

Supporting Information

FACILE ONE-POT SYNTHESIS OF CYCLIC *N*-SULFONYLAMIDINES FROM LACTAM AND SULFONAMIDE

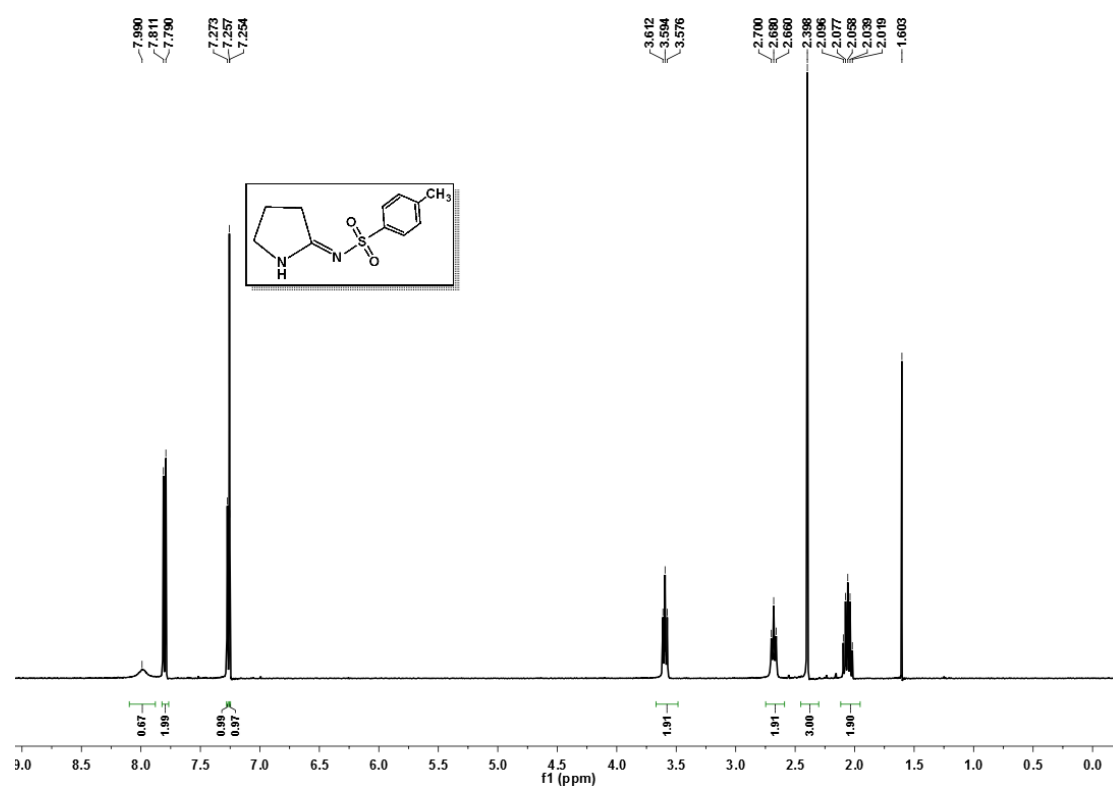
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830054, People's Republic of China. E-mail: arahman@xjnu.edu.cn

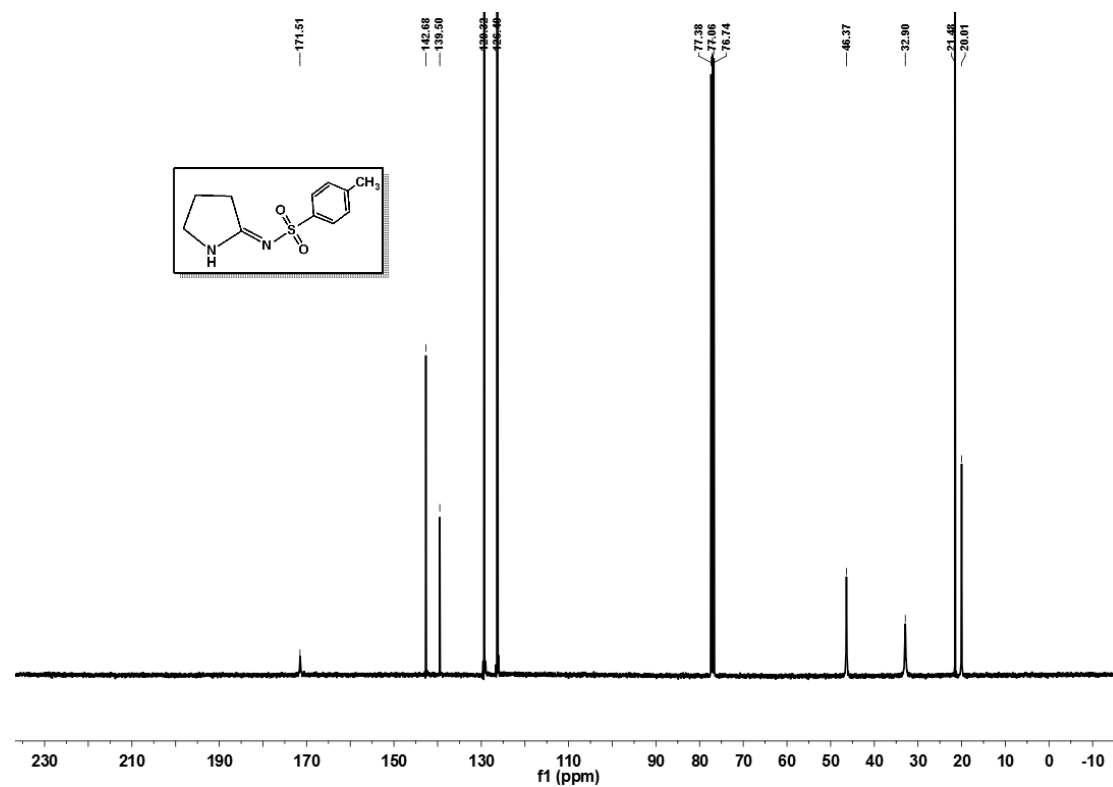
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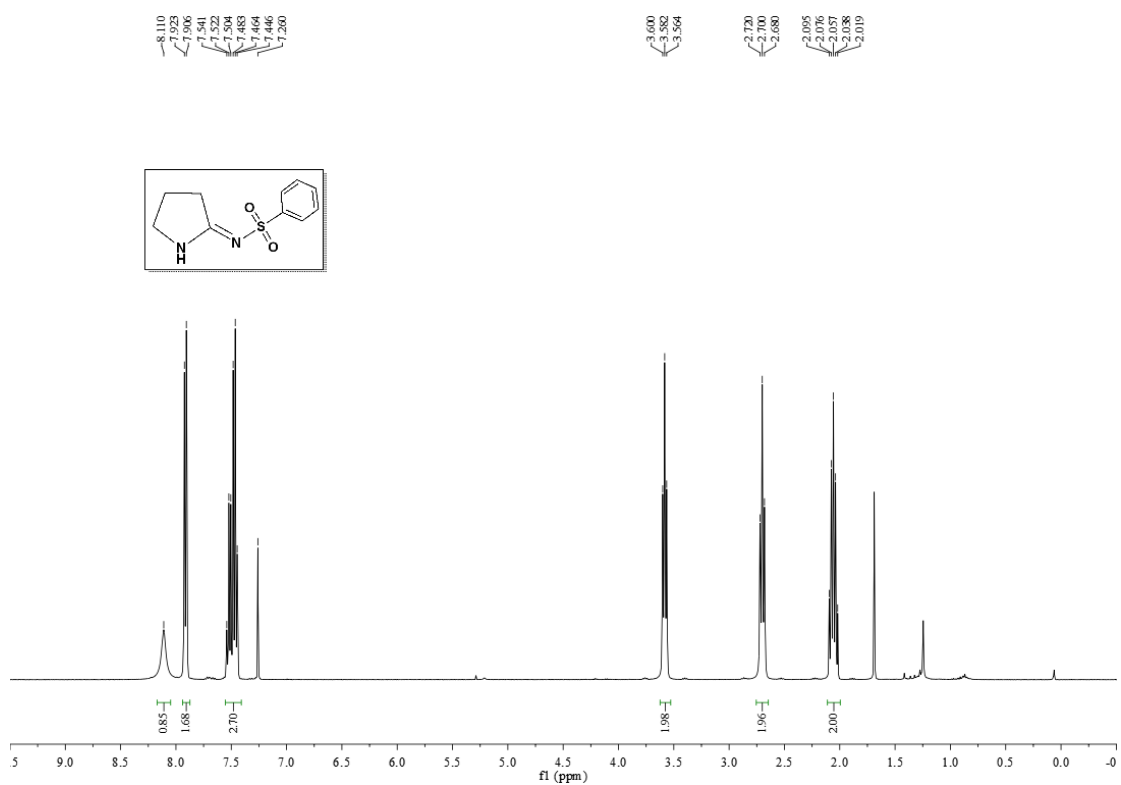
S18 Table 1. Crystal data and structure refinement details of compound **3c**



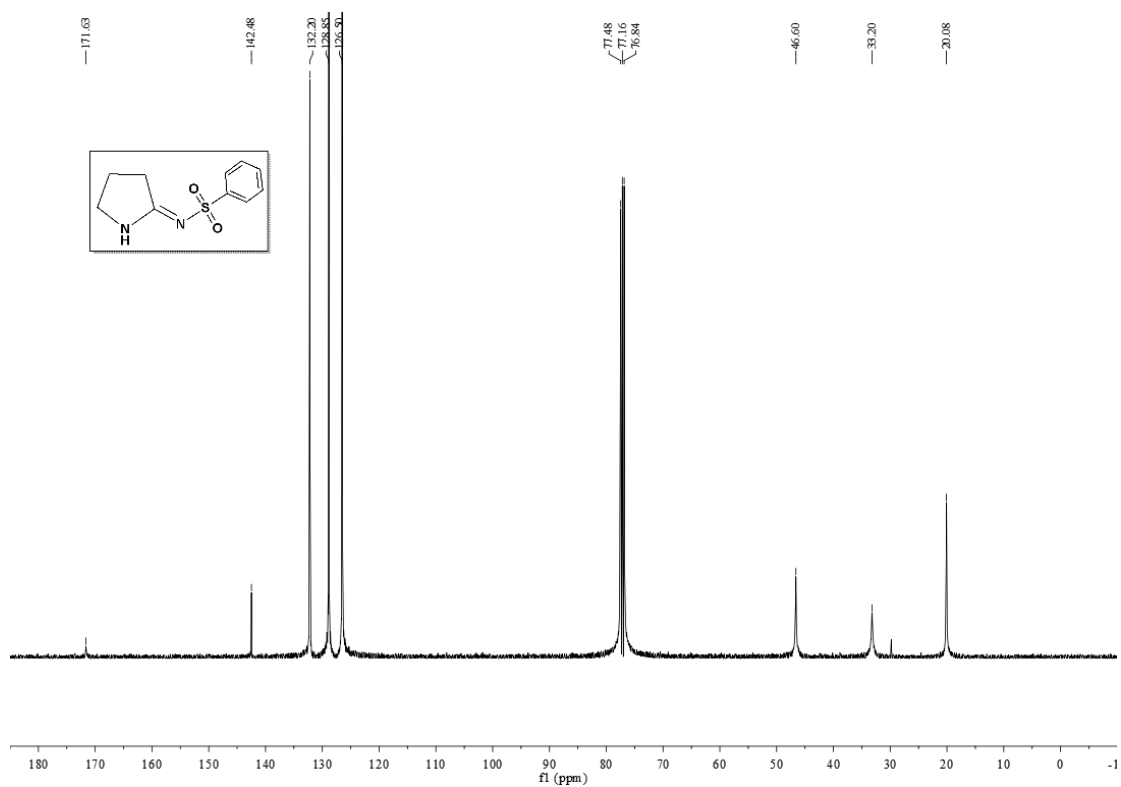
^1H NMR spectrum (CDCl_3 , 400 MHz) of **3a**



