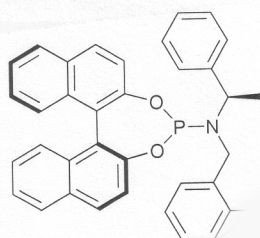


## **ELECTRONIC SUPPLEMENTARY INFORMATION**

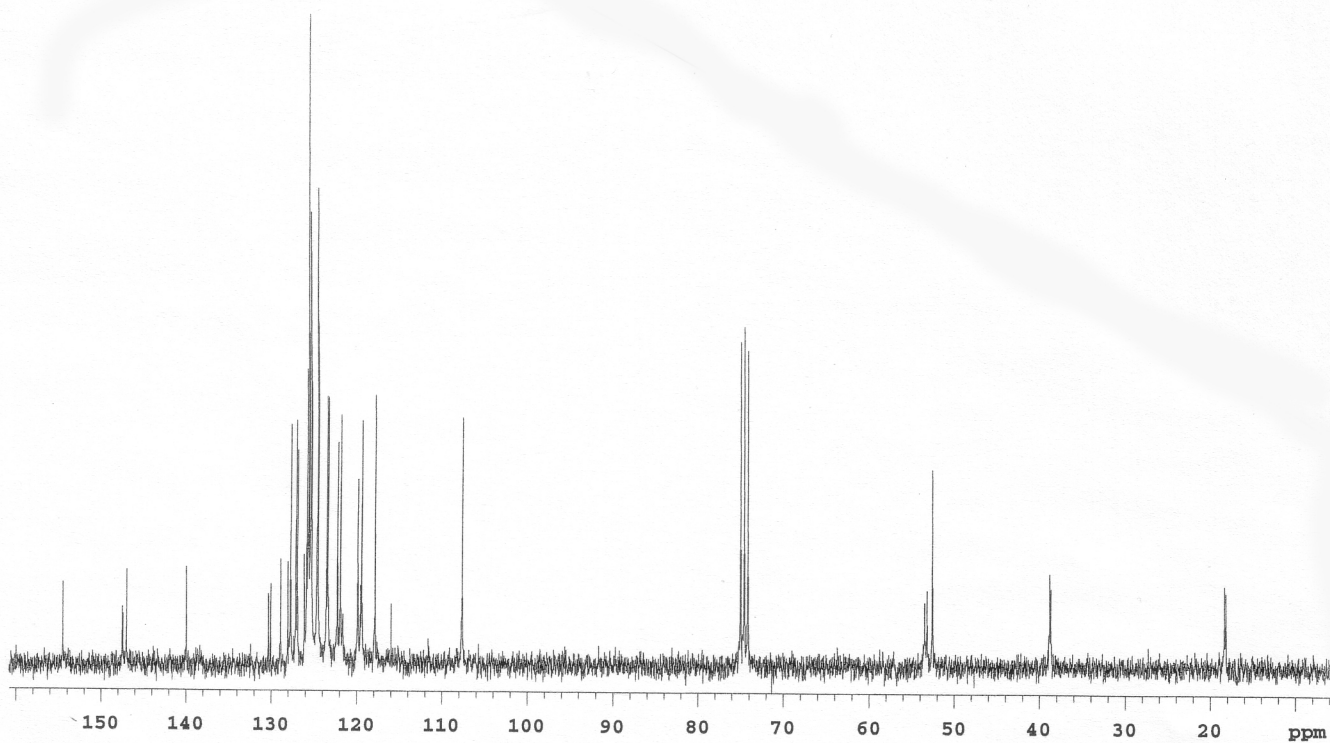
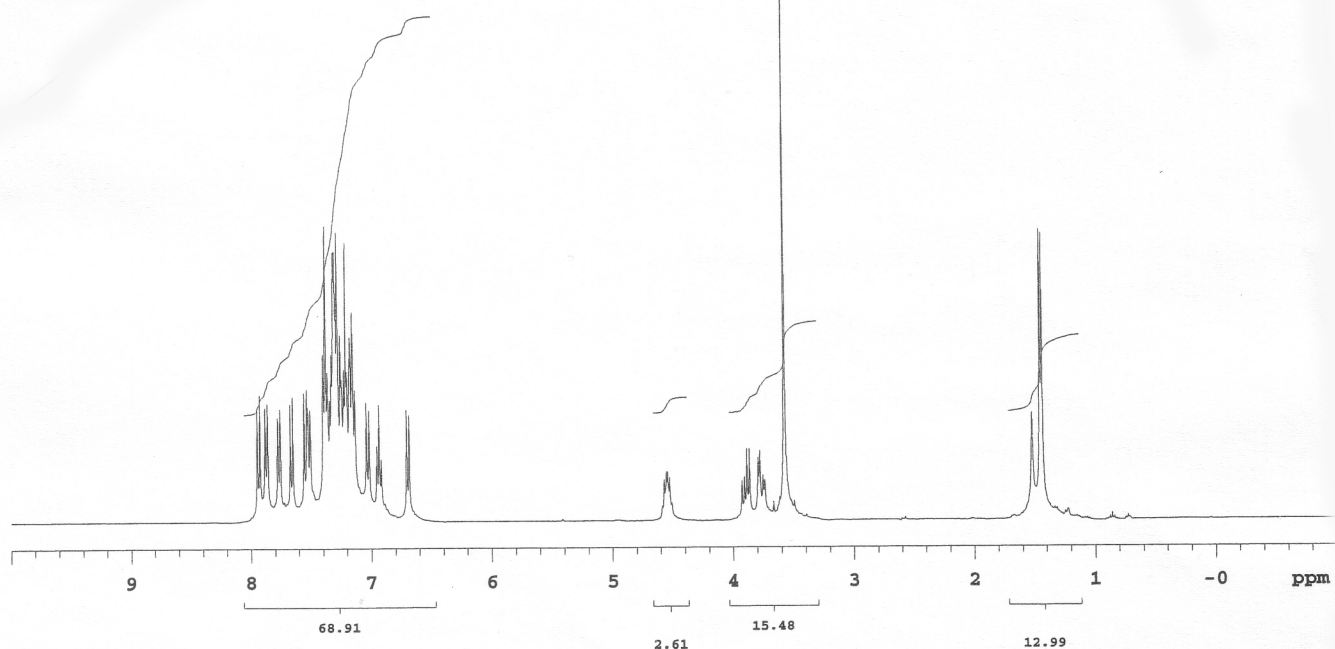
### **Asymmetric Allylation of Aldehydes: Studies on the Scope and Mechanism of the Palladium Catalysed, Diethylzinc Mediated Umpolung using Phosphoramidite Ligands**

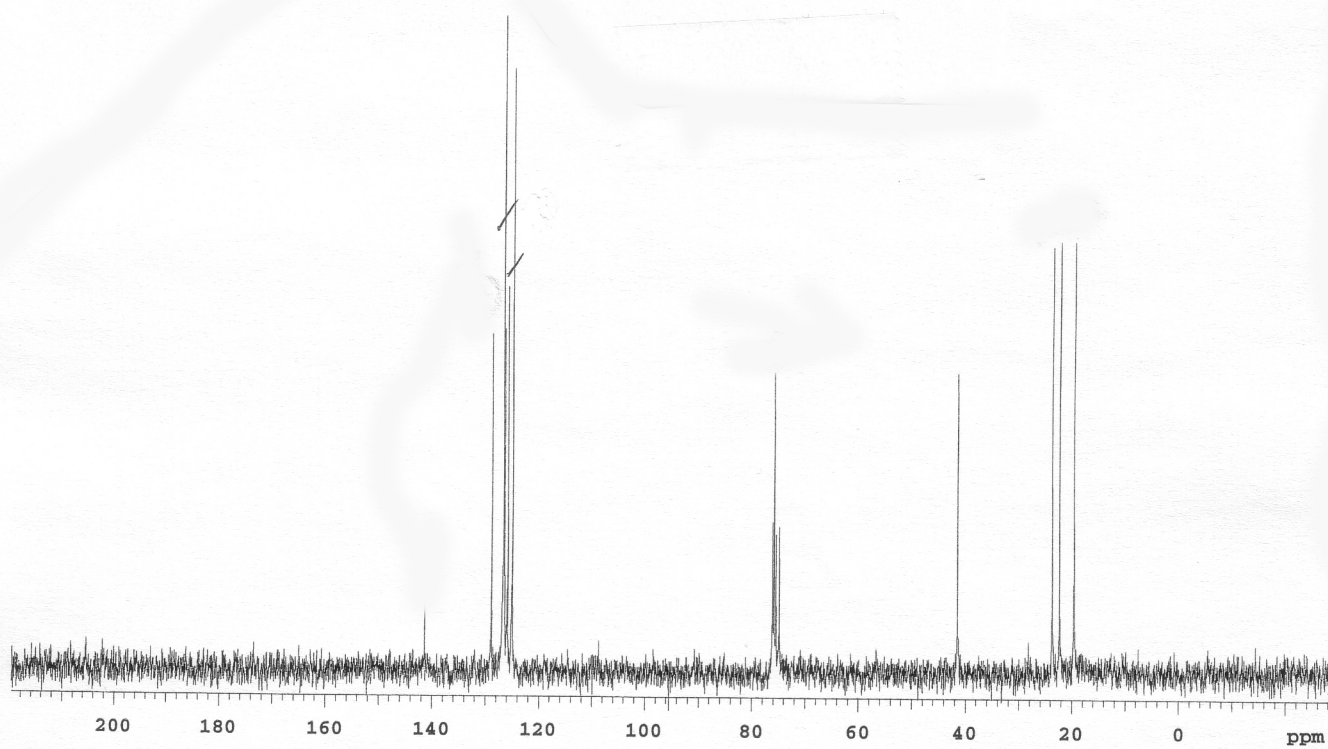
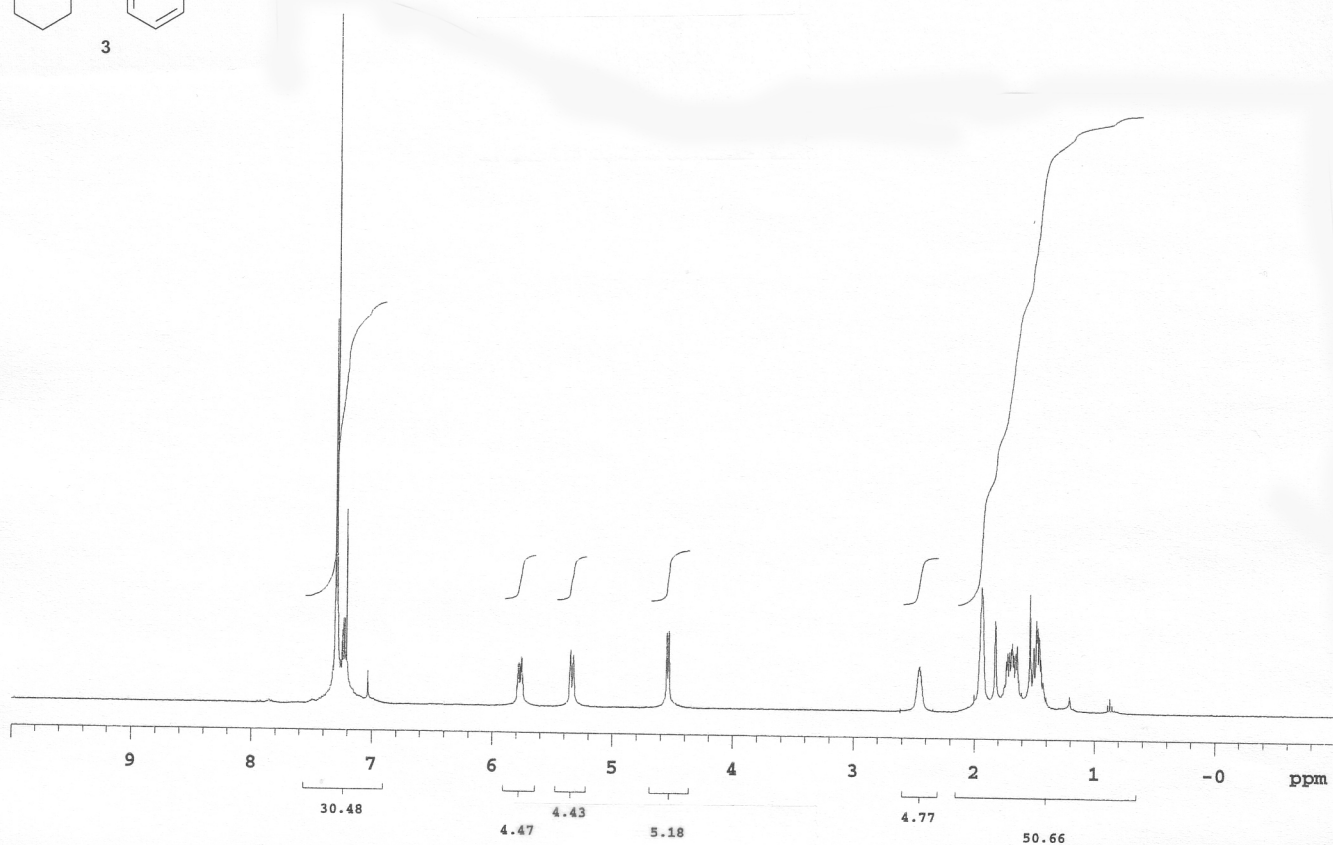
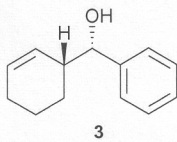
Gareth P. Howell, Adriaan J. Minnaard\* and Ben L. Feringa\*

