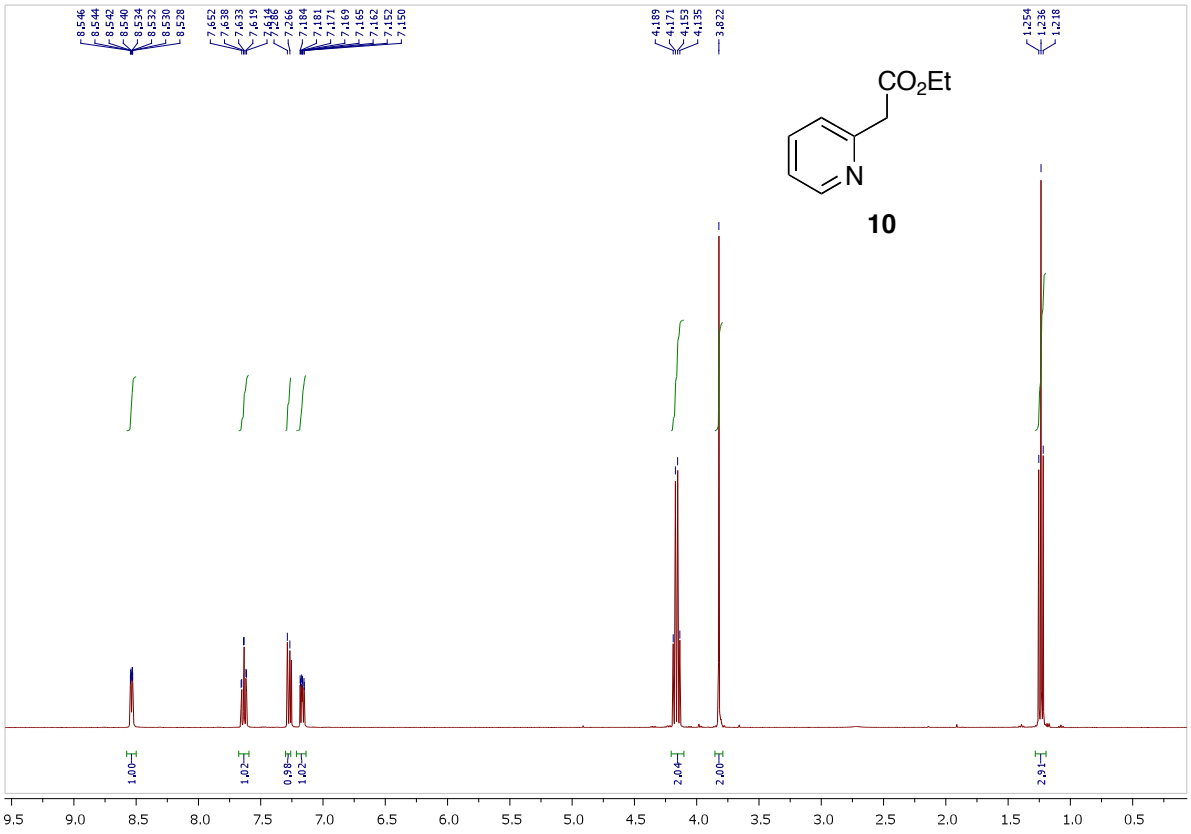
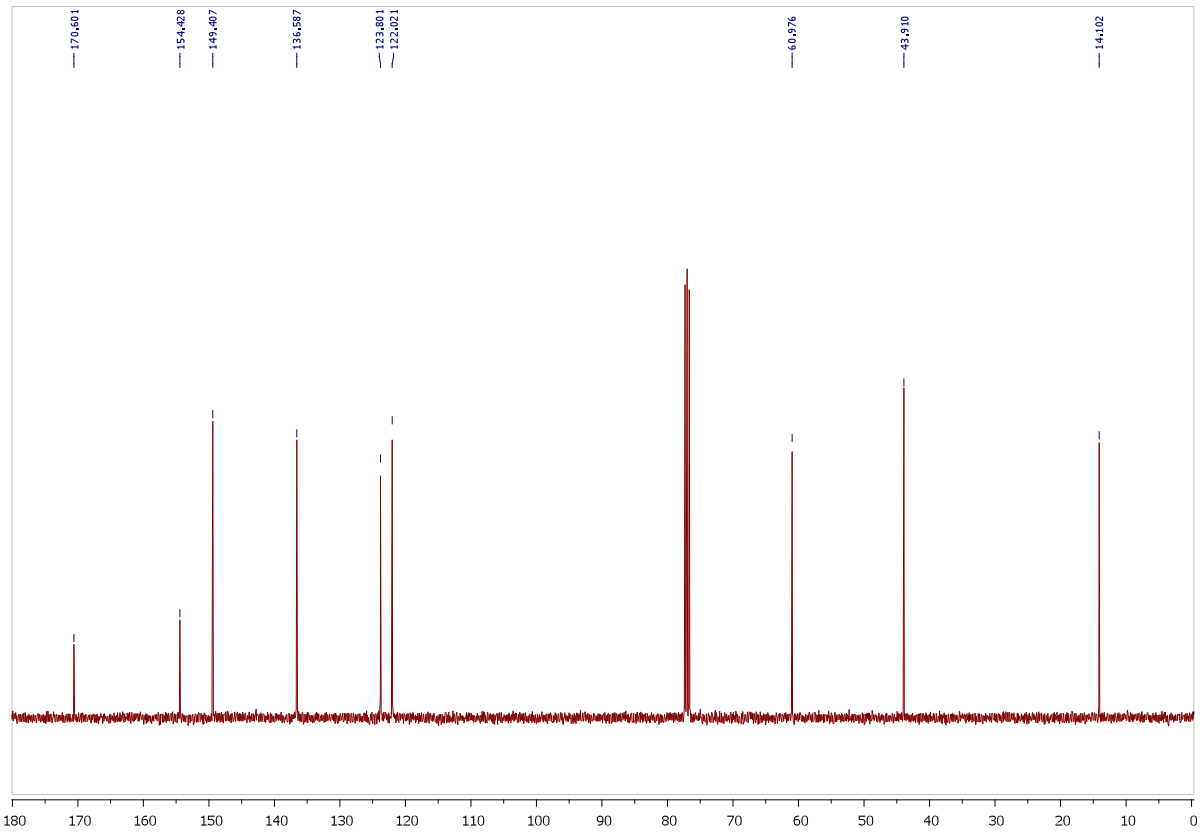
Electronic Supplementary Information (ESI): Copies of ^{1}H NMR and ^{13}C NMR spectra and CSP-GC data.

400 MHz ^{1}H NMR spectrum; 100.6 MHz ^{13}C NMR spectrum; $CDCl_3$





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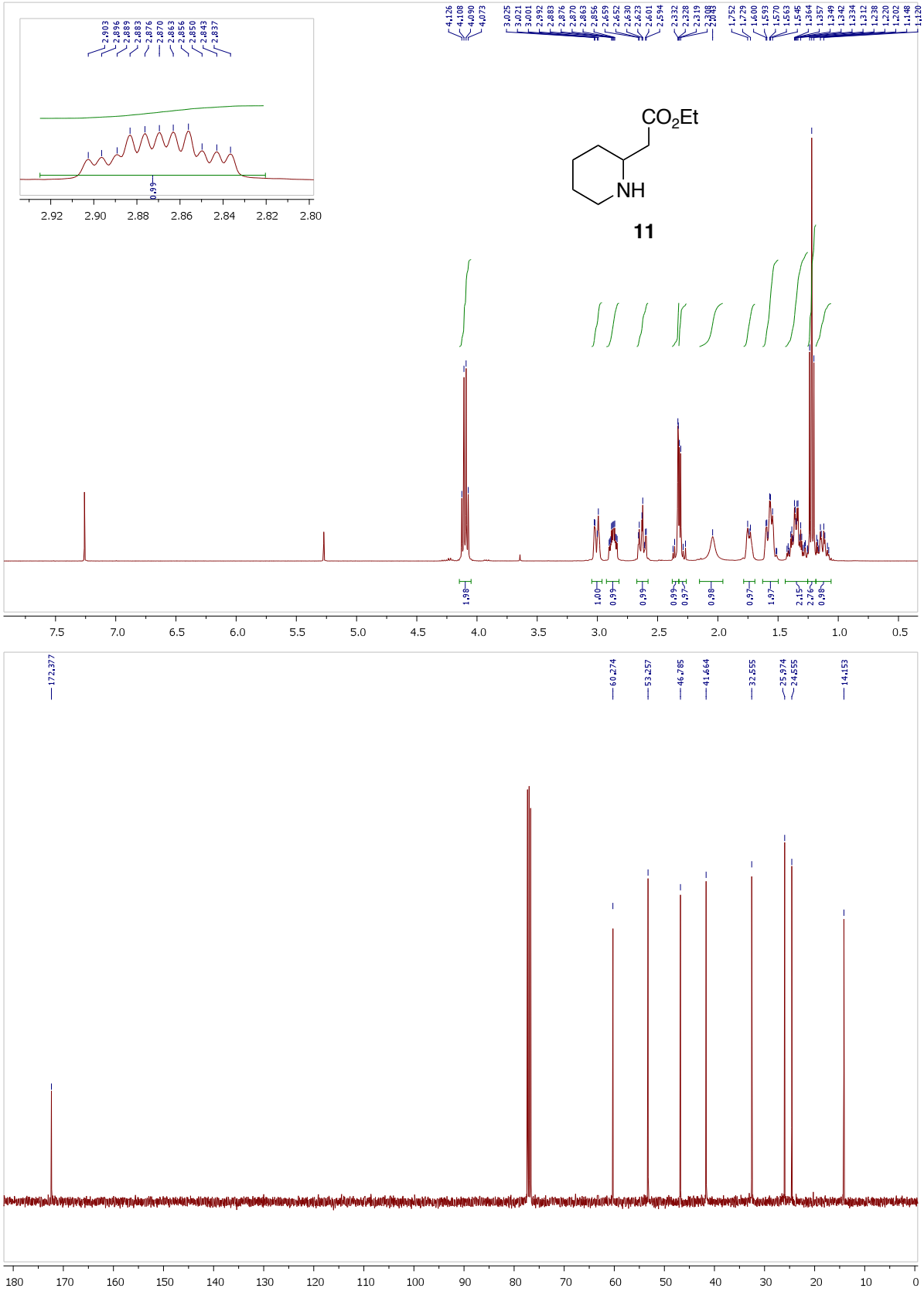

