

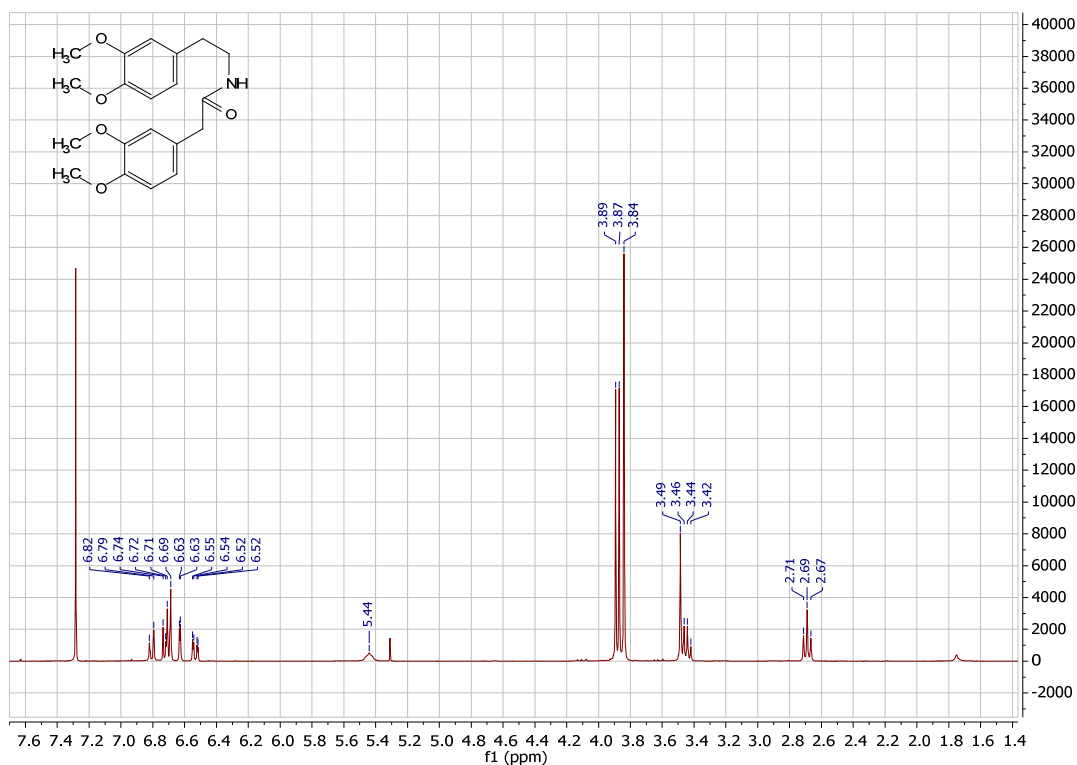
A xylochemically-inspired synthesis of lamellarin G trimethyl ether *via* an enaminone intermediate

Robin Klintworth,^a Charles B. de Koning,^a Till Opatz^b and Joseph P. Michael^{*,a}

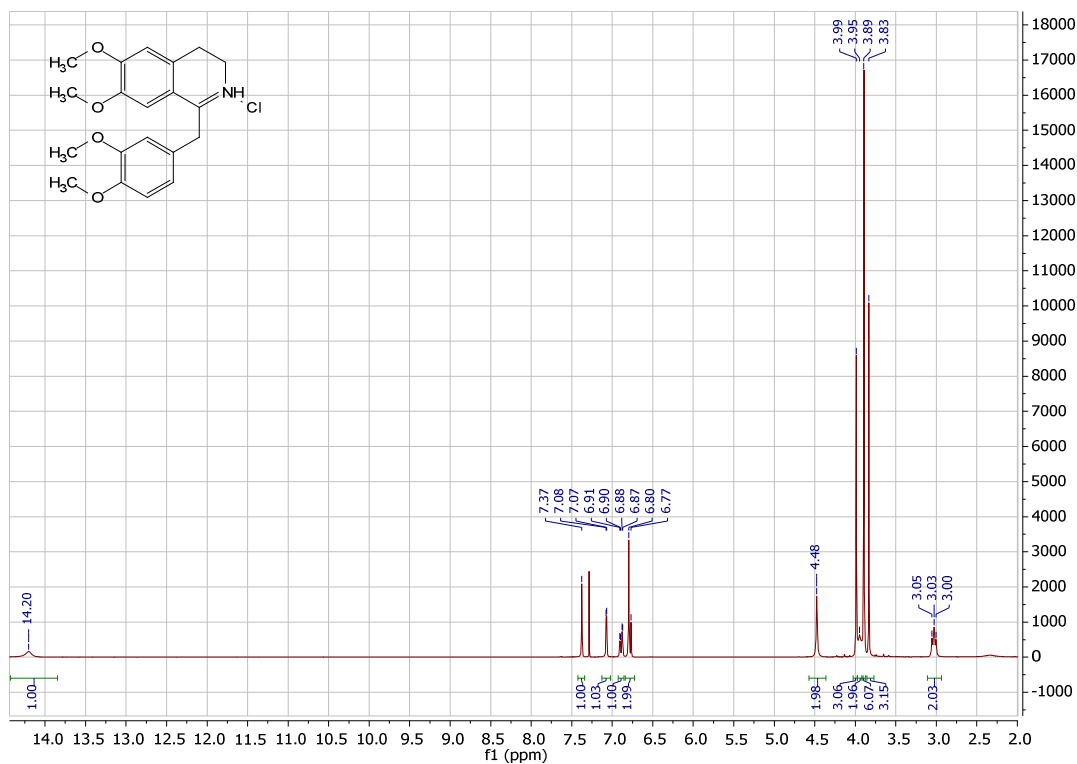
- a. Molecular Sciences Institute, School of Chemistry, University of the Witwatersrand, Wits 2050, Johannesburg, South Africa.
- b. Institut für Organische Chemie, Johannes Gutenberg-University, Duesbergweg 10-14, D-55128 Mainz, Germany.

