Electronic Supplementary Material (ESI) for RSC Advances.

Supporting Information

Synthesis of 3′-azido/-amino-*xylo*bicyclonucleosides

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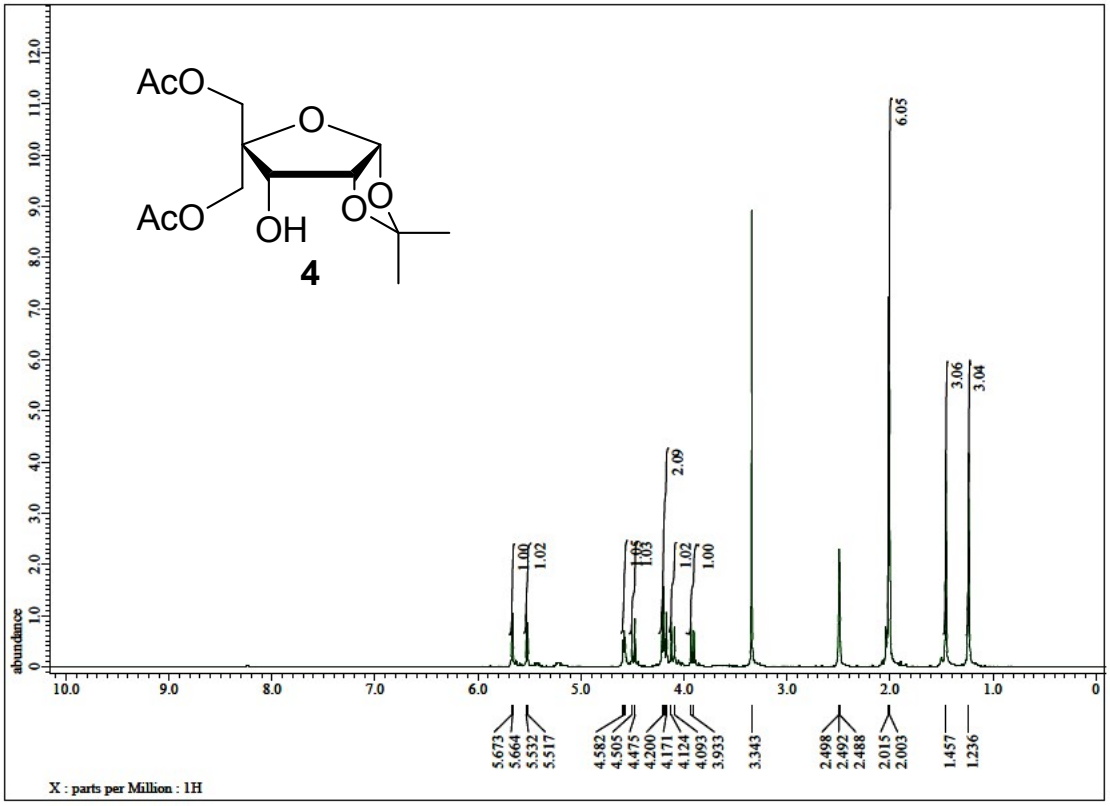
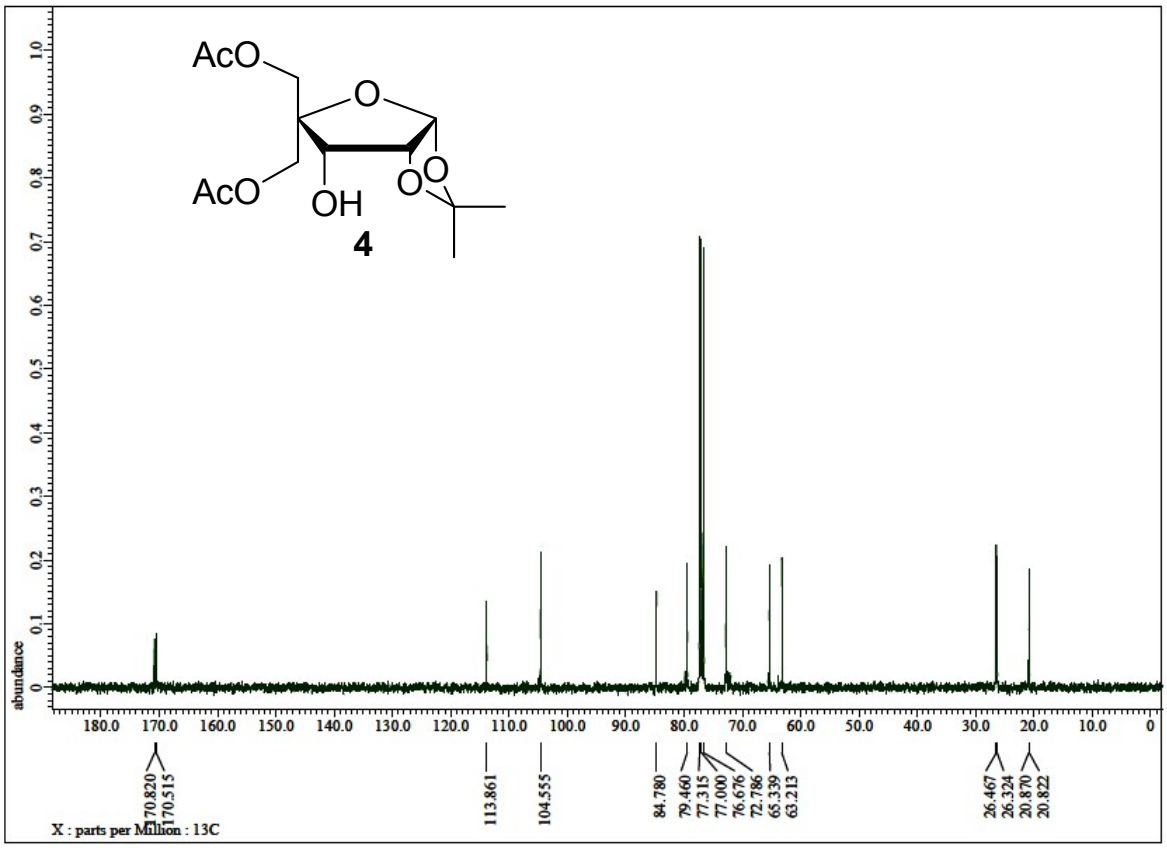
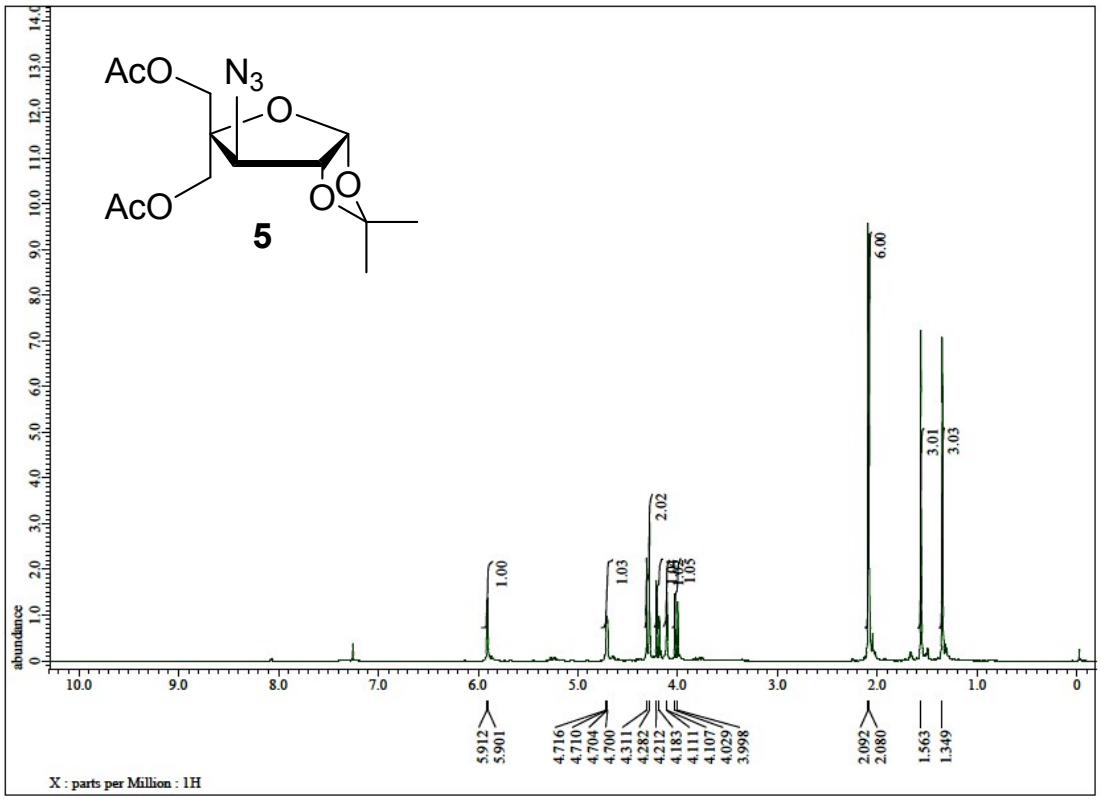
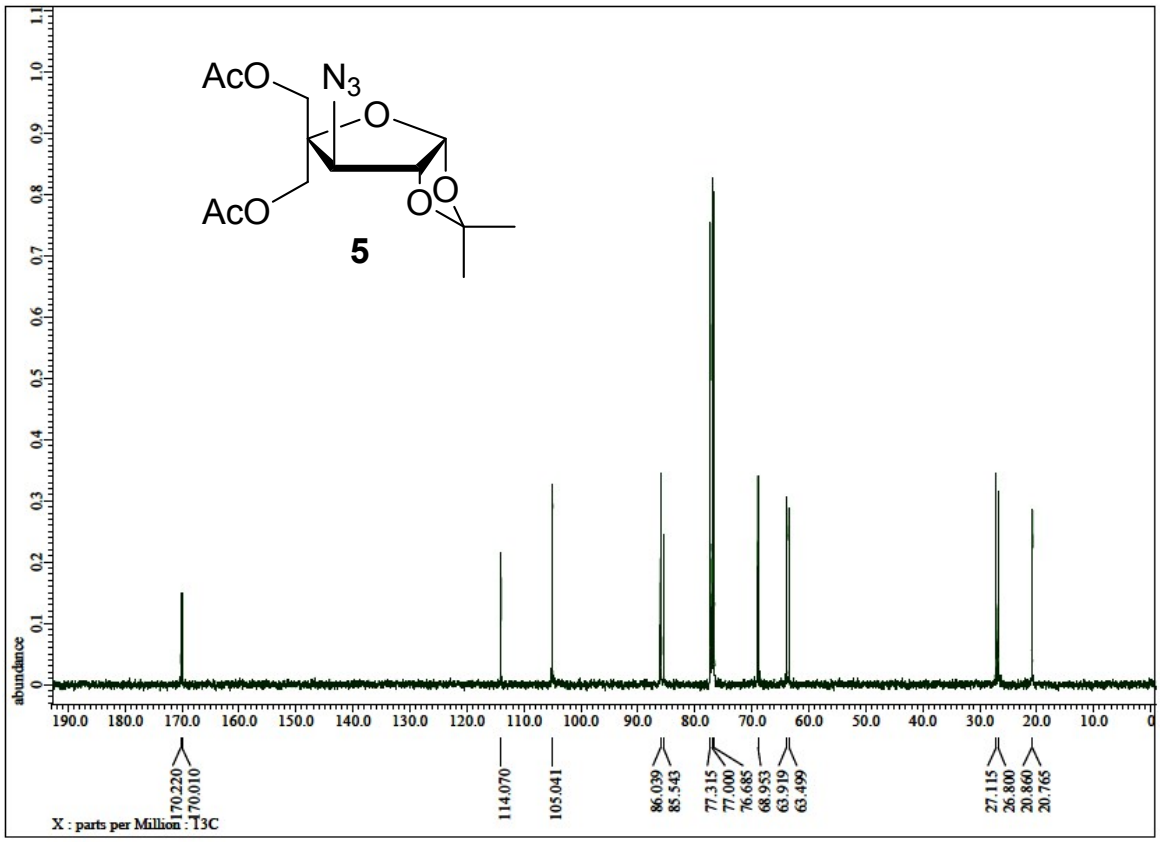
[1] H- and [13]C-NMR spectra of compound 4



