

Supporting information

for

Design and synthesis of fused polycycles via Diels–Alder reaction and ring-rearrangement metathesis as key steps

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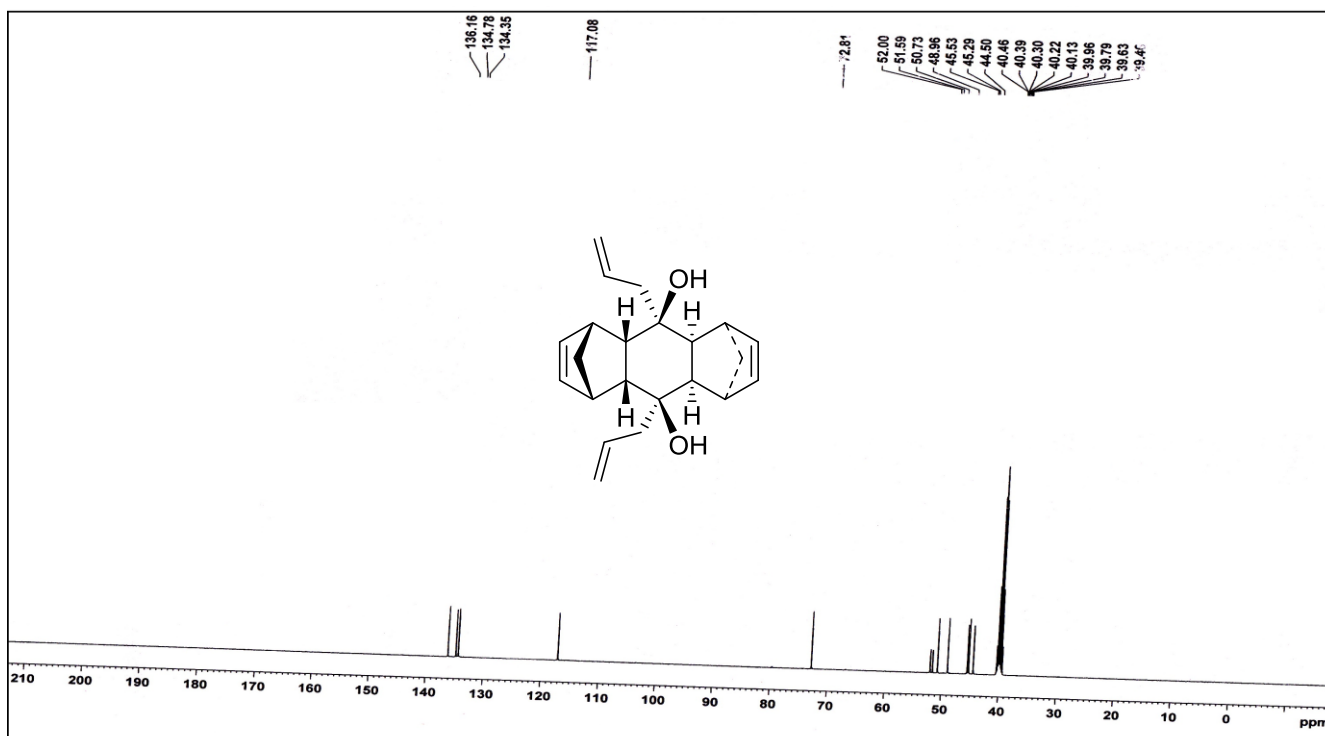