	NMR SPECTRA	Page
1.	¹ H NMR spectrum of <i>N</i> -(3,4-dimethoxyphenethyl)-2-(3,4-dimethoxyphenyl)acetamide (10).....	S2
2.	¹ H NMR spectrum of 3,4-dihydropapaverine hydrochloride (6 ·HCl).....	S2
3.	¹ H NMR spectrum of 2-hydroxy-4,5-dimethoxybenzoic acid (12).....	S3
4.	(a) ¹ H NMR spectrum of methyl 2-hydroxy-4,5-dimethoxybenzoate (13).....	S3
	(b) ¹³ C NMR spectrum of methyl 2-hydroxy-4,5-dimethoxybenzoate (13).....	S4
5.	(a) ¹ H NMR spectrum of methyl 2-benzyloxy-4,5-dimethoxybenzoate (7).....	S4
	(b) ¹³ C NMR spectrum of methyl 2-benzyloxy-4,5-dimethoxybenzoate (7).....	S5
	(c) ¹³ C DEPT spectrum of methyl 2-benzyloxy-4,5-dimethoxybenzoate (7).....	S5
6.	(a) ¹ H NMR spectrum of (<i>Z</i>)-1-[2-(benzyloxy)-4,5-dimethoxyphenyl]-2-(6,7-dimethoxy-3,4-dihydroisoquinolin-1(2 <i>H</i>)-ylidene)-2-(3,4-dimethoxyphenyl)ethanone (4)	S6
	(b) ¹ H- ¹ H NOESY spectrum of (<i>Z</i>)-1-[2-(benzyloxy)-4,5-dimethoxyphenyl]-2-(6,7-dimethoxy-3,4-dihydroisoquinolin-1(2 <i>H</i>)-ylidene)-2-(3,4-dimethoxyphenyl)ethanone (4)	S6
	(c) ¹³ C NMR spectrum of (<i>Z</i>)-1-[2-(benzyloxy)-4,5-dimethoxyphenyl]-2-(6,7-dimethoxy-3,4-dihydroisoquinolin-1(2 <i>H</i>)-ylidene)-2-(3,4-dimethoxyphenyl)ethanone (4).....	S7
	(d) ¹³ C DEPT spectrum of (<i>Z</i>)-1-[2-(benzyloxy)-4,5-dimethoxyphenyl]-2-(6,7-dimethoxy-3,4-dihydroisoquinolin-1(2 <i>H</i>)-ylidene)-2-(3,4-dimethoxyphenyl)ethanone (4).....	S7
	(e) ¹ H- ¹³ C HSQC spectrum of (<i>Z</i>)-1-[2-(benzyloxy)-4,5-dimethoxyphenyl]-2-(6,7-dimethoxy-3,4-dihydroisoquinolin-1(2 <i>H</i>)-ylidene)-2-(3,4-dimethoxyphenyl)ethanone (4).....	S8
	(f) ¹ H- ¹³ C HMBC spectrum of (<i>Z</i>)-1-[2-(benzyloxy)-4,5-dimethoxyphenyl]-2-(6,7-dimethoxy-3,4-dihydroisoquinolin-1(2 <i>H</i>)-ylidene)-2-(3,4-dimethoxyphenyl)ethanone (4).....	S8
7.	(a) ¹ H NMR spectrum of lamellarin G trimethyl ether (3).....	S9
	(b) ¹³ C NMR spectrum of lamellarin G trimethyl ether (3).....	S9

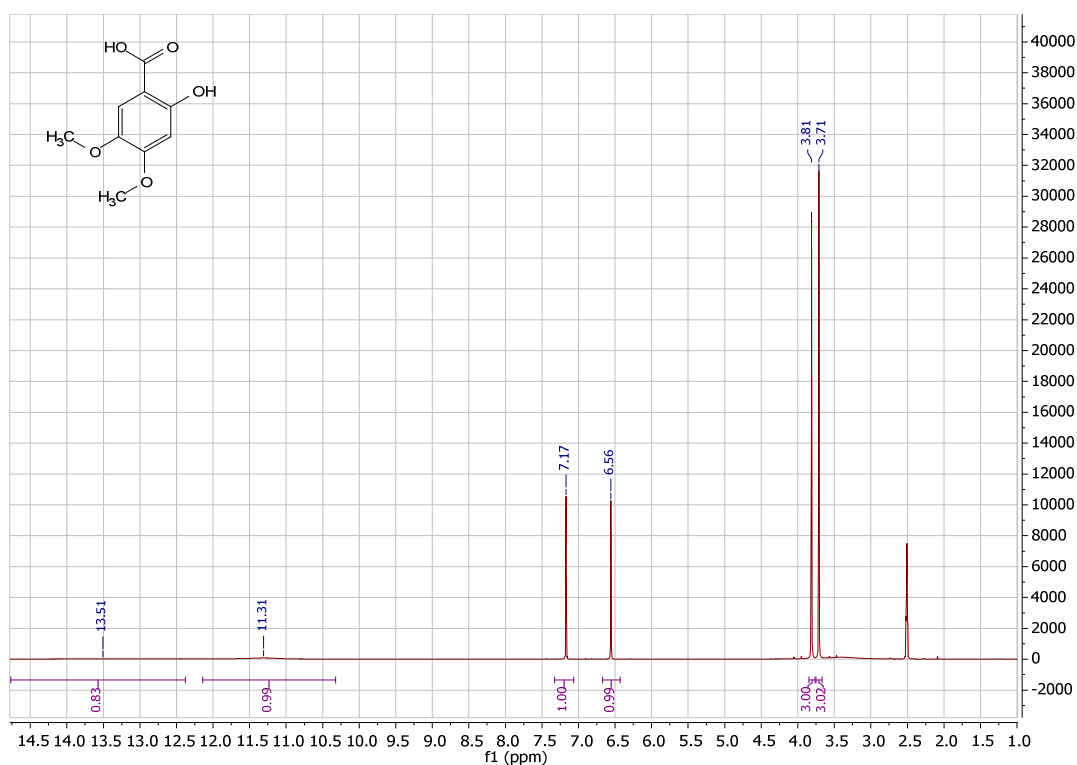
1 ¹H NMR spectrum of *N*-(3,4-dimethoxyphenethyl)-2-(3,4-dimethoxyphenyl)acetamide (10) (300 MHz, CDCl₃)



