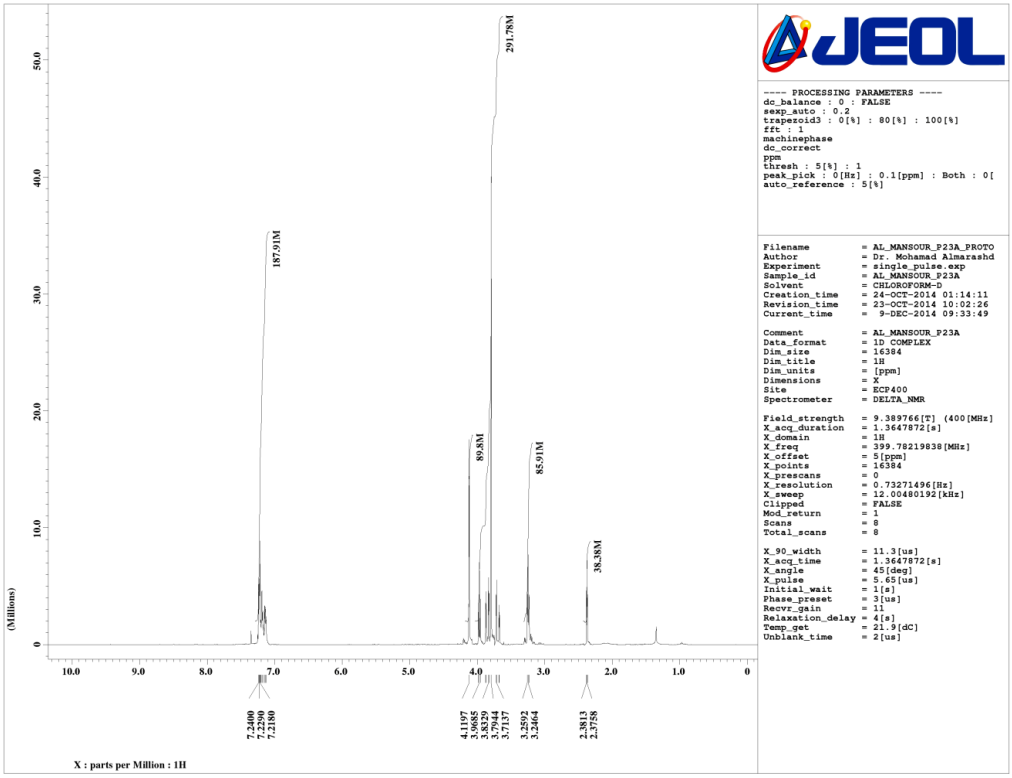

Figure S1 ^{1}H NMR spectrum of **4**

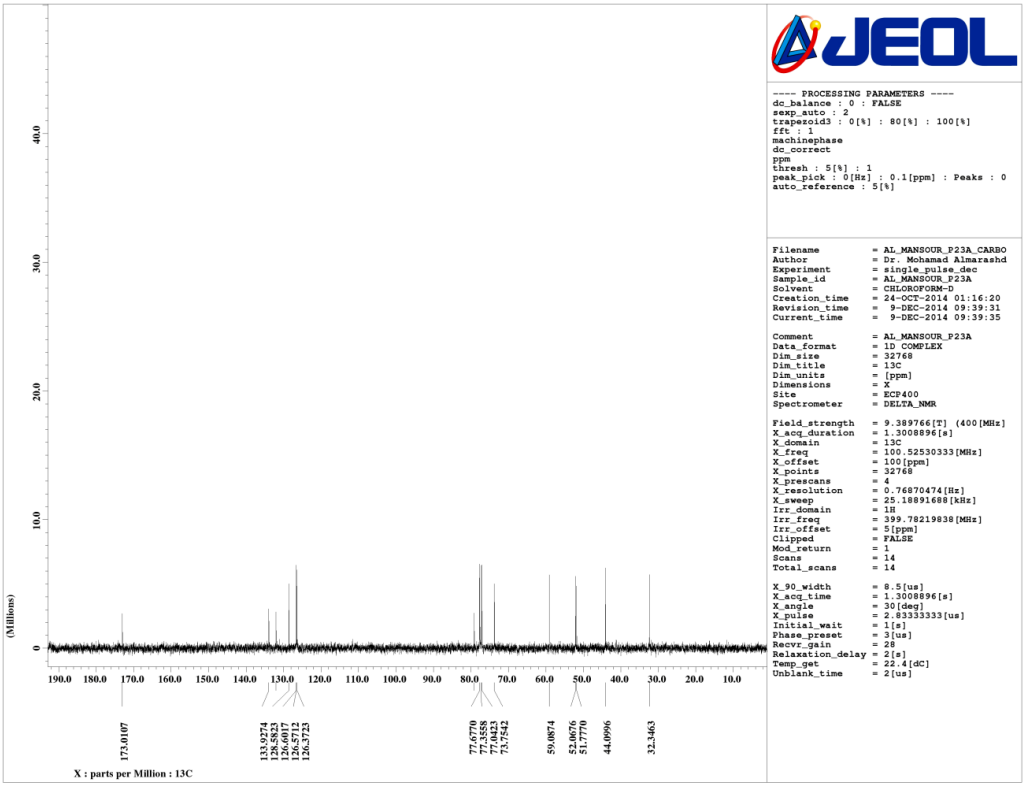

Figure S2 ^{13}C NMR spectrum of **4**

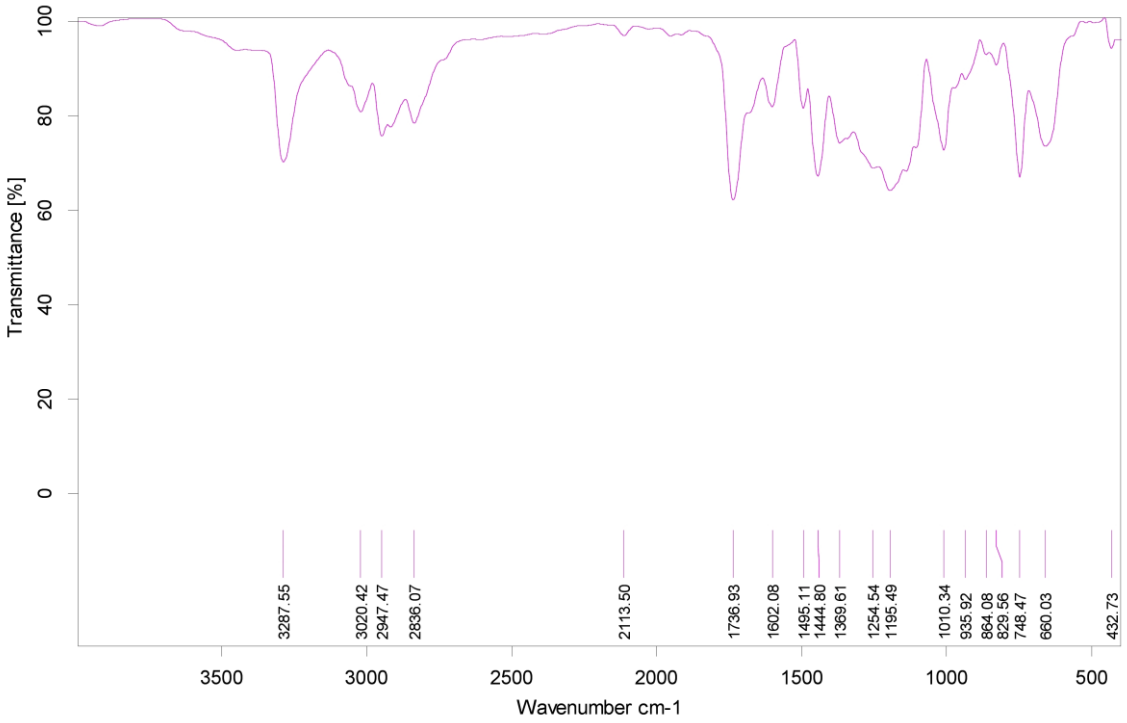

Figure S3 FT-IR spectrum of **4**

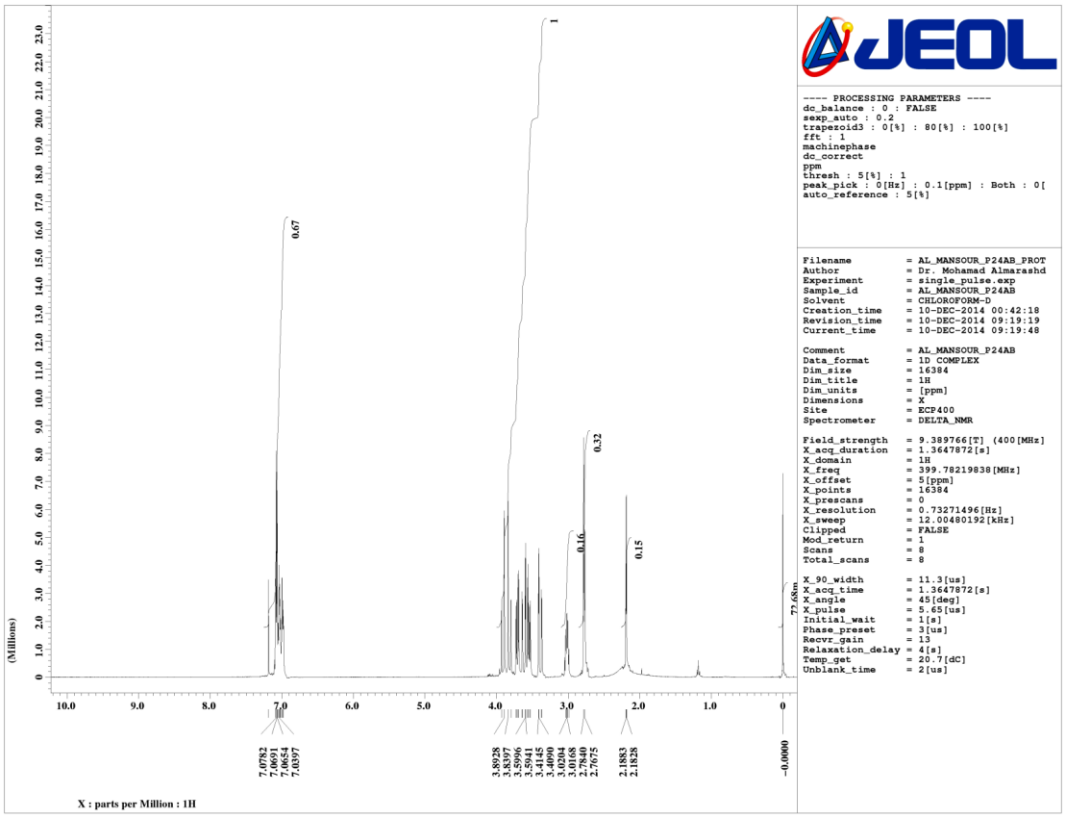

Figure S4 ^{1}H NMR spectrum of **5**

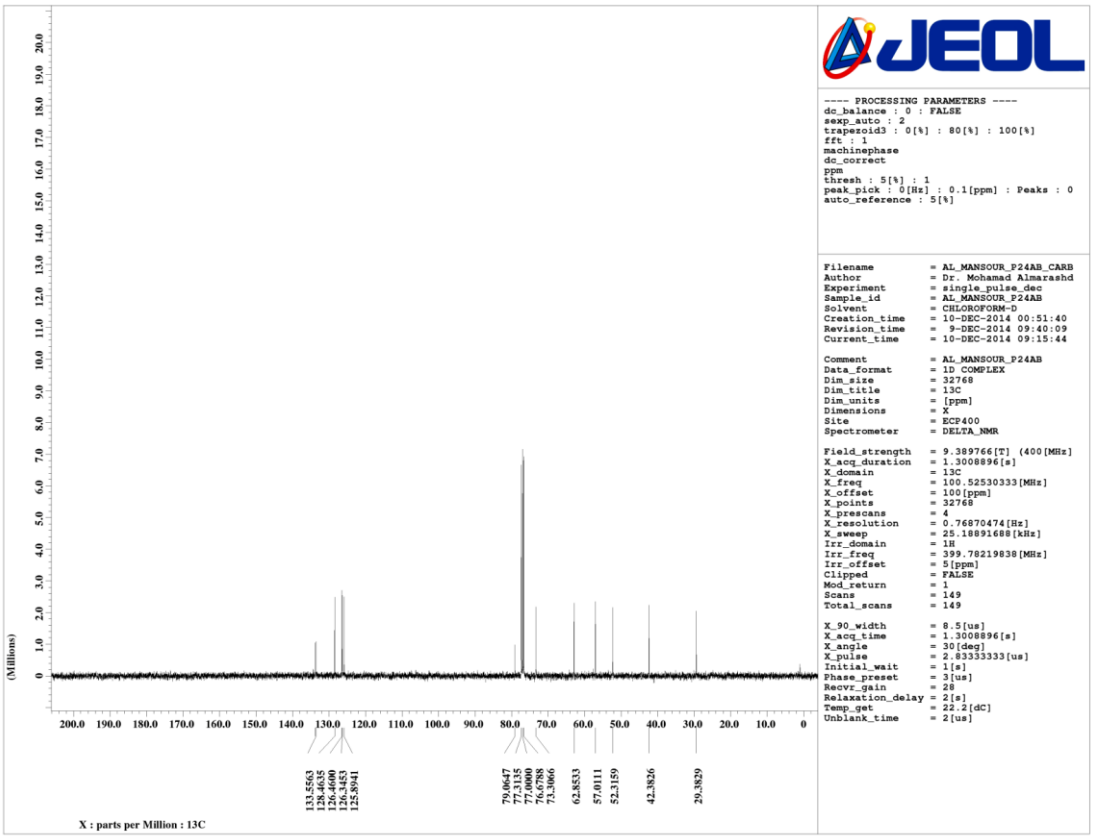

Figure S5 ^{13}C NMR spectrum of **5**

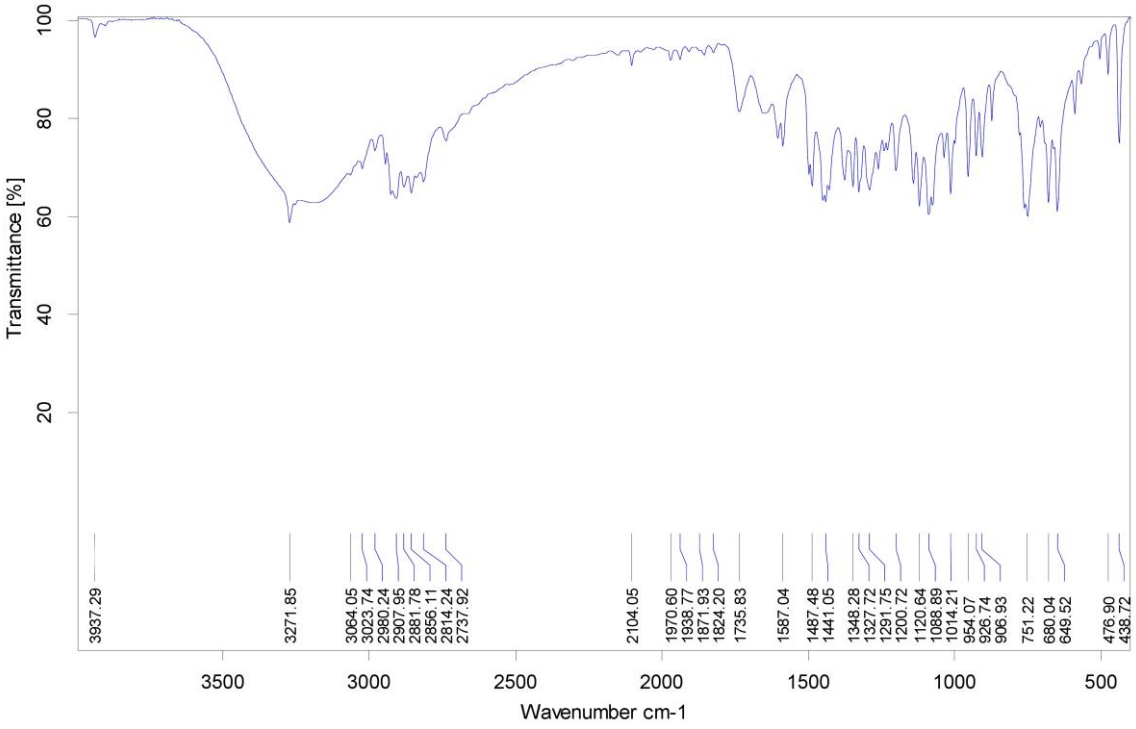

Figure S6 FT-IR spectrum of **5**