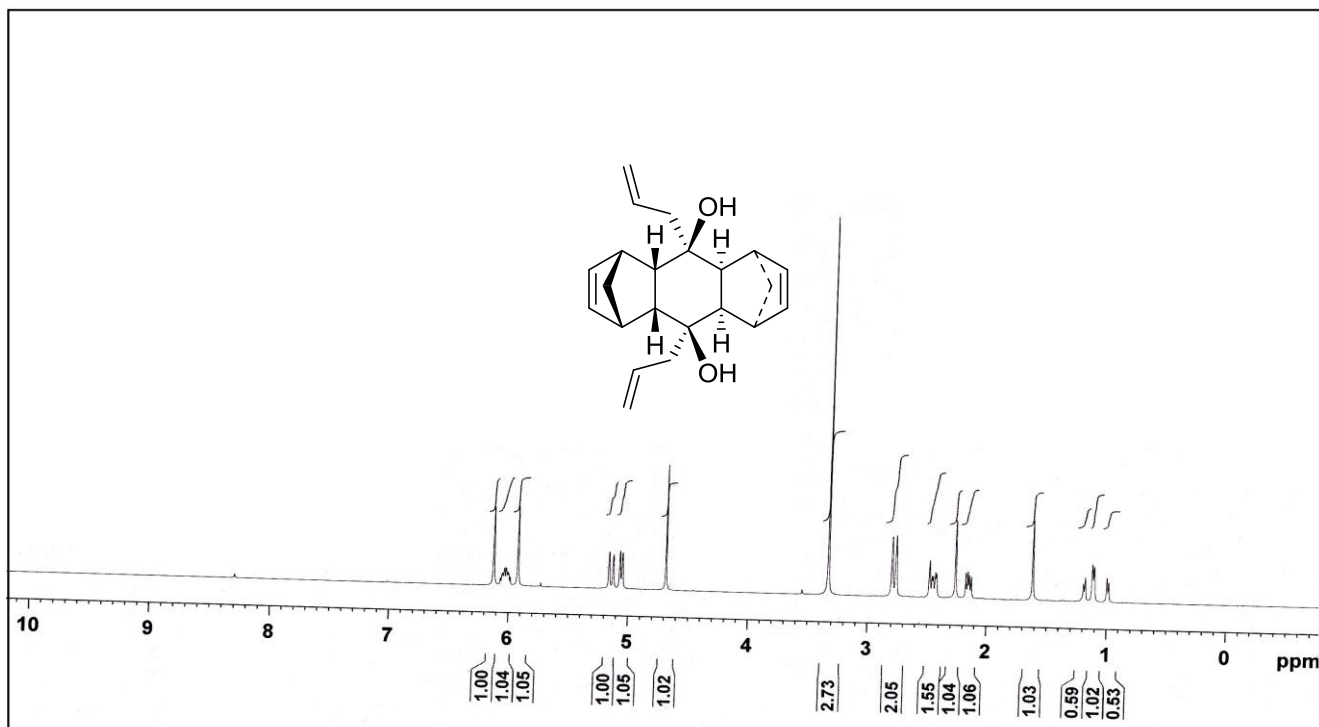
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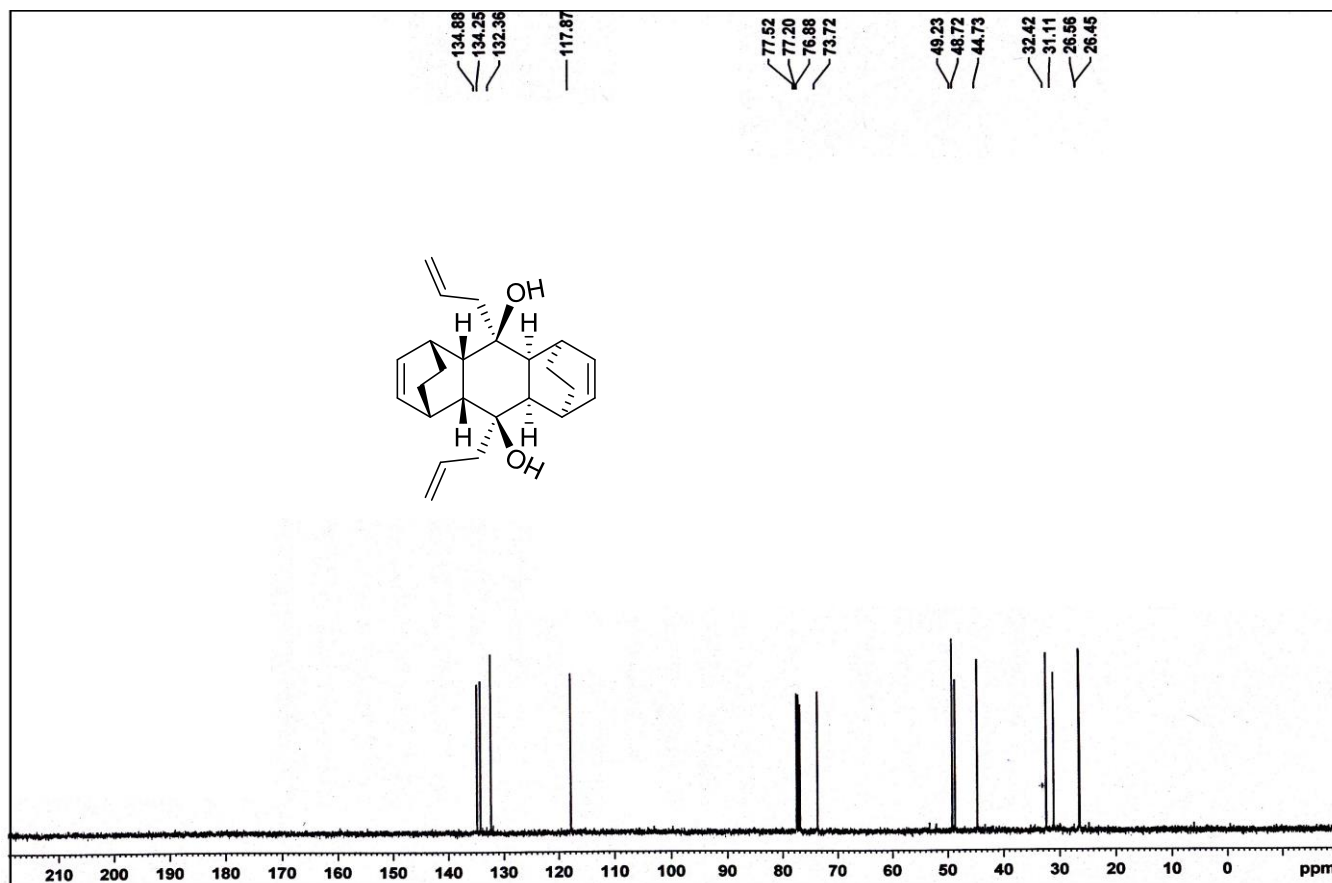
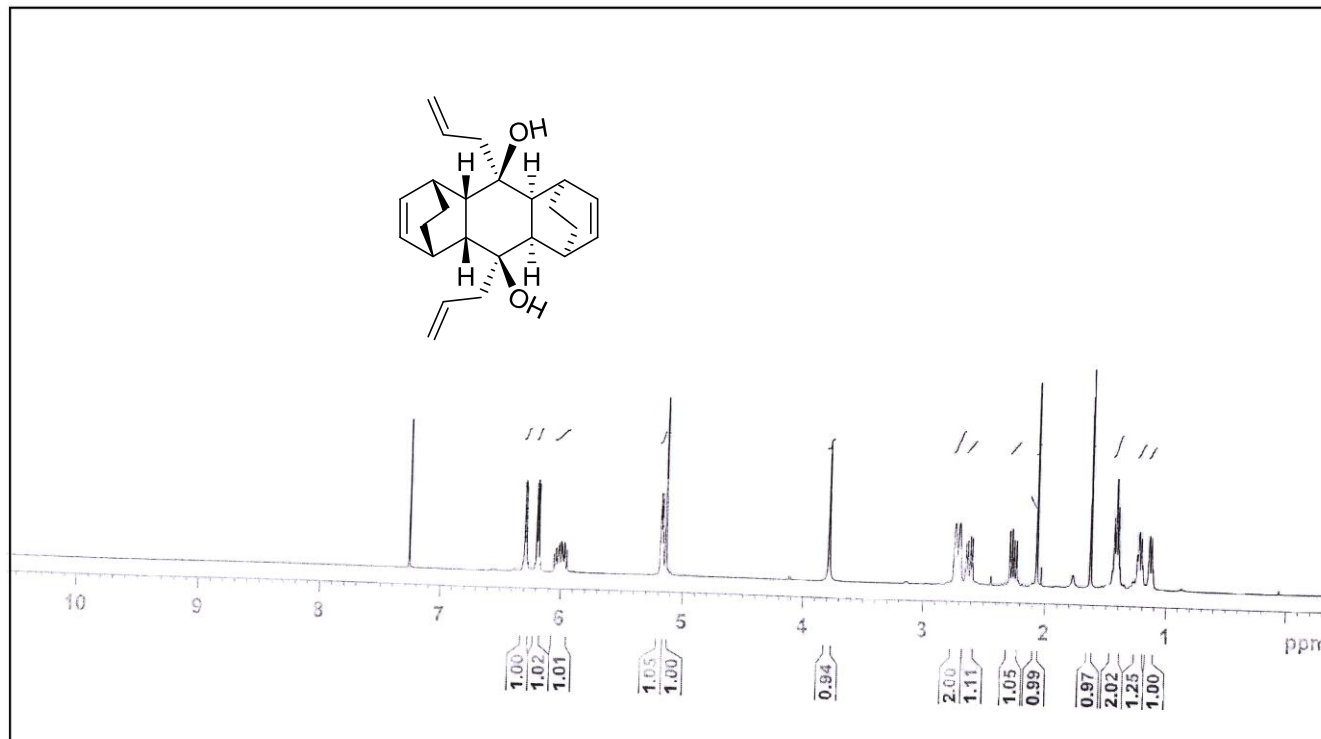
*Corresponding author