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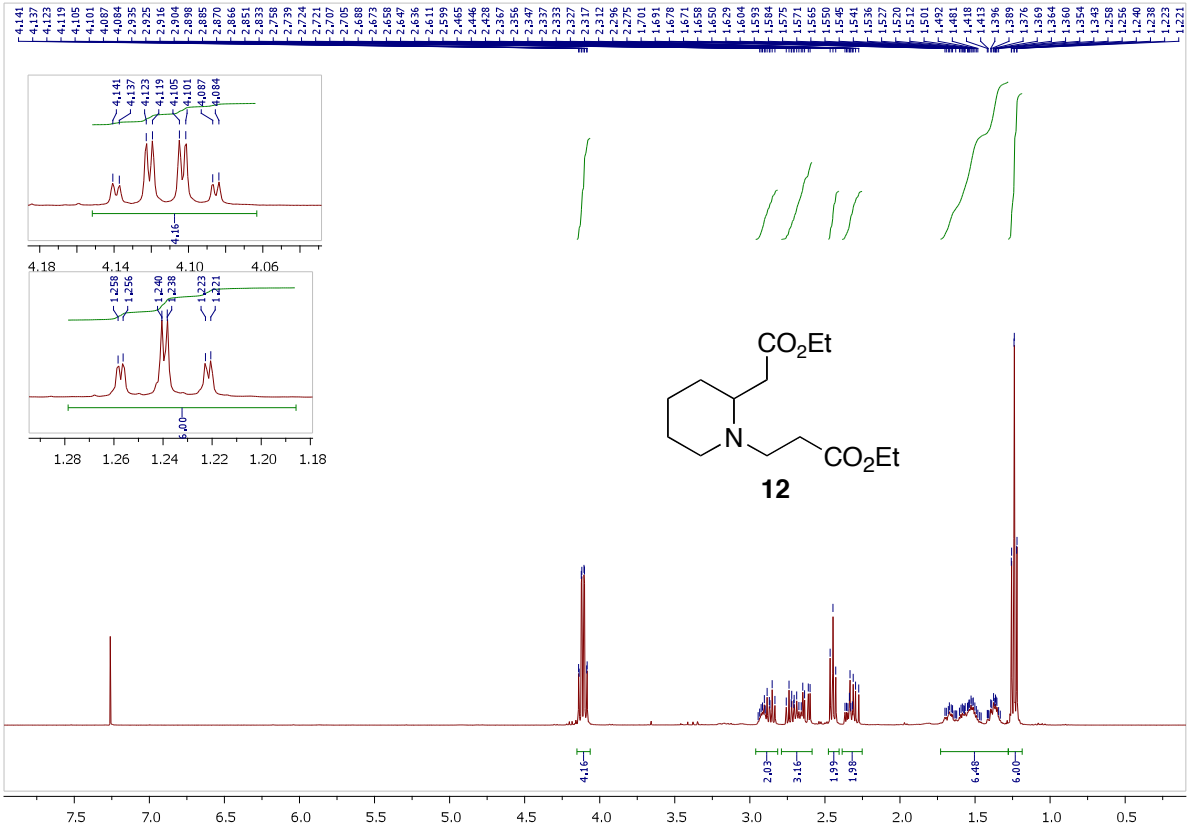