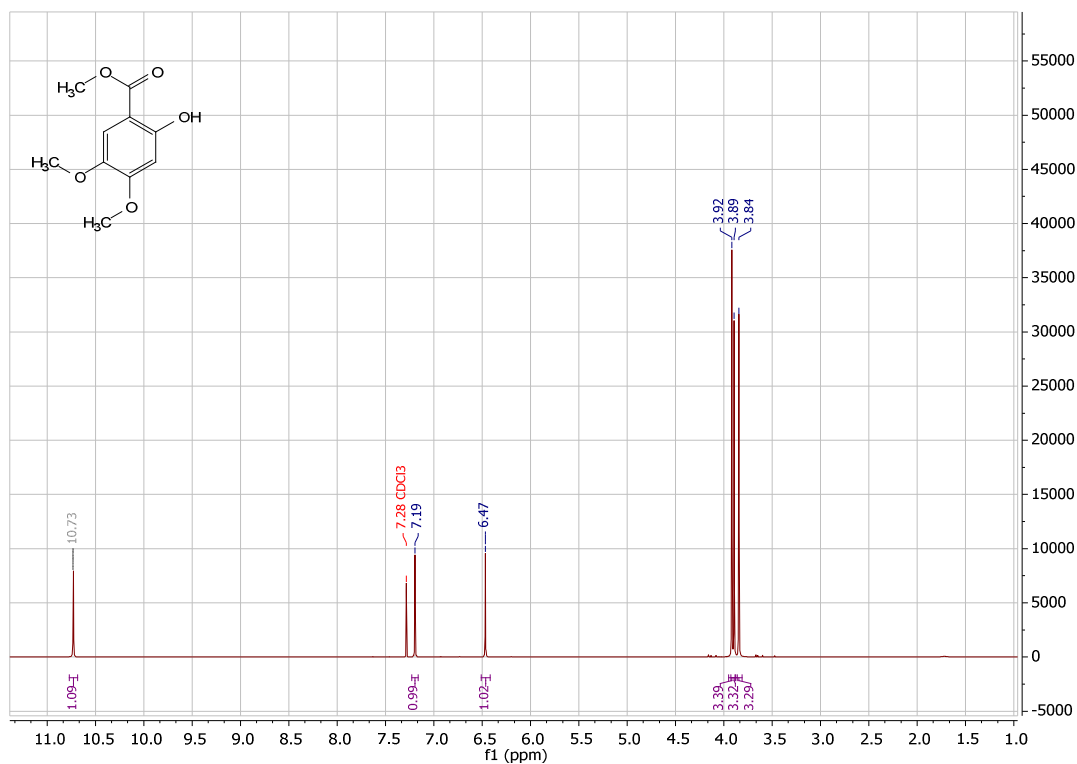
2 ¹H NMR spectrum of 3,4-dihydropapaverine hydrochloride (6-HCl) (300 MHz, CDCl₃)



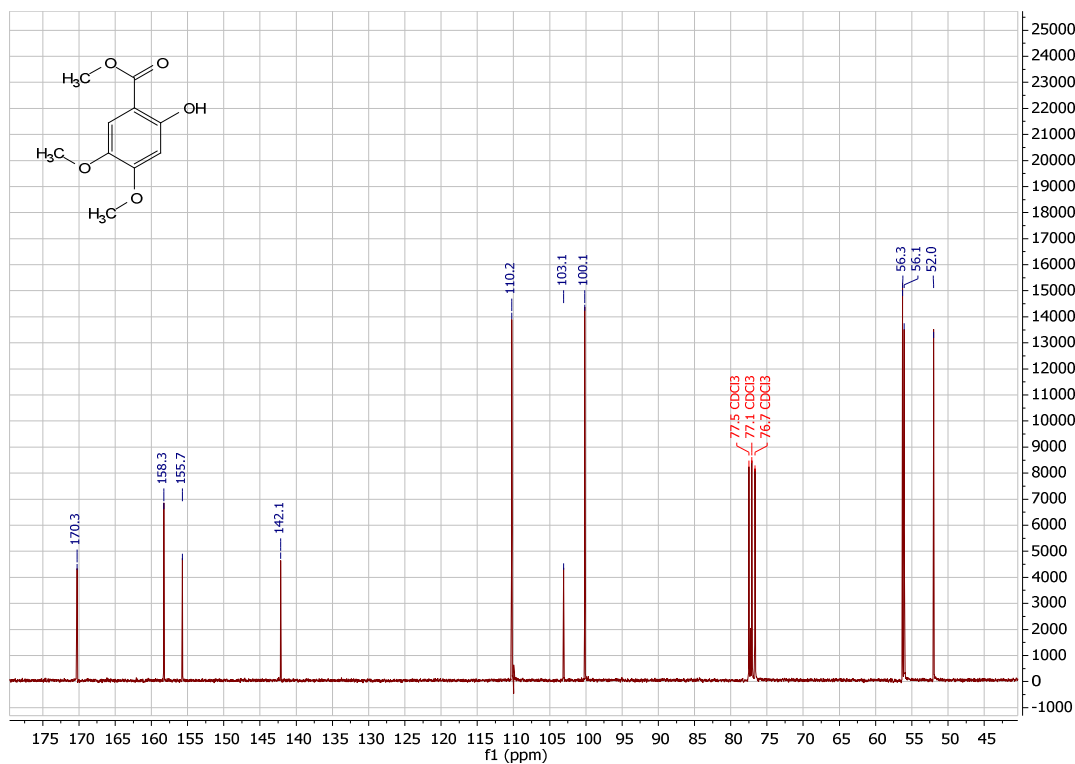
3 ^1H NMR spectrum of 2-hydroxy-4,5-dimethoxybenzoic acid (12) (300 MHz, DMSO, d_6)