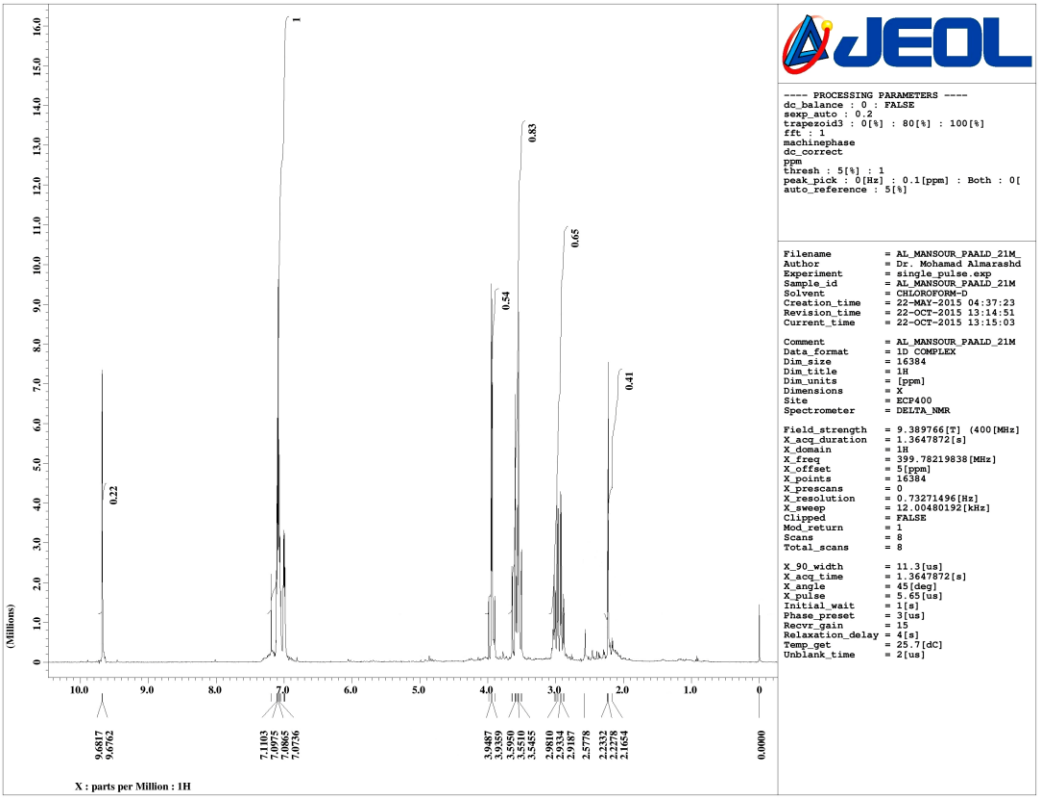

Figure S7 ^{1}H NMR spectrum of **6**

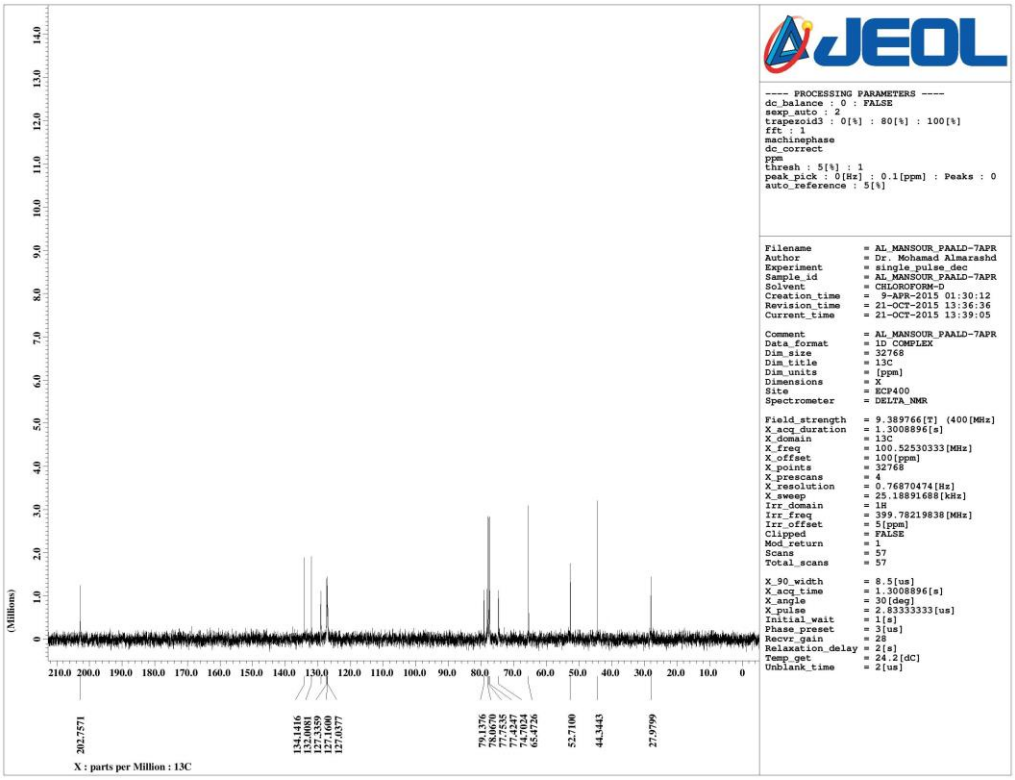

Figure S8 ^{13}C NMR spectrum of **6**

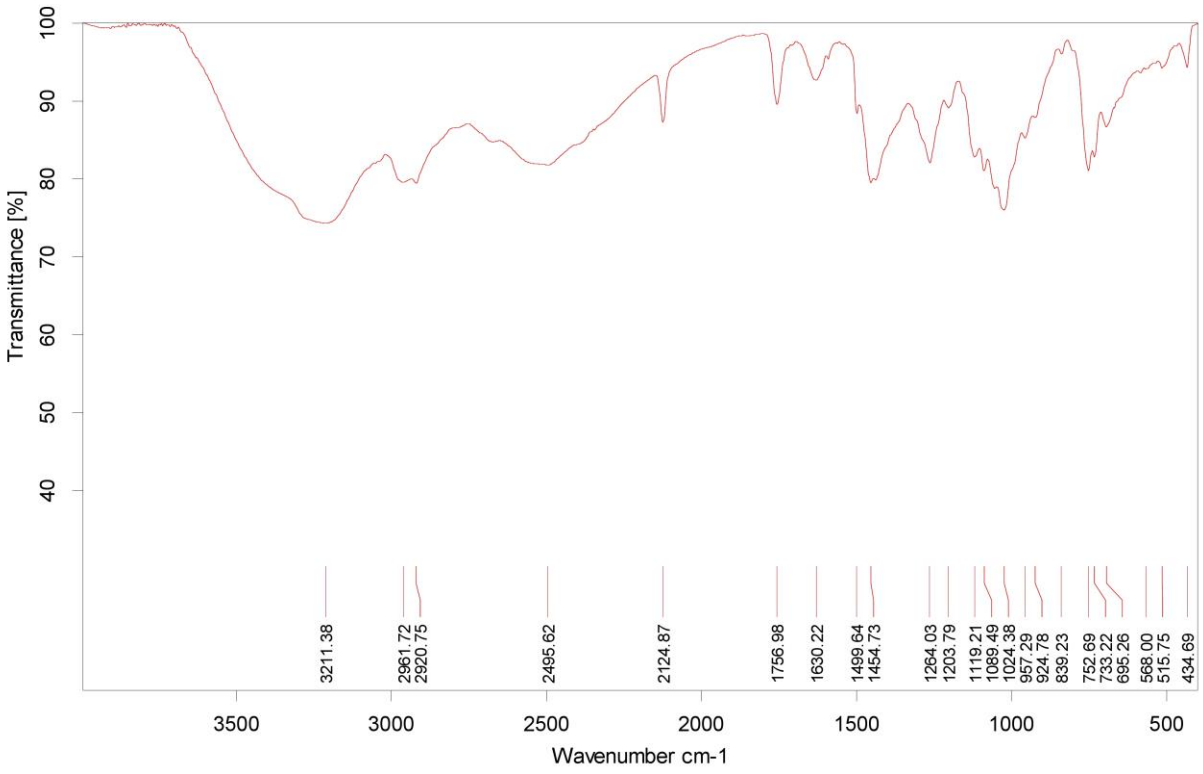

Figure S9 FT-IR spectrum of **6**

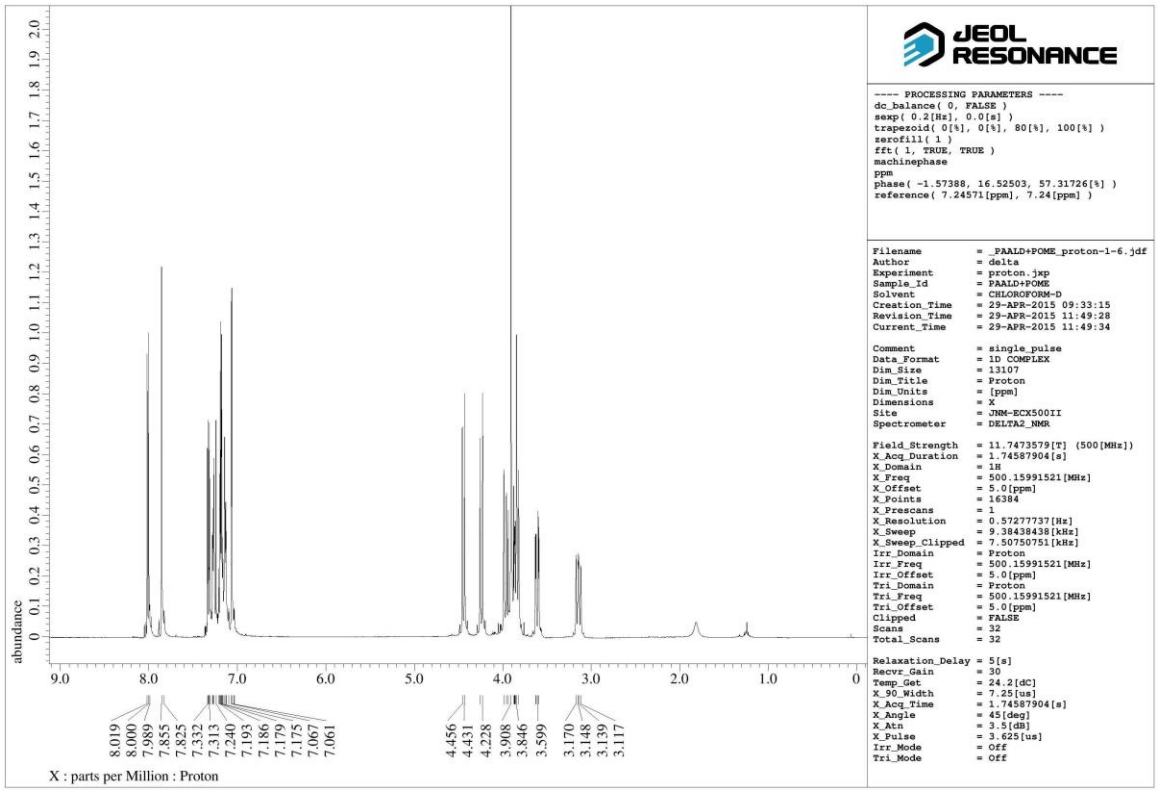

Figure S10 ^{1}H NMR spectrum of **8d**

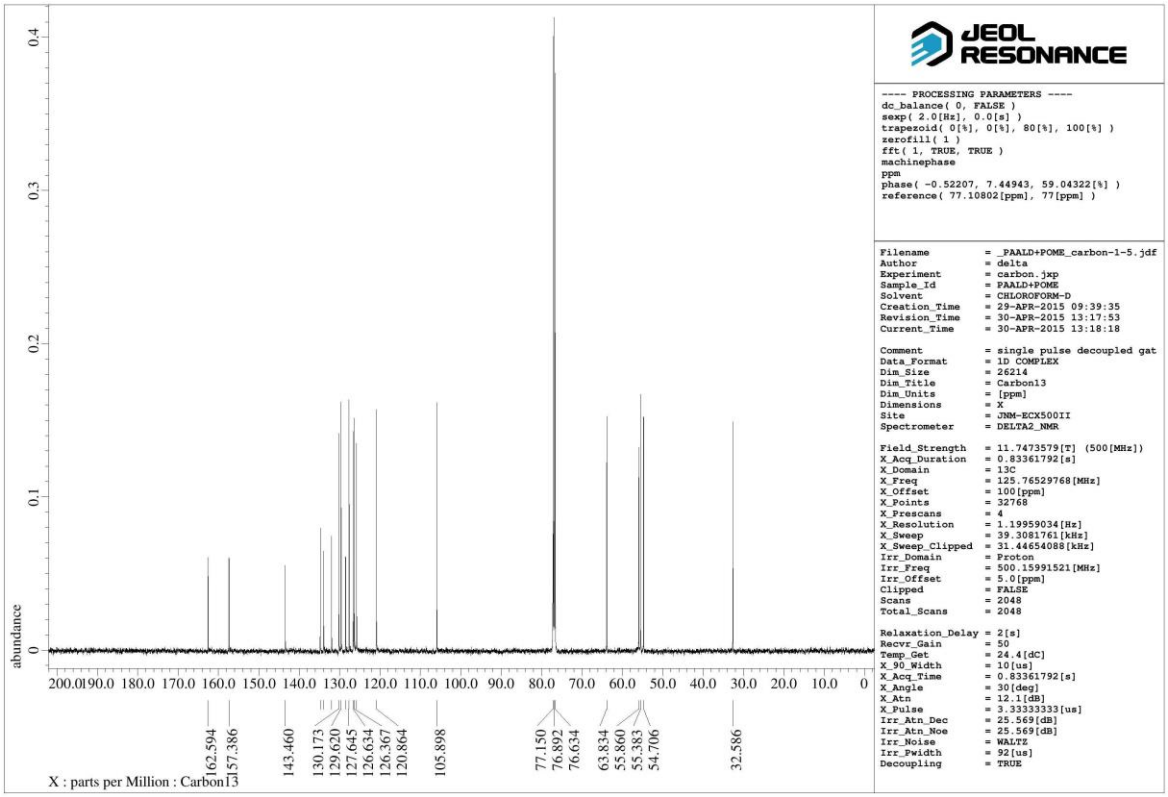

Figure S11 ^{13}C NMR spectrum of **8d**

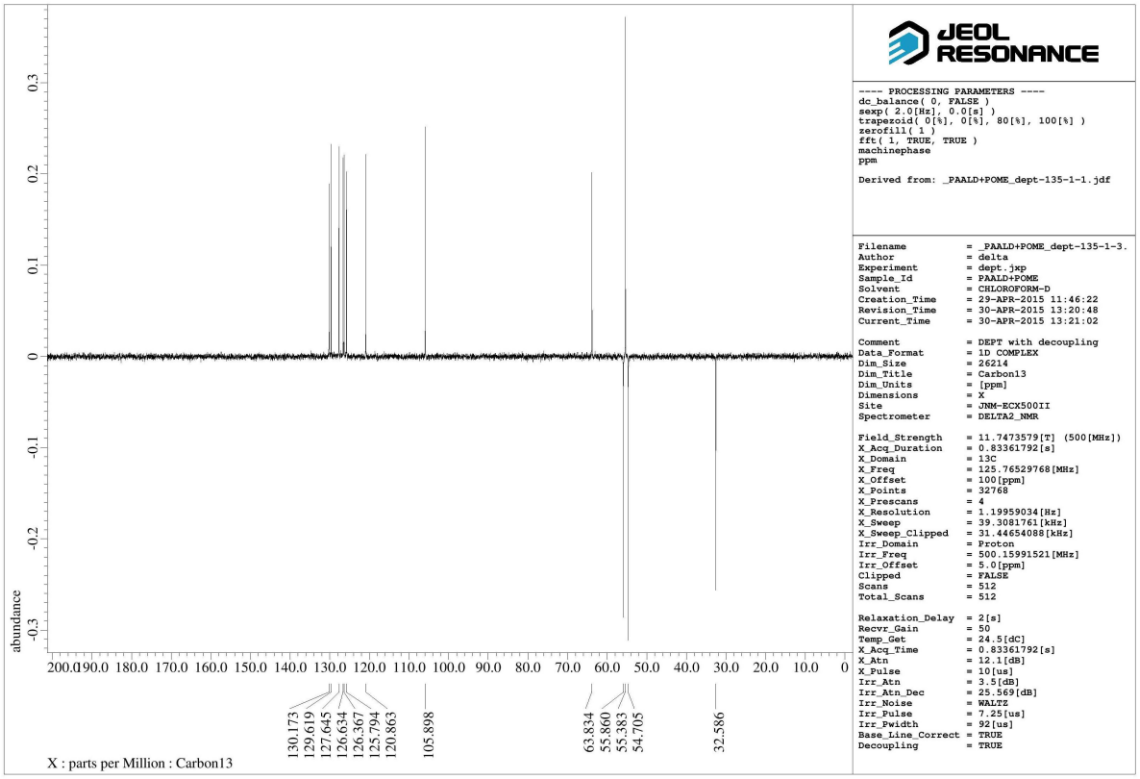