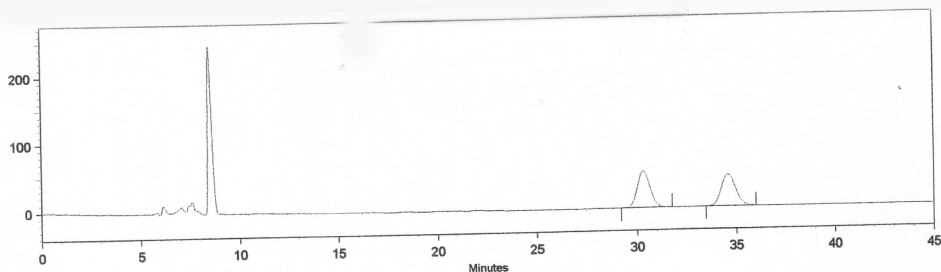
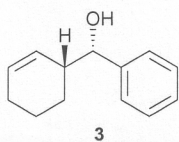
*Department of Organic and Molecular Inorganic Chemistry, Stratingh Institute,  
University of Groningen, Nijenborgh 4, 9747AG Groningen, The Netherlands*



A14



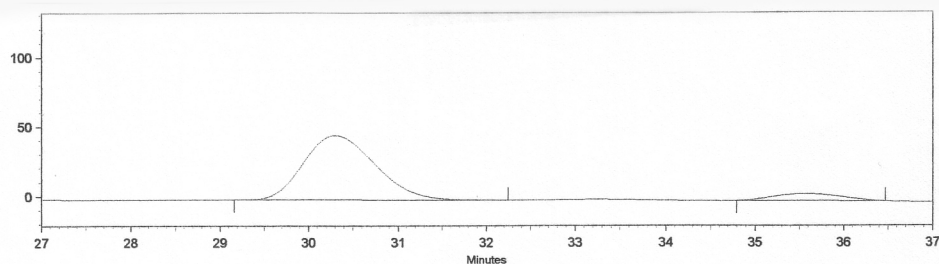
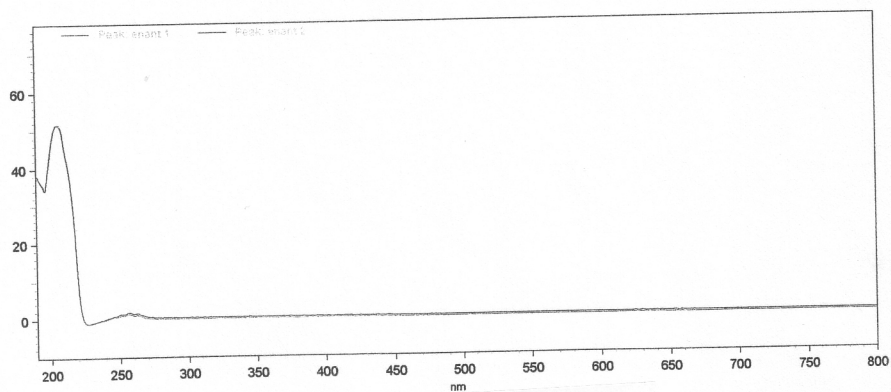




1: 210 nm, 8 nm

Pk #	Name	Retention Time	Area	Area Percent
1		30.325	2395994	50.29
2		34.592	2368739	49.71
Totals			4764733	100.00

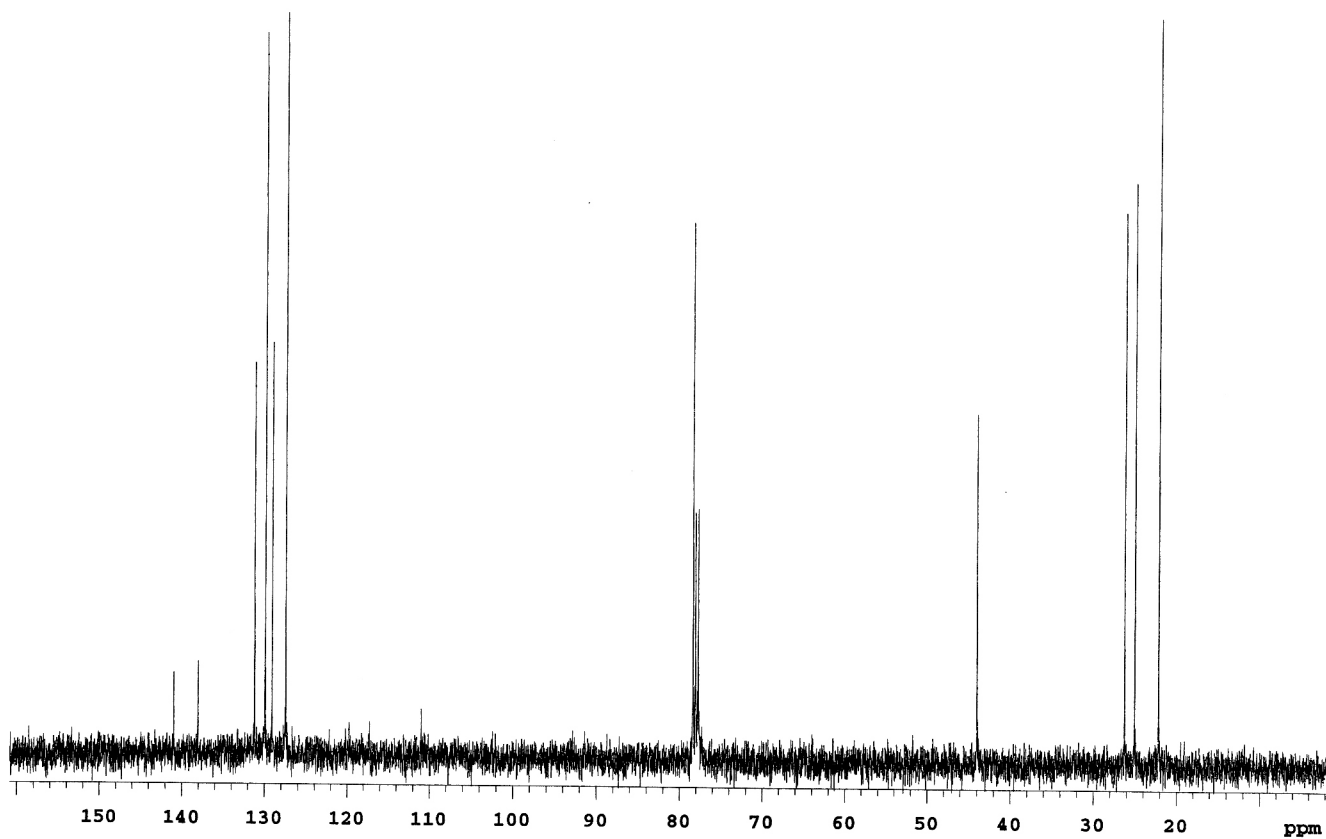
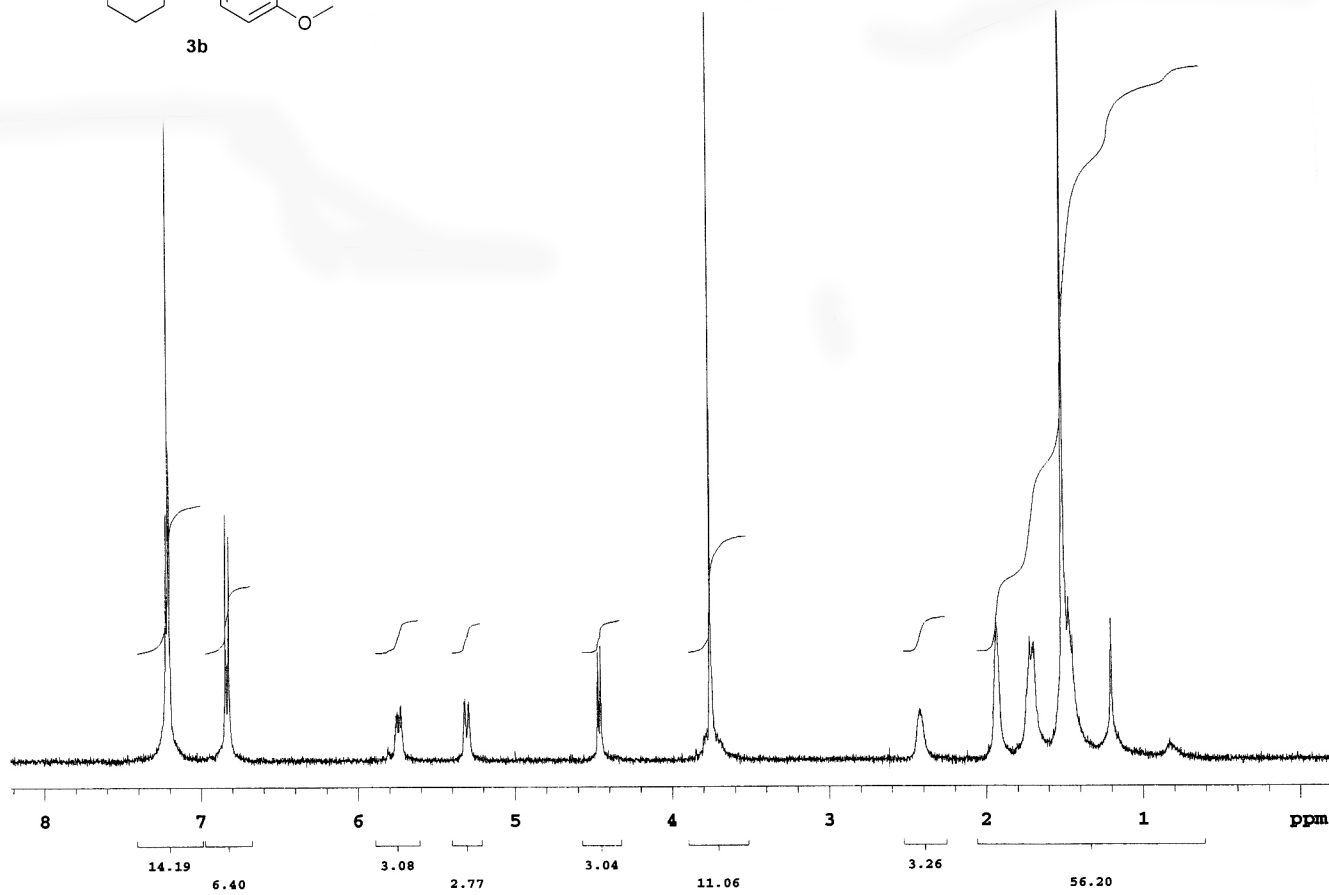
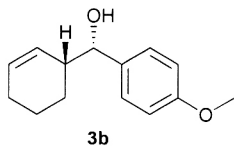
Peak: enant 1