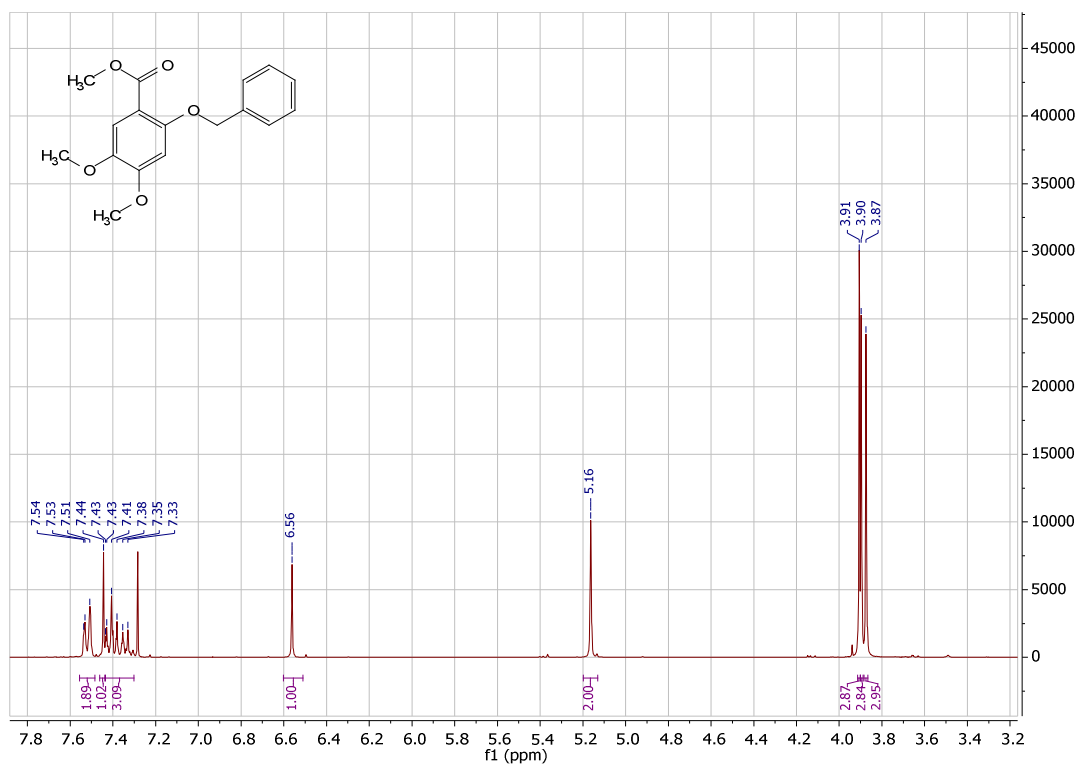
4(a) ^1H NMR spectrum of methyl 2-hydroxy-4,5-dimethoxybenzoate (13) (300 MHz, CDCl_3)



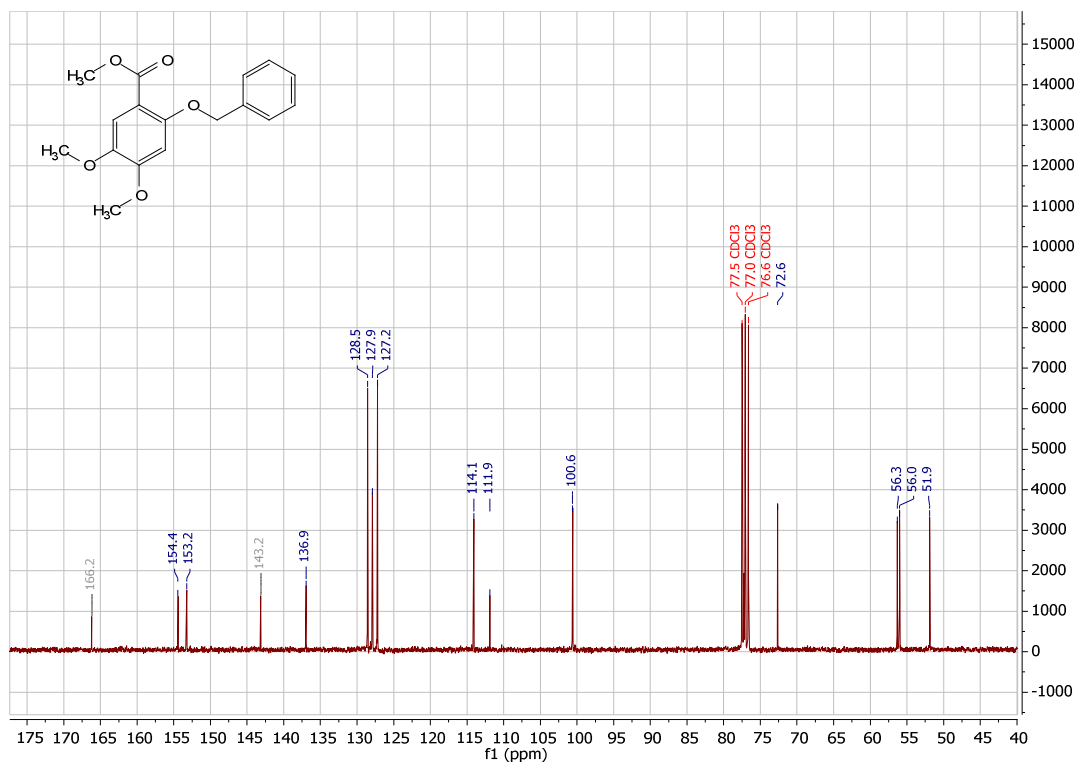
4(b) $^{13}\text{C}\{^1\text{H}\}$ NMR spectrum of methyl 2-hydroxy-4,5-dimethoxybenzoate (13) (75 MHz, CDCl_3)



