

SUPPORTING INFORMATION

Histone Deacetylase Inhibitors through Click Chemistry

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Wang*

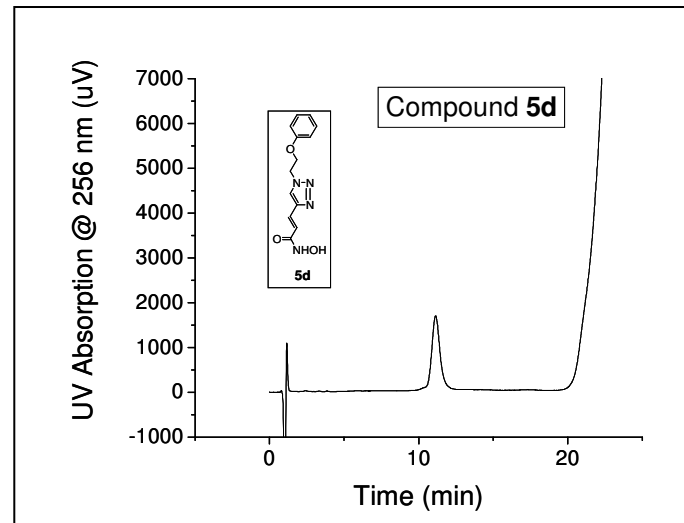
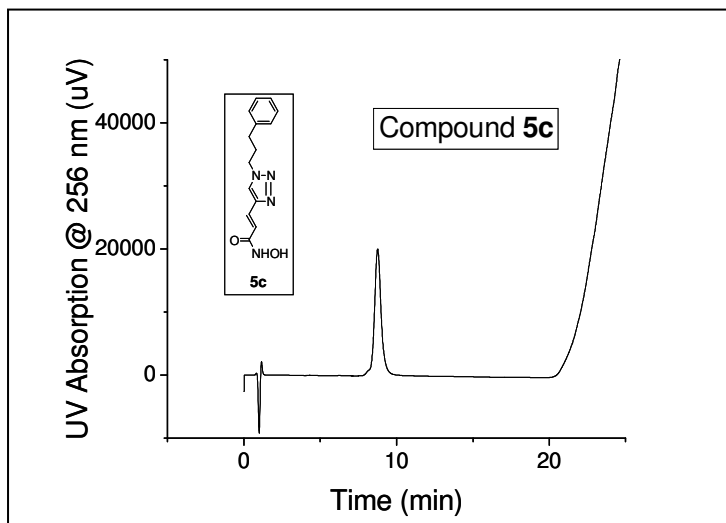
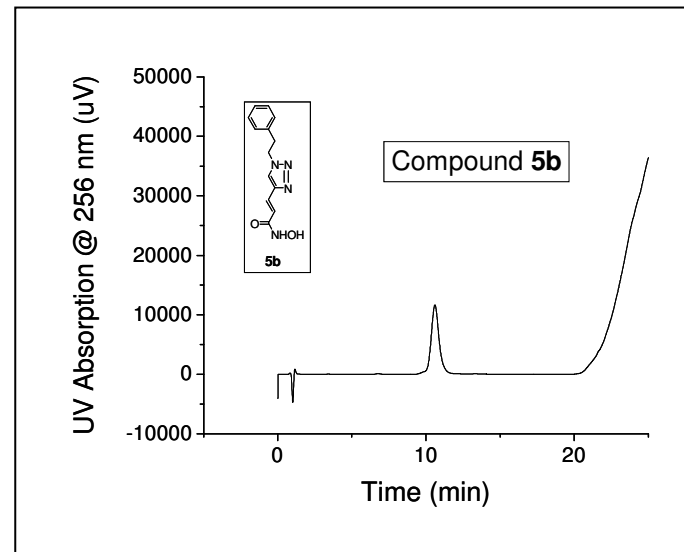
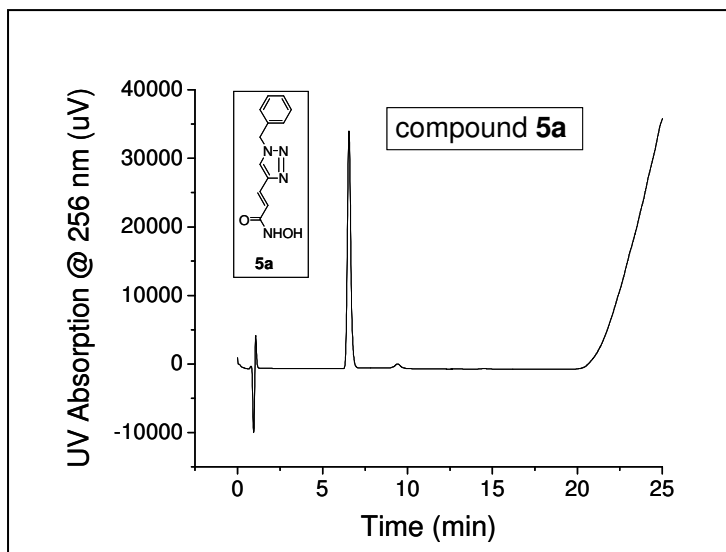
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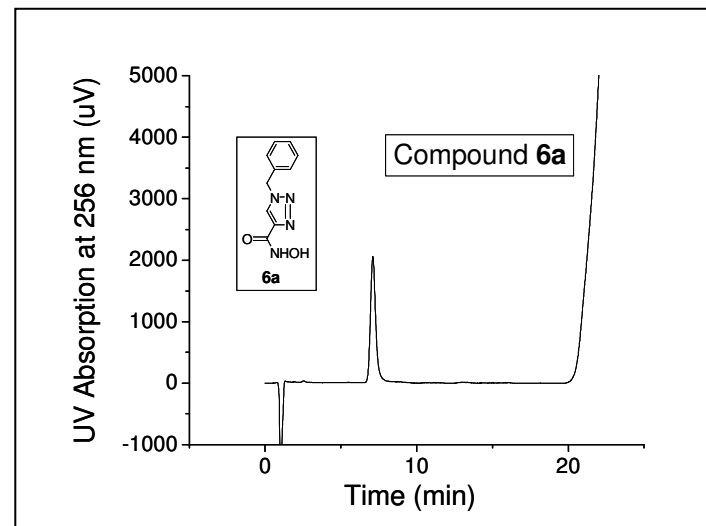
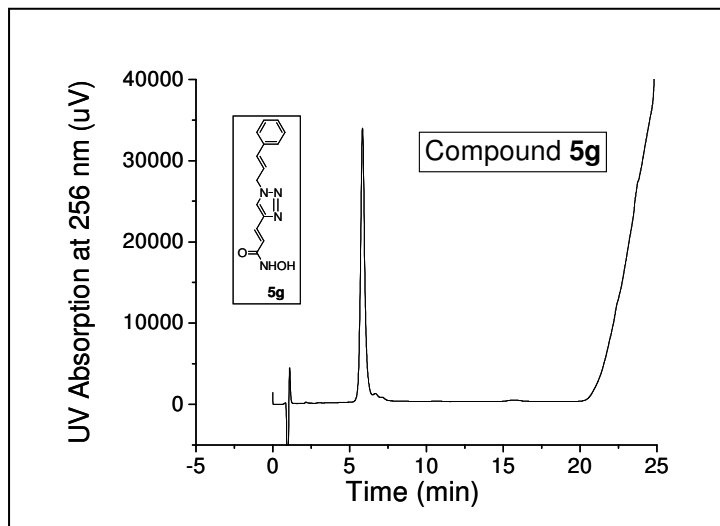
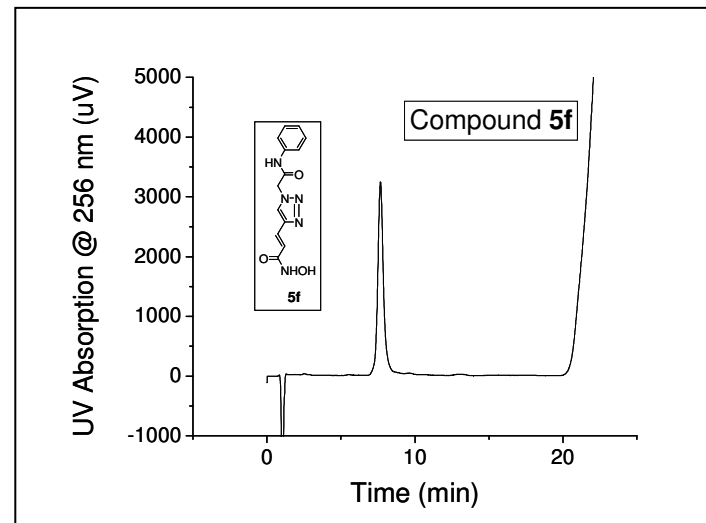
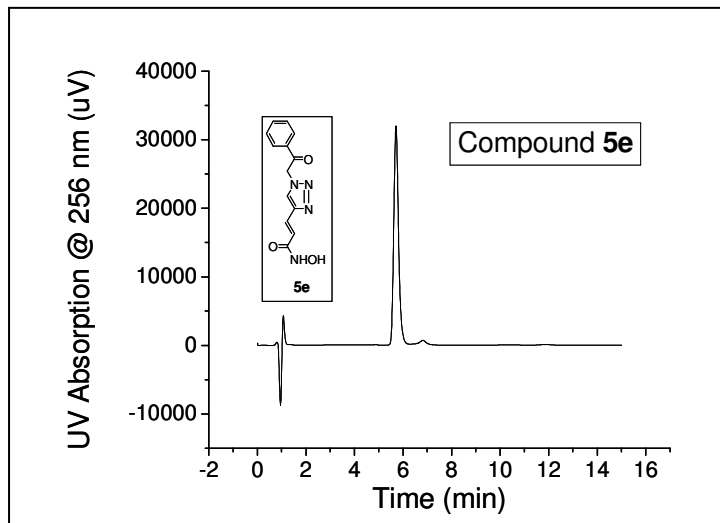
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S7-S40:	: ¹ HNMR and ¹³ CNMR spectra of new compounds
S41-S47	: Preliminary NCI cancer cell line screening results

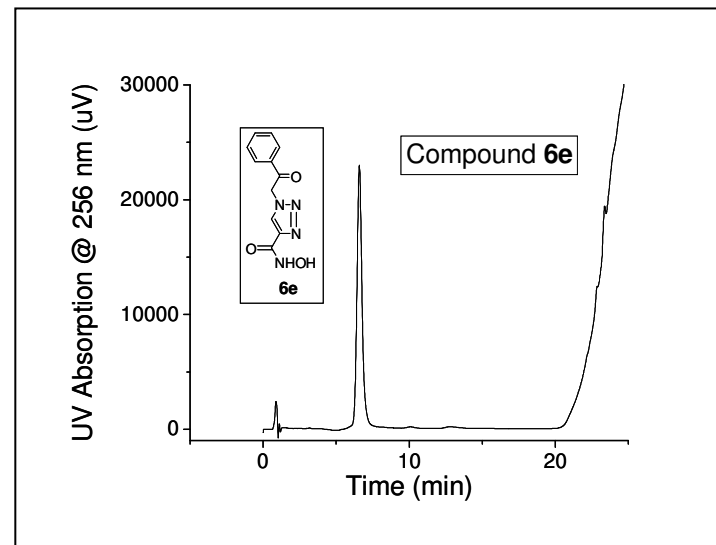
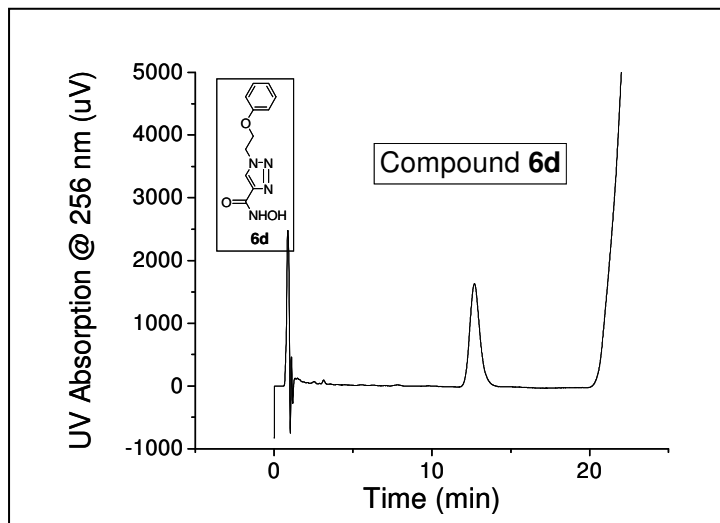
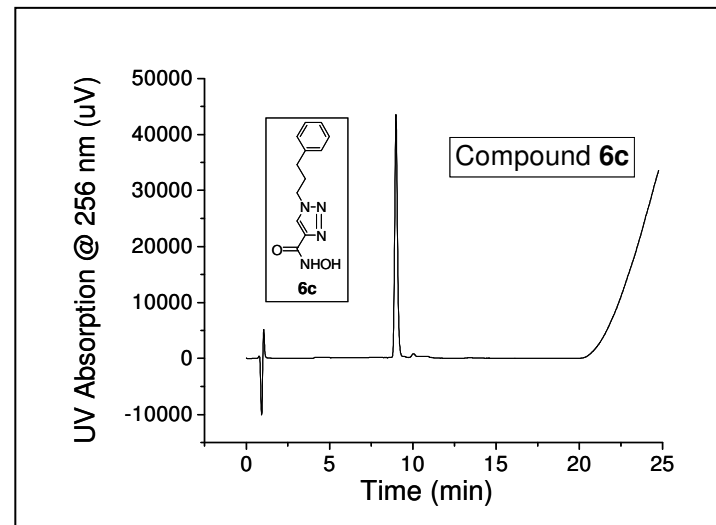
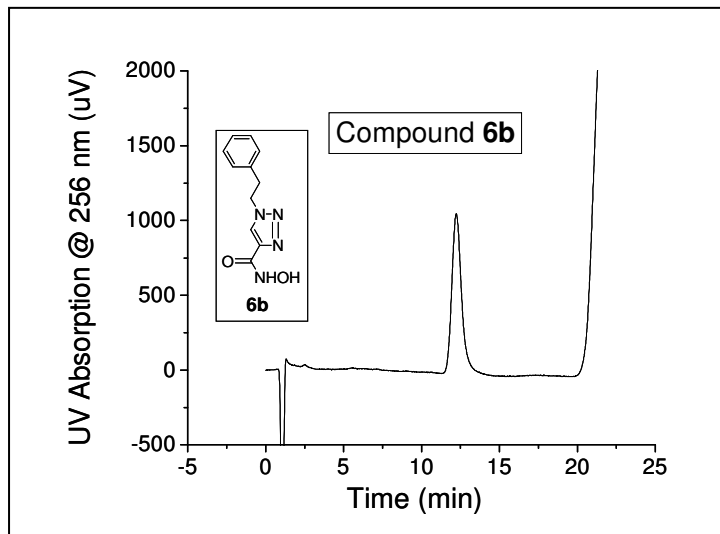
Table S1. HPLC Analysis of Target compounds

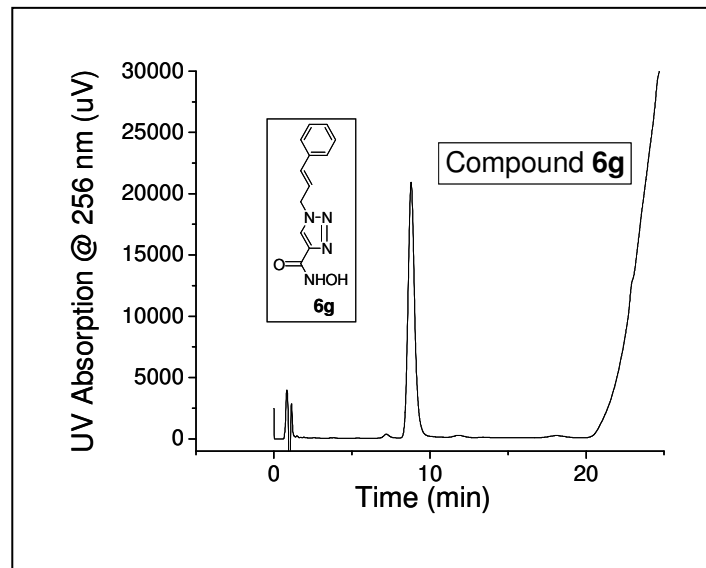
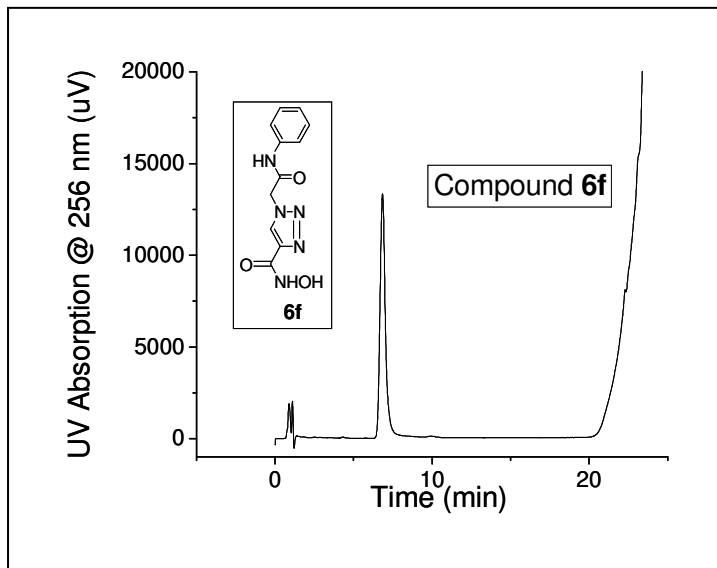
Cmpd.	Column Condition ^(a)		Retention time	Purity result
	0-15 min	15-25 min		
5a	16 % solvent B constant	16 % to 90 % solvent B gradient	6.56 min	97.2 % ^(b)
5b	16 % solvent B constant	16 % to 90 % solvent B gradient	10.60 min	> 99.0 %
5c	22 % solvent B constant	16 % to 90 % solvent B gradient	8.75 min	>99.0 %
5d	16 % solvent B constant	16 % to 90 % solvent B gradient	11.14 min	> 99.0 %
5e	16 % solvent B constant	16 % to 90 % solvent B gradient	5.71 min	96.5 % ^(c)
5f	12 % solvent B constant	12% to 90 % solvent B gradient	7.66 min	> 99.0 %
5g	25 % solvent B constant	25 % to 90 % solvent B gradient	5.83 min	98.3 % ^{(d)(g)}
6a	12 % solvent B constant	12 % to 90 % solvent B gradient	7.10 min	> 99.0 %
6b	12 % solvent B constant	12 % to 90 % solvent B gradient	12.22 min	98.0 % ^(e)
6c	20 % solvent B constant	20 % to 90 % solvent B gradient	8.99 min	> 99.0 %
6d	12 % solvent B constant	12 % to 90 % solvent B gradient	12.71 min	> 99.0 %
6e	12 % solvent B constant	12 % to 90 % solvent B gradient	6.57 min	> 99.0 %
6f	10 % solvent B constant	10 % to 90 % solvent B gradient	6.83 min	> 99.0 %
6g	20 % solvent B constant	20 % to 90 % solvent B gradient	8.79 min	97.7 % ^(f)

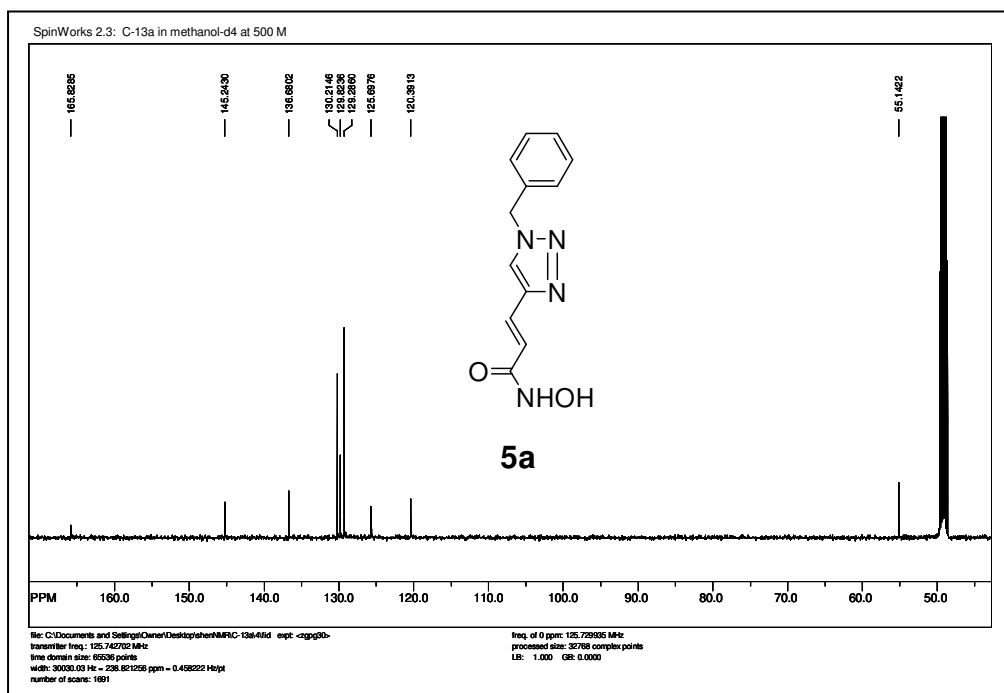
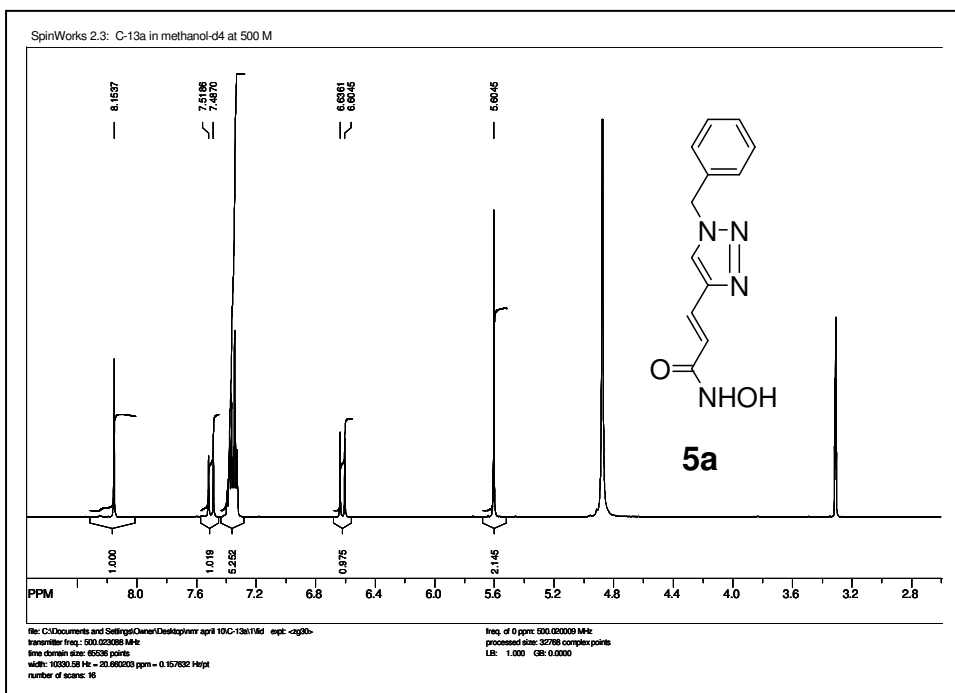
(a) solvent A, 0.4 % TFA in water; solvent B, 0.4 % TFA in acetonitrile; total flow rate: 0.5 mL/min; column: Kromasil®C18, 3.5um, 30 X 4.6 from Restek Corporation; detector: UV absorption at 256 nm; (b) impurity (~2.8 %) at 9.41 min; (c) impurity (~3.5 %) at 6.83 min; (d) impurities (~ 0.6 % and ~ 1.1 %) at 6.68 min and 15.73 min respectively; (e) impurities (~1.6 % and ~0.4 %) at 10.04 min and 13.42 min respectively; (f) impurities (~1.1 % and ~1.2 %) at 7.20 min and 11.74 min respectively; (g) **5g** is the key target compound in this paper.

