Supporting Information

Synthesis of Thioglycoside Analogues of Maradolipid

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Crystal structure analysis of 7

The compound **7** was crystallized from methanol at -15 °C. A clear prism of $C_{36}H_{86}O_{10}SSi_8$ having approximate dimensions of 0.781 mm×0.320mm×0.272mm was chosen. Data were collected at ambient temperature. A semi-empirical absorption correction based on redundant reflections was performed by the program SADABS [X-1]. The structure was solved by direct methods using SHELXS-97 [X-2] and refined by full matrix least-squares on F2 for all data using SHELXL-97 [X-2]. Hydrogen atoms were added at calculated positions and refined using a riding model. Their isotropic thermal displacement parameters were fixed to 1.2 times (1.5 times for methyl groups) the equivalent one of the parent atom. Anisotropic thermal displacement parameters were used for all non-hydrogen atoms. Further refinement details are compiled in the Table below.

[X-1] Sheldrick, G. M. (1996). SADABS. University of Göttingen, Germany.

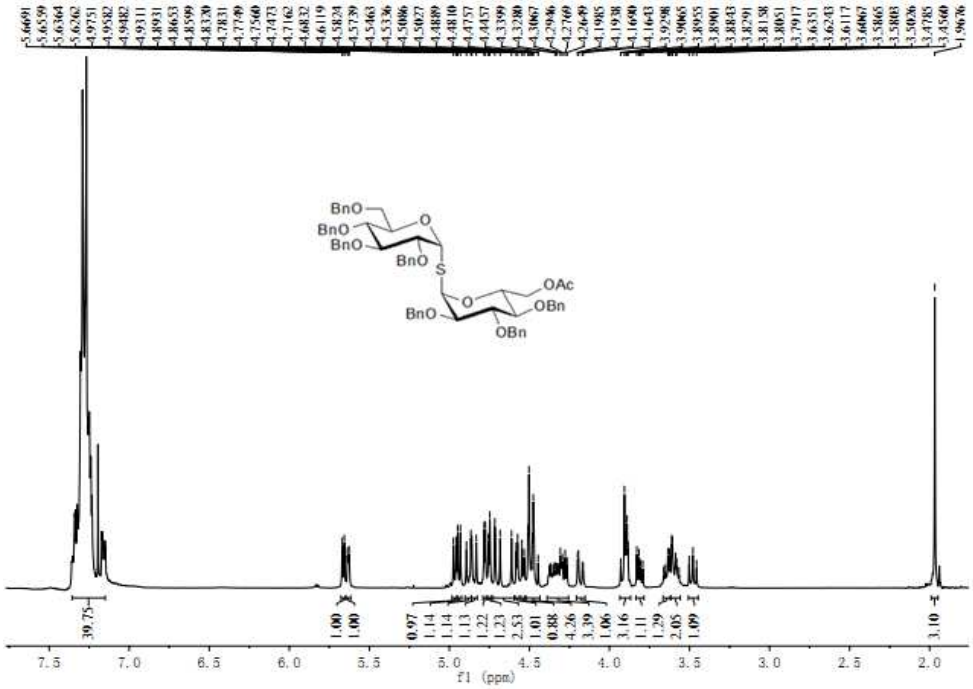
[X-2] Sheldrick, G. M. (2008). *Acta Cryst.* A**64**, 112-122.

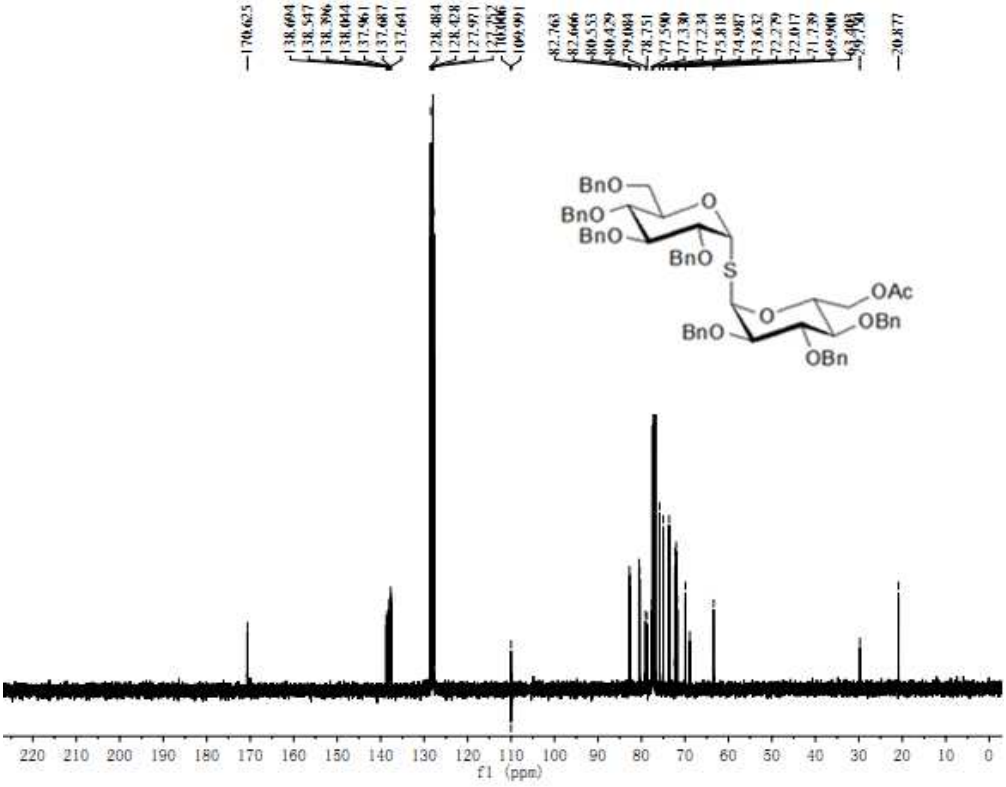
Crystal data and structure refinement for 1-thiotrehalose **7**:

Identification code	a	
Empirical formula	$C_{36}H_{86}O_{10}SSi_8$	
Formula weight	933.81	
Temperature	293(2) K	
Wavelength	0.71073 Å	
Crystal system	Monoclinic	
Space group	P 21	
Unit cell dimensions	a = 13.0314(3) Å	α= 90°.
	b = 19.7442(6) Å	β= 116.922(1)°.
	c = 13.2272(3) Å	γ = 90°.

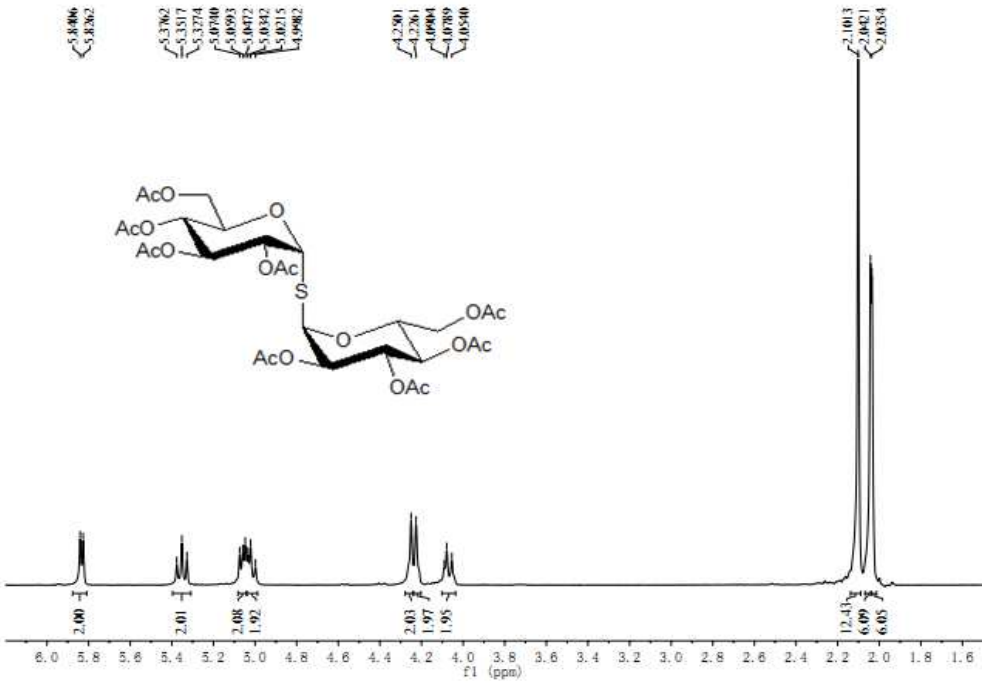
Volume	3034.45(13) $Å^3$
Z	2
Density (calculated)	1.022 Mg/m^3
Absorption coefficient	0.251 mm^{-1}
F(000)	1016
Crystal size	.781 x .320 x .272 mm^3
Theta range for data collection	2.01 to 25.00°.
Index ranges	-15<=h<=15, -23<=k<=23, -15<=l<=15
Reflections collected	22245
Independent reflections	10394 [R(int) = 0.0630]
Completeness to theta = 25.00°	99.7 %
Absorption correction	Empirical
Max. and min. transmission	.934 and .908
Refinement method	Full-matrix least-squares on F^2
Data / restraints / parameters	10394 / 1 / 479
Goodness-of-fit on F^2	1.682
Final R indices [I>2sigma(I)]	R1 = 0.0990, wR2 = 0.2428
R indices (all data)	R1 = 0.1575, wR2 = 0.2589
Absolute structure parameter	0.00(18)
Largest diff. peak and hole	0.565 and -1.535 $e.Å^{-3}$

