

## Supporting Information

### A General Approach to the Synthesis of 5-S-functionalized Pyrimidine Nucleosides and their Analogues

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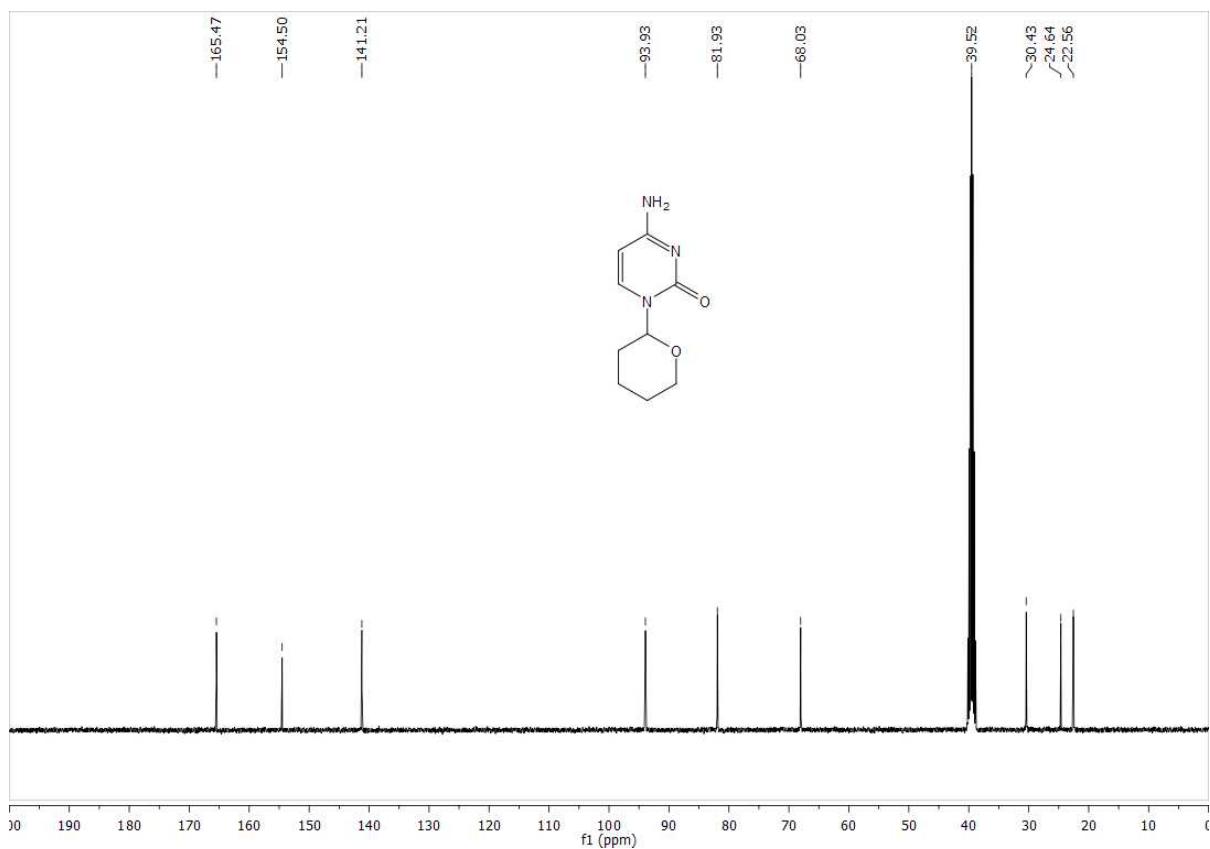
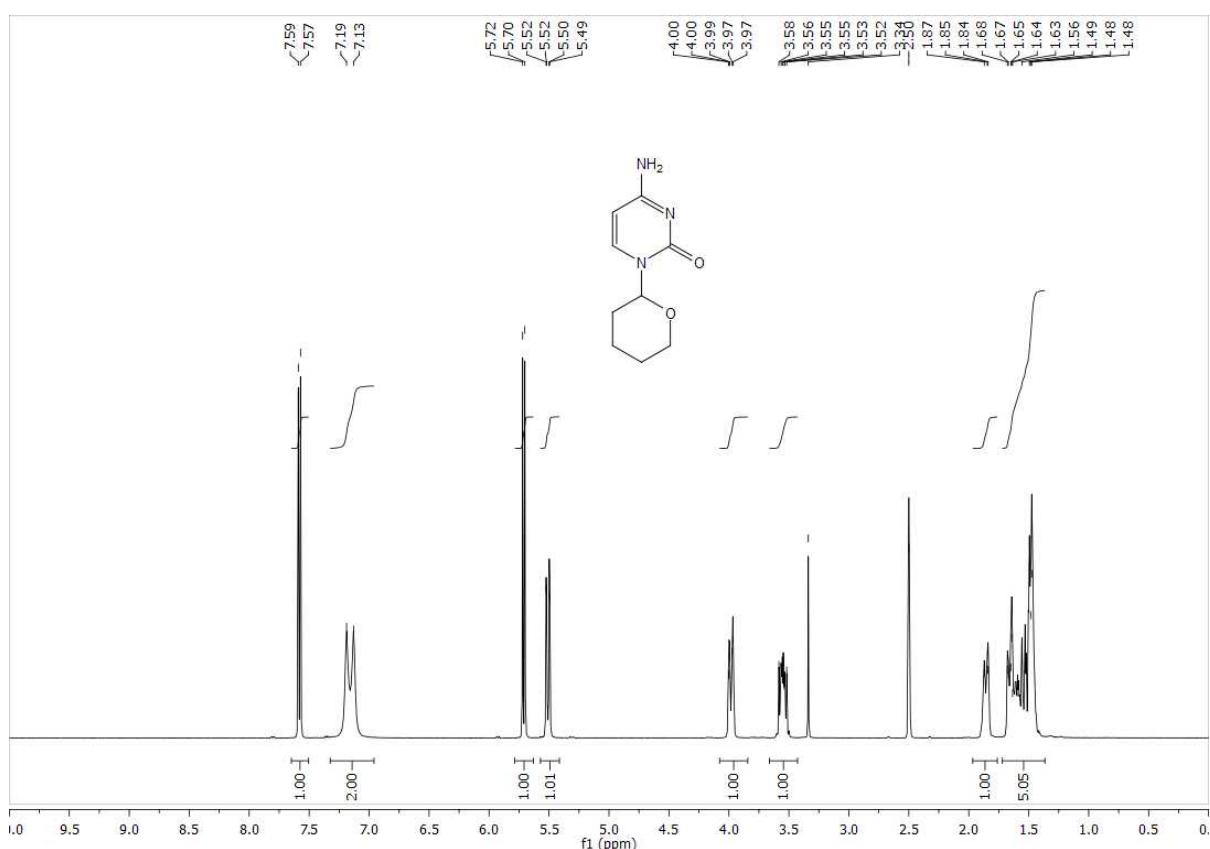
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