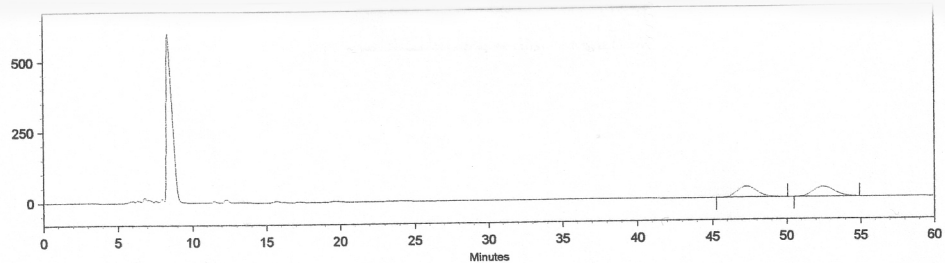
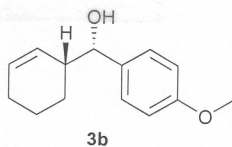


1: 220 nm, 8 nm

Pk #	Name	Retention Time	Area	Area Percent
1	1	30.304	2564472	90.58
2	2	35.552	266817	9.42
Totals			2831289	100.00





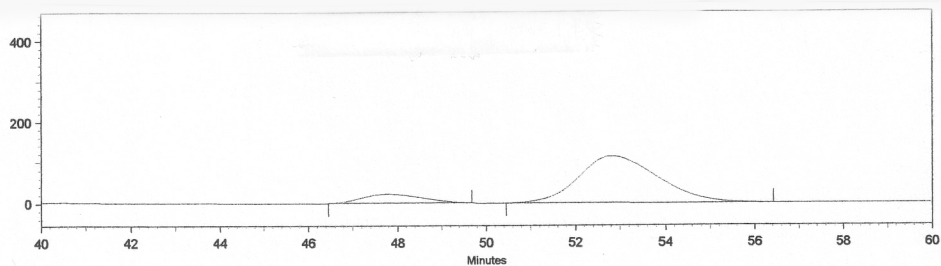
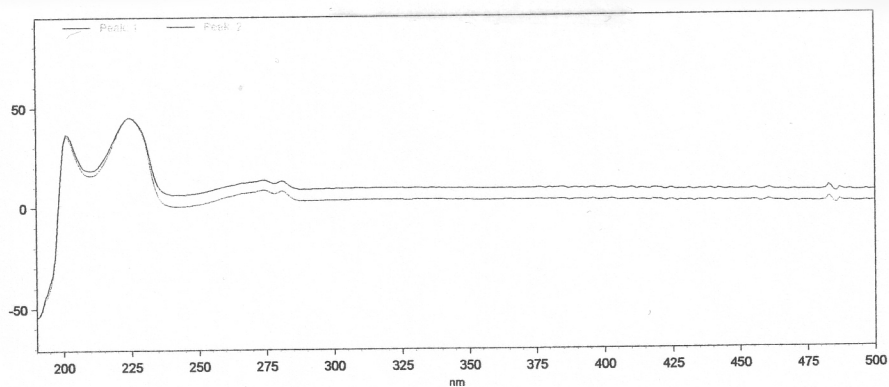


1: 220 nm, 8 nm

Pk #	Name	Retention Time	Area	Area Percent
1		47.307	3625210	49.84
2		52.480	3648829	50.16

Totals			7274039	100.00
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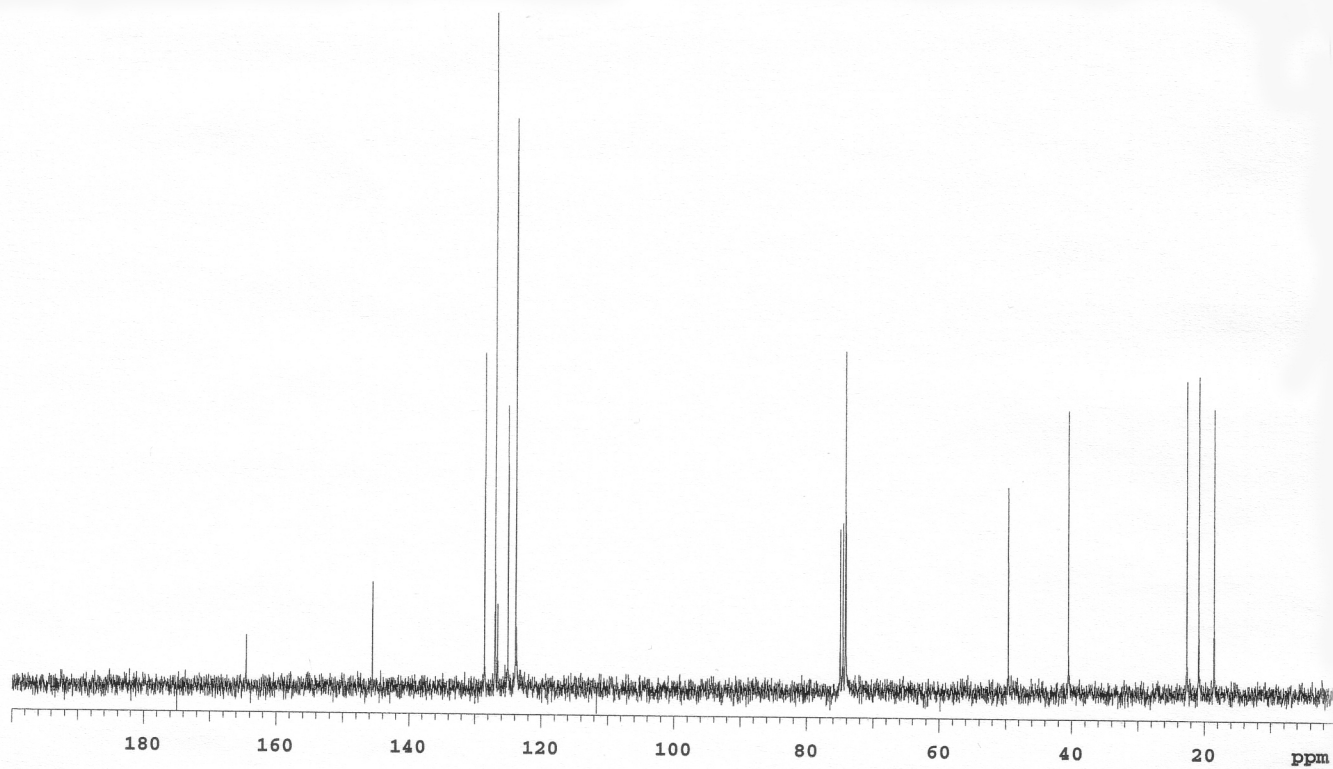
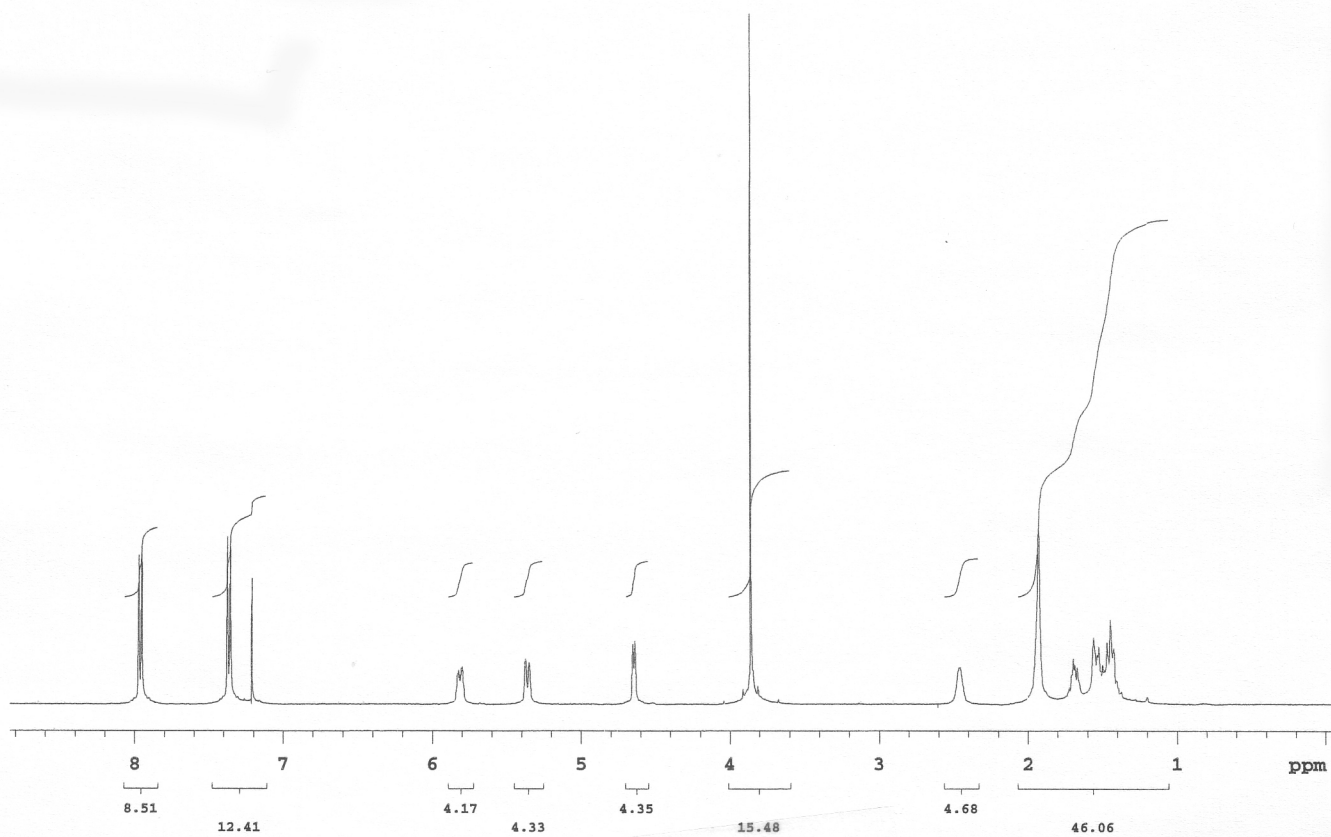
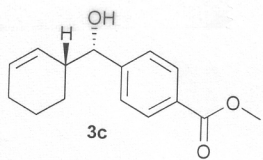
Peak 1