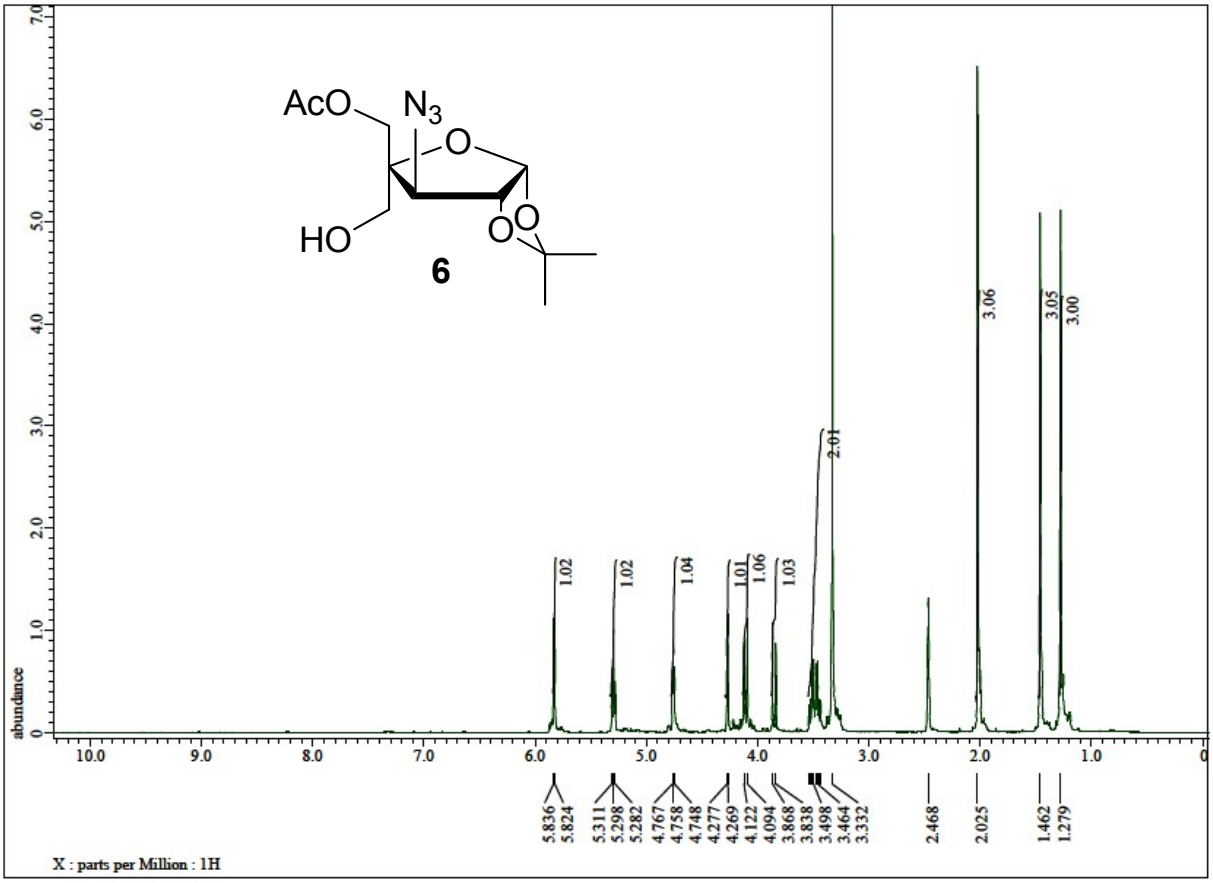


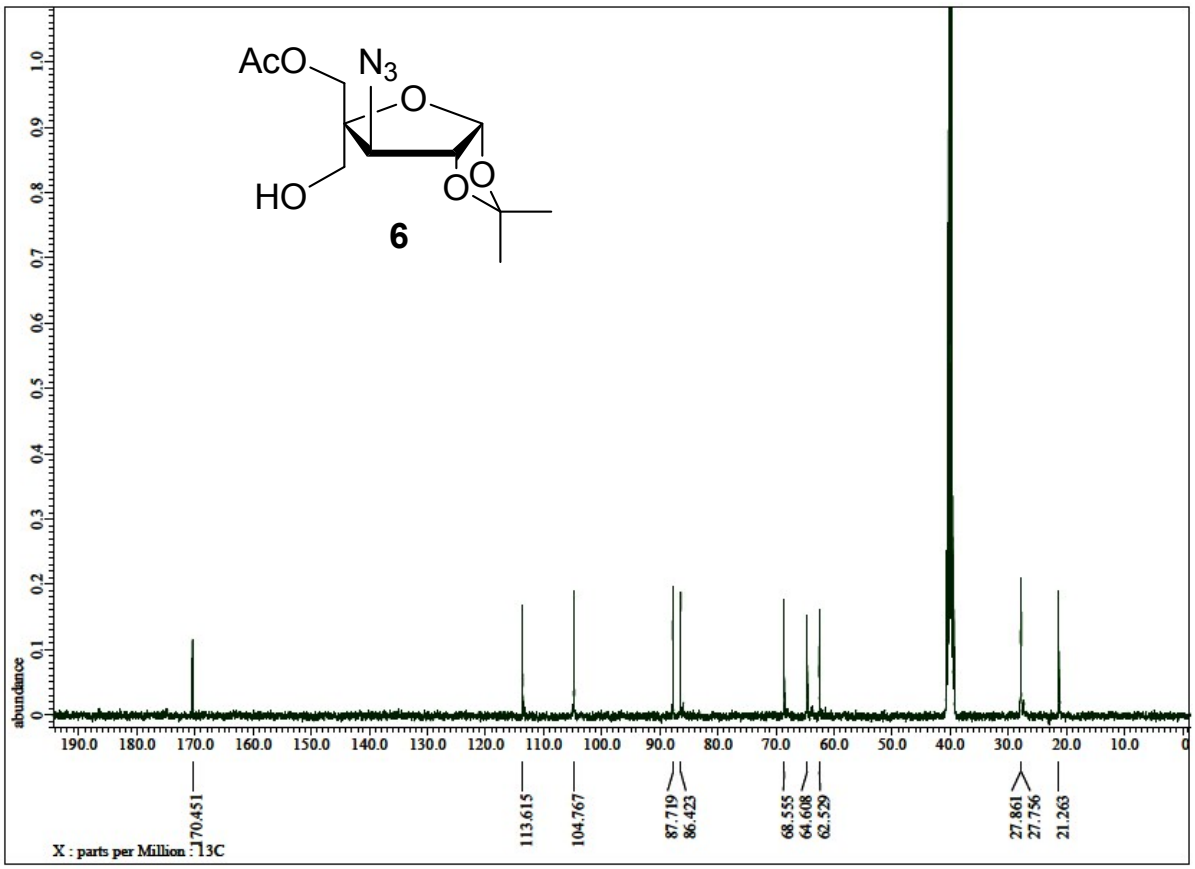
^{1}H- and ^{13}C-NMR spectra of compound 5



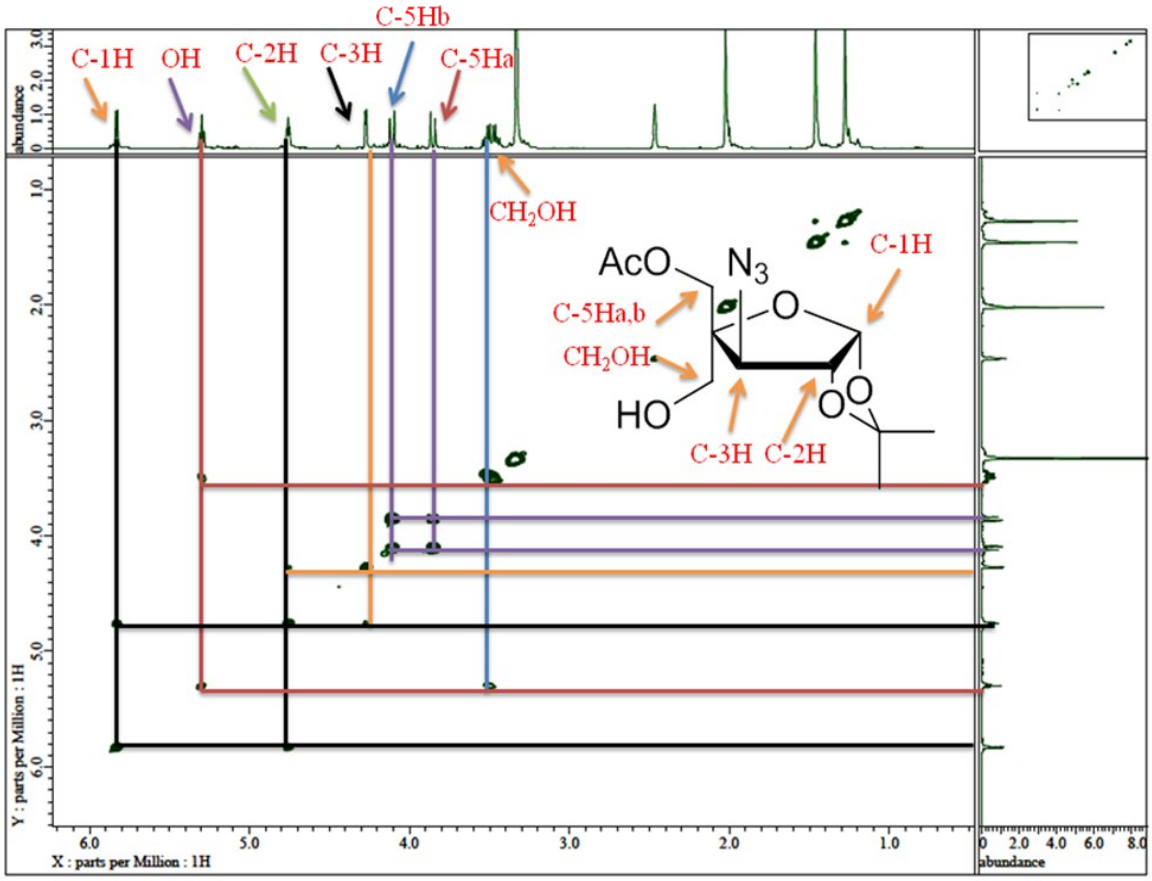


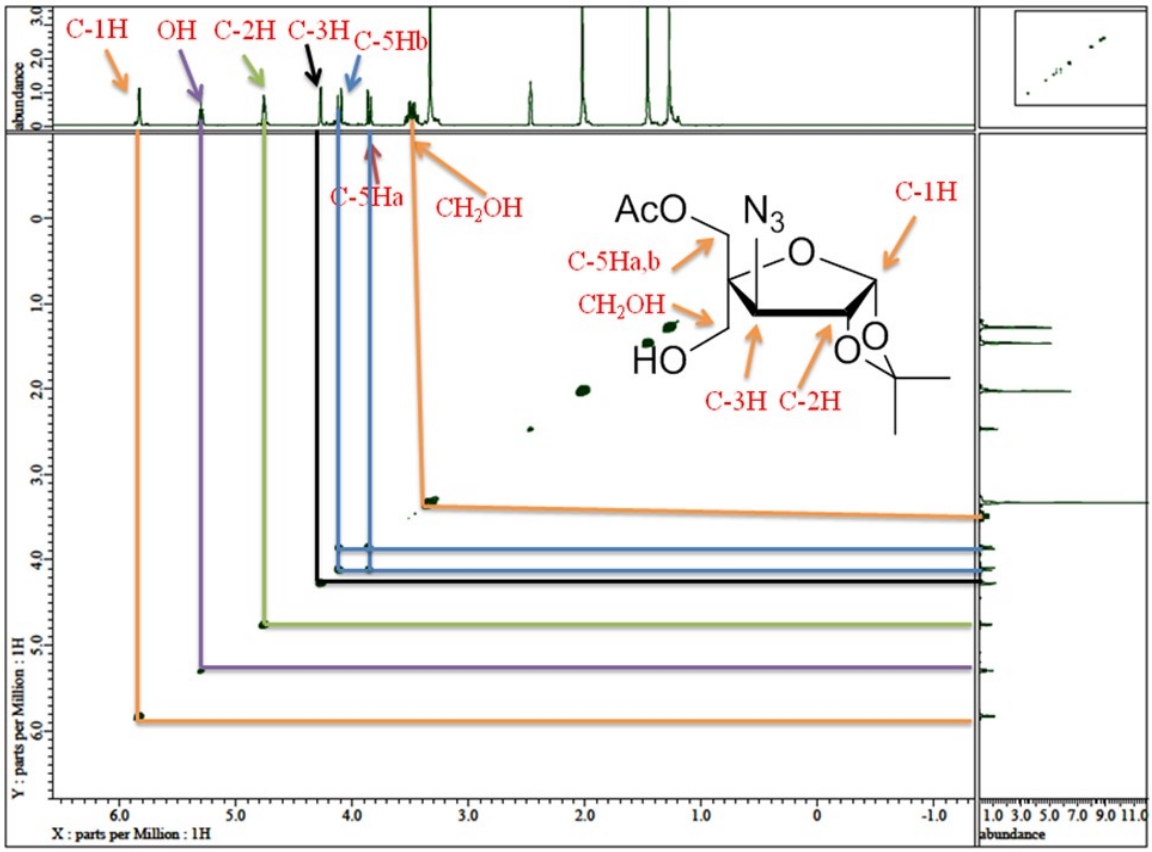
^{1}H- and ^{13}C-NMR spectra of compound 6