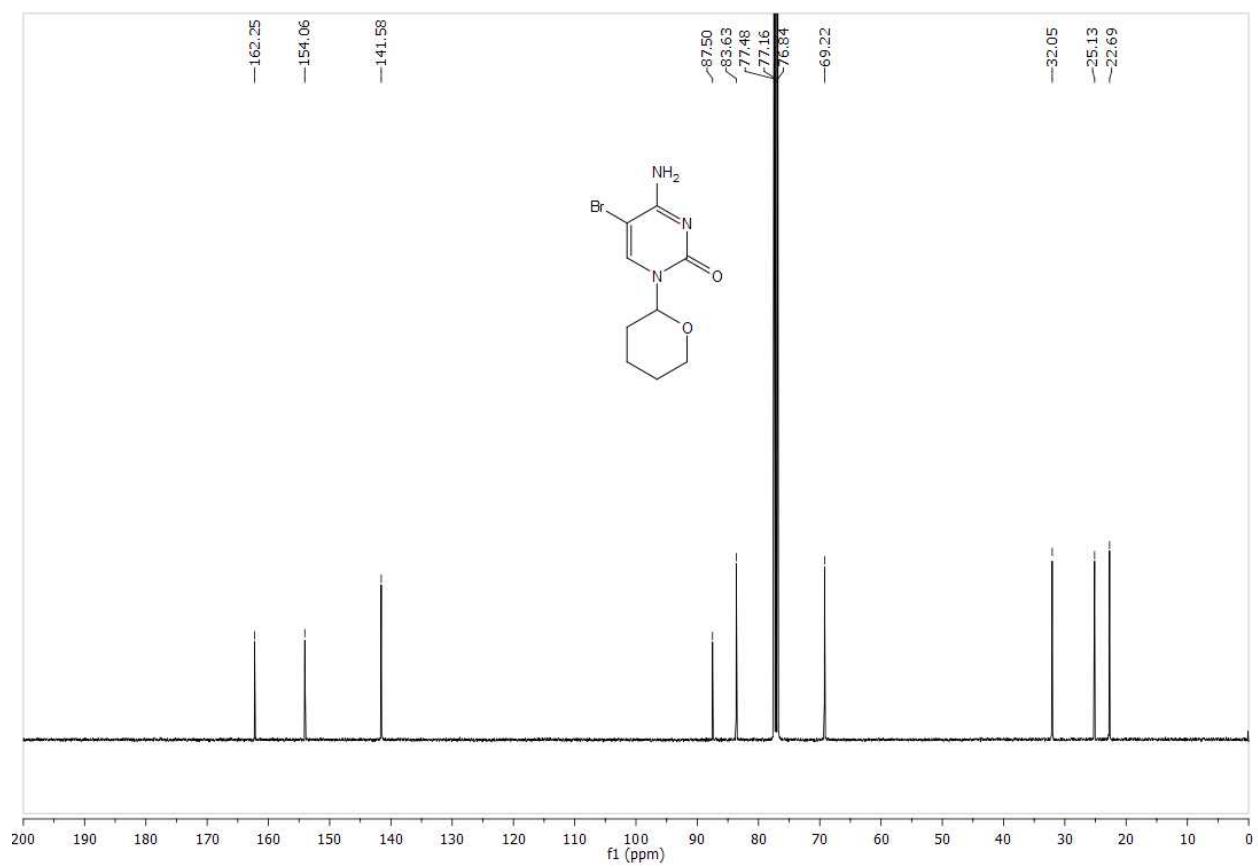
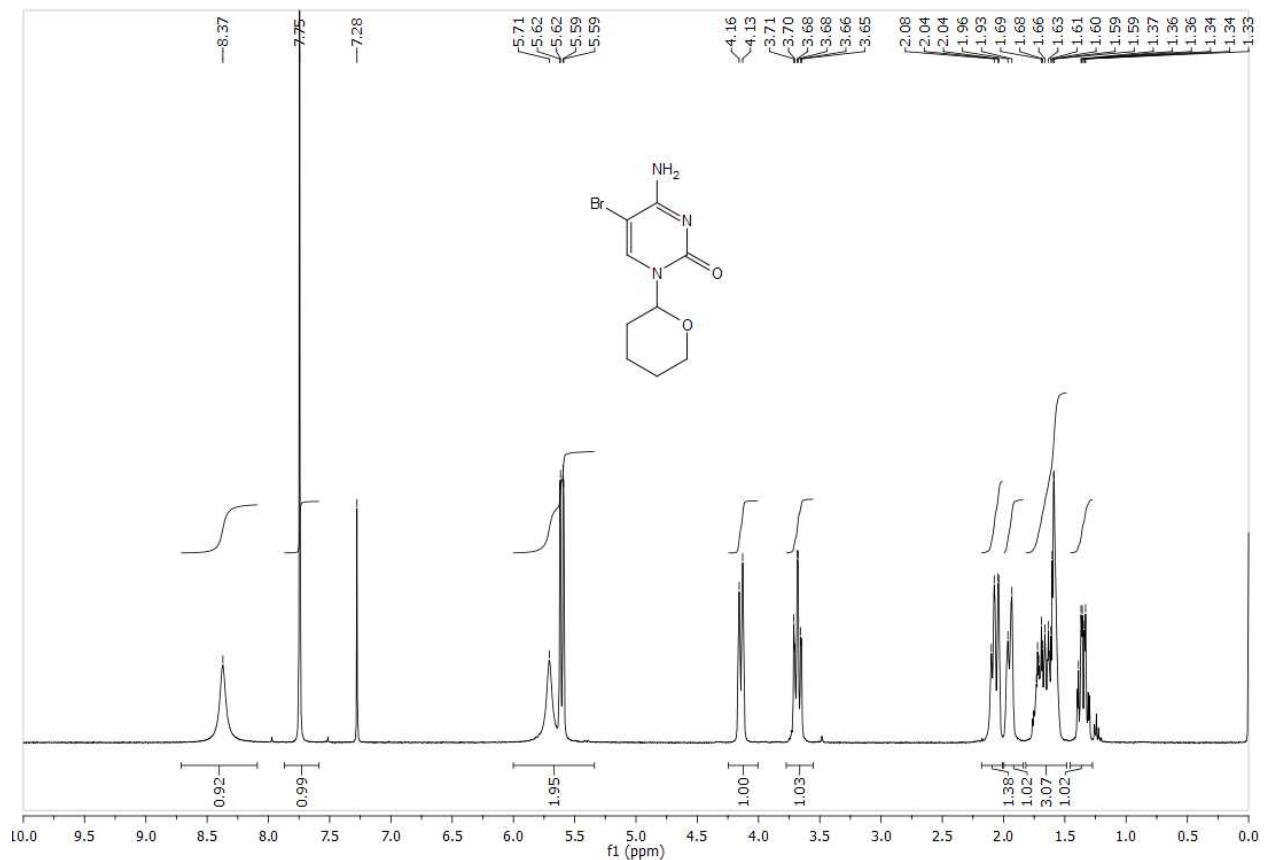
E-mail: [lopp@chemnet.ee](mailto:lopp@chemnet.ee)

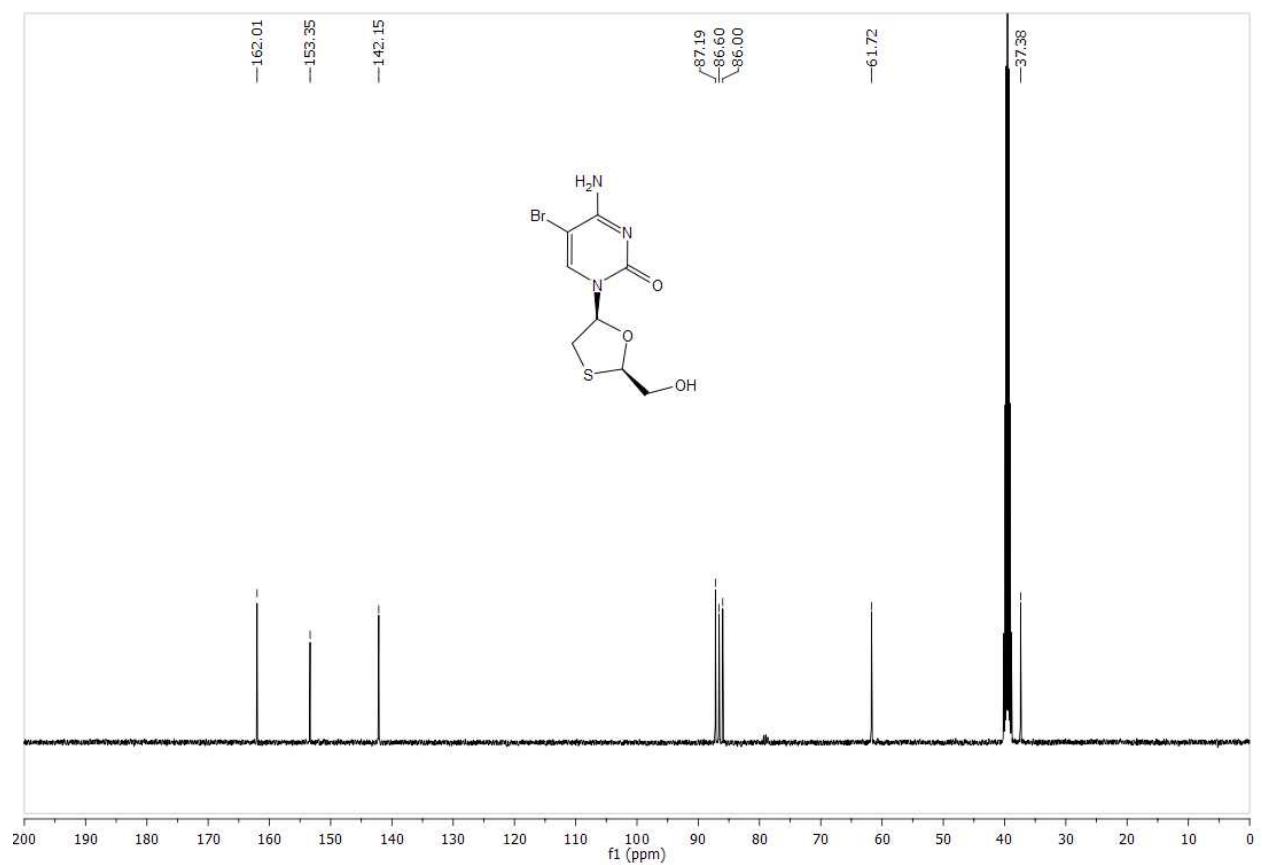