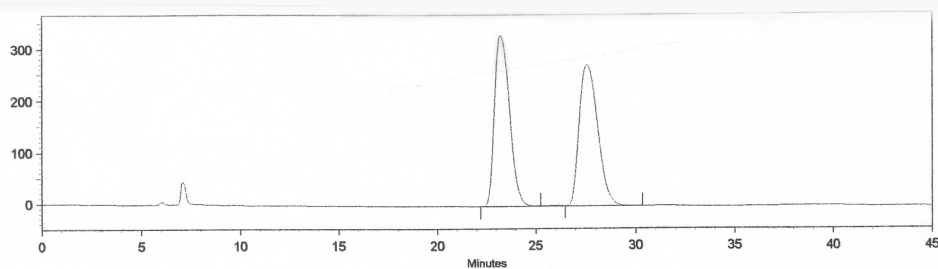
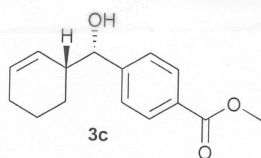


1: 220 nm, 8 nm

Pk #	Name	Retention Time	Area	Area Percent
1		47.787	2094203	13.04
2		52.811	13965268	86.96

Totals			16059471	100.00
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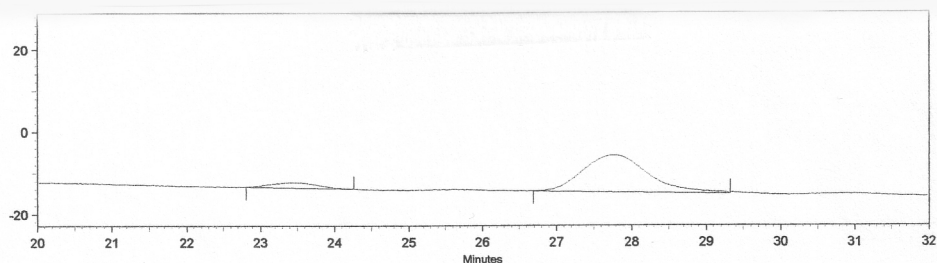
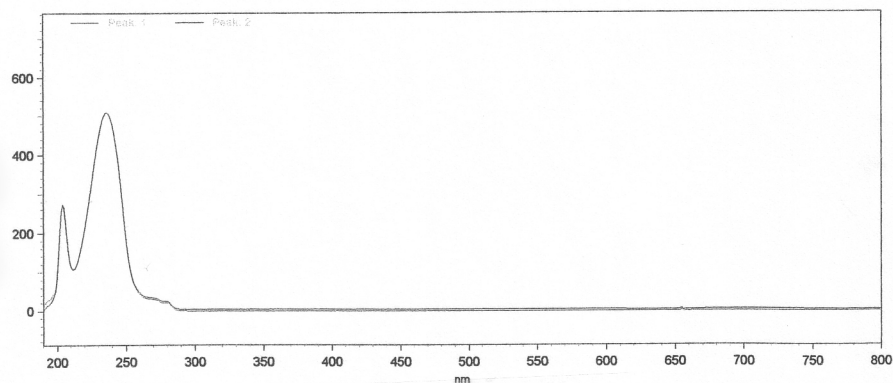


1: 225 nm, 8 nm

Pk #	Name	Retention Time	Area	Area Percent
1		23.211	17820922	49.86
2		27.552	17919606	50.14

Totals			35740528	100.00
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Peak: 1



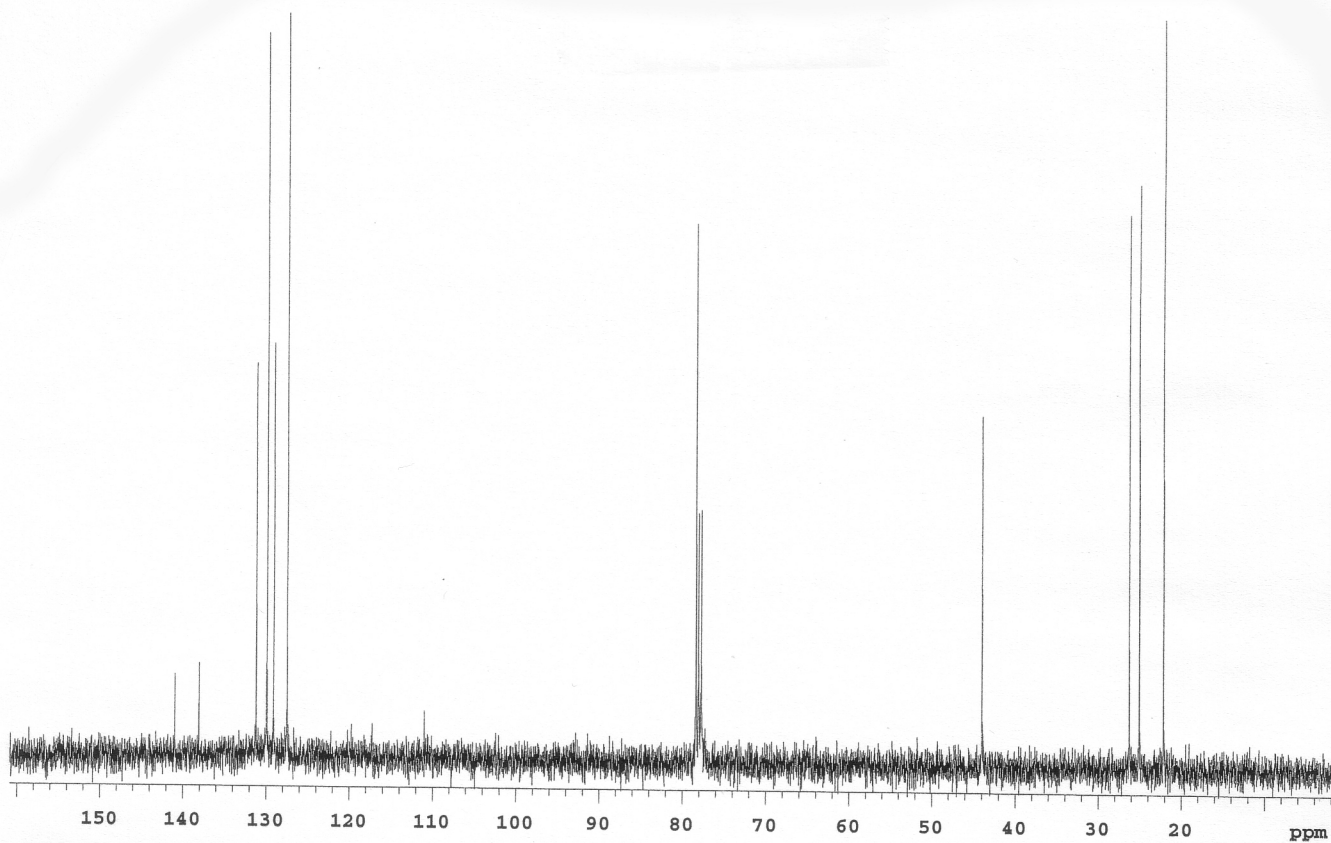
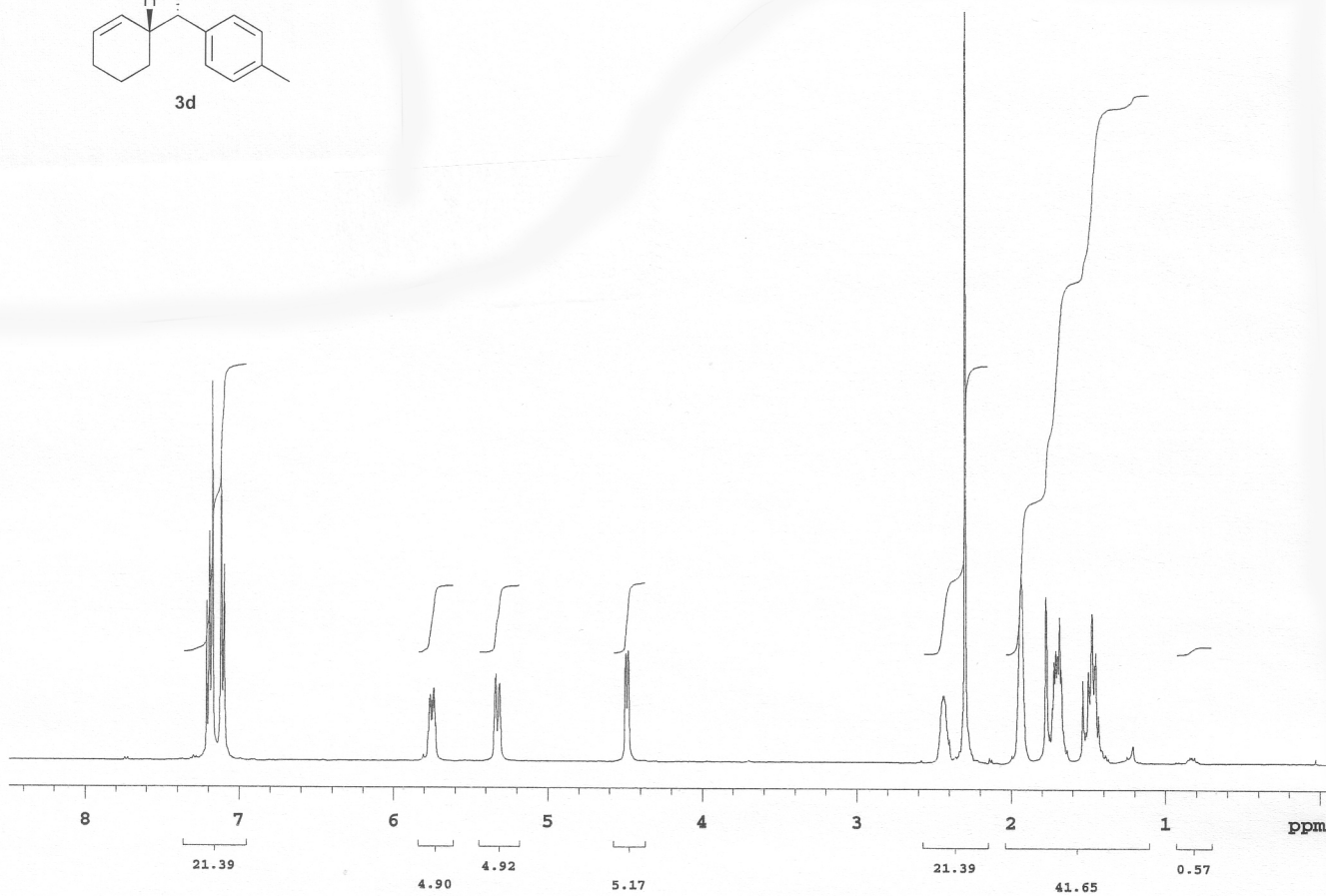
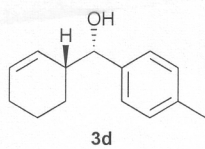
1: 220 nm, 8 nm

