

A highly diastereoselective three-component tandem 1,4-conjugated addition/cyclization reaction to multisubstituted pyrrolidines

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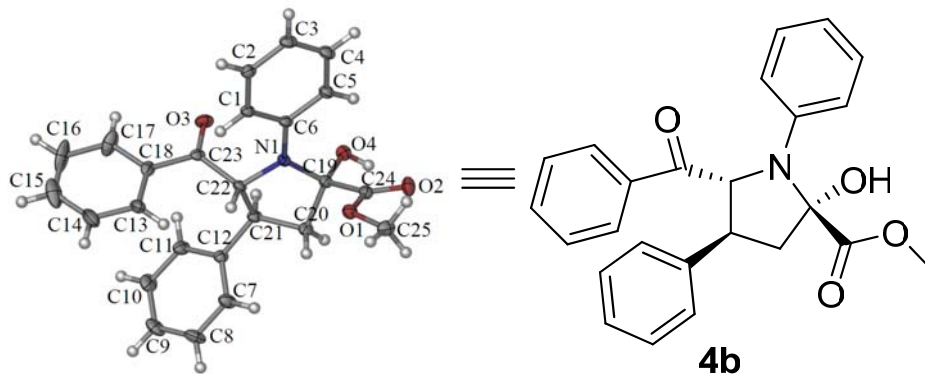
Supporting Information

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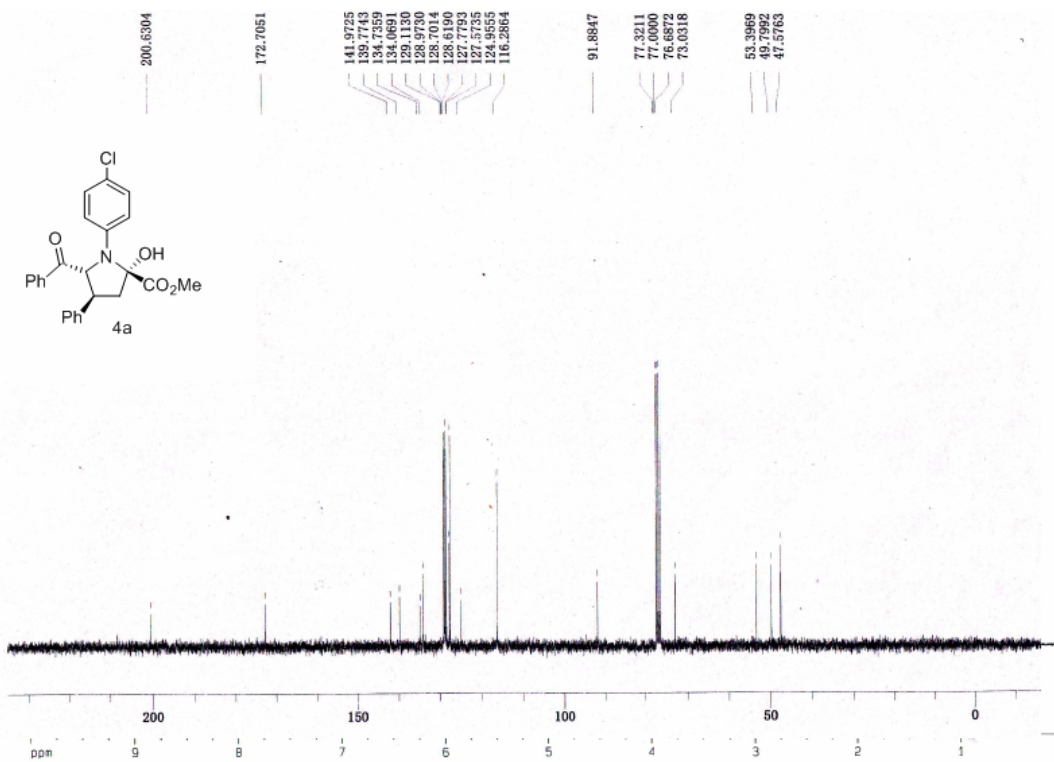
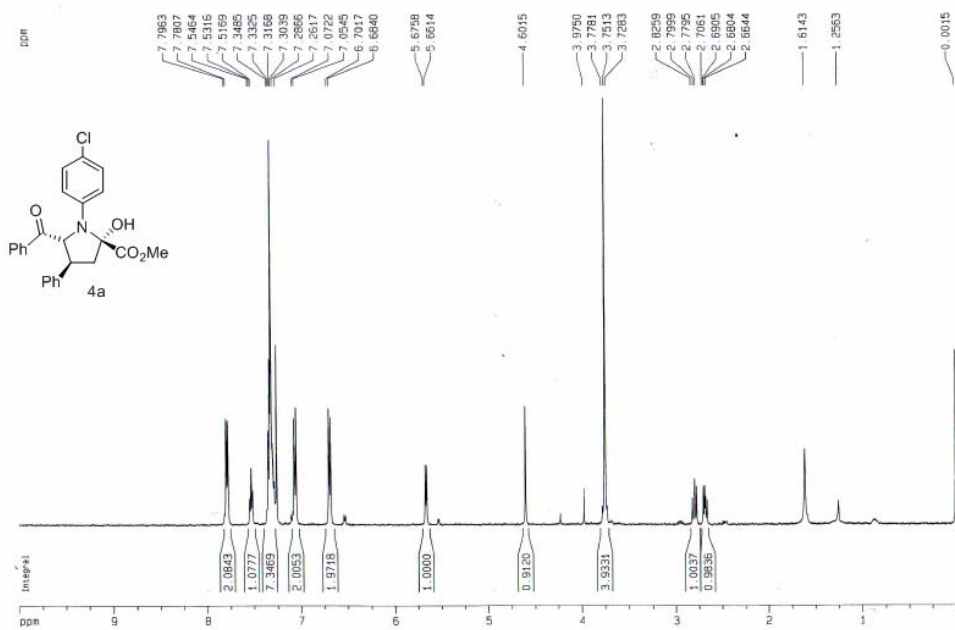
1. Crystal data
2. NMR analysis spectra for **4a-s**

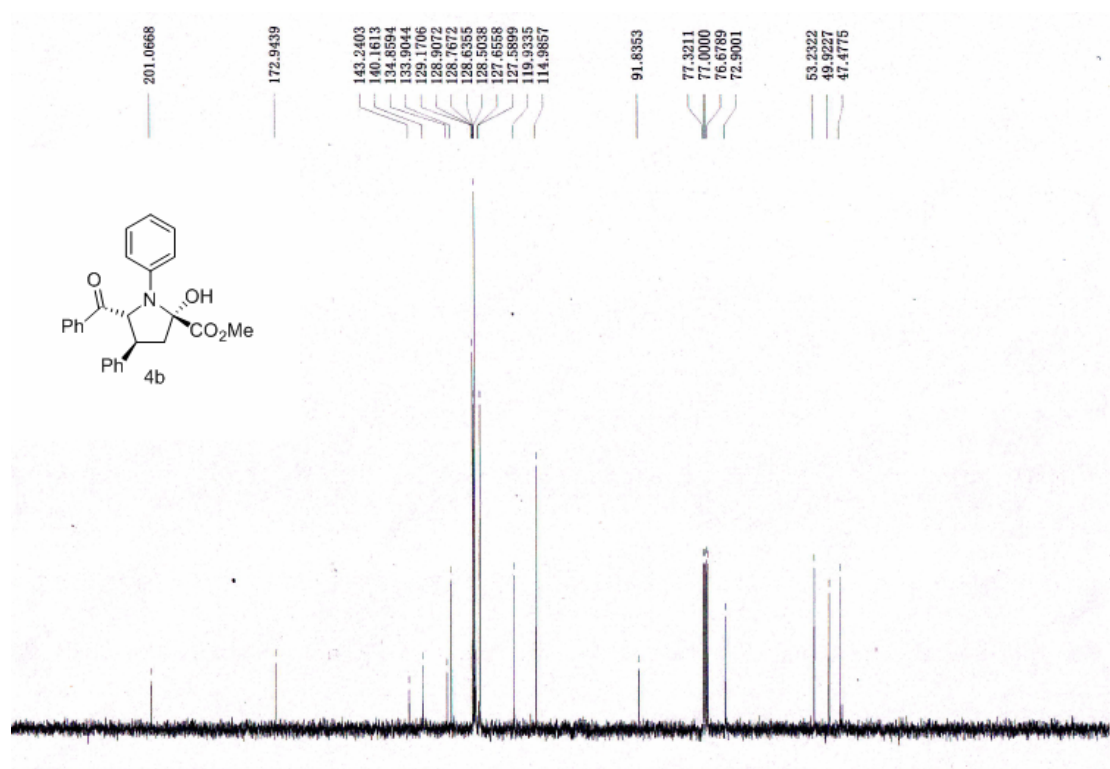
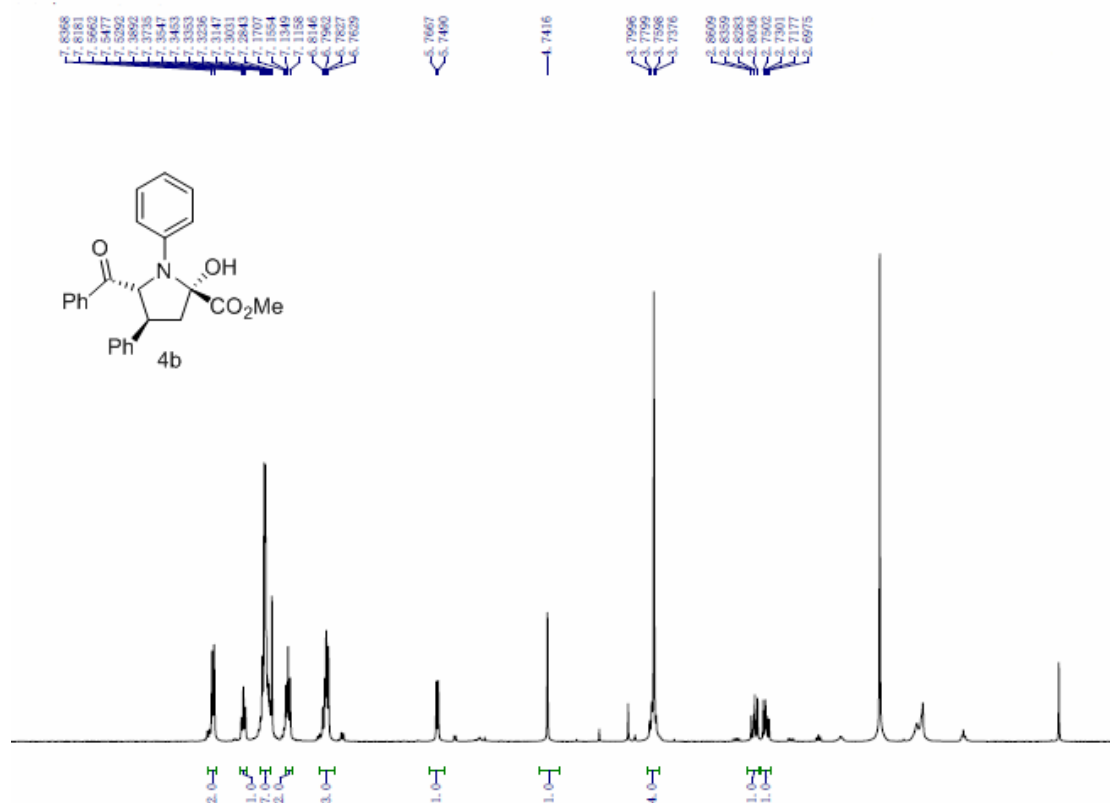
1. Crystal data