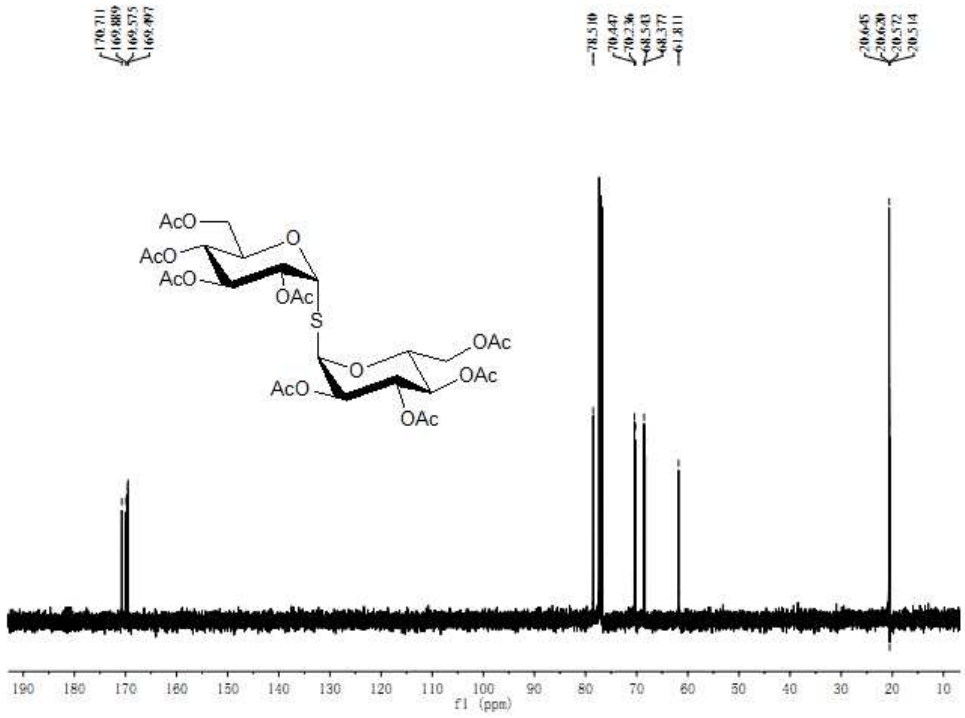
^{1}H NMR and ^{13}C NMR spectra of compound 5



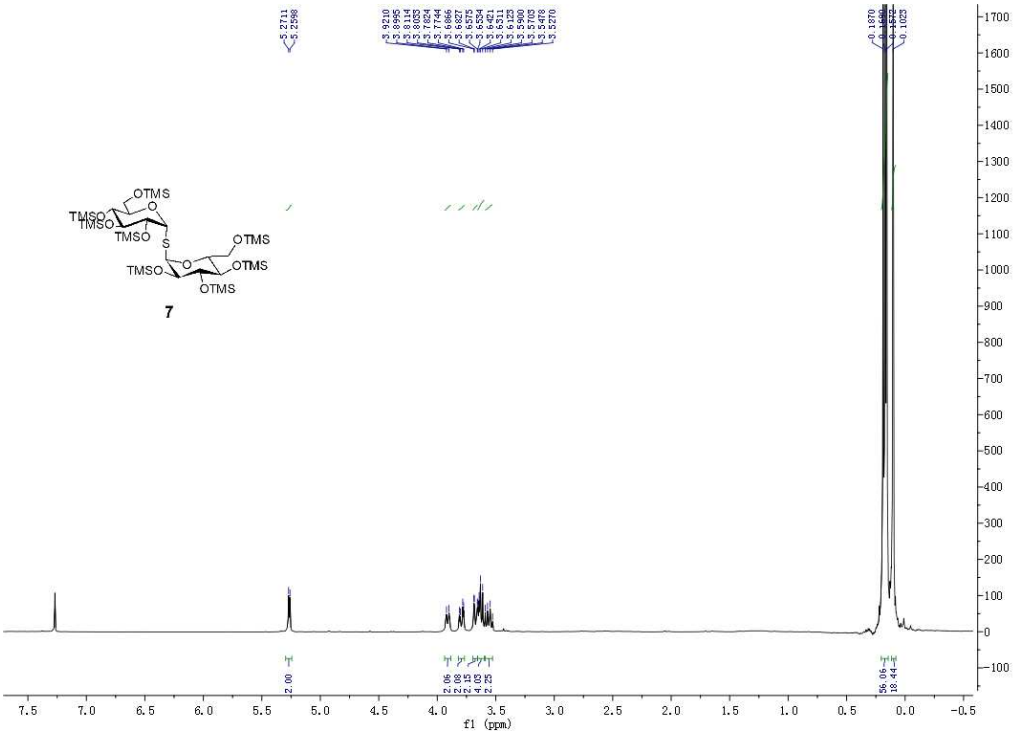


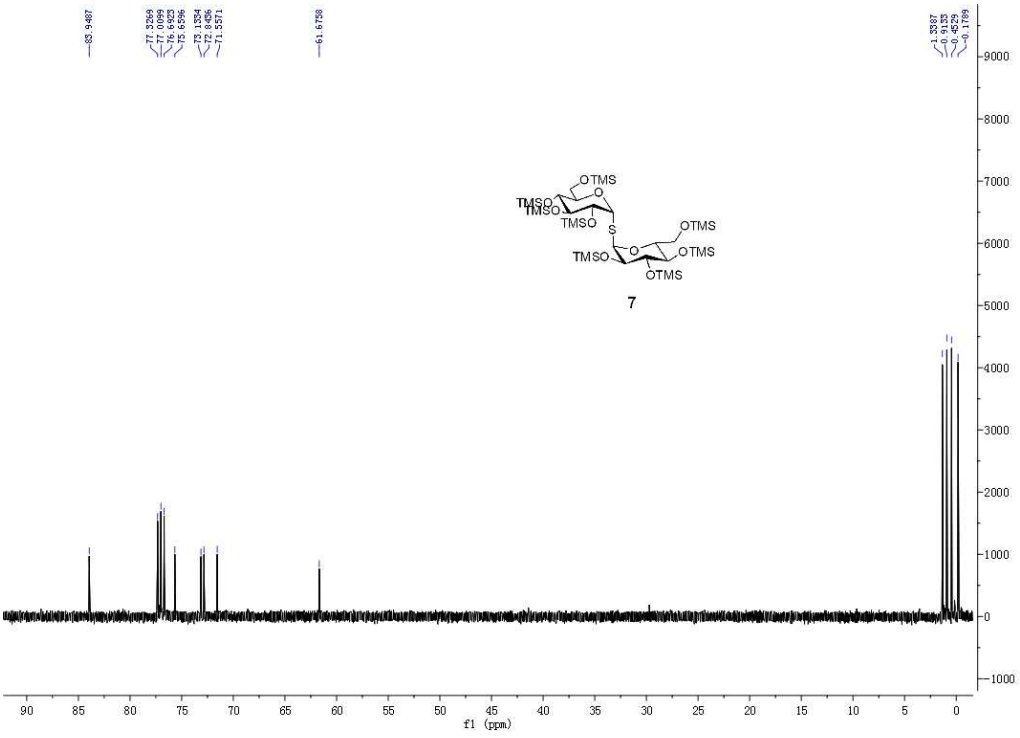
^{1}H NMR and ^{13}C NMR spectra of compound 6



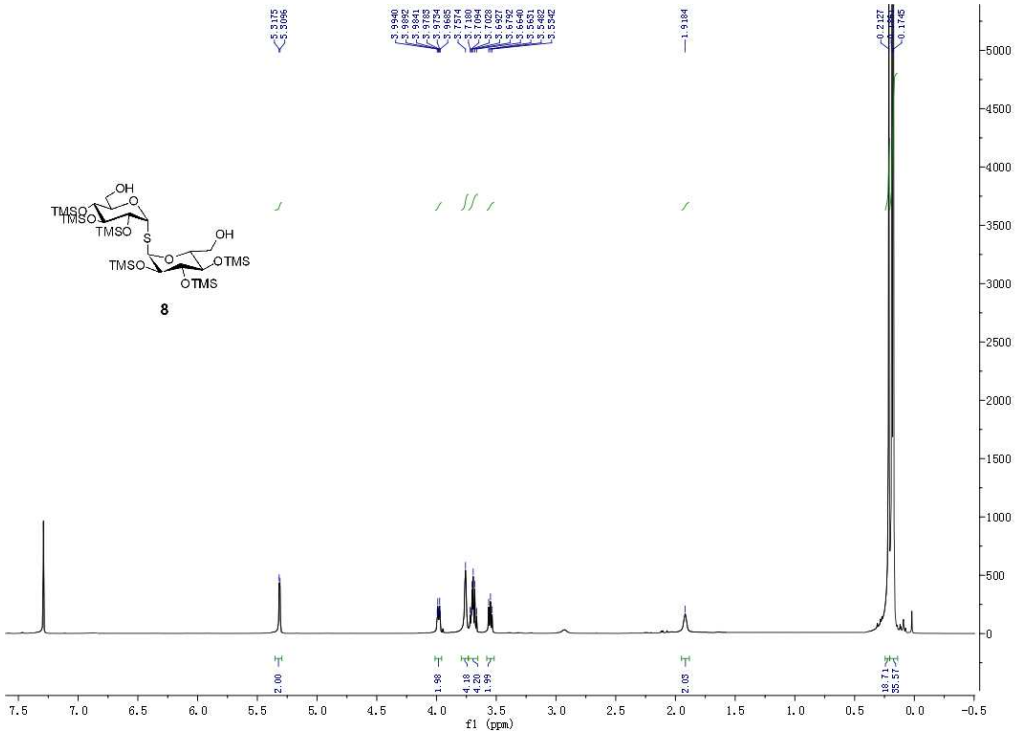


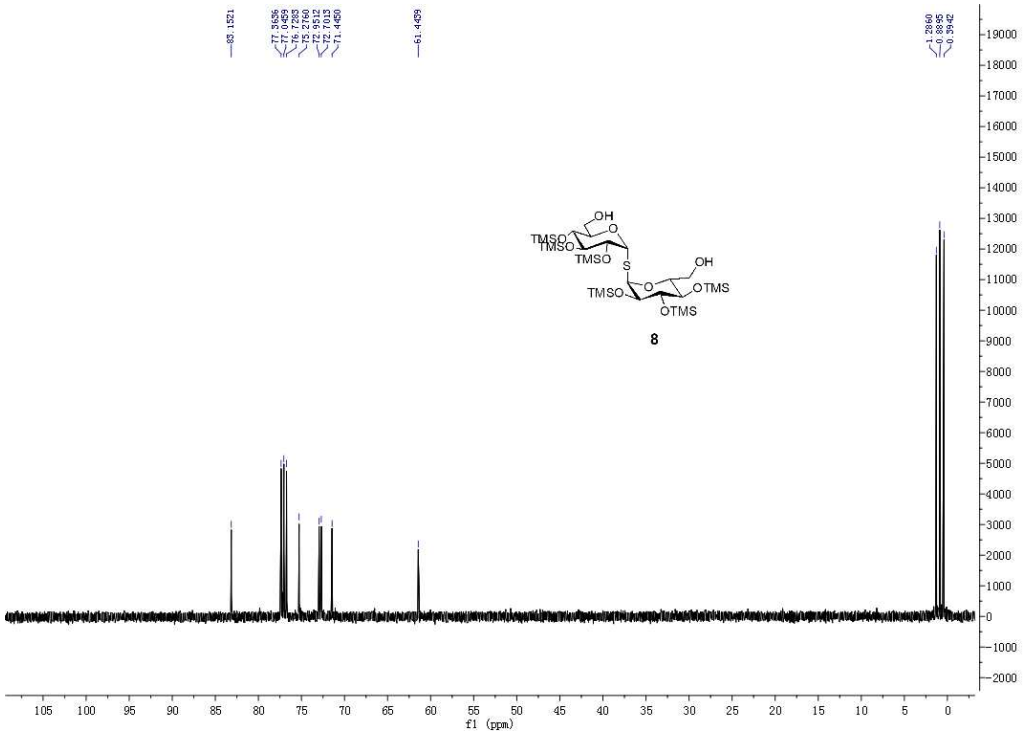
^{1}H NMR and ^{13}C NMR spectra of compound 7