Figure S12 DEPT 135 NMR spectrum of **8d**

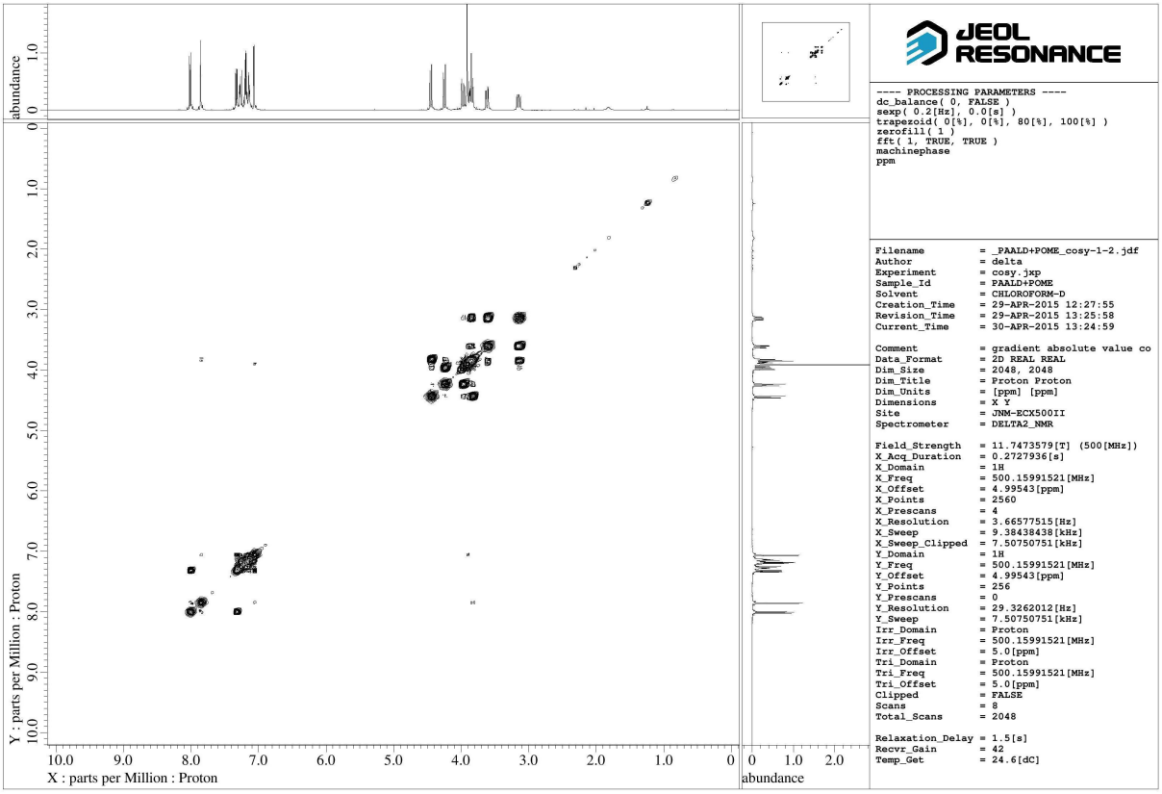

Figure S13 H-H COSY spectrum of **8d**

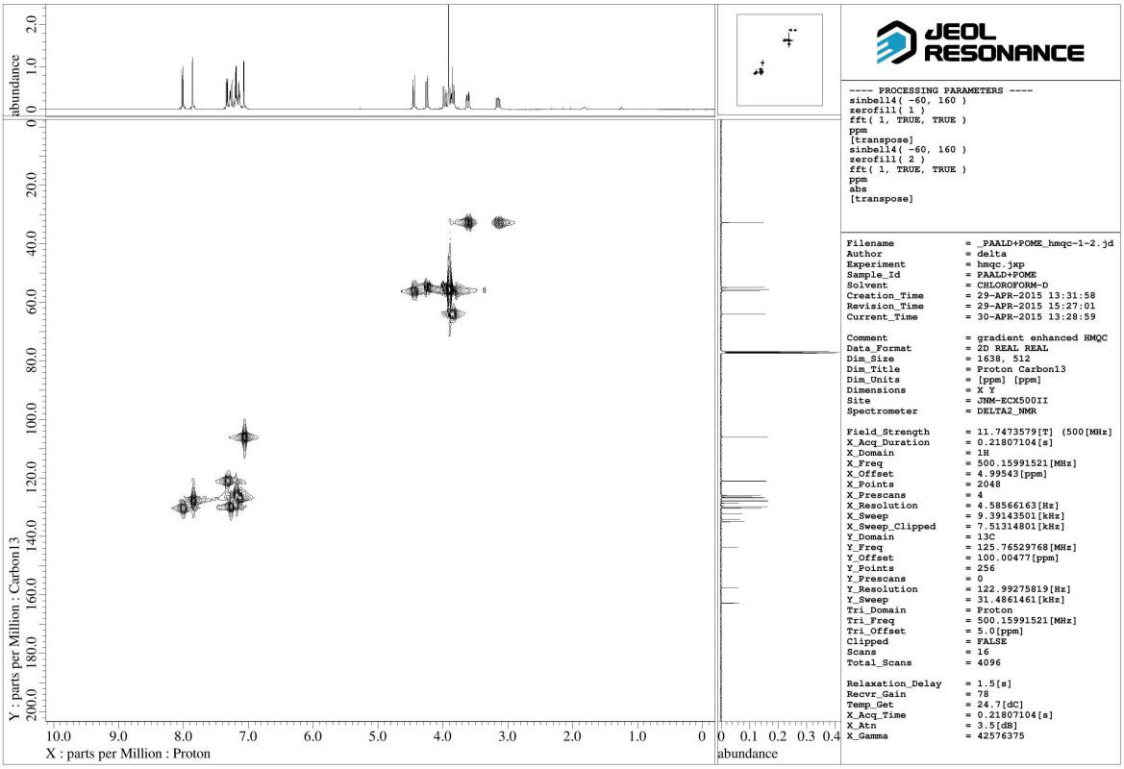

Figure S14 C-H COSY spectrum of **8d**

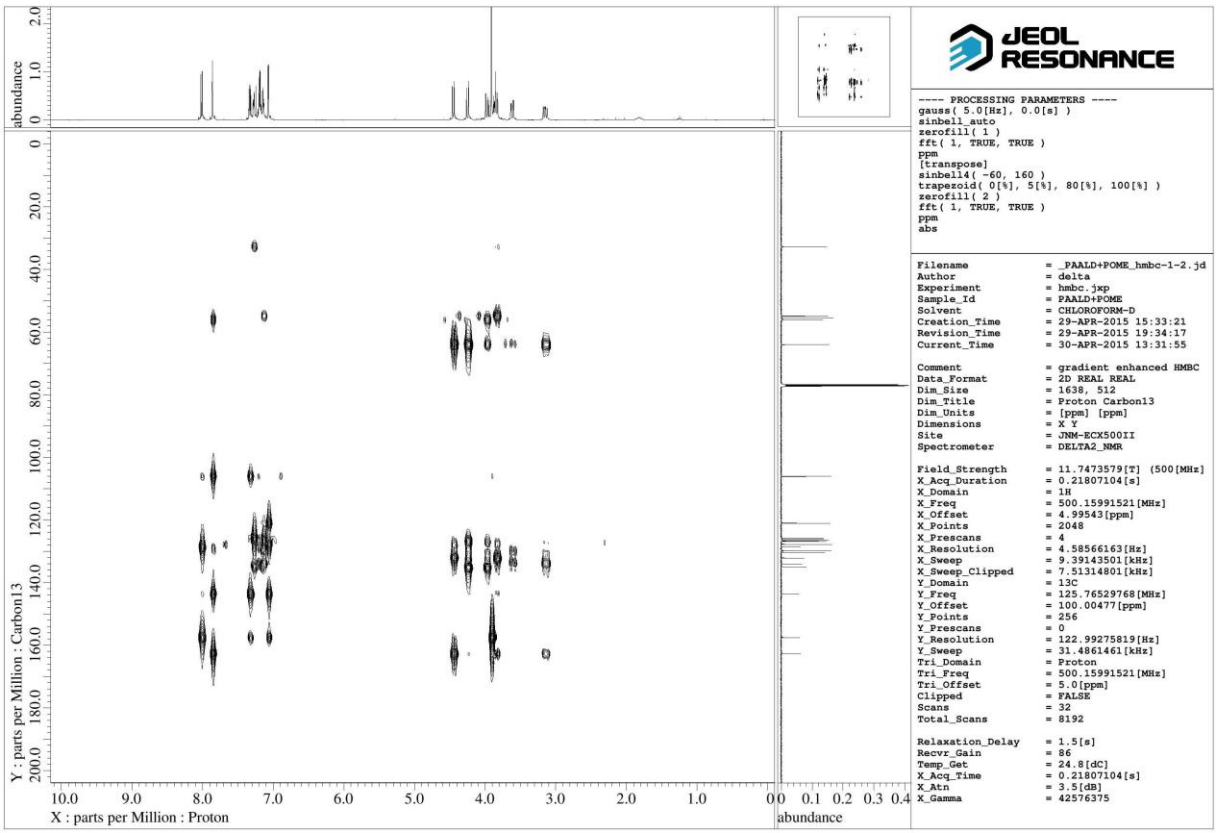

Figure S15 HMBC spectrum of **8d**

Figure S16 Mass spectrum of **8d**

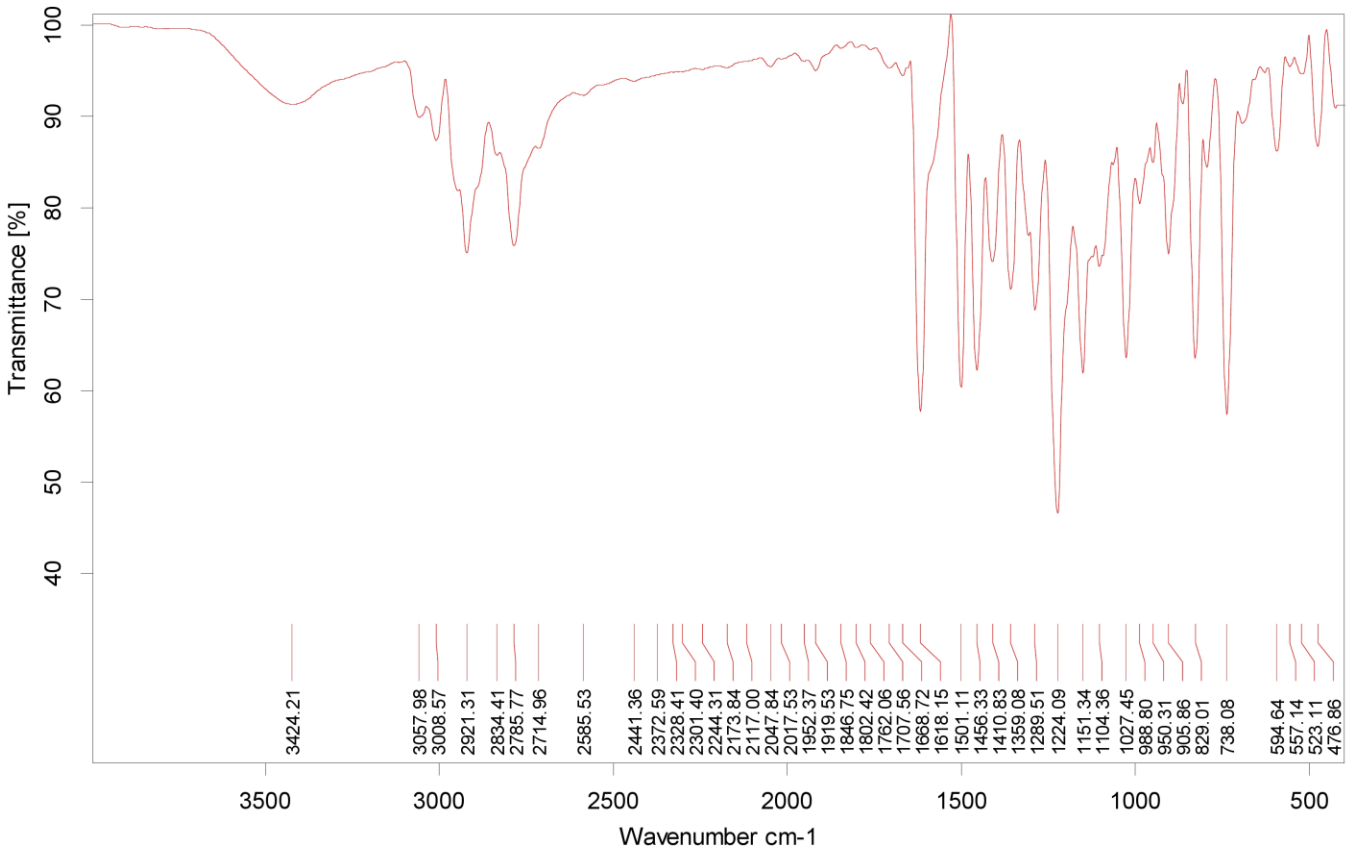

Figure S17 FT-IR spectrum of **8d**

Table S1 Experimental details

Crystal data	
Chemical formula	$C_{13}H_{15}NO$