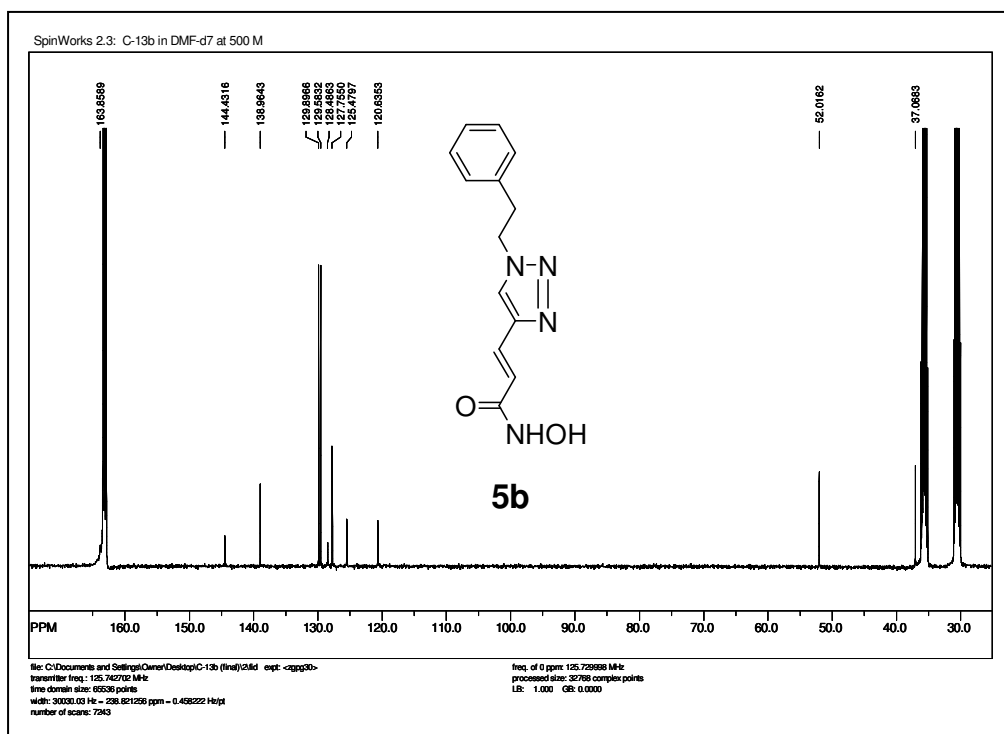
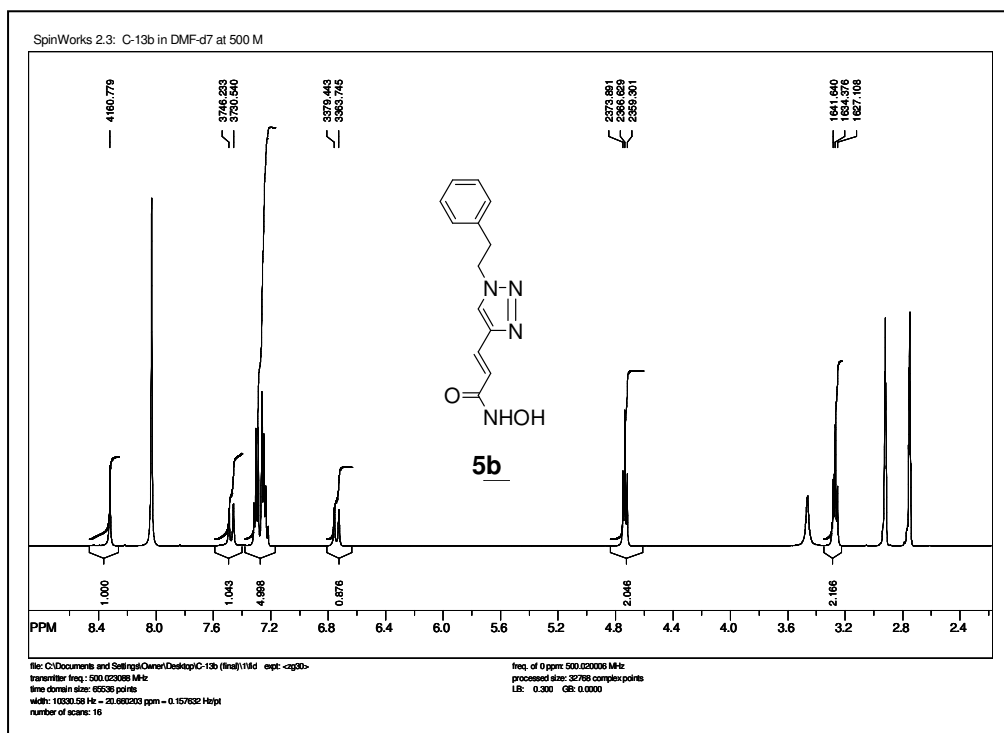


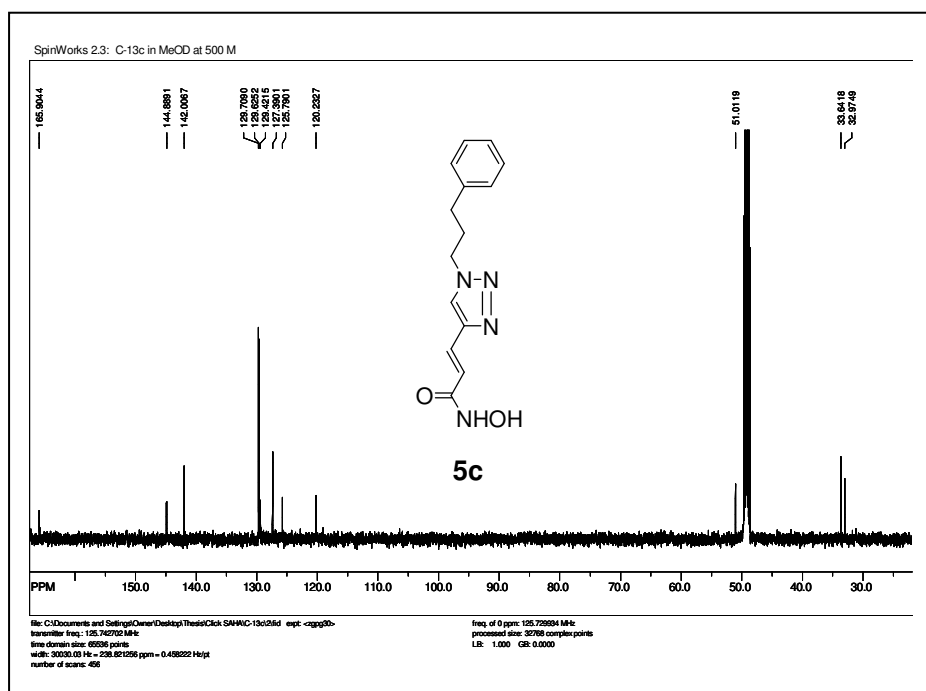
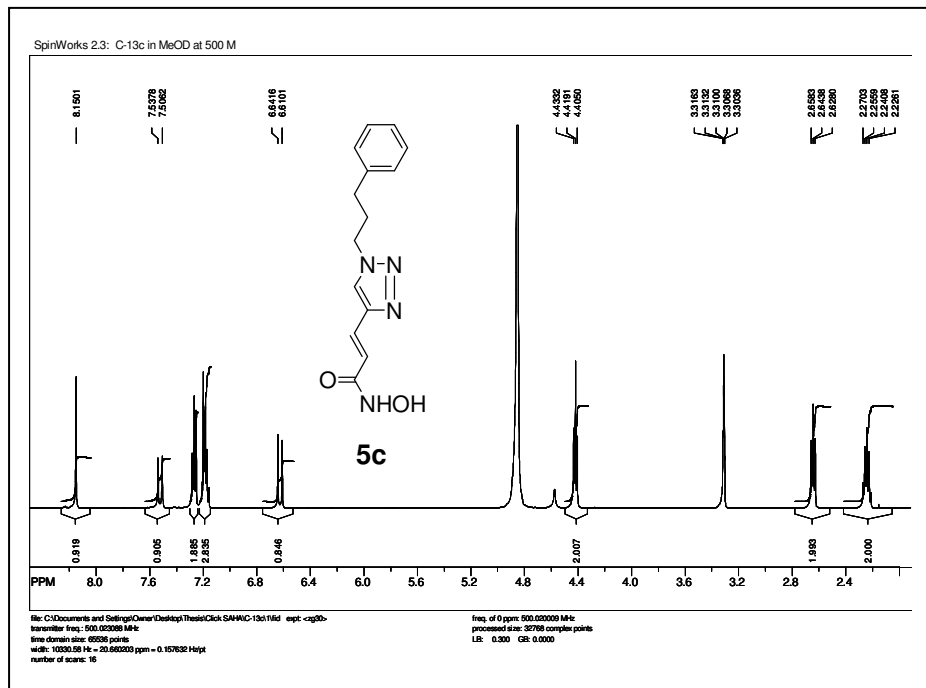


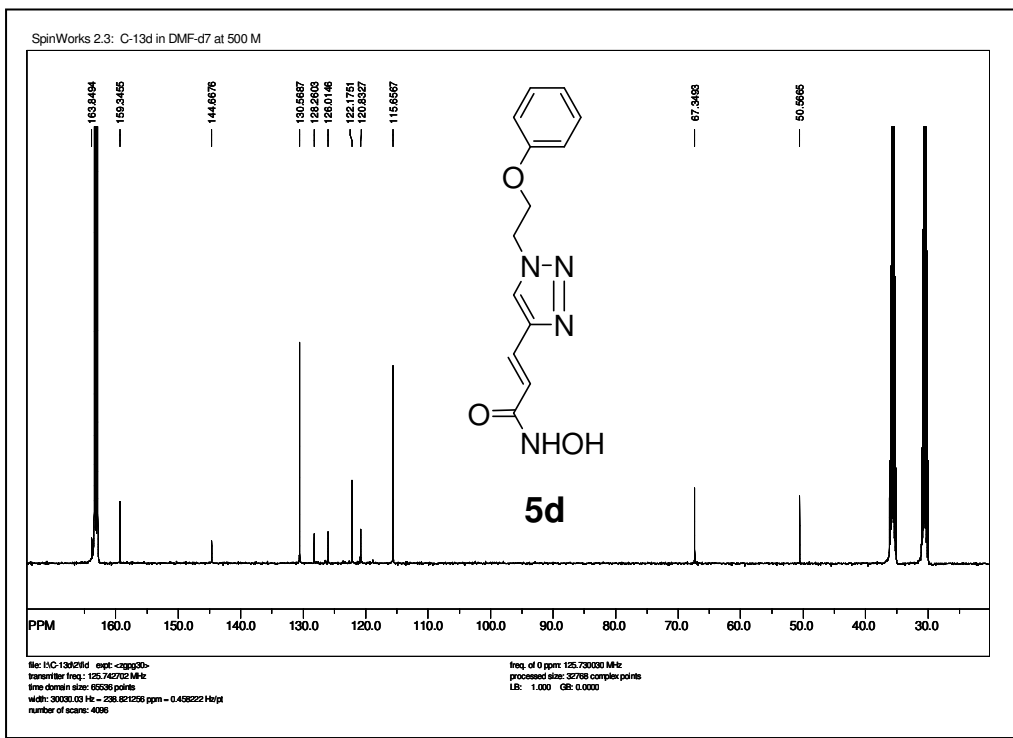
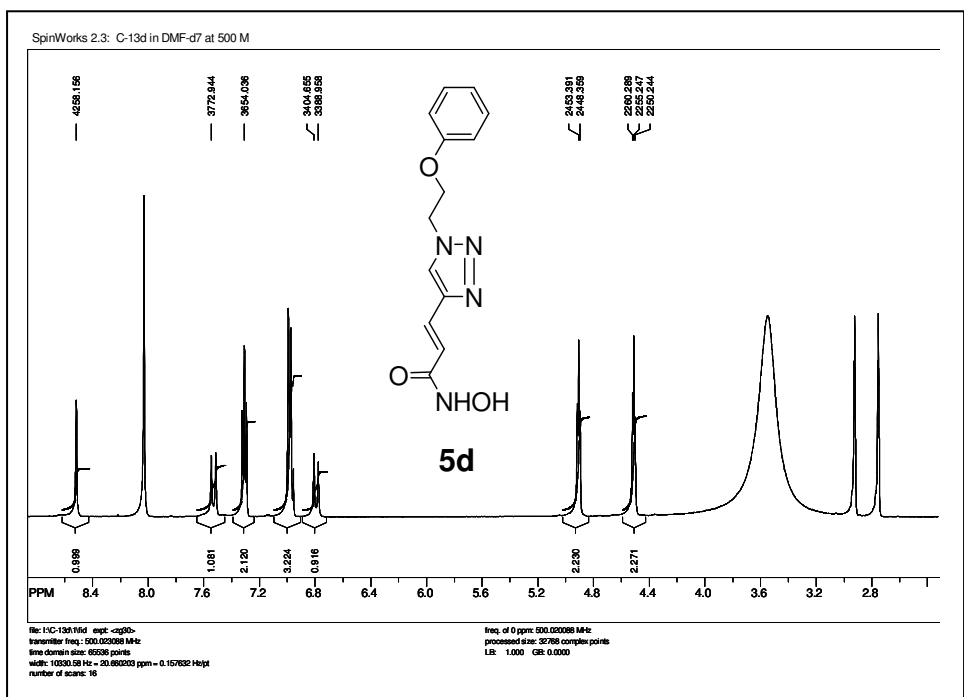


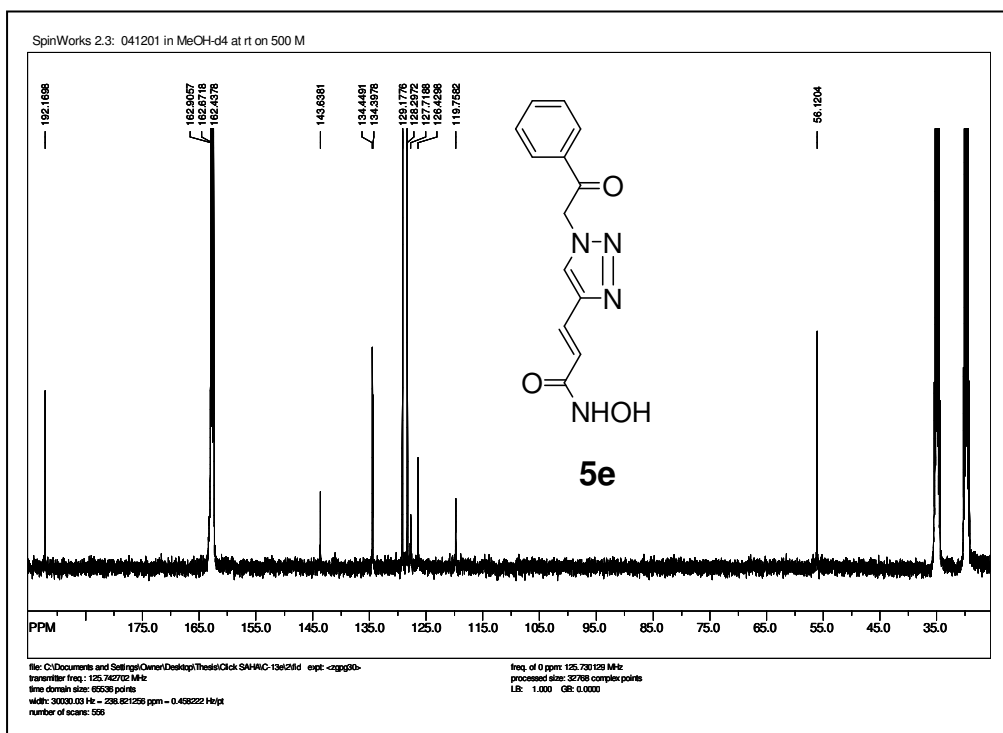
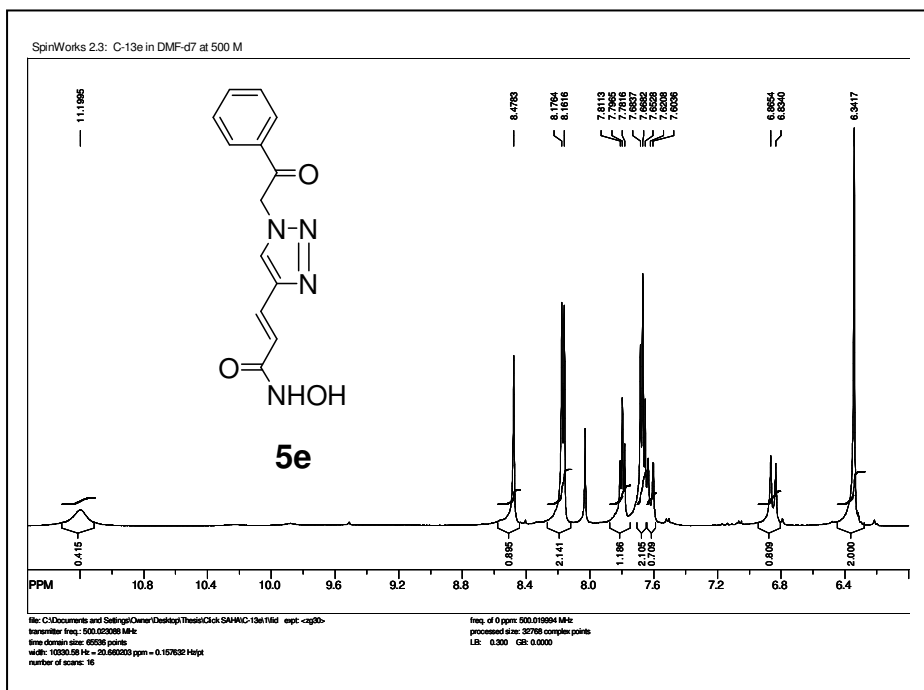


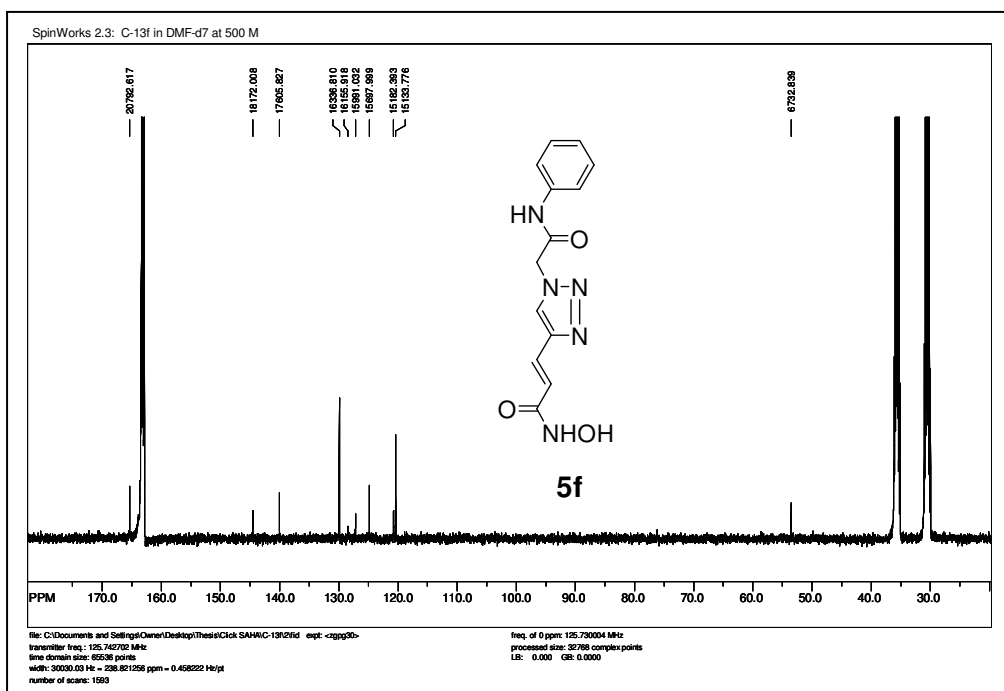
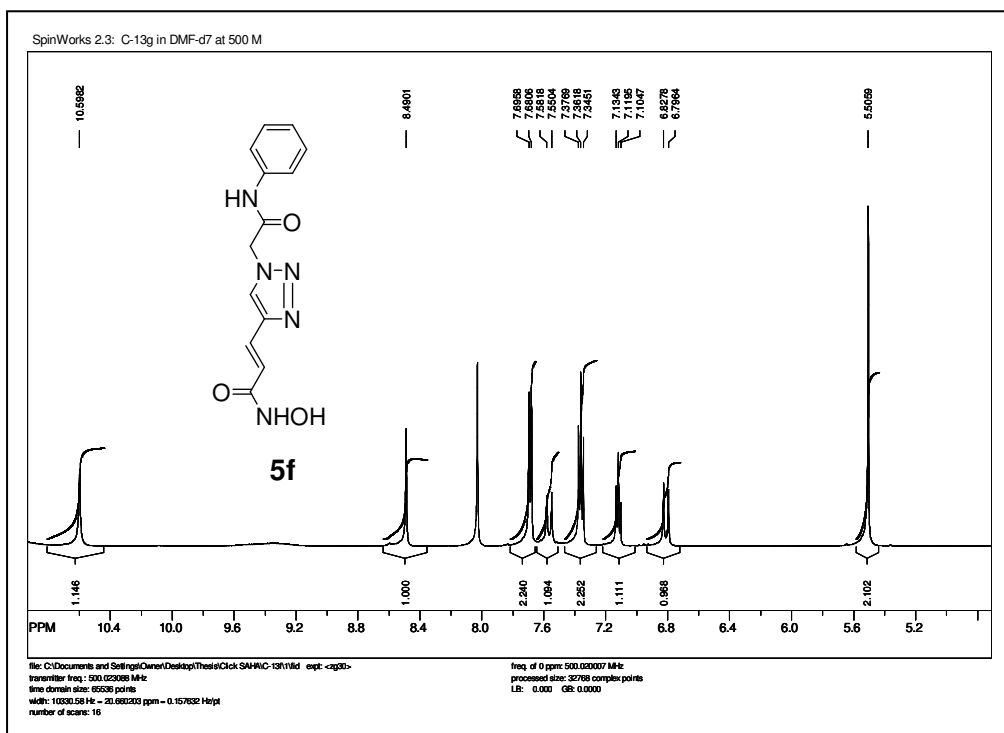