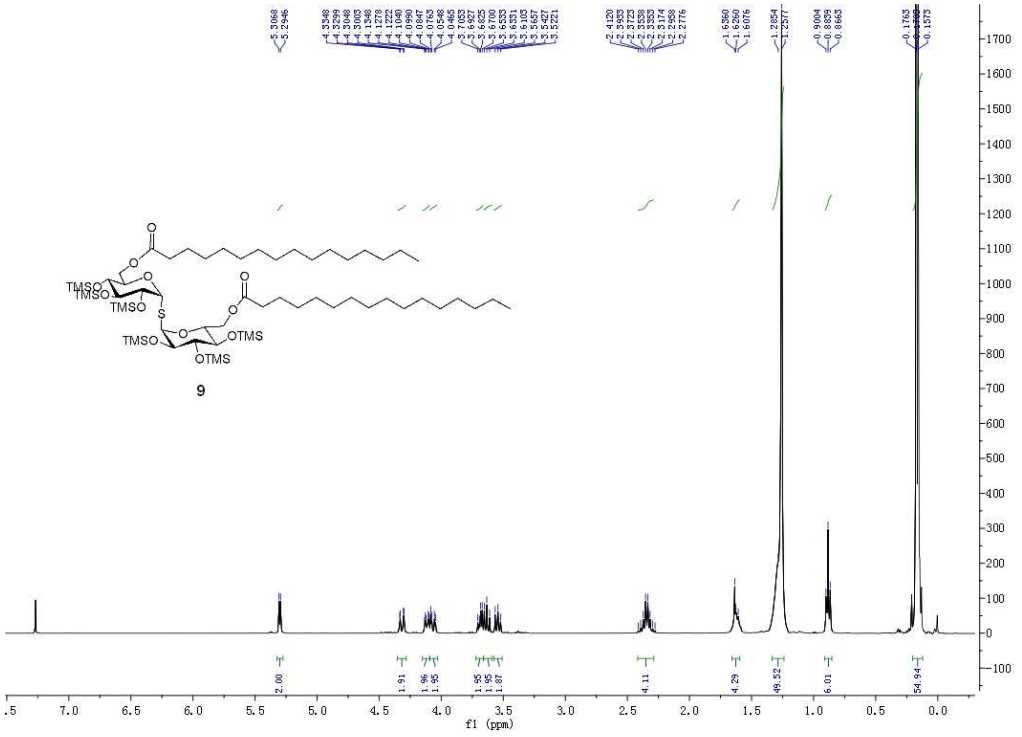


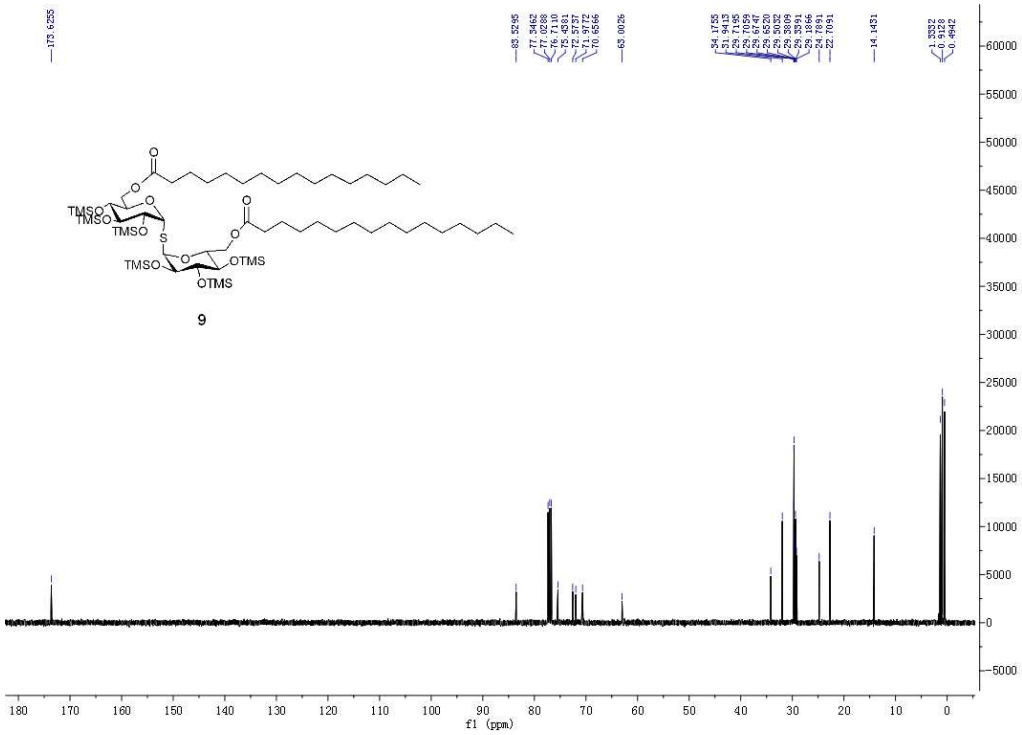
^{1}H NMR and ^{13}C NMR spectra of compound 8



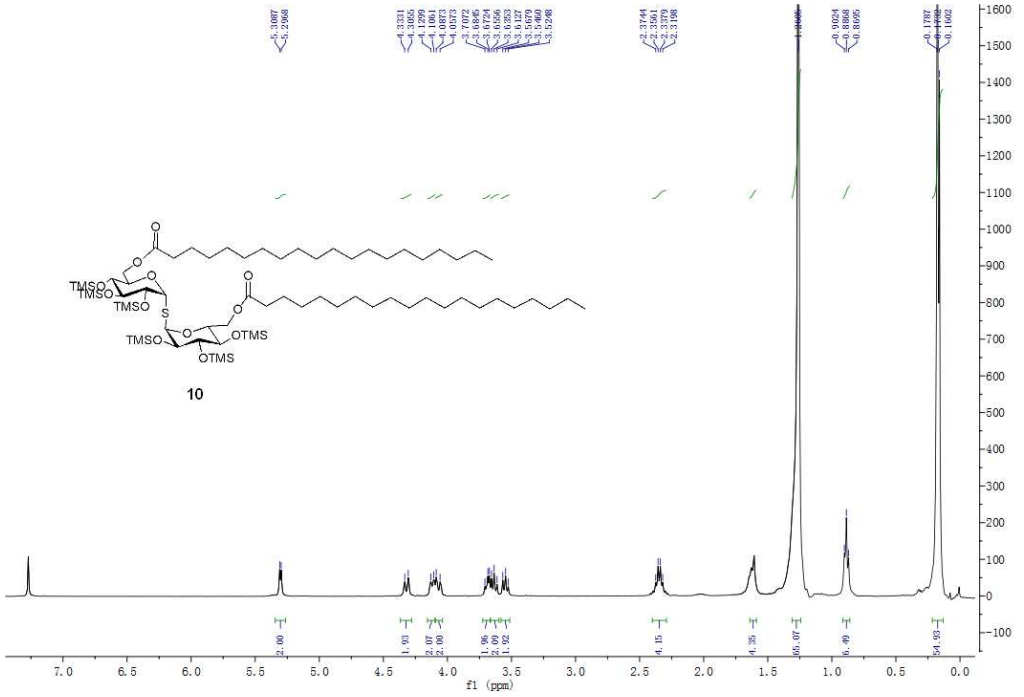


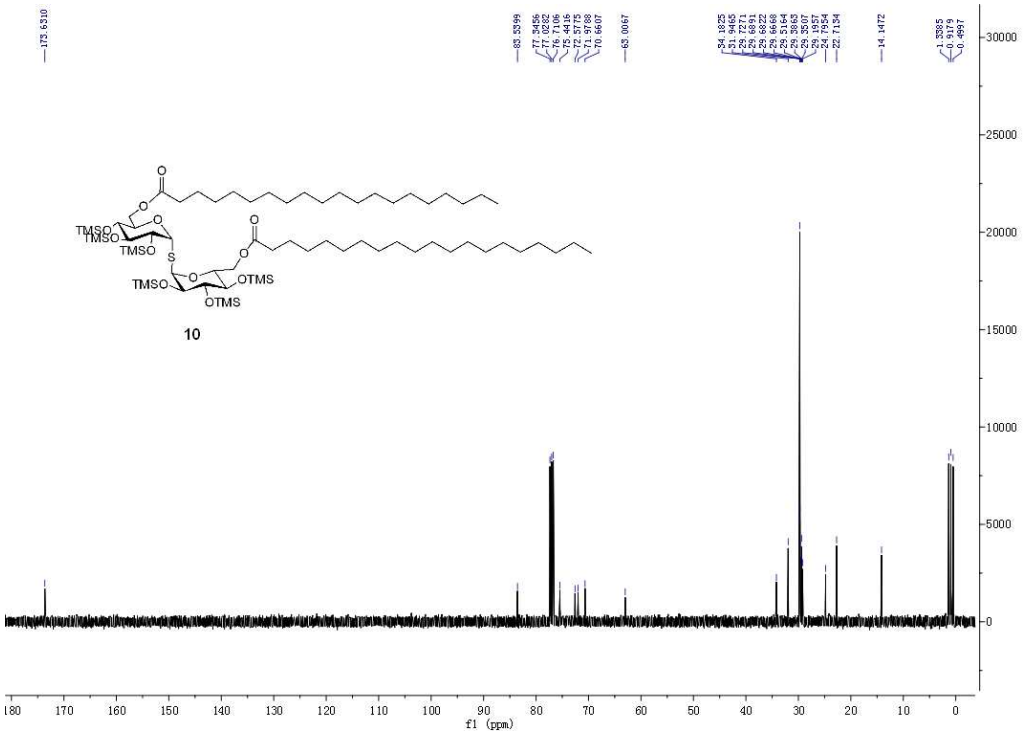
^{1}H NMR and ^{13}C NMR spectra of compound 9