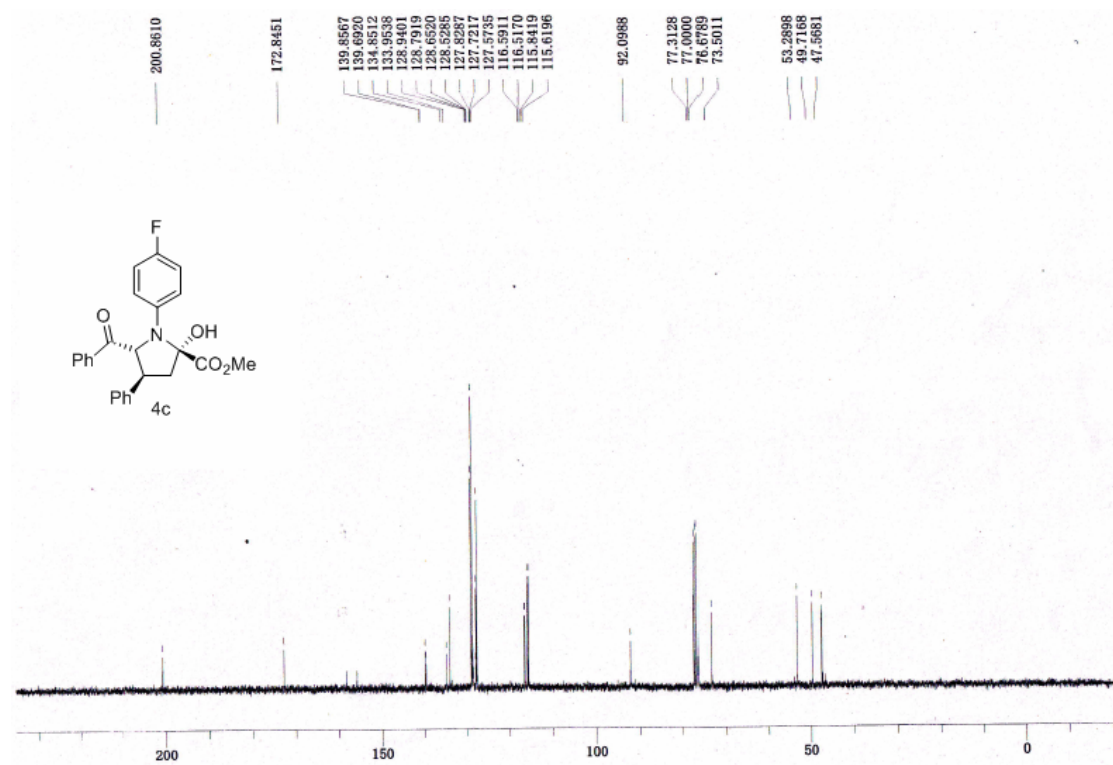
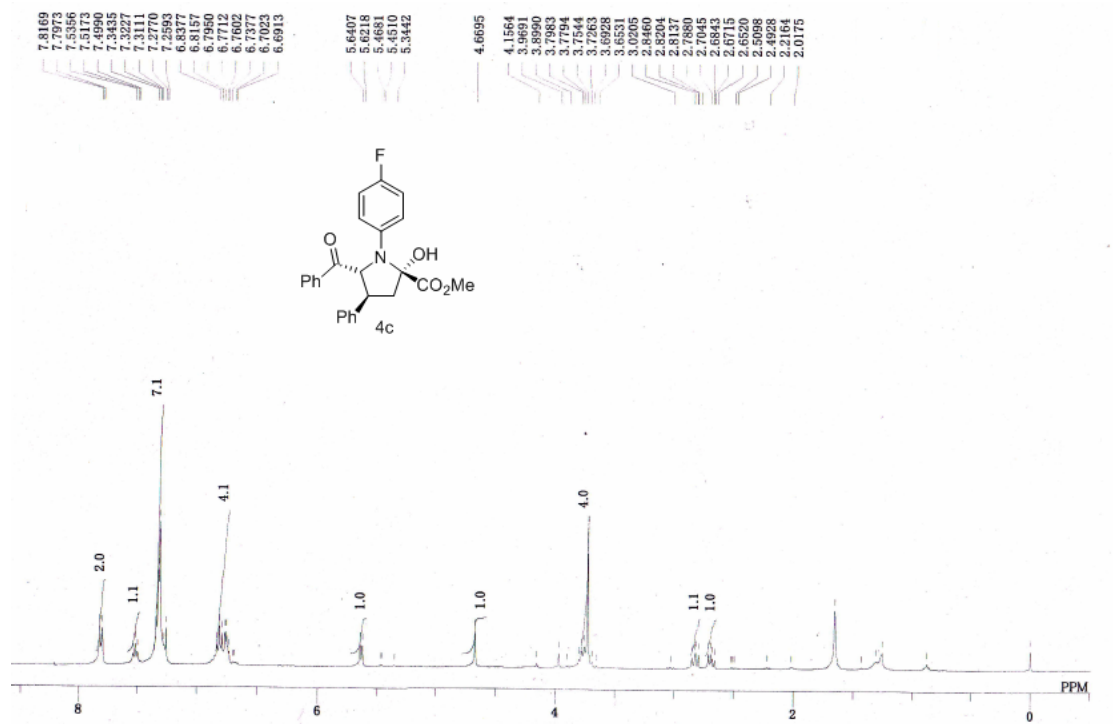
Crystal data of 4b