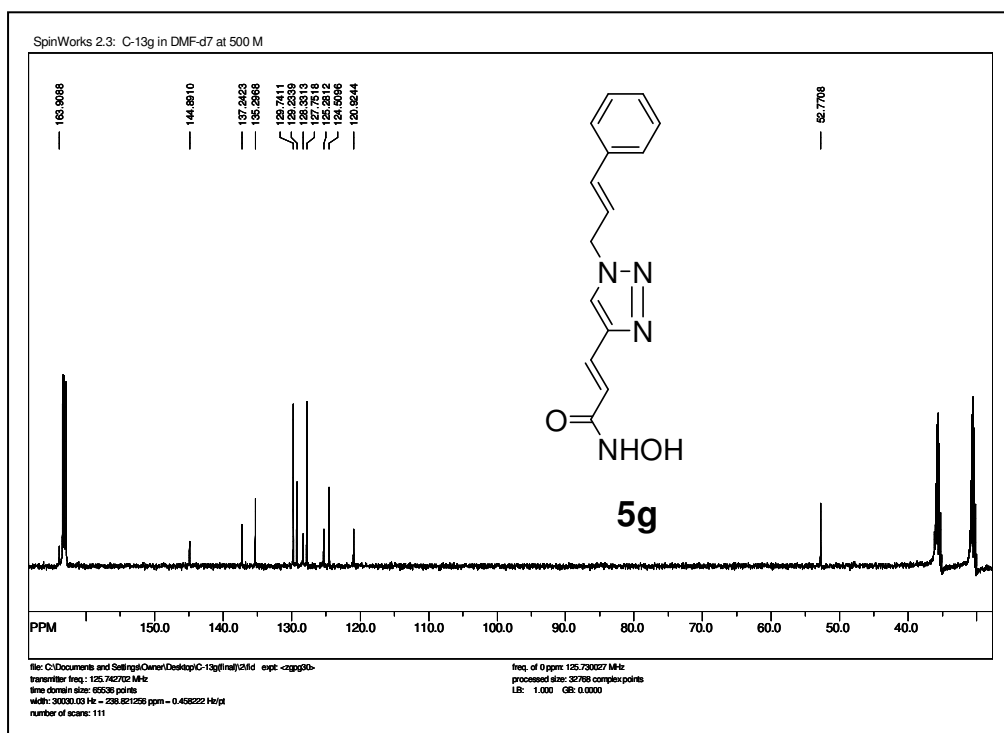
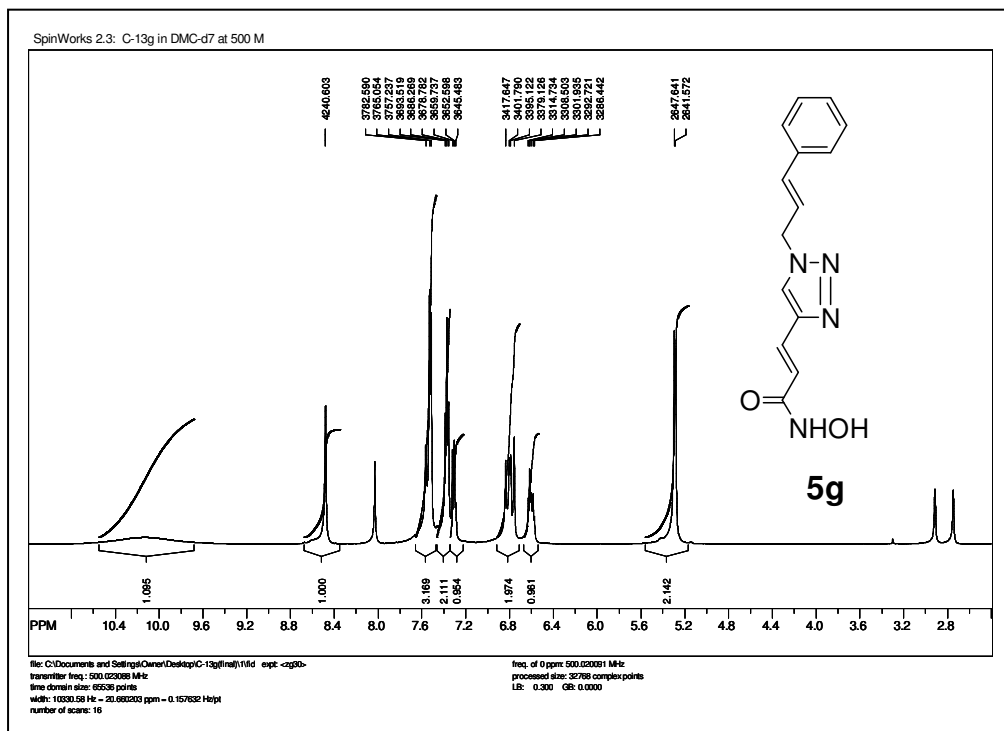


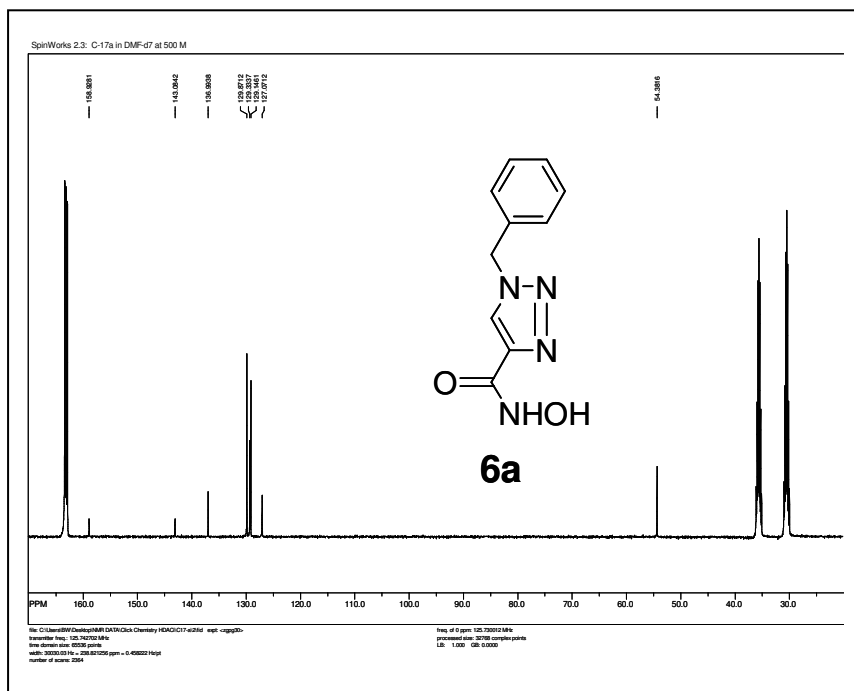
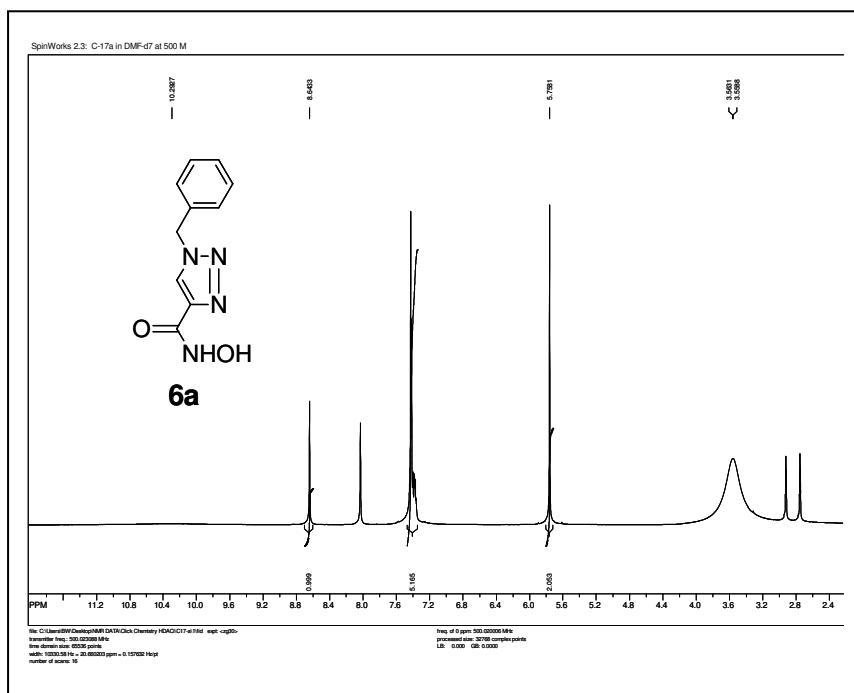


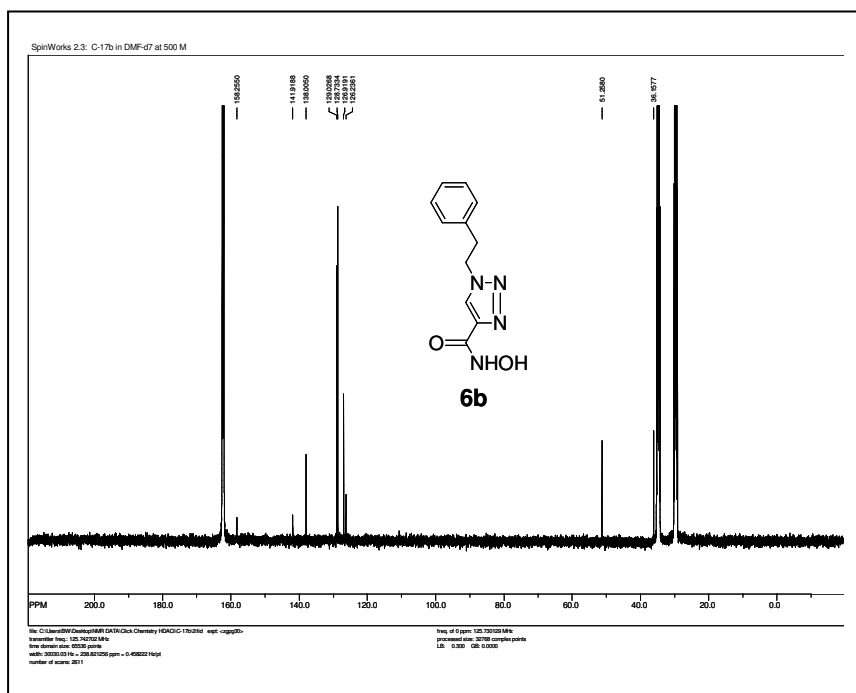
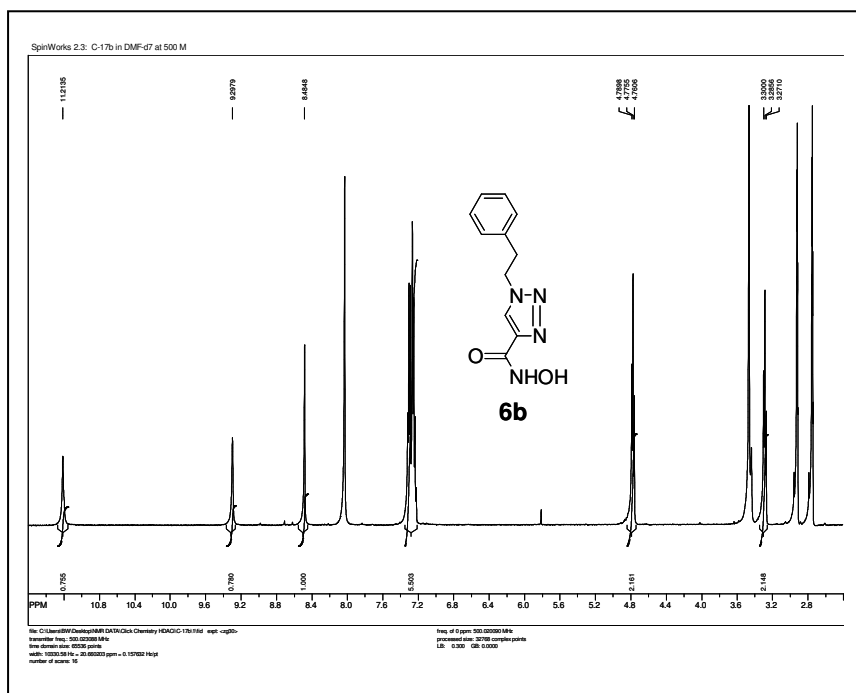


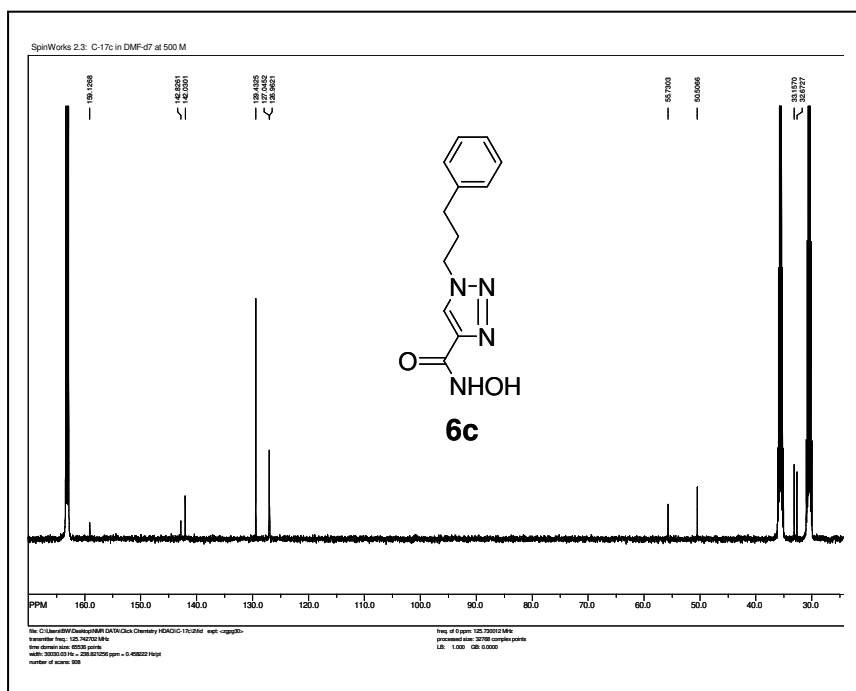
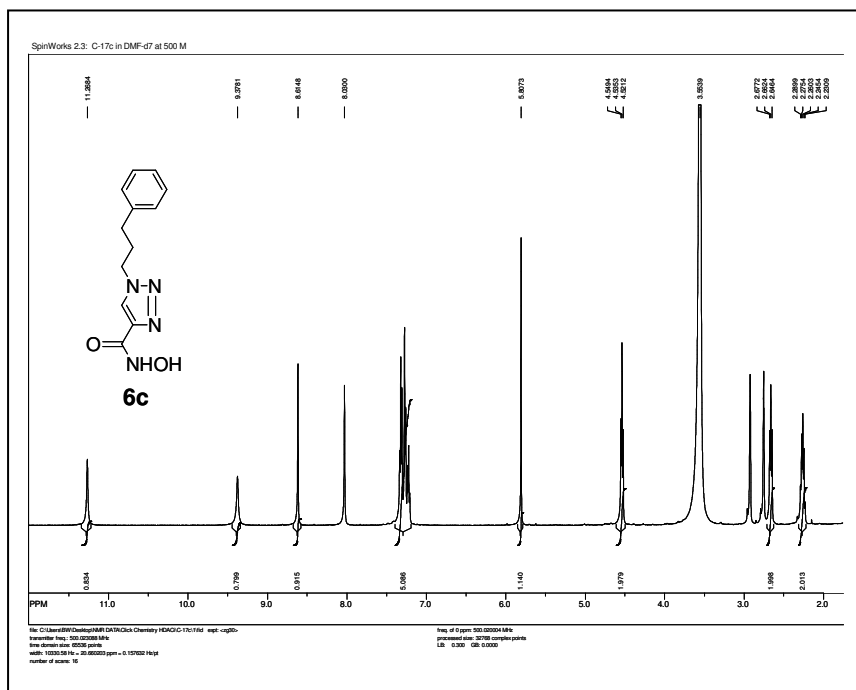


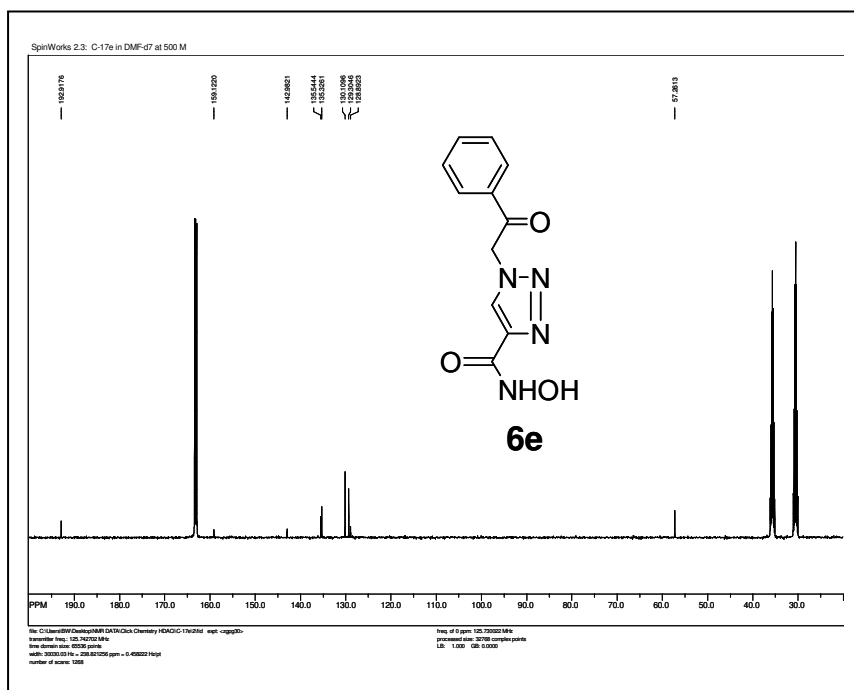
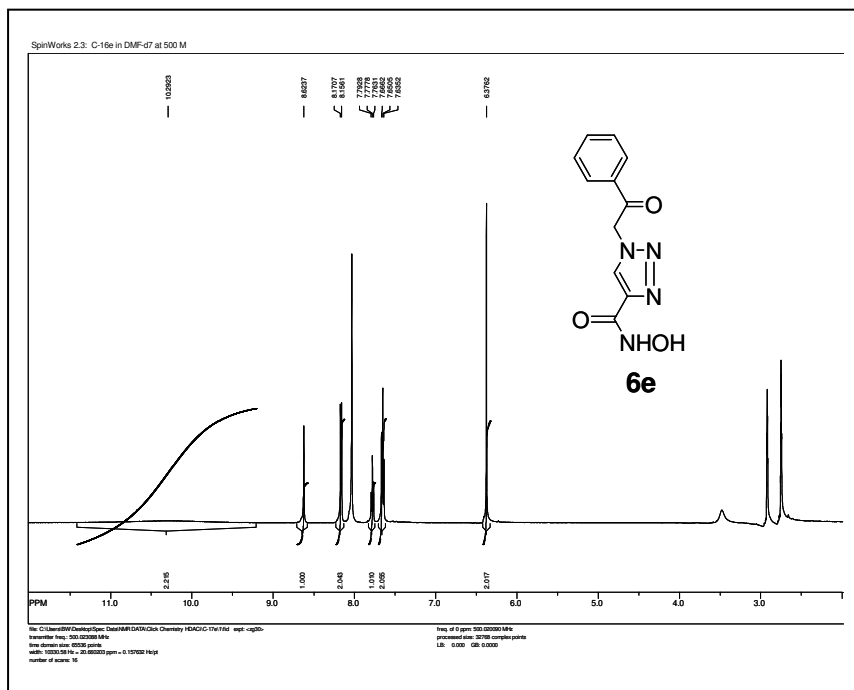


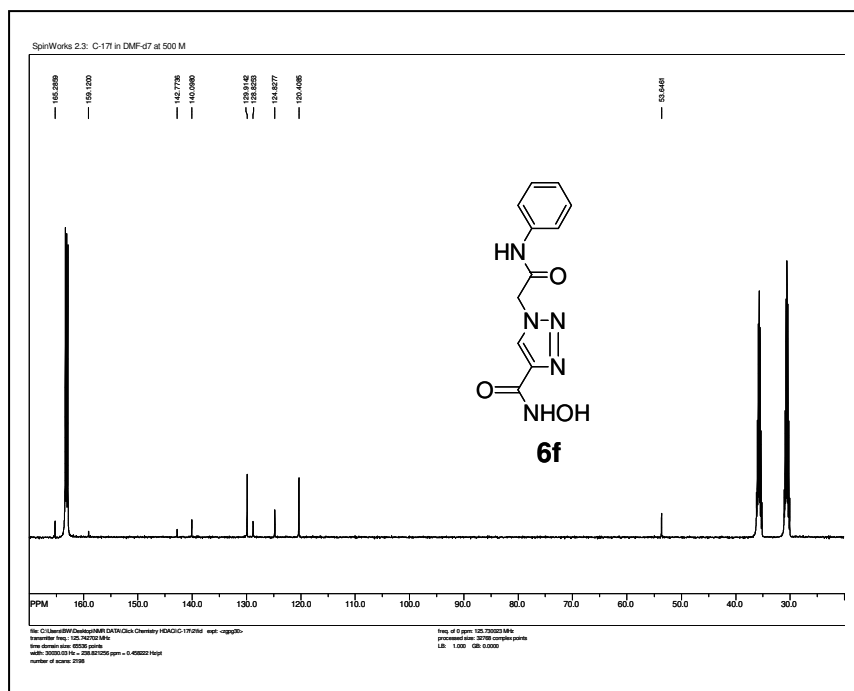
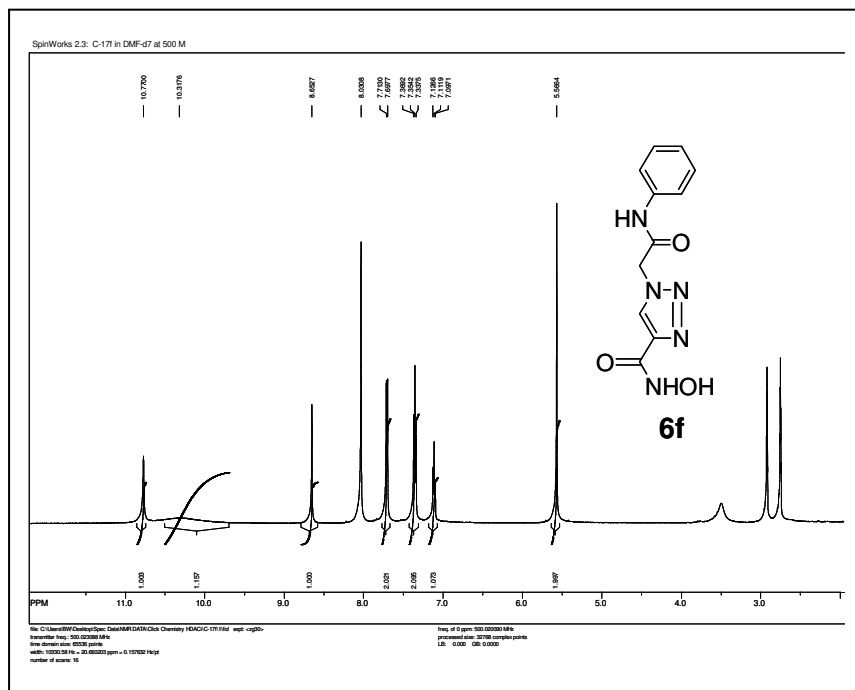