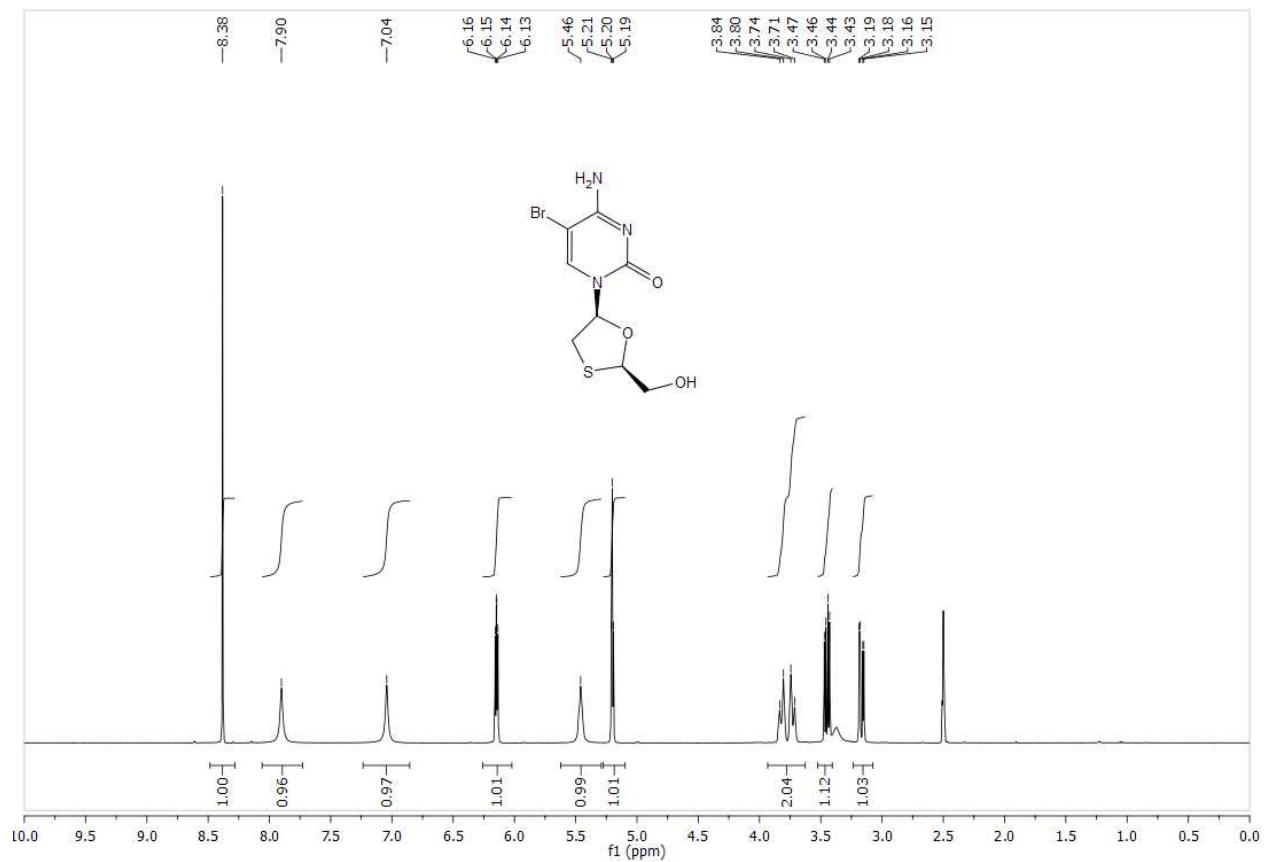
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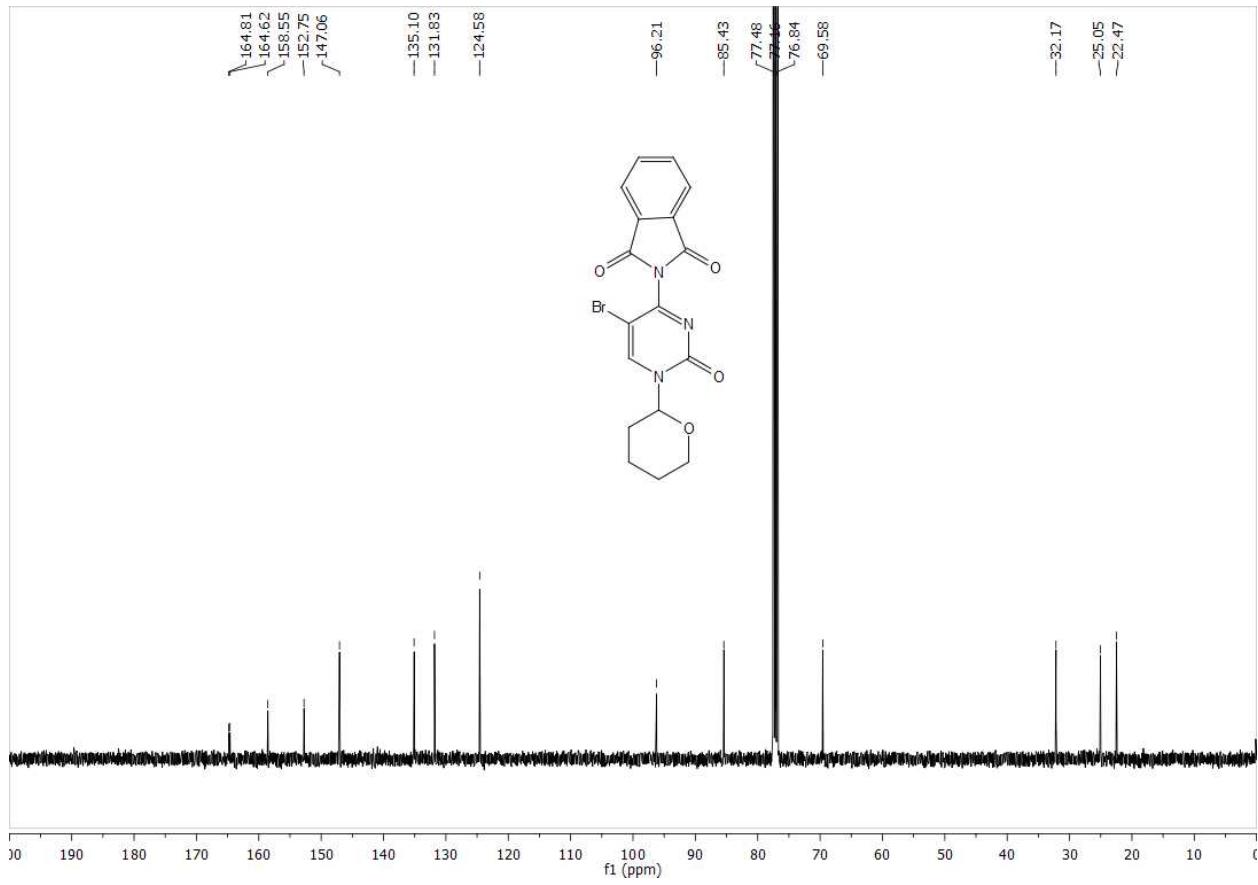