**Copies of ^1H and ^{13}C NMR spectra of new compounds; X-ray
crystallographic data for compound 5**

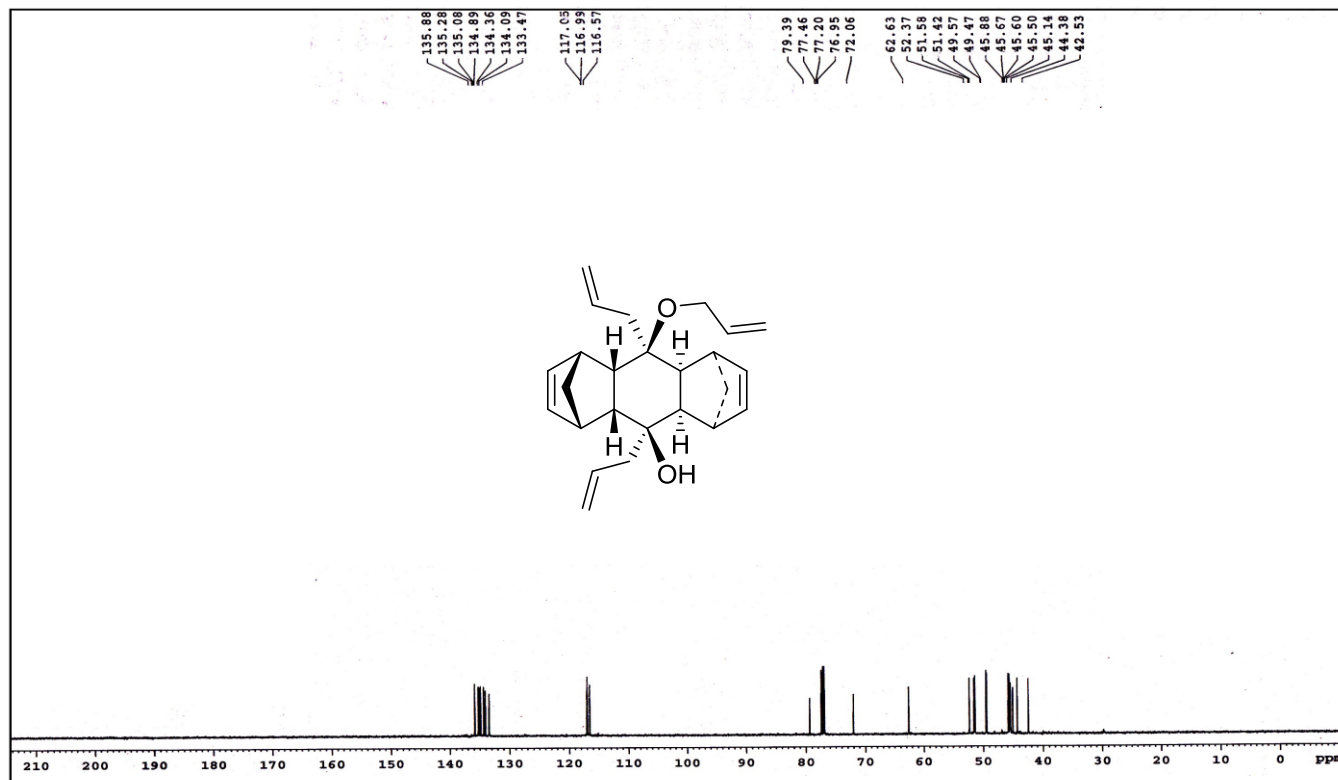
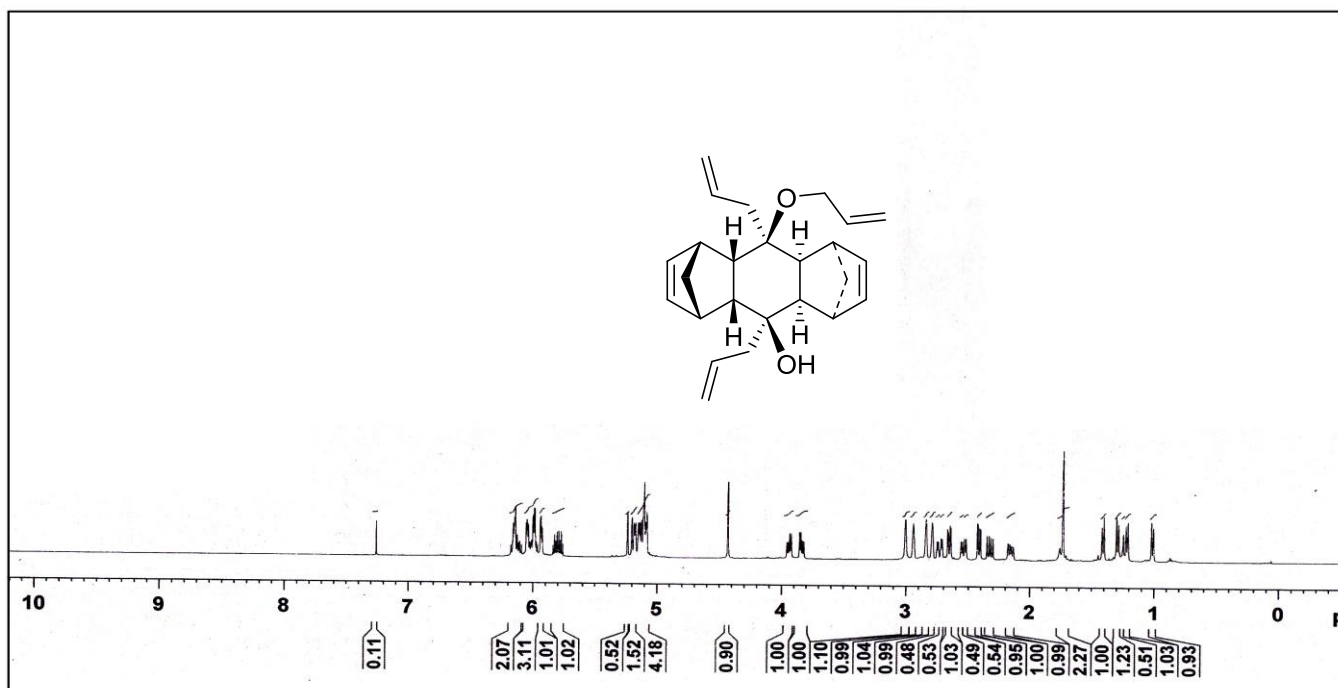
Compound 4 ^1H and ^{13}C NMR (500 MHz, DMSO)