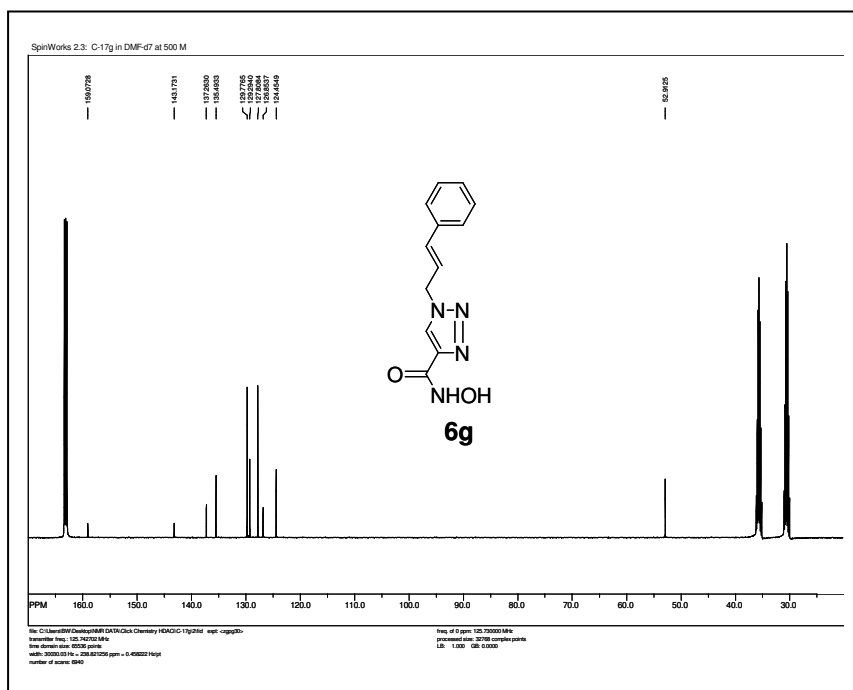
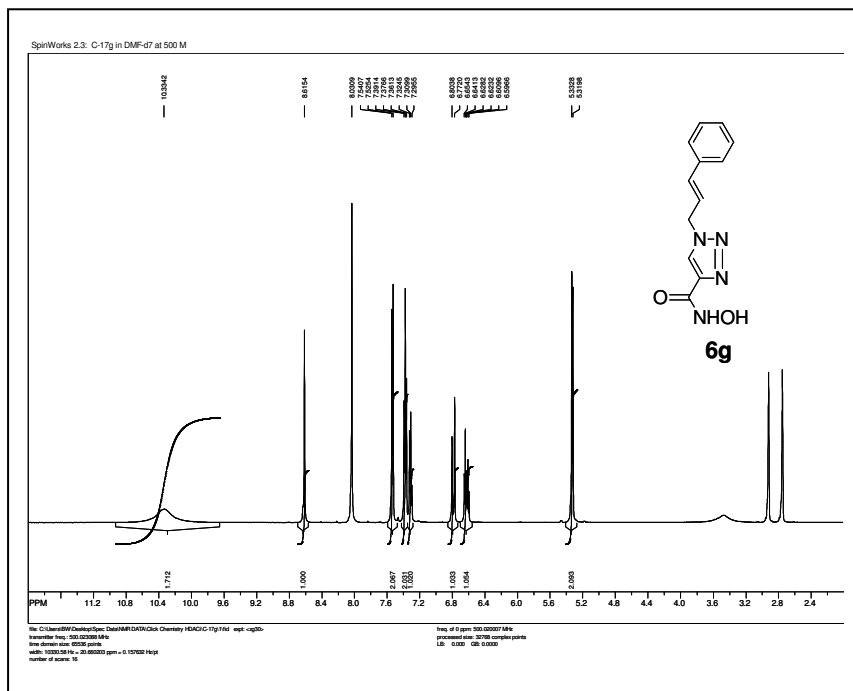


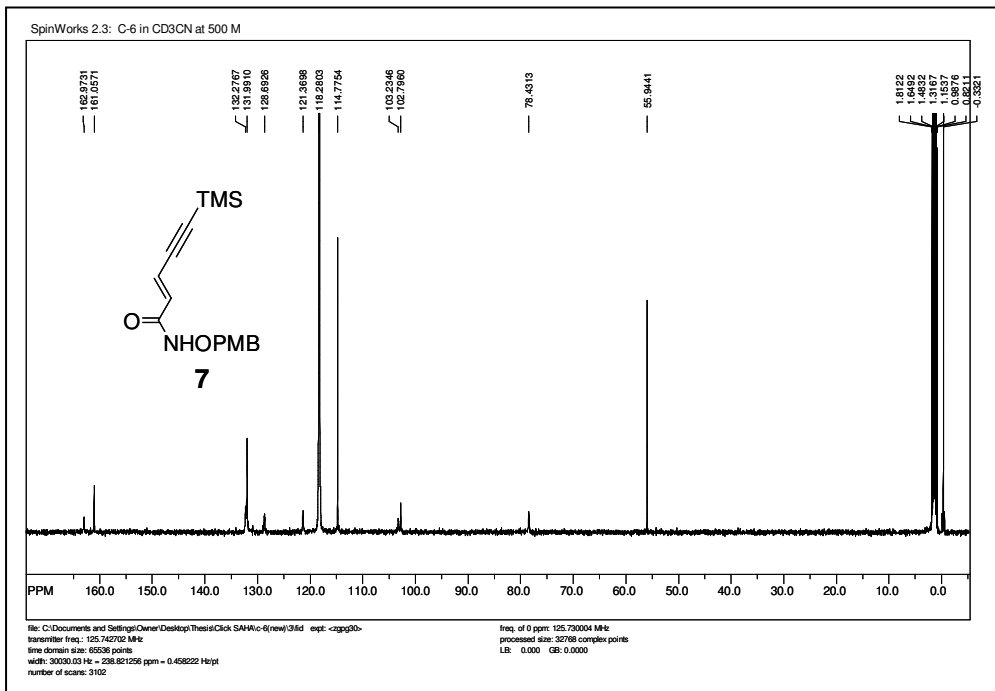
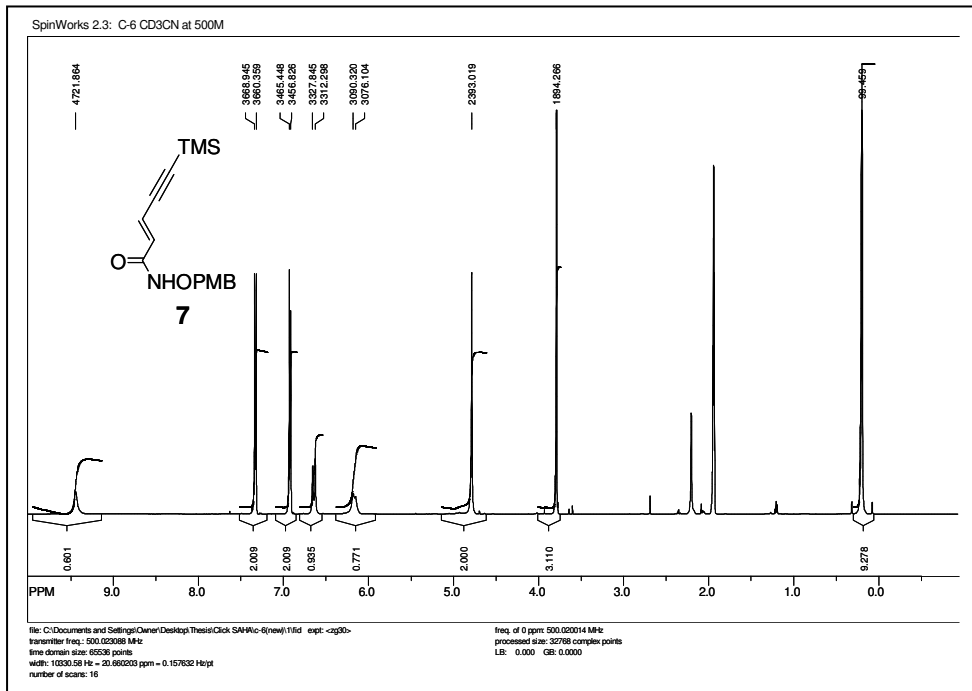


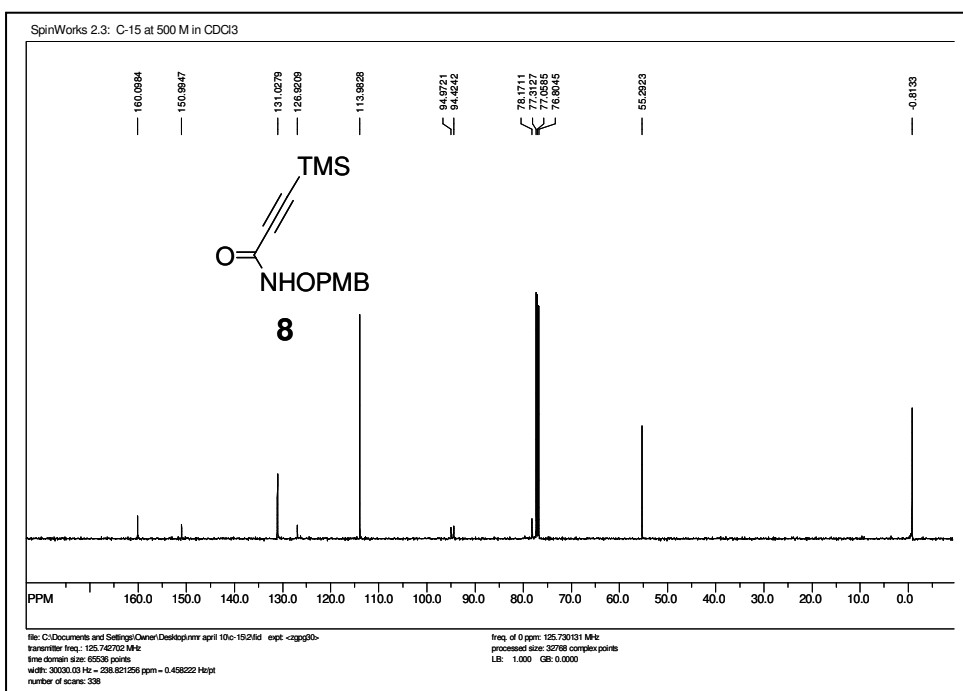
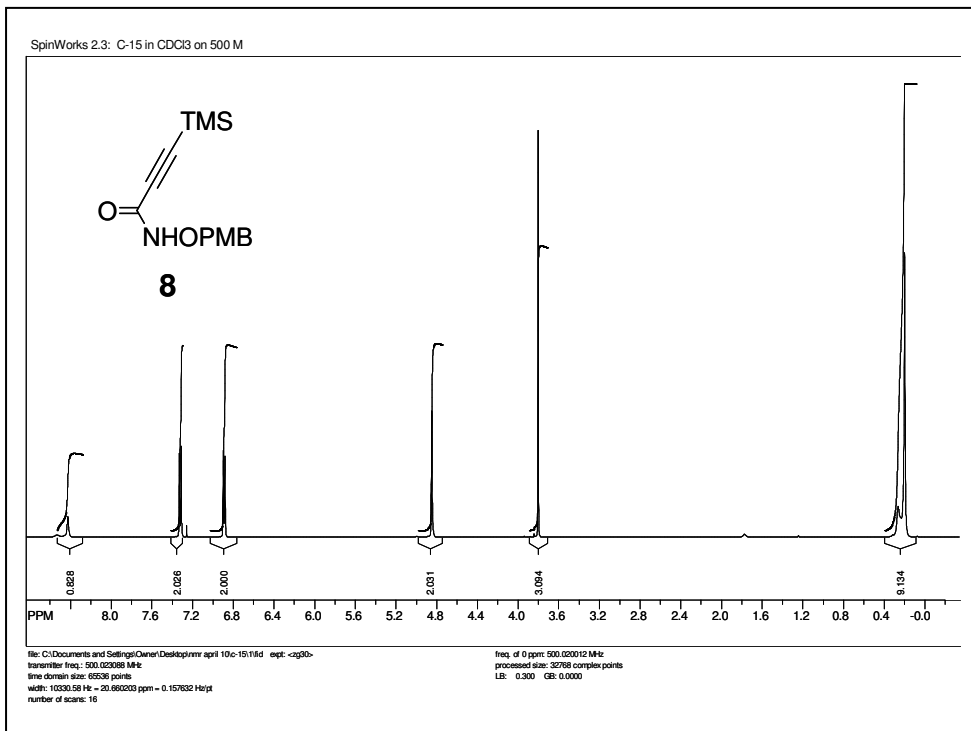


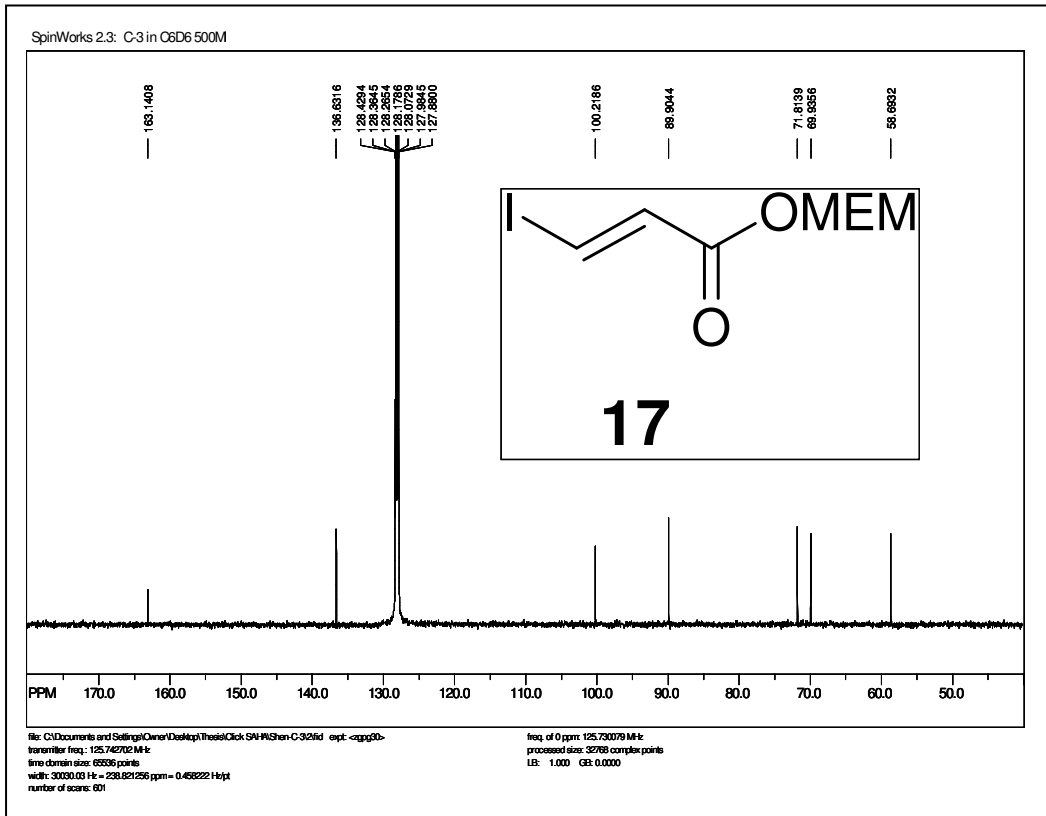
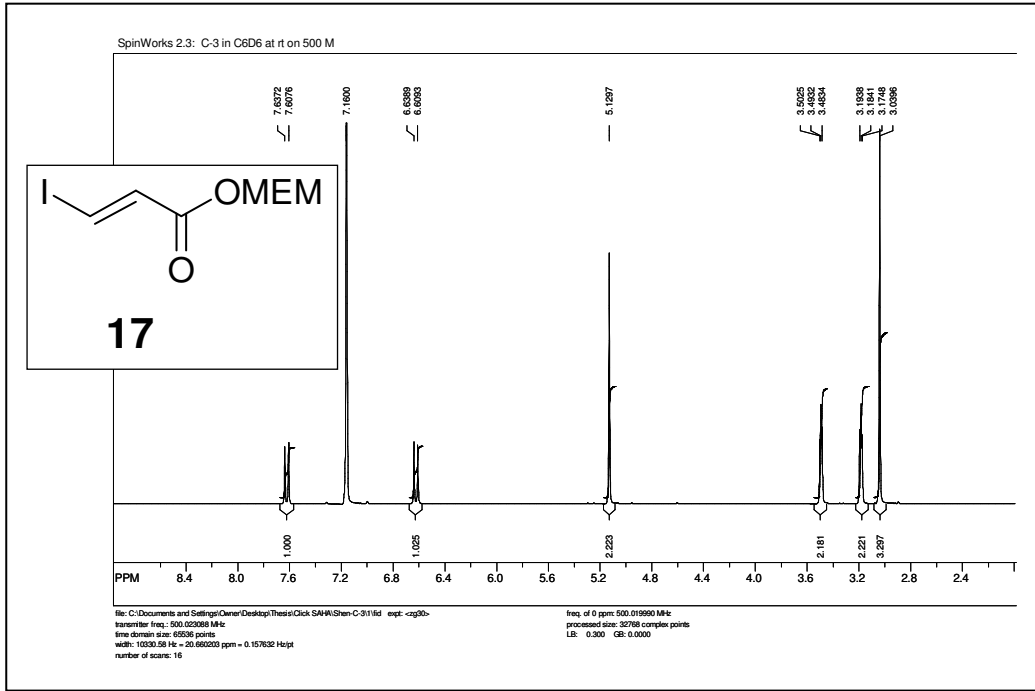


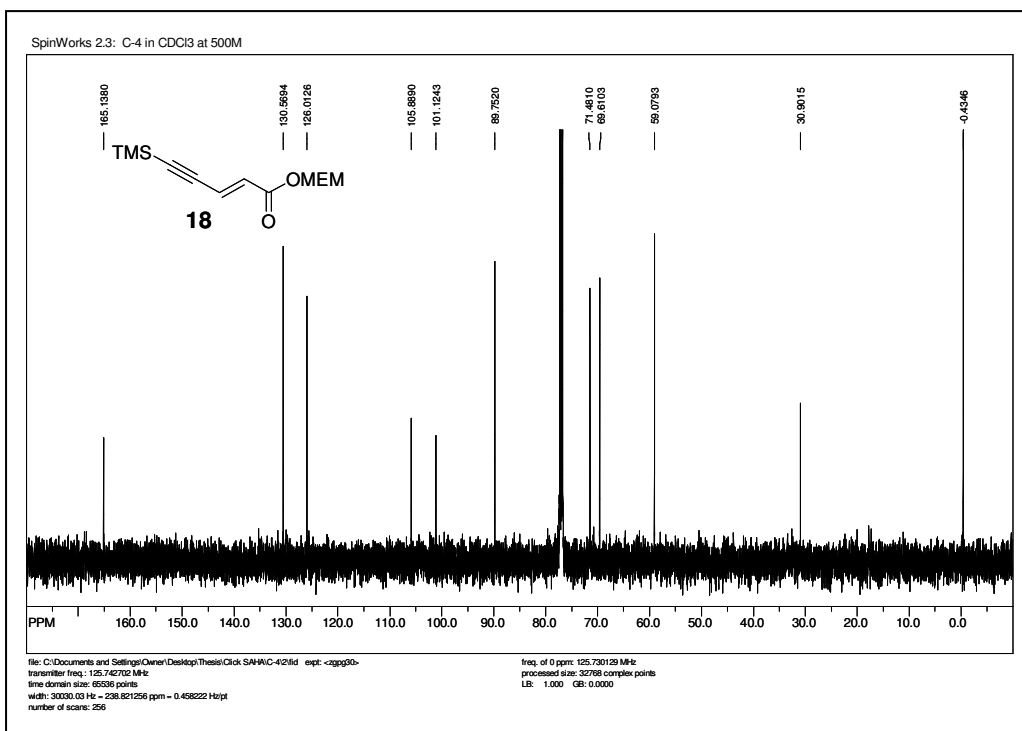
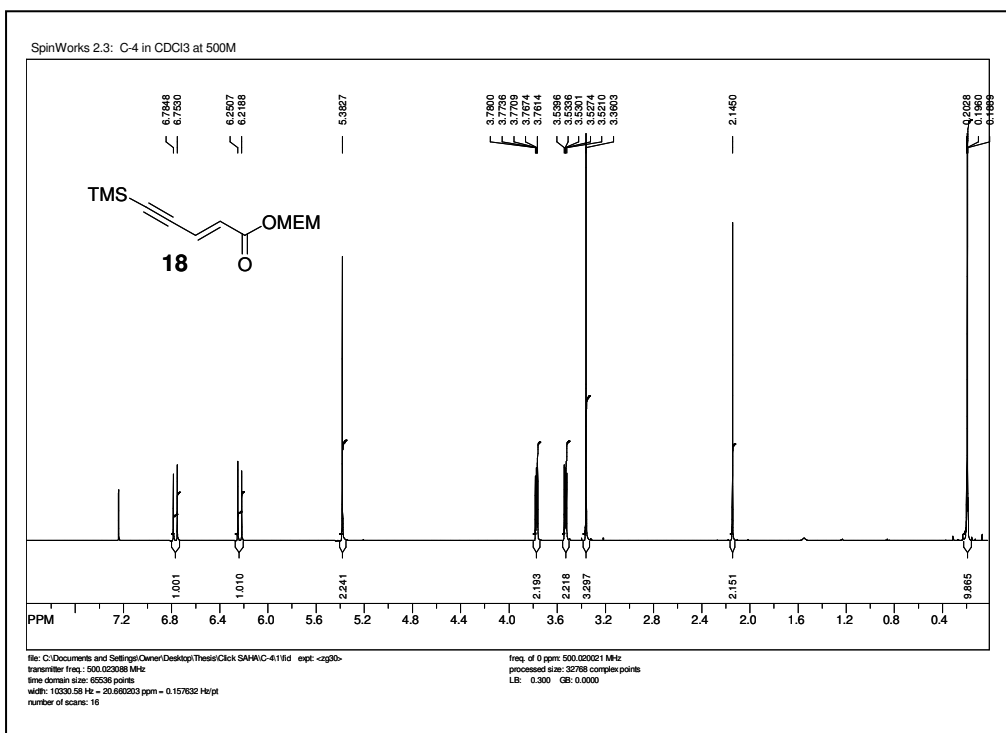