Mr	201.26
Crystal system, space group	Orthorhombic, $P2_12_12_1$
Temperature (K)	150
a, *b*, *c* (Å)	6.5618 (3), 7.9332 (3), 21.0134 (9)
V (Å^3)	1093.88 (8)
Z	4
Radiation type	Mo *K*α
μ (mm^{-1})	0.08
Crystal size (mm)	0.67 × 0.42 × 0.21
Data collection	
Diffractometer	Bruker APEX-II D8 venture diffractometer
Absorption correction	Multi-scan SADABS Bruker 2014
Tmin, Tmax	0.94, 0.98
No. of measured, independent and observed [I > 2σ(I)] reflections	70825, 5294, 4966
R_{int}	0.031
Refinement	
R[F^2 > 2σ(F^2)], wR(F^2), S	0.033, 0.093, 1.04
No. of reflections	5294
No. of parameters	144
No. of restraints	0
H-atom treatment	H atoms treated by a mixture of independent and constrained refinement
$\Delta\rho_{max}$, $\Delta\rho_{min}$ (e Å^{-3})	0.30, −0.18

Table S2 Geometric parameters (Å, °)

O1—C10	1.4169 (12)	C6—C7	1.3977 (13)
O1—H1O1	0.84 (2)	C6—H6A	0.9300
N1—C11	1.4705 (13)	C7—C8	1.5022 (12)
N1—C1	1.4713 (11)	C8—C9	1.5223 (13)