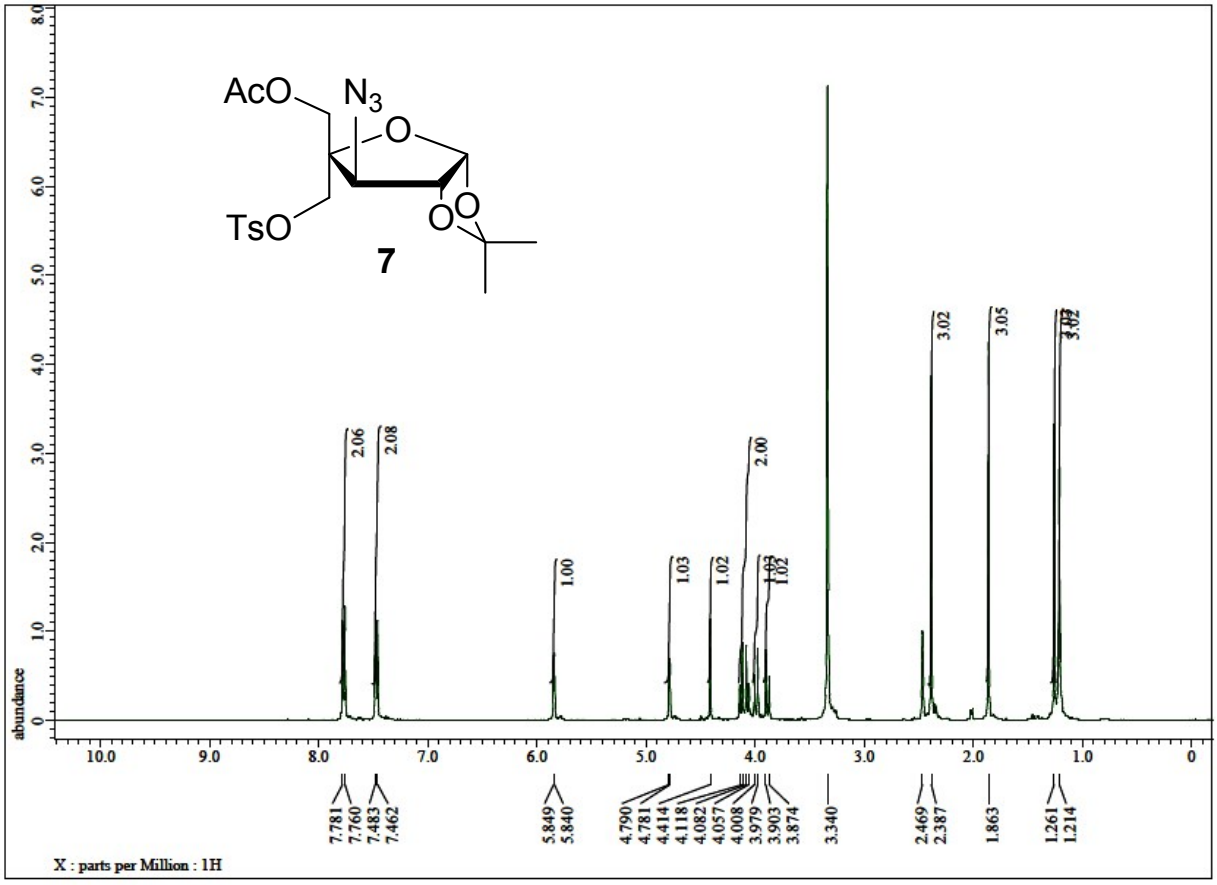


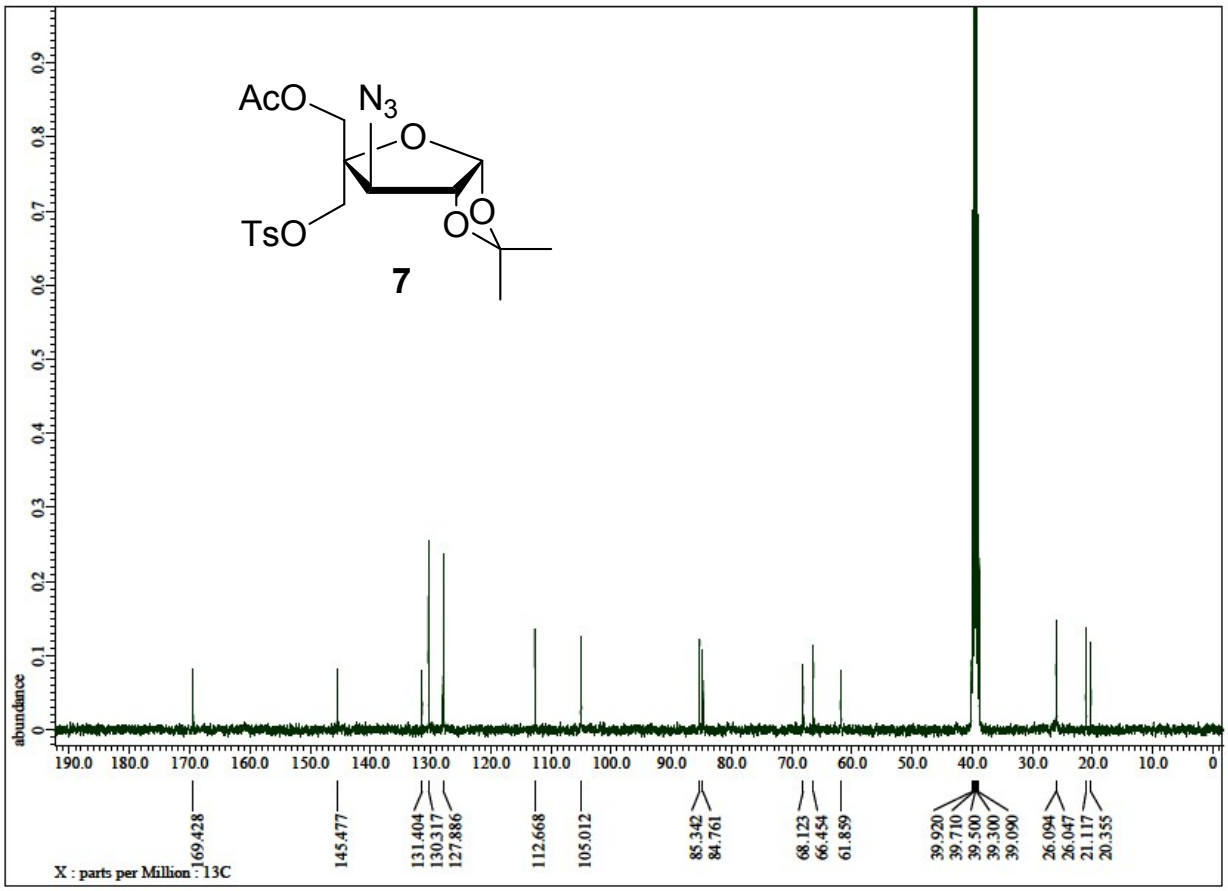
^{1}H-^{1}H COSY and ^{1}H-^{1}H NOESY NMR spectra of compound 6



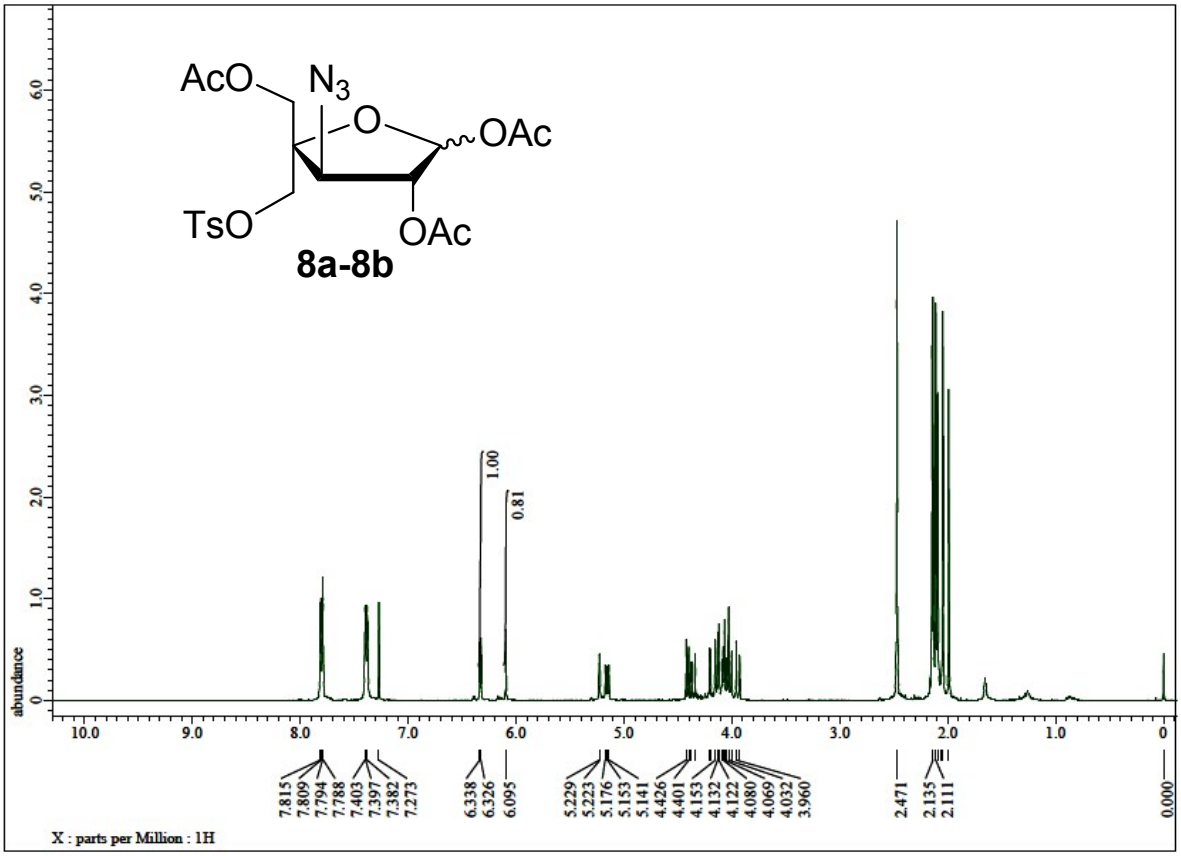


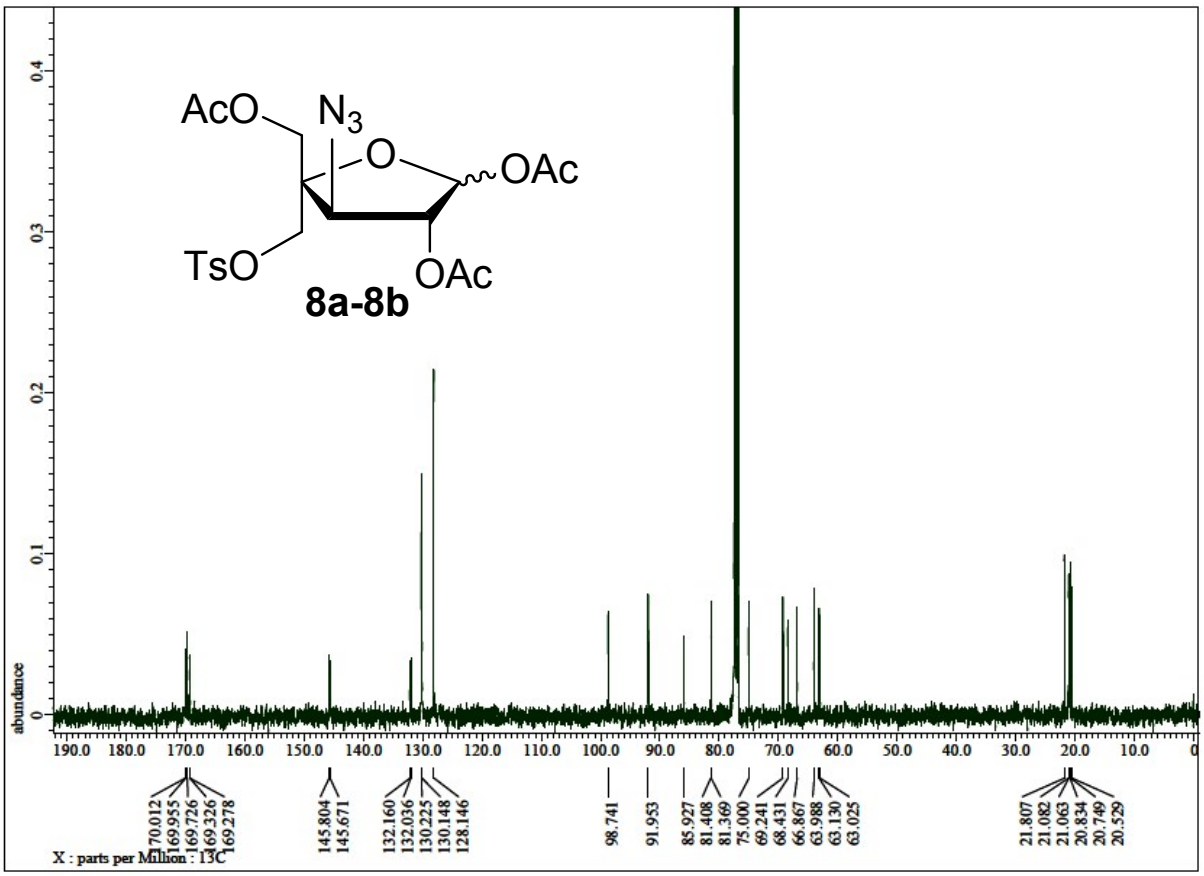
^{1}H- and ^{13}C-NMR spectra of compound 7