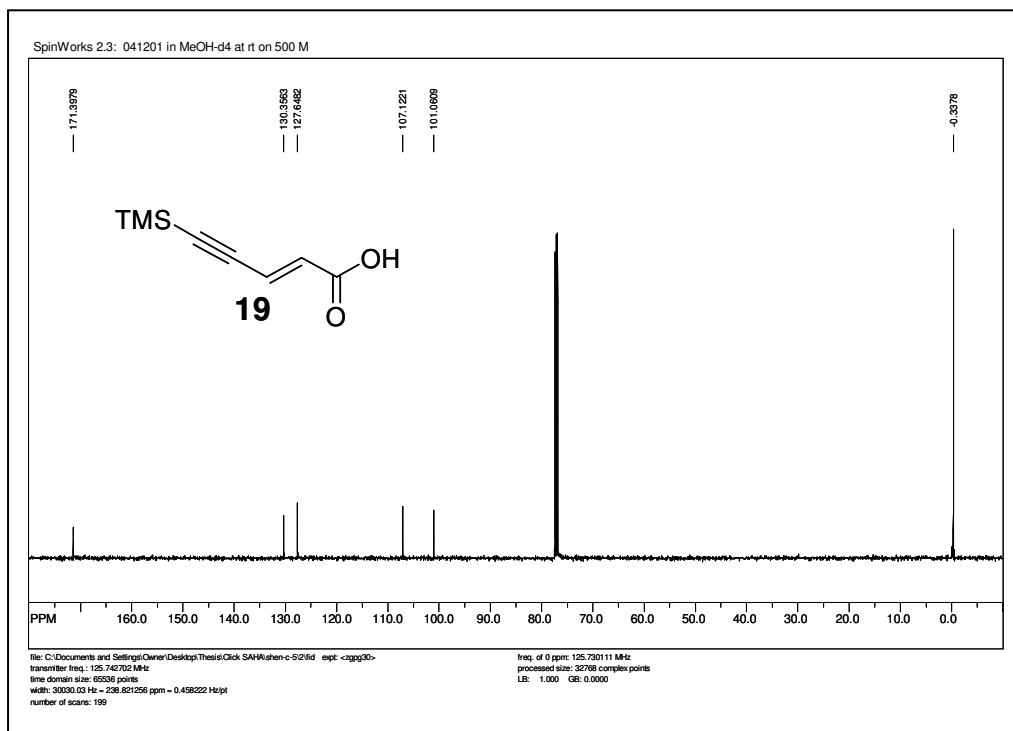
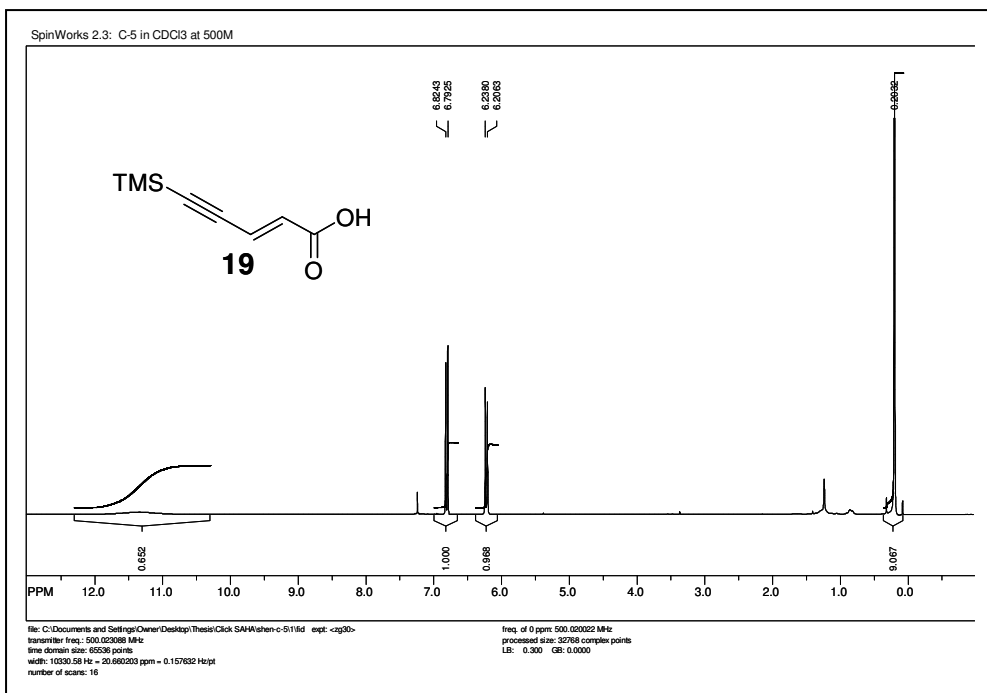


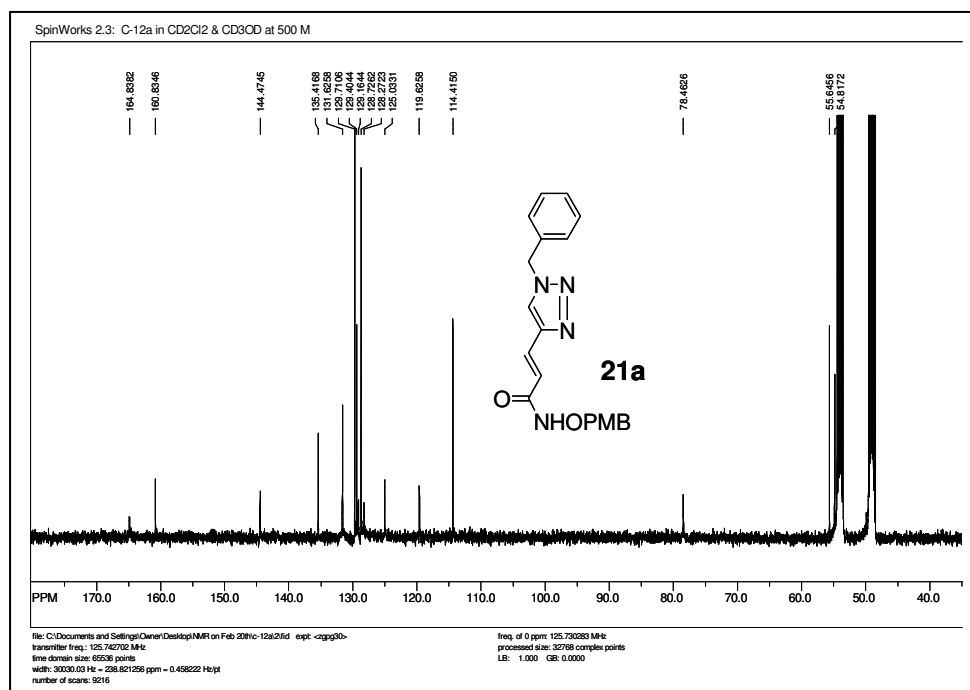
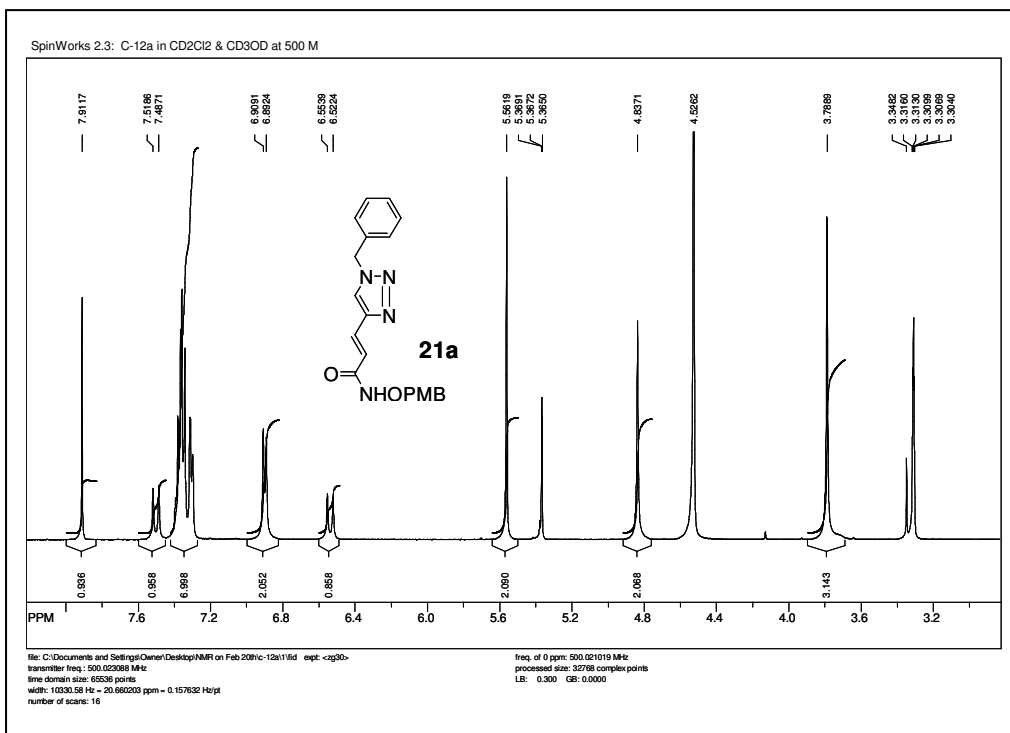


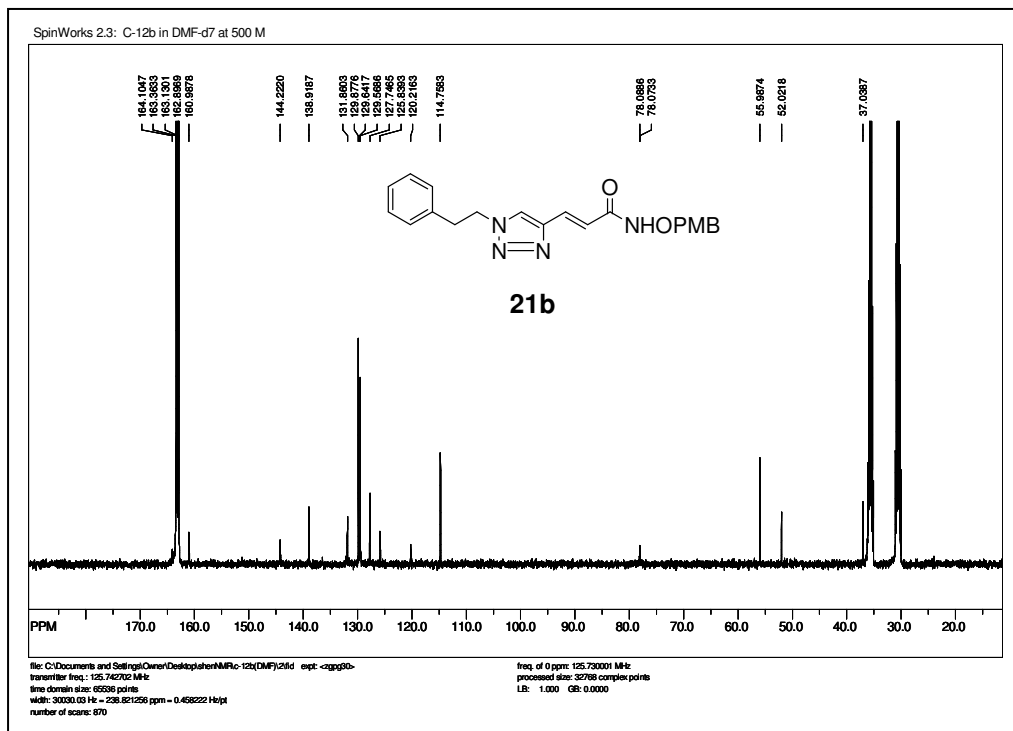
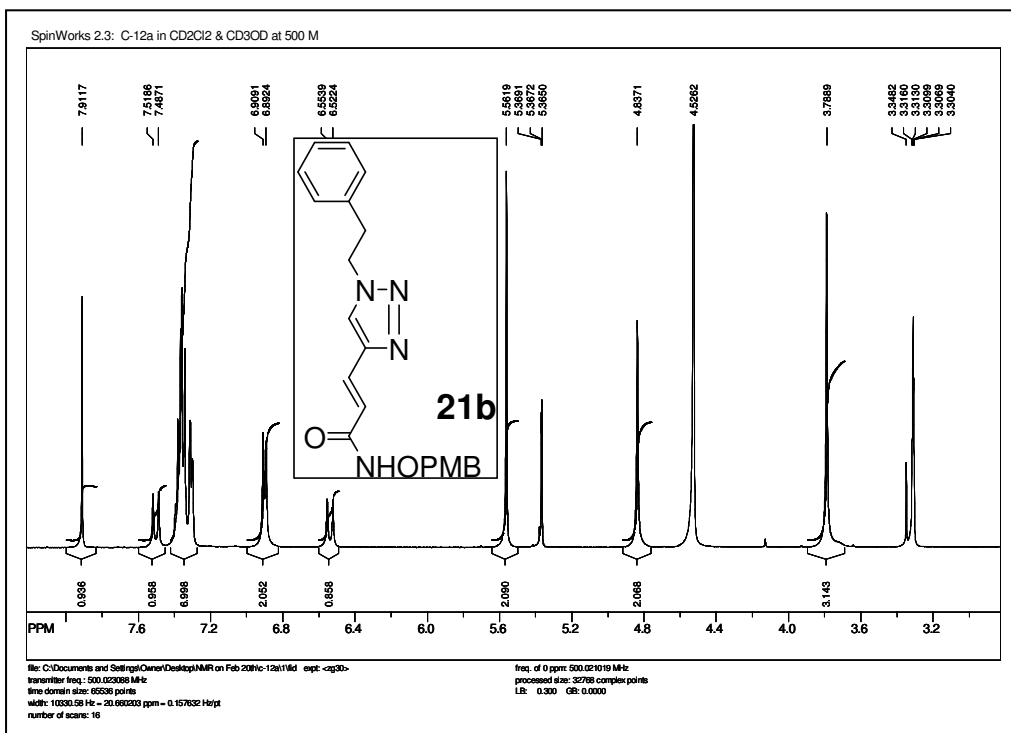


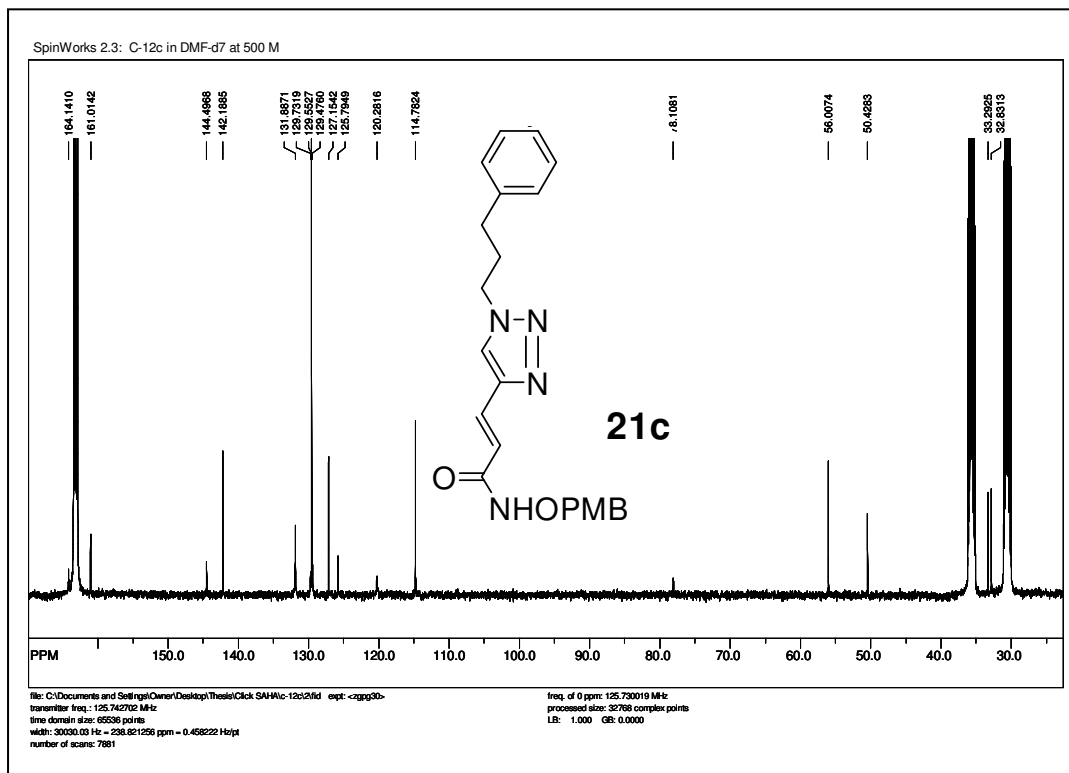
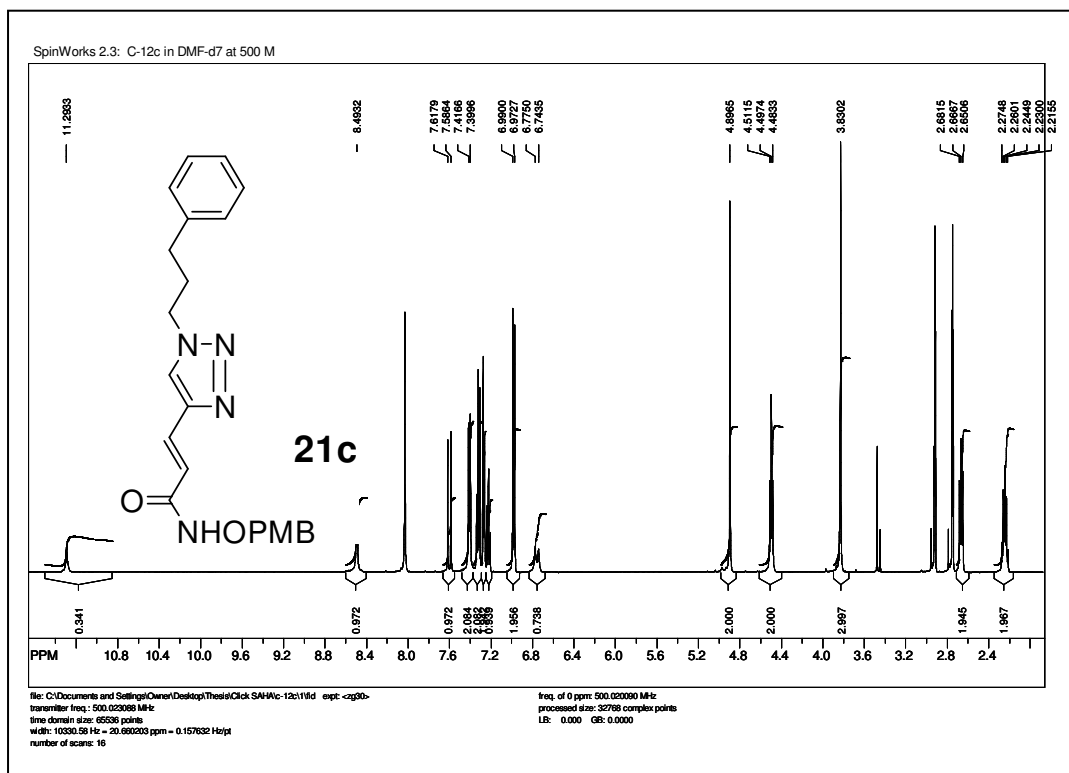


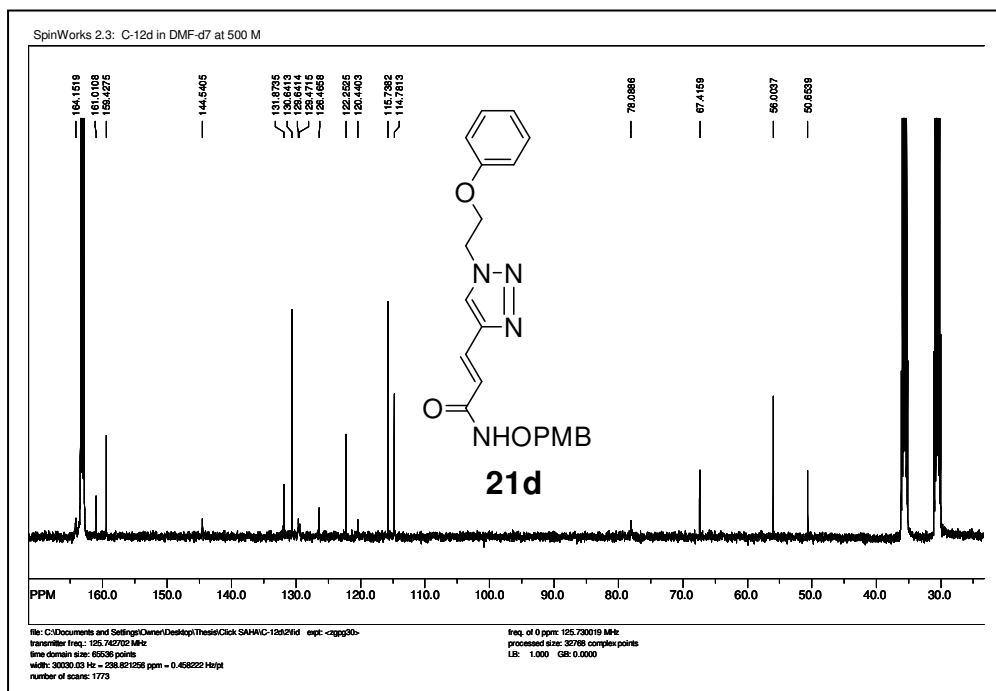
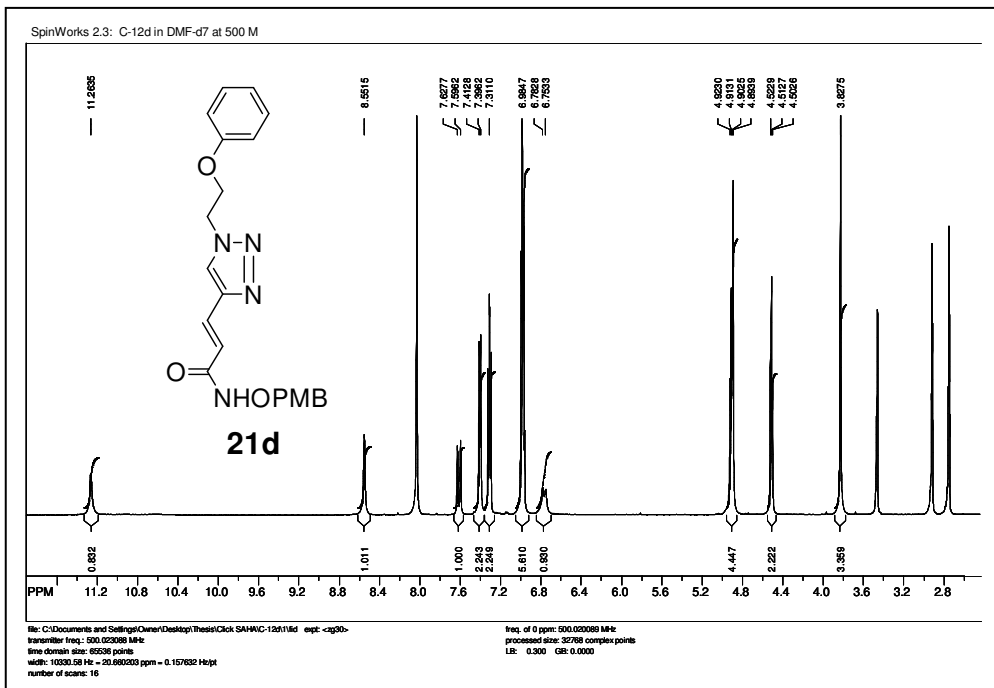