N1—C9	1.4810 (12)	C8—H8A	0.9700
C1—C2	1.5026 (13)	C8—H8B	0.9700
C1—H1A	0.9700	C9—C10	1.5226 (12)
C1—H1B	0.9700	C9—H9A	0.9800
C2—C7	1.3948 (12)	C10—H10A	0.9700
C2—C3	1.3994 (12)	C10—H10B	0.9700
C3—C4	1.3891 (15)	C11—C12	1.4736 (15)
C3—H3A	0.9300	C11—H11A	0.9700
C4—C5	1.3912 (16)	C11—H11B	0.9700
C4—H4A	0.9300	C12—C13	1.1967 (16)
C5—C6	1.3891 (14)	C13—H13	0.99 (2)
C5—H5A	0.9300		
C10—O1—H1O1	107.8 (13)	C6—C7—C8	120.60 (8)
C11—N1—C1	109.22 (7)	C7—C8—C9	112.75 (7)
C11—N1—C9	113.40 (7)	C7—C8—H8A	109.0
C1—N1—C9	110.56 (7)	C9—C8—H8A	109.0
N1—C1—C2	113.40 (7)	C7—C8—H8B	109.0
N1—C1—H1A	108.9	C9—C8—H8B	109.0
C2—C1—H1A	108.9	H8A—C8—H8B	107.8
N1—C1—H1B	108.9	N1—C9—C10	112.53 (8)
C2—C1—H1B	108.9	N1—C9—C8	107.90 (7)
H1A—C1—H1B	107.7	C10—C9—C8	110.48 (7)
C7—C2—C3	119.33 (8)	N1—C9—H9A	108.6
C7—C2—C1	121.04 (7)	C10—C9—H9A	108.6
C3—C2—C1	119.59 (8)	C8—C9—H9A	108.6
C4—C3—C2	120.92 (9)	O1—C10—C9	108.85 (7)
C4—C3—H3A	119.5	O1—C10—H10A	109.9
C2—C3—H3A	119.5	C9—C10—H10A	109.9
C3—C4—C5	119.76 (9)	O1—C10—H10B	109.9
C3—C4—H4A	120.1	C9—C10—H10B	109.9
C5—C4—H4A	120.1	H10A—C10—H10B	108.3
C6—C5—C4	119.57 (9)	N1—C11—C12	114.27 (8)
C6—C5—H5A	120.2	N1—C11—H11A	108.7
C4—C5—H5A	120.2	C12—C11—H11A	108.7
C5—C6—C7	121.04 (9)	N1—C11—H11B	108.7
C5—C6—H6A	119.5	C12—C11—H11B	108.7
C7—C6—H6A	119.5	H11A—C11—H11B	107.6
C2—C7—C6	119.38 (8)	C13—C12—C11	177.86 (12)
C2—C7—C8	120.01 (8)	C12—C13—H13	175.1 (14)