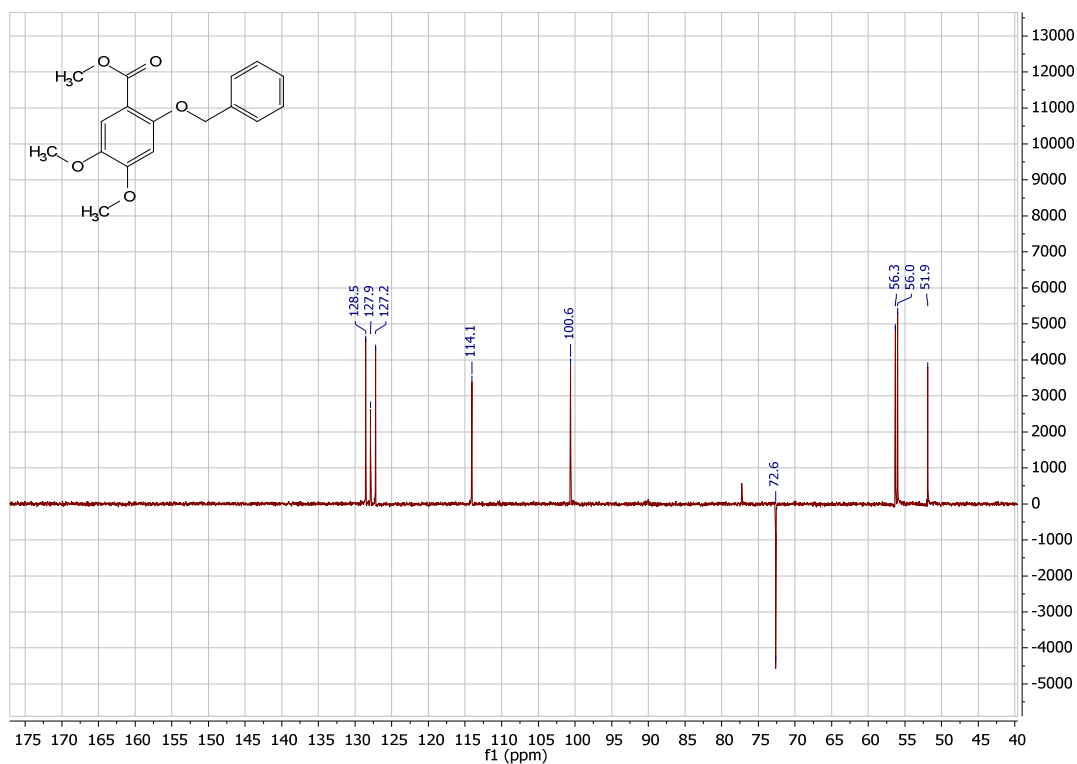
5(a) ^1H NMR spectrum of methyl 2-benzyloxy-4,5-dimethoxybenzoate (7) (300 MHz, CDCl_3)



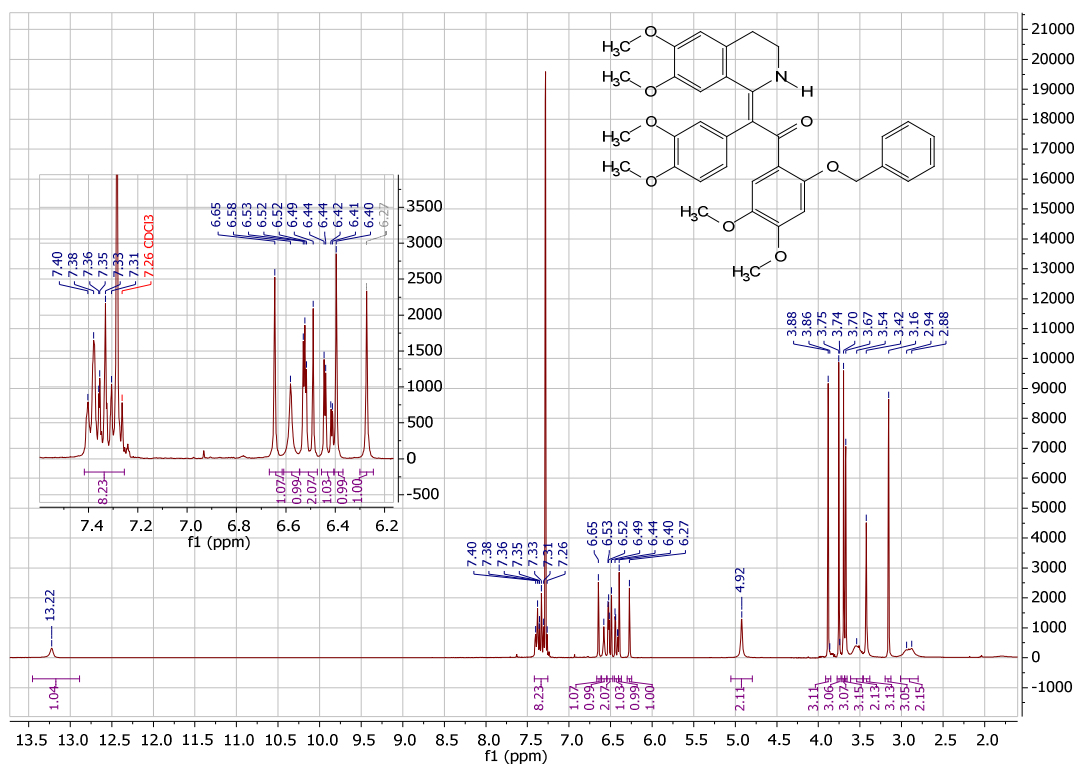
5(b) $^{13}\text{C}\{^1\text{H}\}$ NMR spectrum of methyl 2-benzyloxy-4,5-dimethoxybenzoate (7) (75 MHz, CDCl_3)