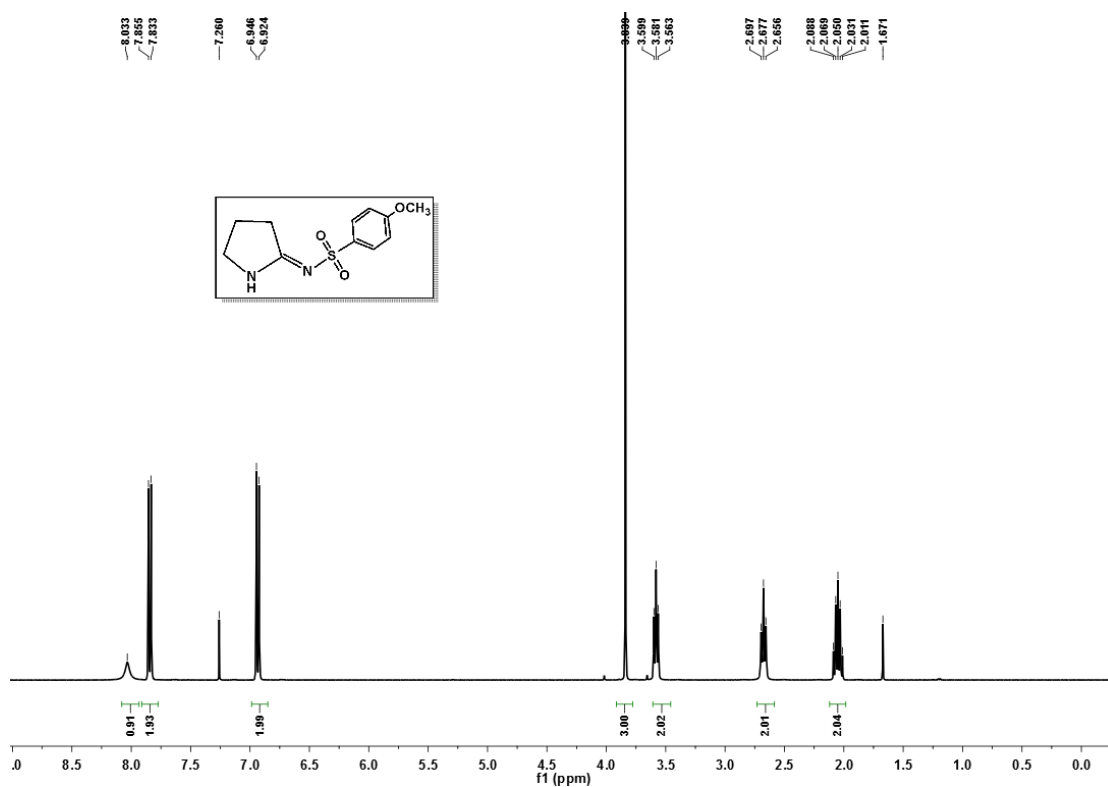
^{13}C NMR spectrum (CDCl_3 , 100 MHz) of **3a**



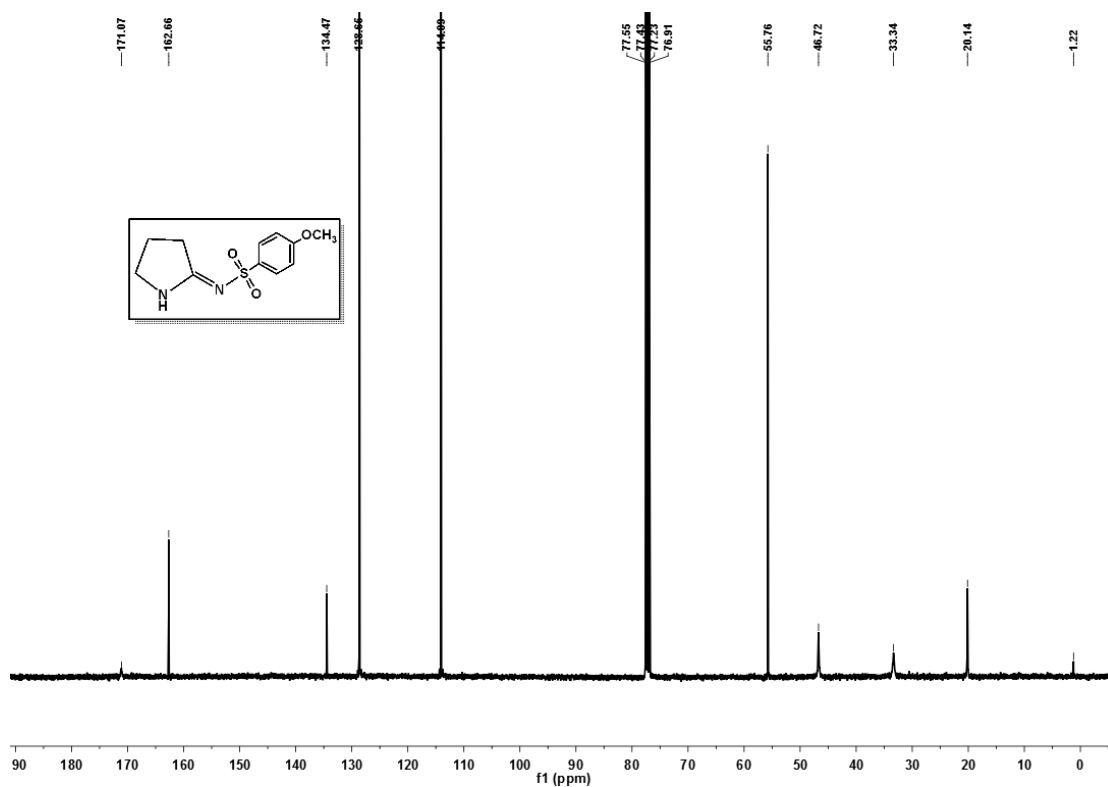
¹H NMR spectrum (CDCl₃, 400 MHz) of **3b**



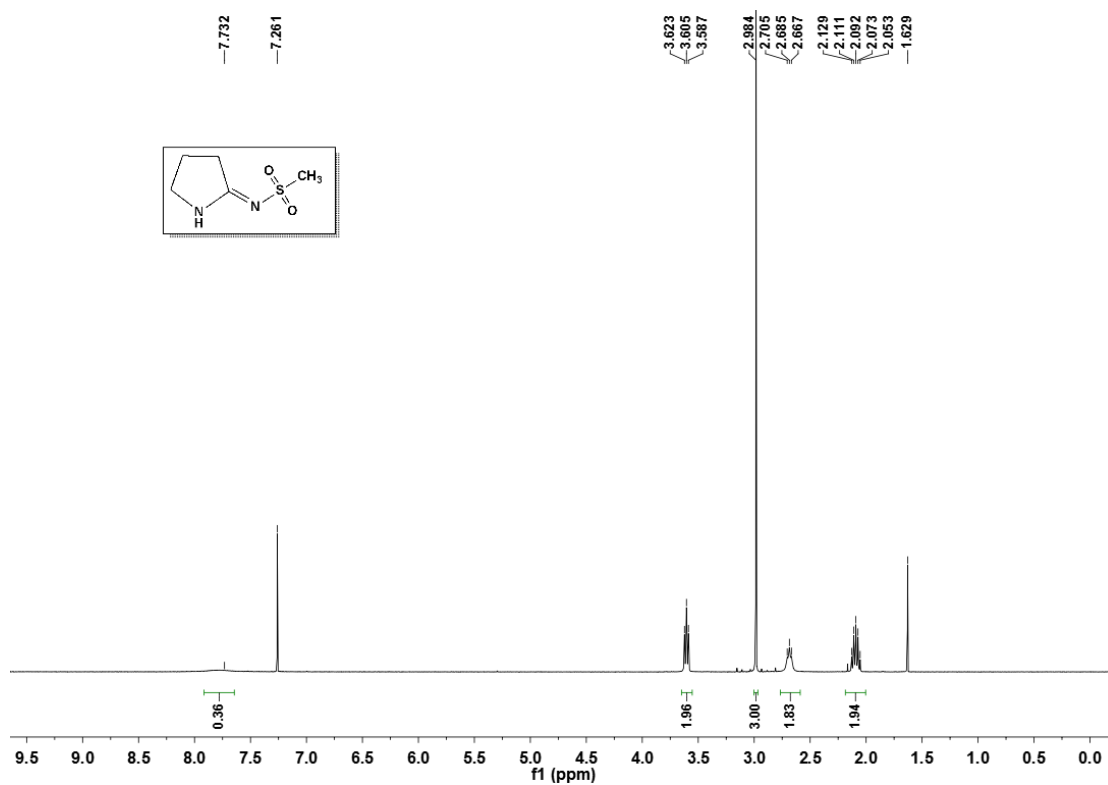
¹³C NMR spectrum (CDCl₃, 100 MHz) of **3b**



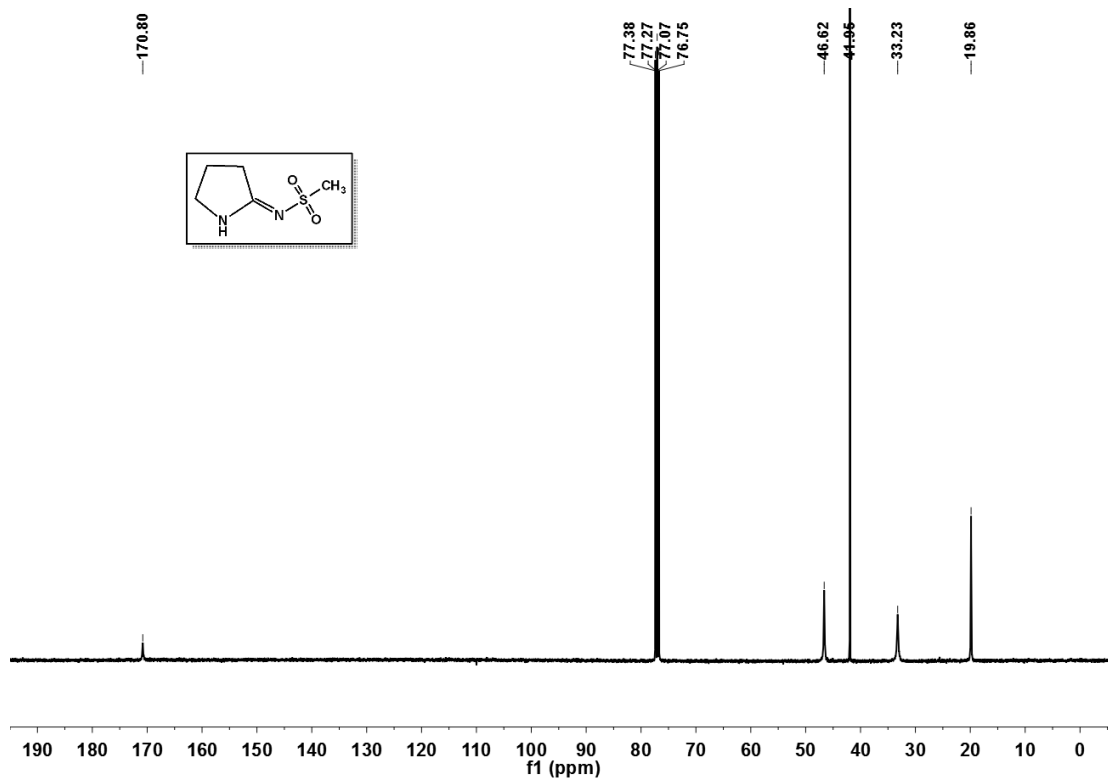
¹H NMR spectrum (CDCl₃, 400 MHz) of **3c**