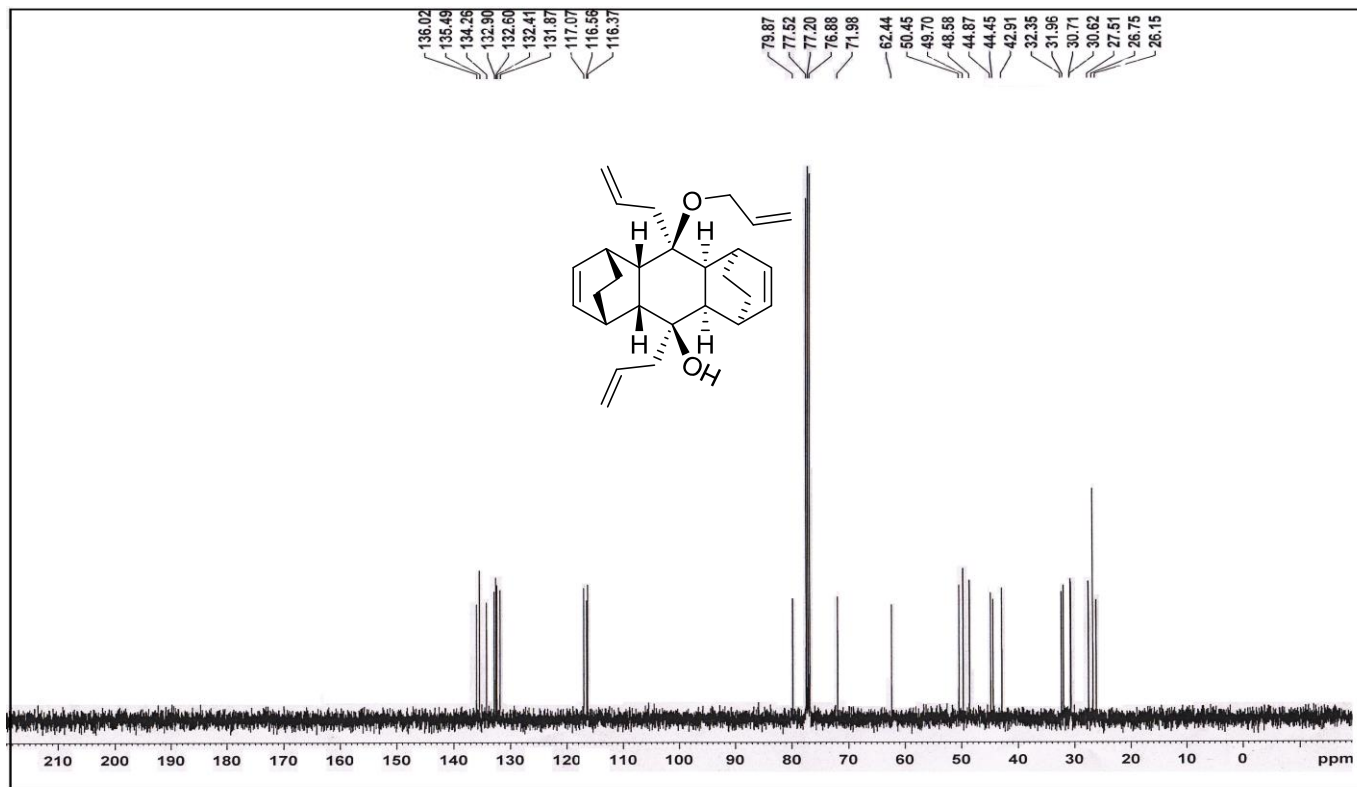
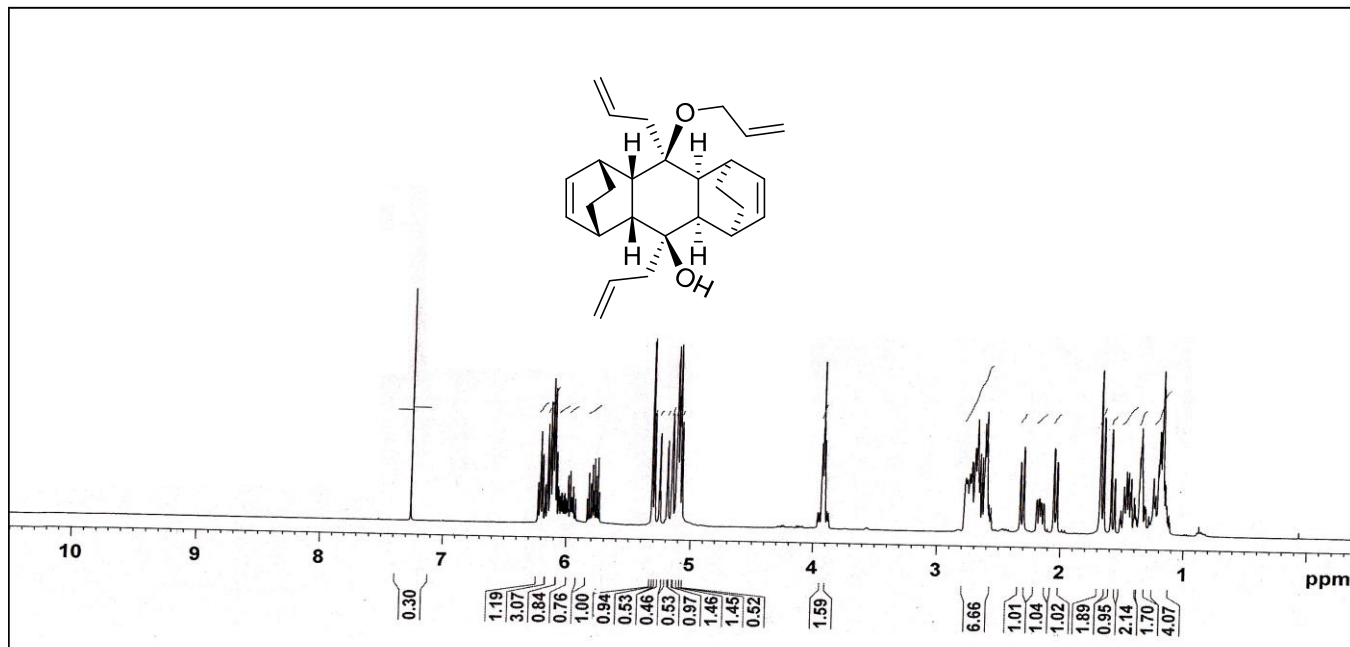
Compound 9 ^1H and ^{13}C NMR (400 MHz, CDCl_3)