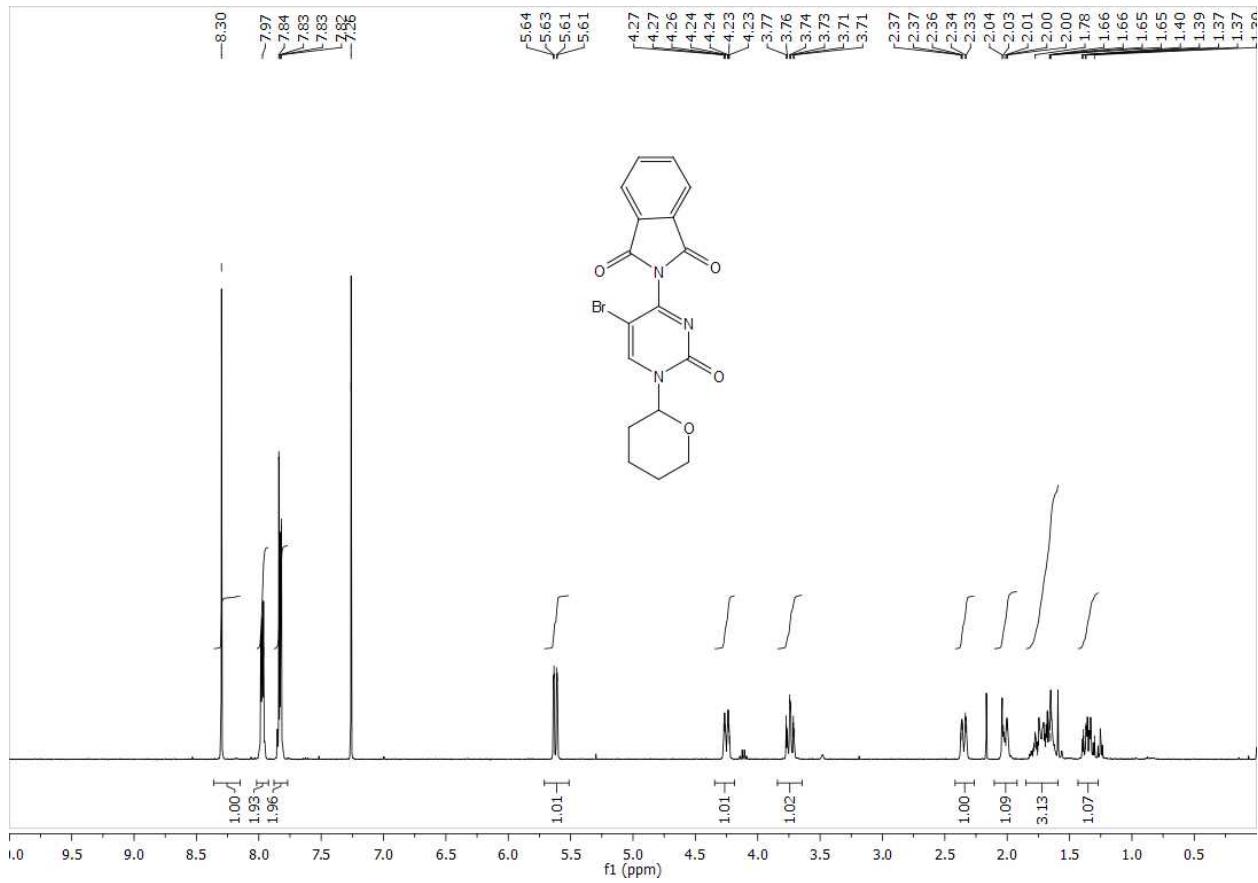
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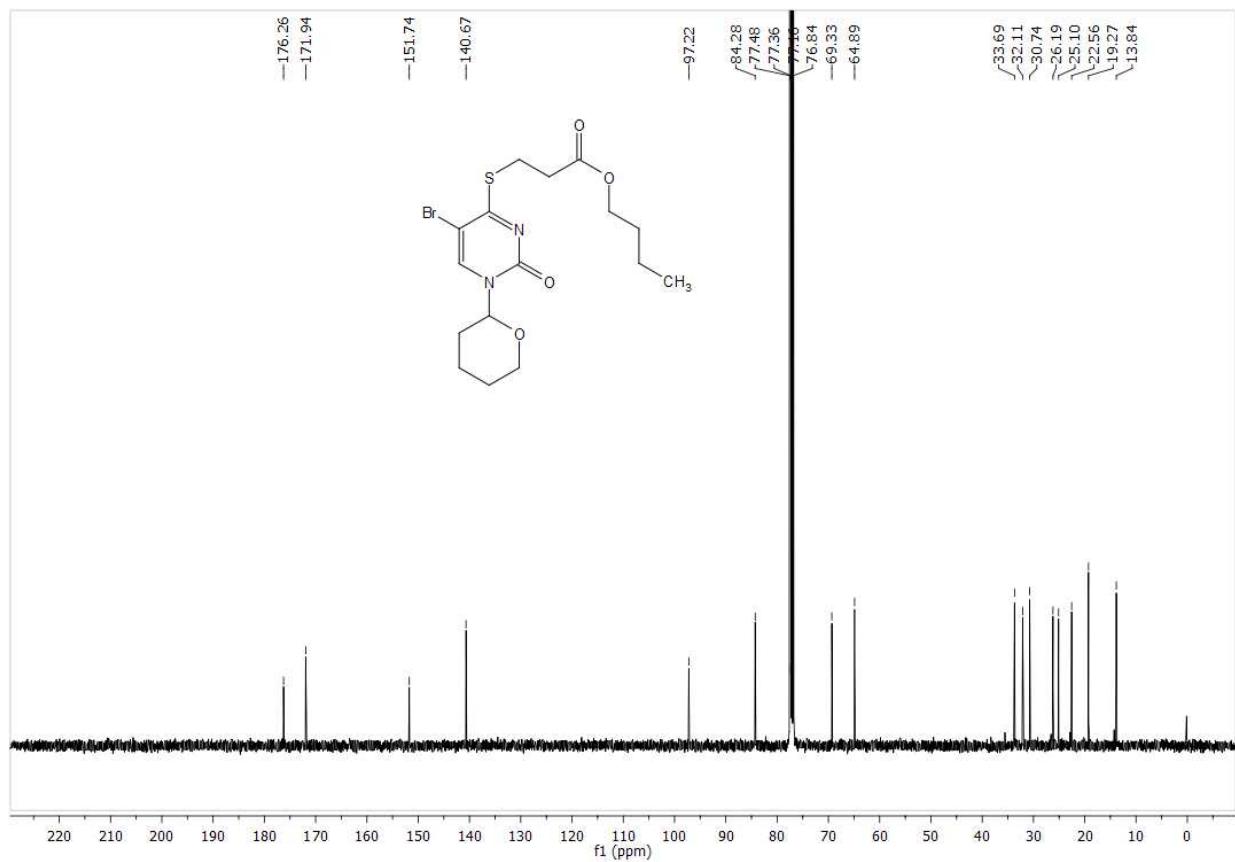
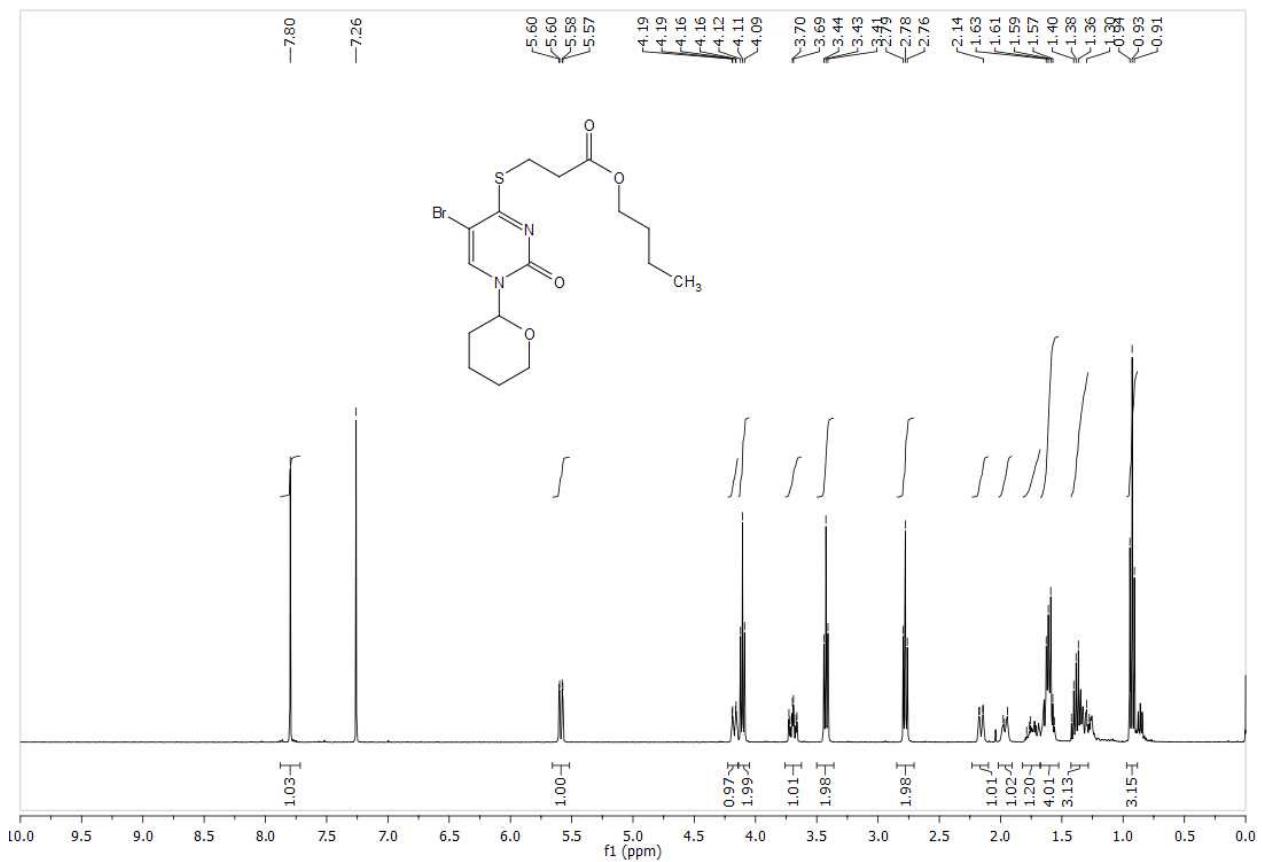