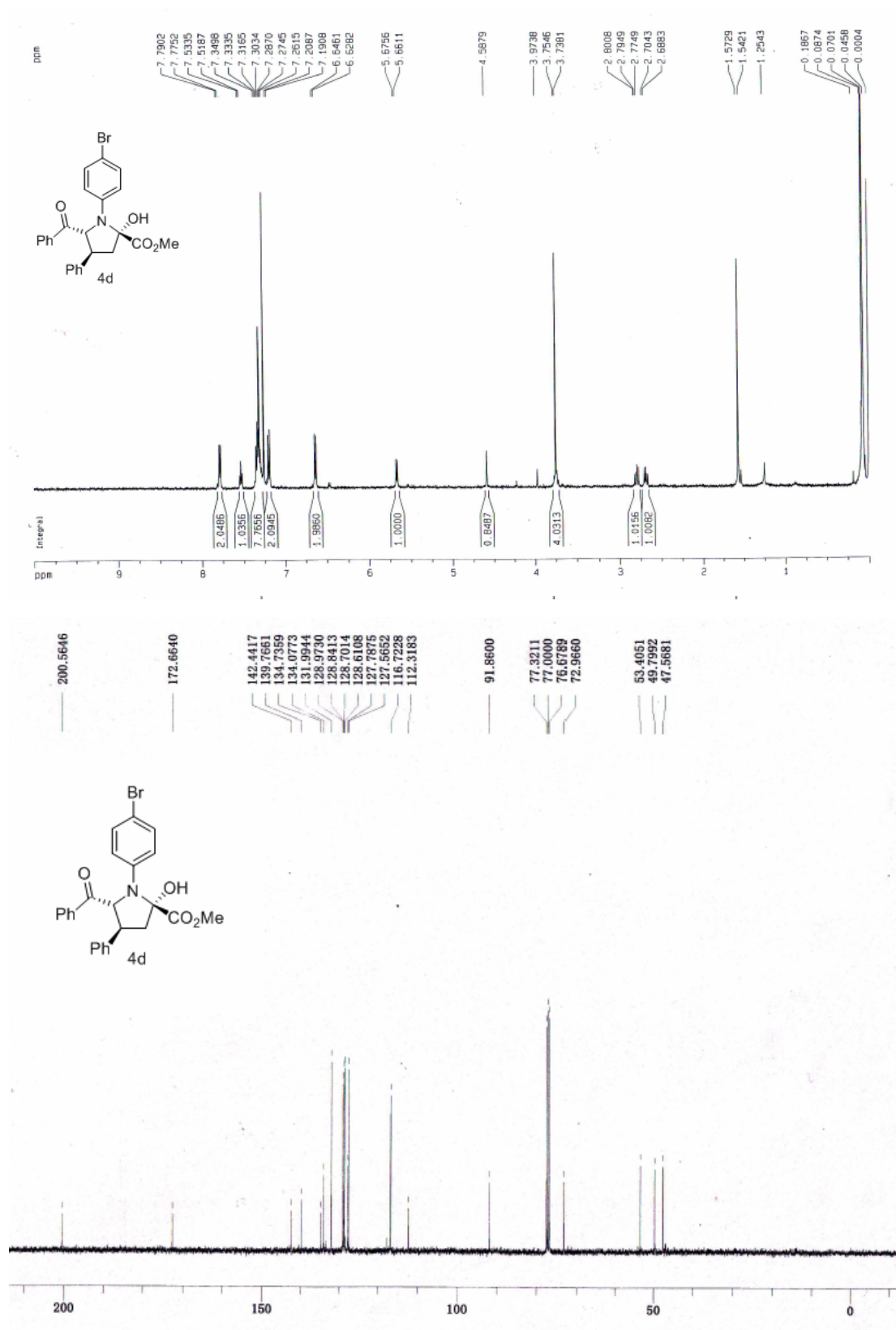


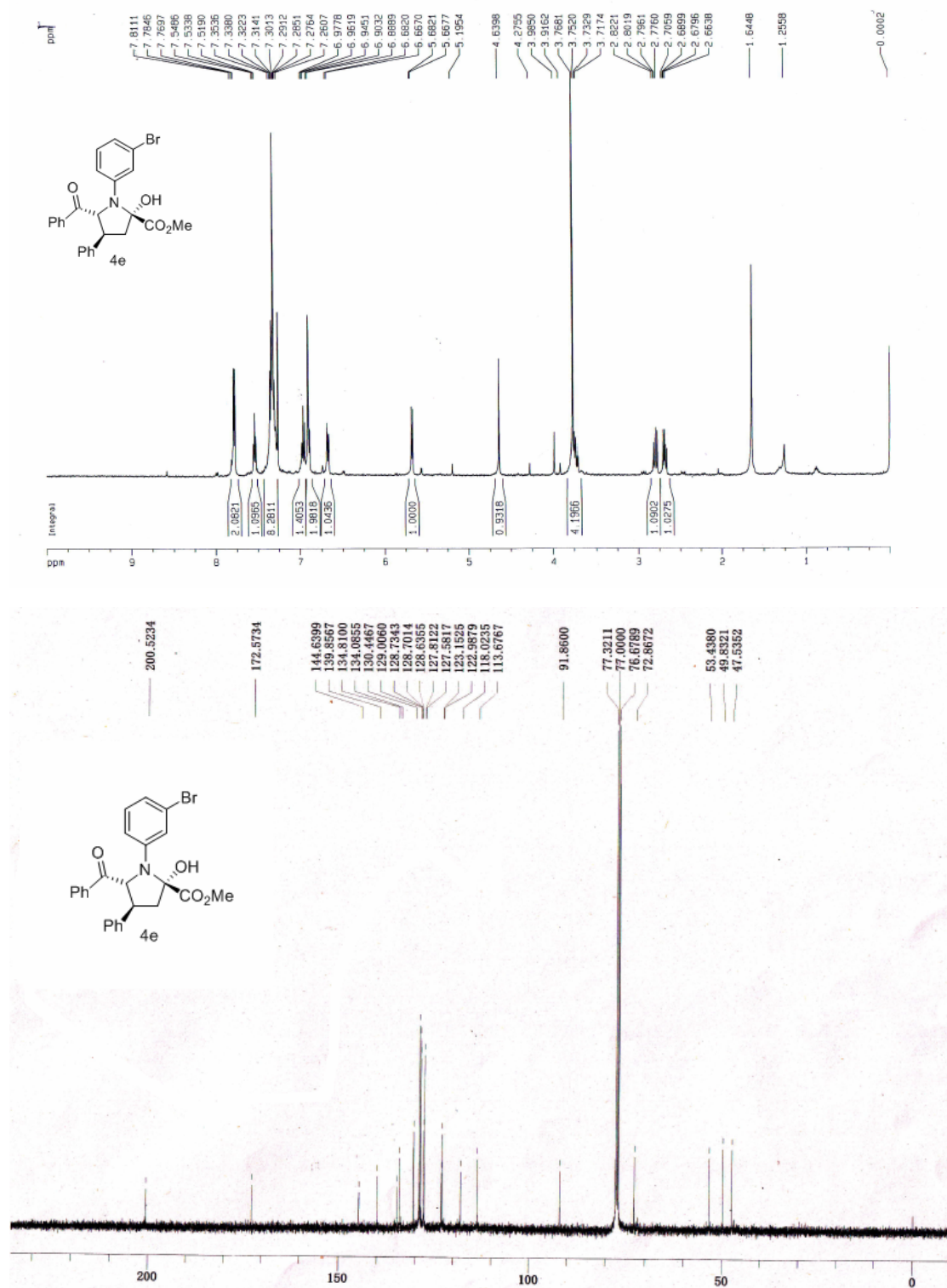
Bond precision:	C-C = 0.0044 Å	Wavelength=0.71073
Cell:	a=11.934(2) b=14.466(3) c=12.536(2)	
	alpha=90 beta=110.006(5) gamma=90	
Temperature:	173 K	
	Calculated	Reported
Volume	2033.6(6)	2033.5(7)
Space group	P 21/n	P2(1)/n
Hall group	-P 2yn	
Moiety formula	C ₂₅ H ₂₃ NO ₄	
Sum formula	C ₂₅ H ₂₃ NO ₄	C ₂₅ H ₂₃ NO ₄
Mr	401.44	401.44
Dx, g cm ⁻³	1.311	1.311
Z	4	4
Mu (mm ⁻¹)	0.089	0.089
F000	848.0	848.0
F000'	848.41	
h,k,lmax	14,17,14	14,17,14
Nref	3578	3568
Tmin,Tmax	0.953,0.965	0.954,0.965
Tmin'	0.953	
Correction method=	MULTI-SCAN	
Data completeness=	0.997	Theta(max)= 25.010
R(reflections)=	0.0605(2707)	wR2(reflections)= 0.1752(3568)
S = 1.081	Npar= 271	

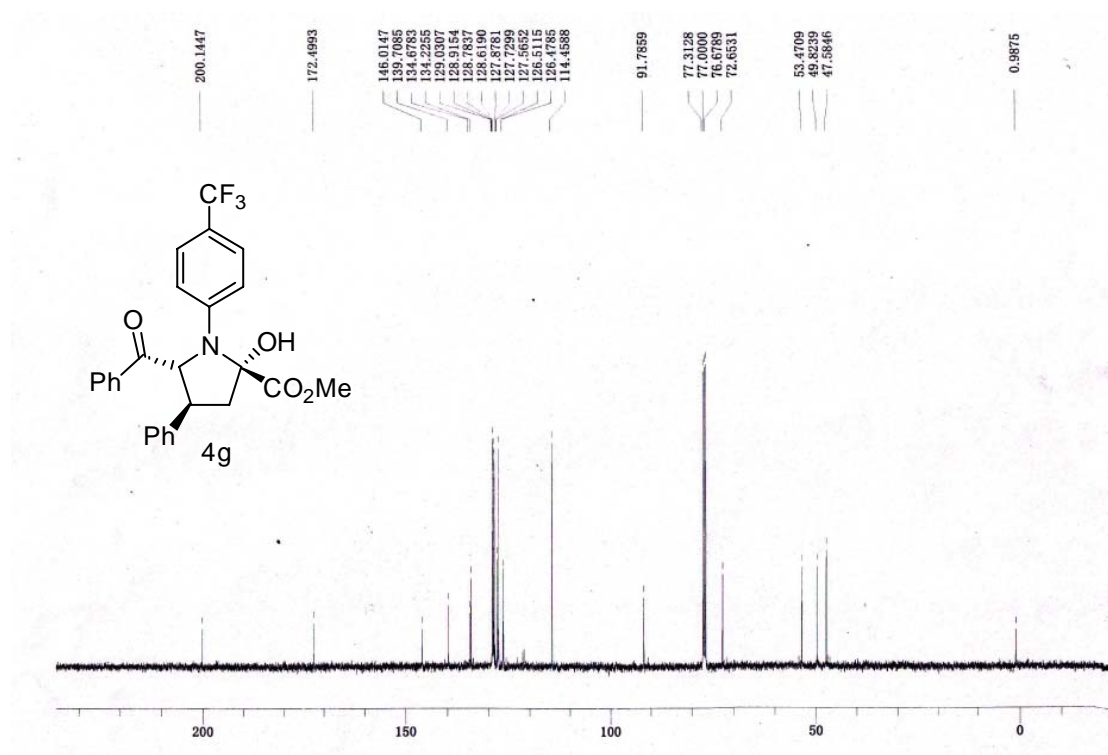
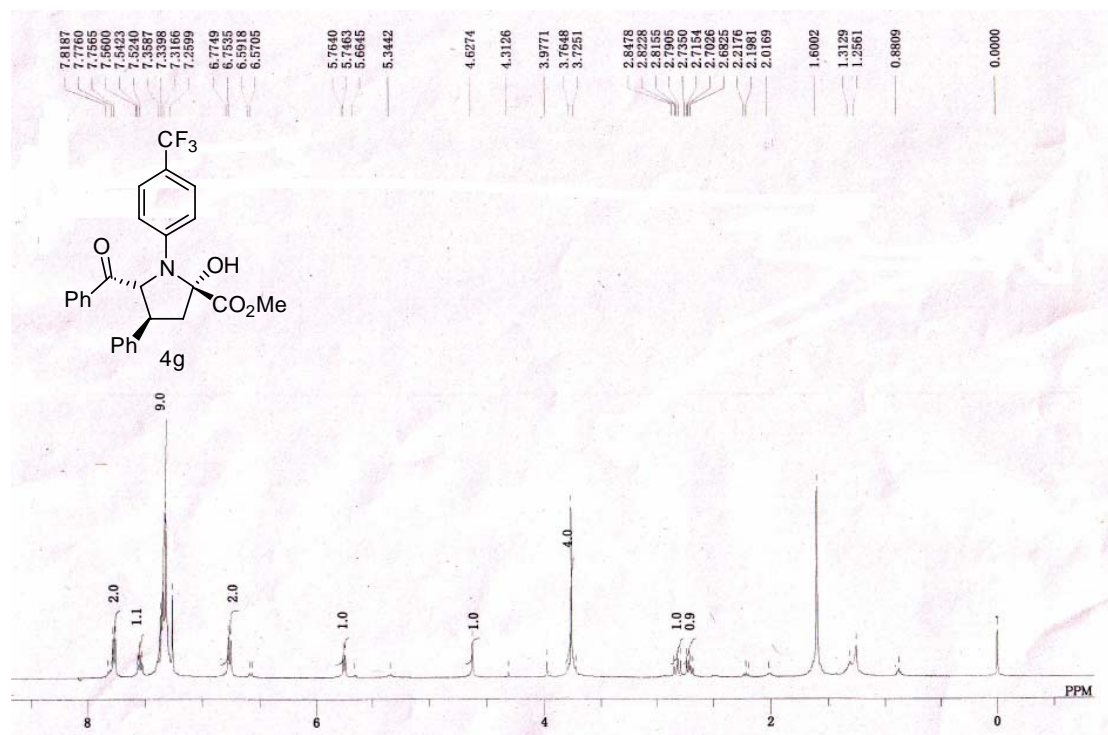


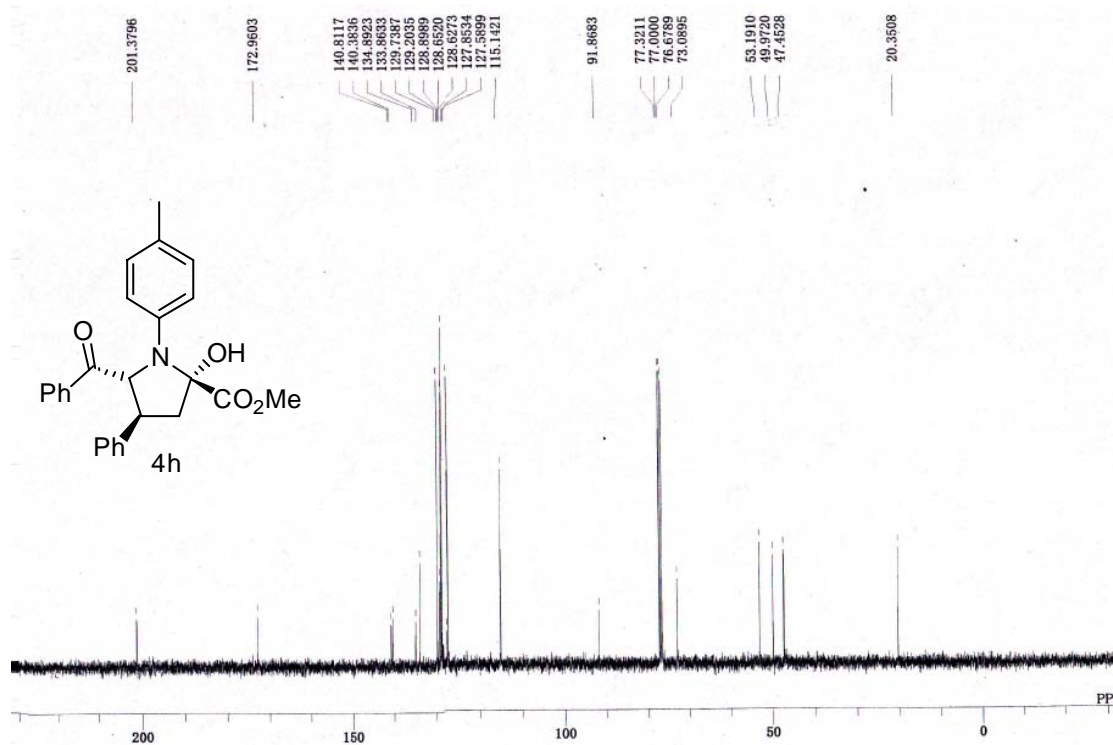
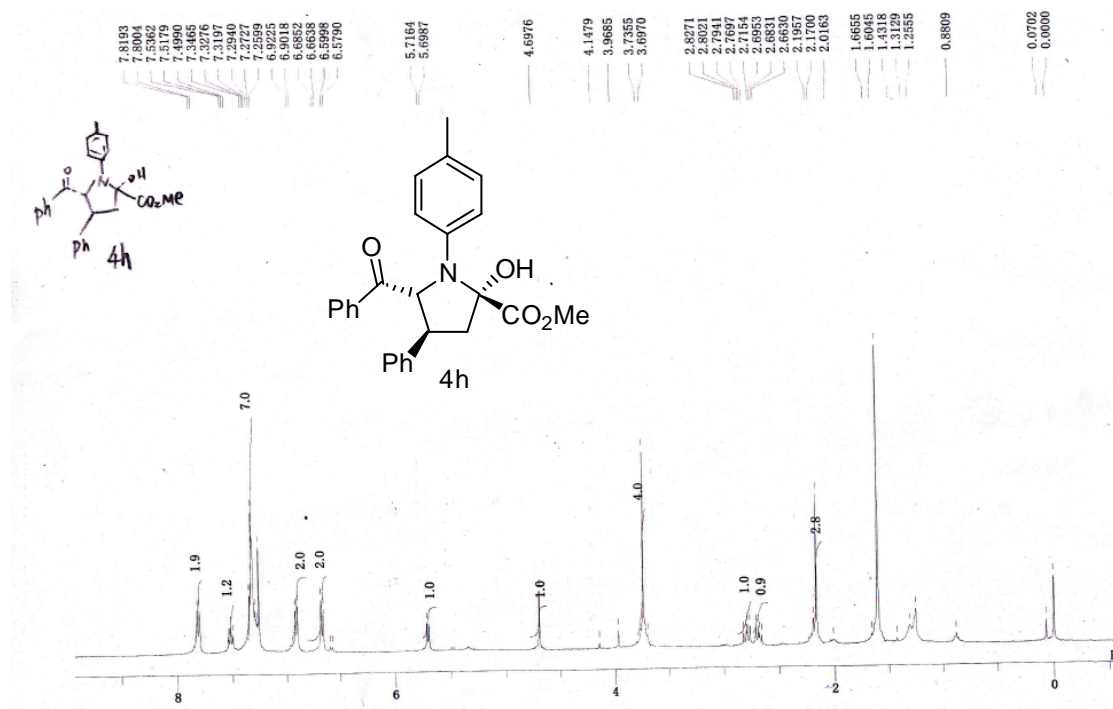