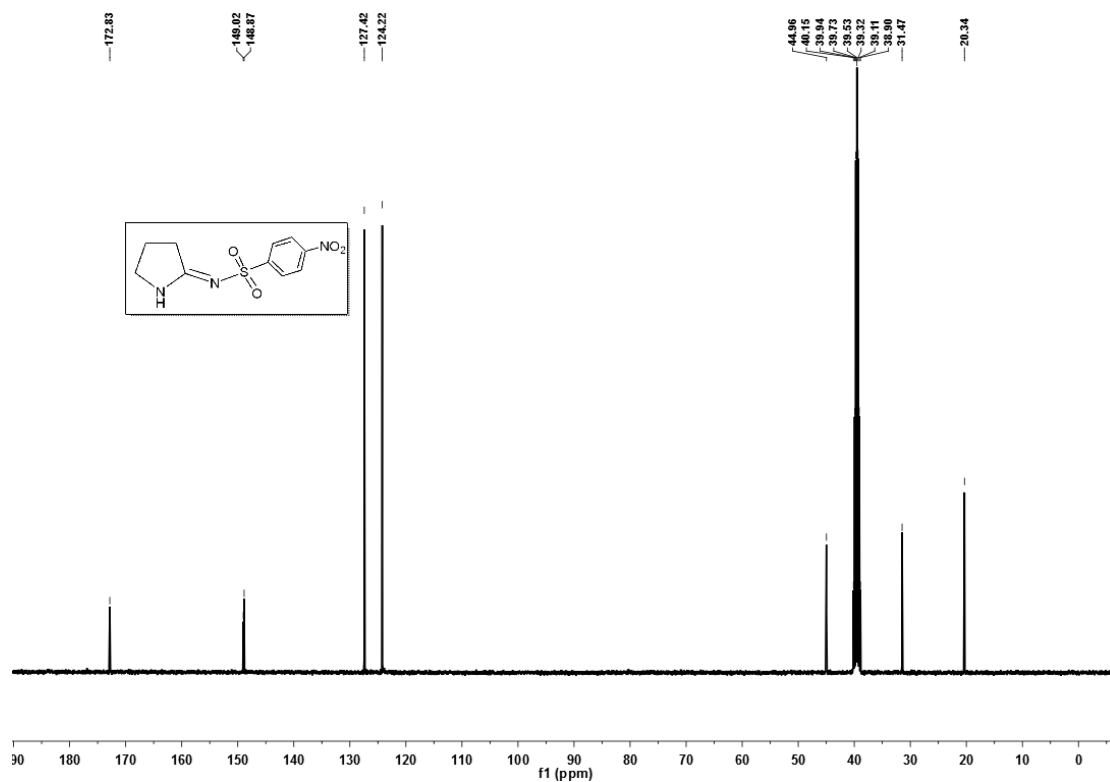
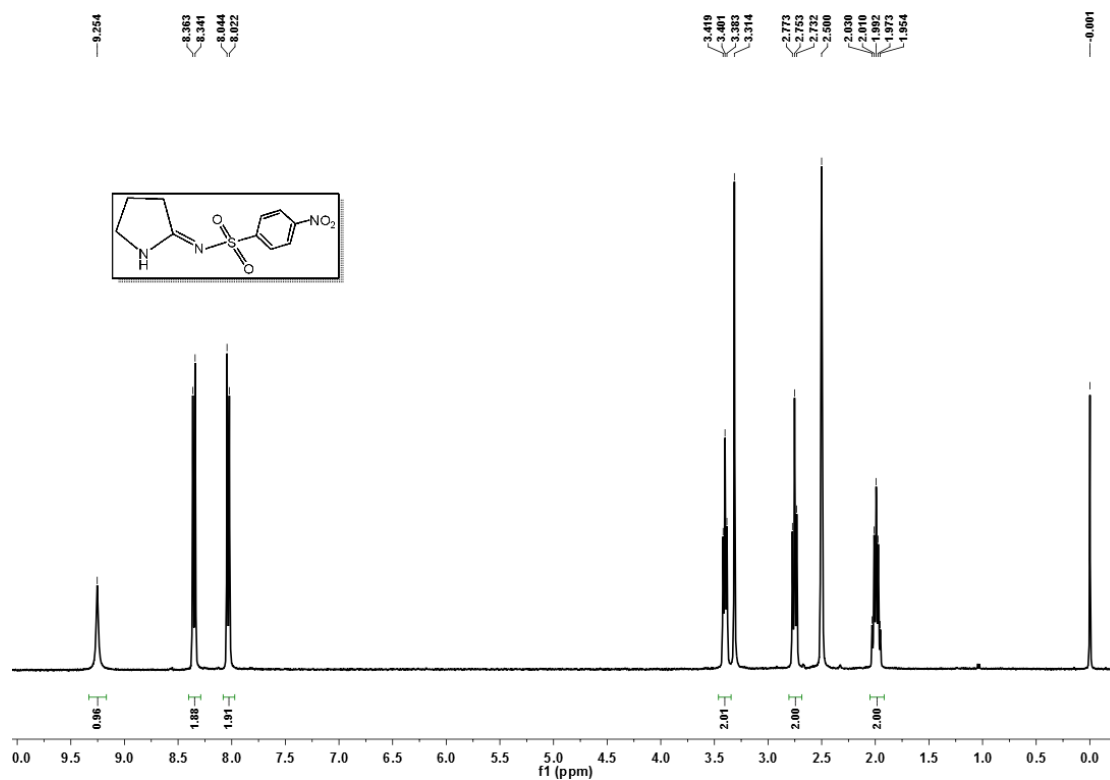
¹³C NMR spectrum (CDCl₃, 100 MHz) of **3c**