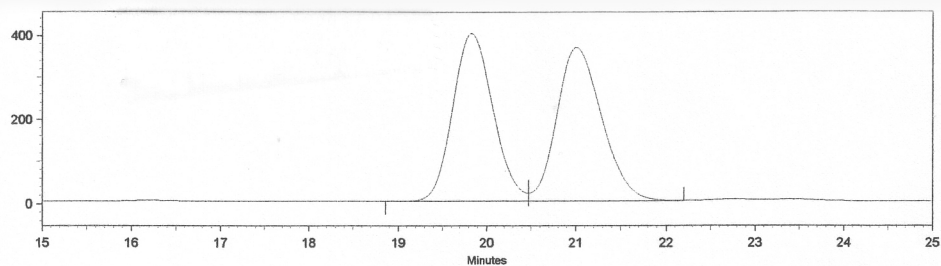
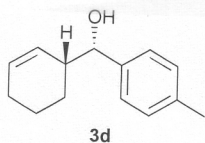
Pk #	Name	Retention Time	Area	Area Percent
1	1	23.467	62243	10.23
2	2	27.765	546185	89.77

Totals			608428	100.00
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Peak: 1





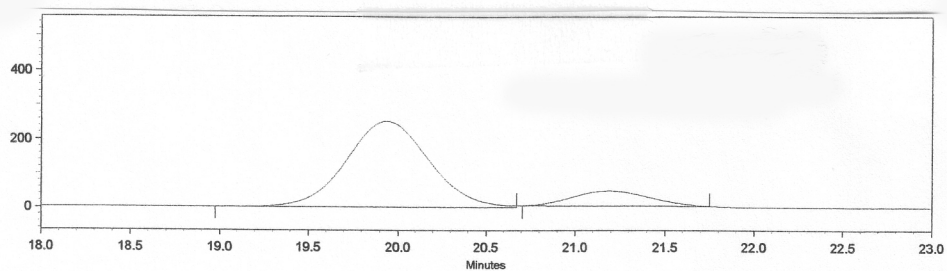
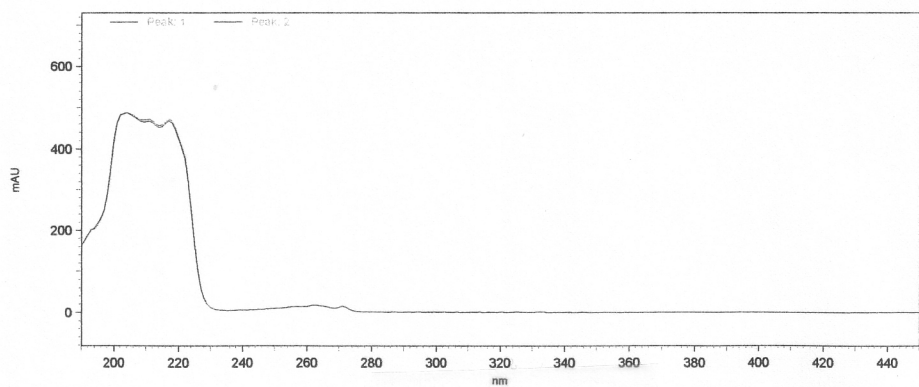


1: 220 nm, 8 nm

Pk #	Name	Retention Time	Area	Area Percent
1		19.829	12608994	49.65
2		21.003	12784384	50.35

Totals			25393378	100.00
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Peak: 1

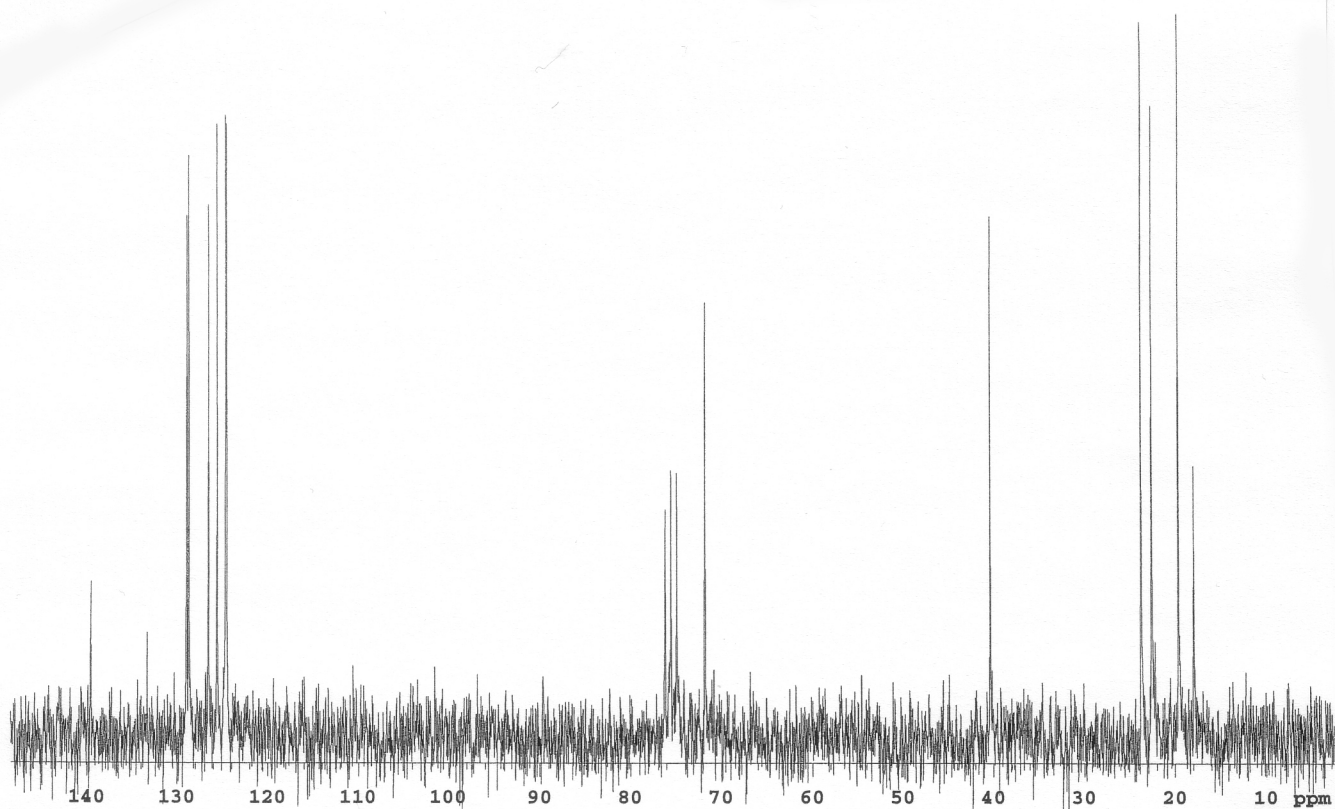
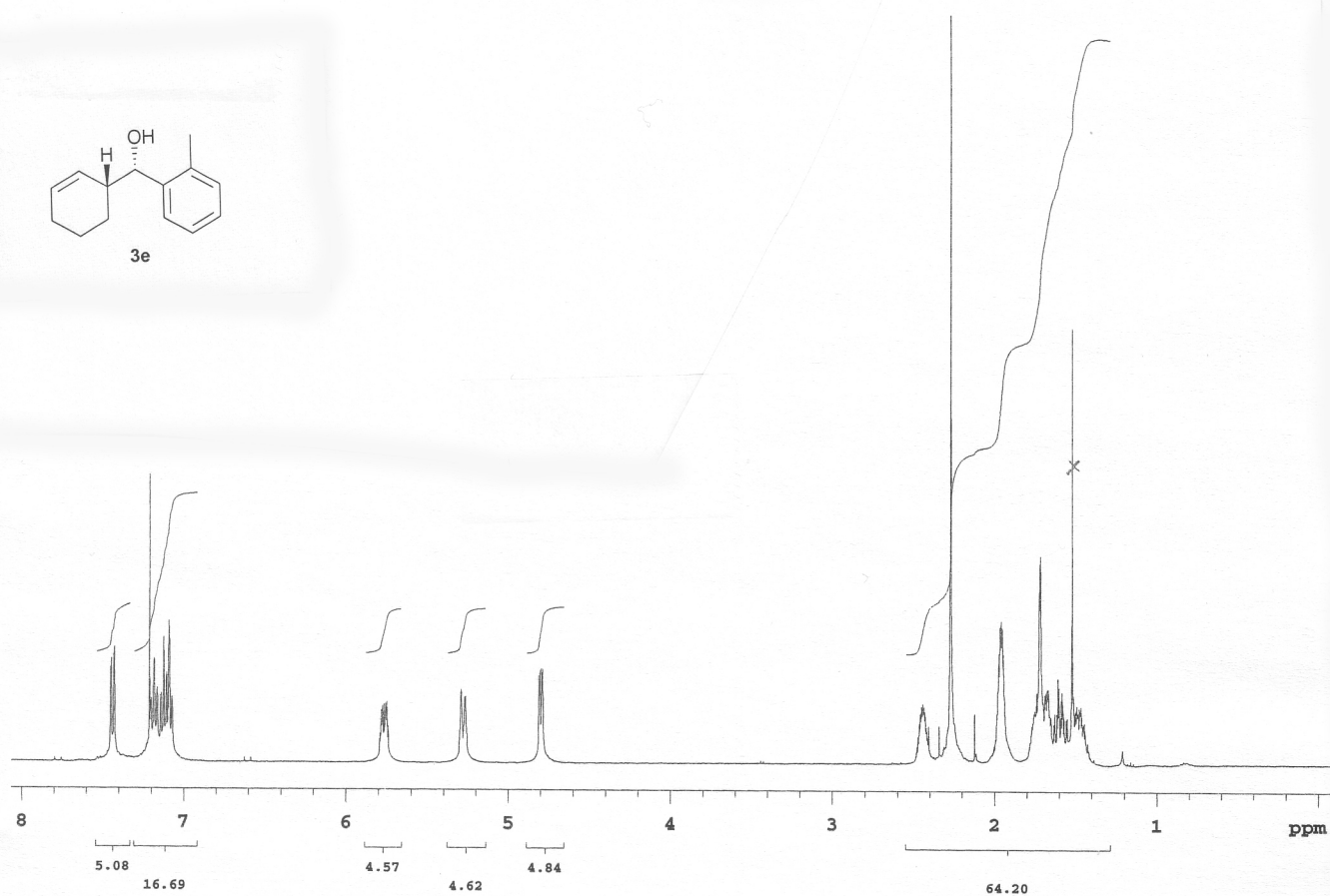
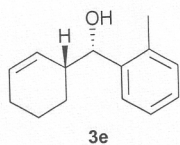