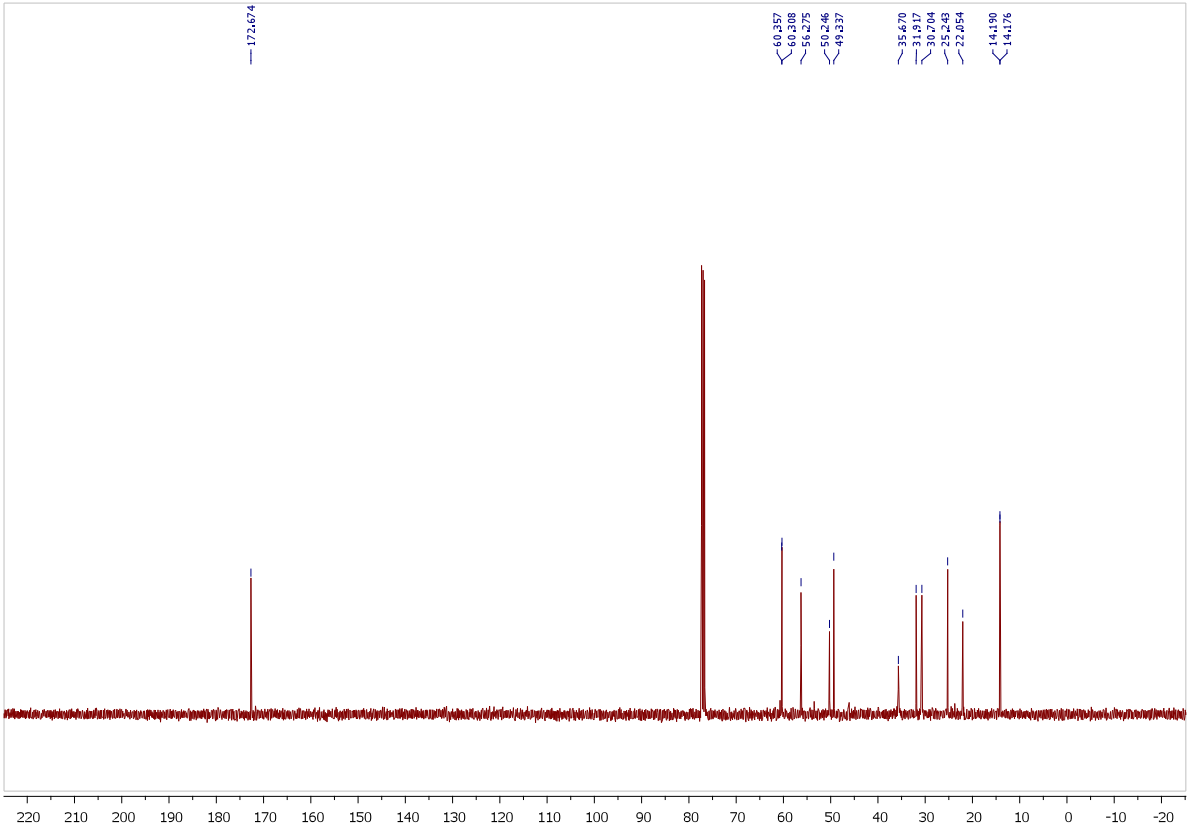

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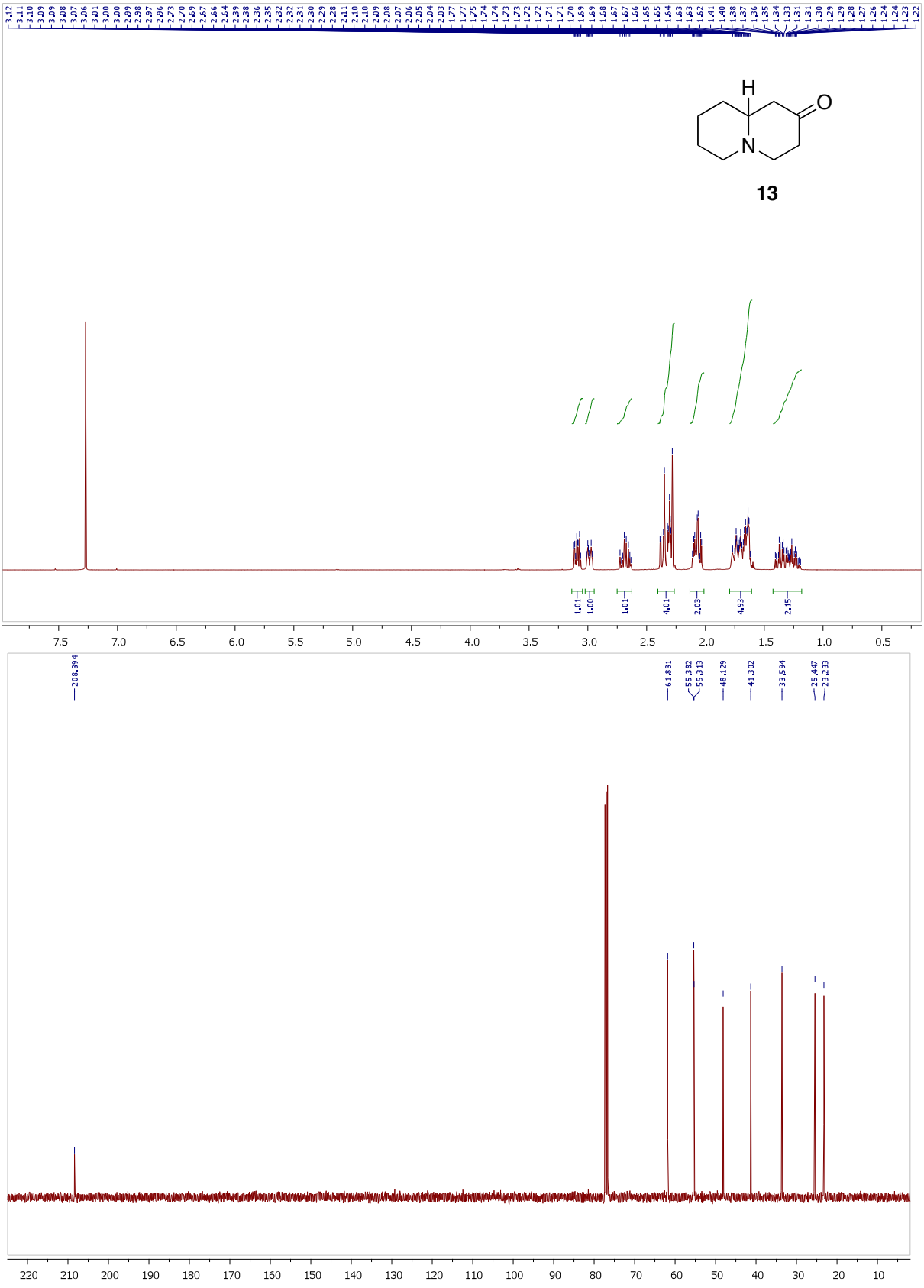

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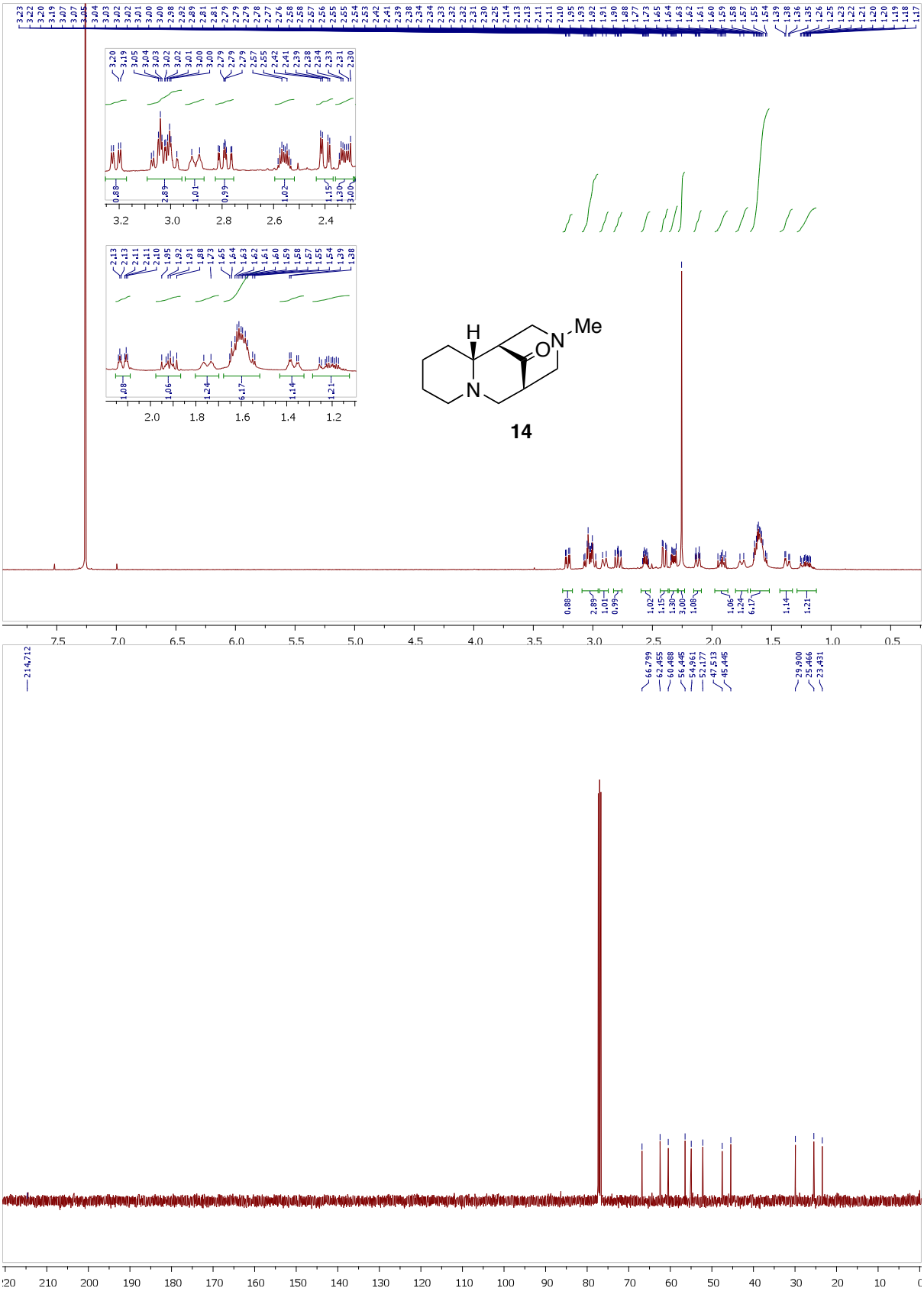