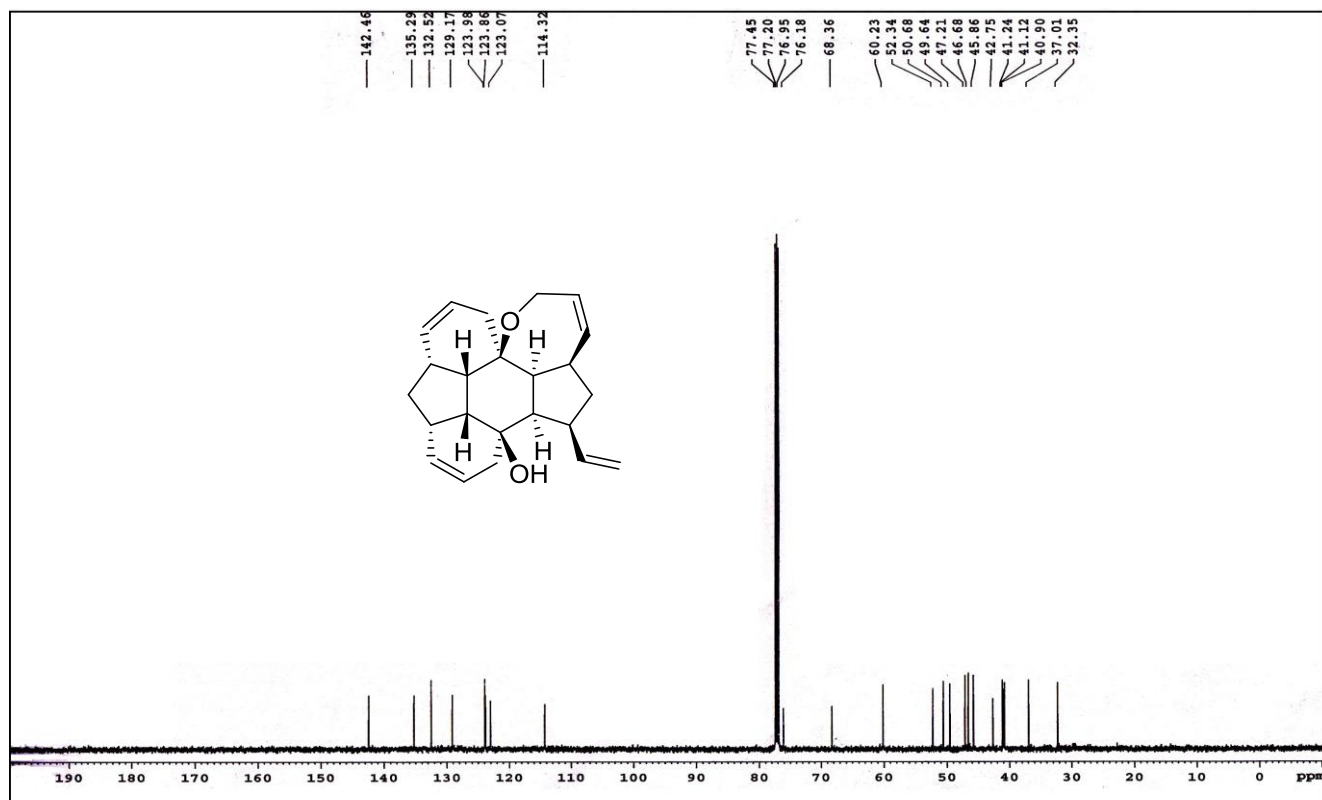
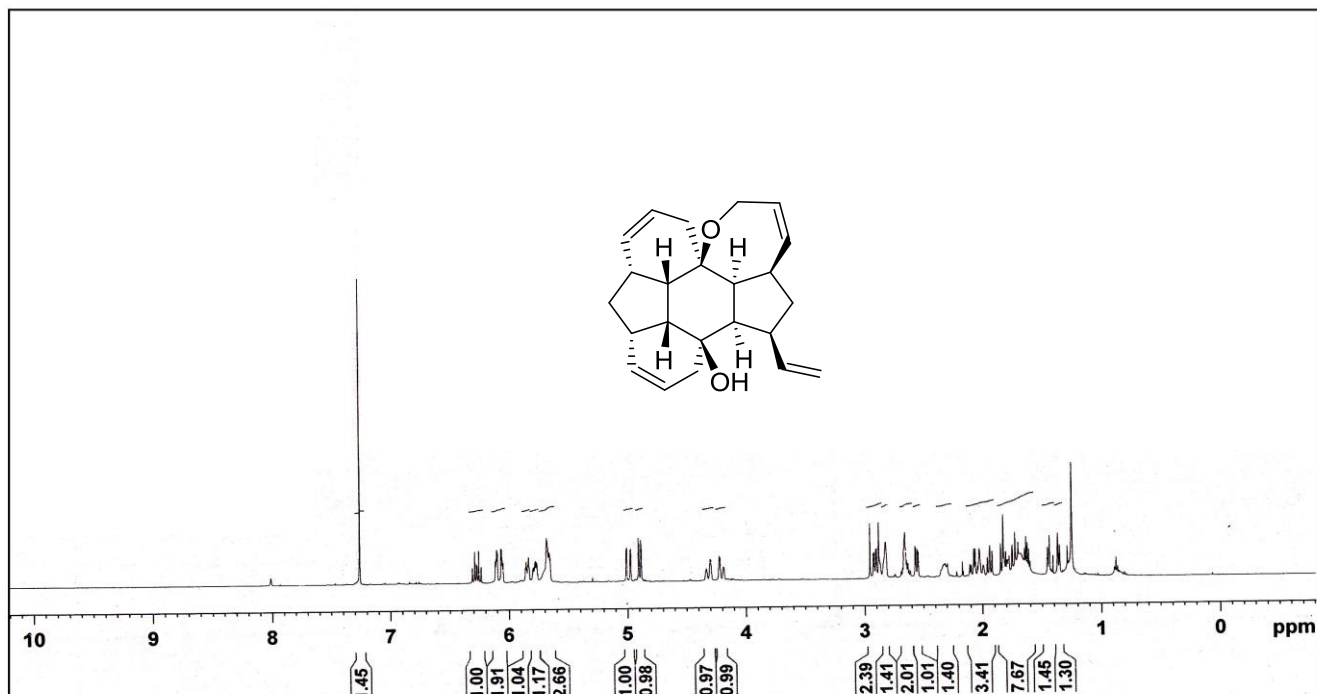
Compound 5 ^1H and ^{13}C NMR (500 MHz, CDCl_3)