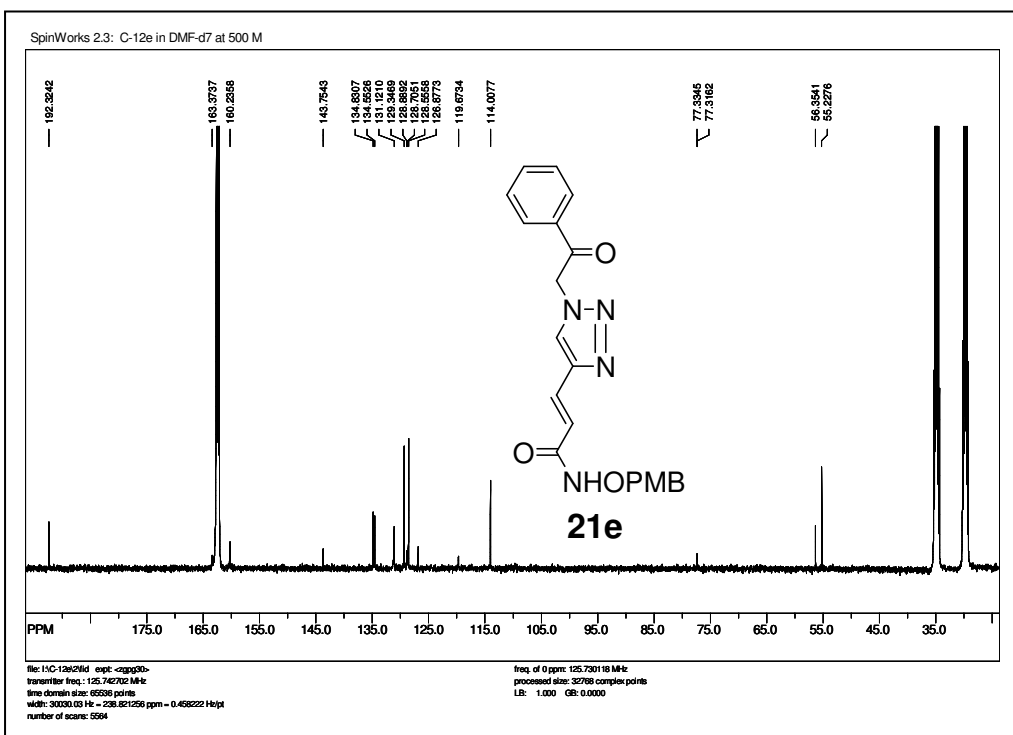
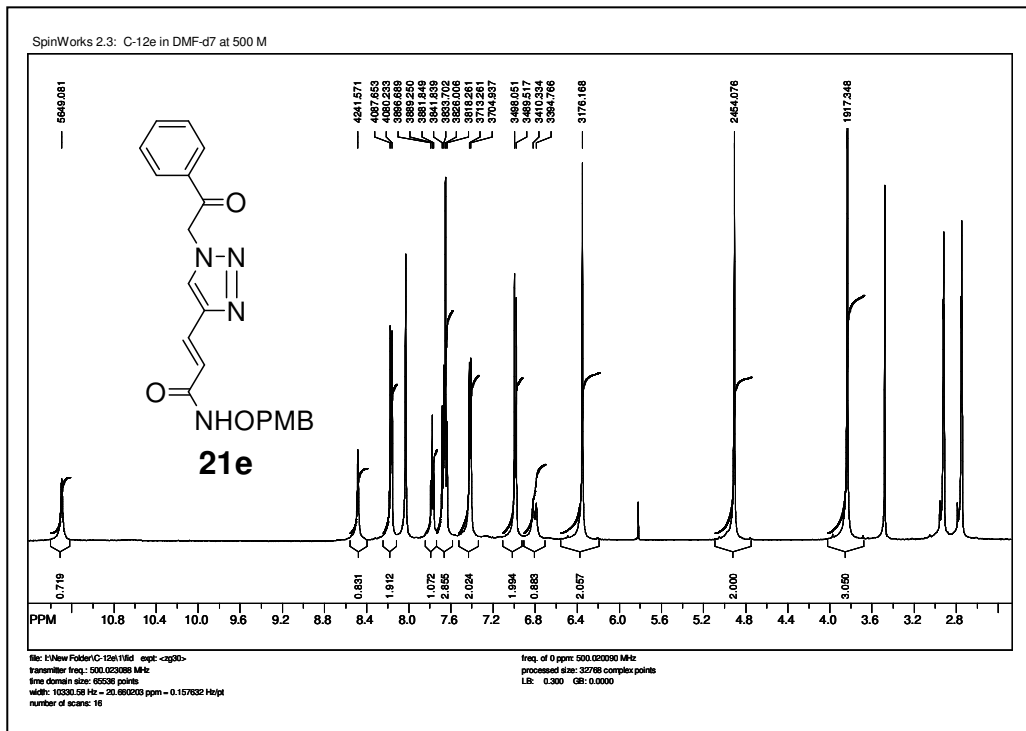


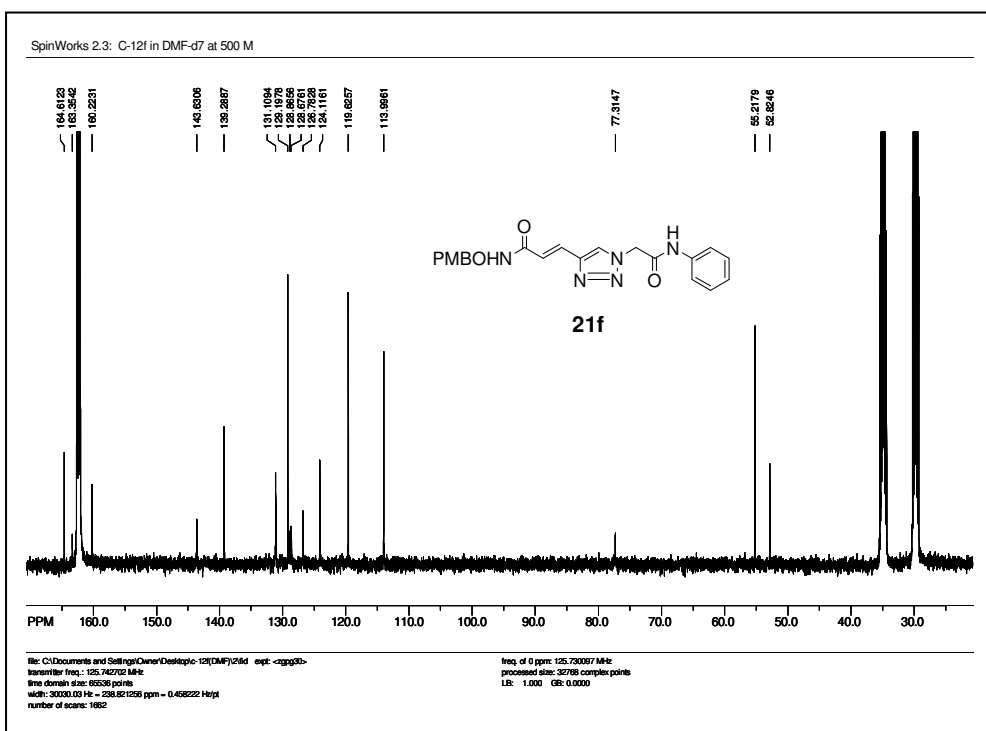
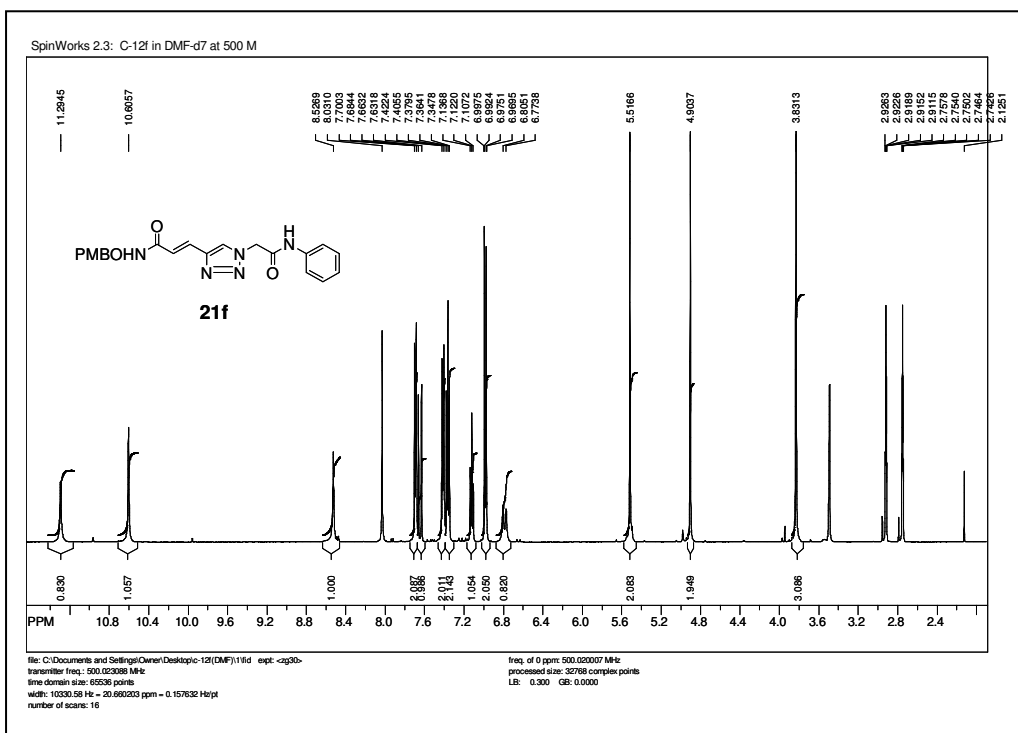


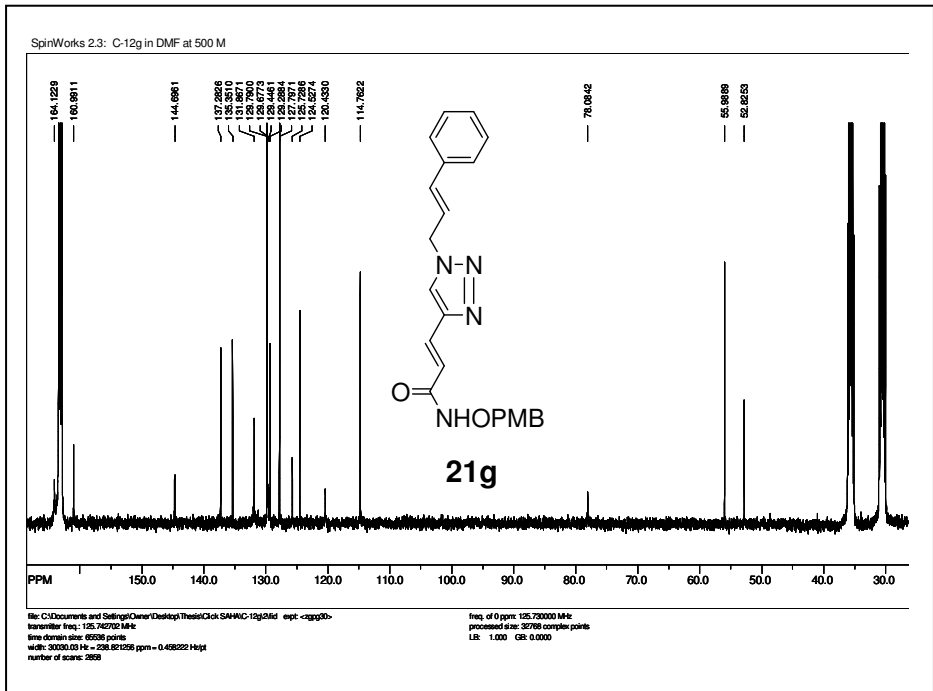
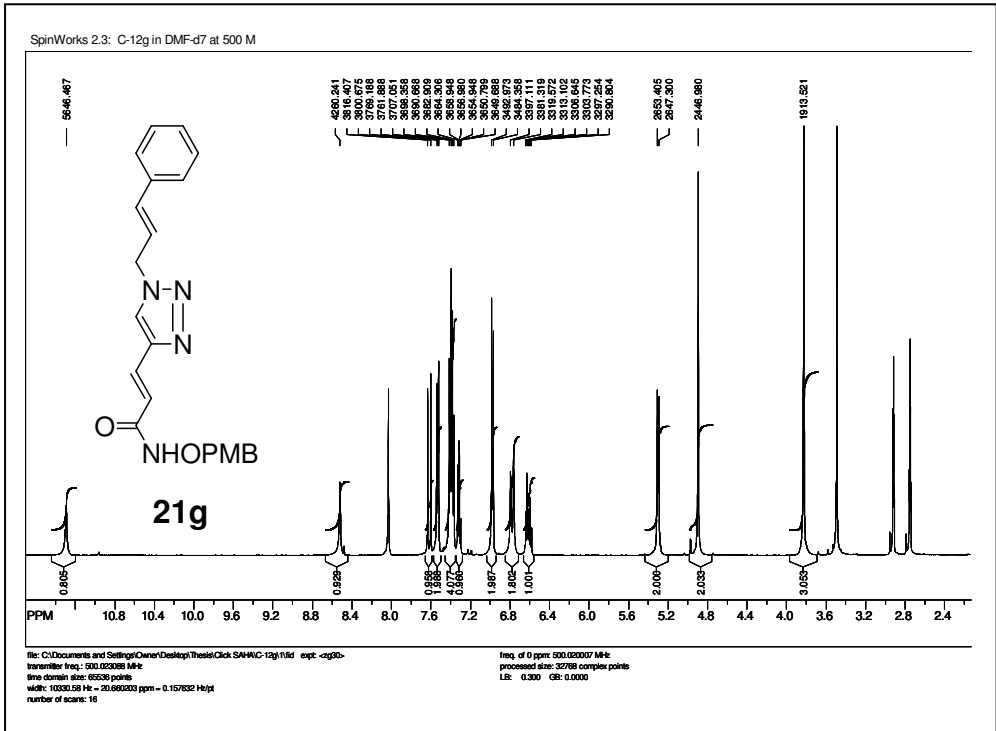


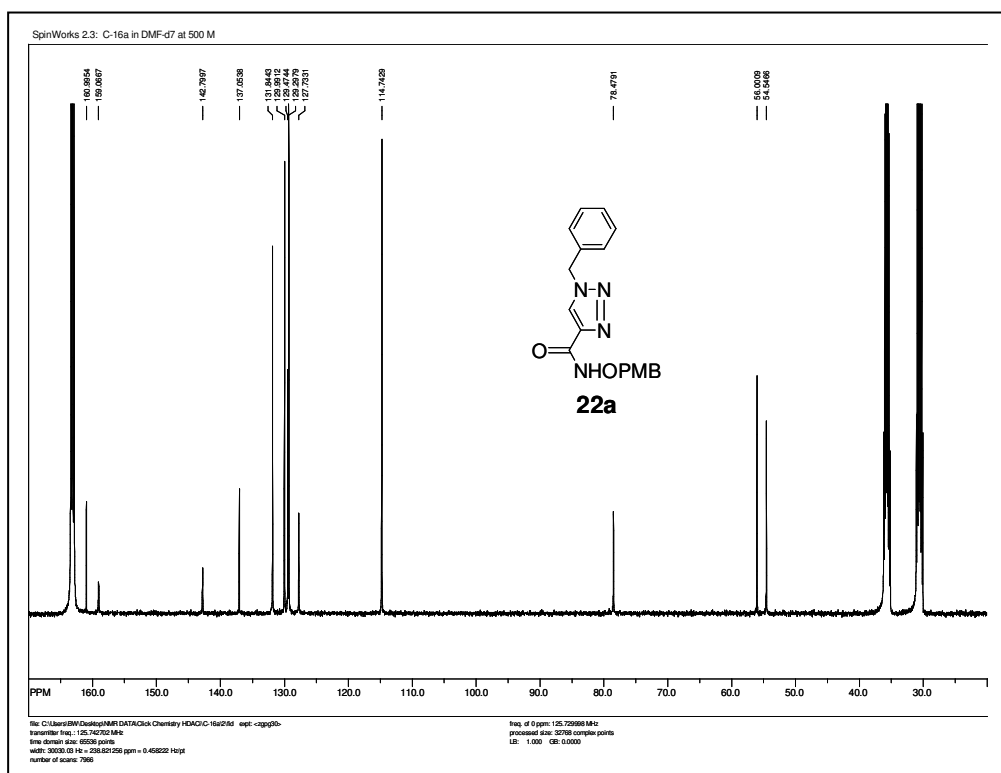
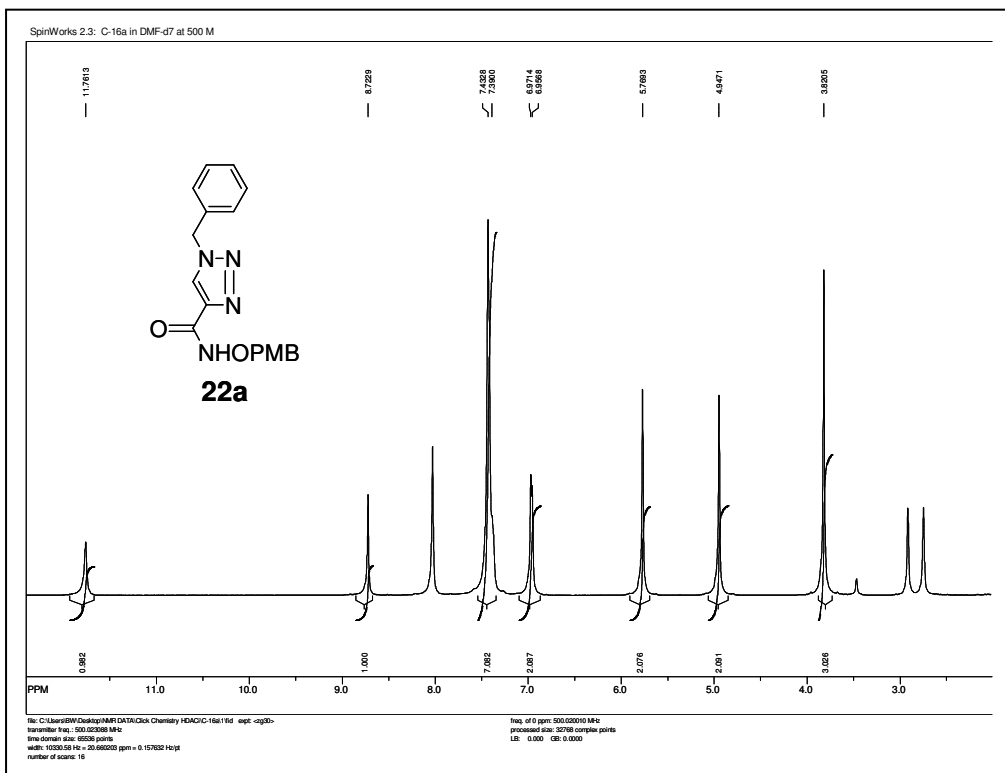


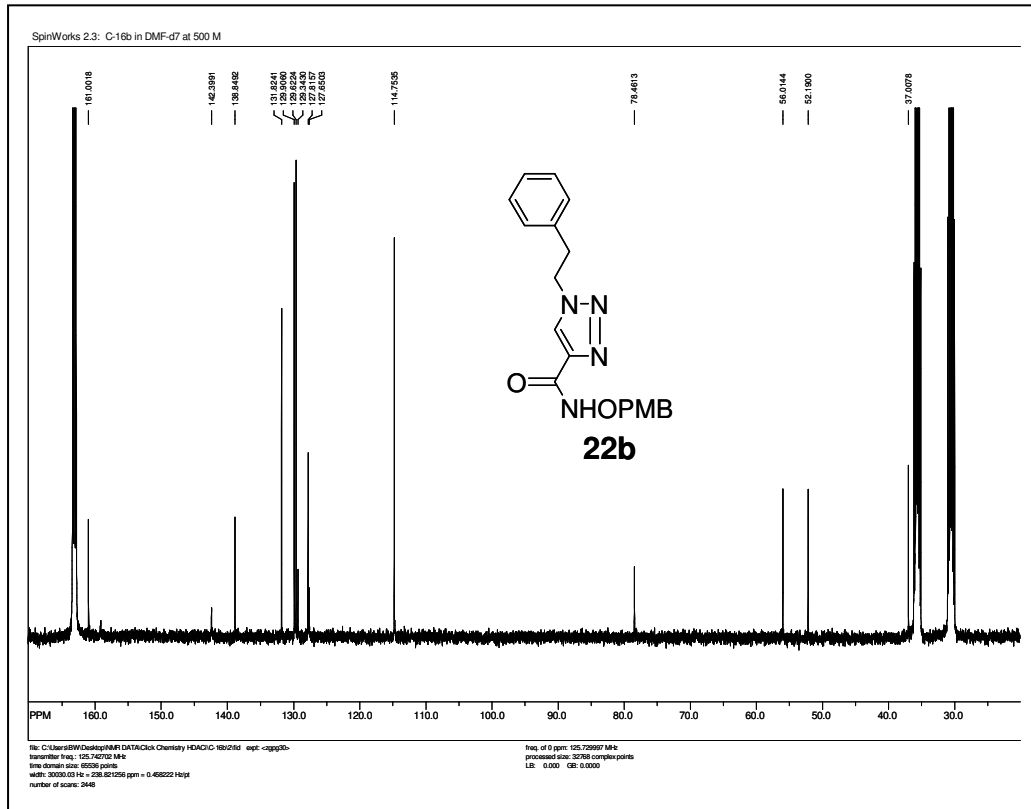
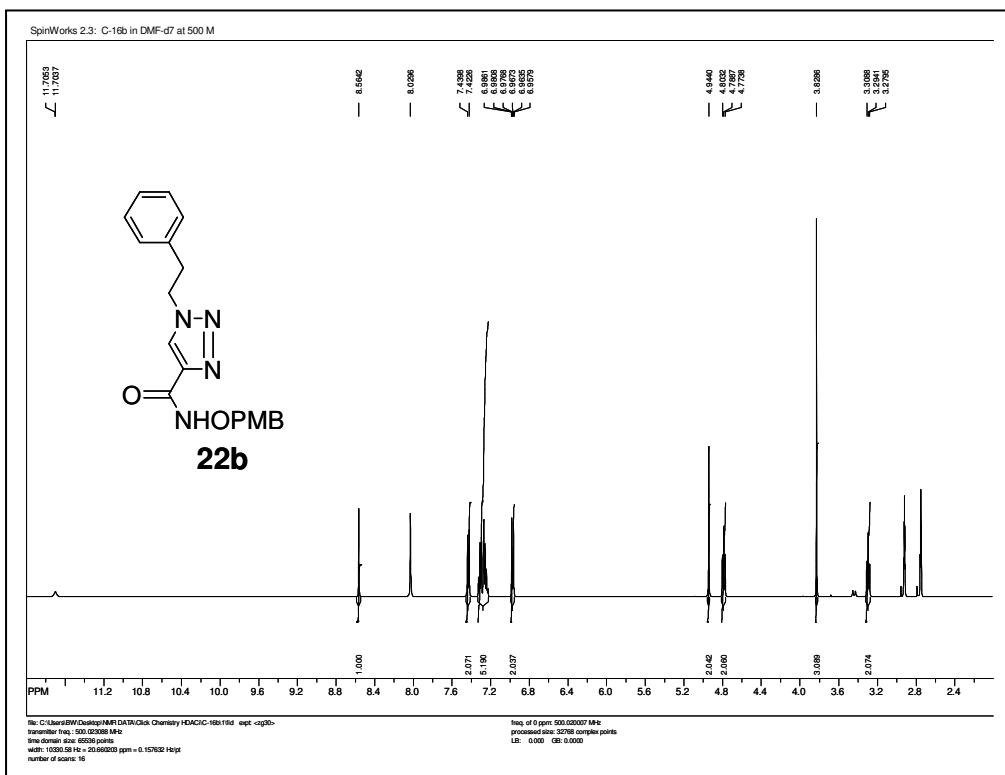