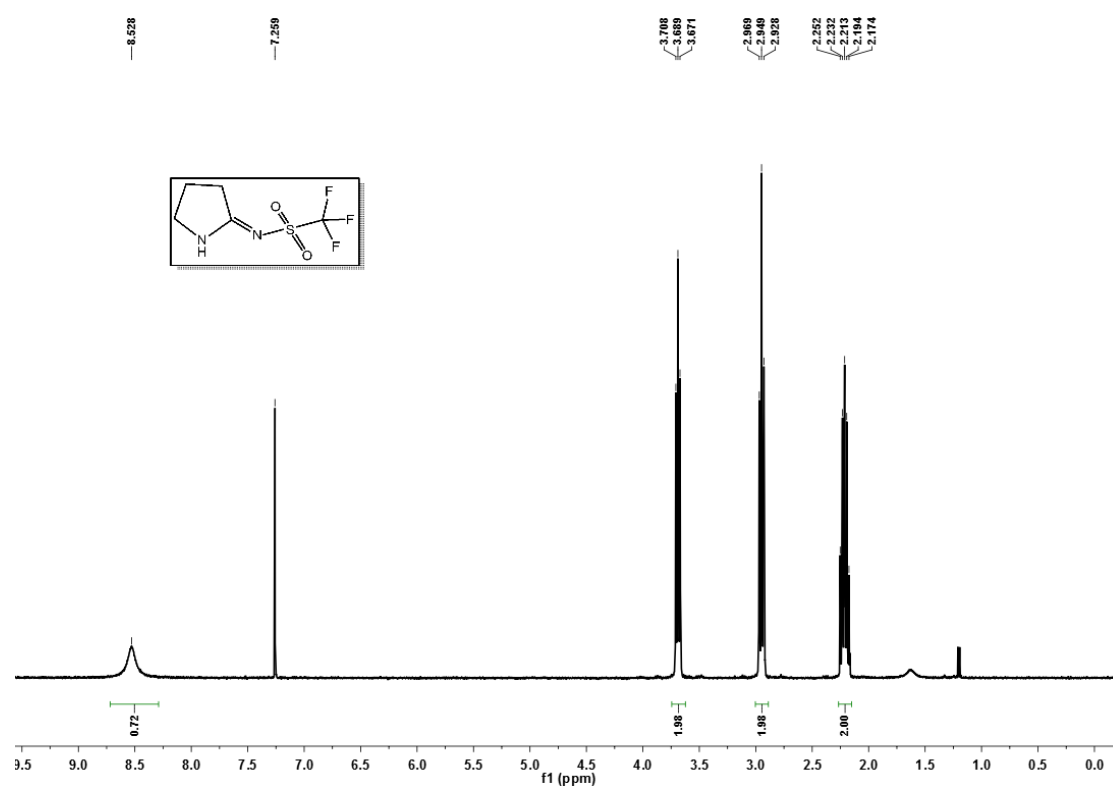


¹H NMR spectrum (CDCl₃, 400 MHz) of **3d**

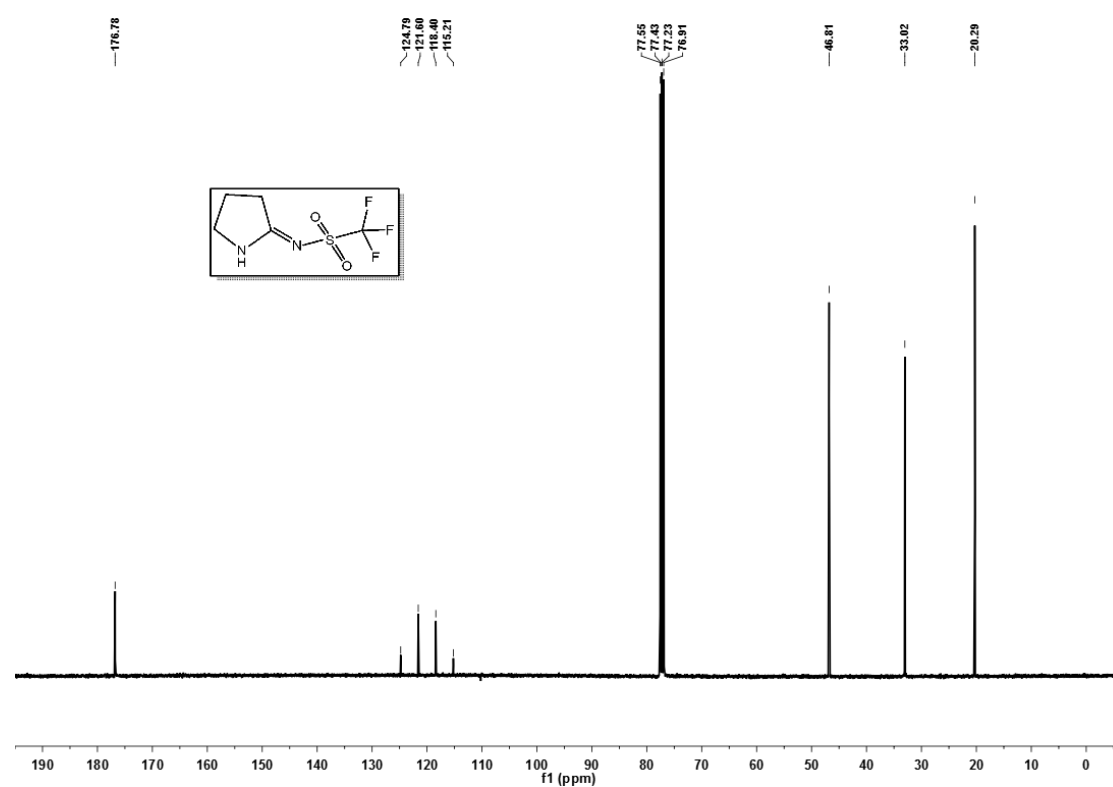


¹³C NMR spectrum (CDCl₃, 100 MHz) of **3d**

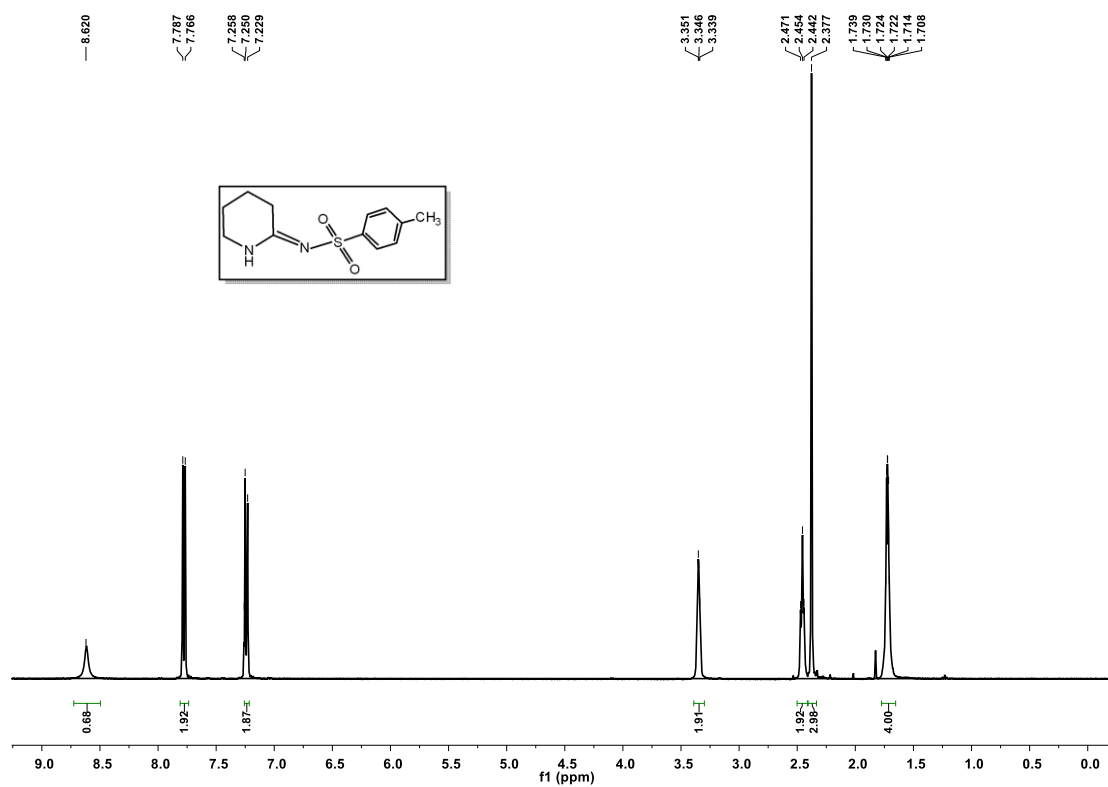




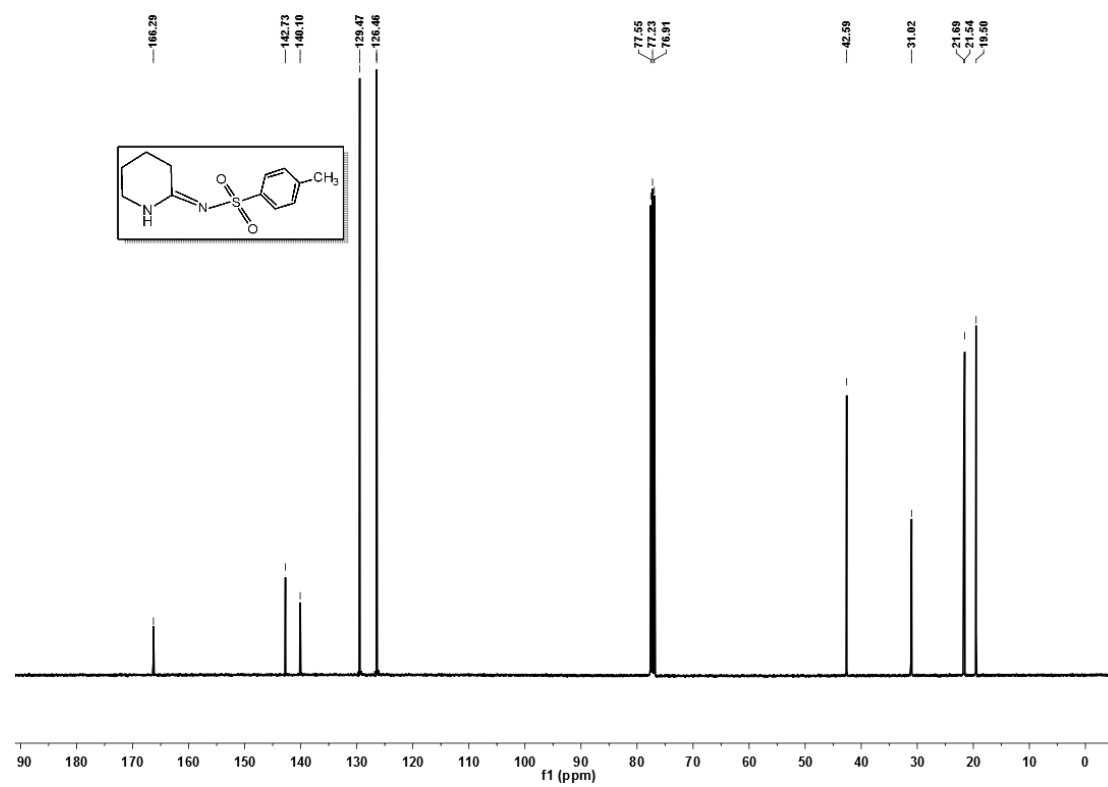
^1H NMR spectrum (CDCl_3 , 400 MHz) of **3f**



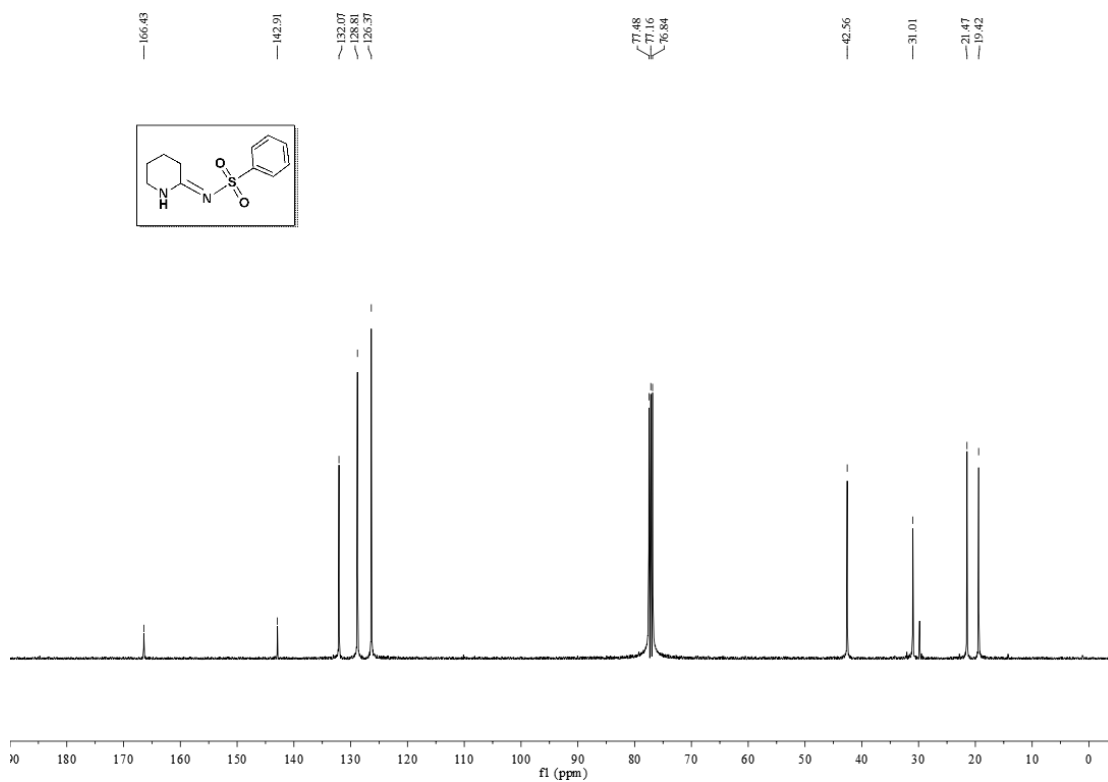
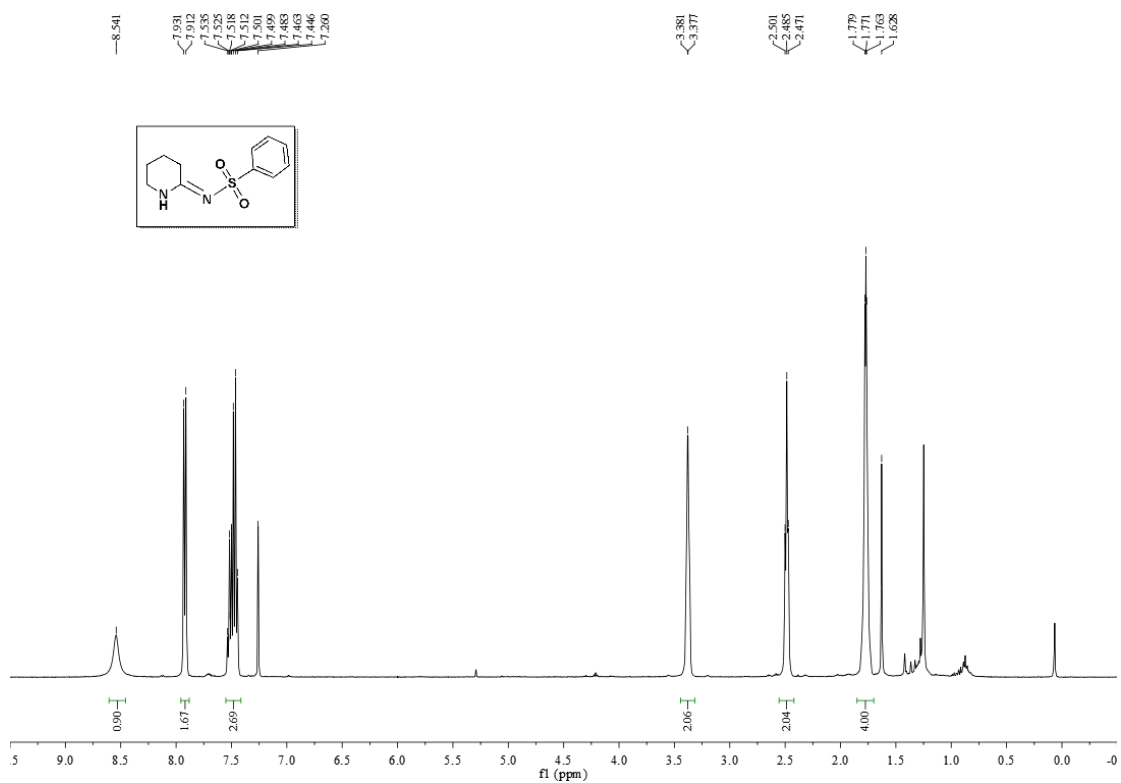
^{13}C NMR spectrum (CDCl_3 , 100 MHz) of **3f**