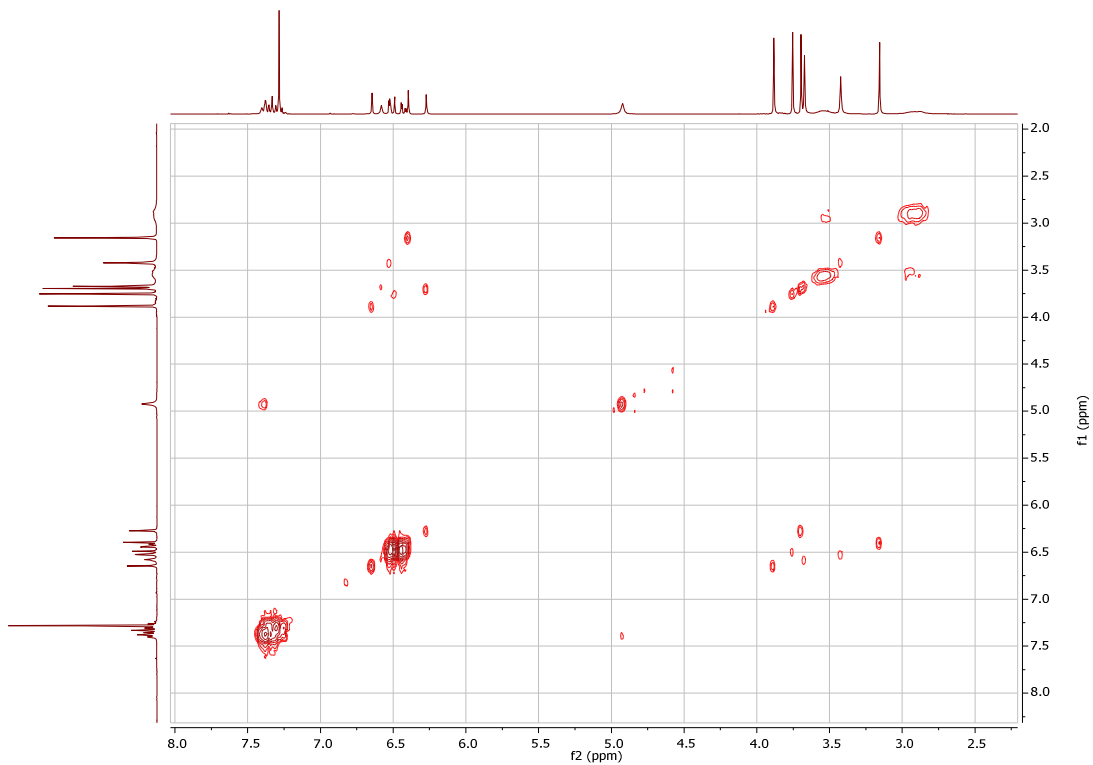
5(c) ^{13}C DEPT spectrum of methyl 2-benzyloxy-4,5-dimethoxybenzoate (7) (75 MHz, CDCl_3)



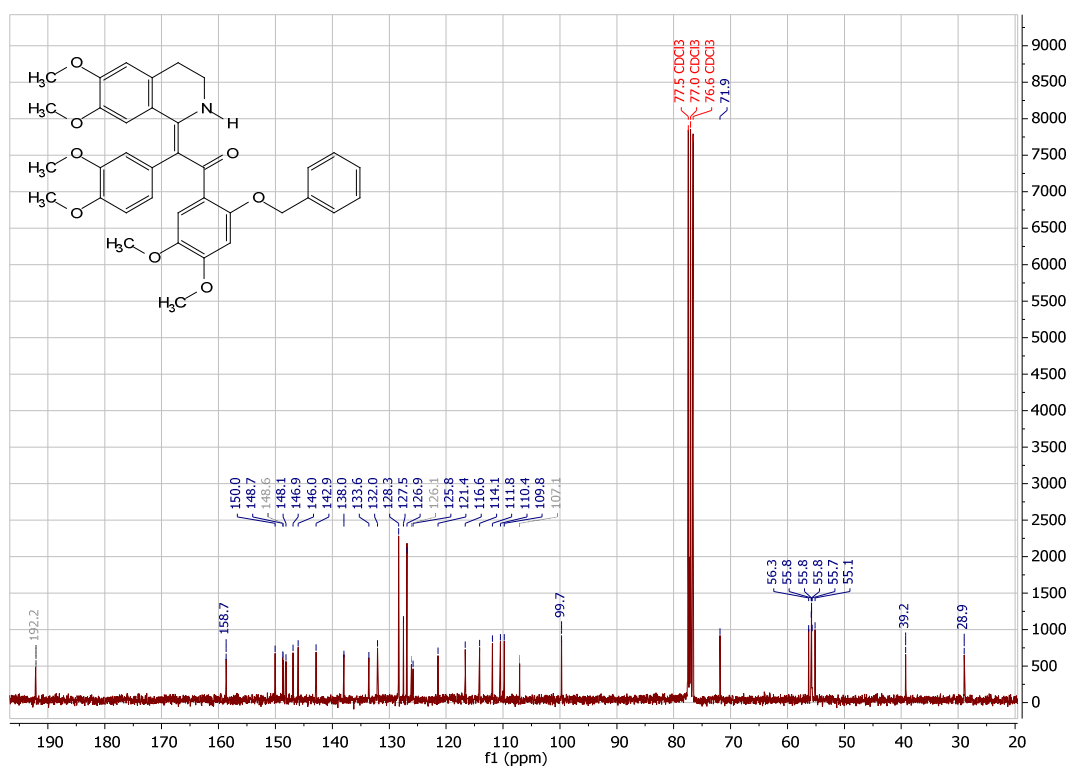
6(a) ^1H NMR spectrum of (Z)-1-[2-(benzyloxy)-4,5-dimethoxyphenyl]-2-(6,7-dimethoxy-3,4-dihydroisoquinolin-1(2H)-ylidene)-2-(3,4-dimethoxyphenyl)ethanone (4) (300 MHz, CDCl_3)