1: 215 nm, 8 nm

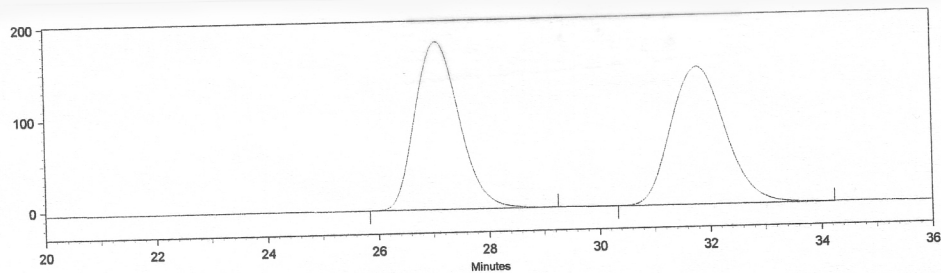
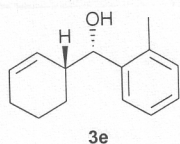
Pk #	Name	Retention Time	Area	Area Percent
1	1	19.936	8216421	86.15
2	2	21.184	1320459	13.85

Totals			9536880	100.00
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Peak: 1



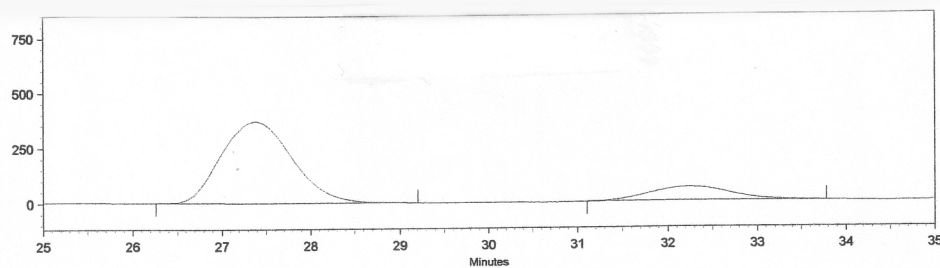
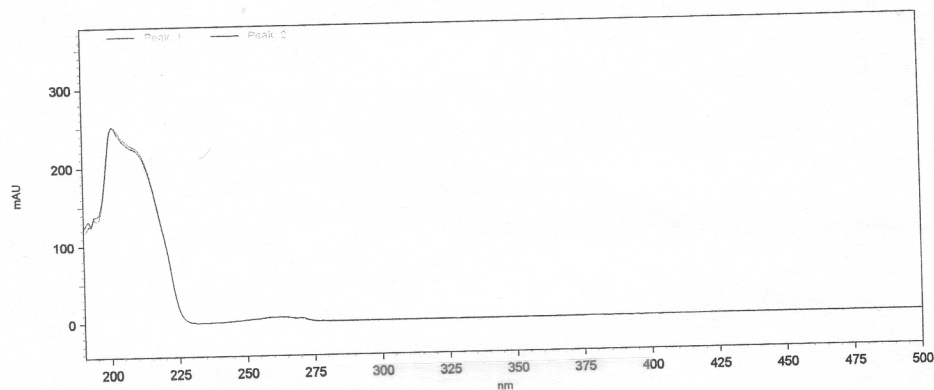




1: 215 nm, 8 nm

Pk #	Name	Retention Time	Area	Area Percent
1		27.072	10325586	50.14
2		31.797	10266781	49.86
Totals			20592367	100.00

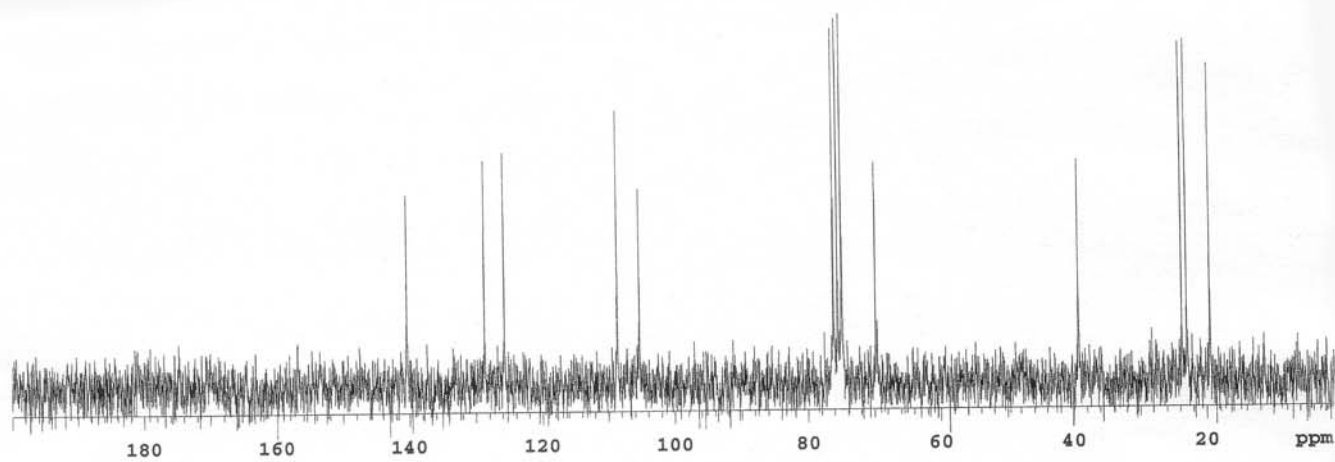
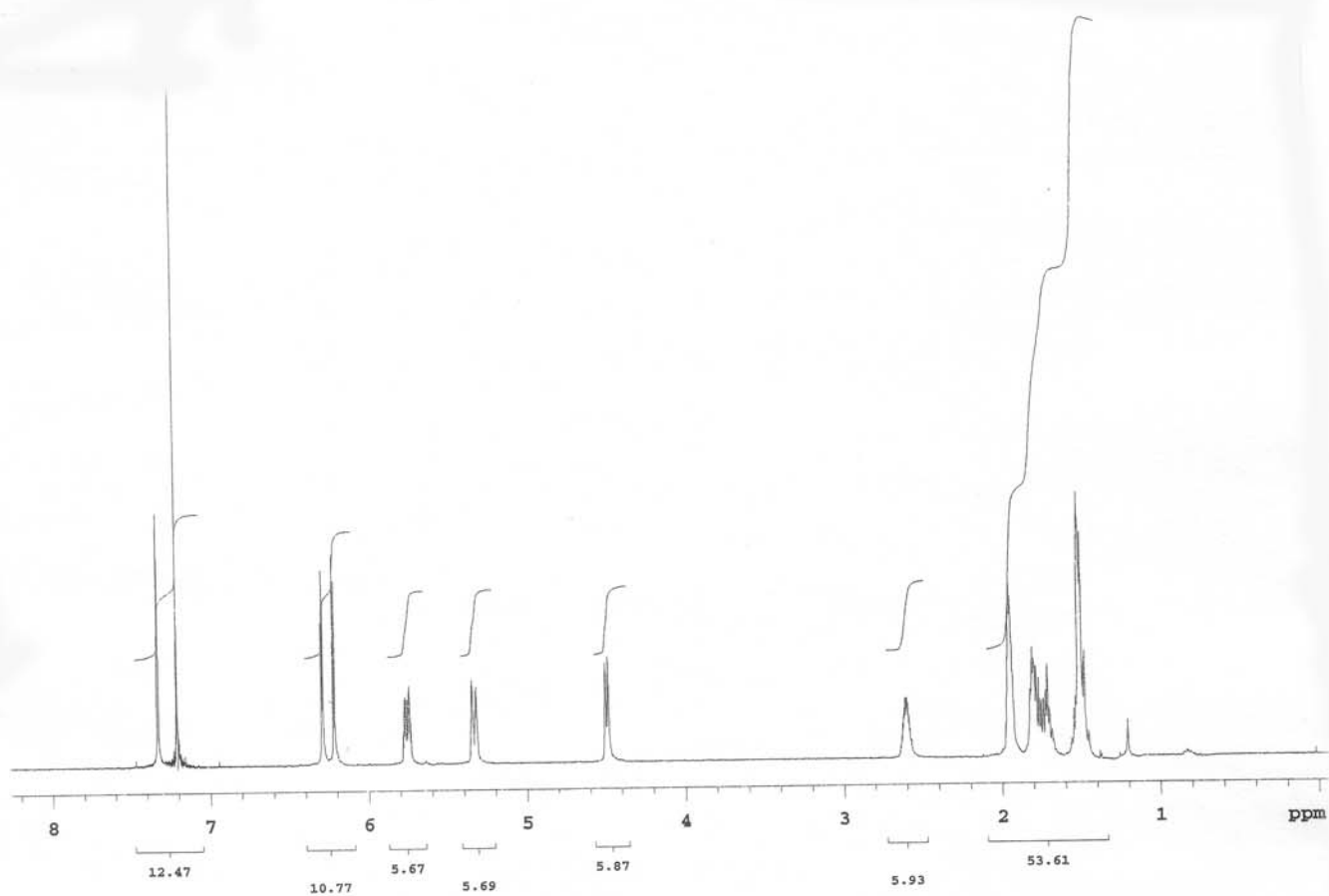
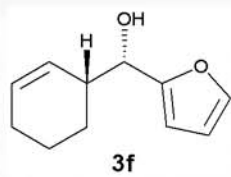
Peak: 1