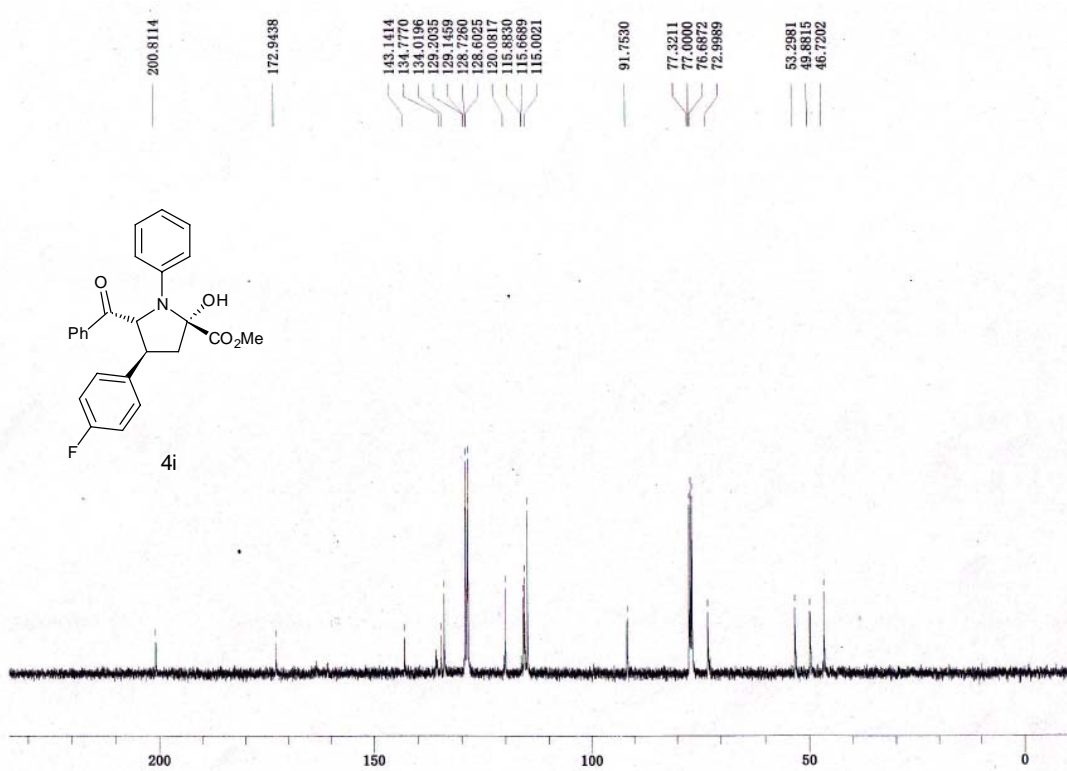
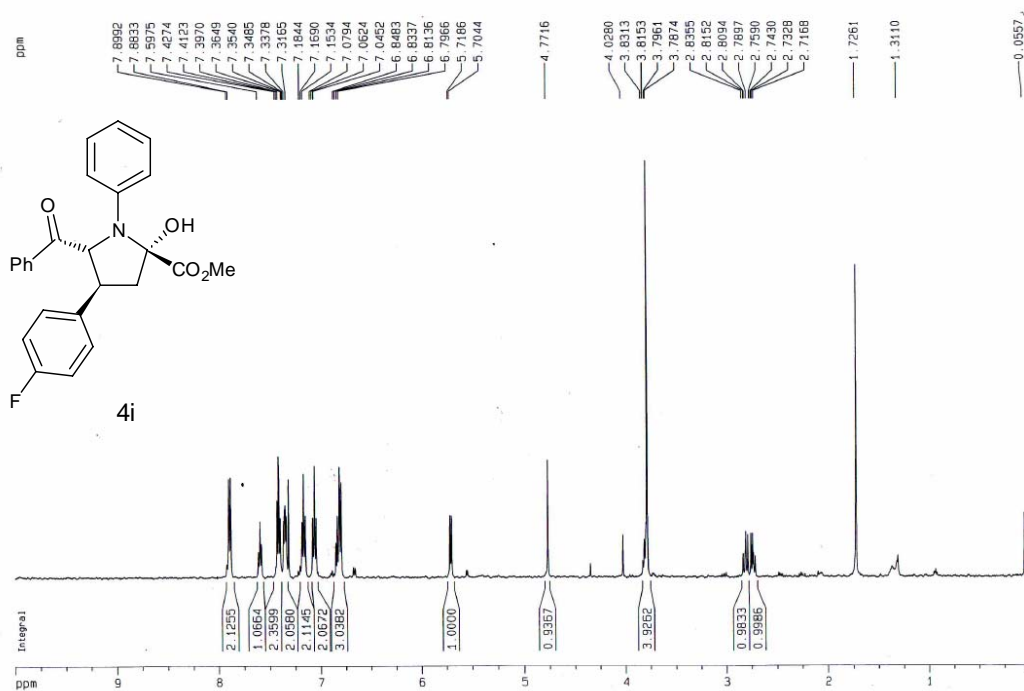


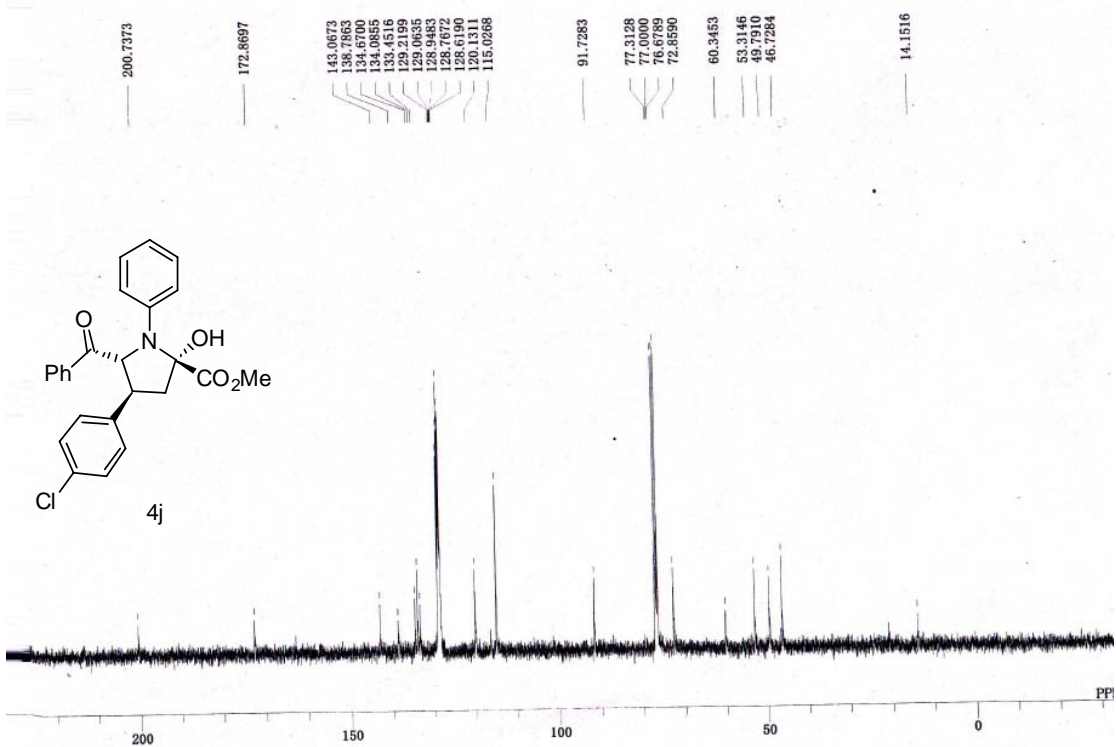
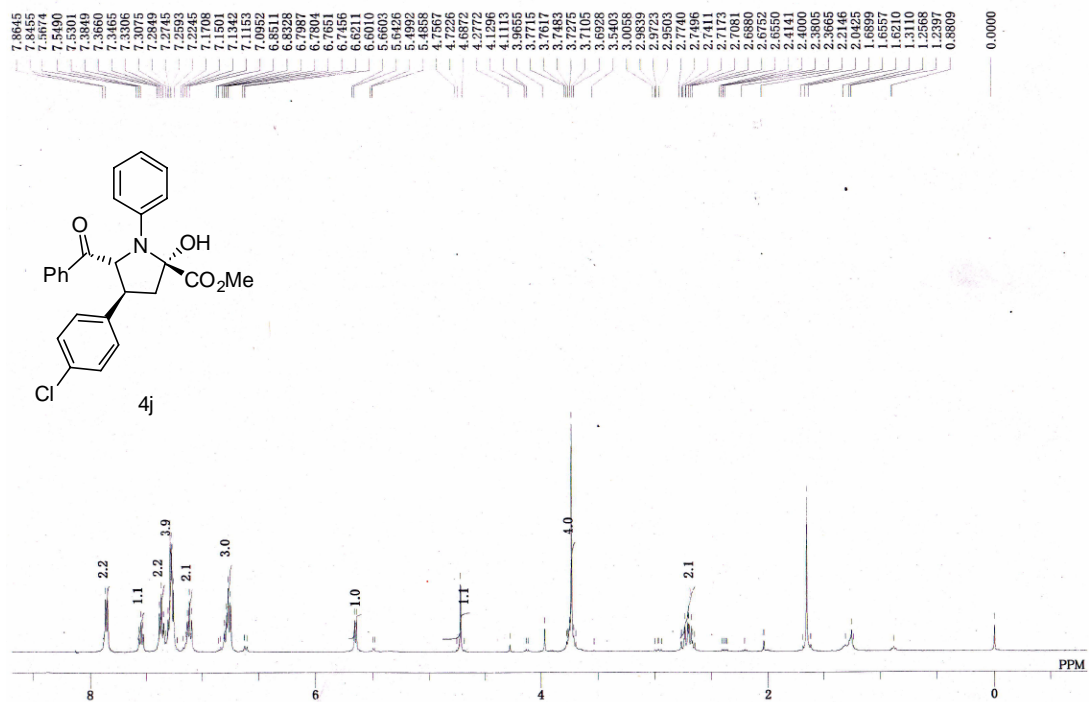