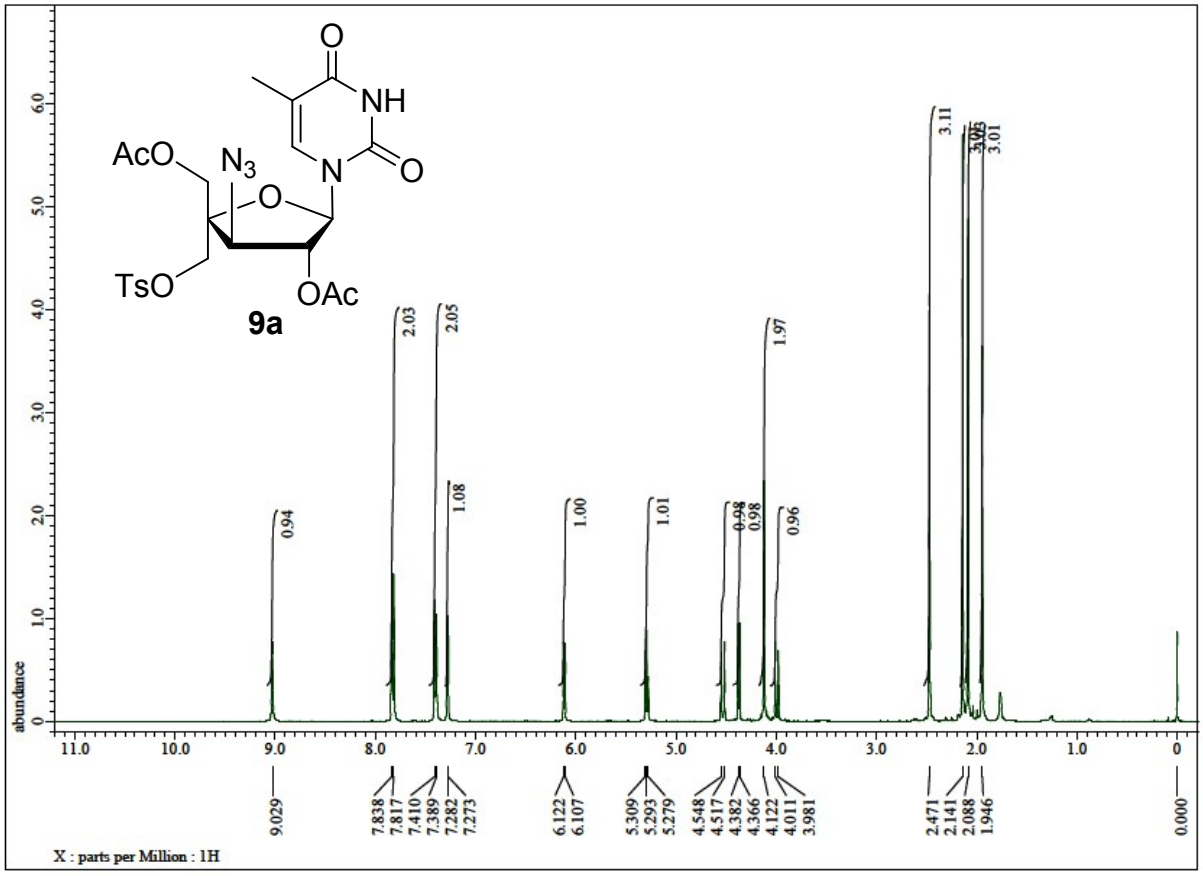


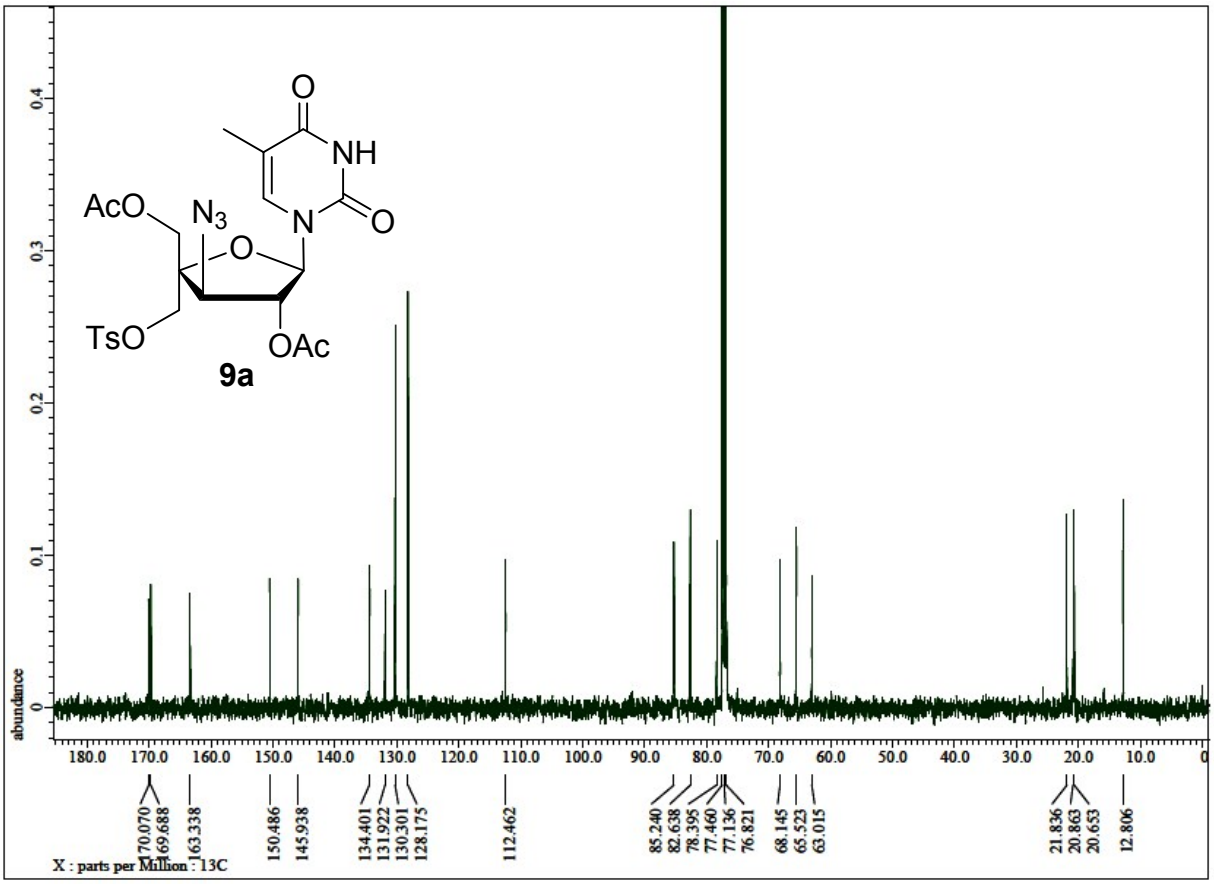
^{1}H- and ^{13}C-NMR spectra of compound 8a-8b



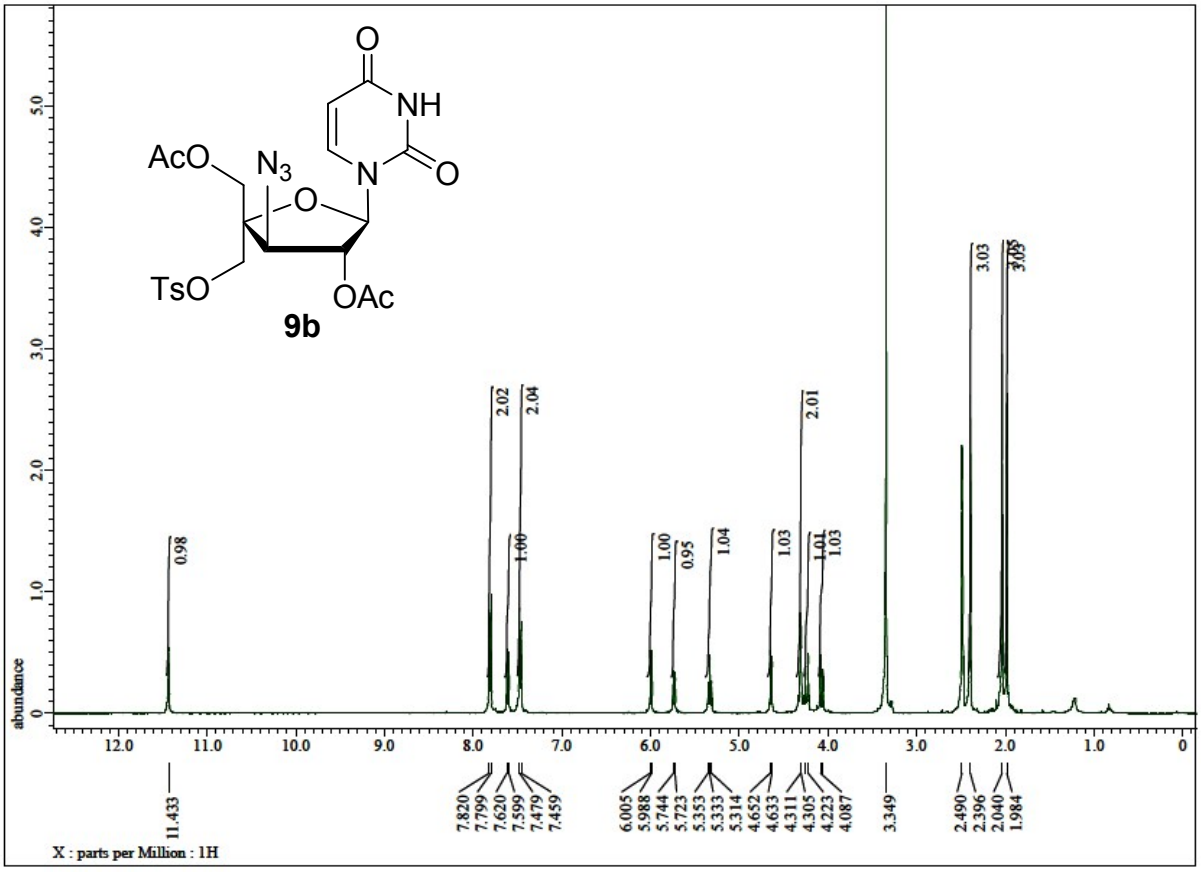


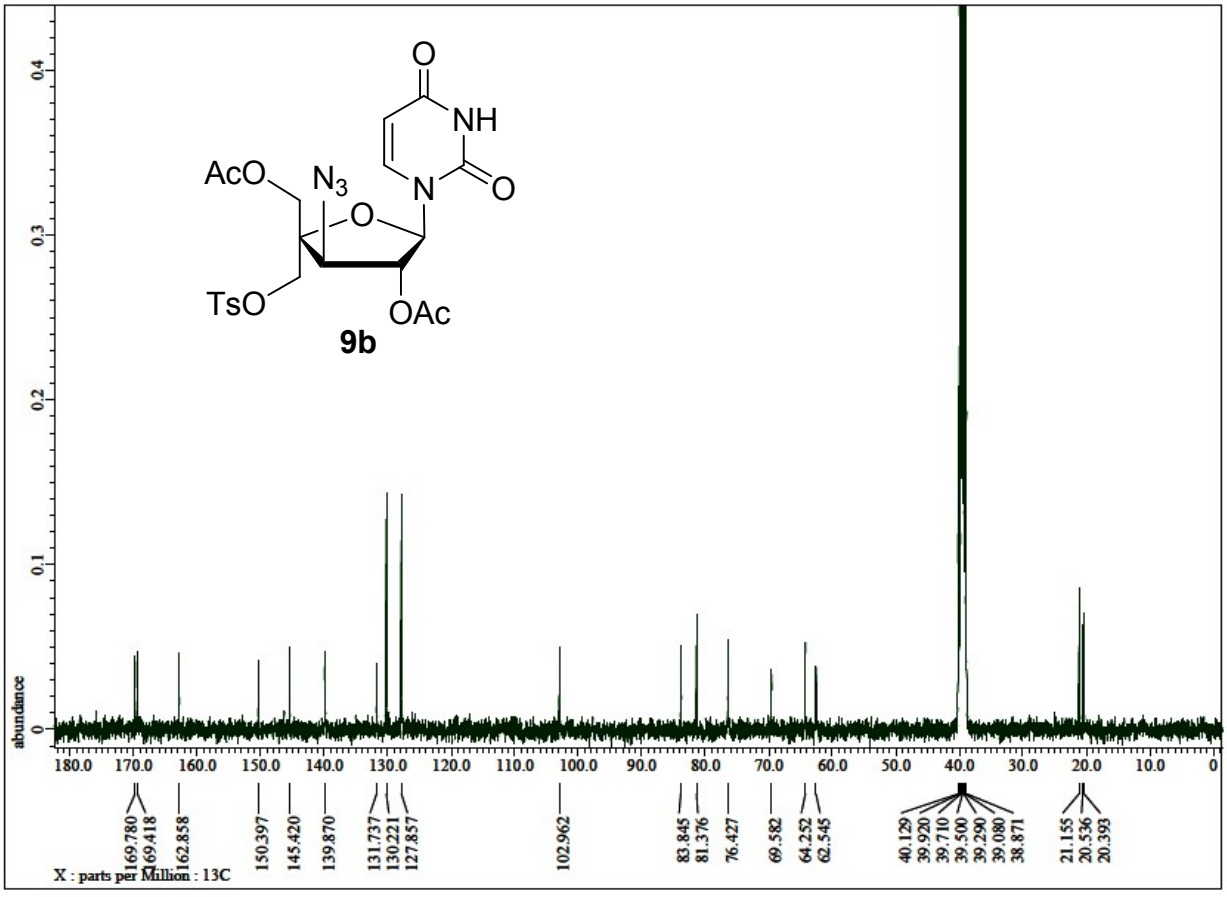
^{1}H- and ^{13}C-NMR spectra of compound 9a



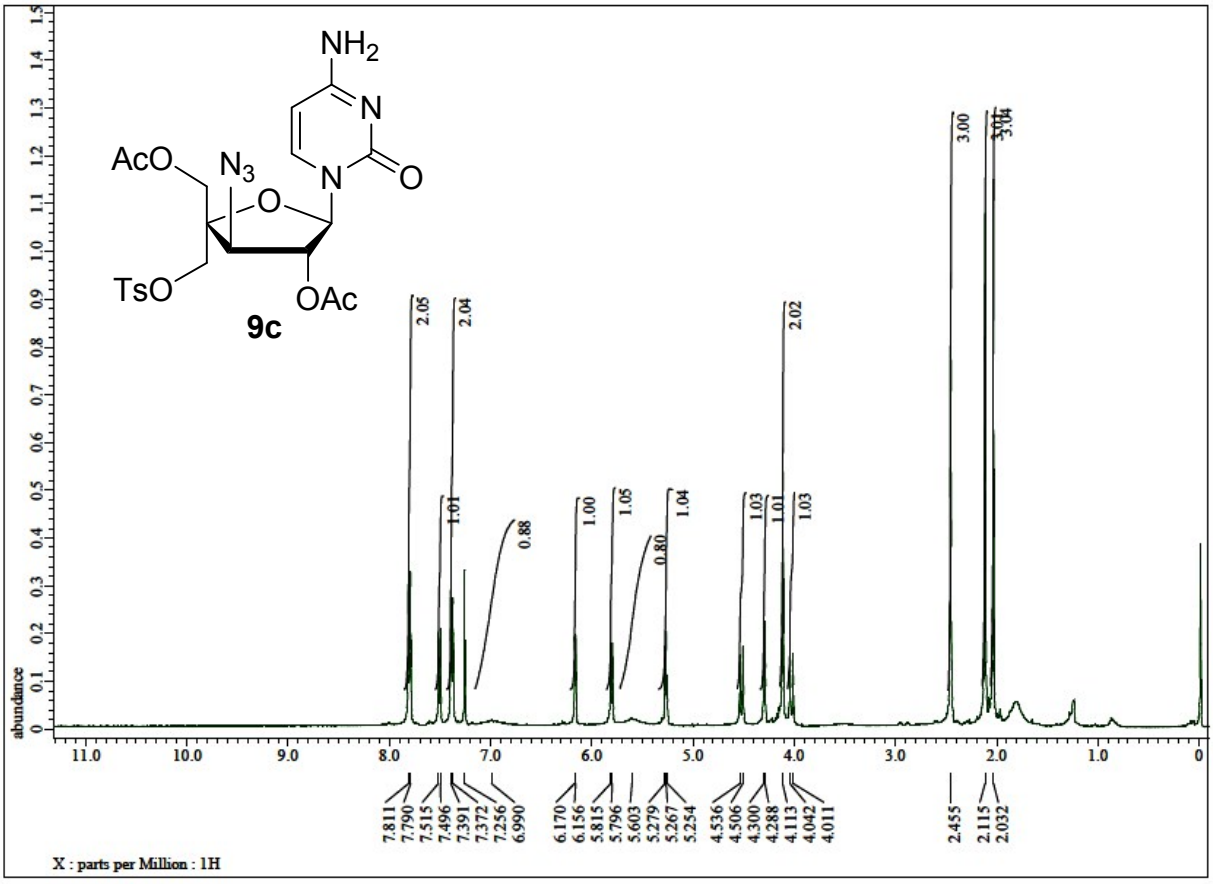


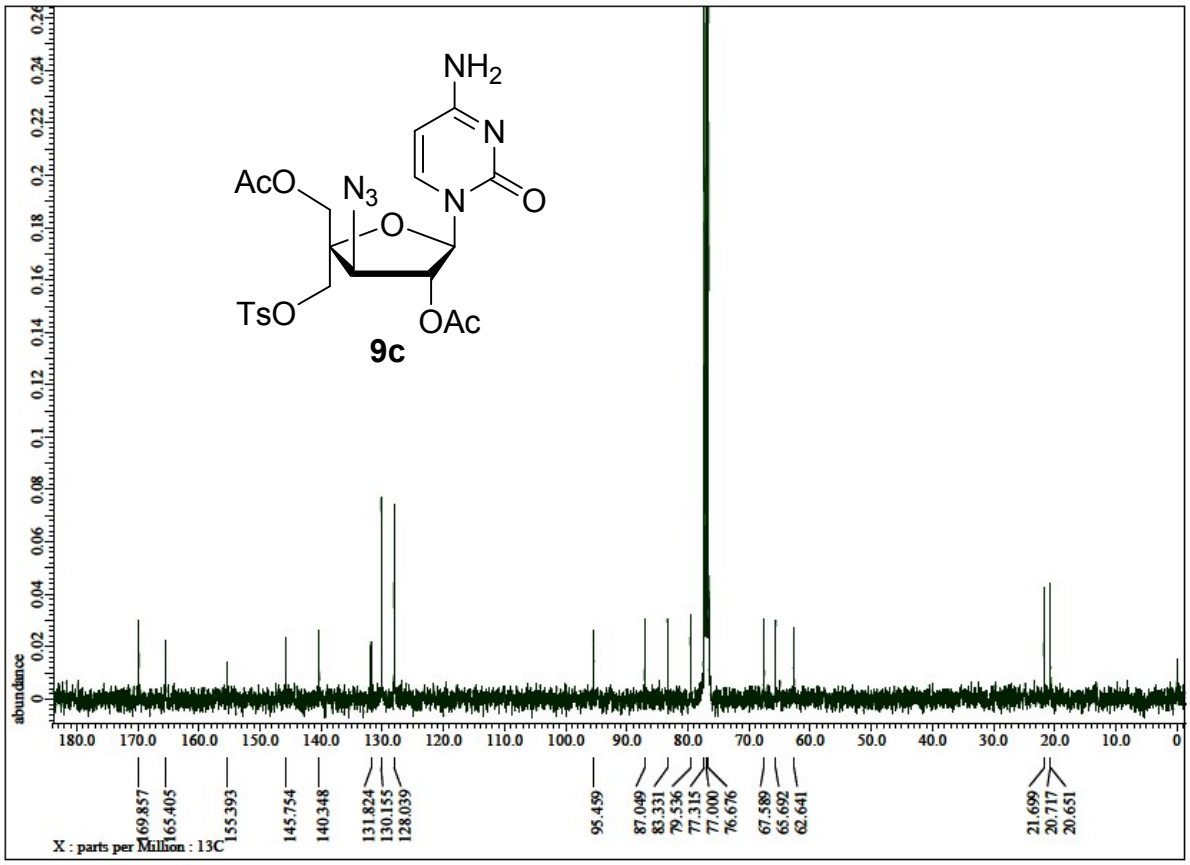
^{1}H- and ^{13}C-NMR spectra of compound 9b