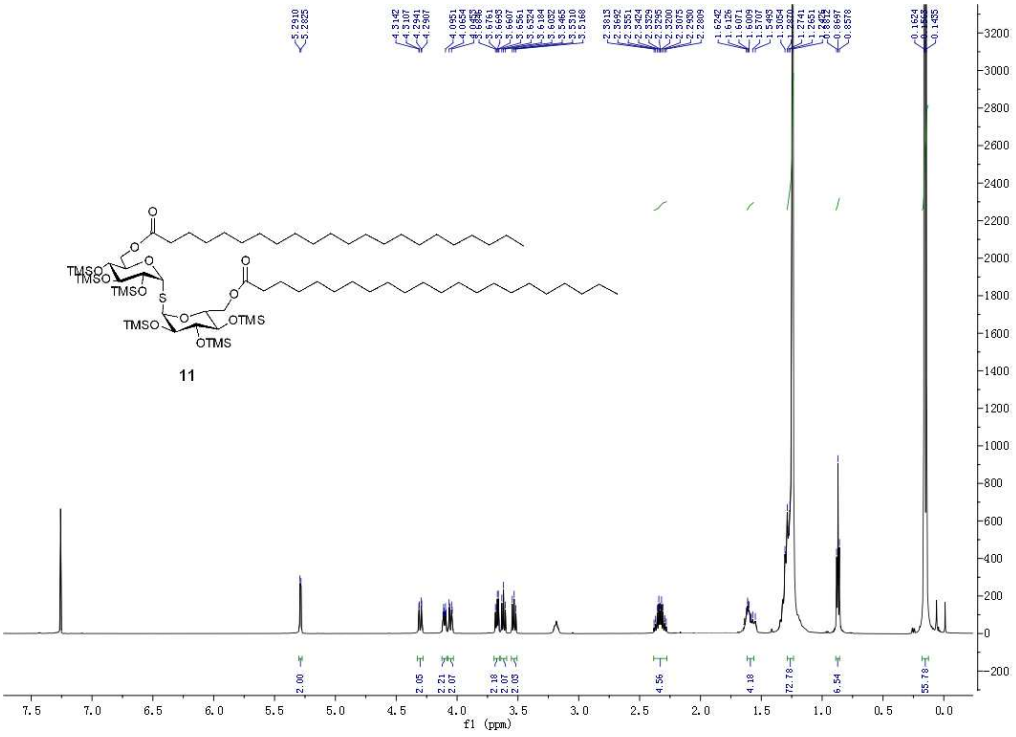


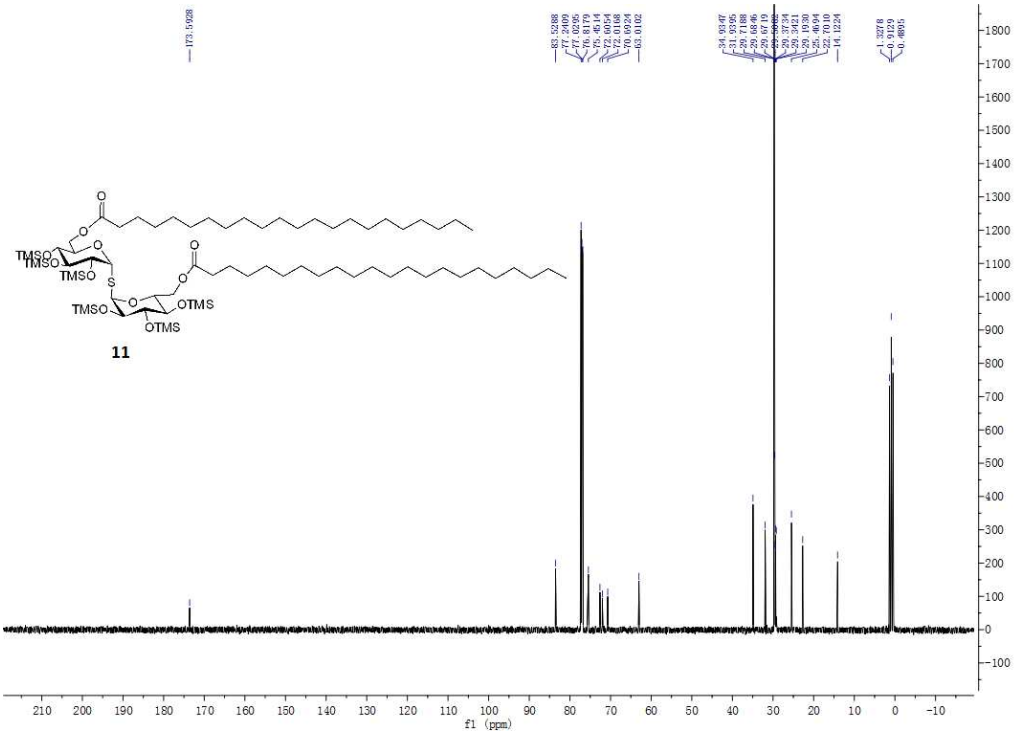
^{1}H NMR and ^{13}C NMR spectra of compound 10



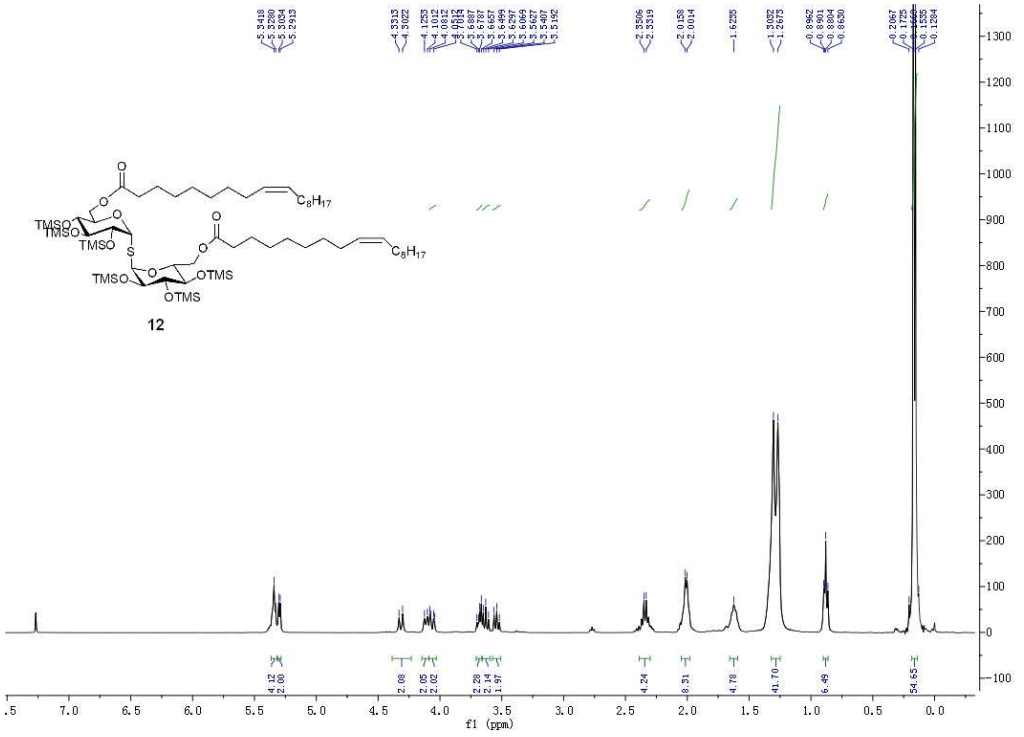


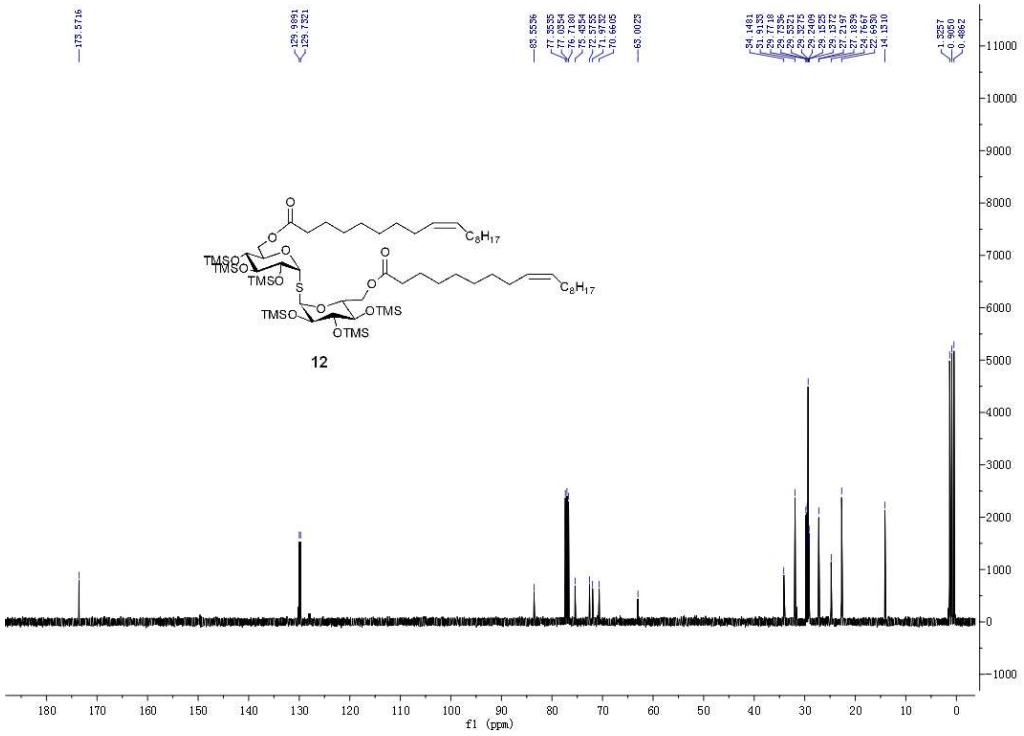
^{1}H NMR and ^{13}C NMR spectra of compound 11