## 1. $^1\text{H}$ NMR and $^{13}\text{C}$ NMR spectra

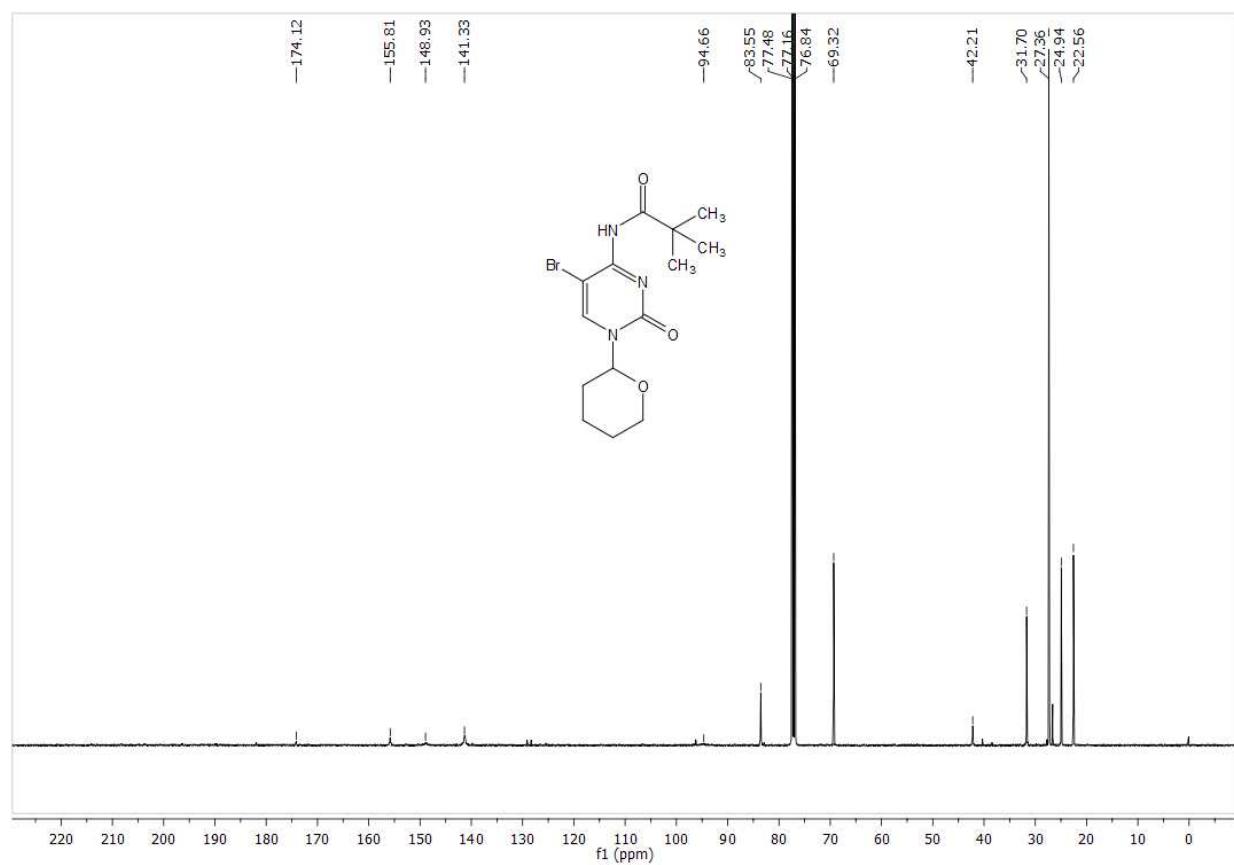
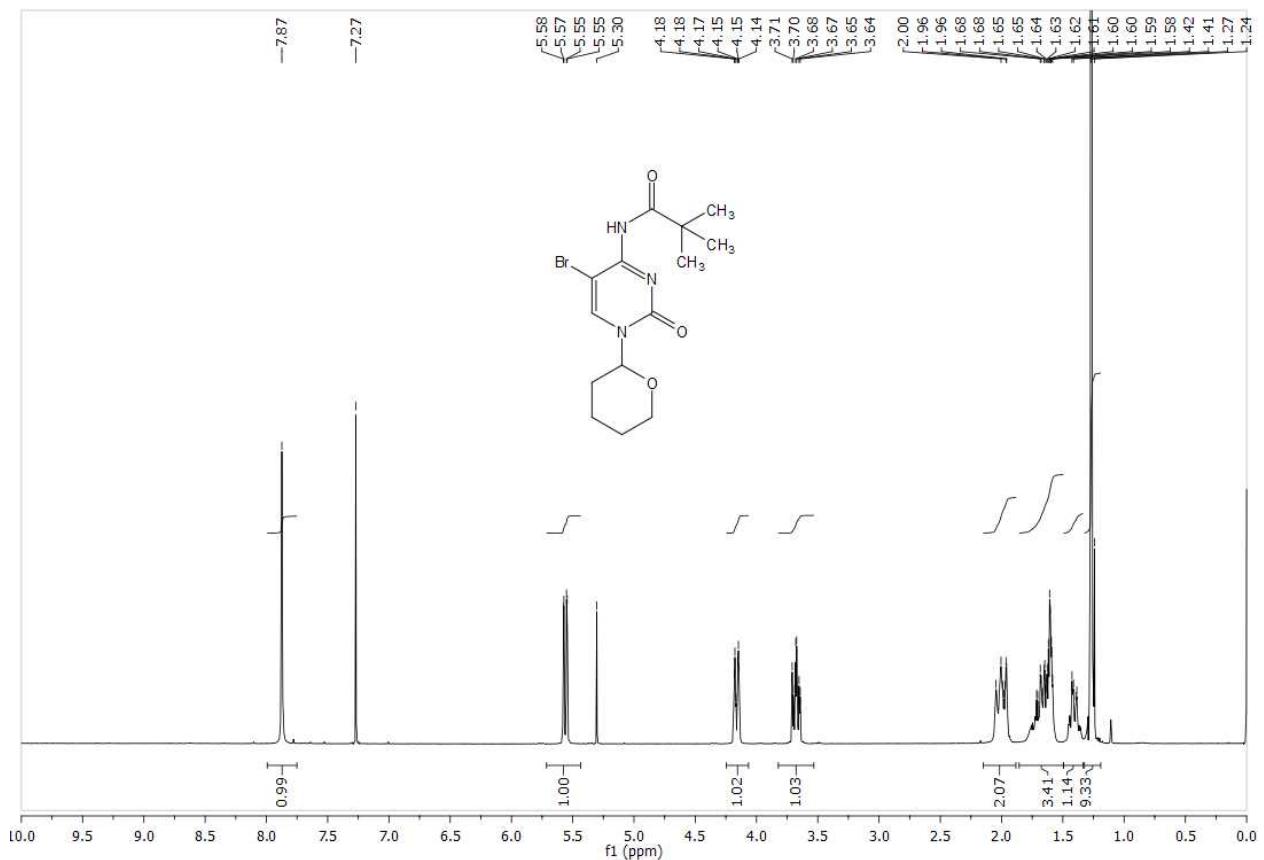