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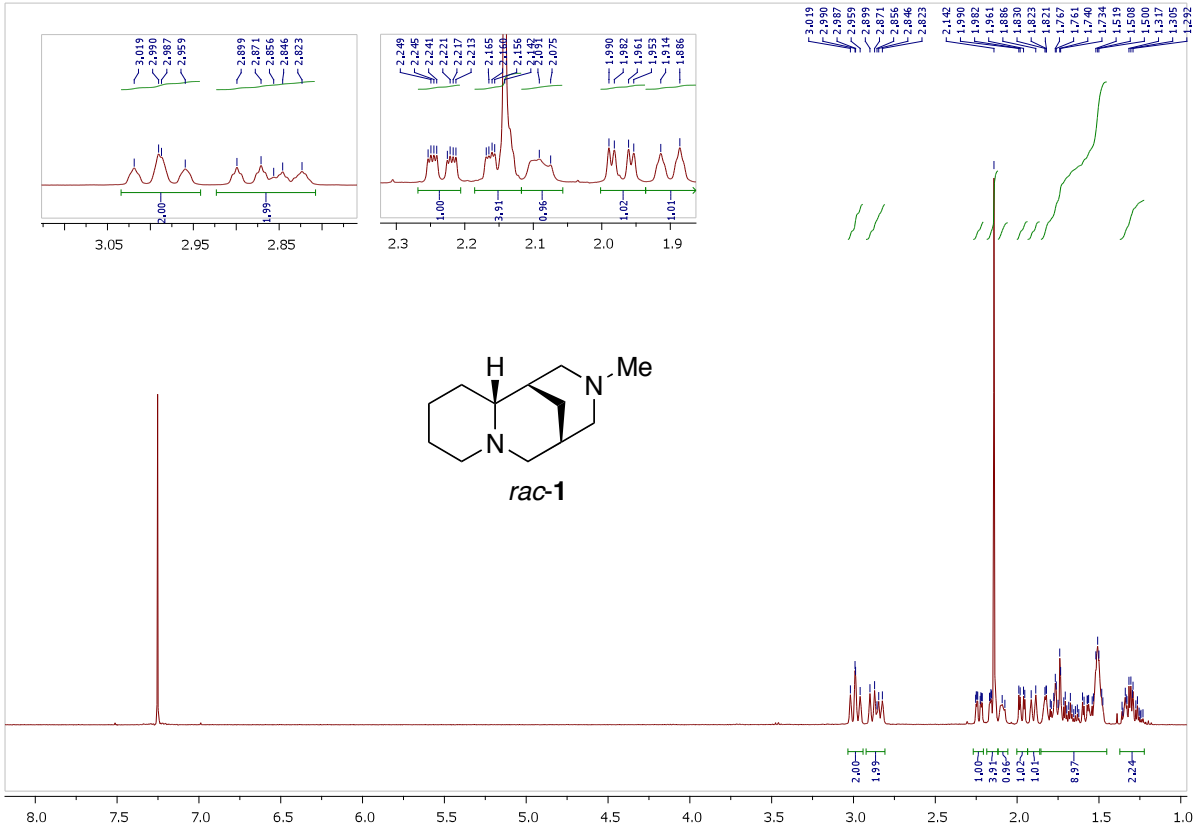
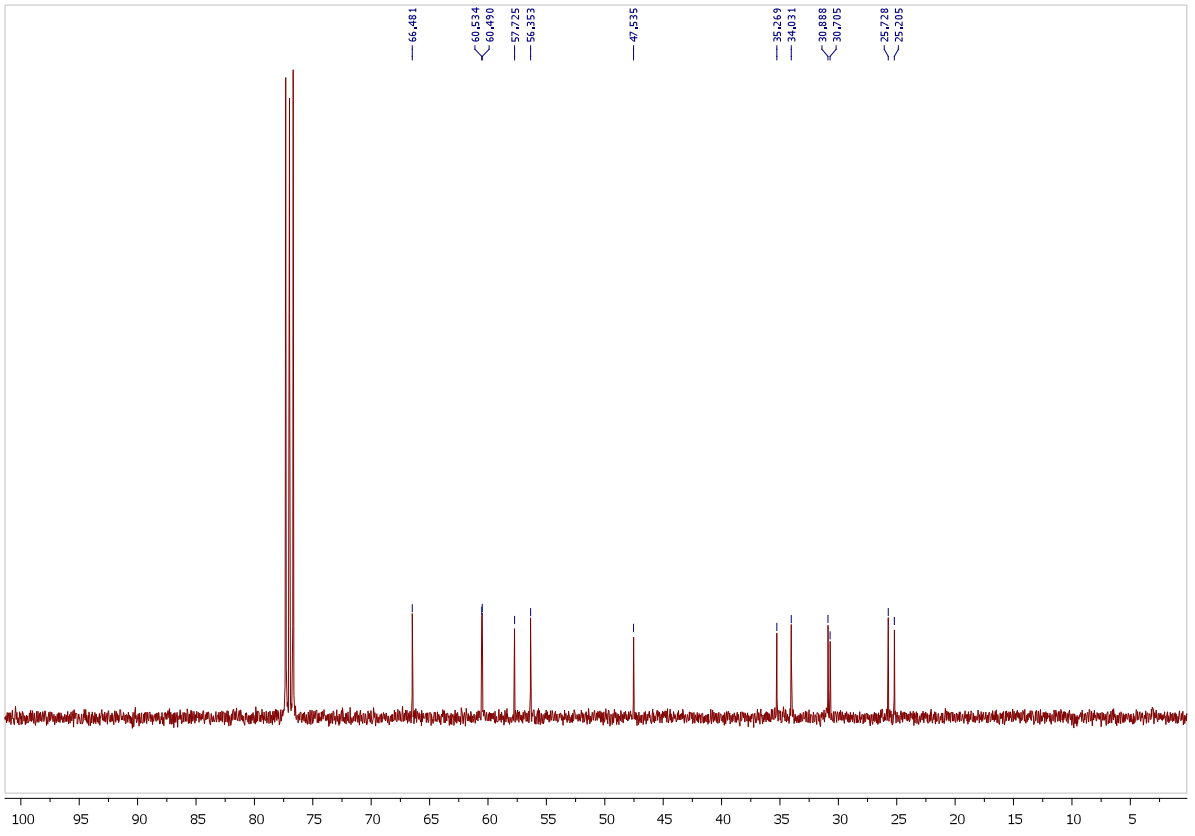
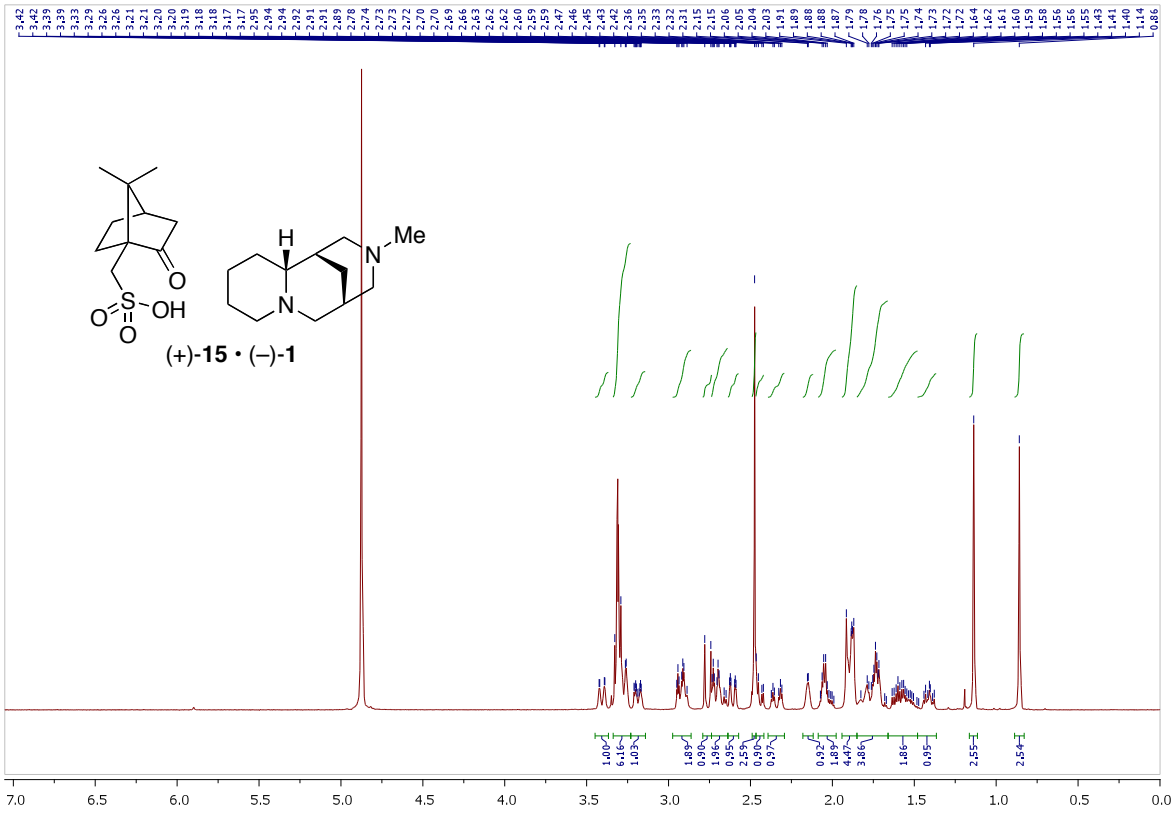
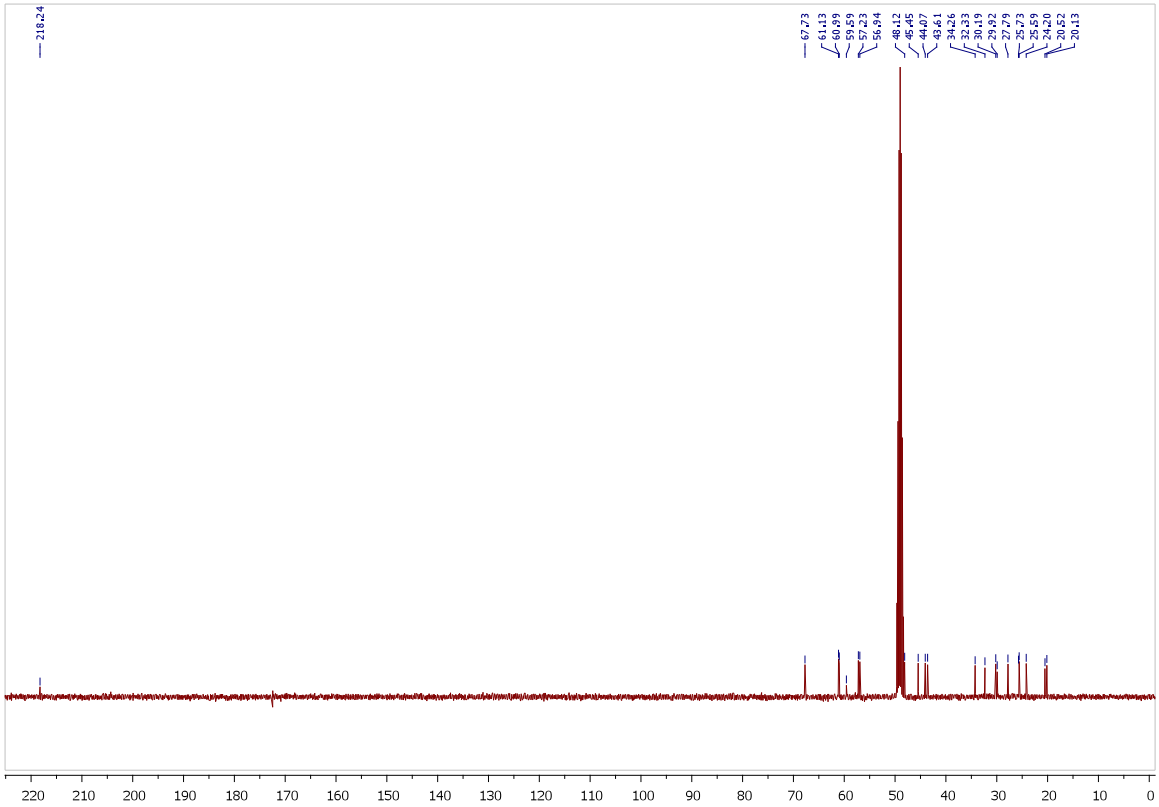