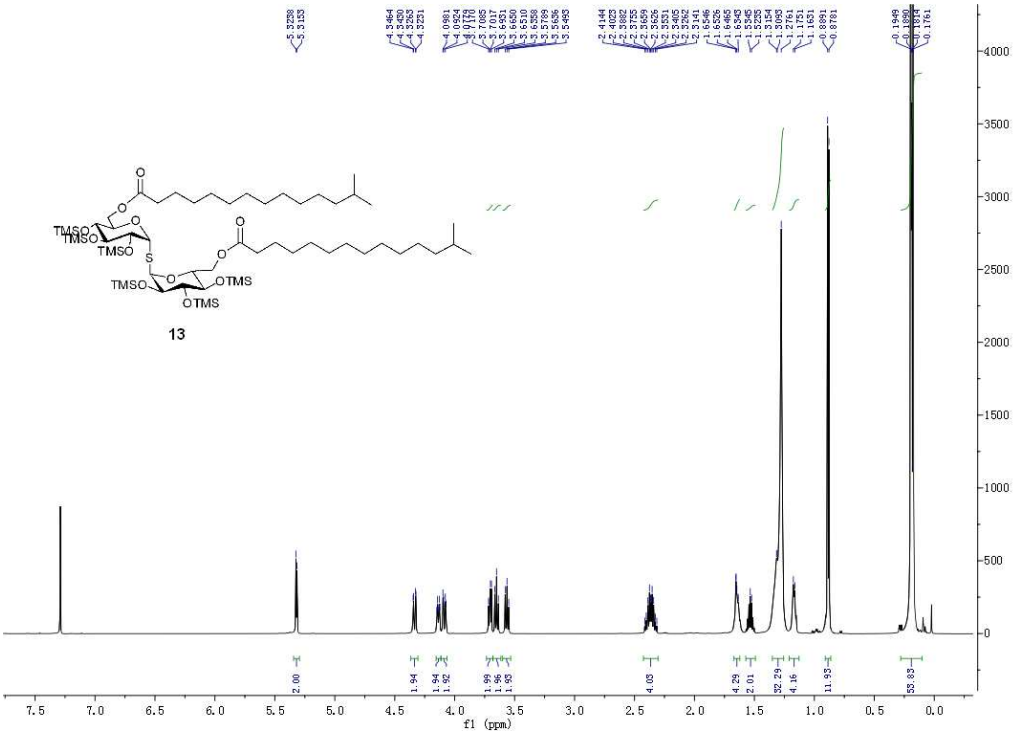


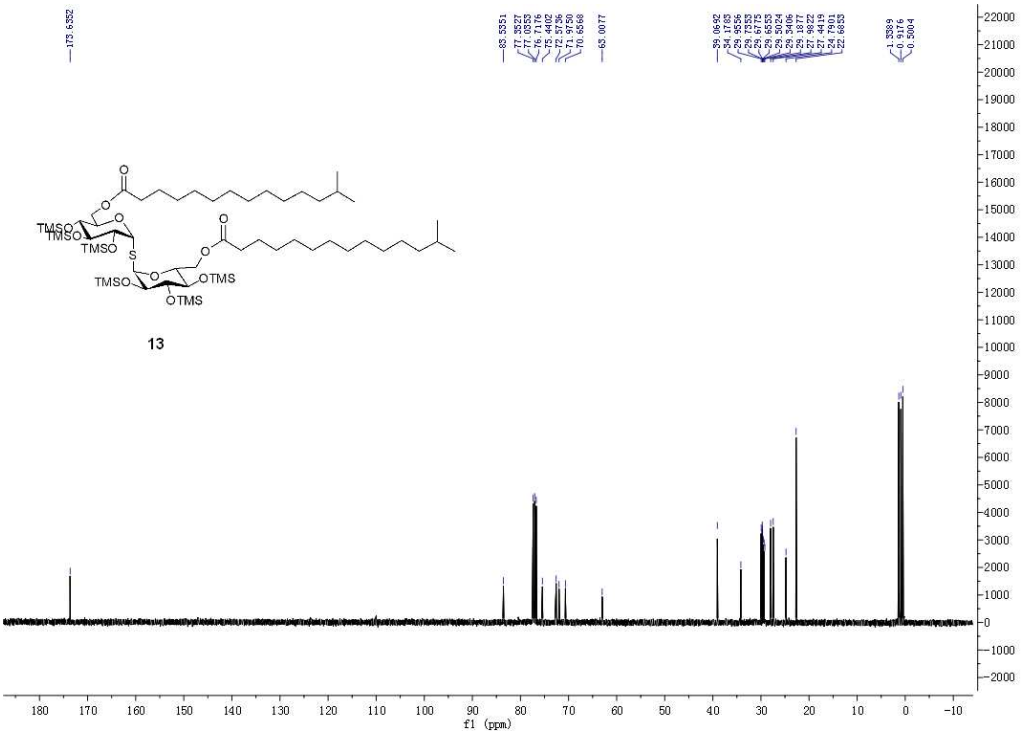
^{1}H NMR and ^{13}C NMR spectra of compound 12



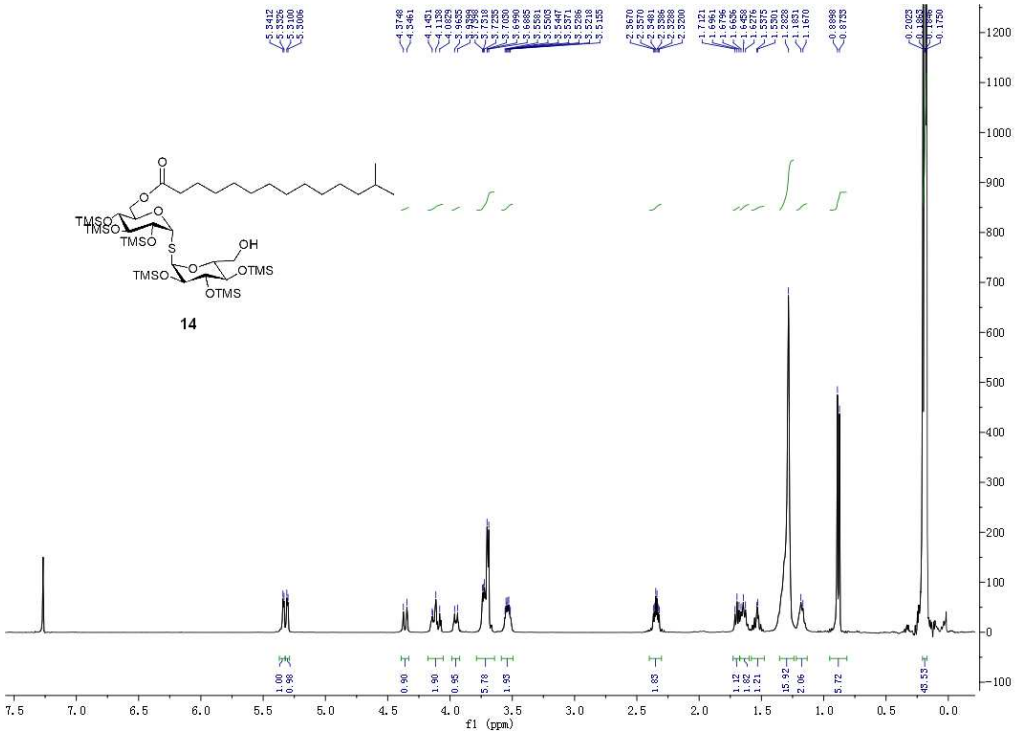


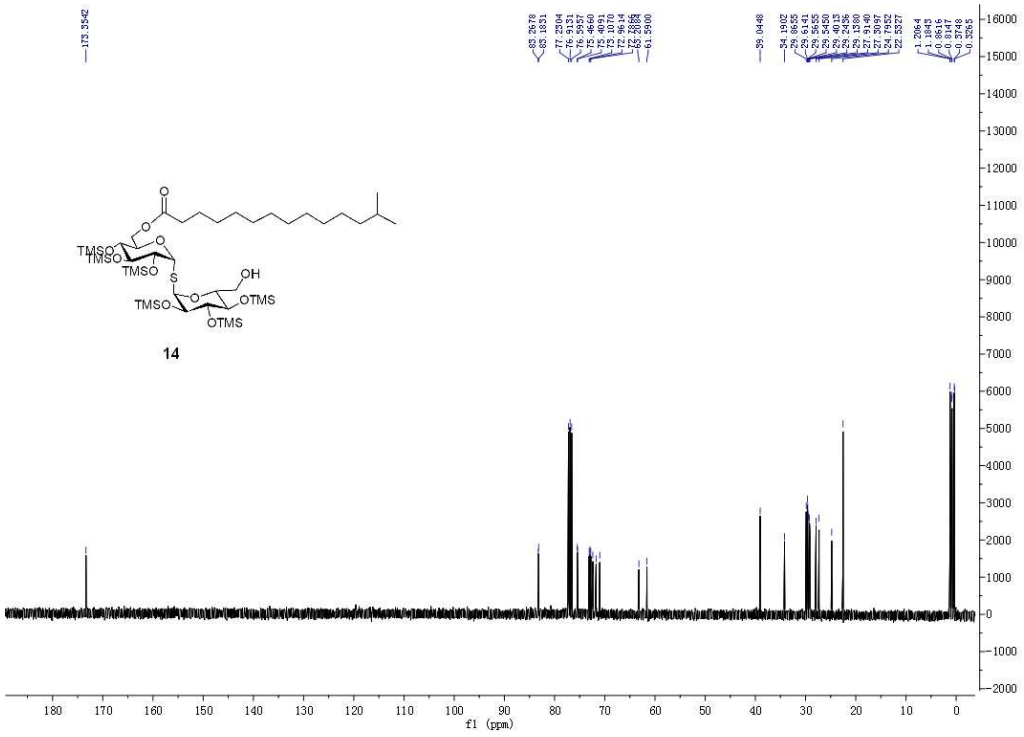
^{1}H NMR and ^{13}C NMR spectra of compound 13