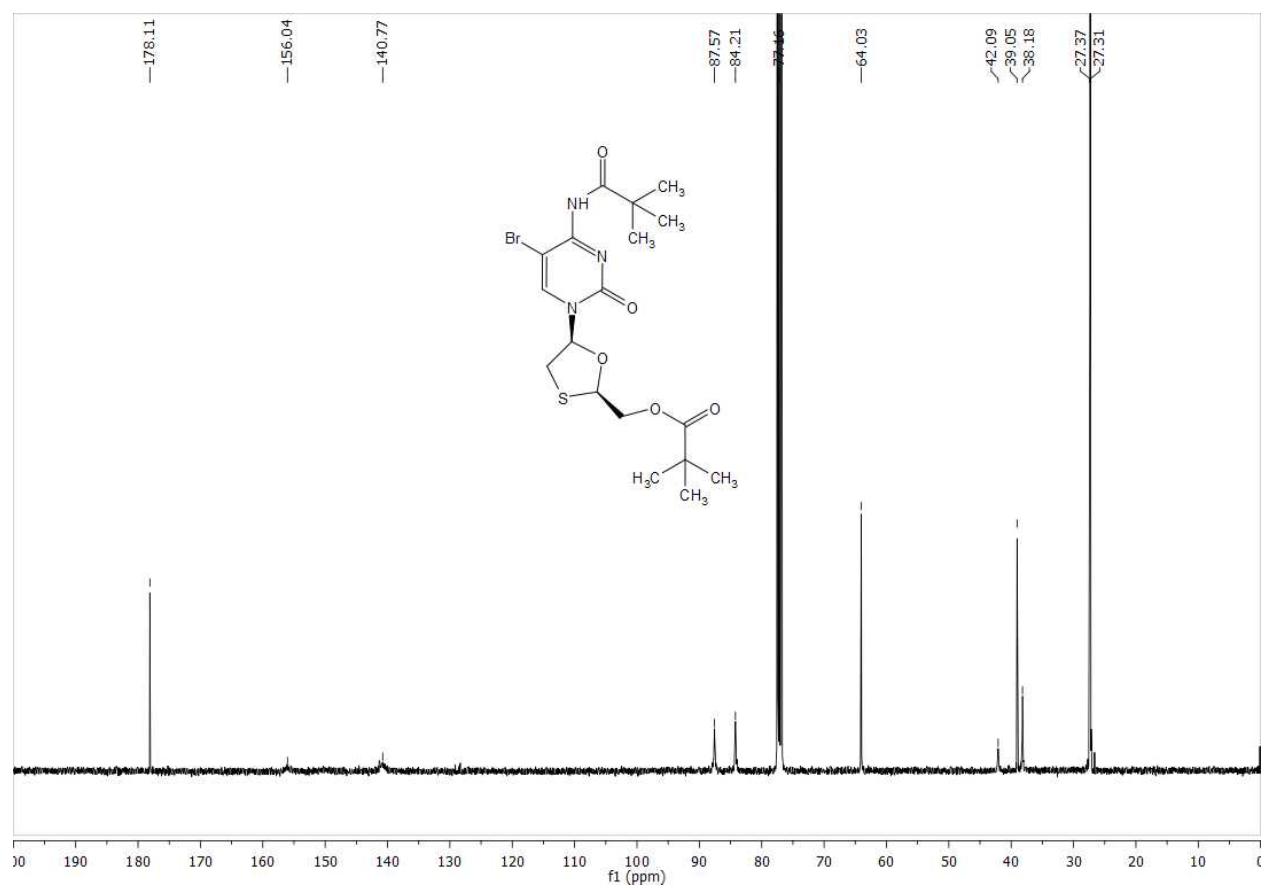
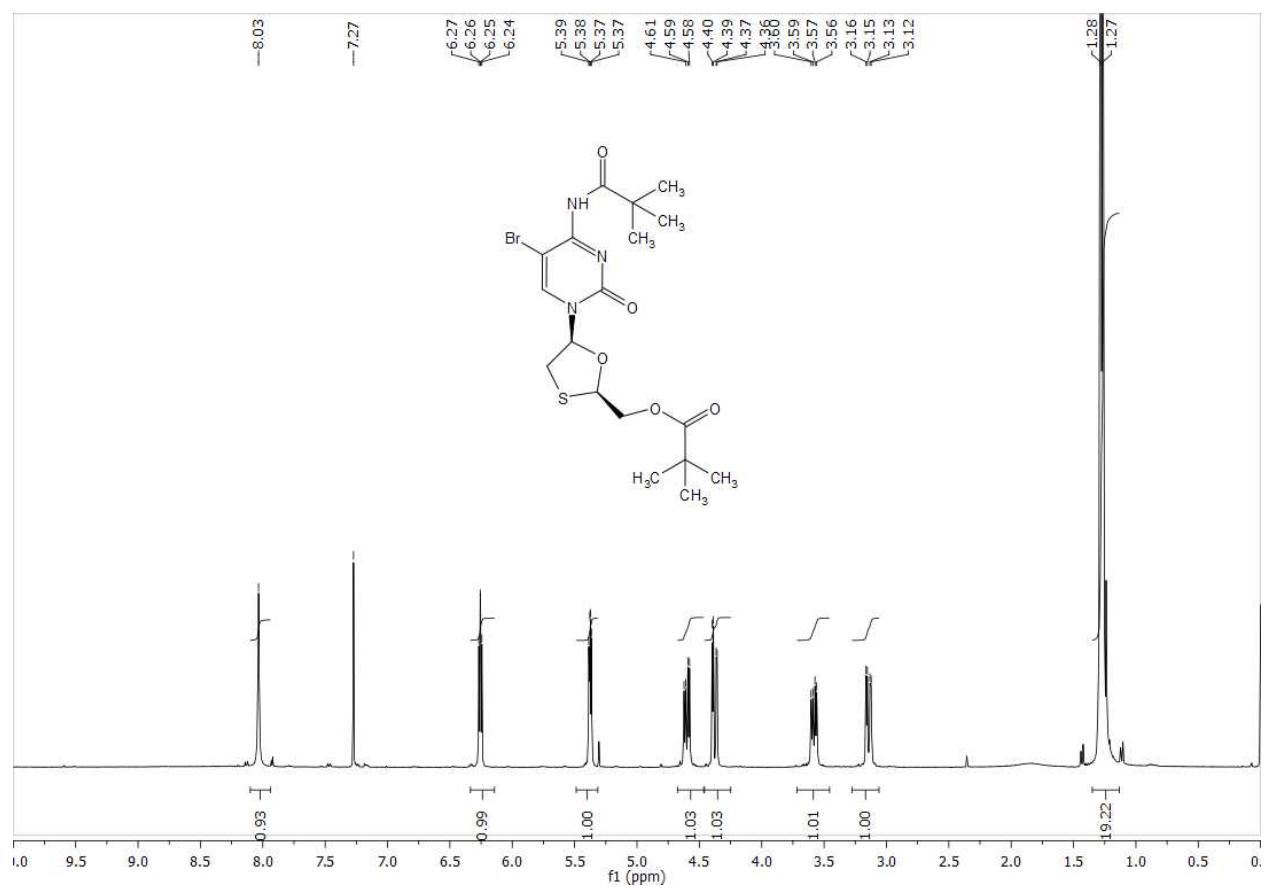


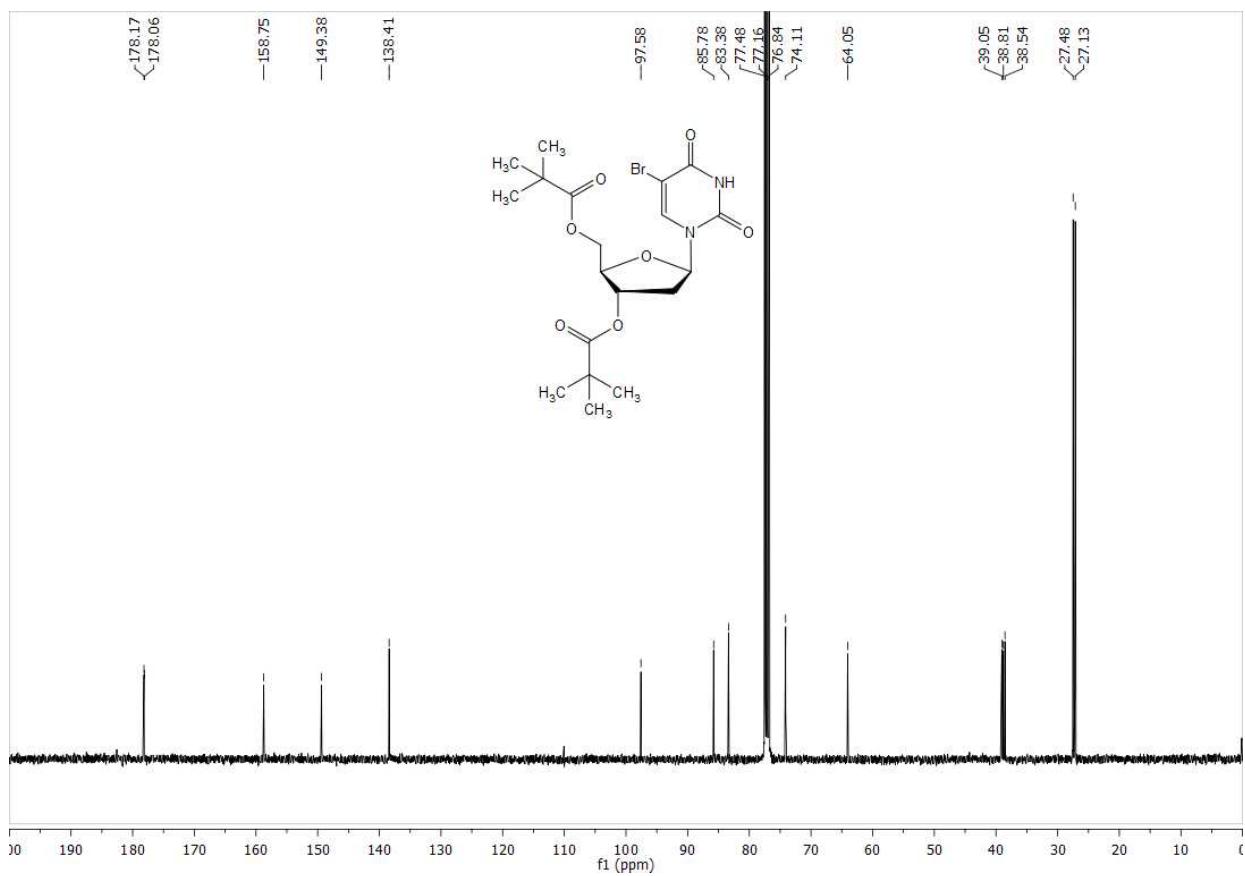
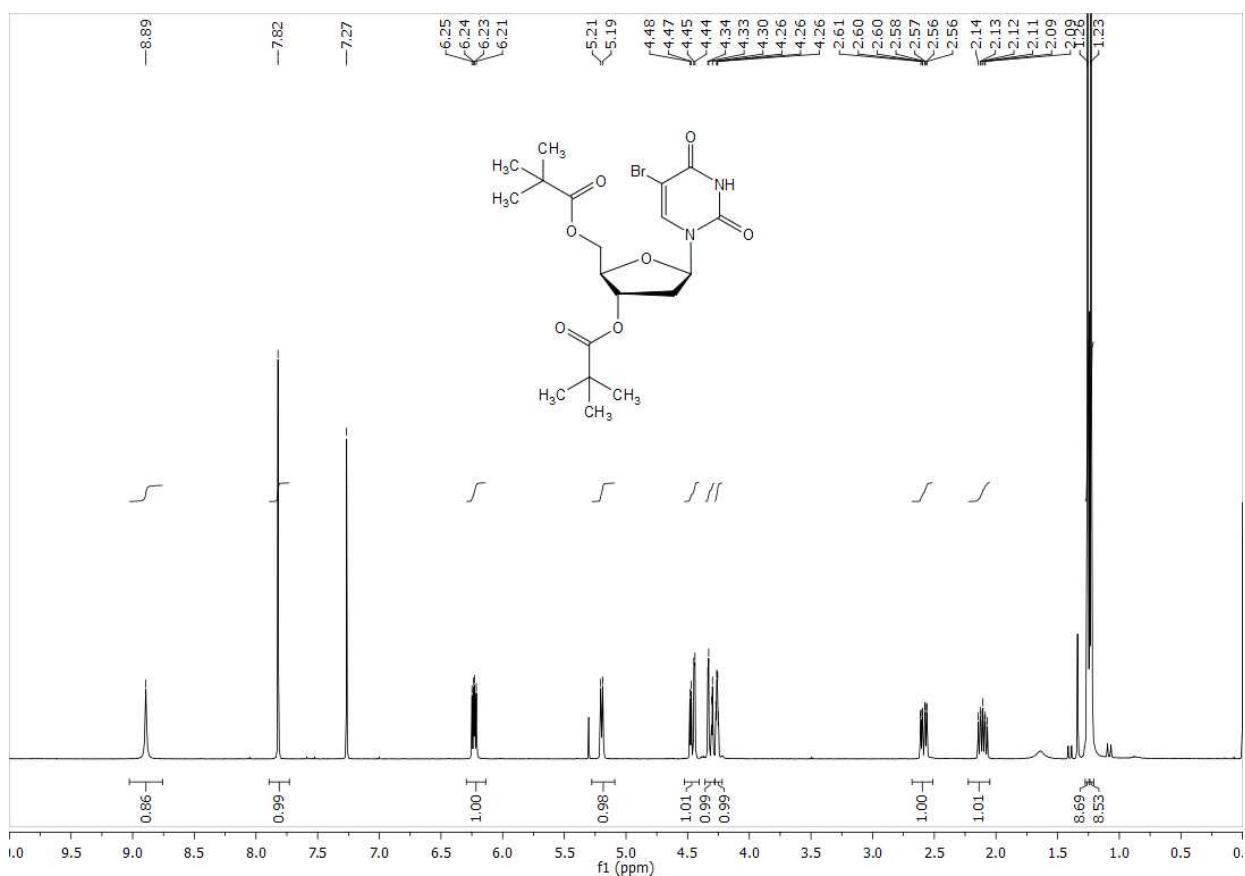