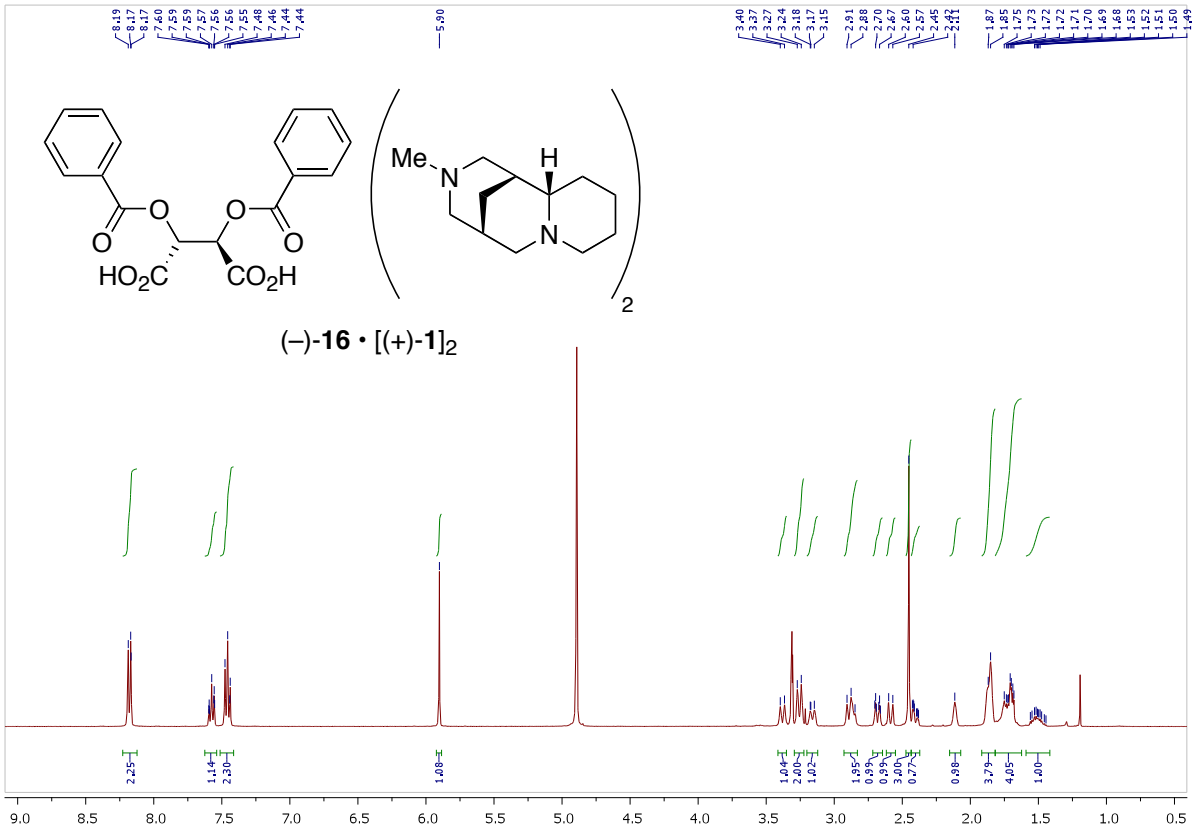


400 MHz ^{1}H NMR spectrum; 100.6 MHz ^{13}C NMR spectrum; CD_3OD

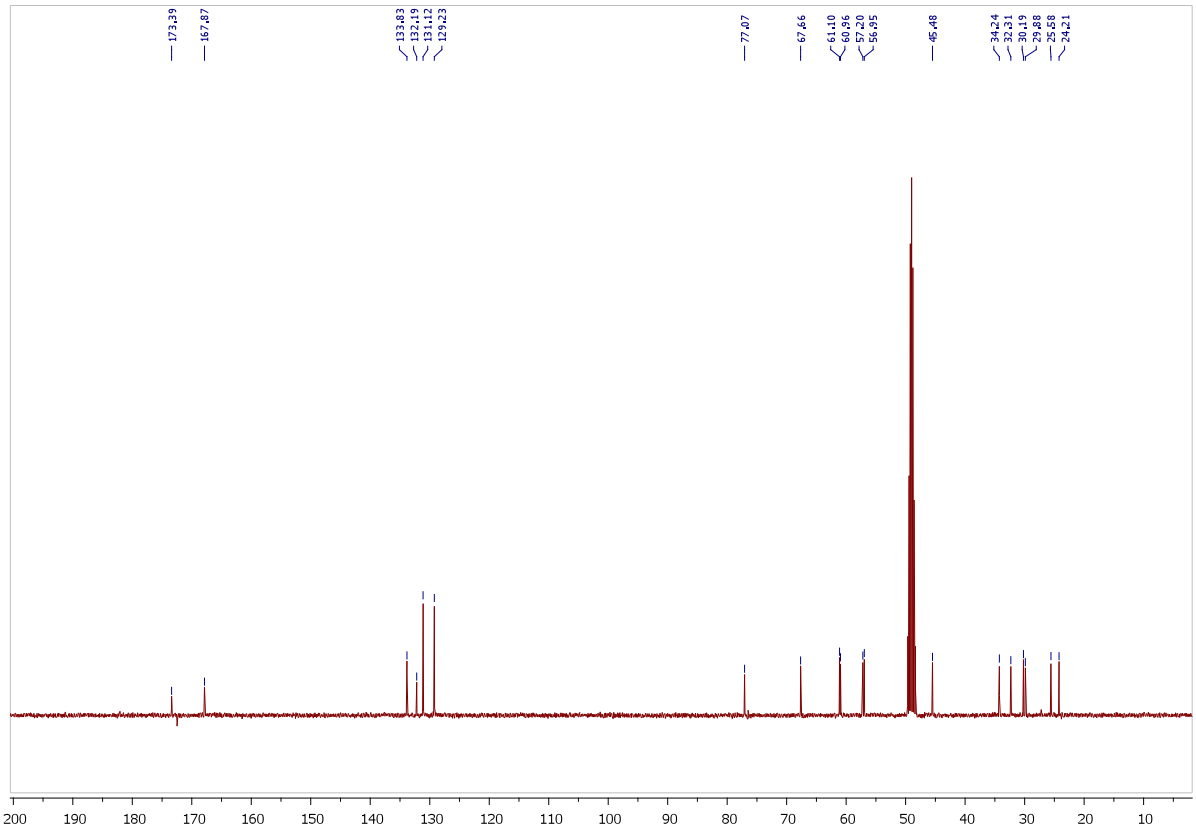




400 MHz ^{1}H NMR spectrum; 100.6 MHz ^{13}C NMR spectrum; CD_3OD