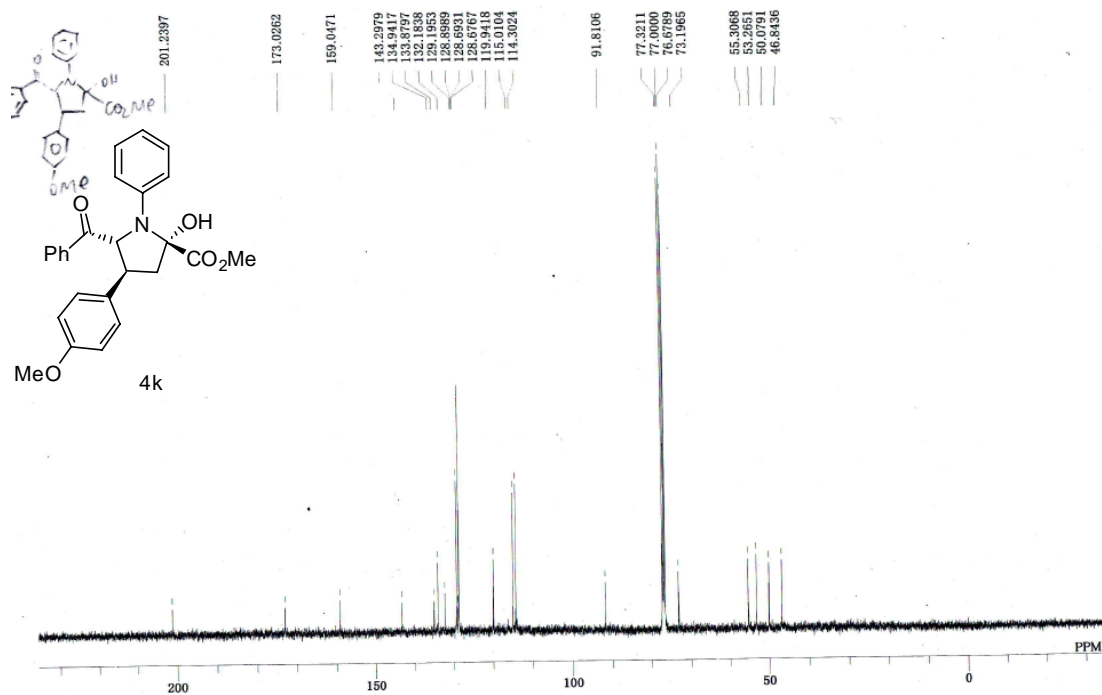
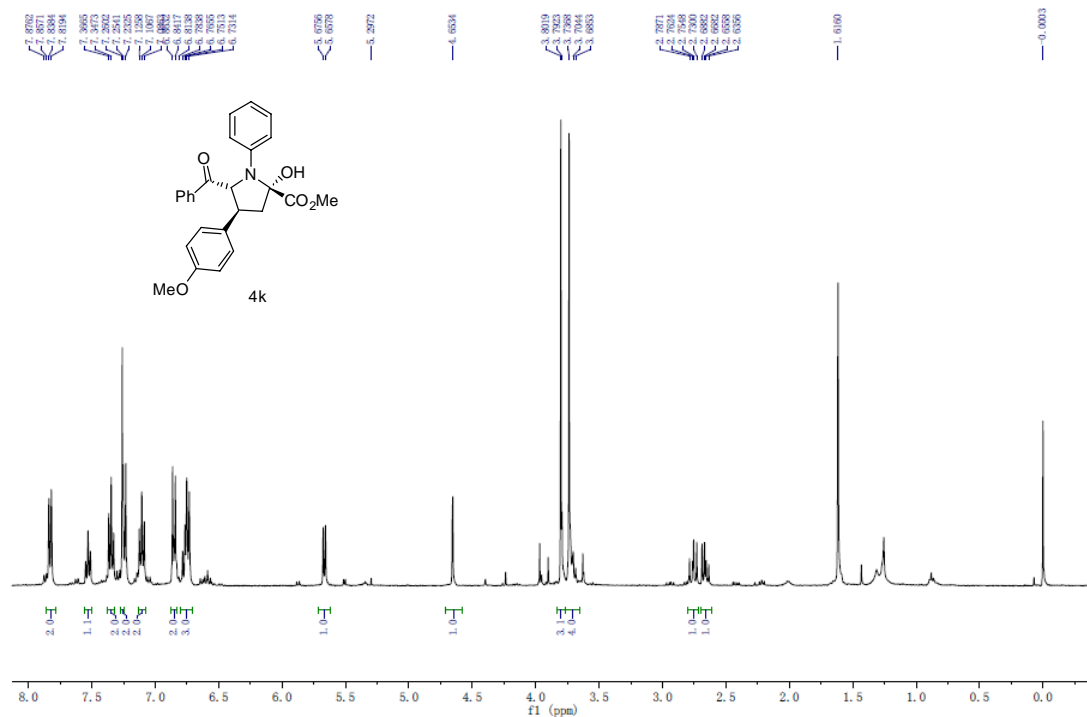


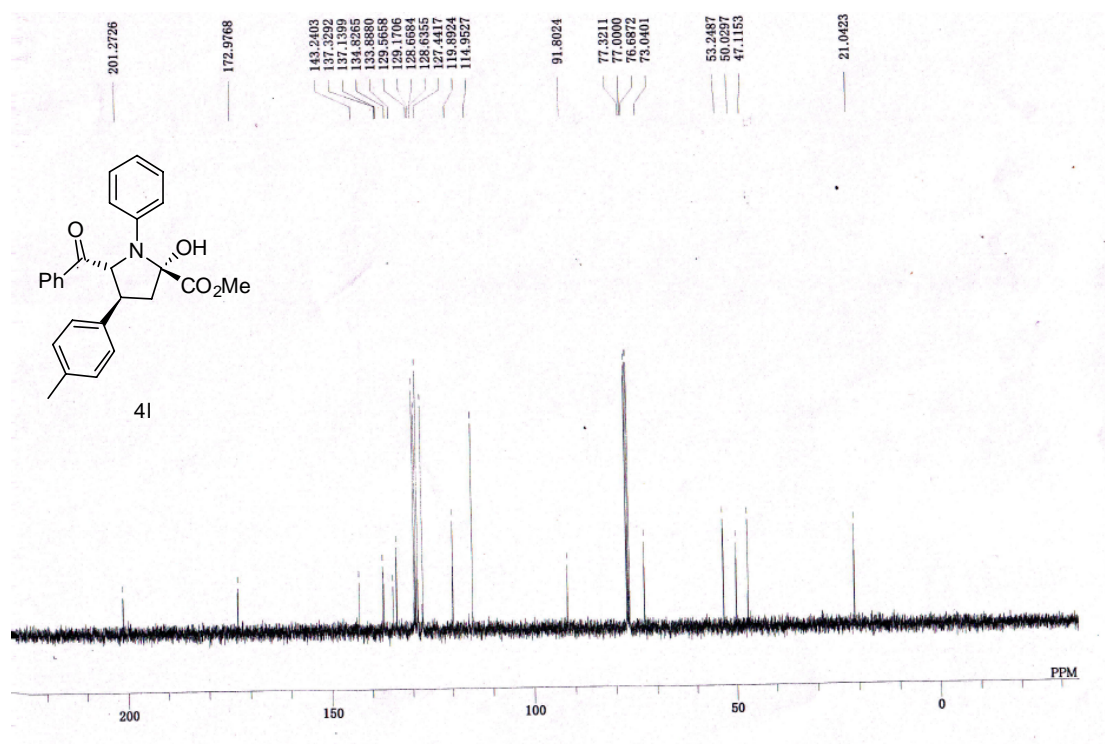
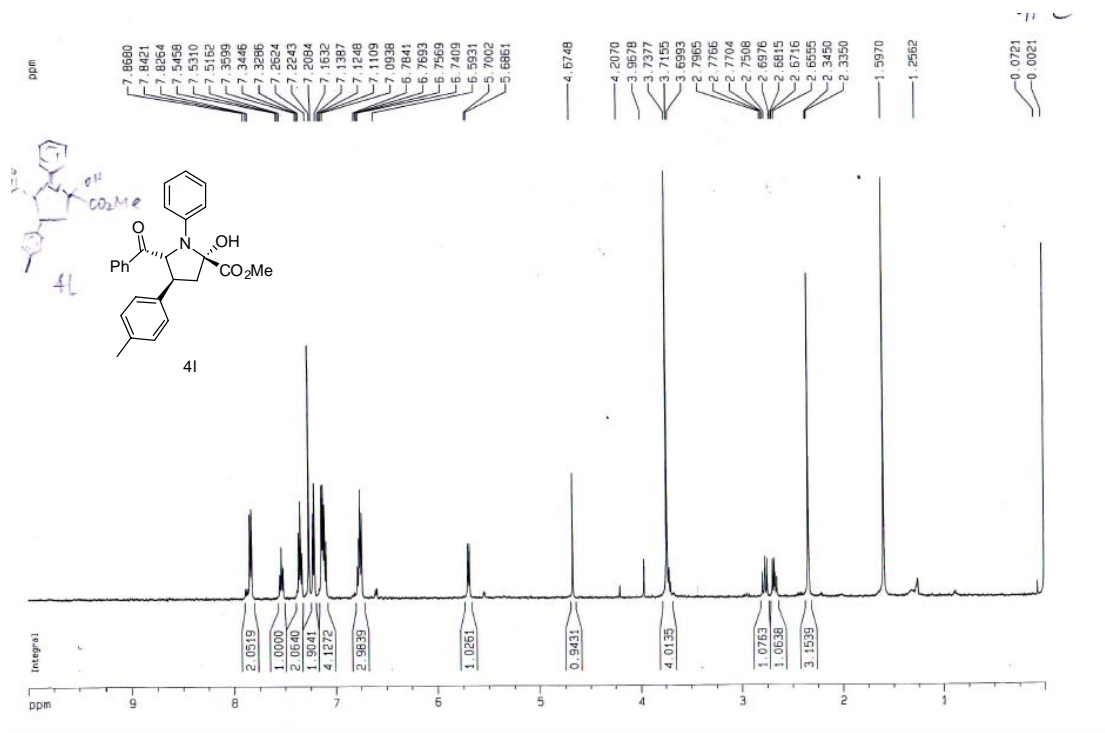