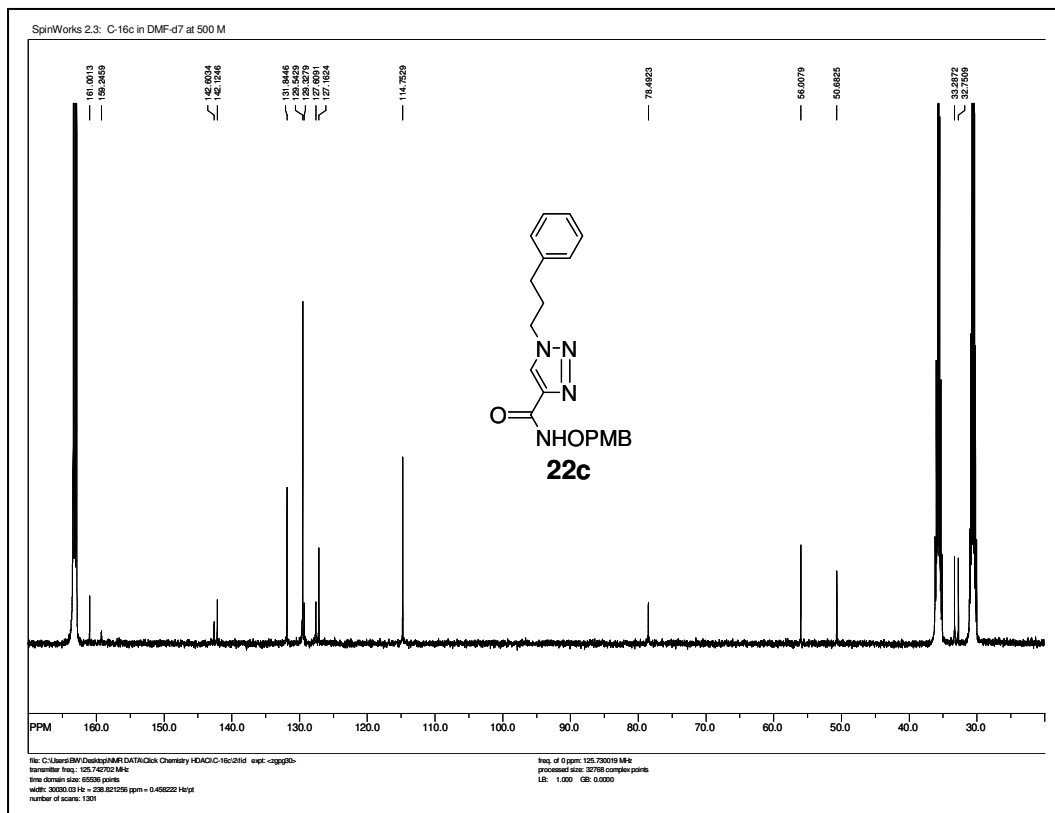
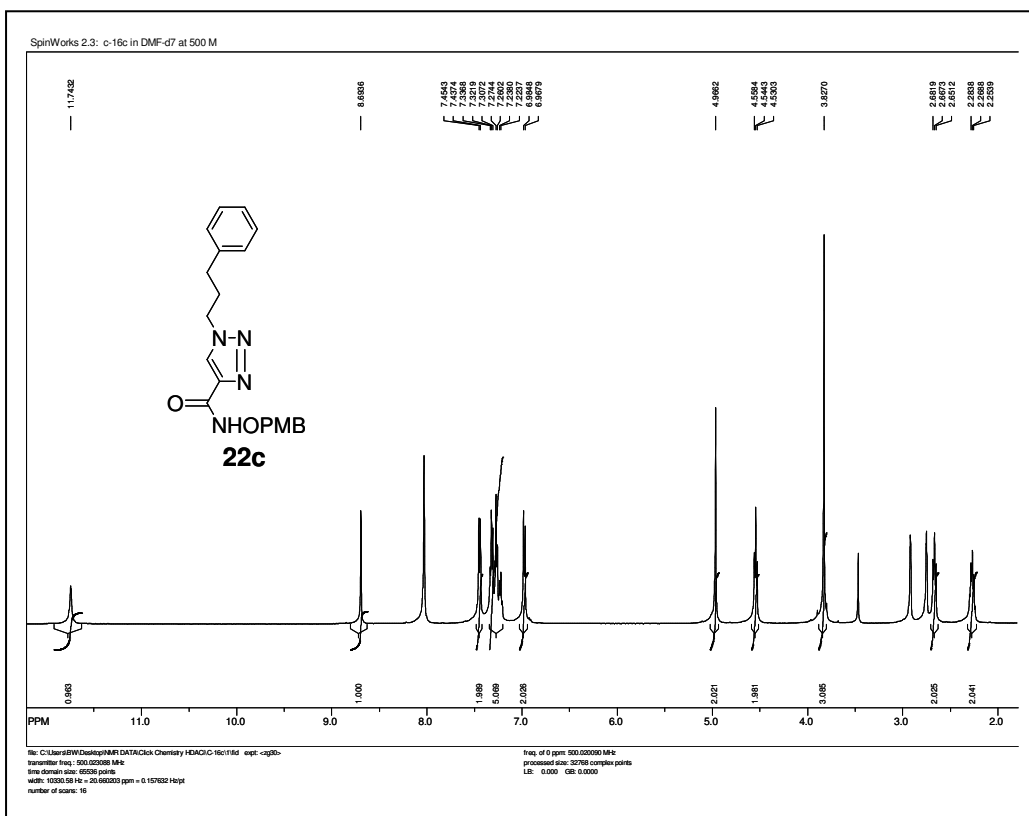


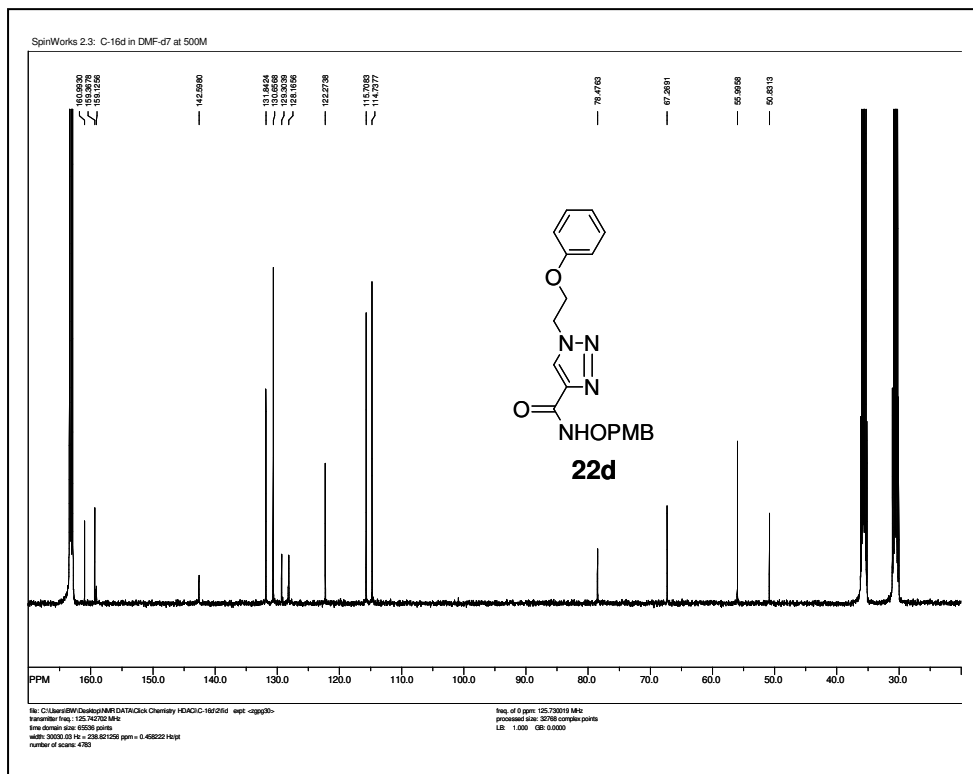
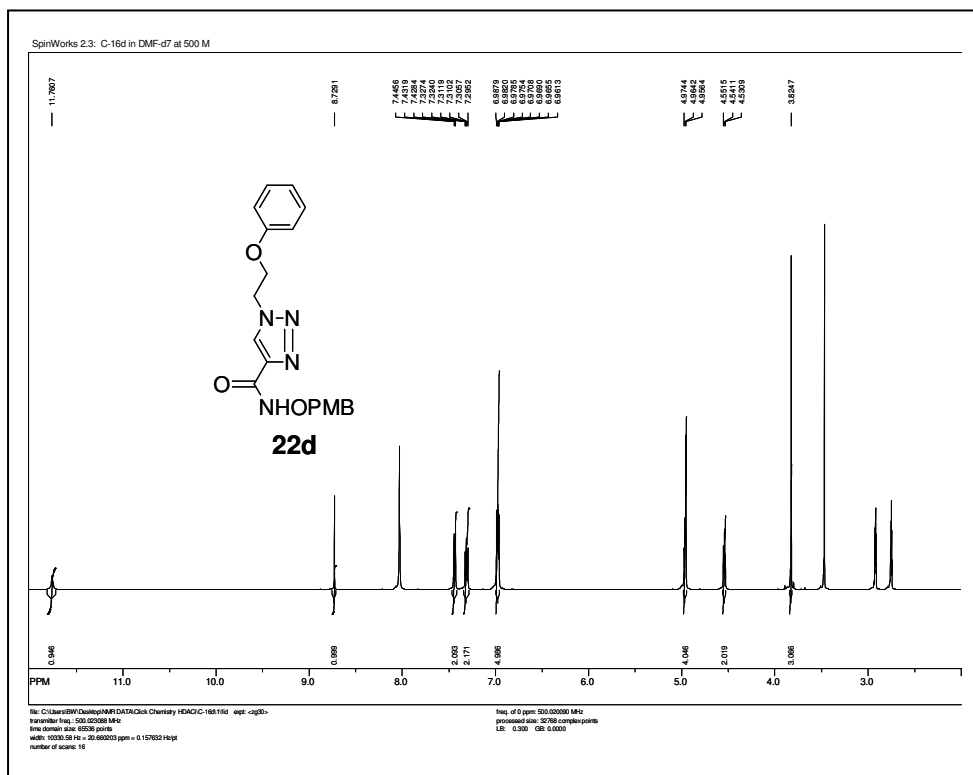


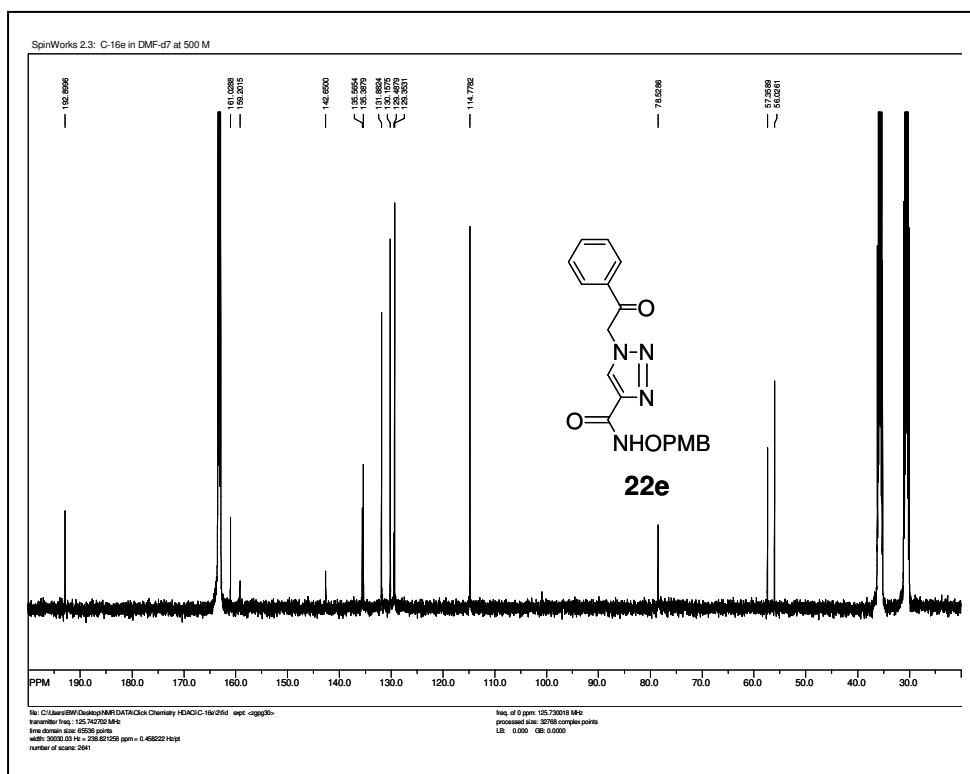
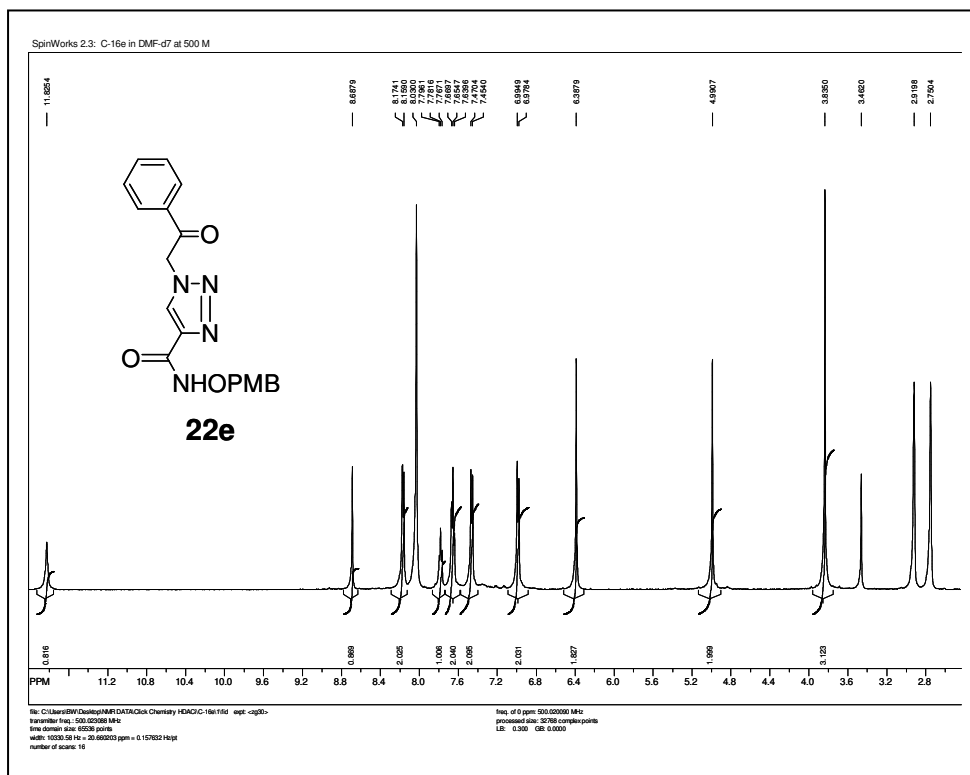


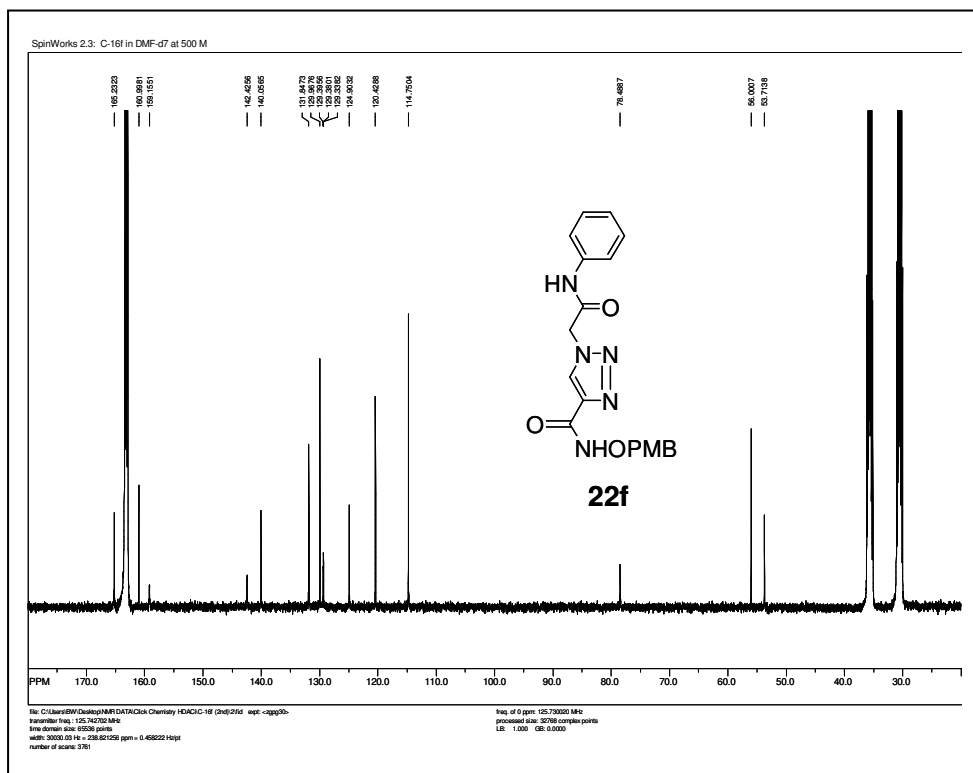
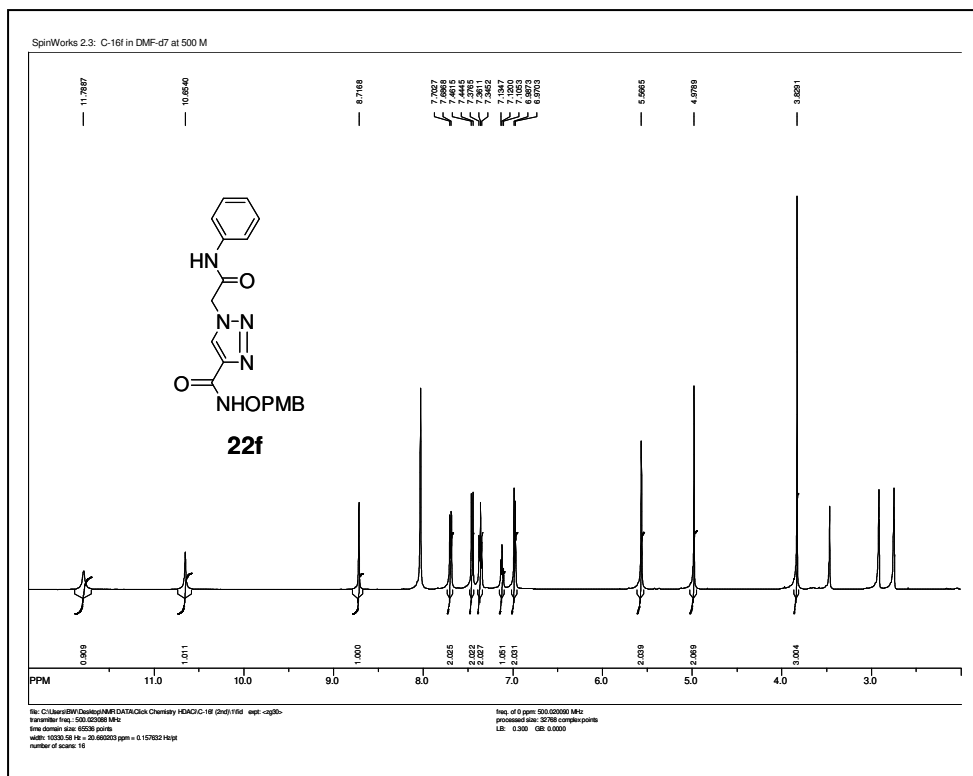


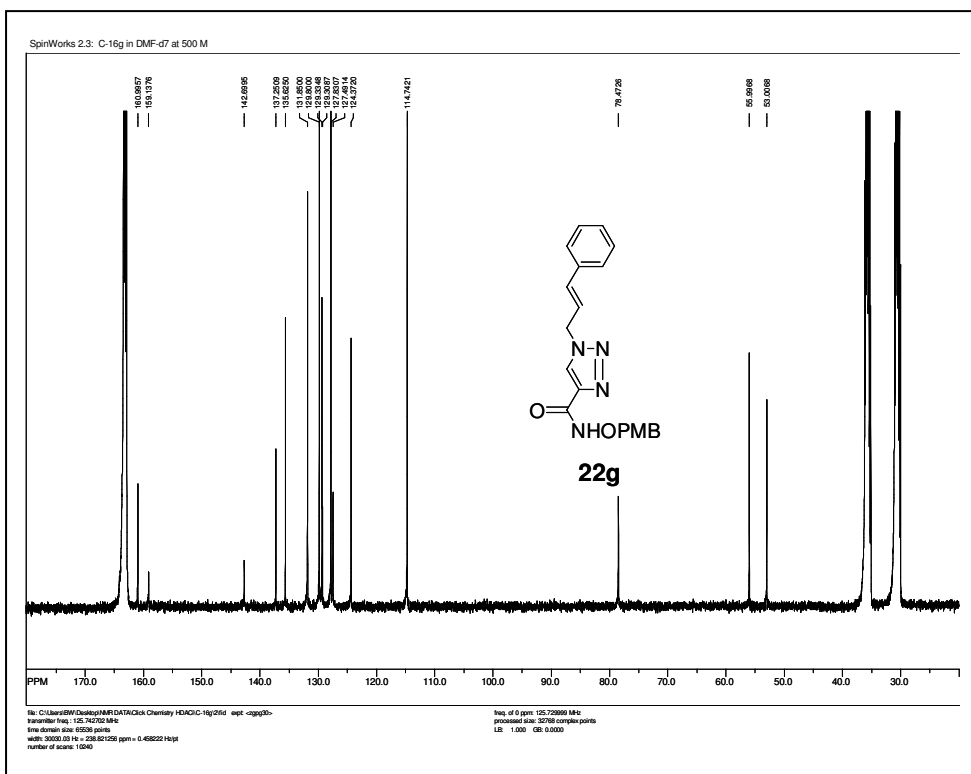
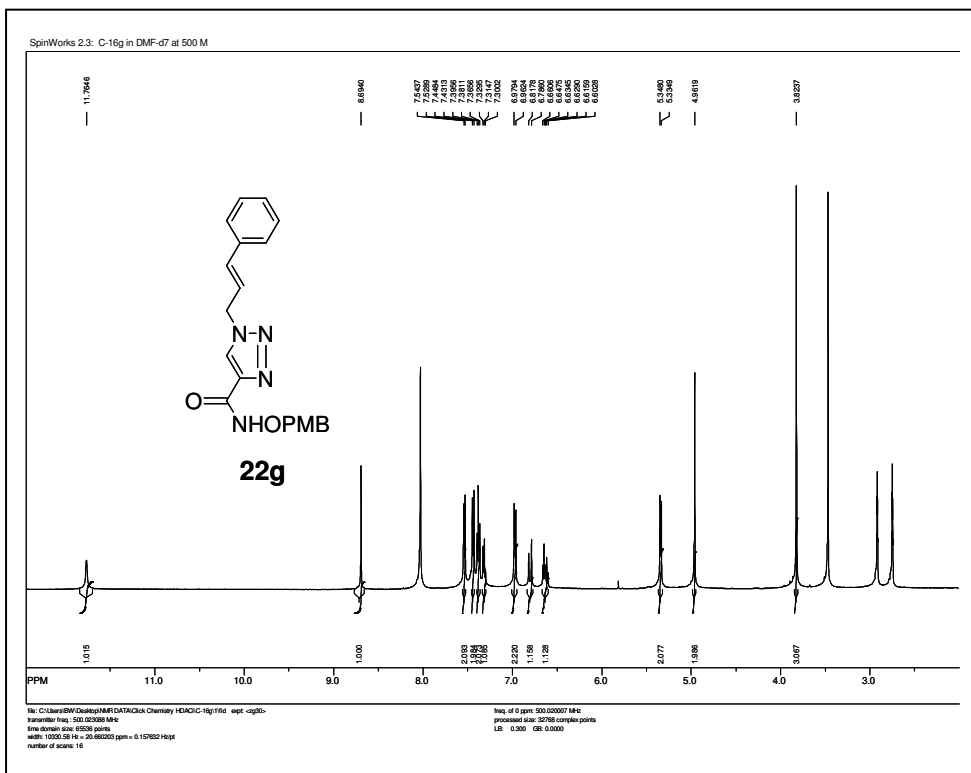












Average inhibition values of a 10- μ M-HDACi-treatment of the NIH cancer cell lines ^(a, b)