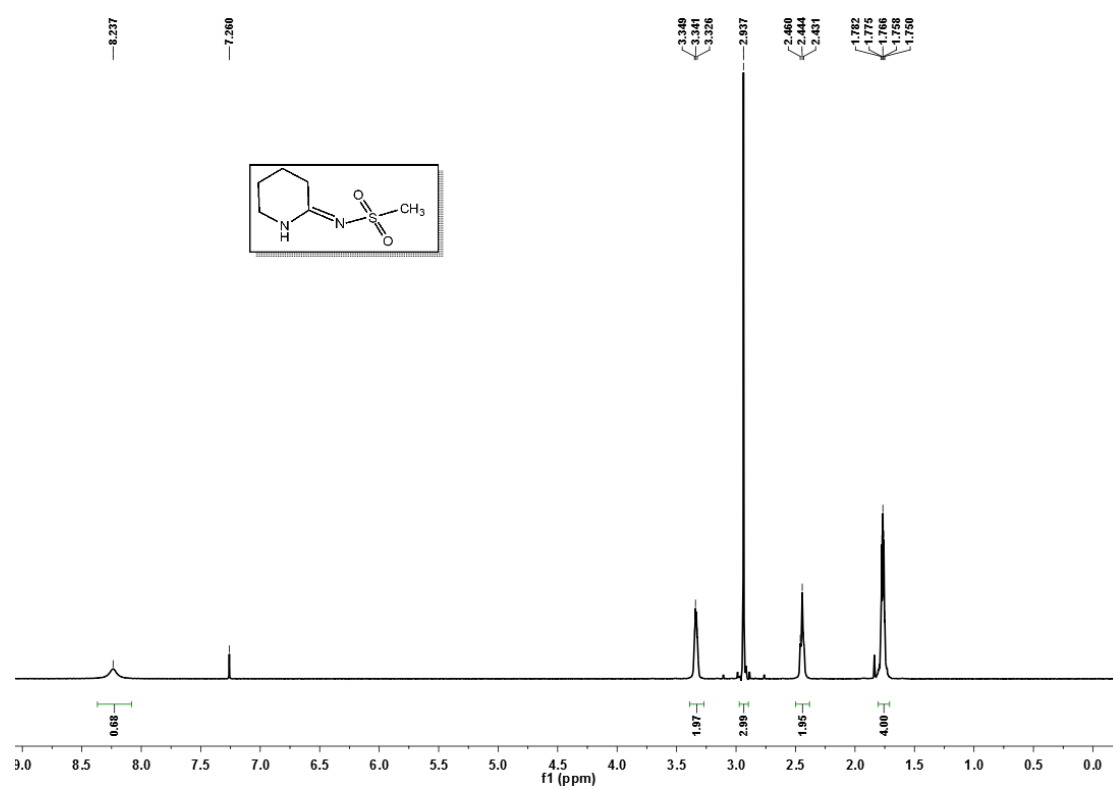


¹H NMR spectrum (CDCl₃, 400 MHz) of **3g**

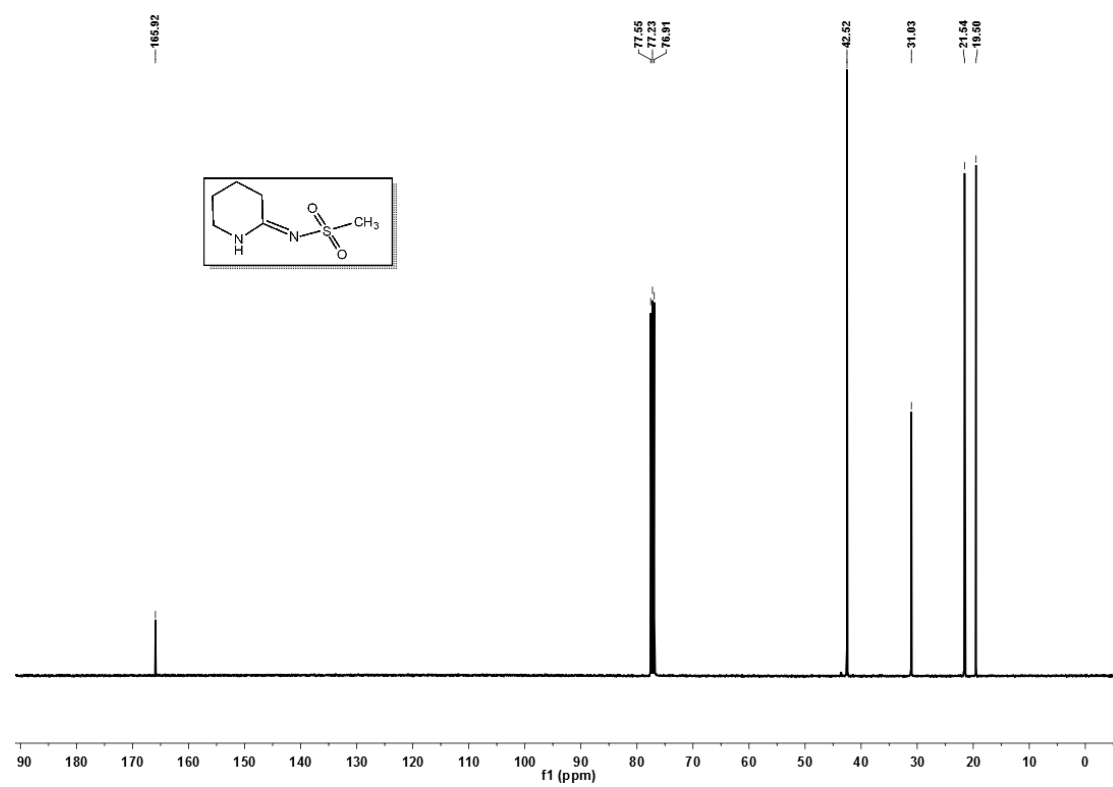


¹³C NMR spectrum (CDCl₃, 100 MHz) of **3g**

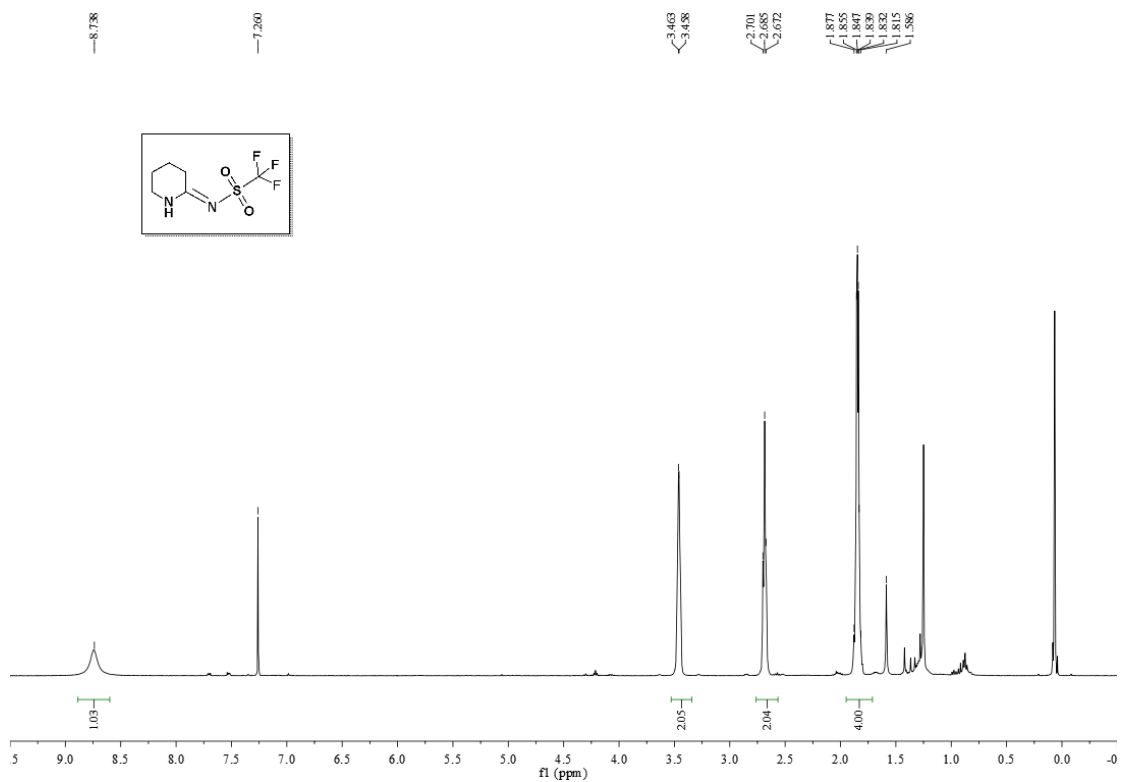




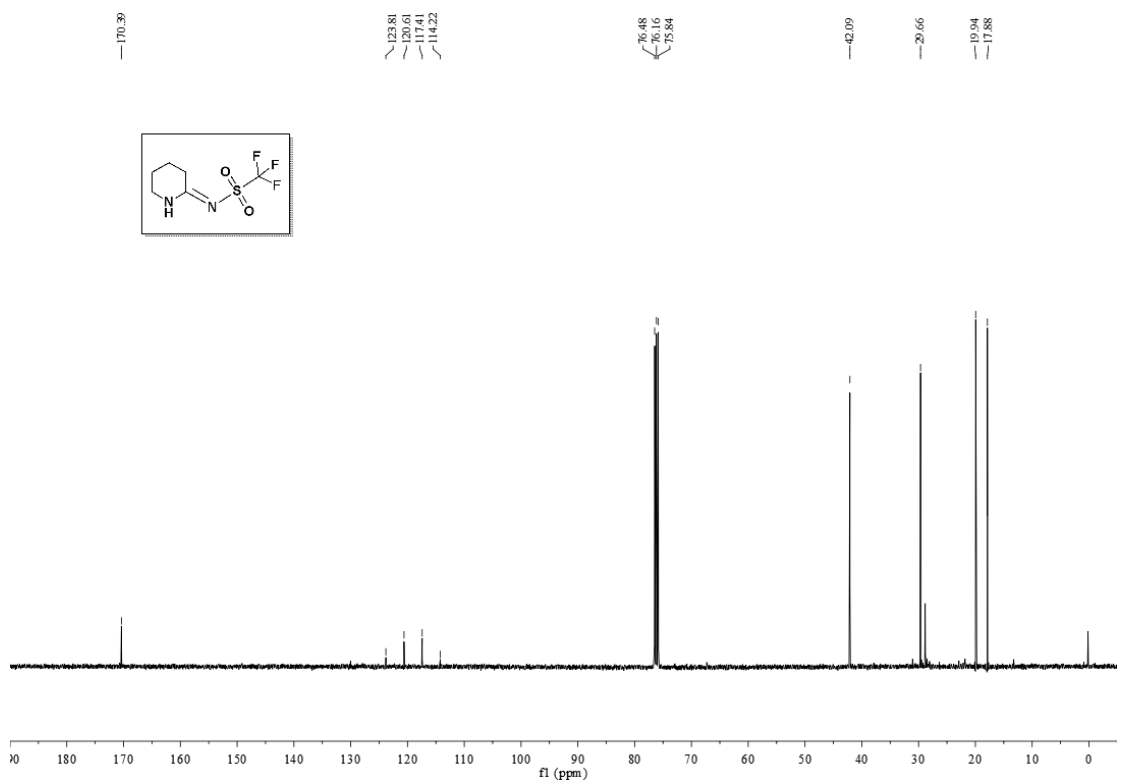
^1H NMR spectrum (CDCl_3 , 400 MHz) of **3i**