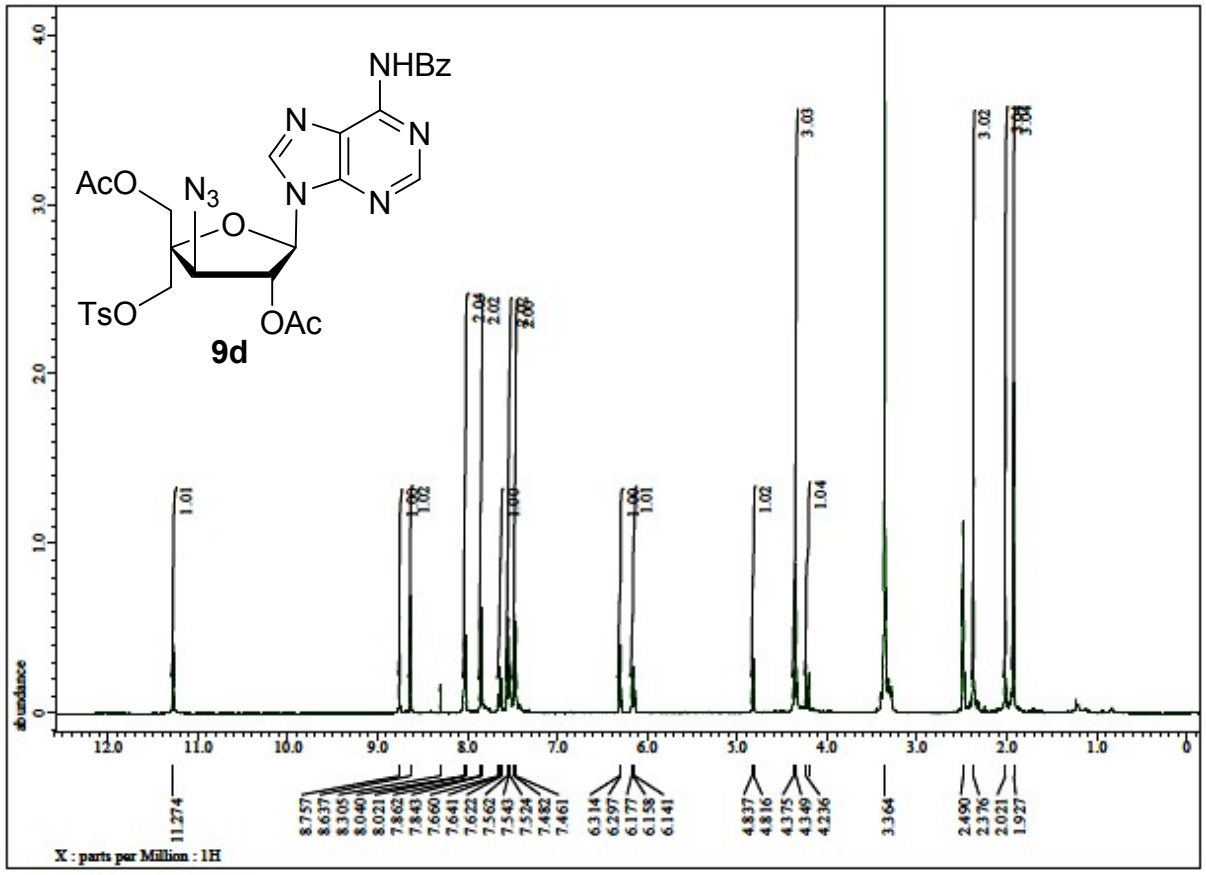


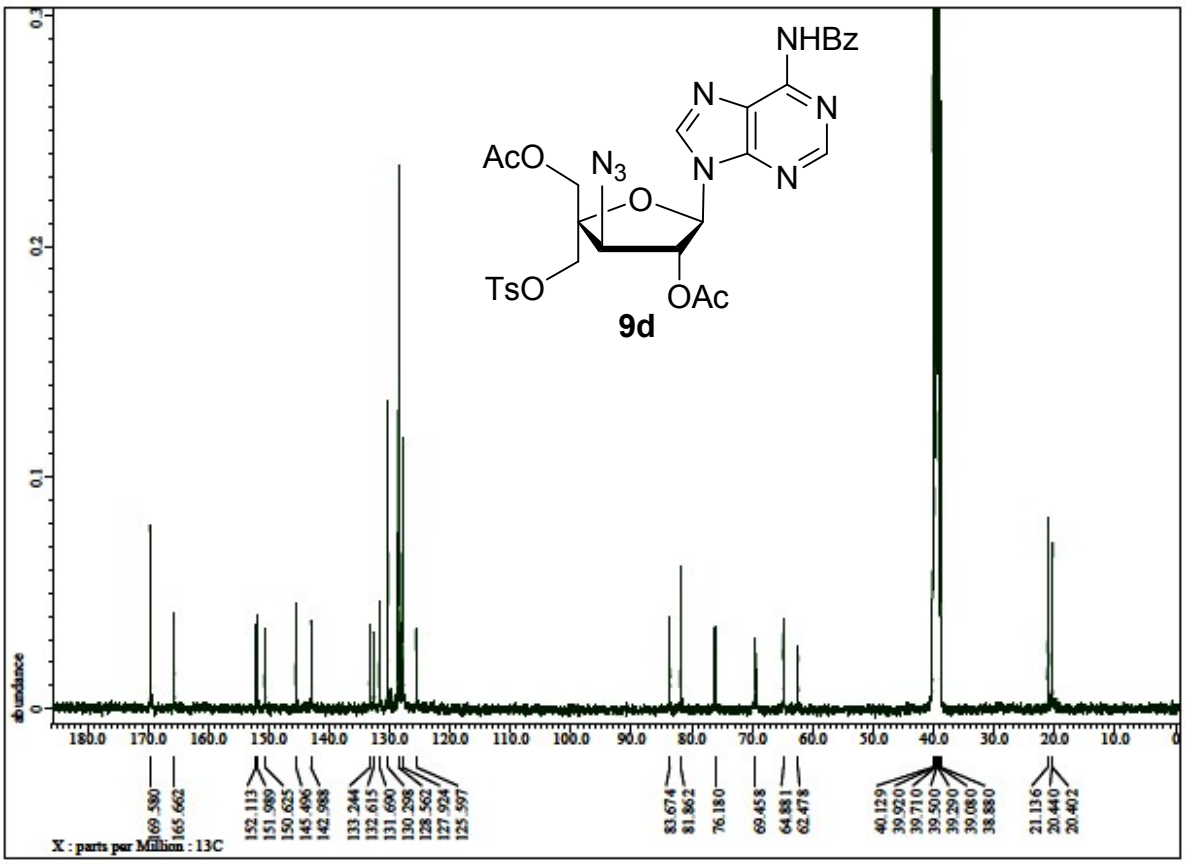
^{1}H- and ^{13}C-NMR spectra of compound 9c



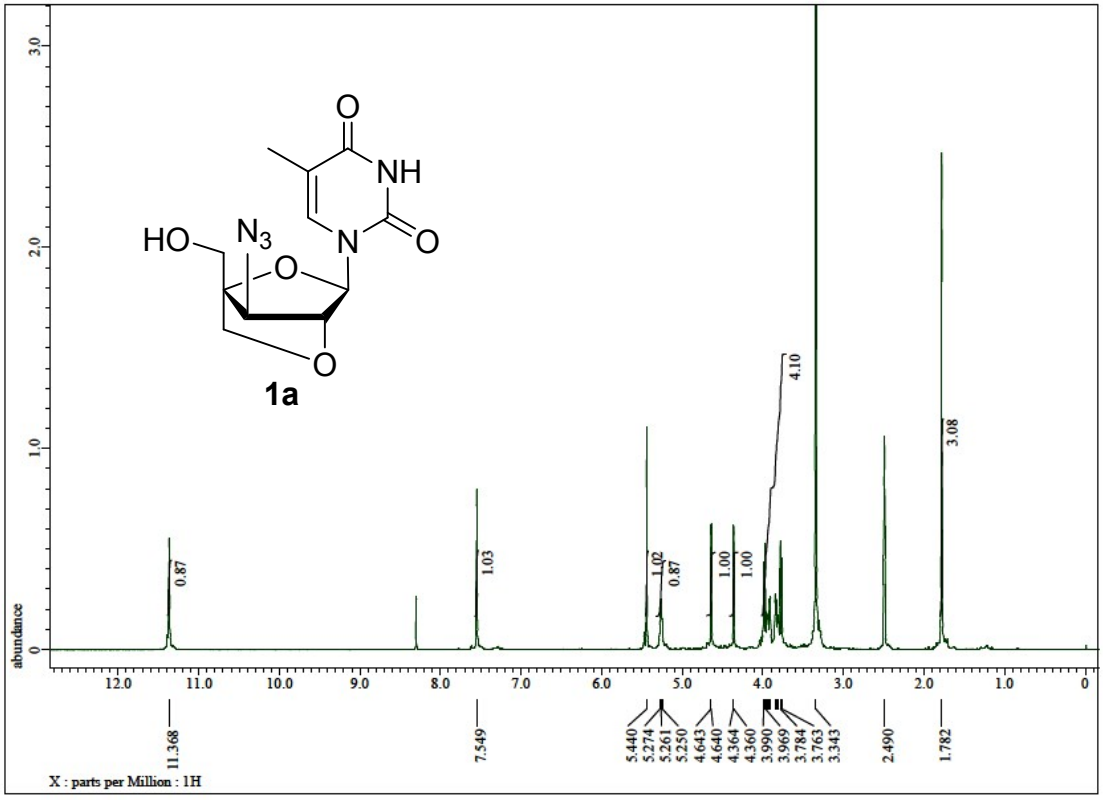


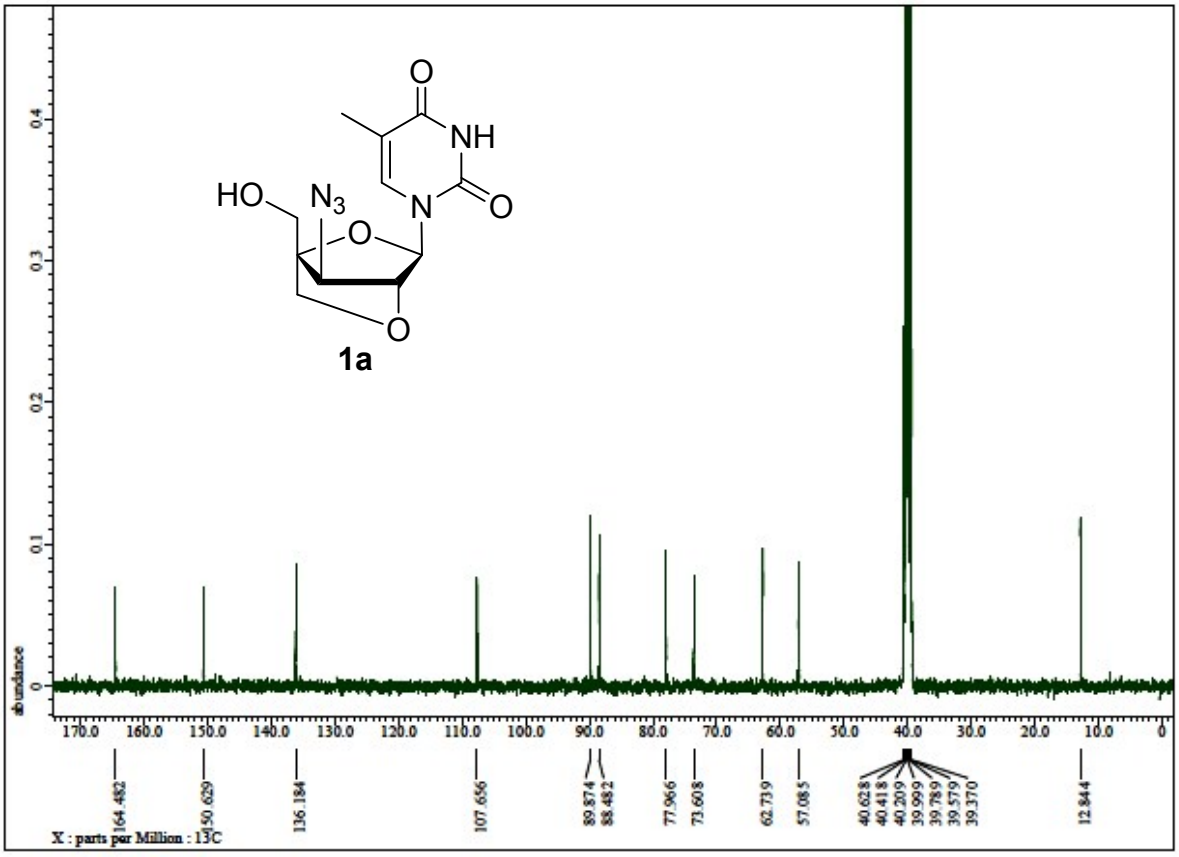
^{1}H- and ^{13}C- NMR spectra of compound 9d