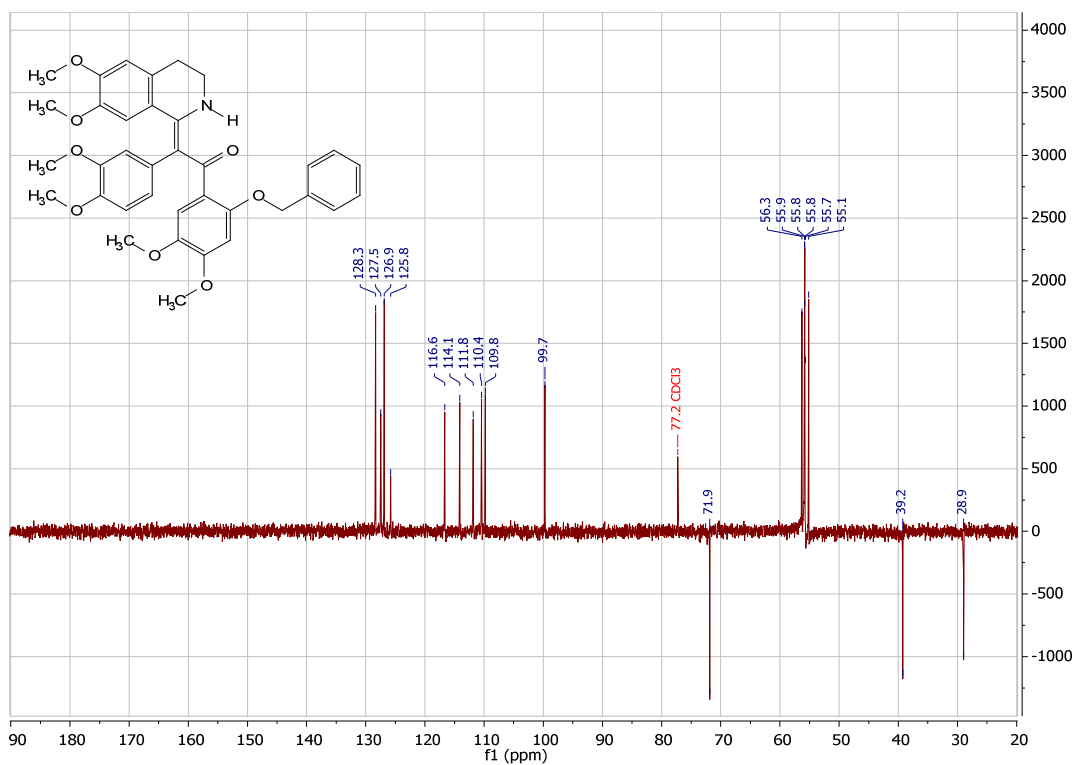
6(b) ^1H - ^1H NOESY spectrum of (Z)-1-[2-(benzyloxy)-4,5-dimethoxyphenyl]-2-(6,7-dimethoxy-3,4-dihydroisoquinolin-1(2H)-ylidene)-2-(3,4-dimethoxyphenyl)ethanone (4) (300 MHz, CDCl_3)



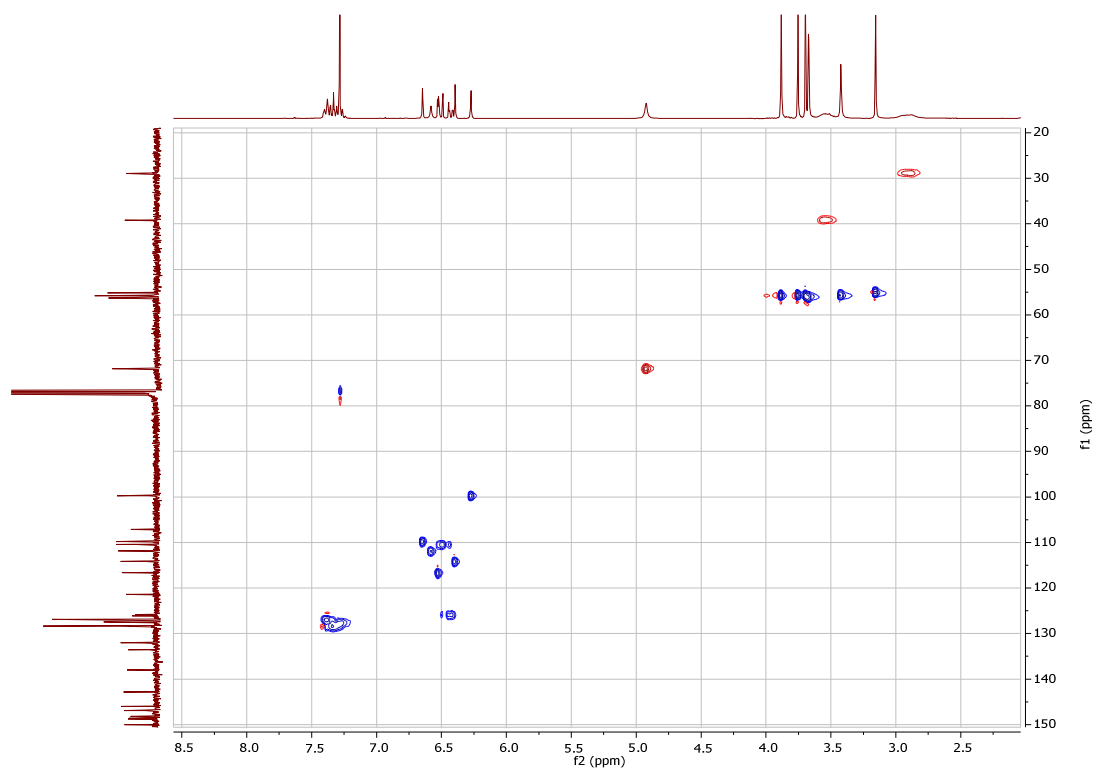
6(c) $^{13}\text{C}\{^1\text{H}\}$ NMR spectrum of (Z)-1-[2-(benzyloxy)-4,5-dimethoxyphenyl]-2-(6,7-dimethoxy-3,4-dihydroisoquinolin-1(2H)-ylidene)-2-(3,4-dimethoxyphenyl)ethanone (4) (75 MHz, CDCl_3)