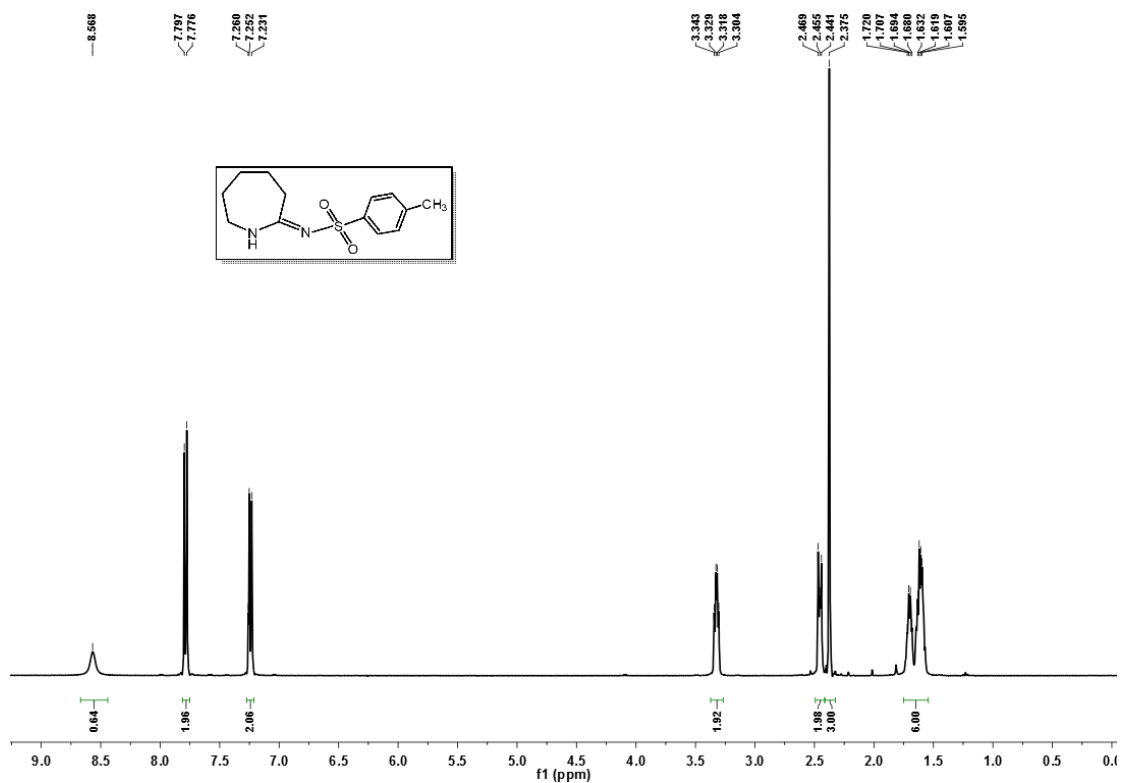
^{13}C NMR spectrum (CDCl_3 , 100 MHz) of **3i**



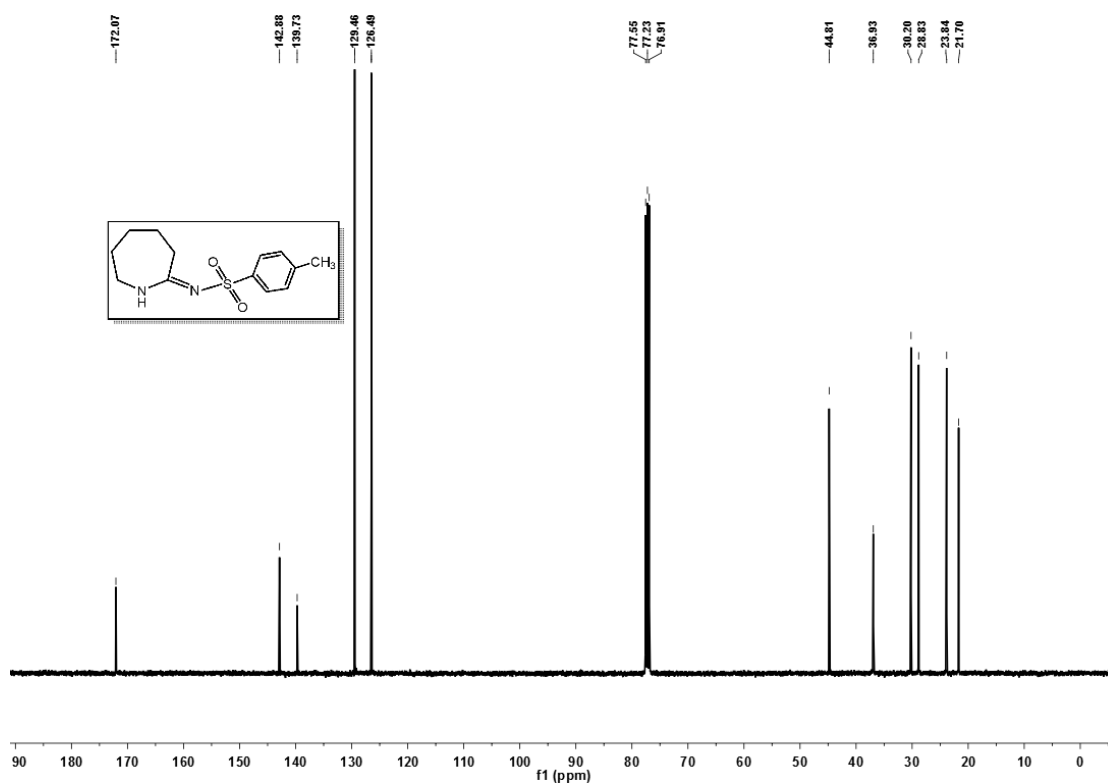
¹H NMR spectrum (CDCl₃, 400 MHz) of **3j**



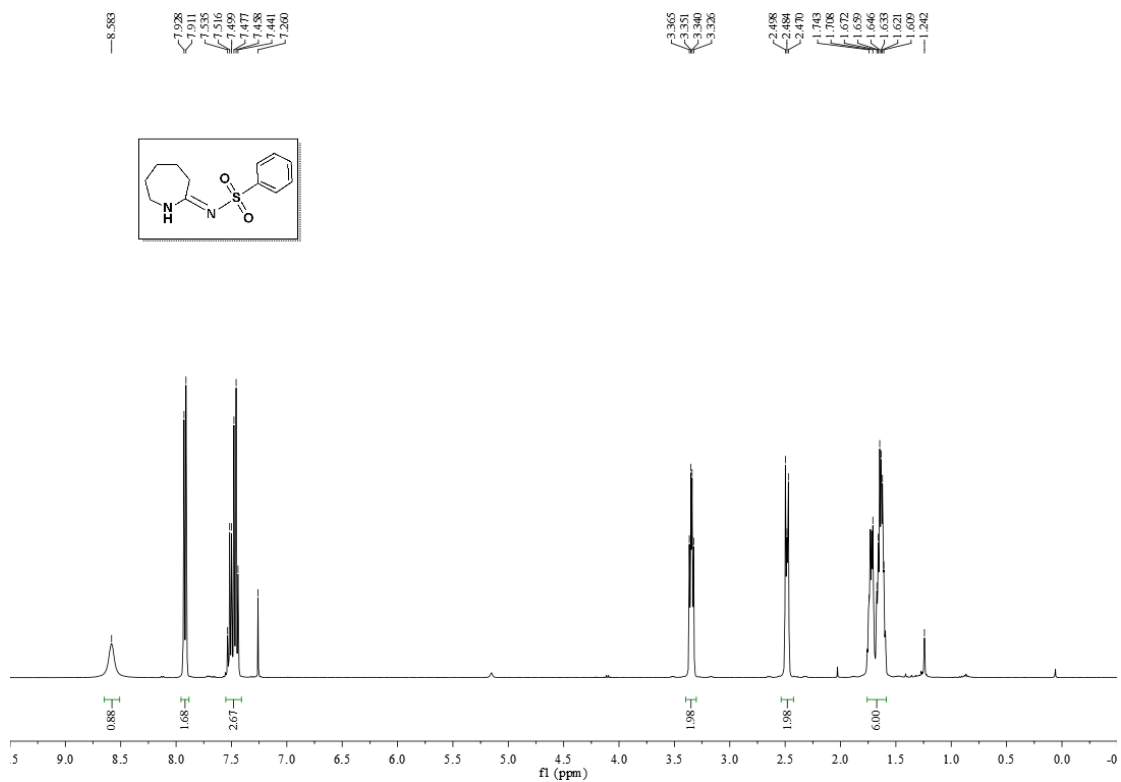
¹³C NMR spectrum (CDCl₃, 100 MHz) of **3j**



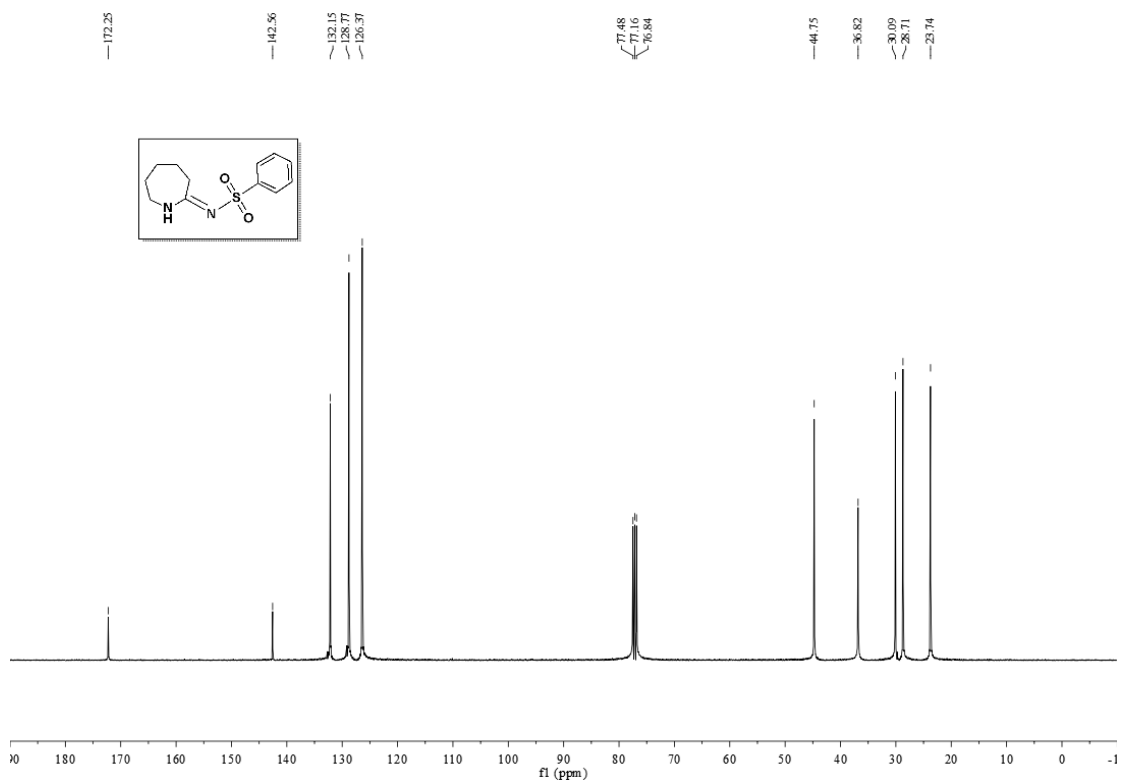
¹H NMR spectrum (CDCl₃, 400 MHz) of **3k**



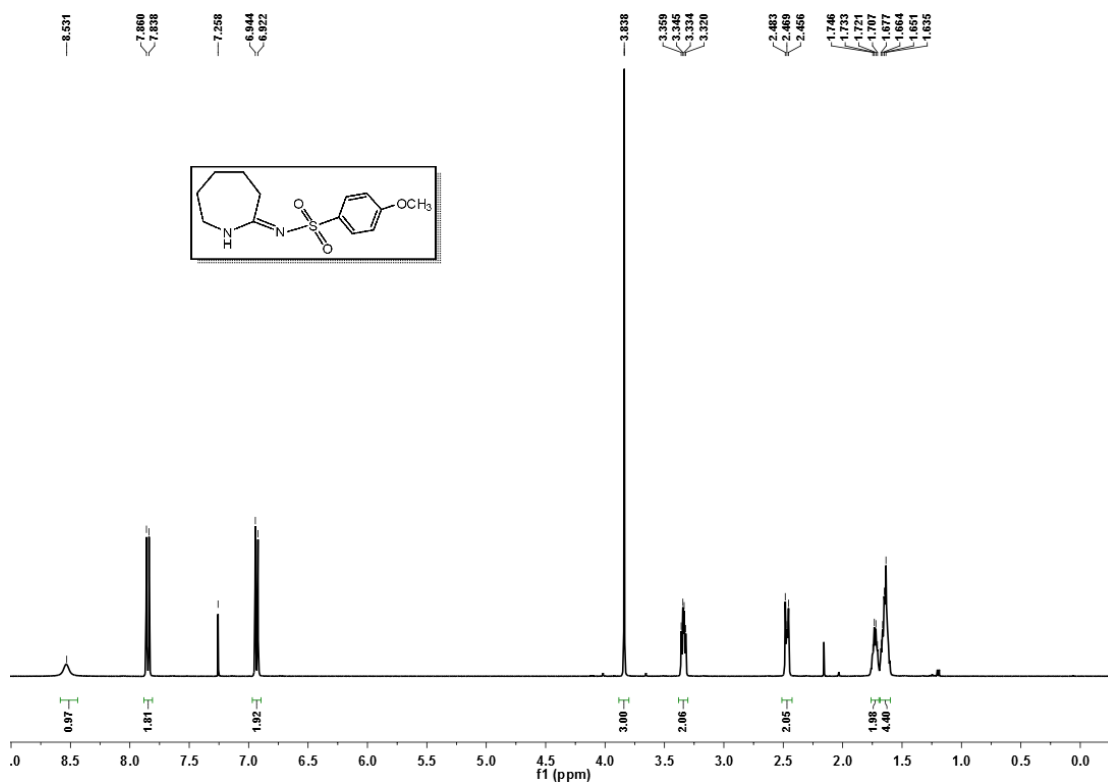
¹³C NMR spectrum (CDCl₃, 100 MHz) of **3k**