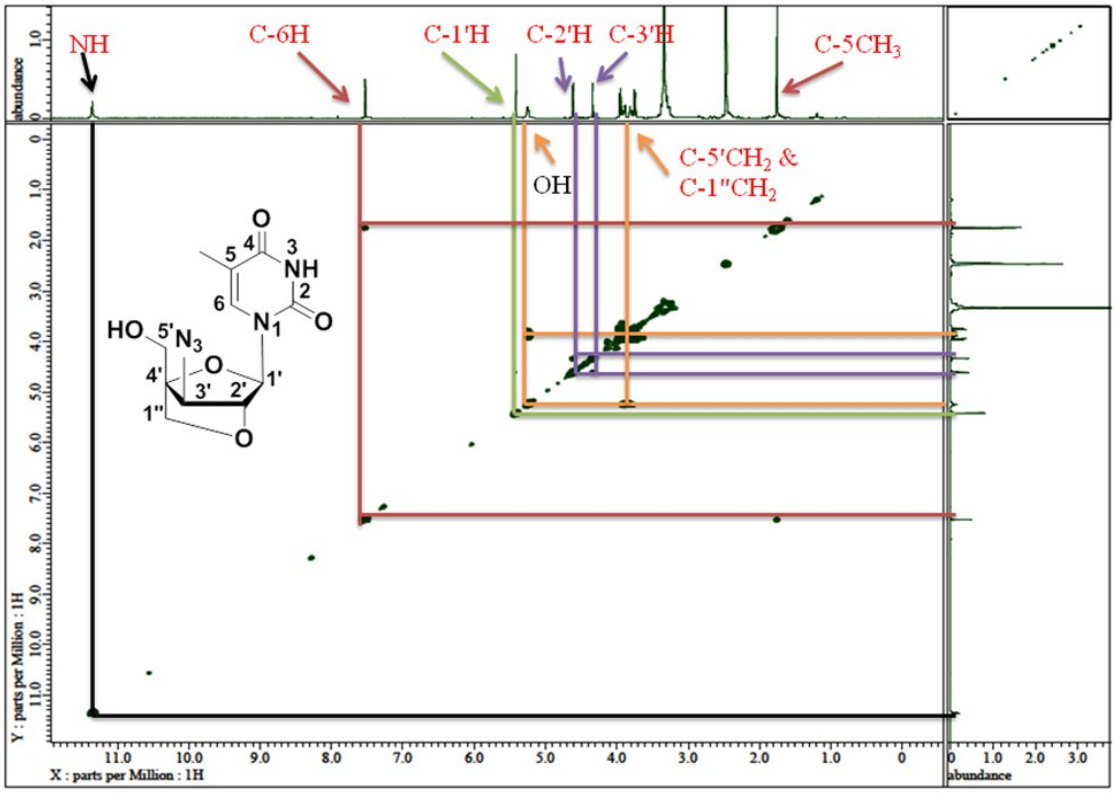


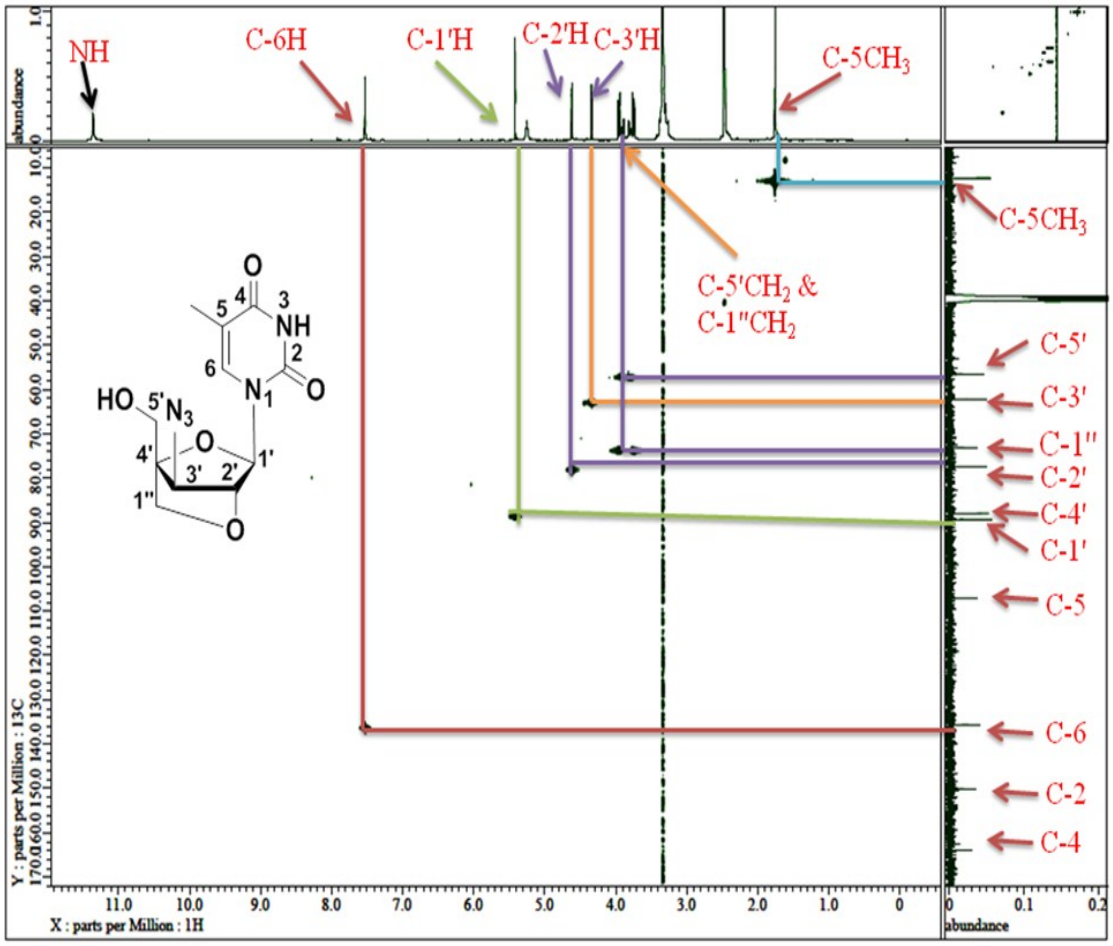
^{1}H- and ^{13}C-NMR spectra of compound 1a



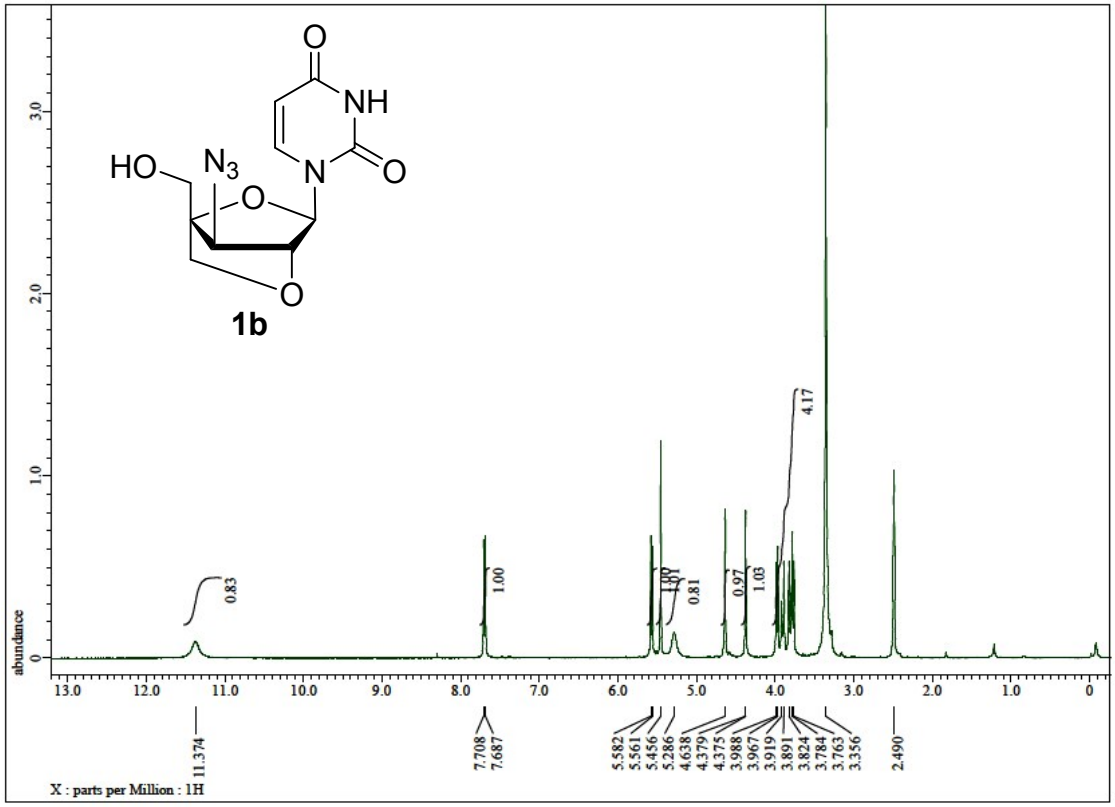


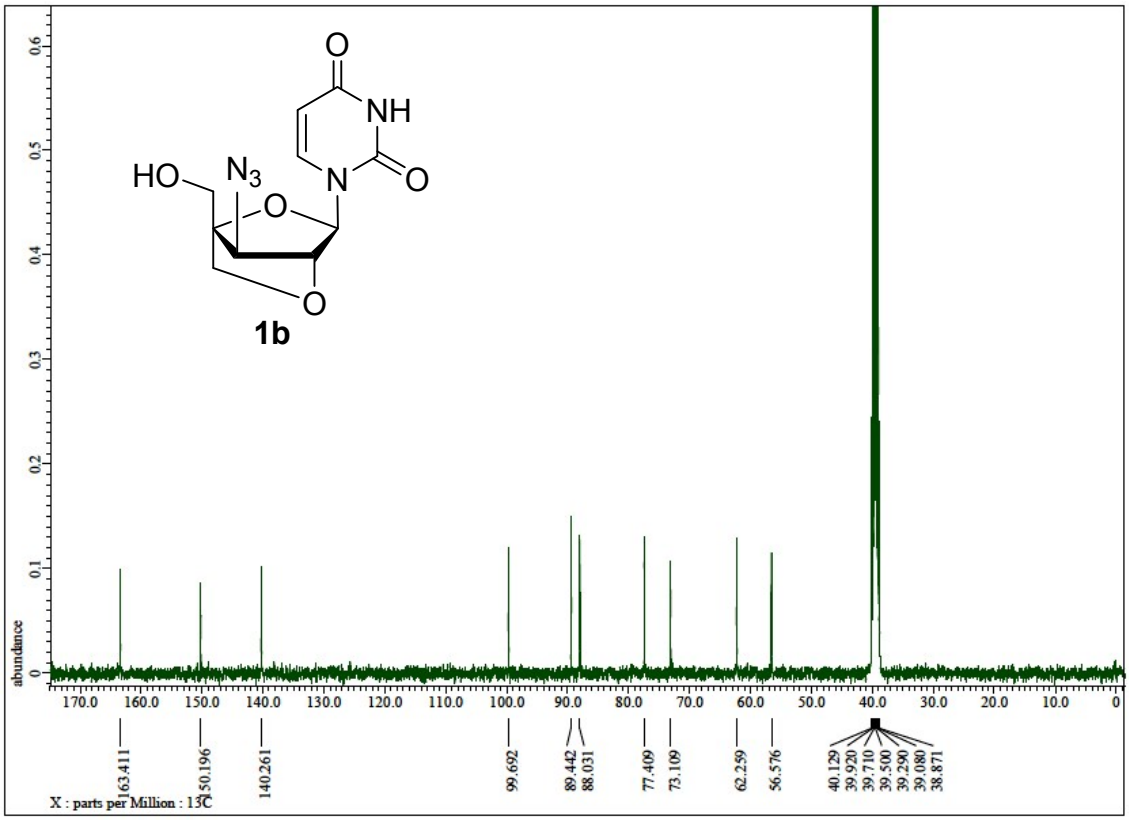
^{1}H-^{1}H COSY and ^{1}H-^{13}C HMQC NMR spectra of compound 1a