(–)-**16** • [(+)-**1**]$_2$



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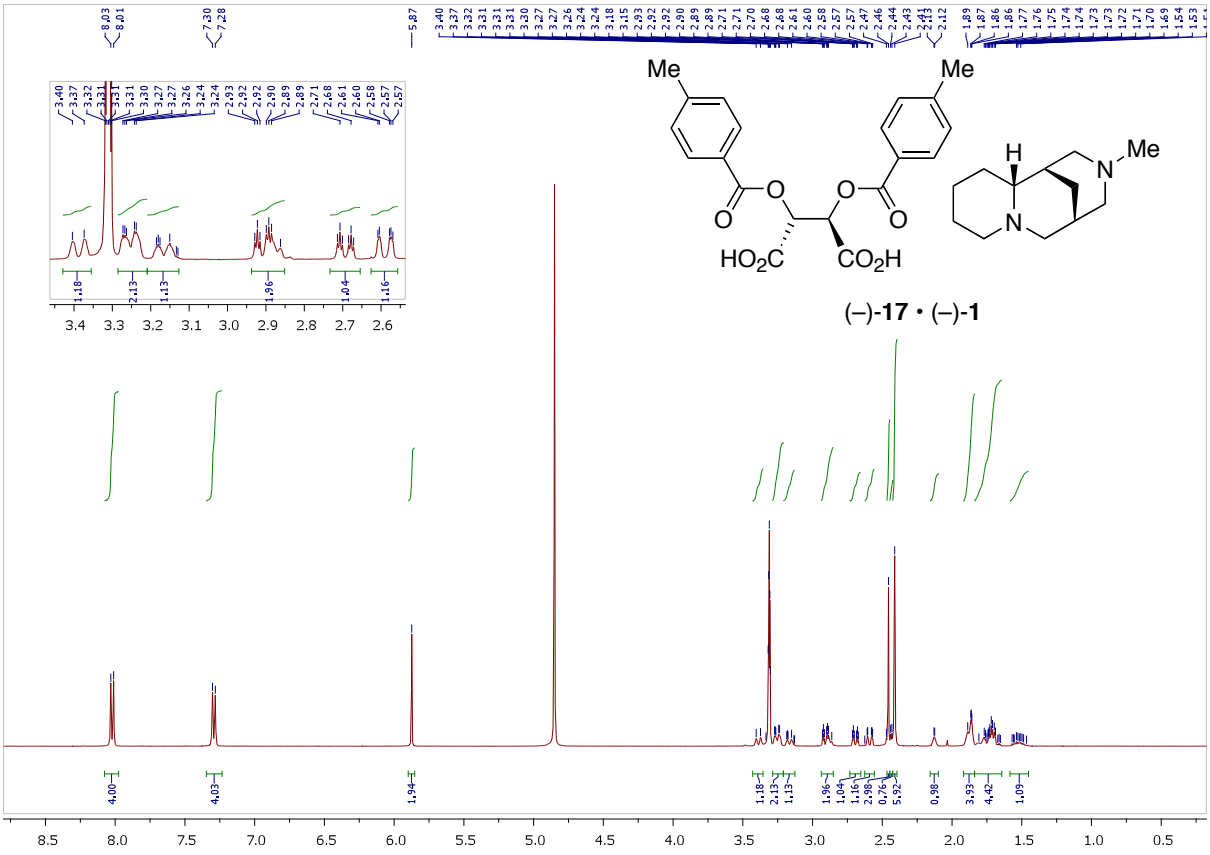
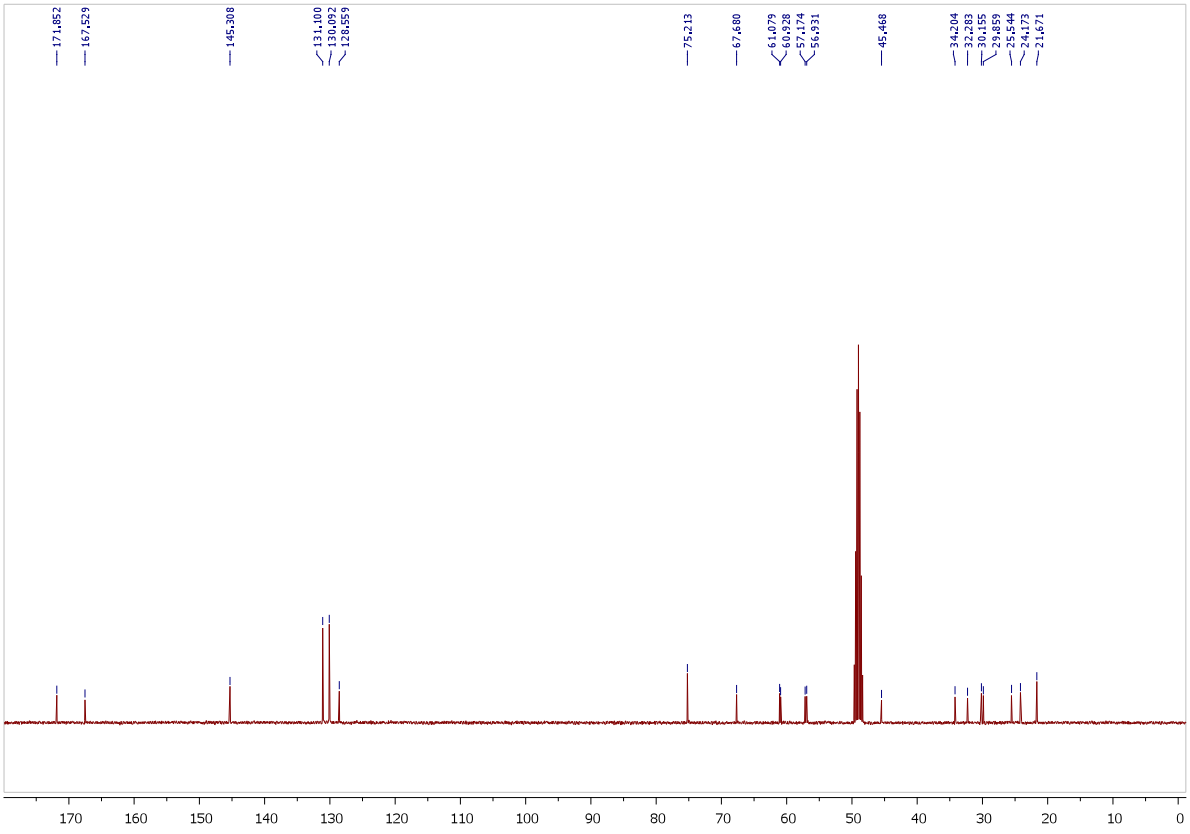
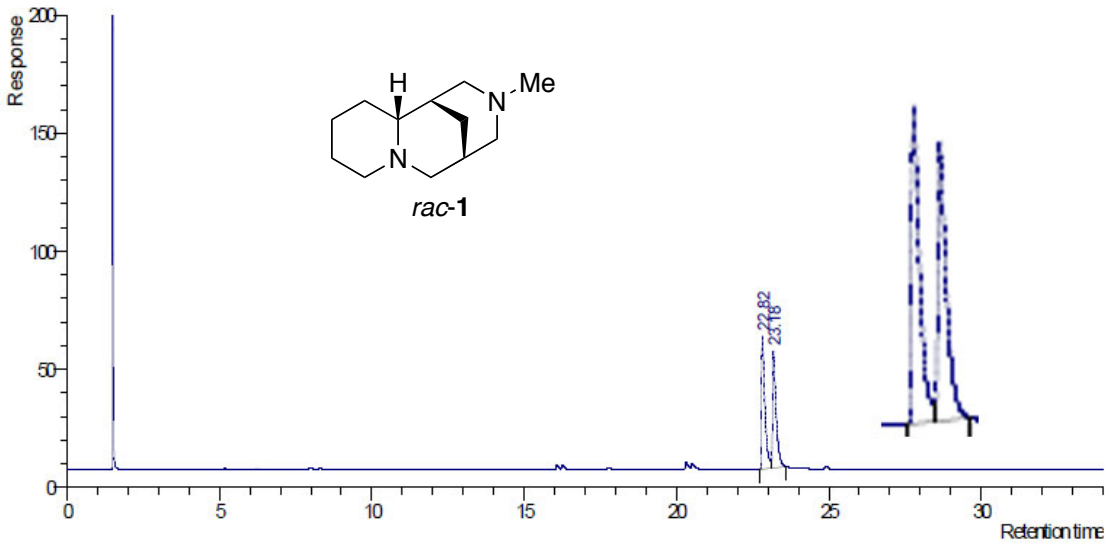