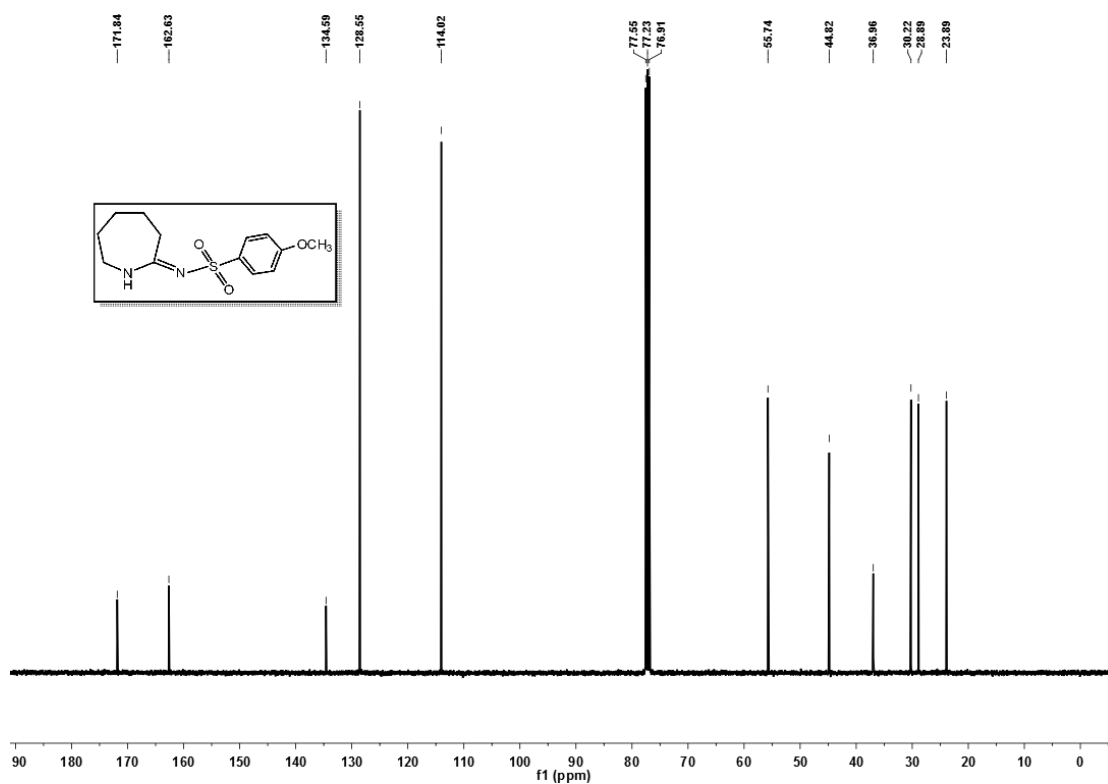
¹H NMR spectrum (CDCl₃, 400 MHz) of **3I**



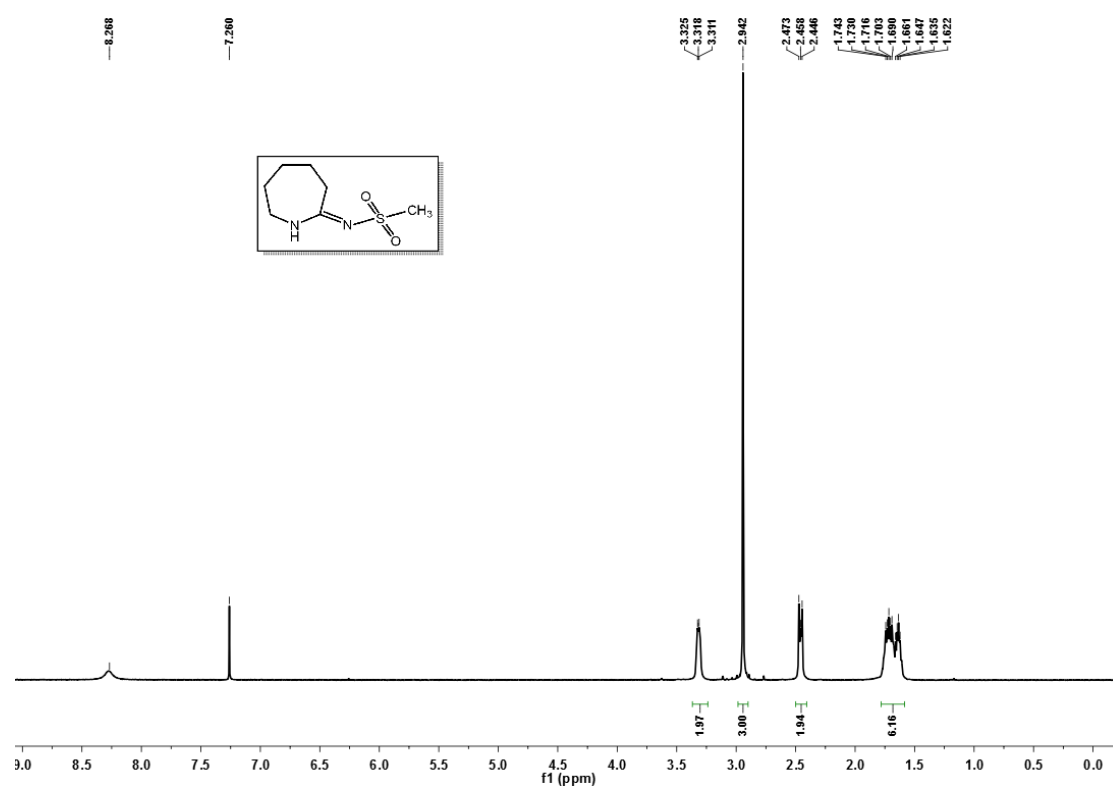
¹³C NMR spectrum (CDCl₃, 100 MHz) of **3I**



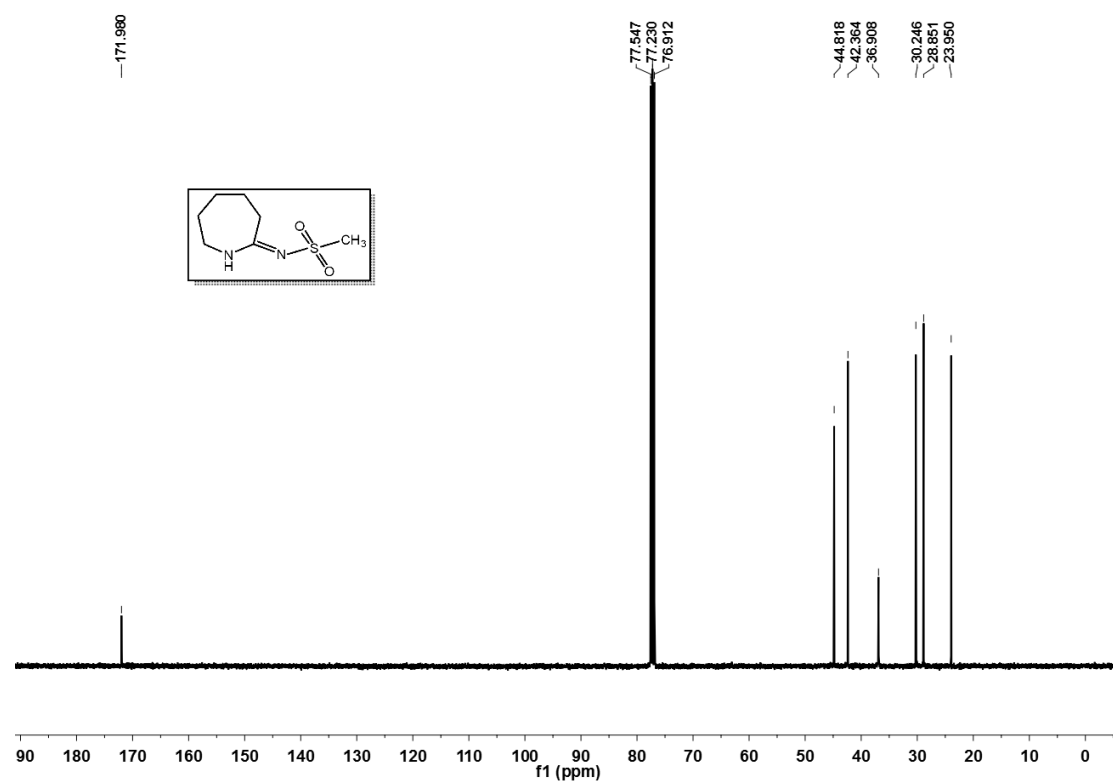
^1H NMR spectrum (CDCl_3 , 400 MHz) of **3m**