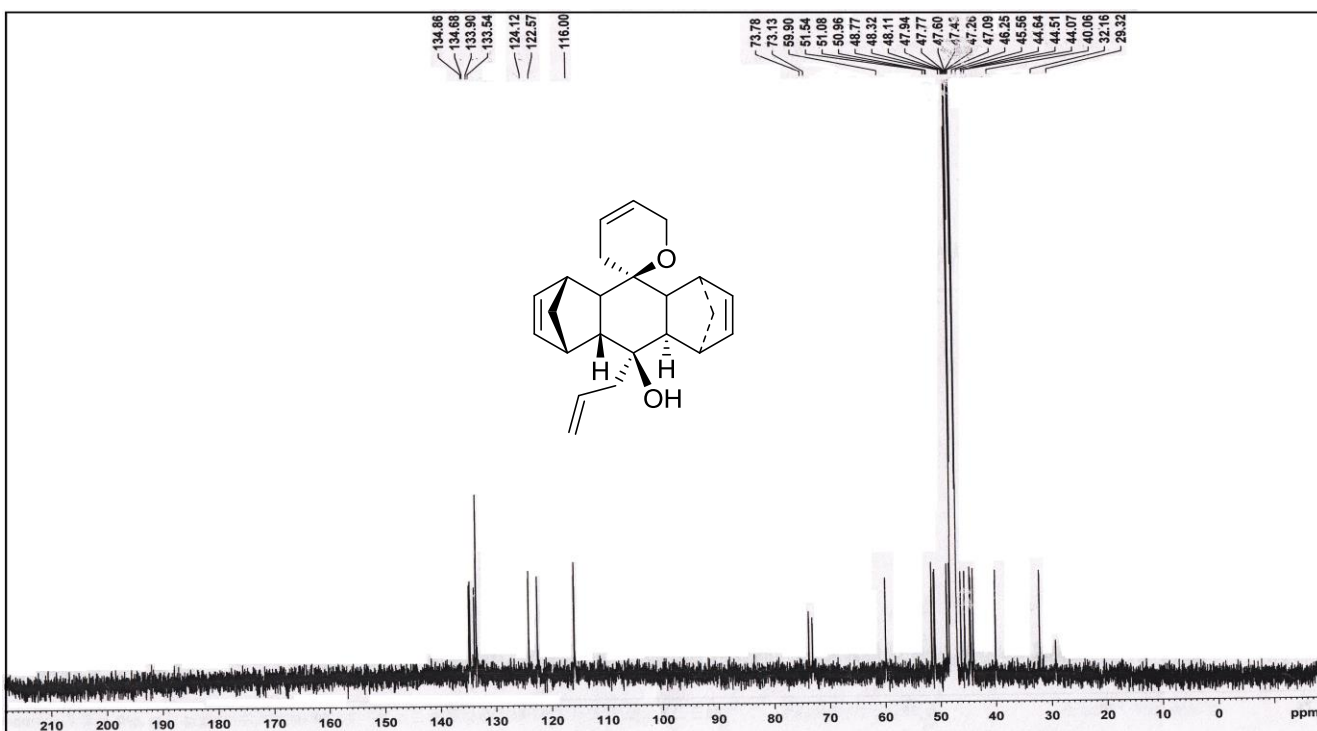
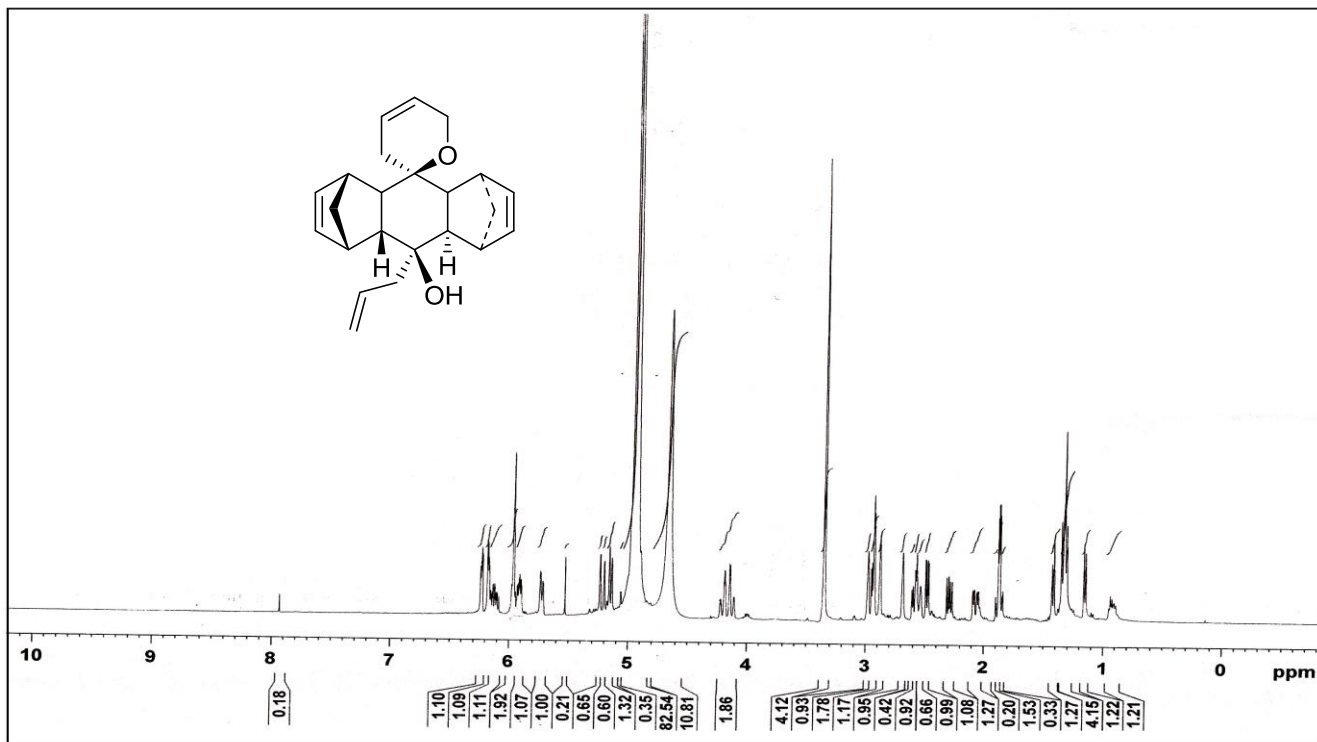
Compound 10 ^1H and ^{13}C NMR (400 MHz, CDCl_3)