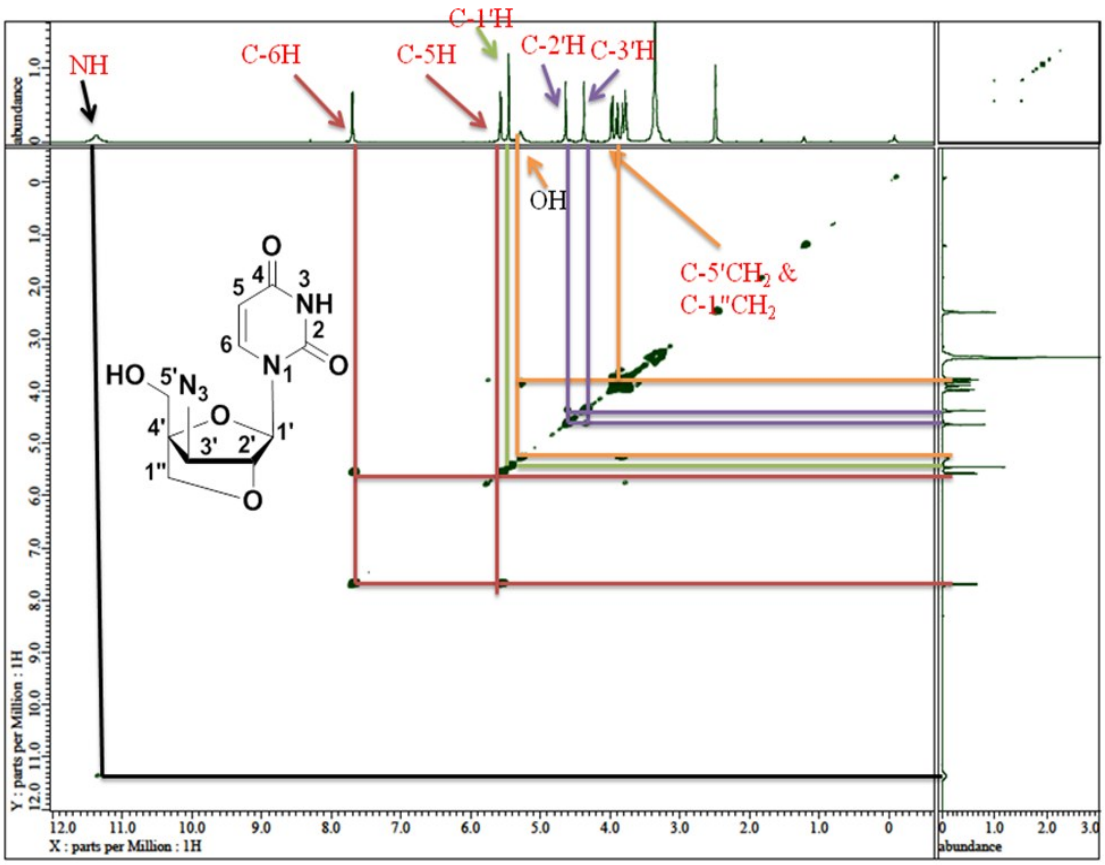


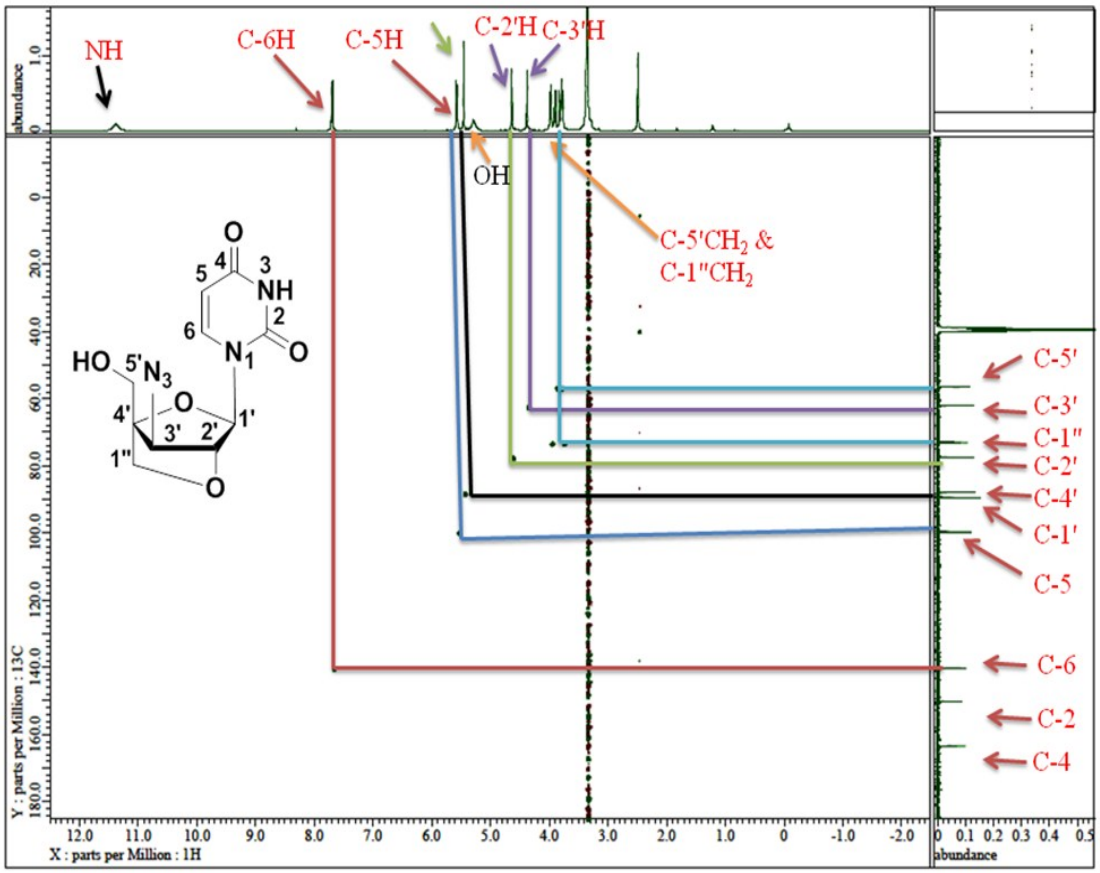
^{1}H- and ^{13}C-NMR spectra of compound 1b



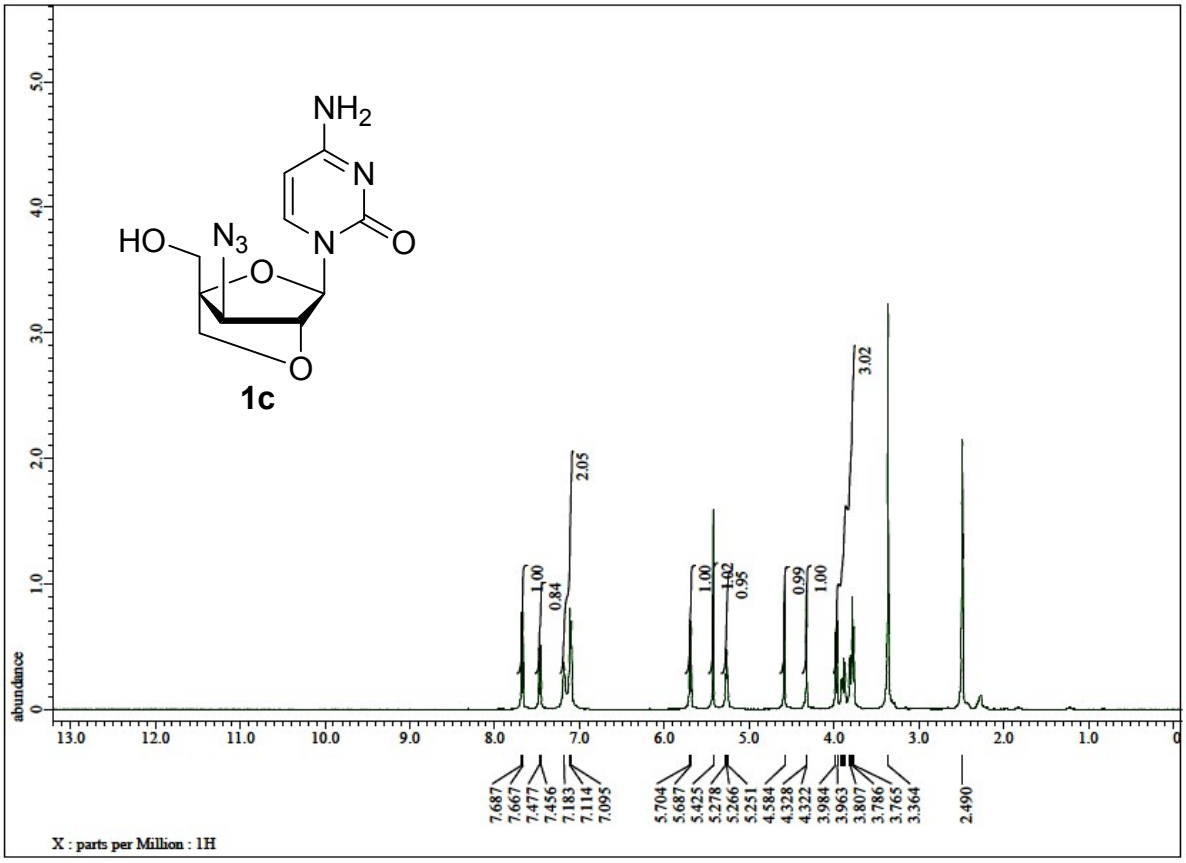


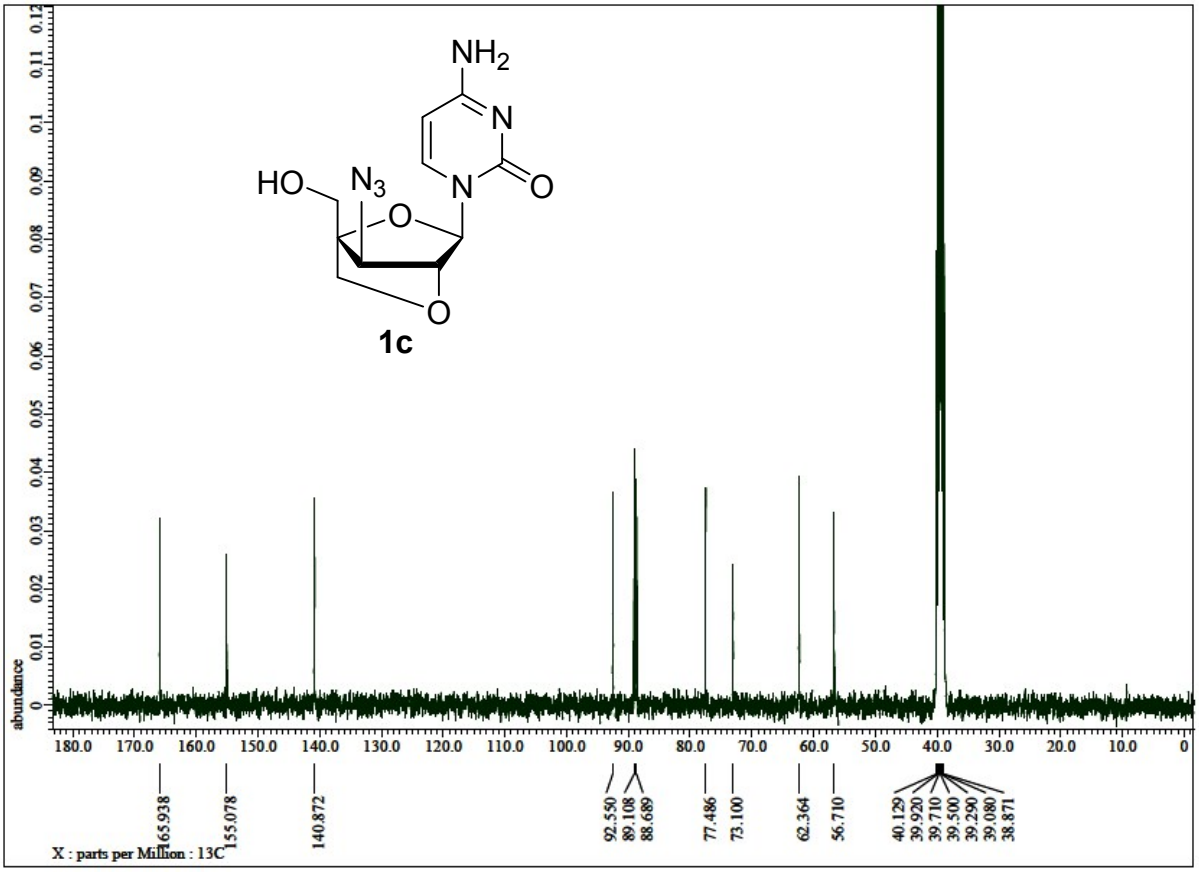
^{1}H-^{1}H COSY and ^{1}H-^{13}C HSQC NMR spectra of compound 1b