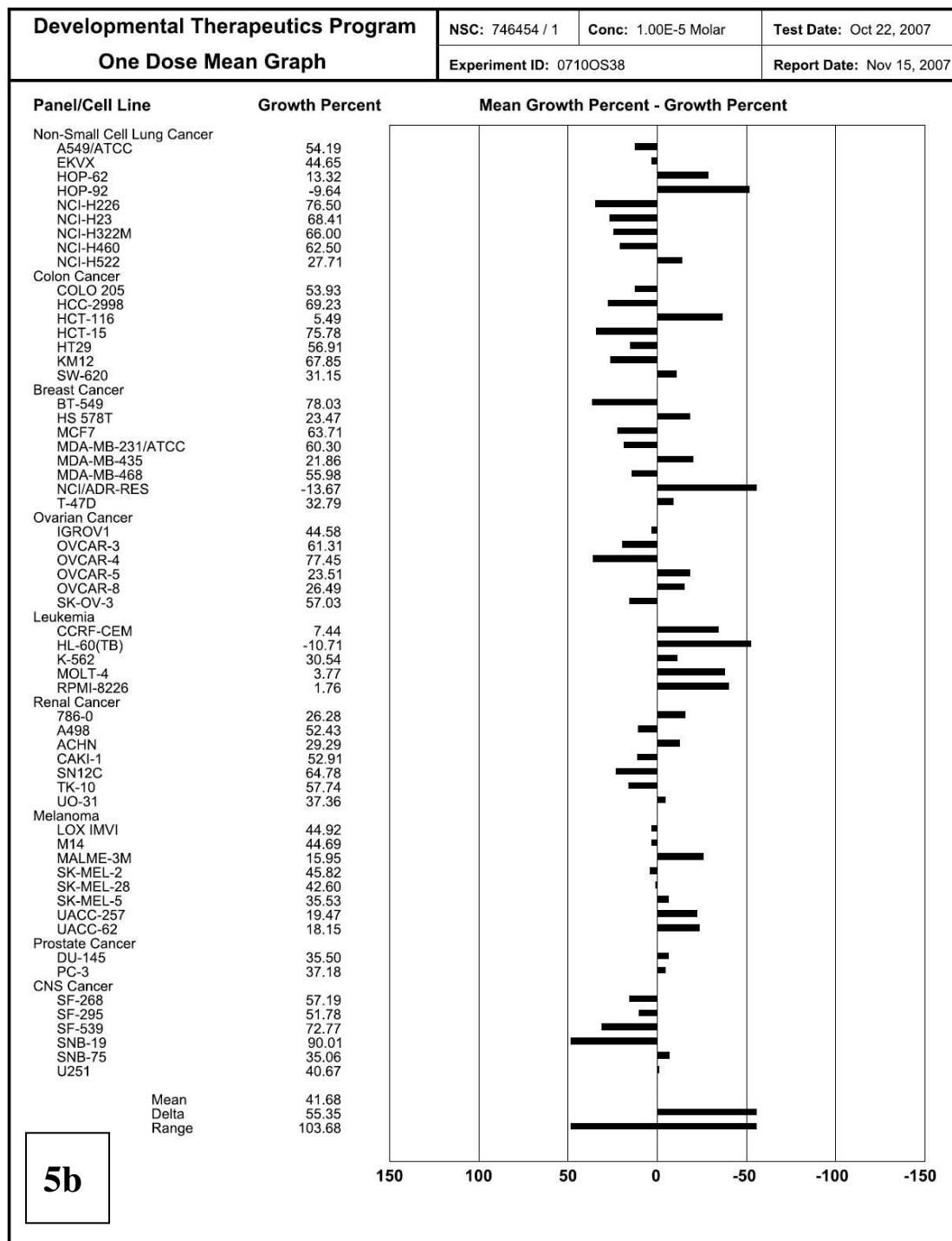
	SAHA	5b	5e	5f	5g	6e	6g
Lung	0 %	45 %	53 %	68 %	1 %		
Colon	-10 %	51 %	78 %	83 %	-25 %		
Breast	-3 %	40 %	78 %	71 %	8 %		
Ovarian	-4 %	48 %	65 %	74 %	1 %	NSI ^(c)	NSI ^(c)
Leukemia	0 %	7 %	104 %	84 %	-6 %		
Renal	-23 %	46 %	65 %	90 %	-20 %		
Melanoma	-18 %	33 %	60 %	69 %	-43 %		
Prostate	6 %	36 %	66 %	84 %	-9 %		
CNS	5 %	58 %	67 %	89 %	-18 %		
Total	-7 %	42 %	70 %	78 %	-12 %	101 %	103 %

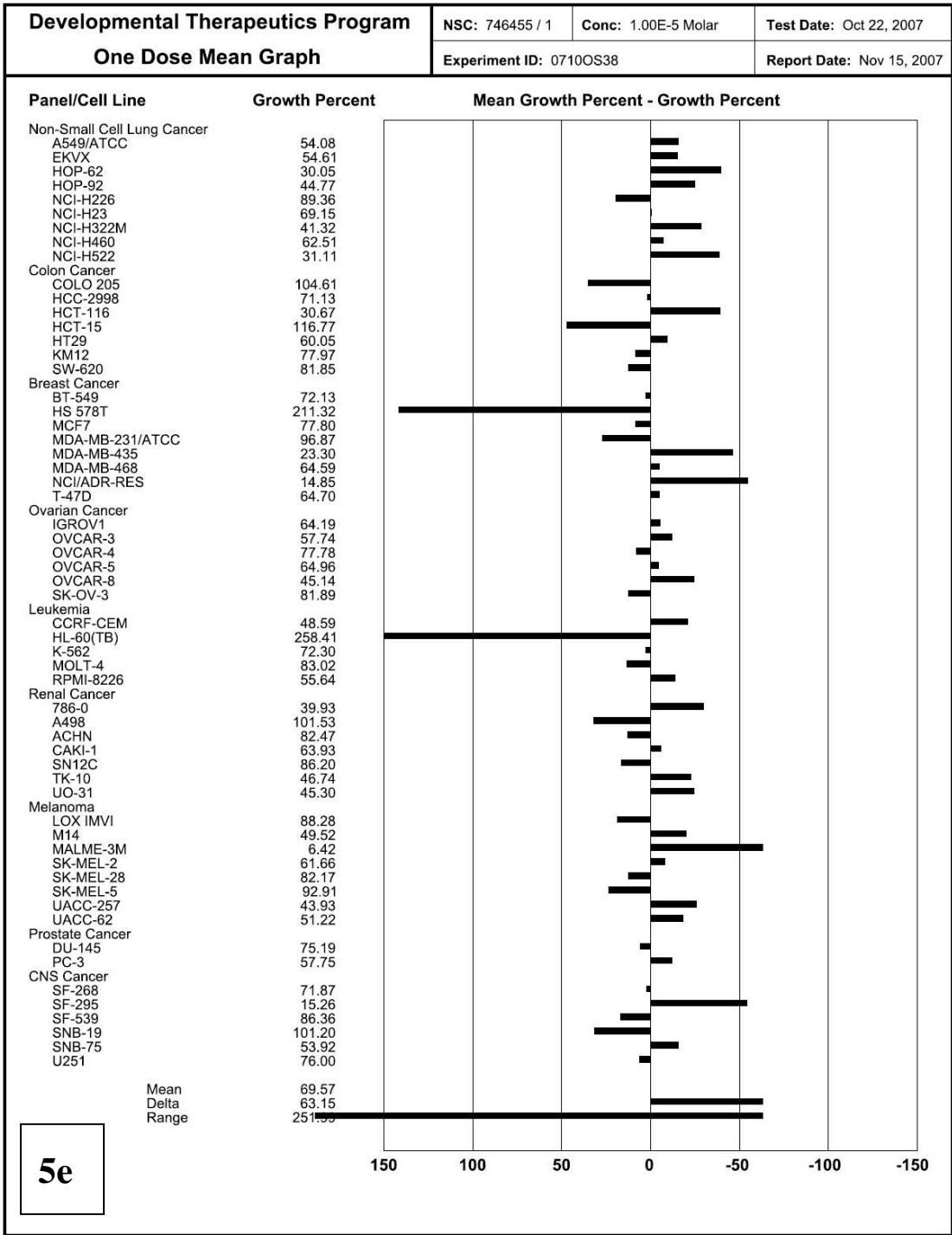
(a) The data listed were the average percentage by which the 10 μ M-HDACi-treatment inhibited the growth of cancer cell lines. Without the HDACi treatment, after a 48 hour incubation, the cell number corresponds to 100%. The cell number at the initial moment corresponds to 0%.

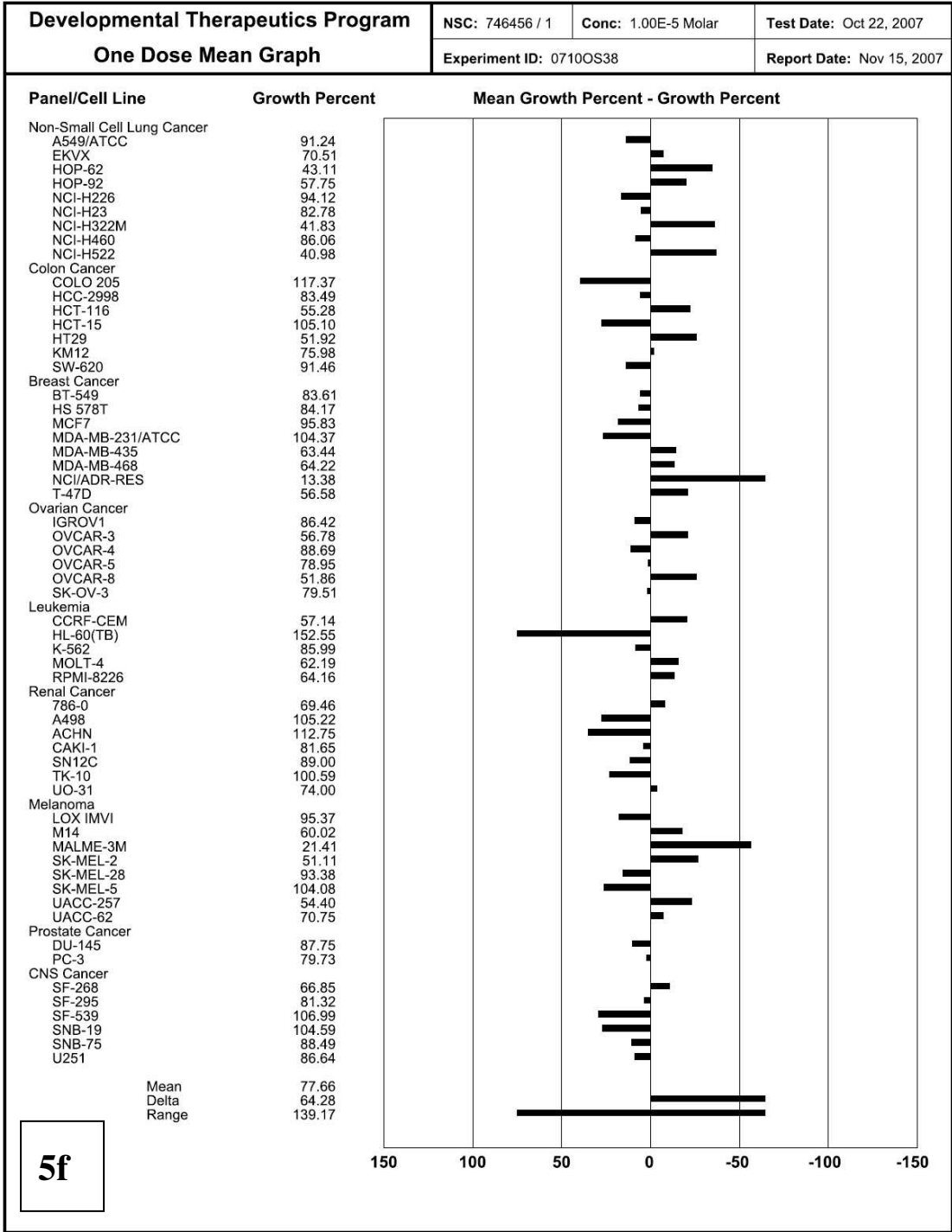
(b) A negative percentage indicates that the HDACi at 10 μ M decreases the cell number in comparison to the number seen at the initial moment.

(c) NSI means no significant inhibition of cell growth (> 95 %).

The following graphs present the inhibition values for 10-uM-HDACi-treatments of the NIH cancer cell lines. The average inhibition values presented above was derived from these graphs.







Developmental Therapeutics Program

NSC: 746457 / 1

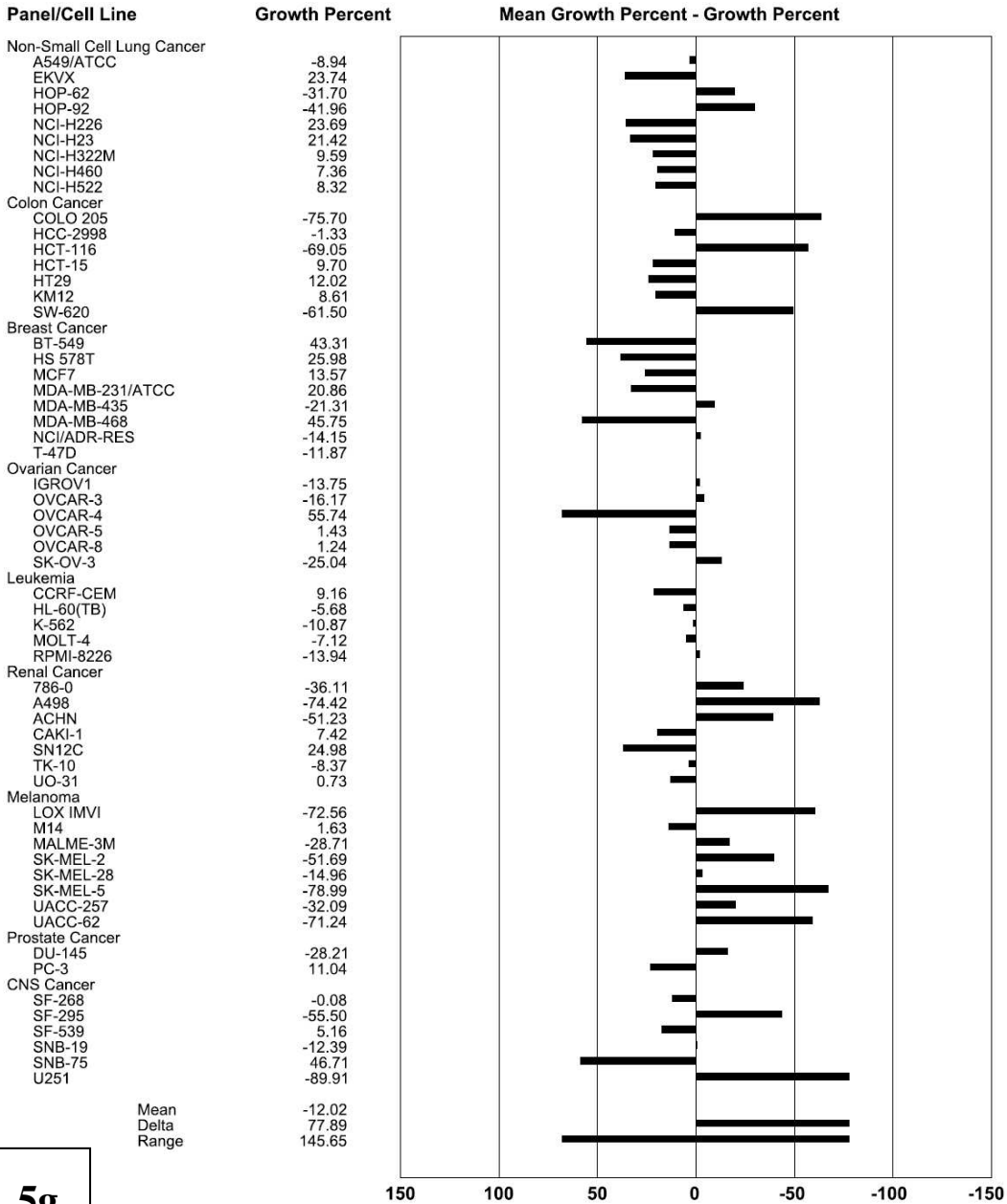
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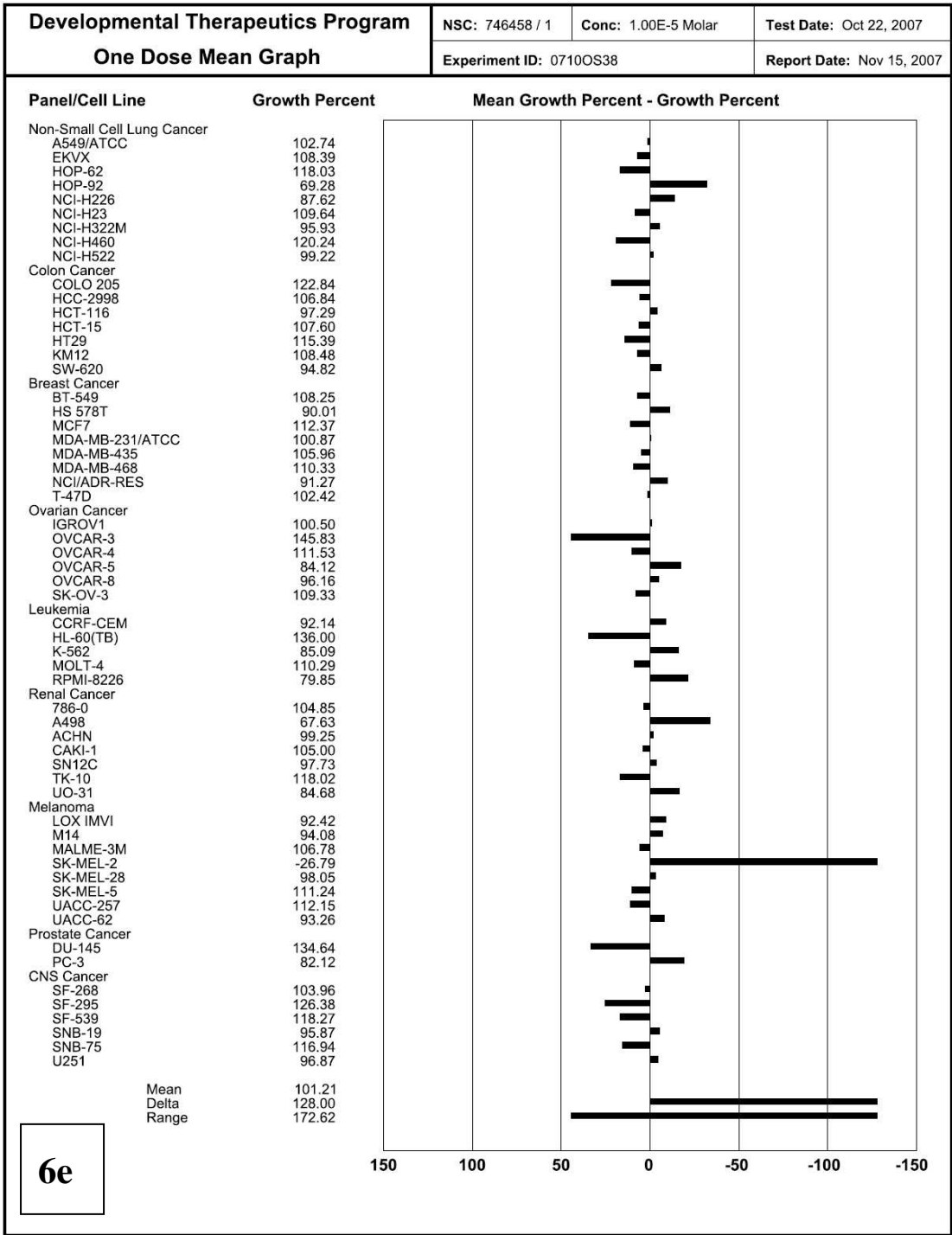
Test Date: Oct 22, 2007

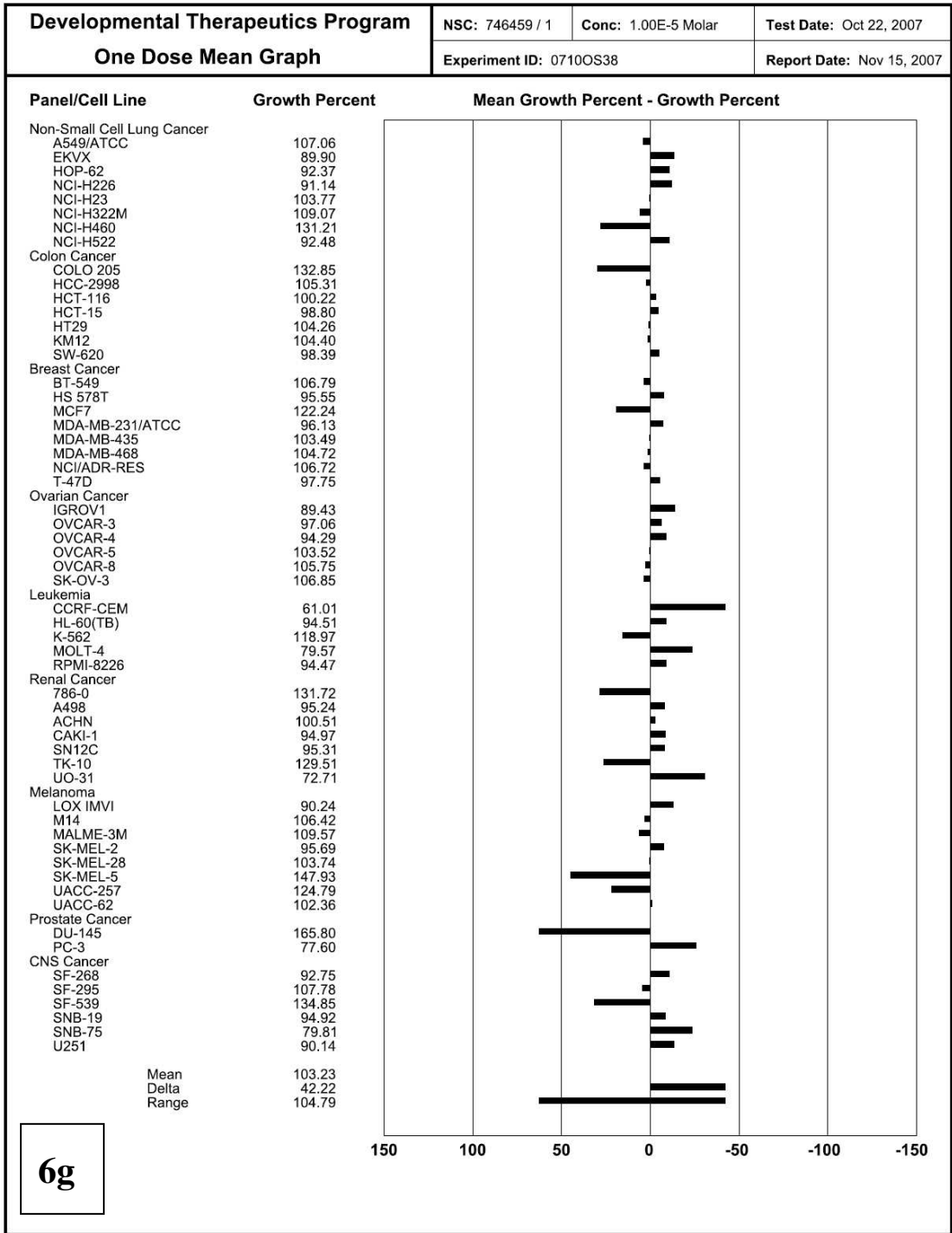
One Dose Mean Graph

Experiment ID: 07100S38

Report Date: Nov 15, 2007







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