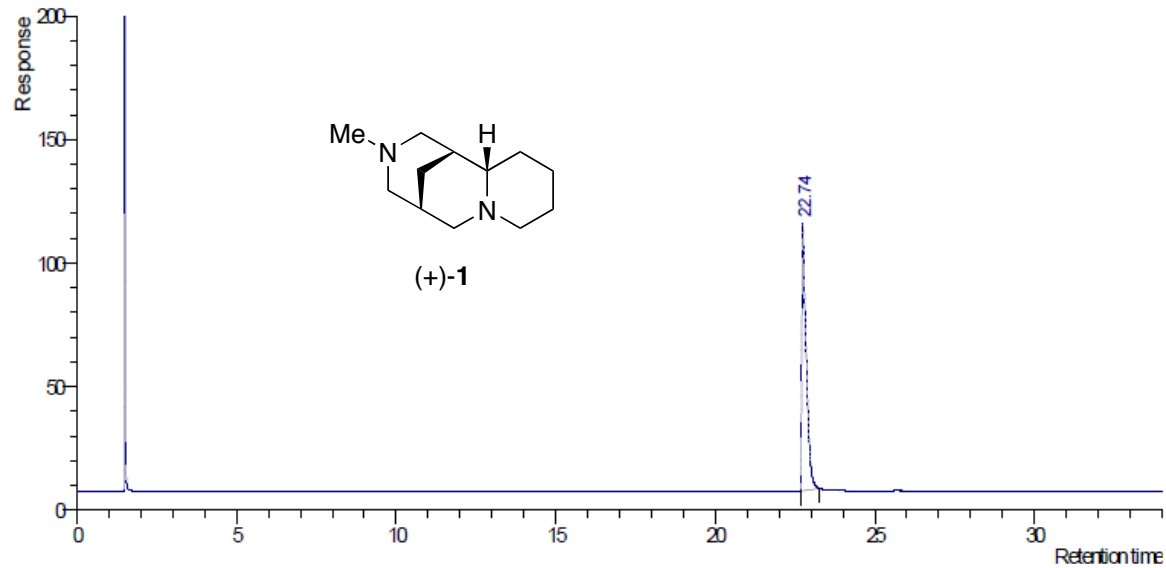


CSP-GC of diamine *rac*-**1**



Peak	RT (mins)	Rel RT	Height	Area	Area%
	22.82	0.00	56.353	434.640	52.050
	23.18	0.00	49.585	400.395	47.950

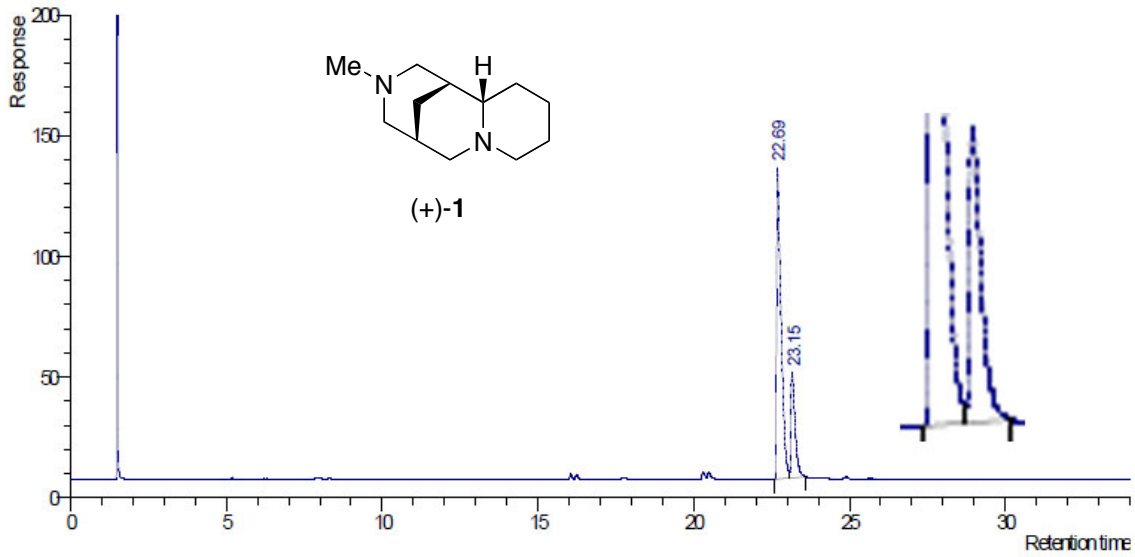
CSP-GC of diamine (+)-**1**



Peak	RT (mins)	Rel RT	Height	Area	Area%
	22.74	0.00	108.354	1035.725	100.000

CSP-GC of diamine *rac*-**1** doped with (+)-**1** (synthesised from (–)-cytisine)

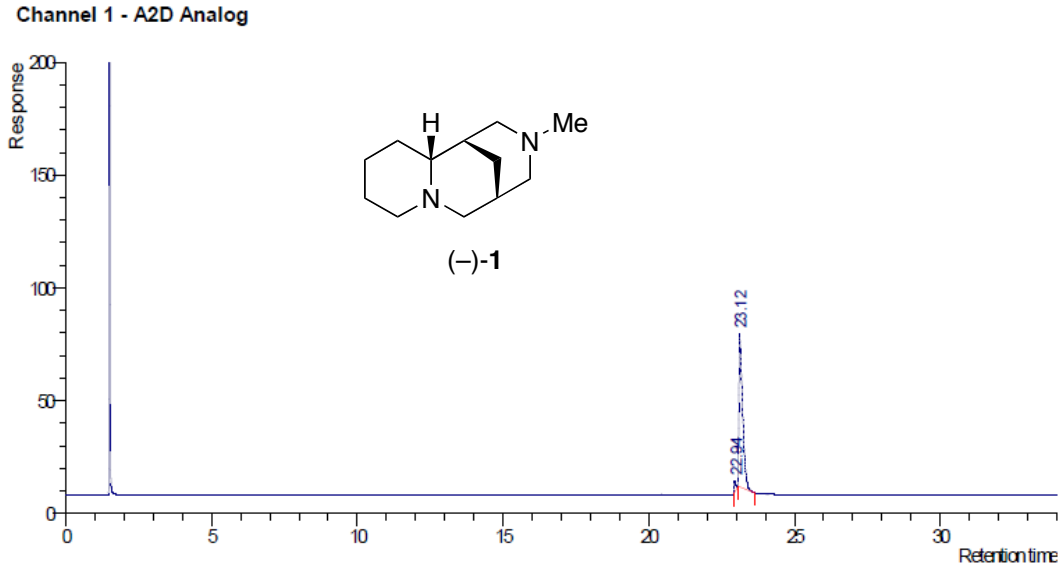
(76:24 mixture of (+)-**1** and (–)-**1**)



(+)-**1**

Peak	RT (mins)	Rel RT	Height	Area	Area%
	22.69	0.00	129.075	1280.484	75.849
	23.15	0.00	43.508	407.719	24.151

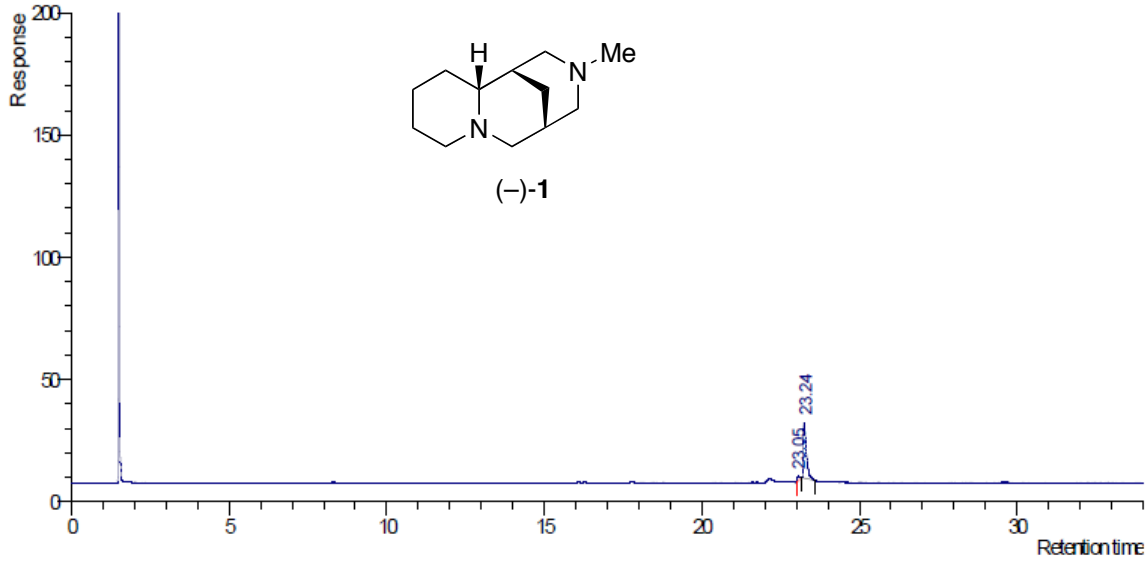
CSP-GC of diamine (–)-**1** (97:3 mixture of (–)-**1** and (+)-**1**)