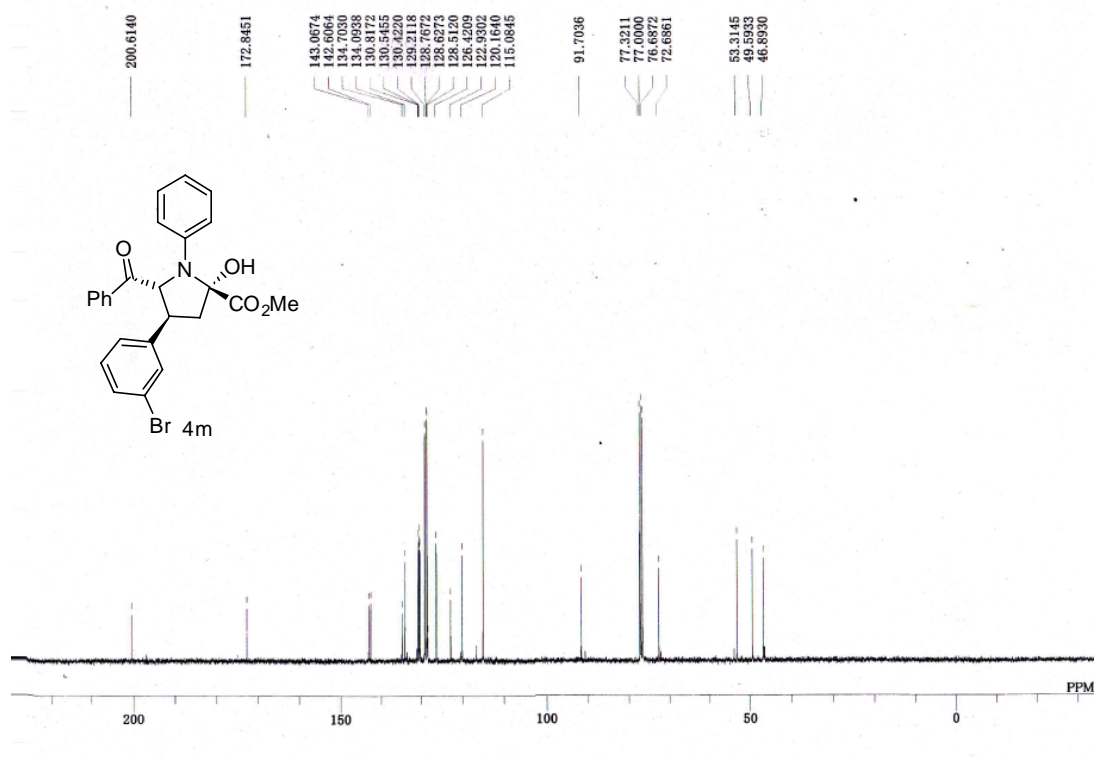
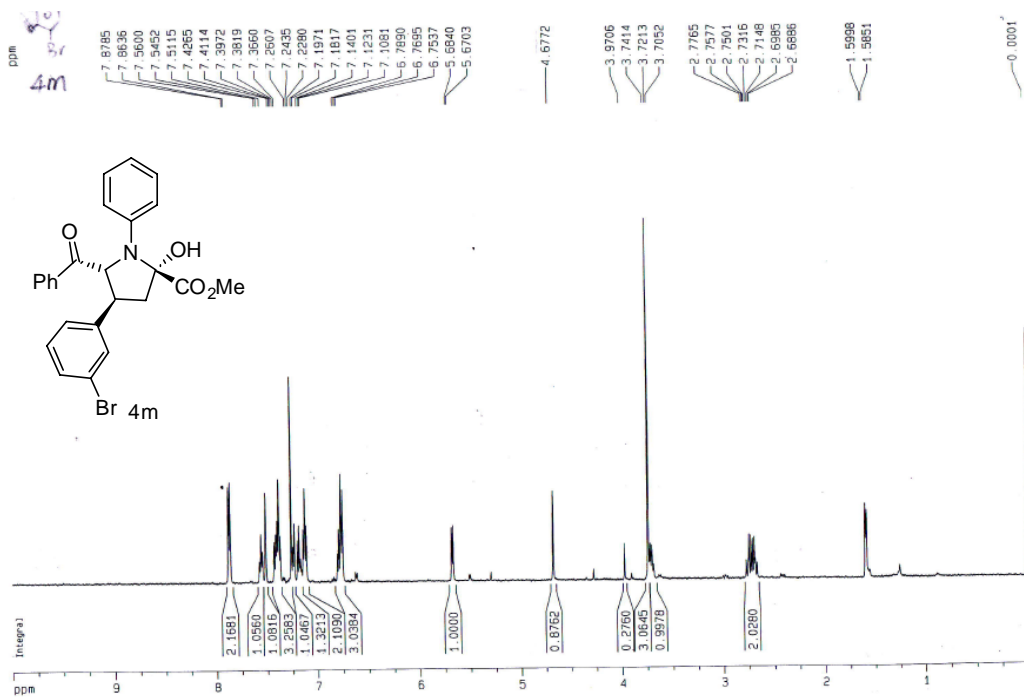


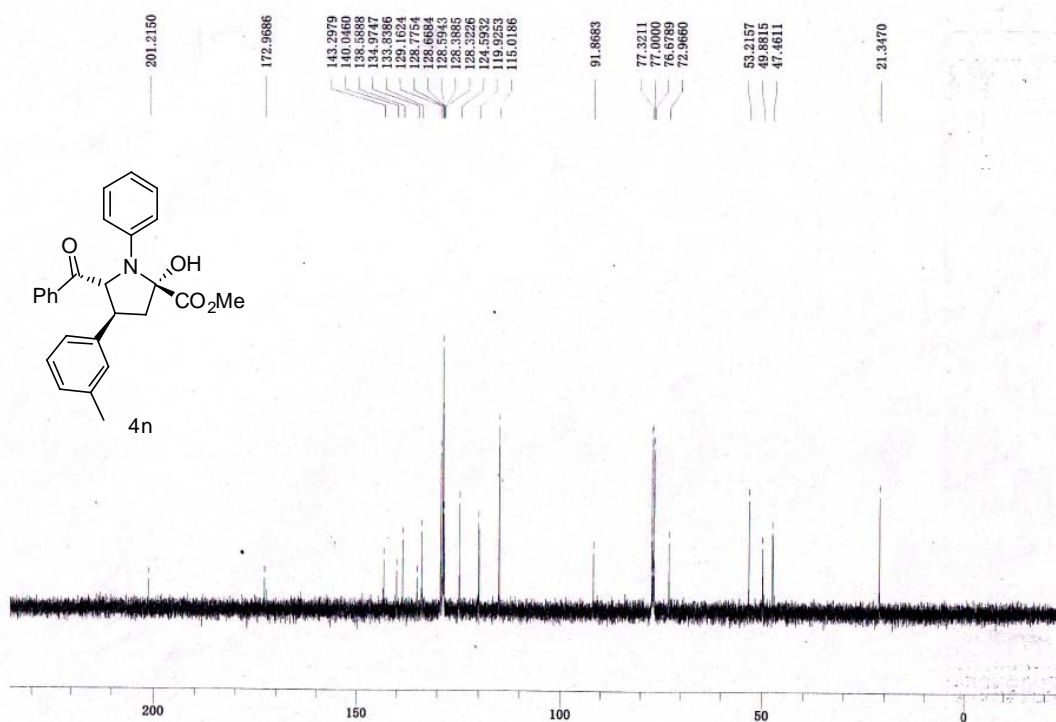
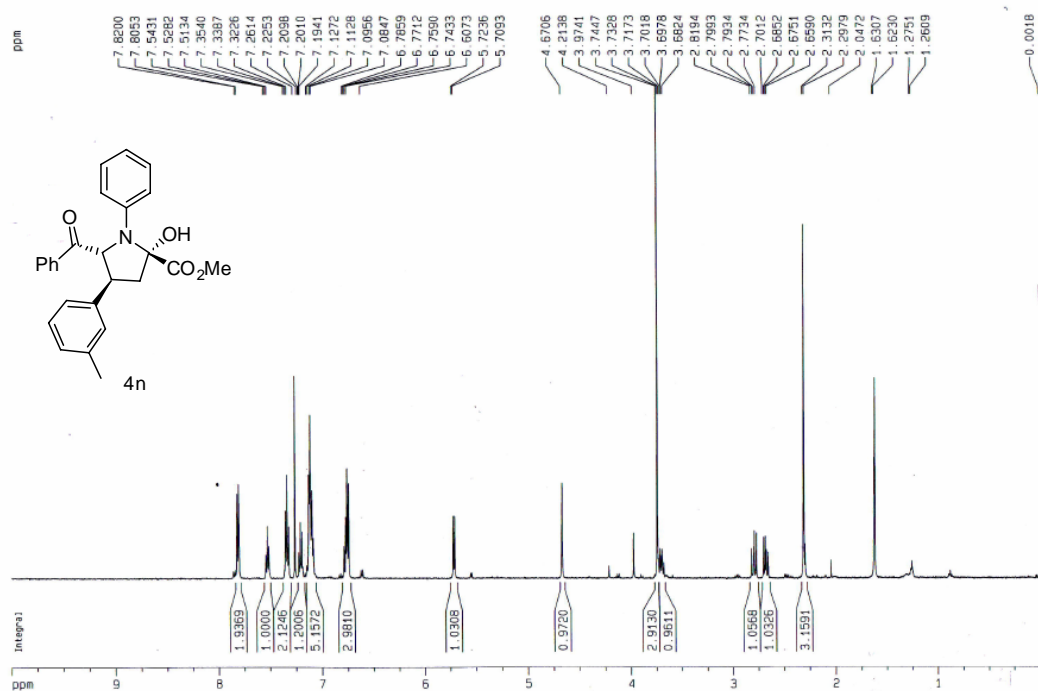


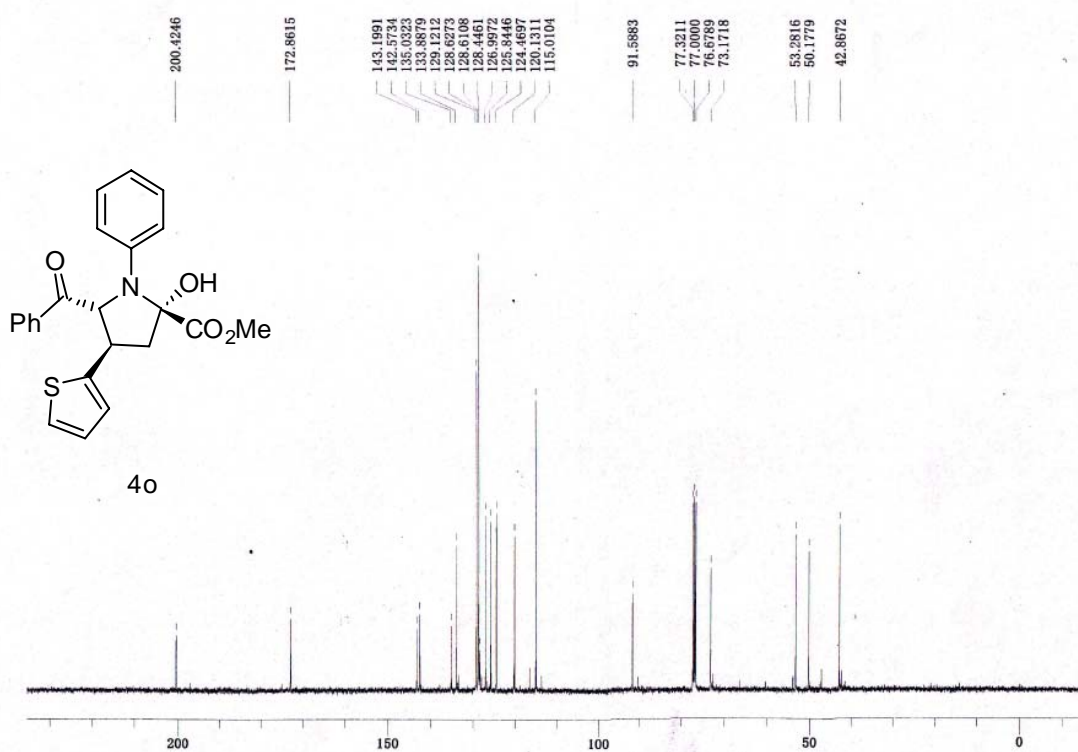
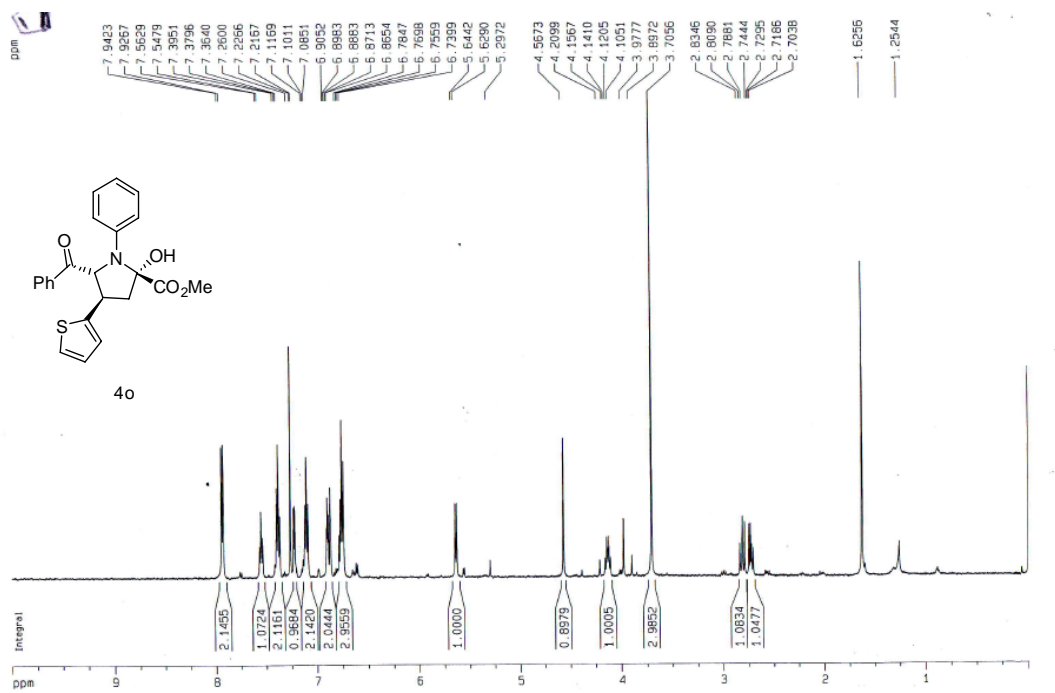