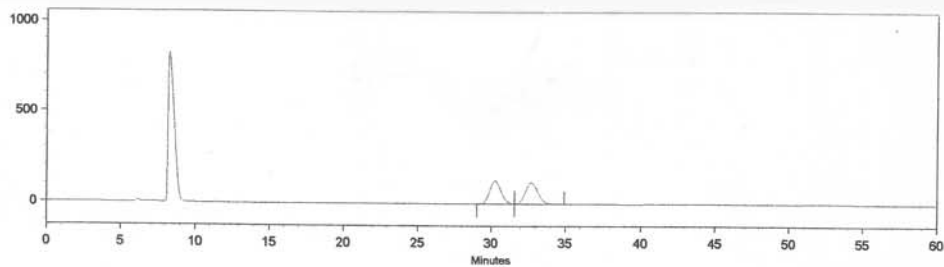
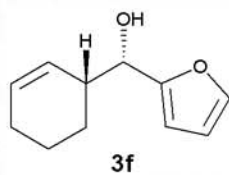


1: 205 nm, 8 nm

Pk #	Name	Retention Time	Area	Area Percent
1		27.392	20606464	83.96
2		32.256	3935670	16.04
Totals			24542134	100.00



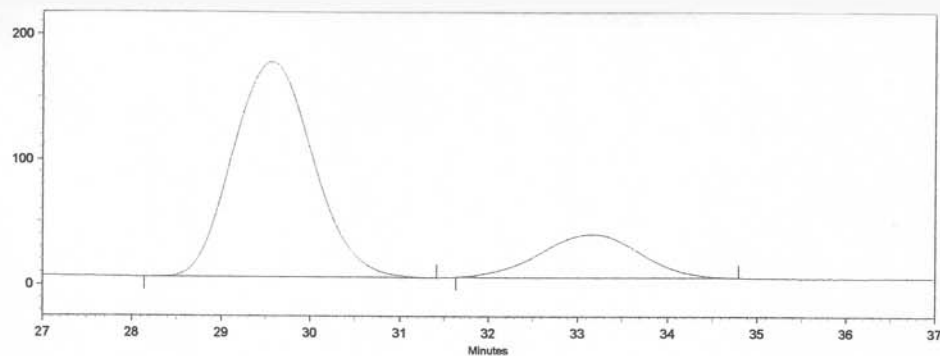
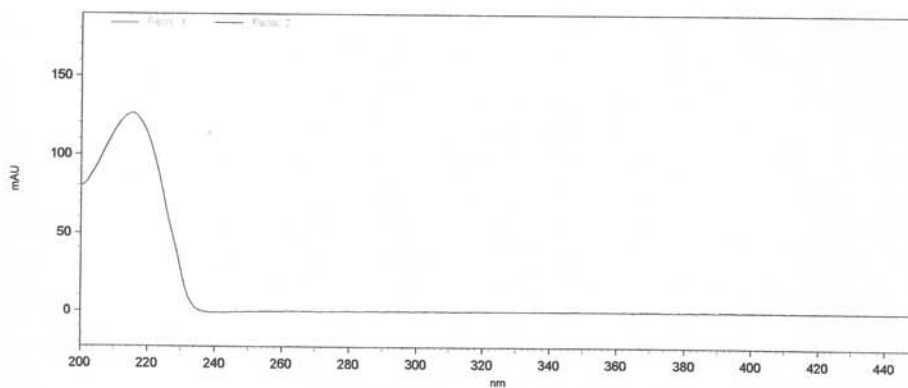




1: 215 nm, 8 nm

Pk #	Name	Retention Time	Area	Area Percent
1		30.283	7051015	49.77
2		32.725	7116318	50.23

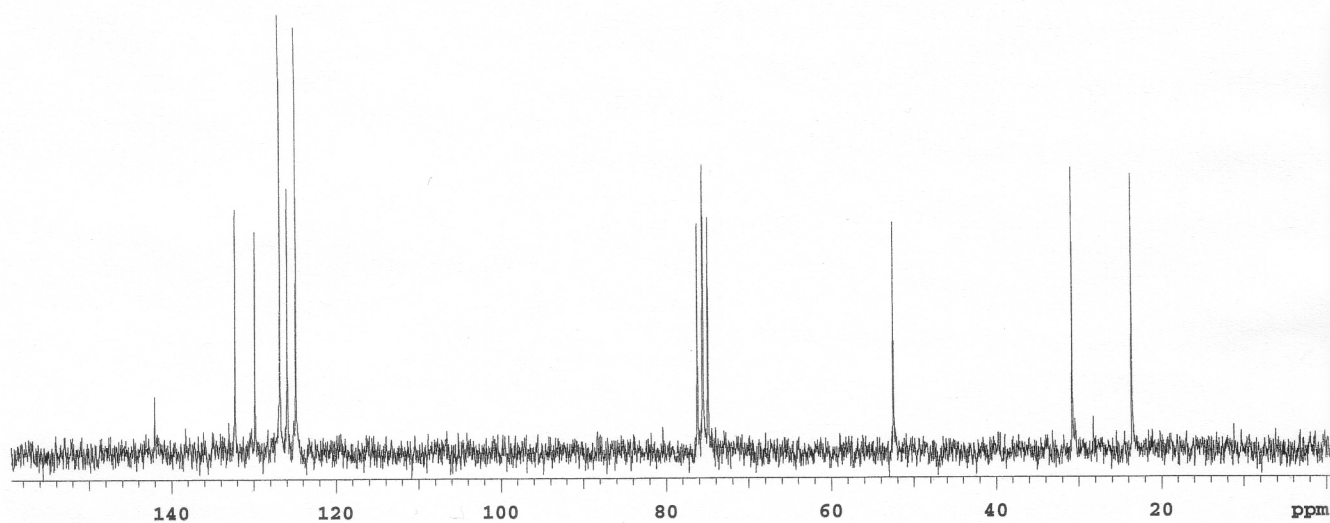
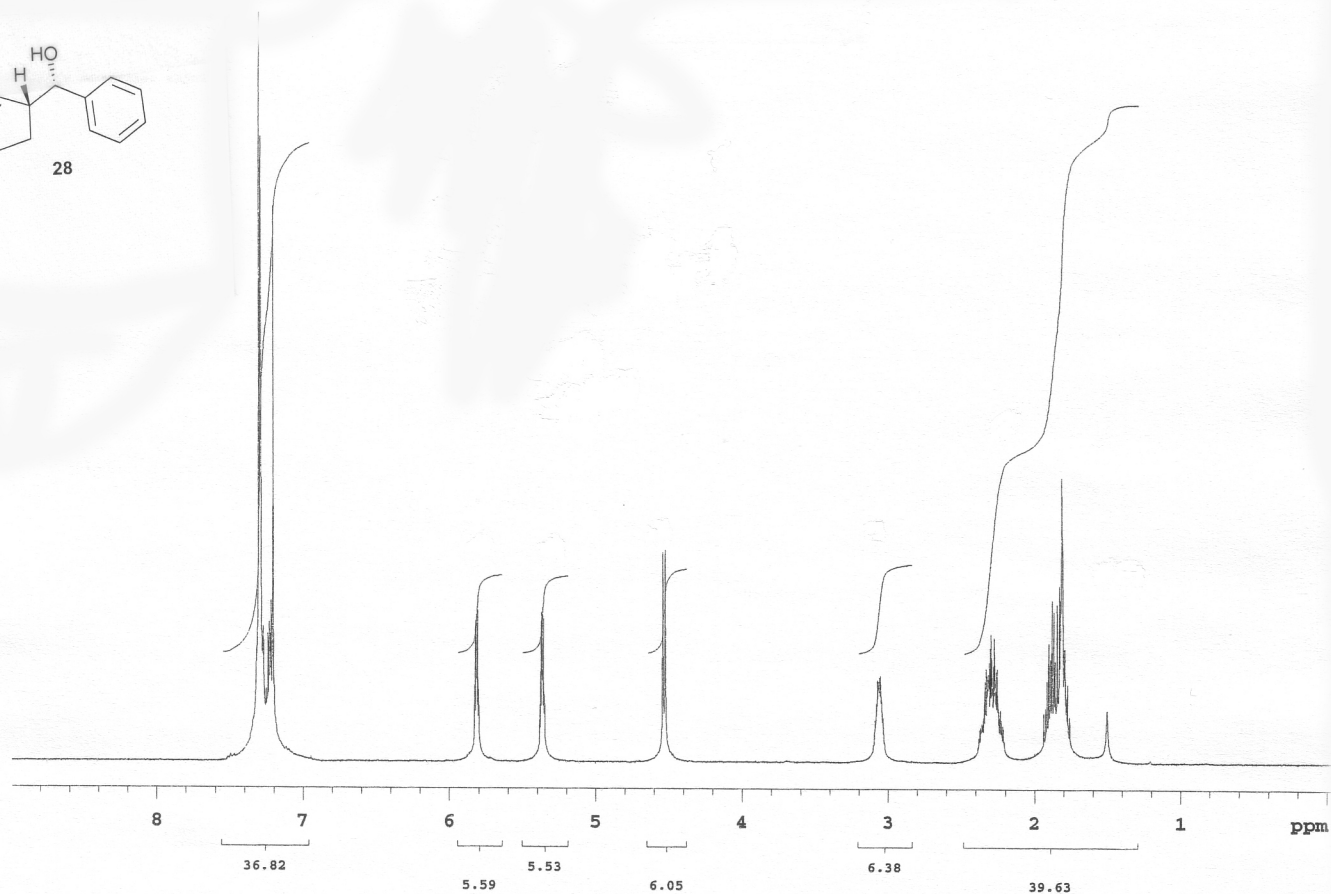
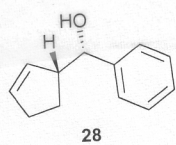
Peak: 1

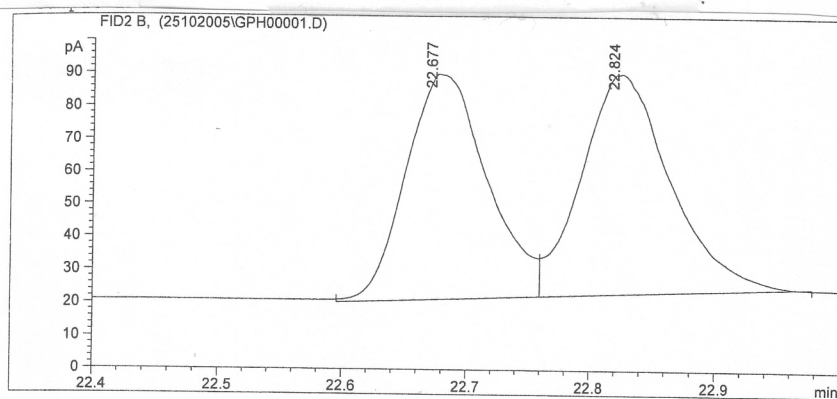
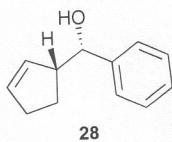


1: 210 nm, 8 nm

Pk #	Name	Retention Time	Area	Area Percent
1		29.568	10786811	80.09
2		33.141	2681765	19.91