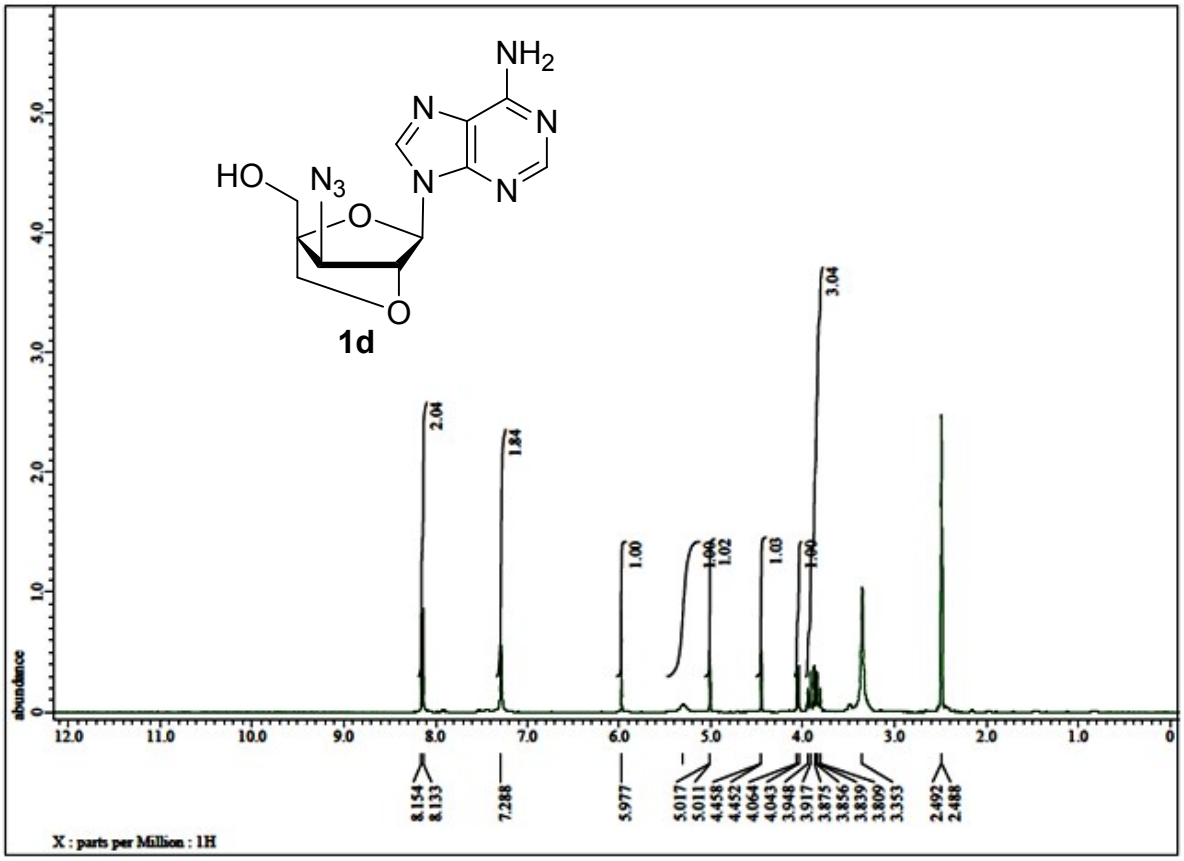


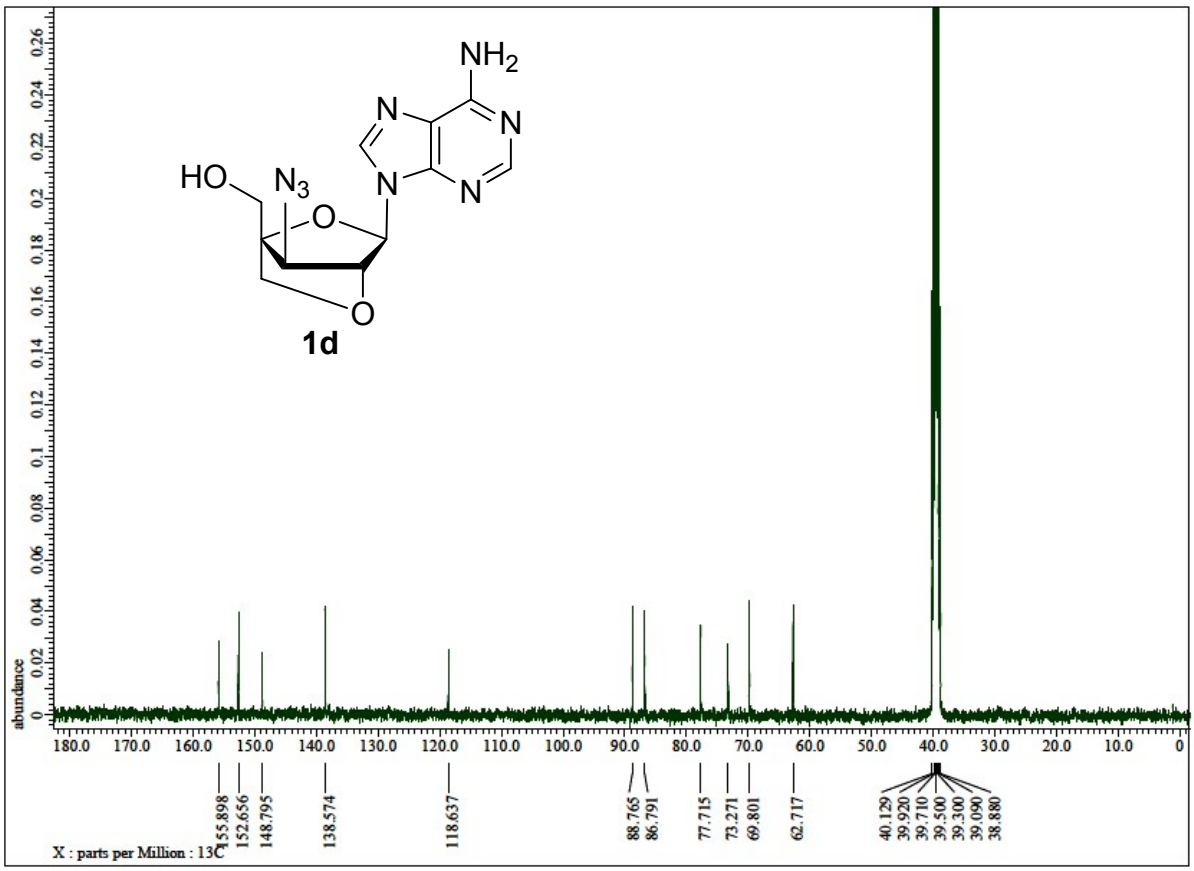
^{1}H- and ^{13}C-NMR spectra of compound 1c



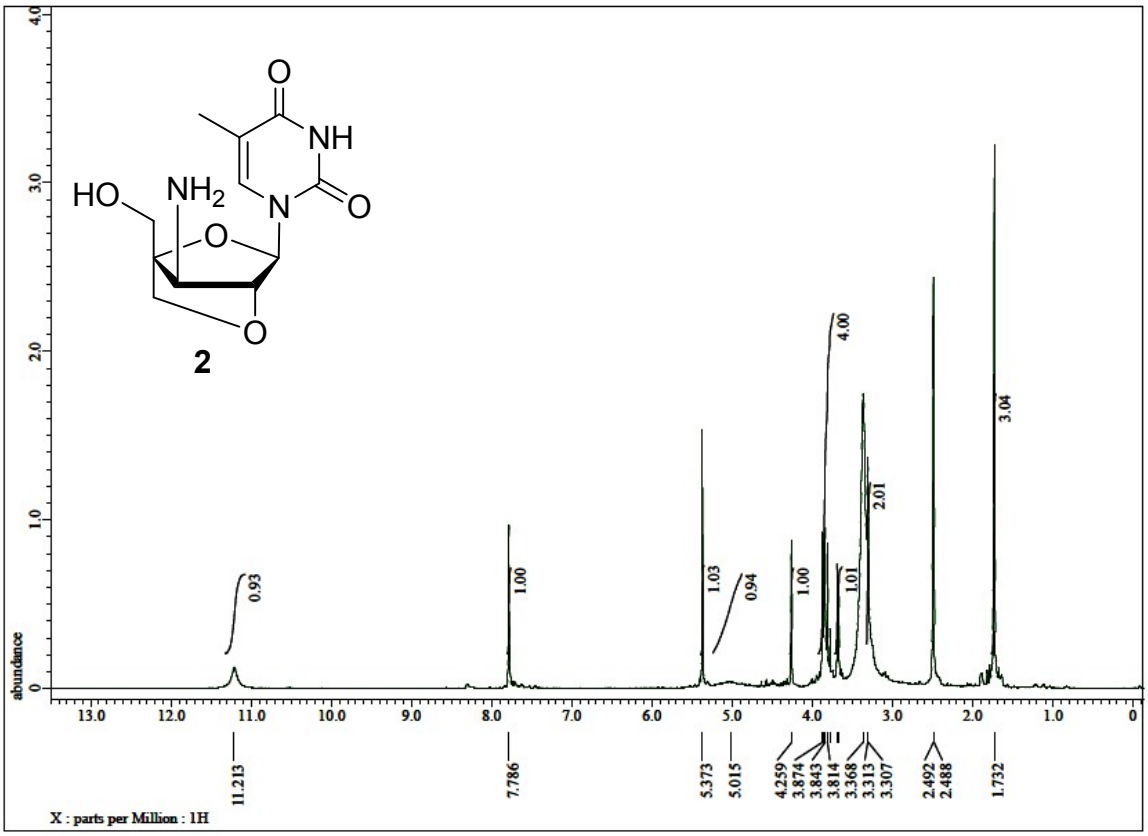


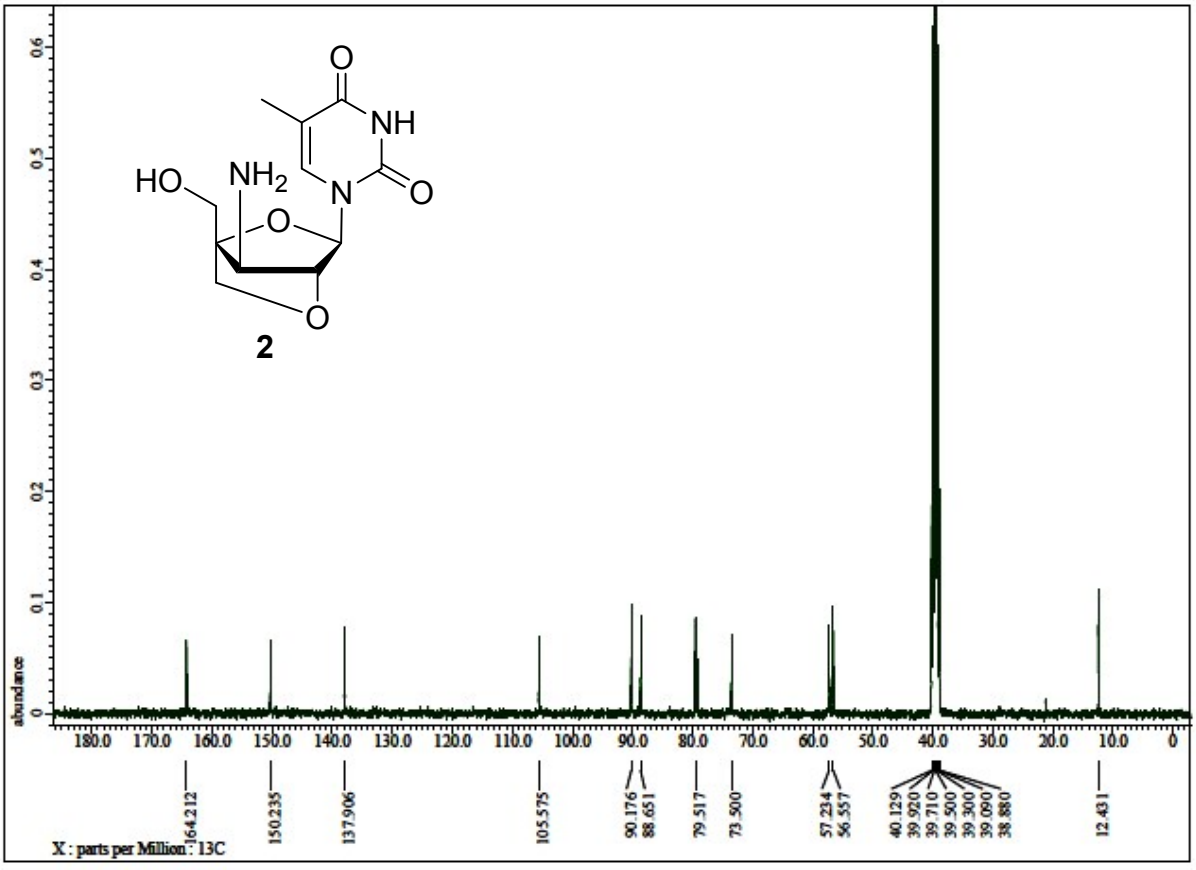
^{1}H- and ^{13}C-NMR spectra of compound 1d





^{1}H- and ^{13}C-NMR spectra of compound 2





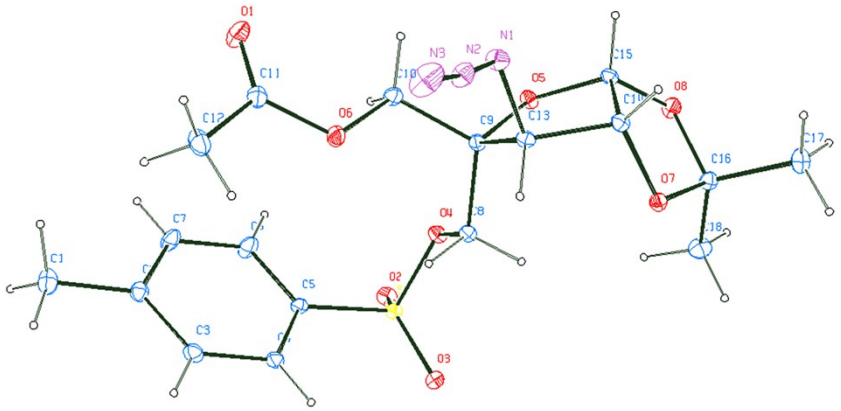


Figure S1. ORTEP diagram of tosylated sugar derivative **7**

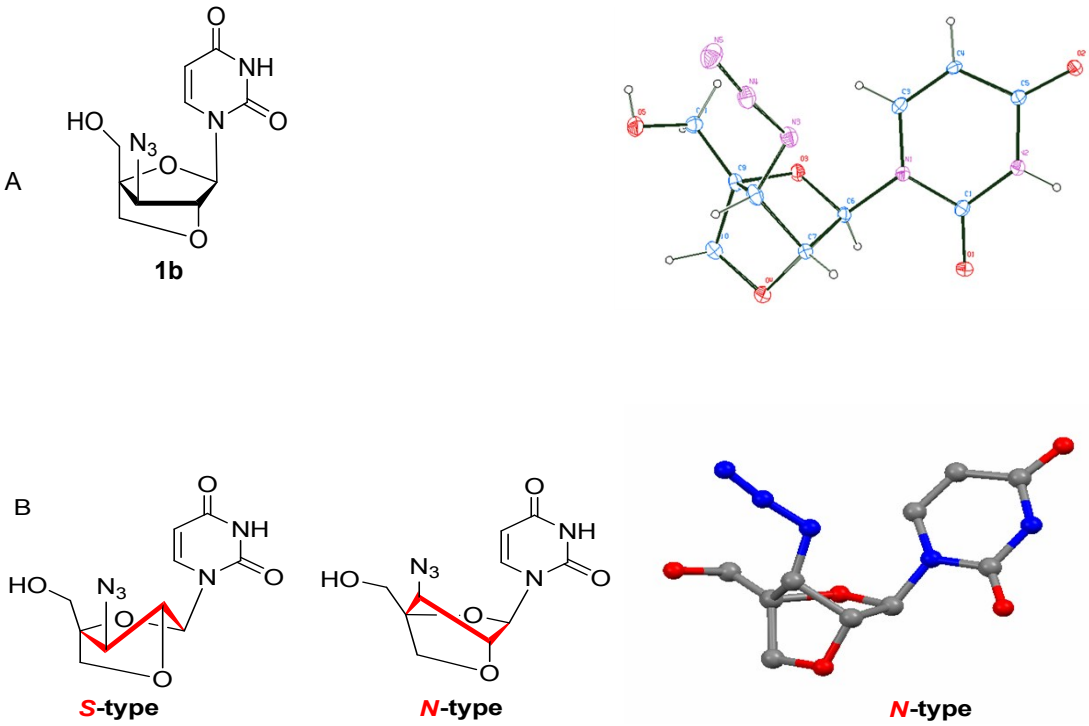


Figure S2. (A) ORTEP diagram of compound 3′-azido-*xylo*bicyclouridine **1b**; (B) Preferred *N*-type sugar puckering in compound **1b**

Table S1. Single crystal X-ray diffraction data of tosylated sugar derivative **7** and 3′-azido-3′-deoxy-2′-*O*,4′-*C*-methylene-*xylo*uridine (**1b**).

	Compound 7	**Compound 1b**
Empirical formula	$C_{18}H_{23}N_3O_8S$	$C_{10}H_{11}N_5O_5$
Formula weight	441.45	281.24
Temperature	293(2) K	293(2) K
Crystal system	Monoclinic	Monoclinic
Space group	P 21	P 21
Unit cell dimensions	a = 9.9041 (10) Å α = 90°	a = 6.5121(16)Å α = 90°
	b = 10.0867(9) Å β = 94.617(8)°	b = 6.8206(14) Å β = 93.72(3)°
	c = 10.6948(9) Å γ = 90°	c = 13.045(4) Å γ = 90°
Volume	1064.94(17) Å^3	578.2(3) Å^3
Z	2	2
Density	1.377 mg/m^3	1.615 mg/m^3
Absorption coefficient	0.201 mm^{-1}	0.132 mm^{-1}
F(000)	464	292
Index ranges	-12<=h<=12, -13<=k<=13, -14<=l<=14	-6<=h<=7, -7<=k<=8, -15<=l<=15
R(int)	0.0307	0.0518
GOF on F^2	0.839	0.911
Final R indices	R1 = 0.0496	R1 = 0.0652
I>2sigma(I)	wR2 = 0.1339	wR2 = 0.1776
R indices	R1 = 0.0711	R1 = 0.0867
All data	wR2 = 0.1647	wR2 = 0.2016
CCDC	**1414989**	**1420474**