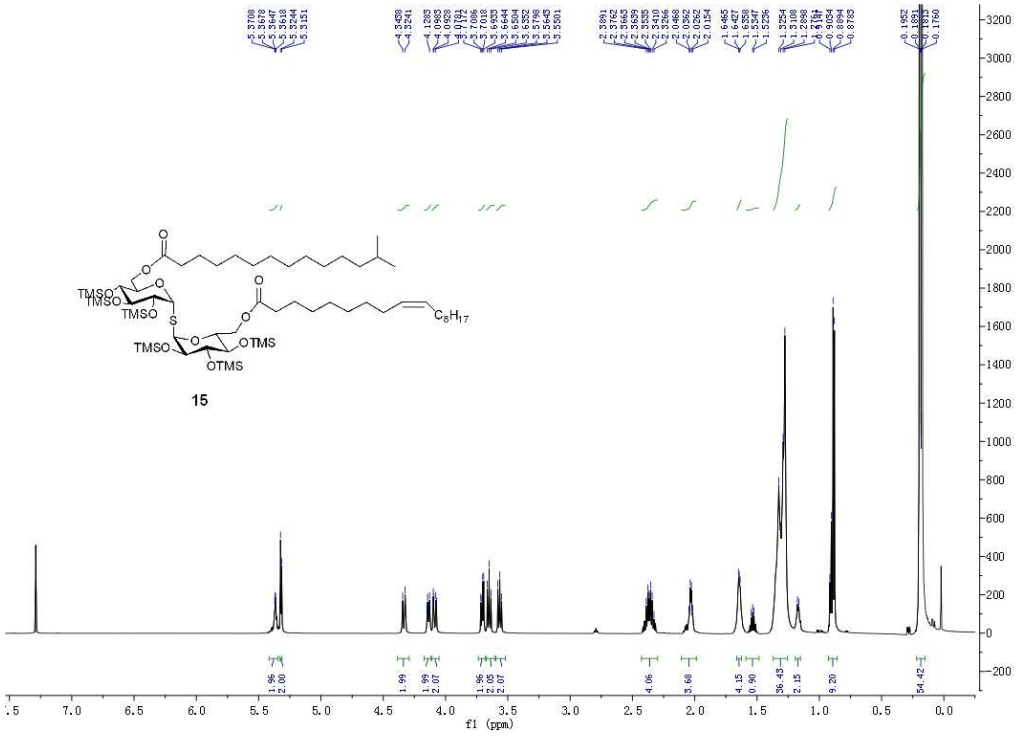


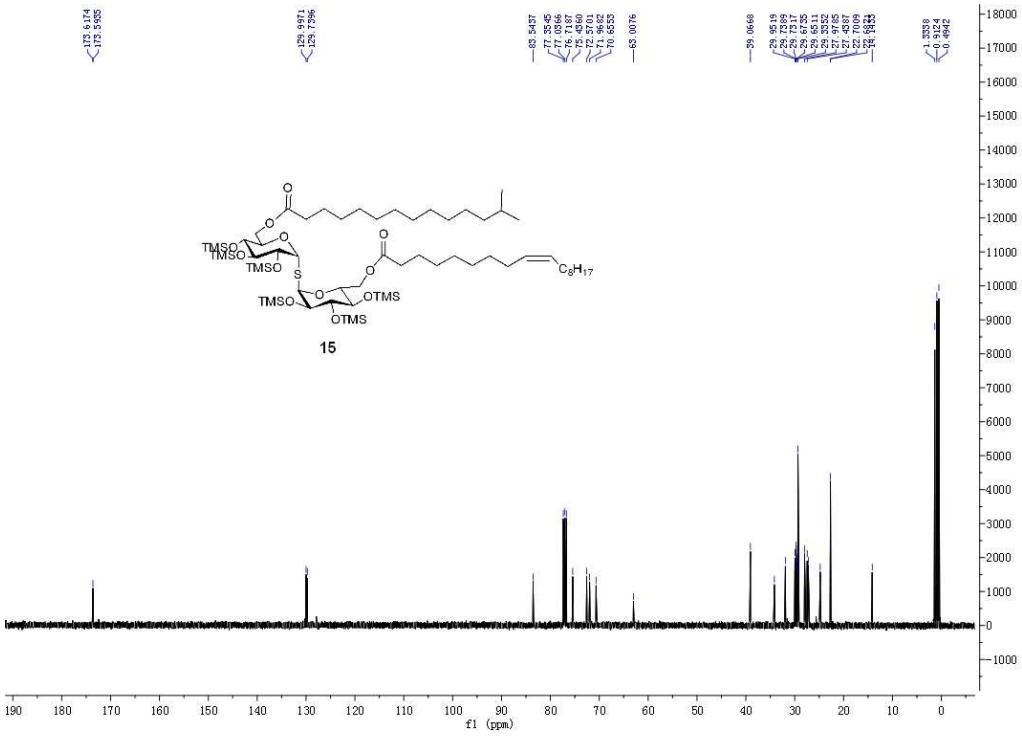
^{1}H NMR and ^{13}C NMR spectra of compound 14



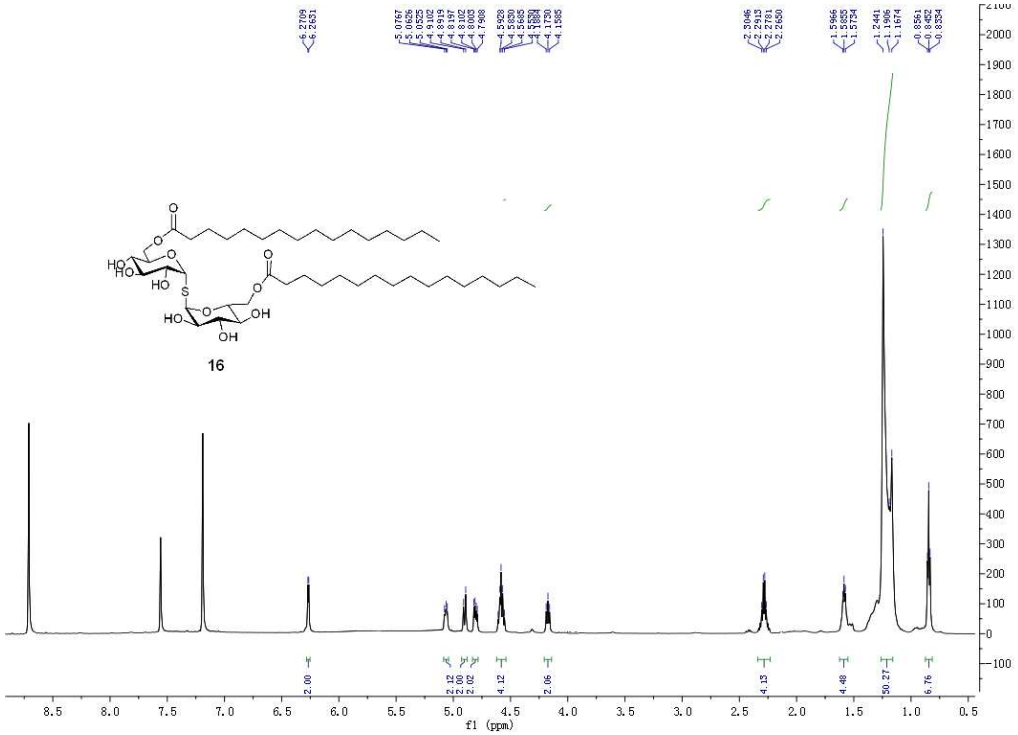


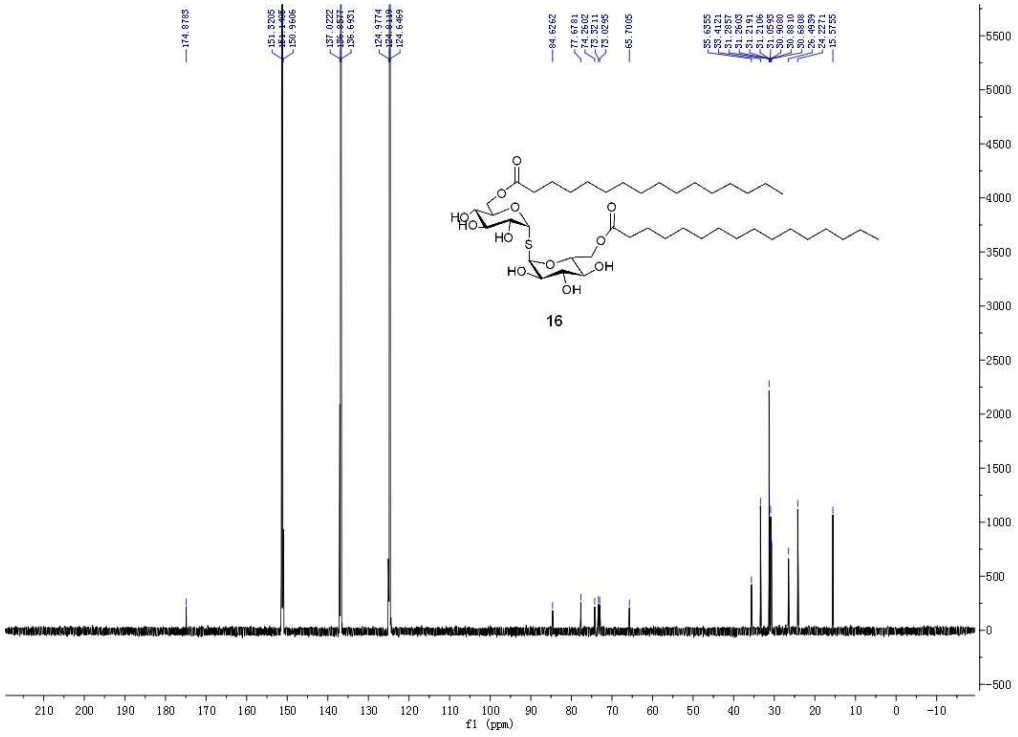
^{1}H NMR and ^{13}C NMR spectra of compound 15