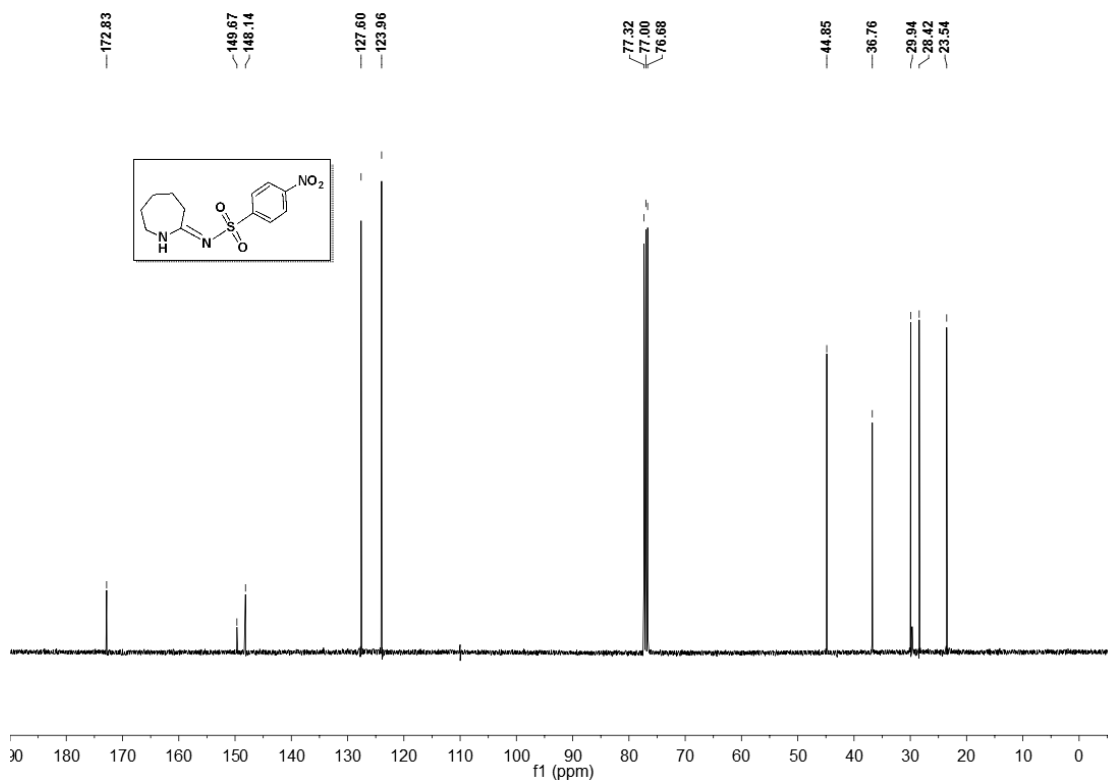
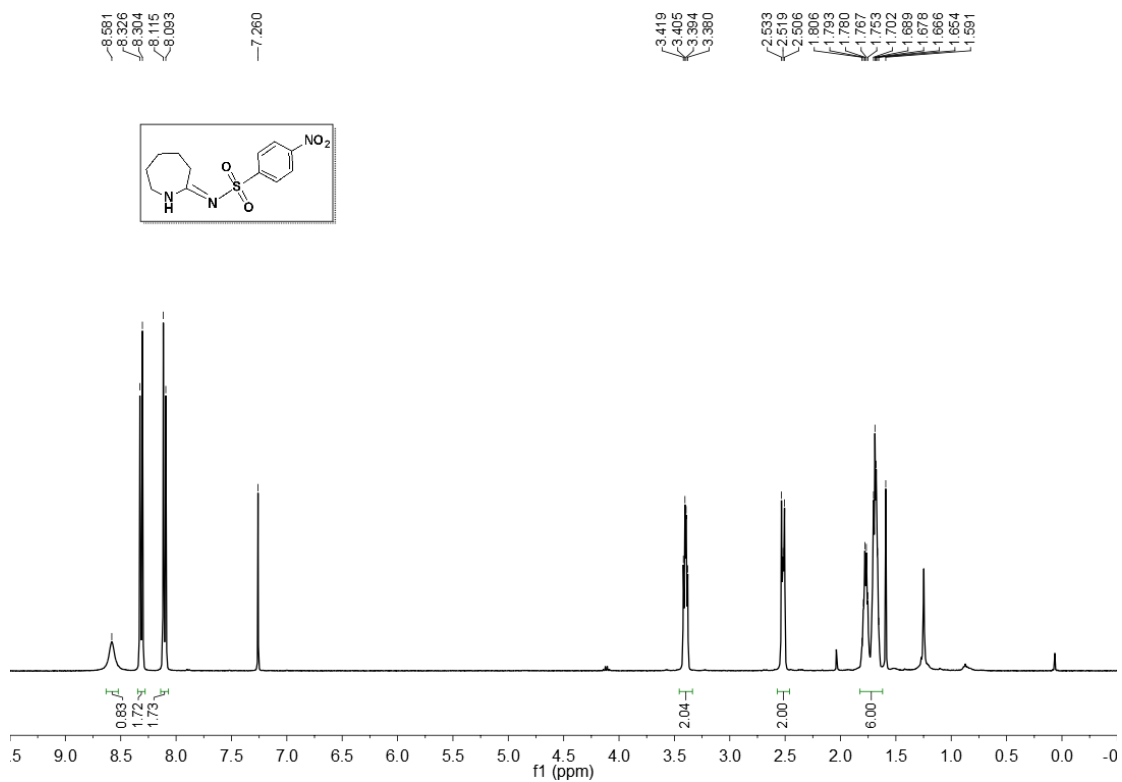
^{13}C NMR spectrum (CDCl_3 , 100 MHz) of **3m**



^1H NMR spectrum (CDCl_3 , 400 MHz) of **3n**



^{13}C NMR spectrum (CDCl_3 , 100 MHz) of **3n**



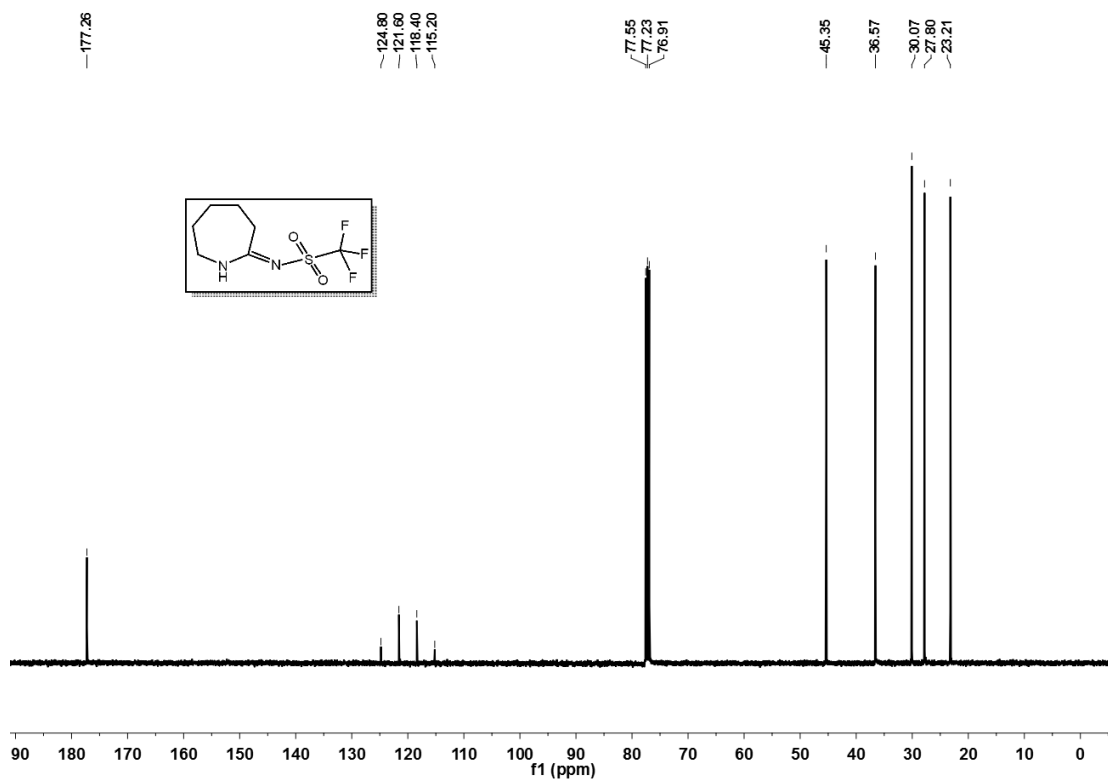
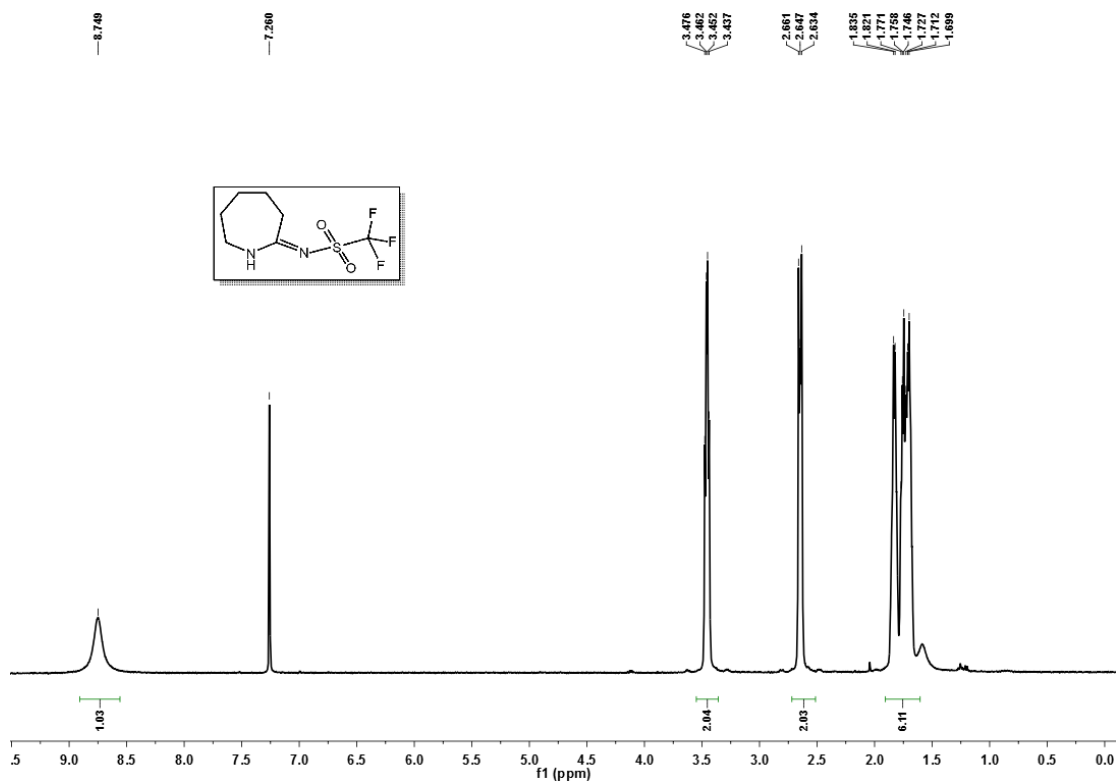
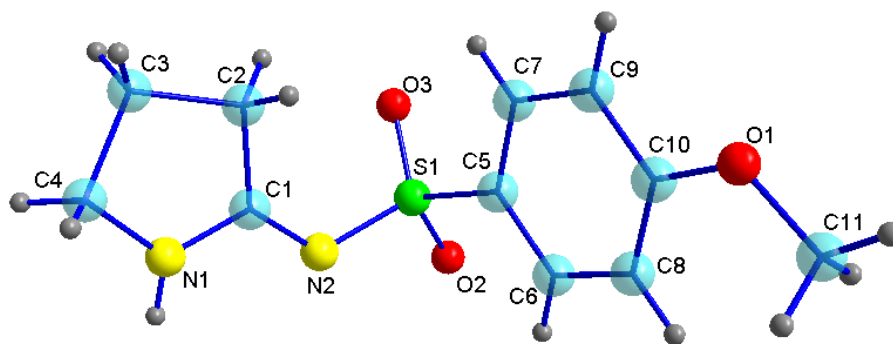


Table 1. Crystal data and structure refinement details of compound **3c**



Identification code	3c
Empirical formula	C ₁₁ H ₁₄ N ₂ O ₃ S
Formula weight	254.30
Temperature	296(2) K
Wavelength	0.71073 Å
Crystal system, space group	Triclinic, P -1
Unit cell dimensions	a = 6.533(2) Å α = 105.979(4)° b = 7.642(3) Å β = 99.614(4)° c = 12.602(4) Å γ = 100.948(4)°
Volume	577.6(3) Å ³
Z, Calculated density	2, 1.462 Mg/m ³
Absorption coefficient	0.278 mm ⁻¹
F(000)	268
Crystal size	0.35 x 0.31 x 0.25 mm
Theta range for data collection	2.84 to 27.49°
Limiting indices	-8 ≤ h ≤ 8, -6 ≤ k ≤ 9, -16 ≤ l ≤ 16
Reflections collected / unique	3533 / 2549 [R(int) = 0.0156]
Completeness to theta = 27.49	96.2 %
Max. and min. transmission	0.9337 and 0.9089
Refinement method	Full-matrix least-squares on F ²
Data / restraints / parameters	2549 / 0 / 156
Goodness-of-fit on F ²	1.075
Final R indices [I > 2σ(I)]	R1 = 0.0377, wR2 = 0.1057
R indices (all data)	R1 = 0.0419, wR2 = 0.1108
Largest diff. peak and hole	0.241 and -0.391 e. Å ⁻³