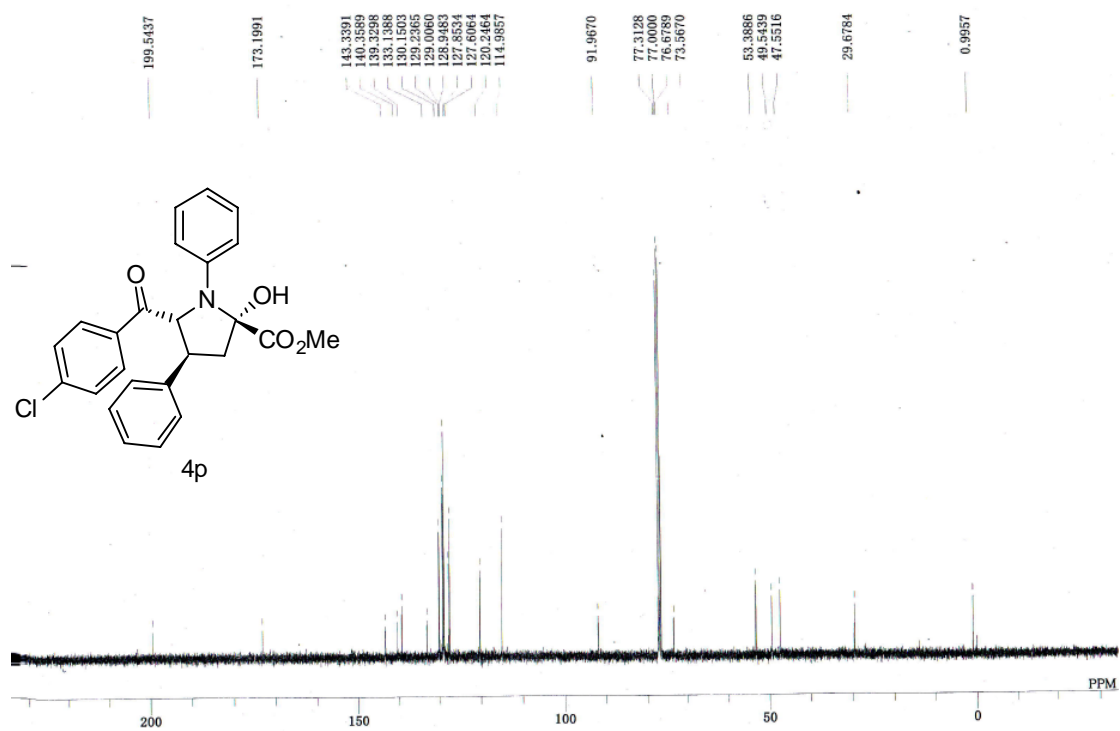
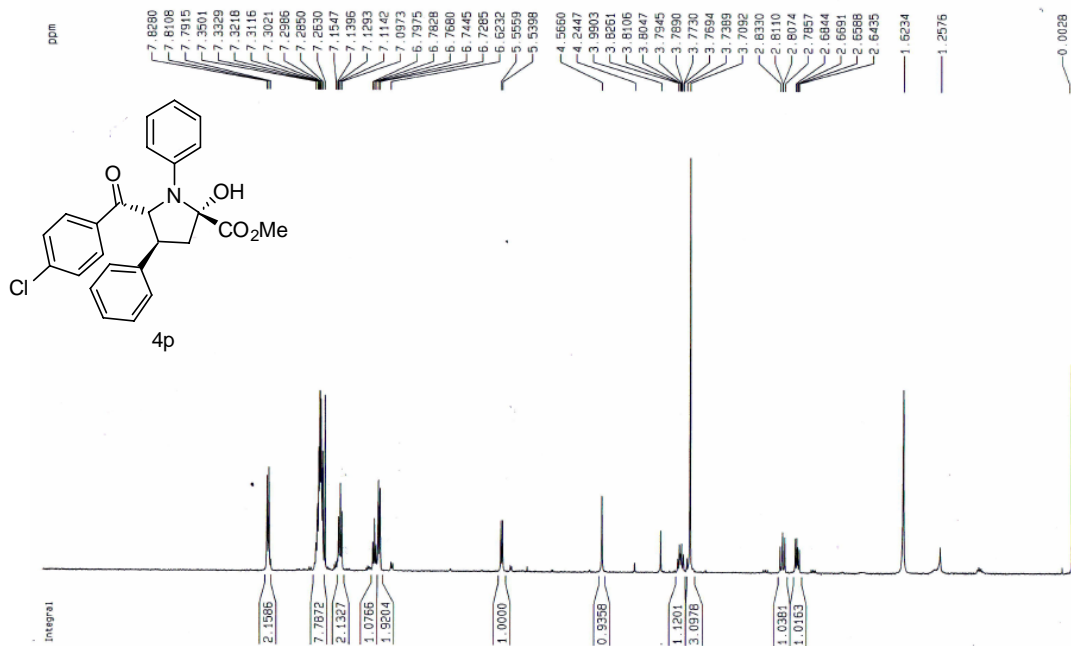


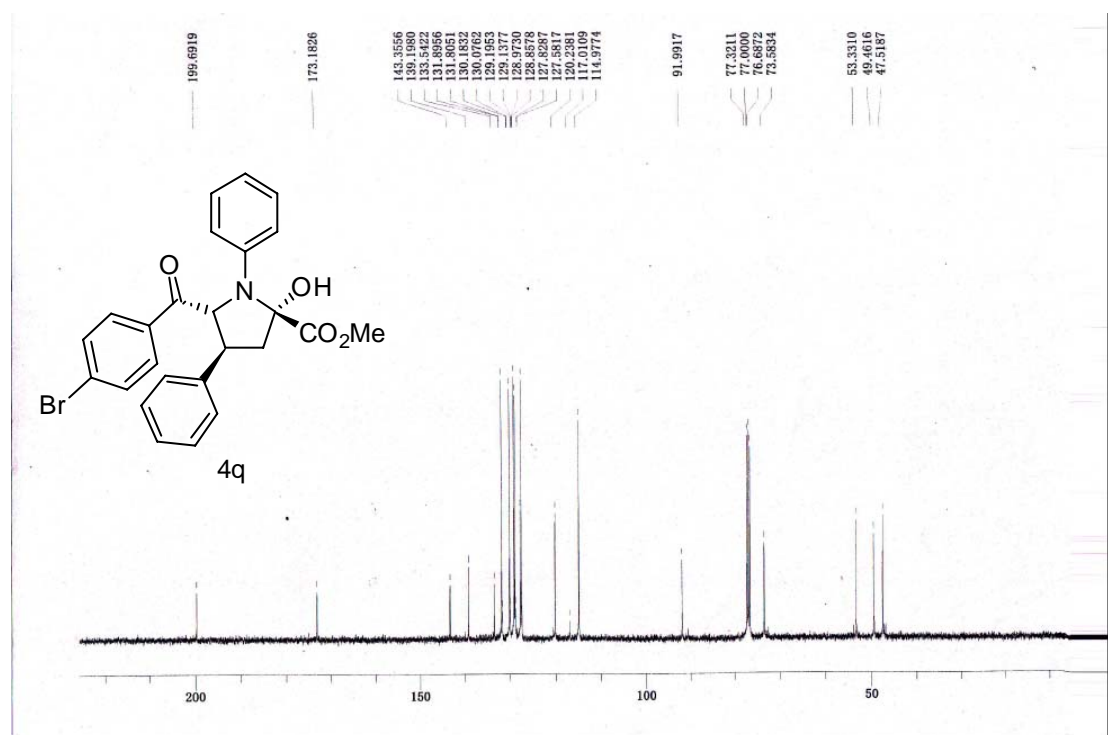
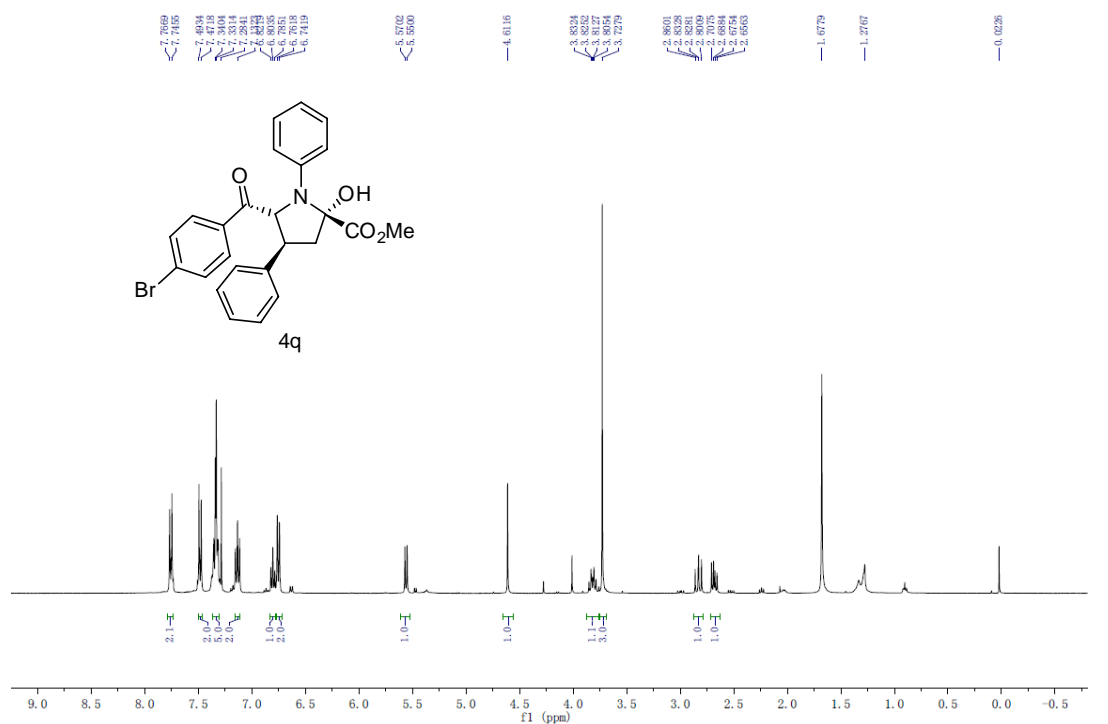