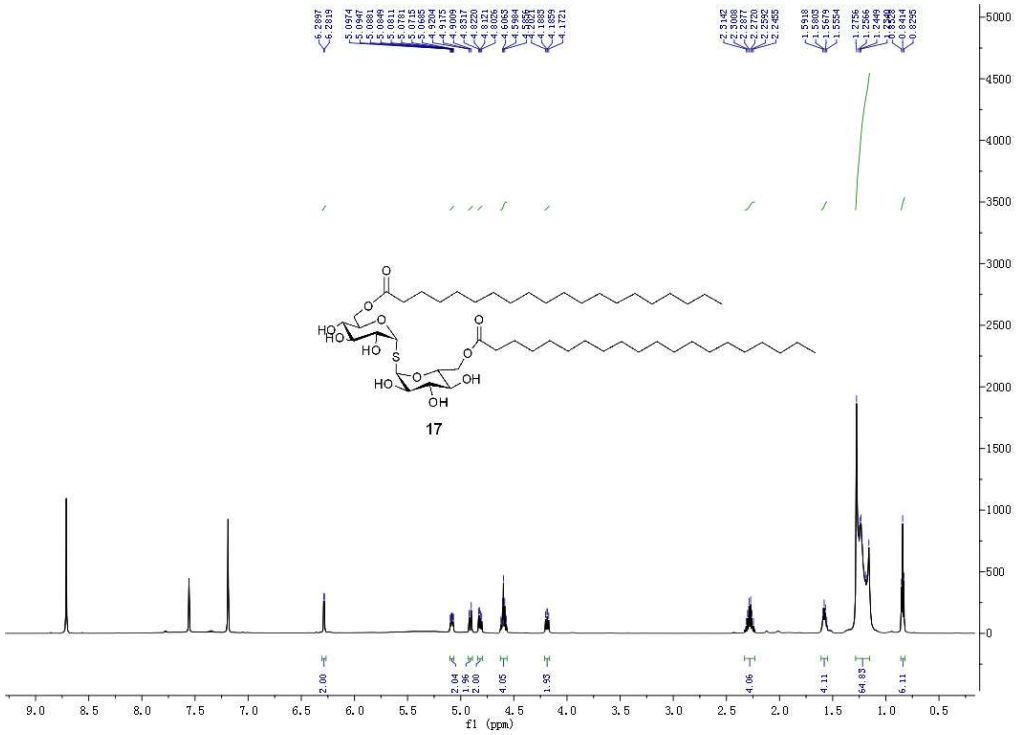


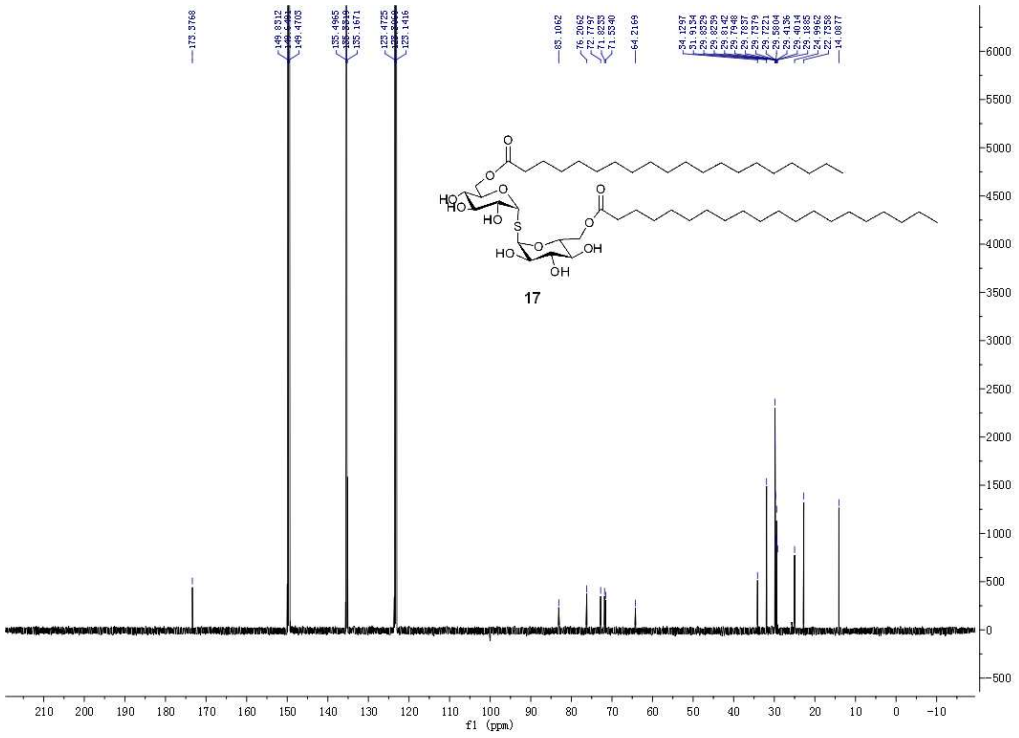
^{1}H NMR and ^{13}C NMR spectra of compound 16



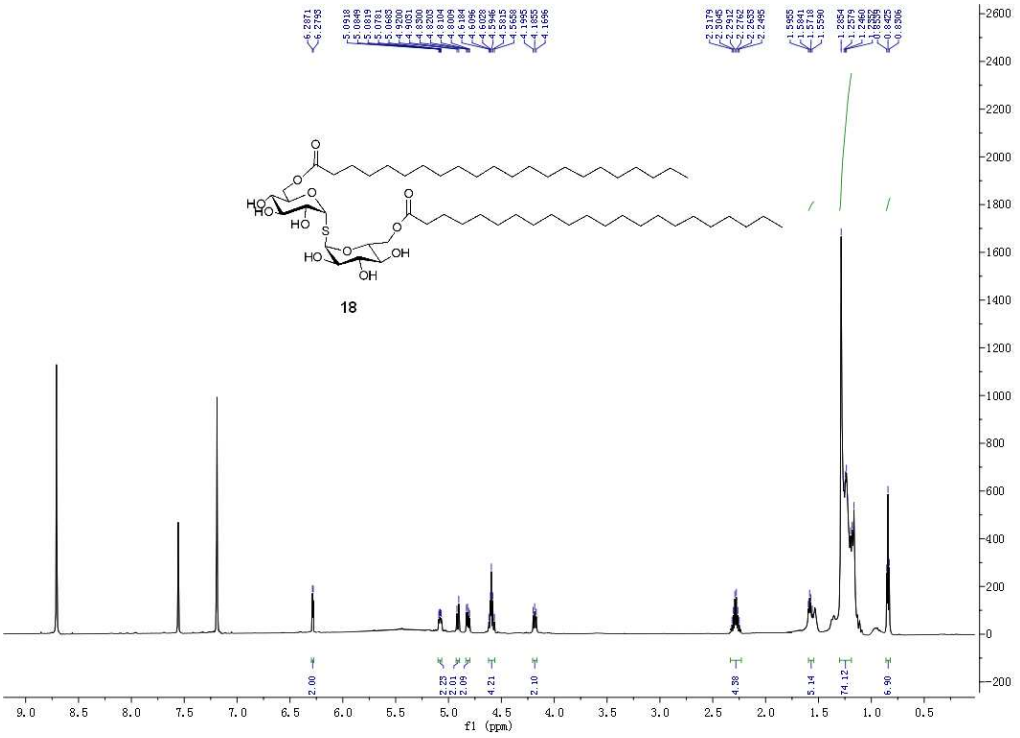


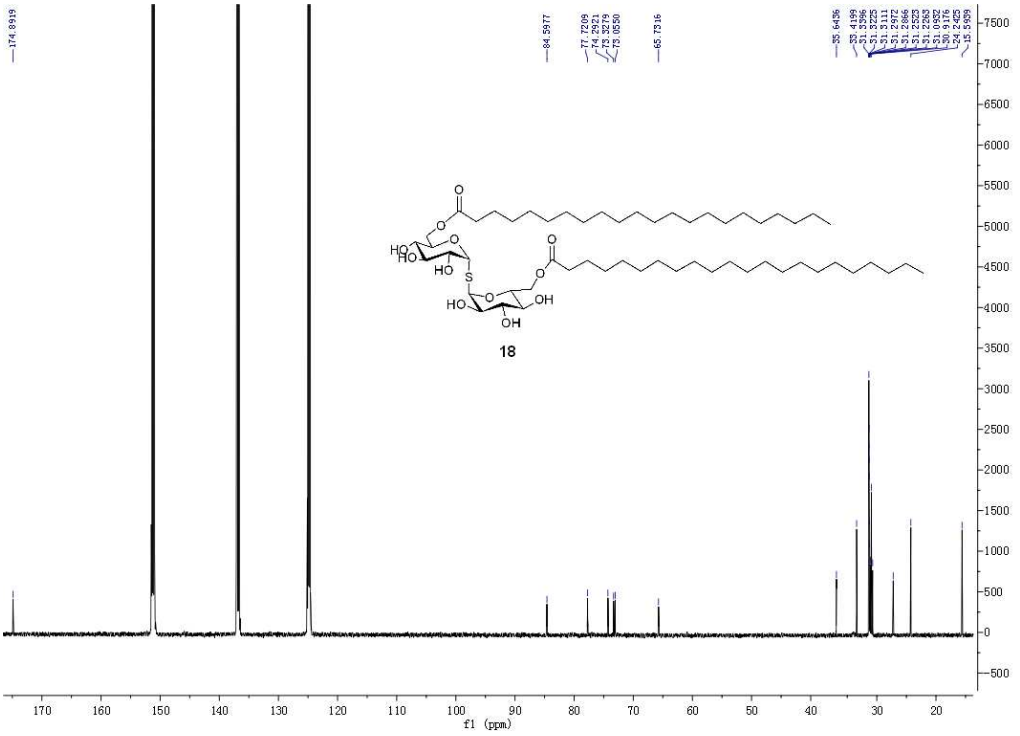
^{1}H NMR and ^{13}C NMR spectra of compound 17