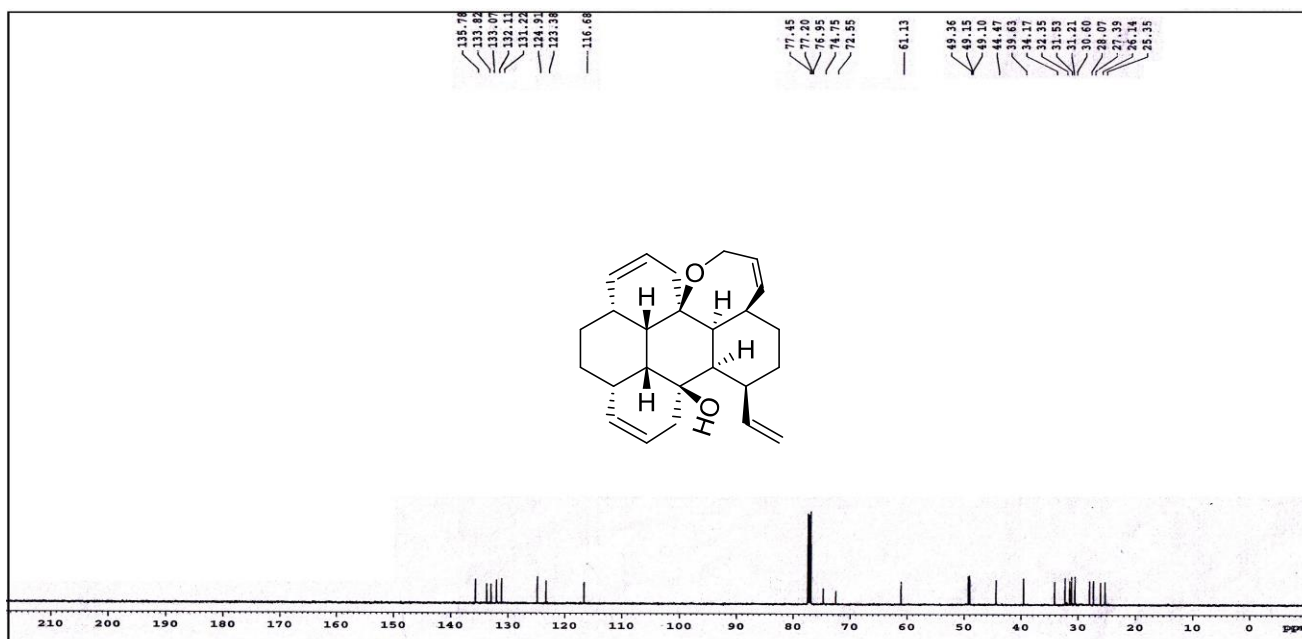
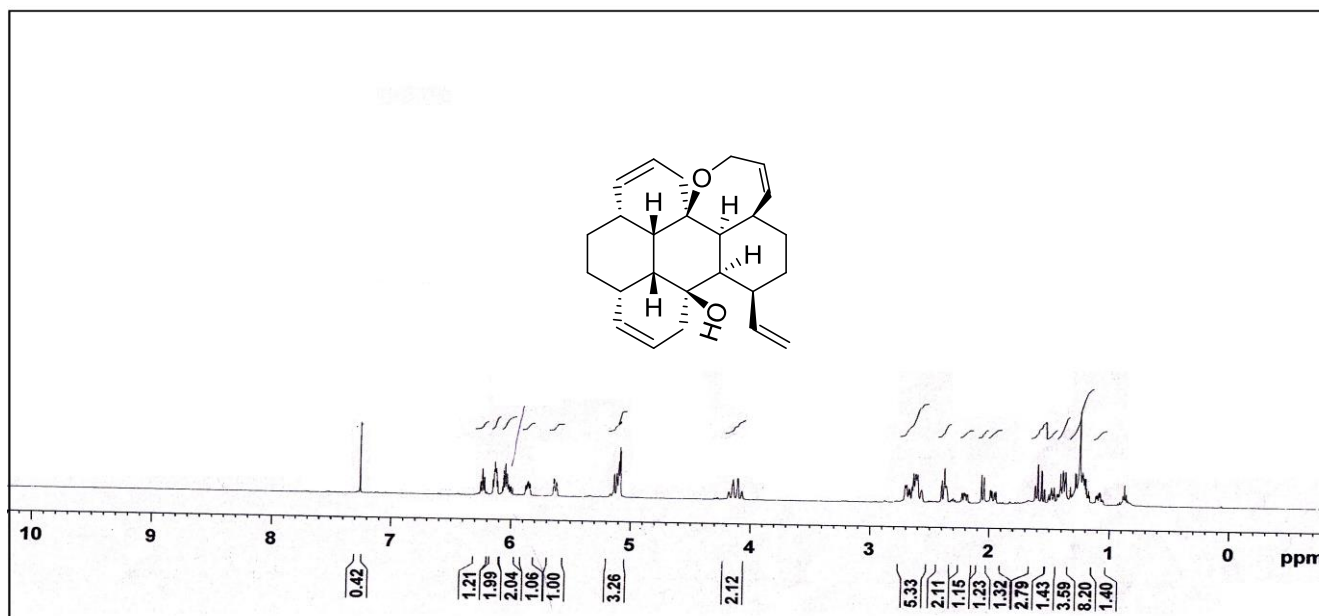
Compound 6a ^1H and ^{13}C NMR (500 MHz, CDCl_3)