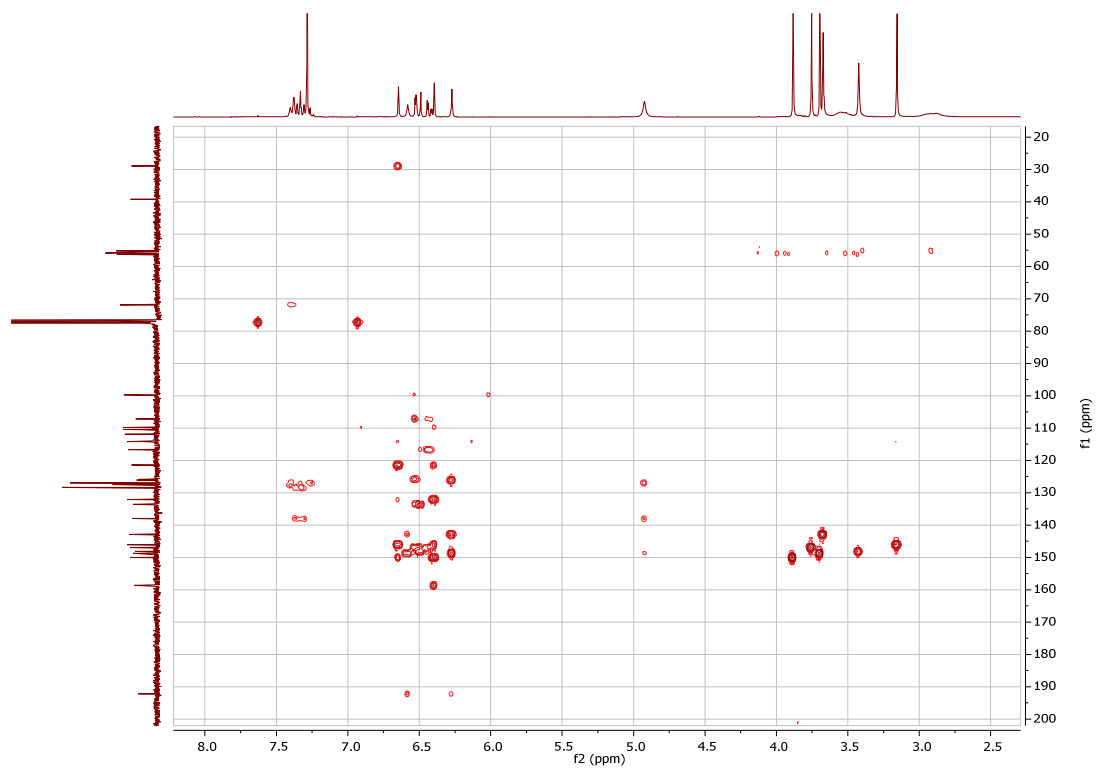
6(d) ^{13}C DEPT spectrum of (Z)-1-[2-(benzyloxy)-4,5-dimethoxyphenyl]-2-(6,7-dimethoxy-3,4-dihydroisoquinolin-1(2H)-ylidene)-2-(3,4-dimethoxyphenyl)ethanone (4) (75 MHz, CDCl_3)



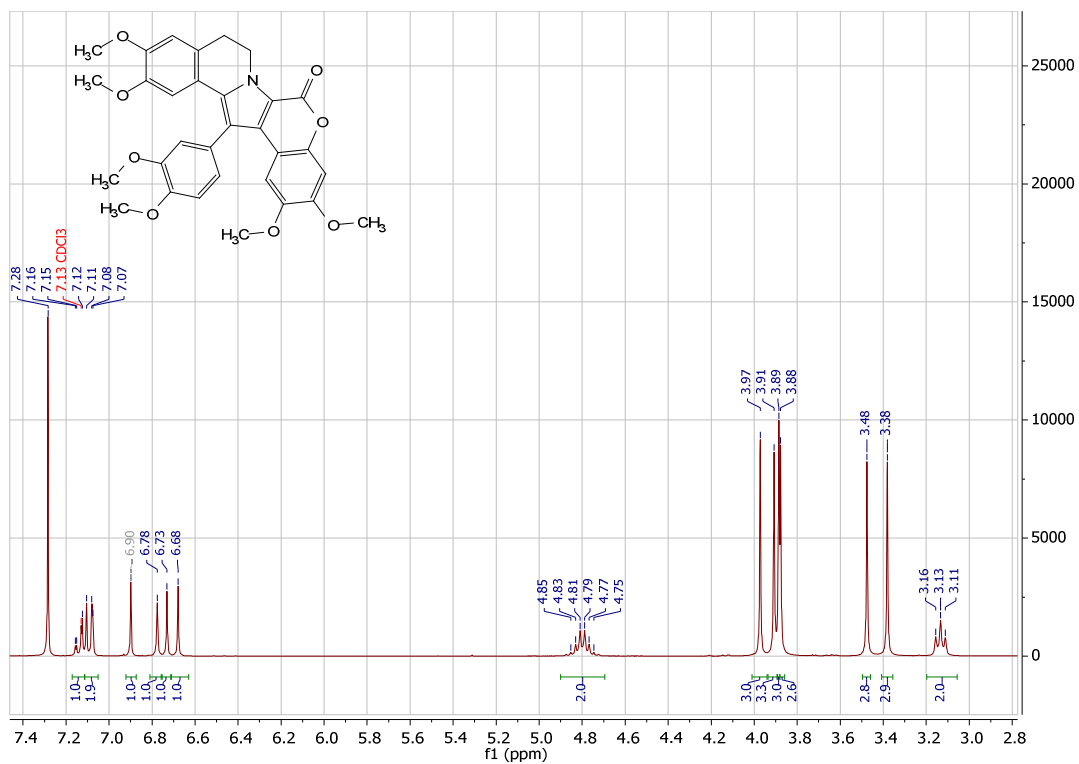
6(e) ^1H - ^{13}C HSQC spectrum of (Z)-1-[2-(benzyloxy)-4,5-dimethoxyphenyl]-2-(6,7-dimethoxy-3,4-dihydroisoquinolin-1(2H)-ylidene)-2-(3,4-dimethoxyphenyl)ethanone (4) (CDCl_3)



6(f) ^1H - ^{13}C HMBC spectrum of (Z)-1-[2-(benzyloxy)-4,5-dimethoxyphenyl]-2-(6,7-dimethoxy-3,4-dihydroisoquinolin-1(2H)-ylidene)-2-(3,4-dimethoxyphenyl)ethanone (4) (CDCl_3)



7(a) ^1H NMR spectrum of lamellarin G trimethyl ether (3) (300 MHz, CDCl_3)



7(b) $^{13}\text{C}\{^1\text{H}\}$ NMR spectrum of lamellarin G trimethyl ether (3) (75 MHz, CDCl_3)