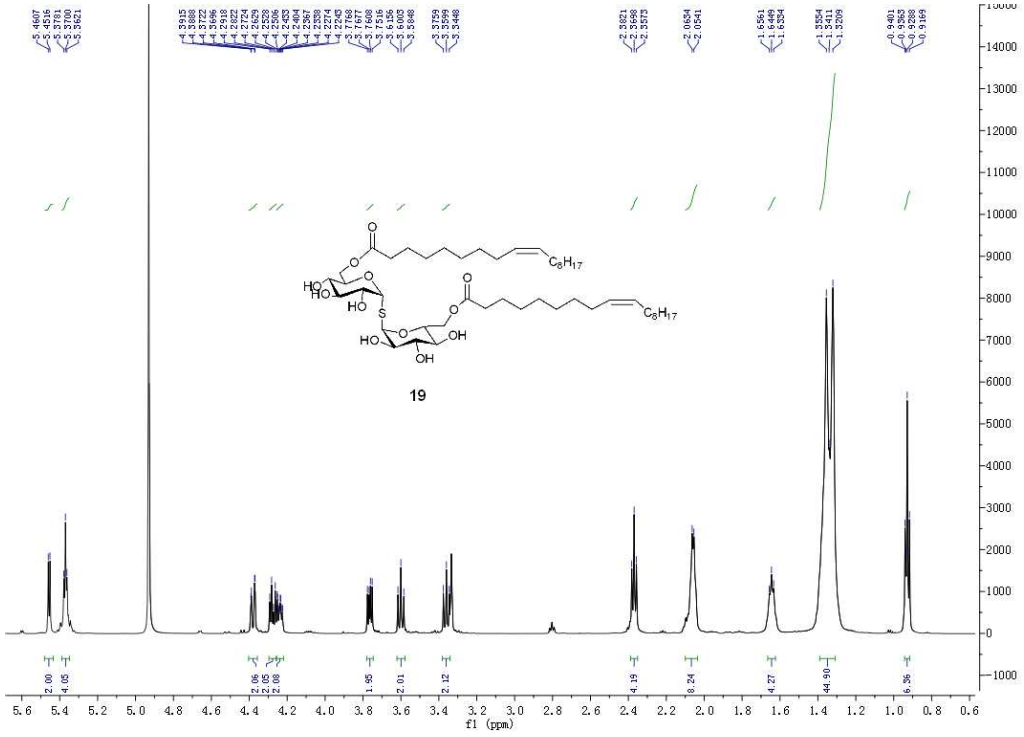


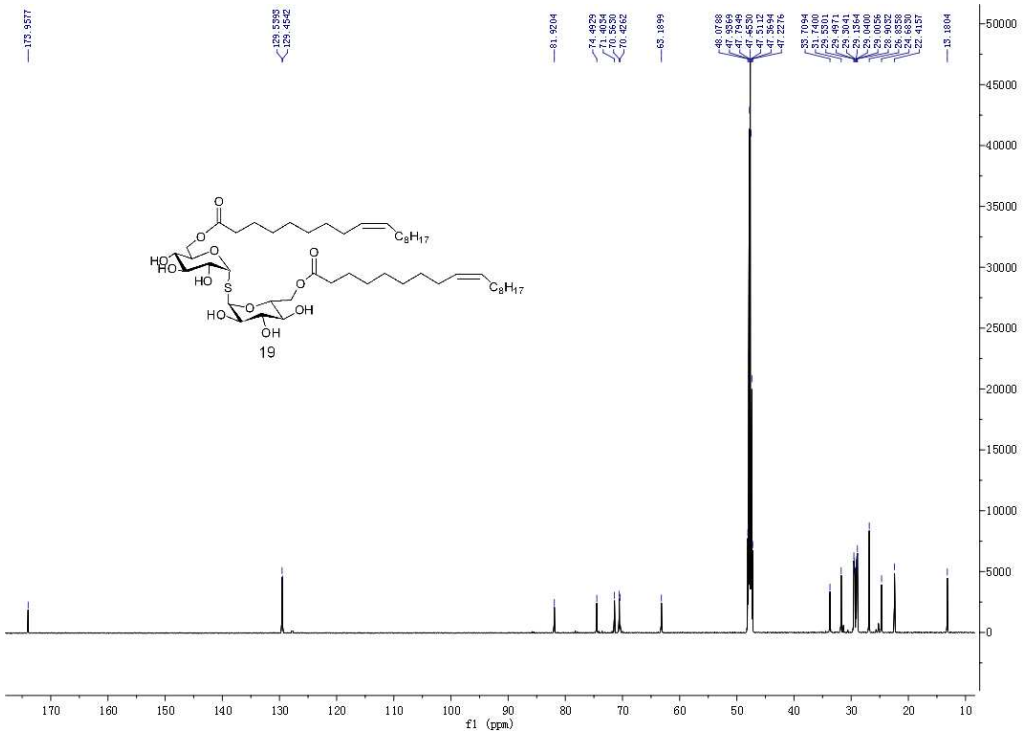
^{1}H NMR and ^{13}C NMR spectra of compound 18



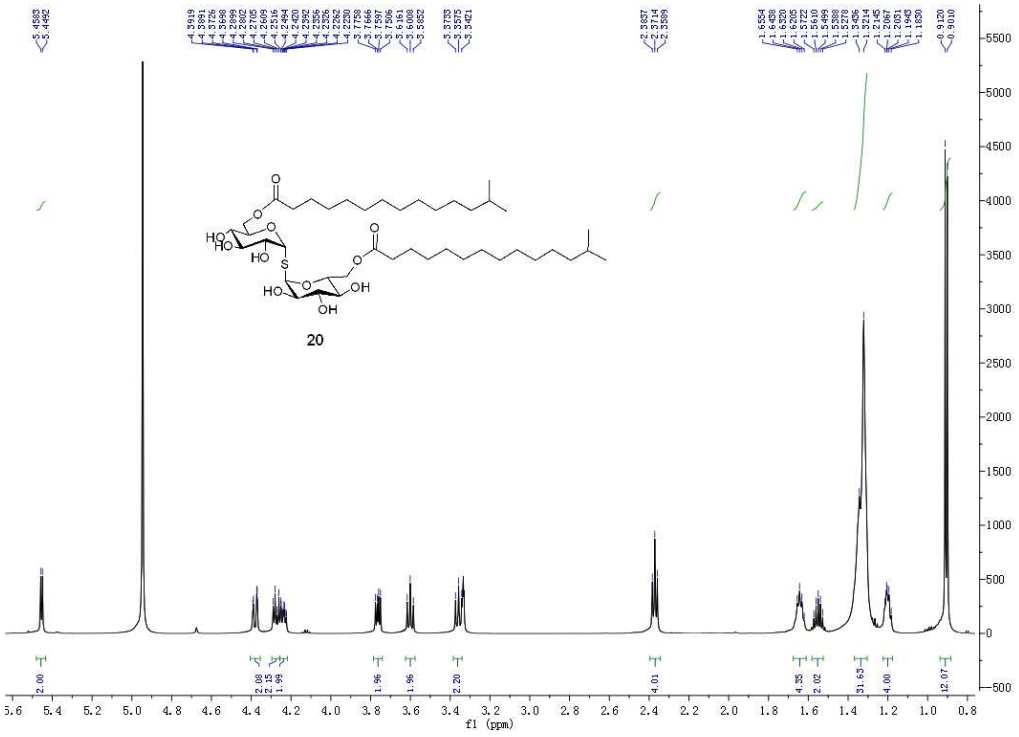


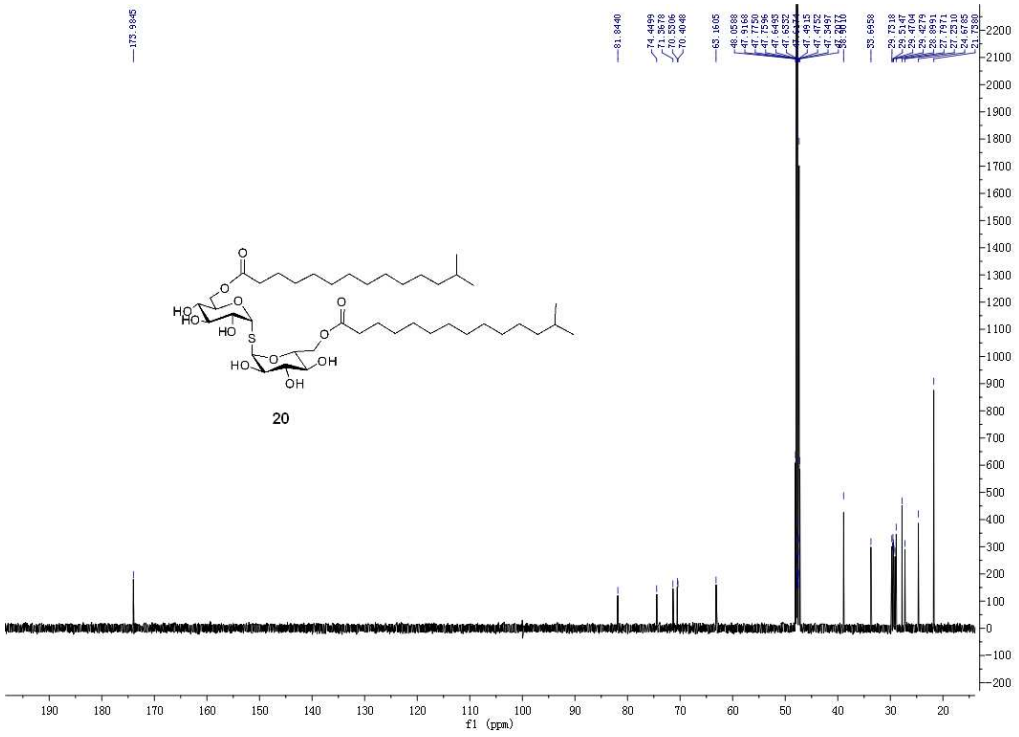
^{1}H NMR and ^{13}C NMR spectra of compound 19





^{1}H NMR and ^{13}C NMR spectra of compound 20





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