Compound 6b ^1H and ^{13}C NMR (500 MHz, MeOD)



Compound 11 ^1H and ^{13}C NMR (500 MHz, CDCl_3)



X-ray crystallographic data and refinement parameters for compound 5 (CCDC 1051925)

Bond precision: C-C = 0.0073 Å Wavelength=0.71070
 Cell: a = 9.367(4) b = 9.572(4) c = 12.465(5)
 α = 71.456(18) β = 79.53(2) γ = 70.424(15)
 Temperature: 100 K

	Calculated	Reported
Volume	994.8 (7)	994.8 (8)
Space group	P -1	P -1
Hall group	-P 1	-P 1
Moiety formula	C ₂₅ H ₃₂ O ₂	C ₂₅ H ₃₂ O ₂
Sum formula	C ₂₅ H ₃₂ O ₂	C ₂₅ H ₃₂ O ₂
Mr	364.51	364.53
Dx, g cm ⁻³	1.217	1.217
Z	2	2
Mu (mm ⁻¹)	0.075	0.075
F000	396.0	396.0
F000'	396.16	
h, k, lmax	11, 11, 14	11, 11, 14
Nref	3504	3486
Tmin, Tmax	0.982, 0.995	
Tmin'	0.981	

Correction method = Not given

Data completeness = 0.995 Theta (max) = 25.000
 R(reflections) = 0.0782(1319) wR2(reflections) = 0.2821(3486)
 S = 0.849 Npar = 244