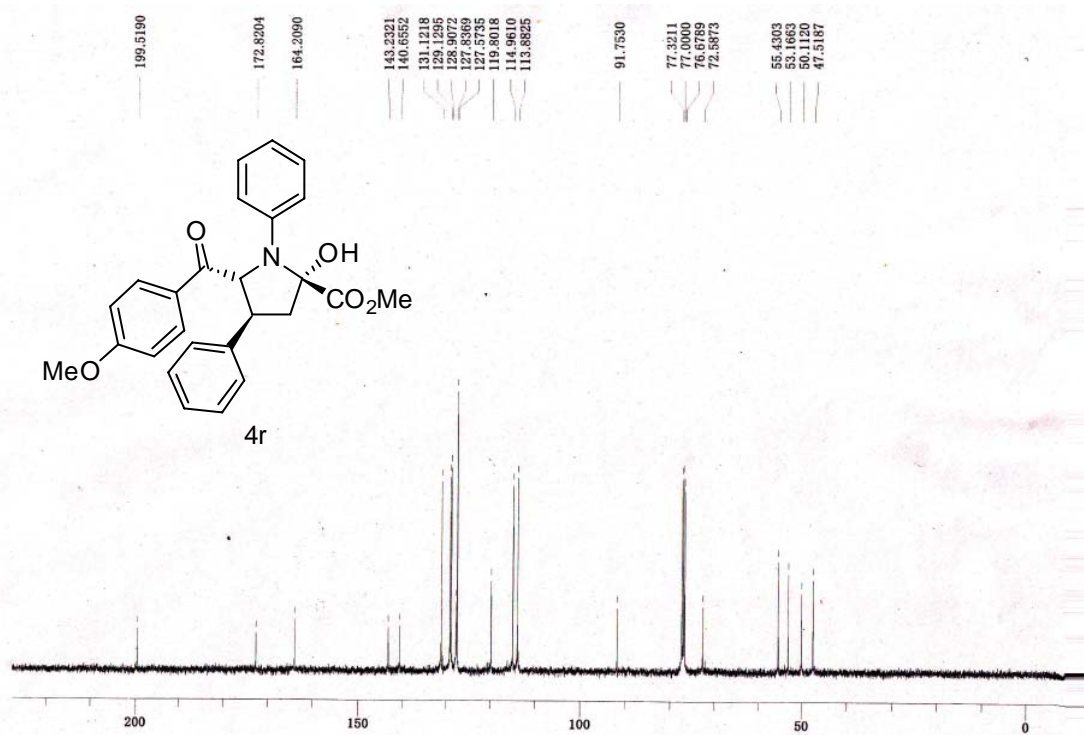
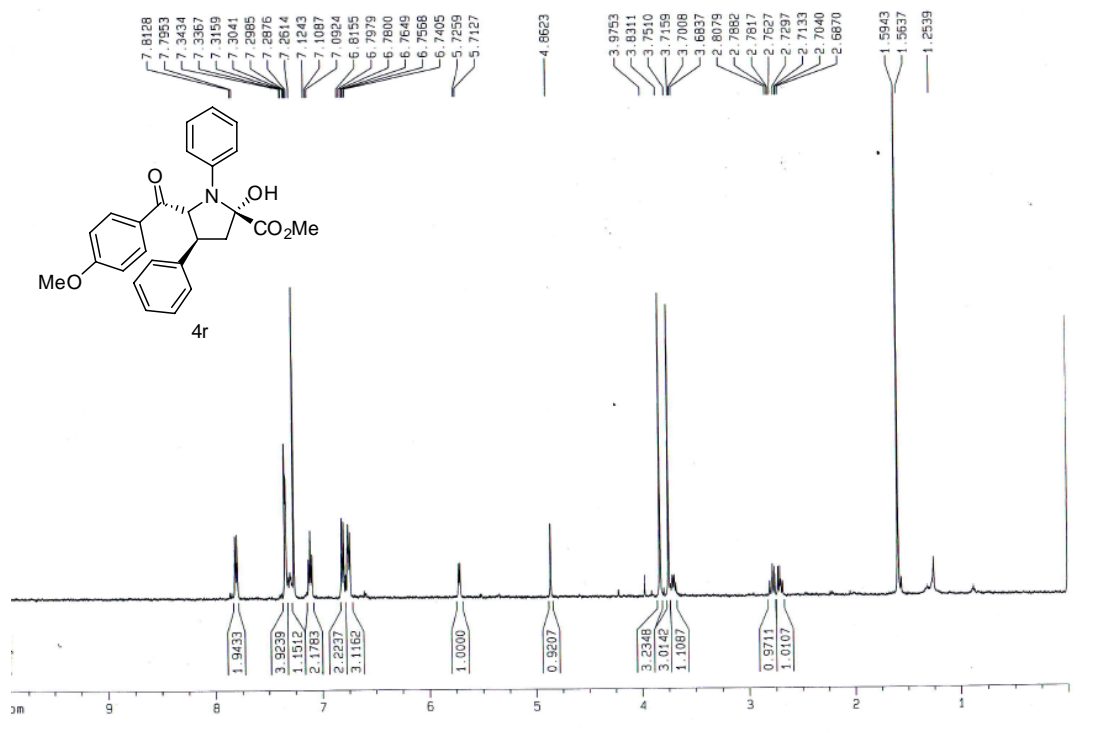


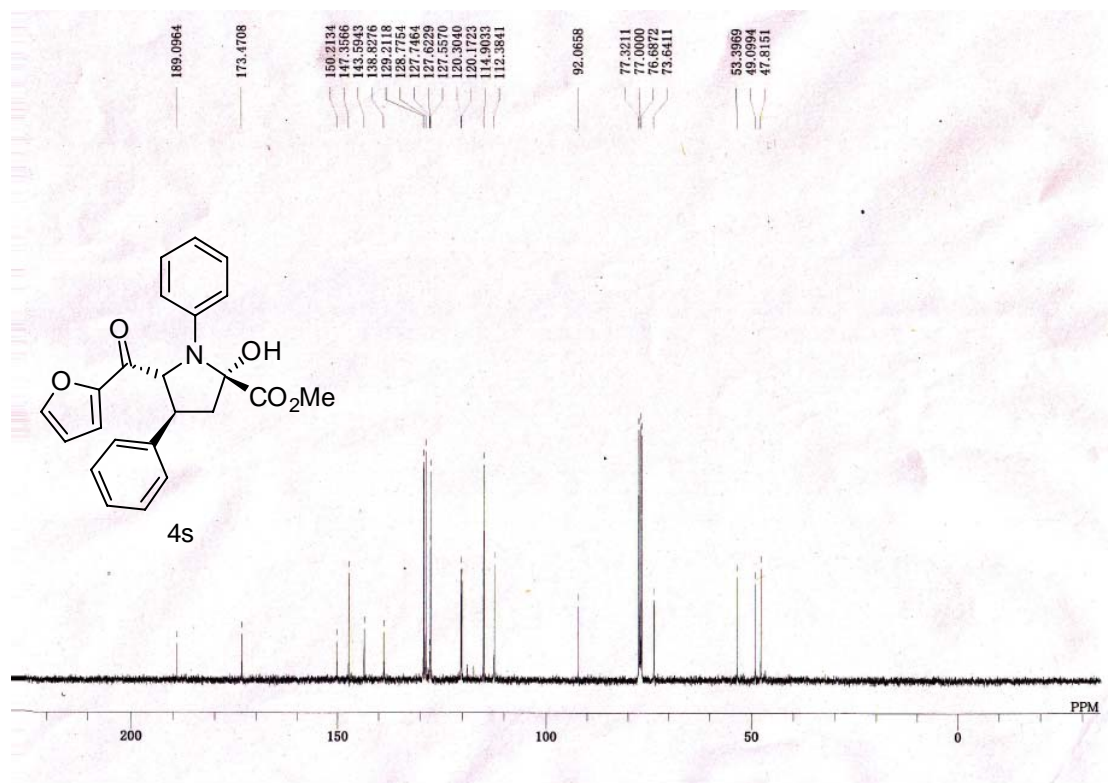
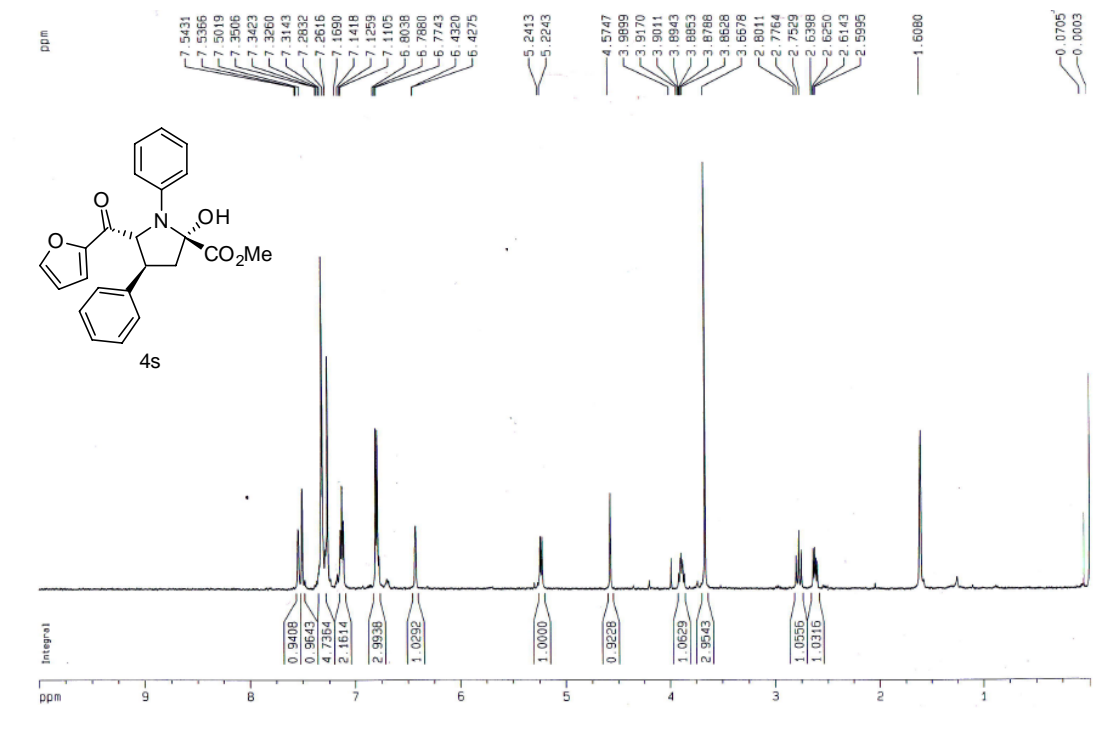












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- (2) Wu, Y.; Liu, L.; Li, H.; Wang, D.; Chen, Y. *J. Org. Chem.* **2006**, *71*, 6592.
- (3) Vijayanthi, T.; Chadha, A. *Tetrahedron: Asymmetry* **2007**, *18*, 1077.