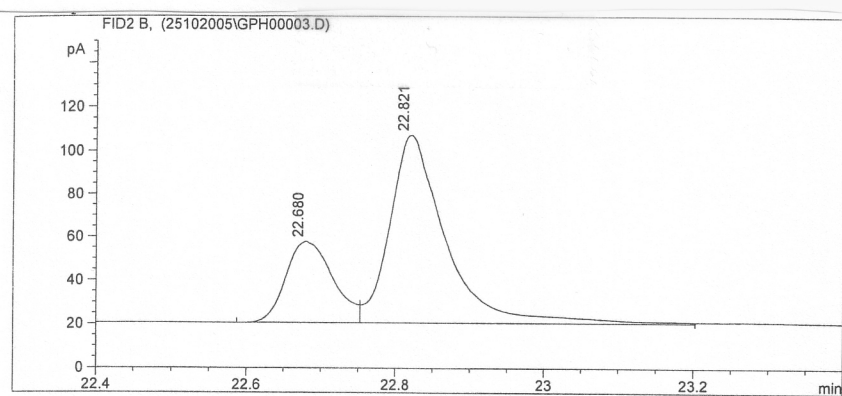
Totals			13468576	100.00
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Signal 1: FID2 B,

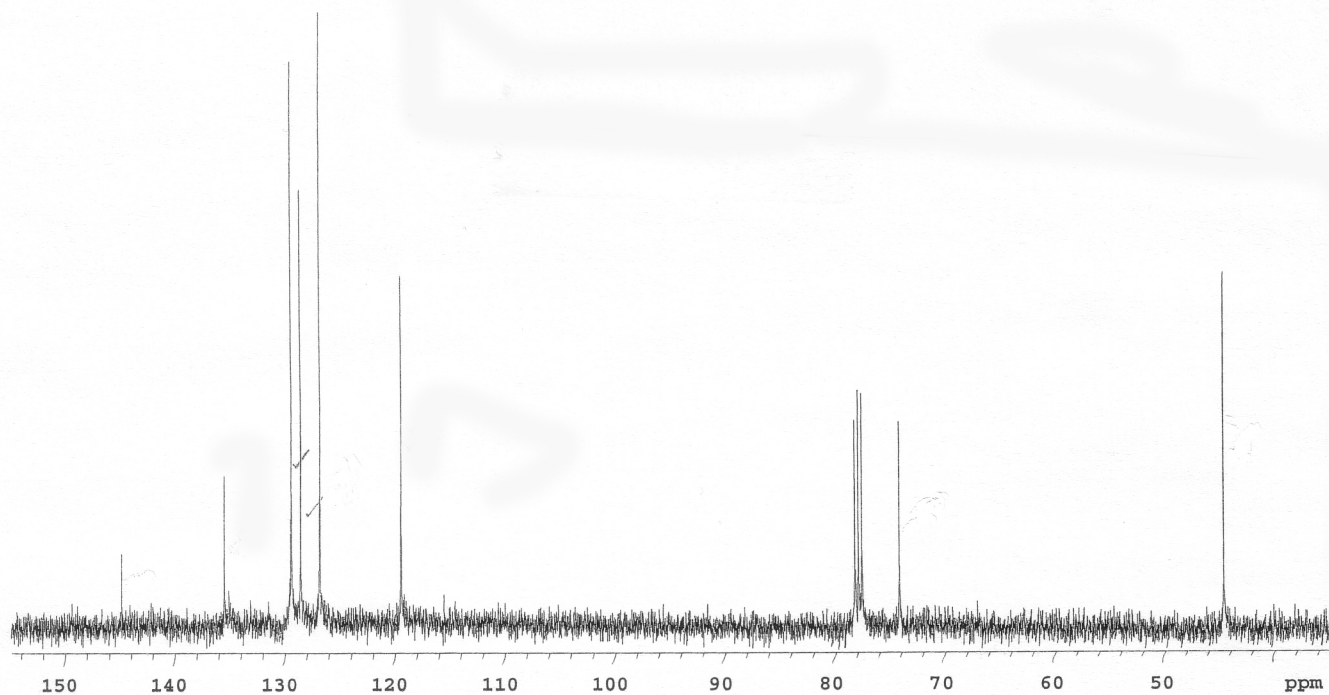
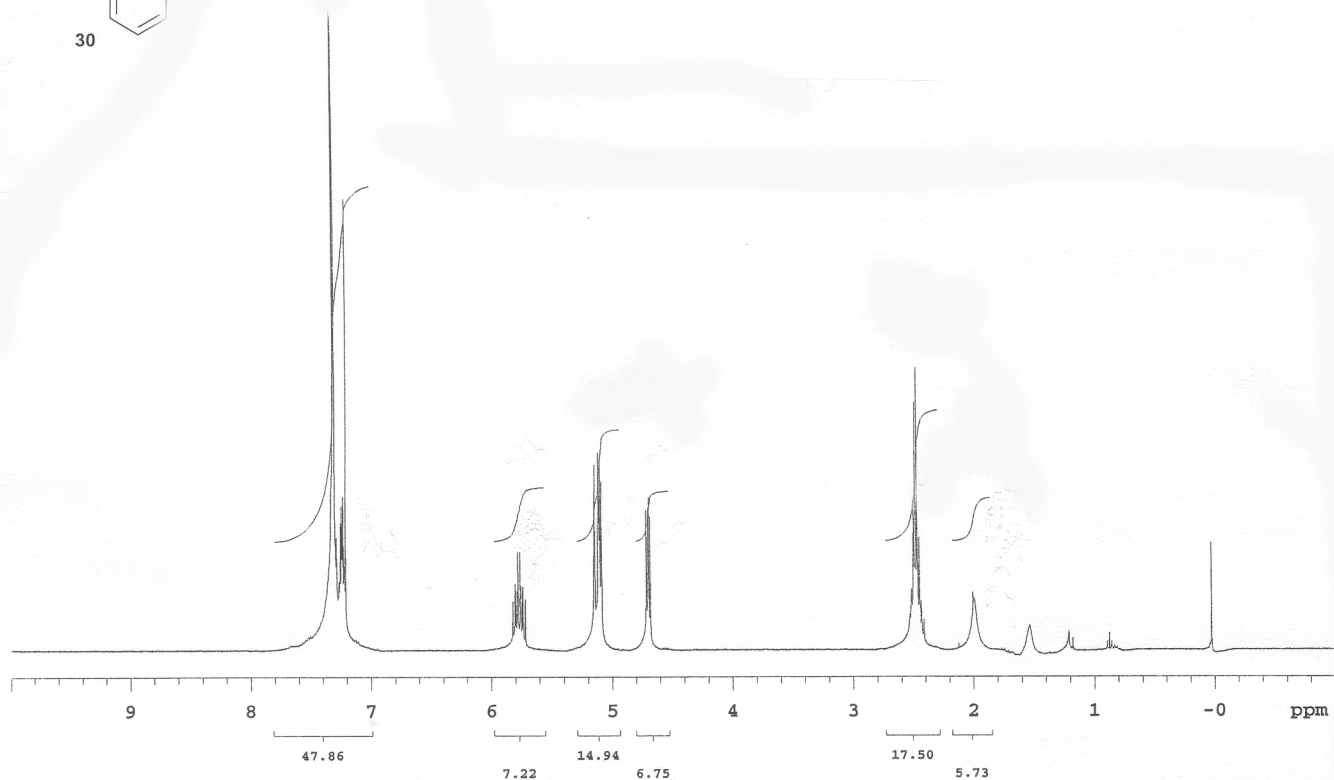
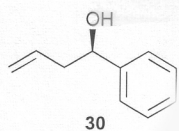
Peak #	RT [min]	Type	Name	Width [min]	Area	Area %	Response	Amount
1	22.677	MV		0.075	311.160	48.336	0.000	0.000
2	22.824	VM		0.083	332.580	51.664	0.000	0.000

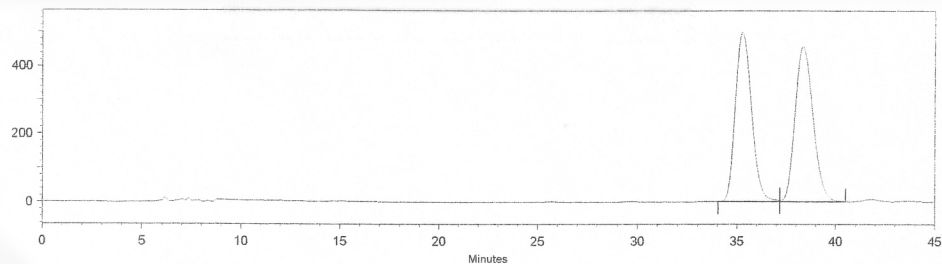
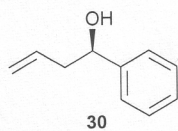


Signal 1: FID2 B,

Peak #	RT [min]	Type	Name	Width [min]	Area	Area %	Response	Amount
1	22.680	MF		0.073	161.725	26.320	0.000	0.000
2	22.821	FM		0.087	452.725	73.680	0.000	0.000





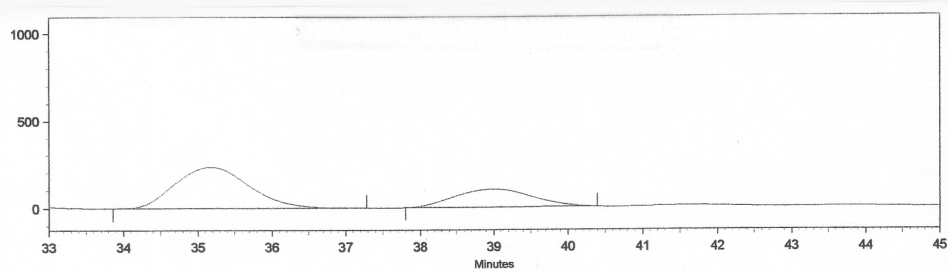
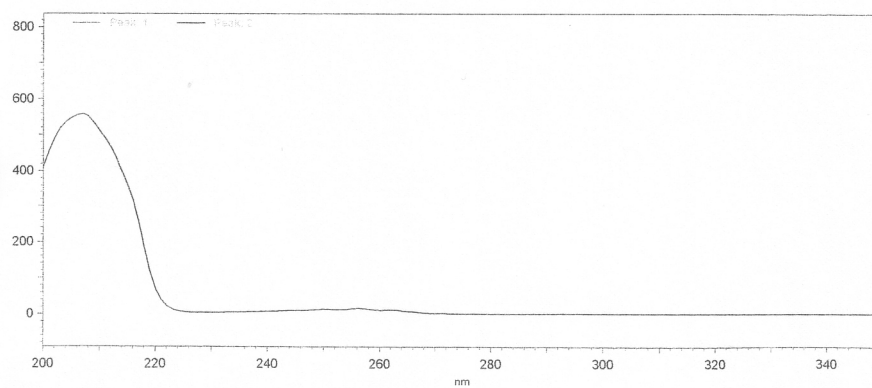


1: 210 nm, 8 nm

Pk #	Name	Retention Time	Area	Area Percent
1		35.243	28757286	49.75
2		38.315	29046222	50.25

Totals			57803508	100.00
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Peak: 1



1: 215 nm, 8 nm

Pk #	Name	Retention Time	Area	Area Percent
1		35.179	16308299	68.54
2		38.997	7484589	31.46

Totals			23792888	100.00
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