(–)-**1**

Peak	RT (mins)	Rel RT	Height	Area	Area%
	22.94	0.00	5.062	20.593	3.397
	23.12	0.00	67.838	585.597	96.603

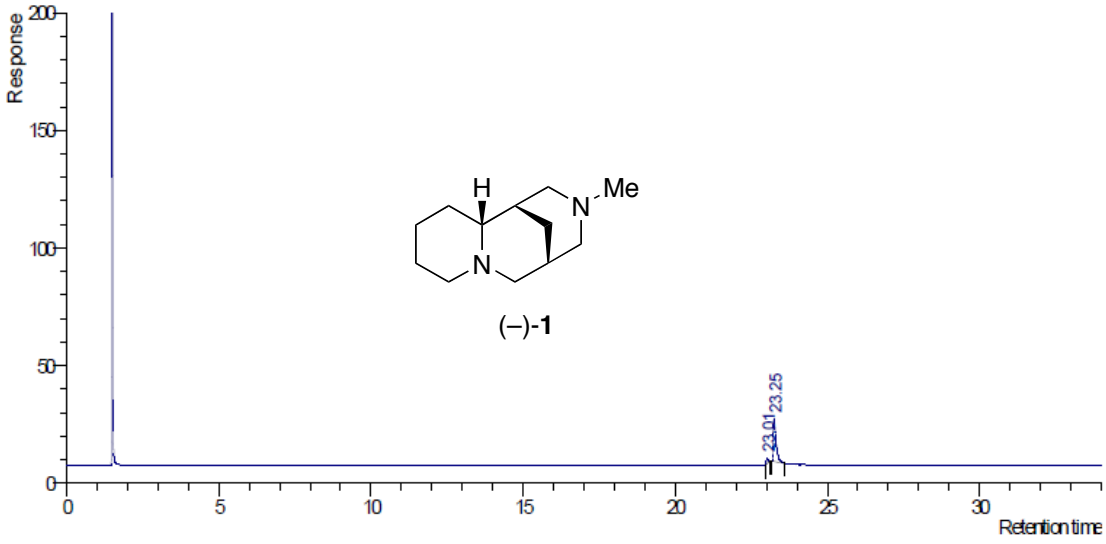
CSP-GC of diamine (–)-**1** (95:5 mixture of (–)-**1** and (+)-**1**)



(–)-**1**

Peak	RT (mins)	Rel RT	Height	Area	Area%
	23.05	0.00	1.929	8.406	5.079
	23.24	0.00	22.631	157.108	94.921

CSP-GC of diamine (–)-**1** (93:7 mixture of (–)-**1** and (+)-**1**)

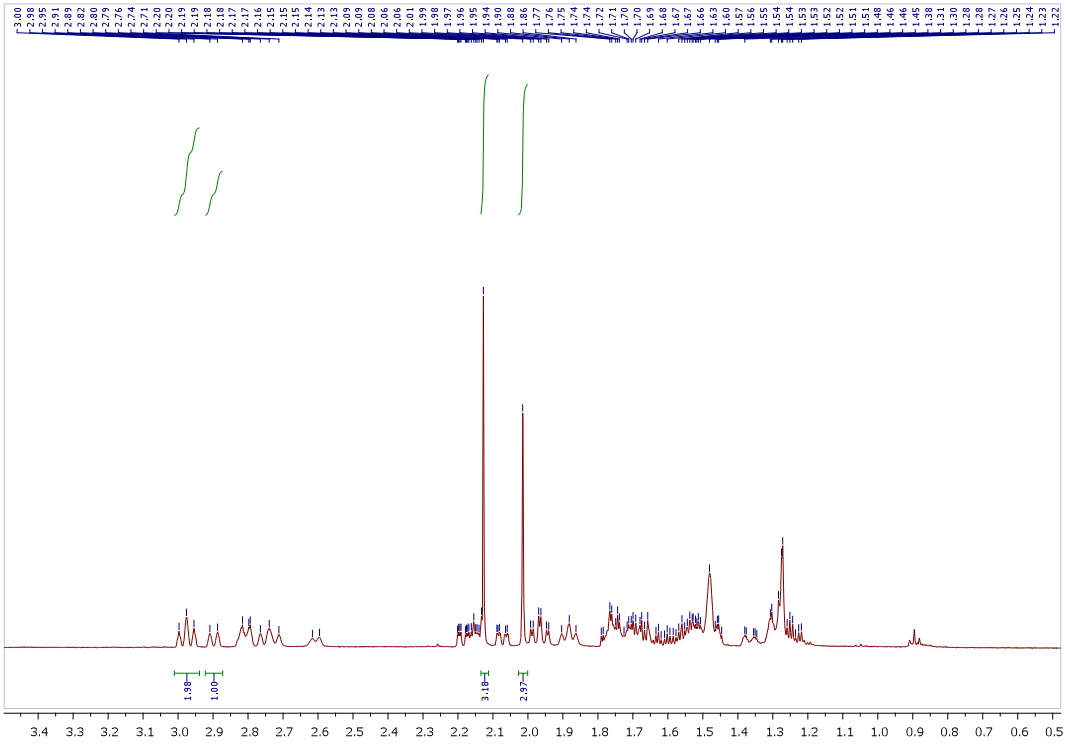


(–)-**1**

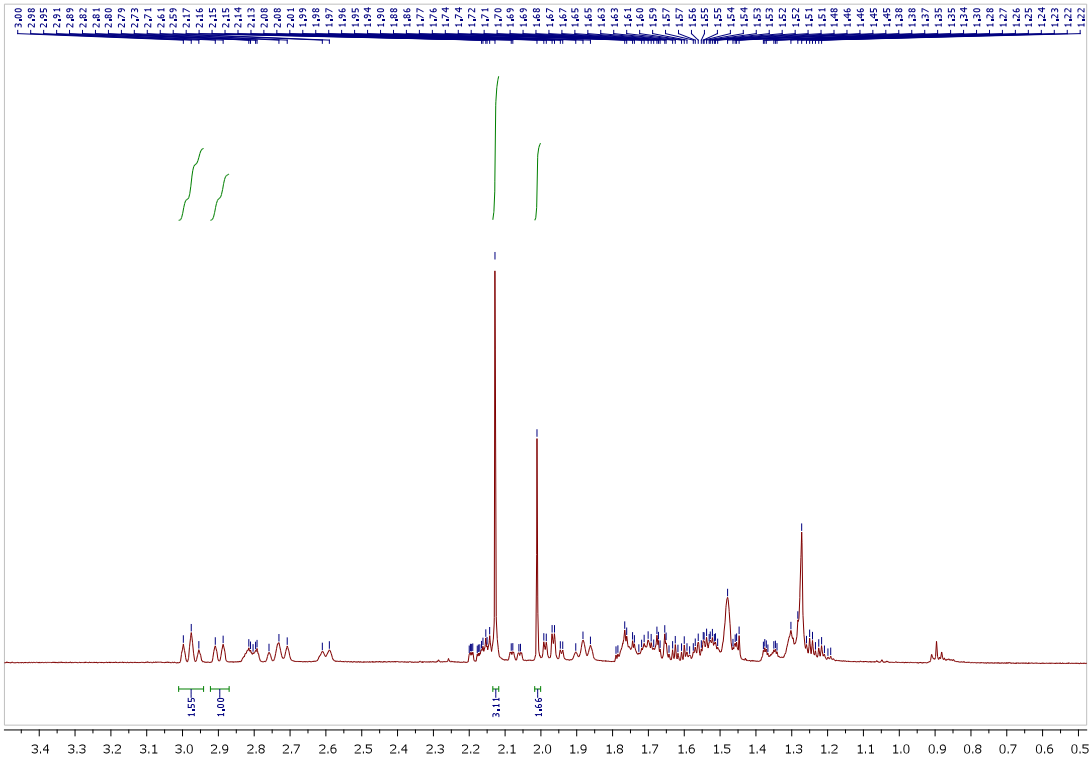
Peak	RT (mins)	Rel RT	Height	Area	Area%
	23.01	0.00	2.171	9.463	7.252
	23.25	0.00	18.364	121.028	92.748

400 MHz ^{1}H NMR spectrum; $CDCl_3$

Diamine *rac*-**1** + (*R*)-(−)-1-(9-anthryl)-2,2,2-trifluoroethanol



Diamine **1** + (*R*)-(−)-1-(9-anthryl)-2,2,2-trifluoroethanol: 65:35 (+)-**1**:(–)-**1**



Diamine **1** + (*R*)-(−)-1-(9-anthryl)-2,2,2-trifluoroethanol: 95:5 (–)-**1**:(+)-**1**