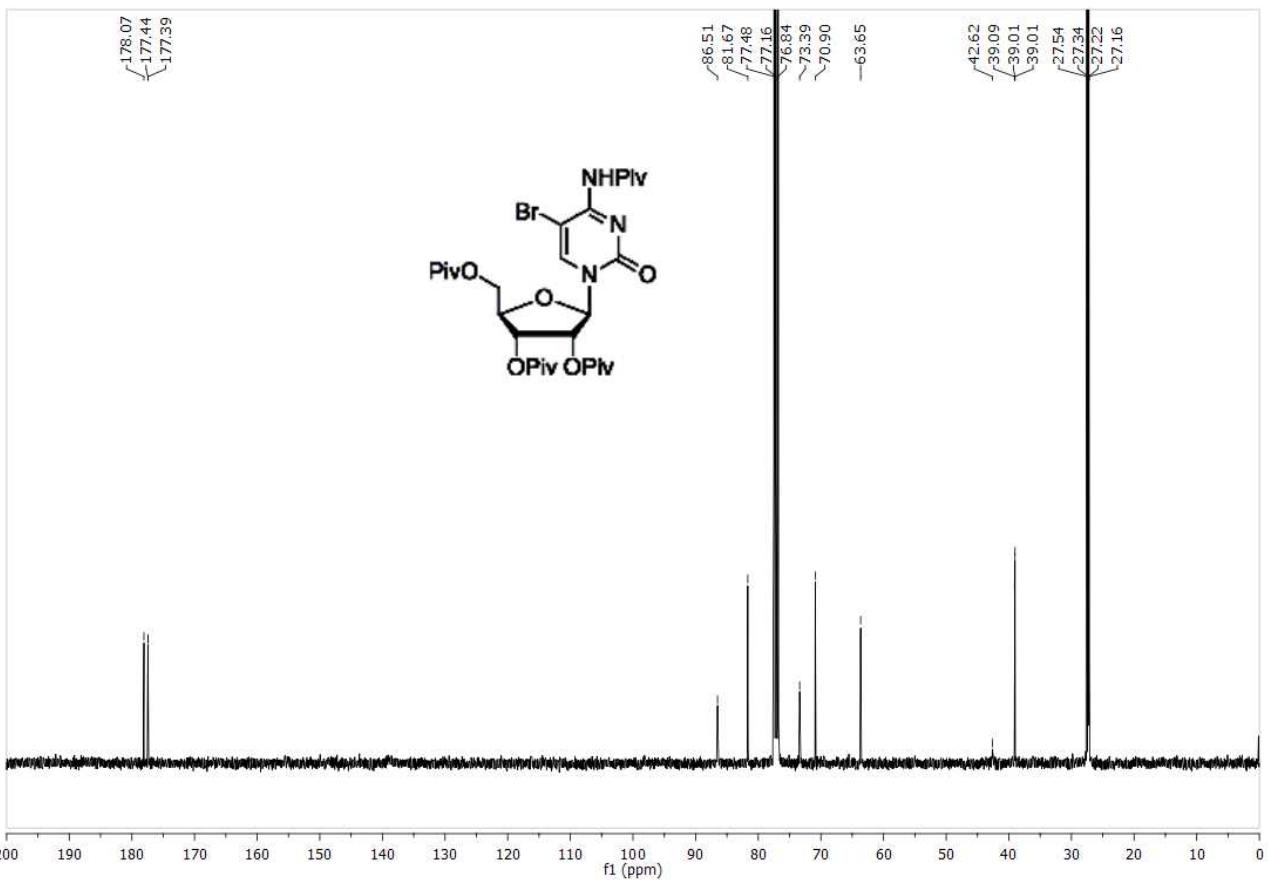
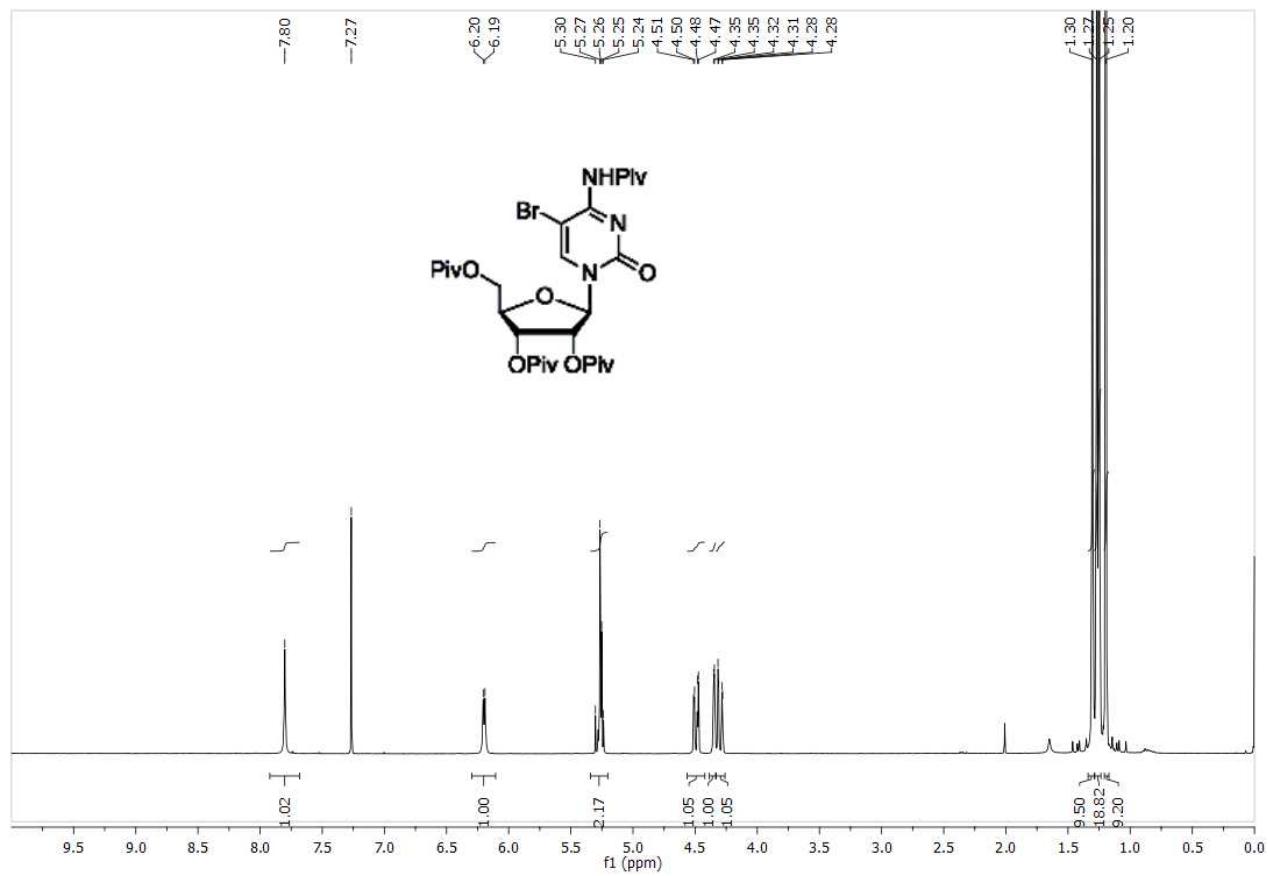


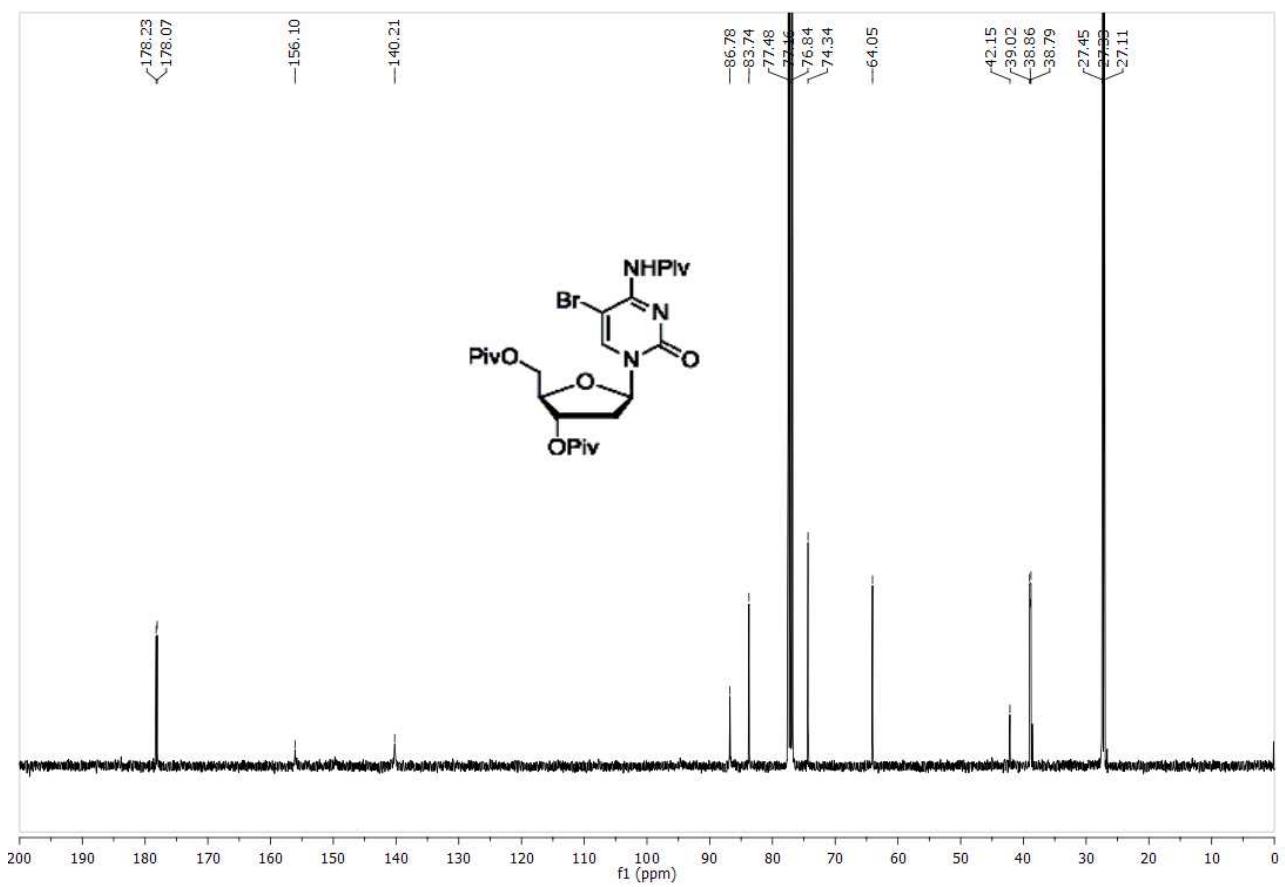
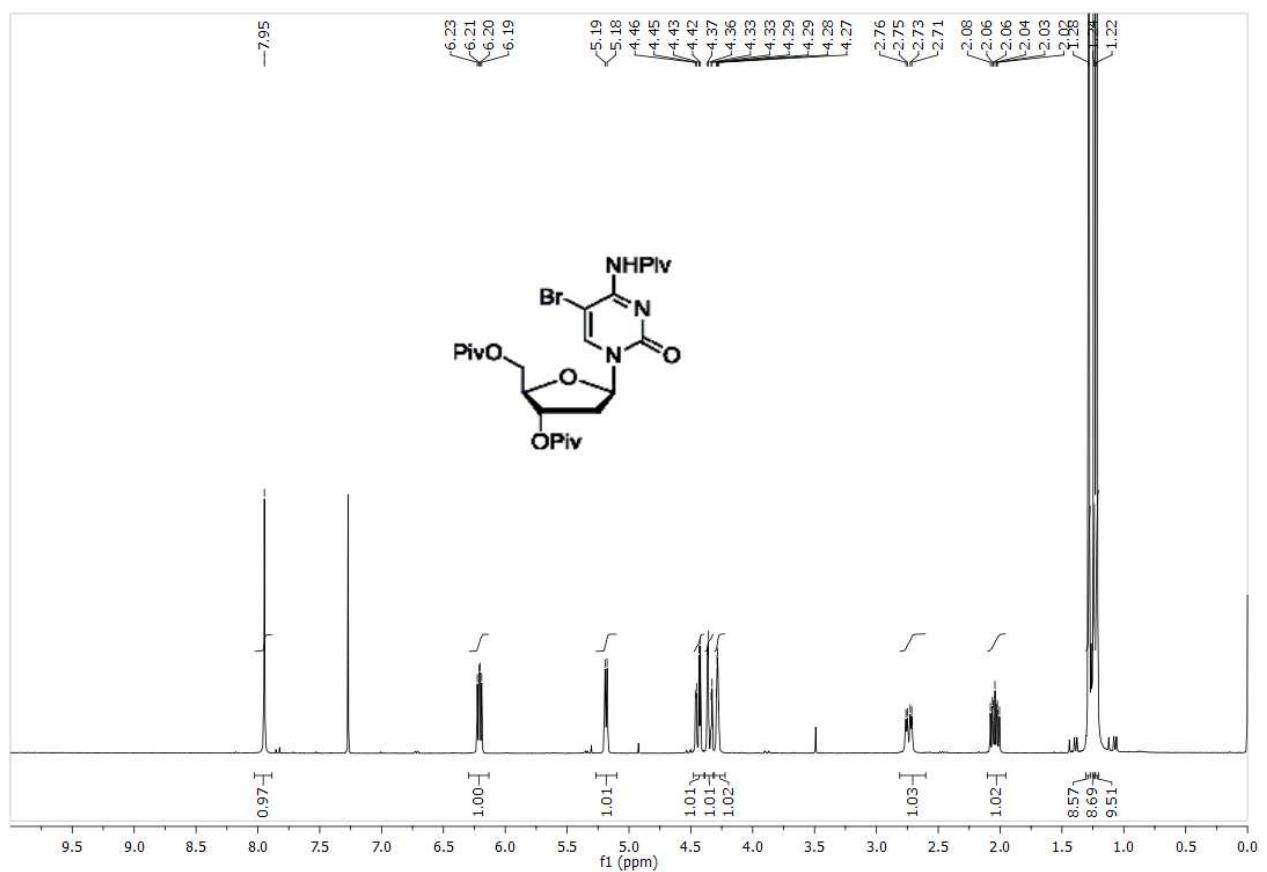


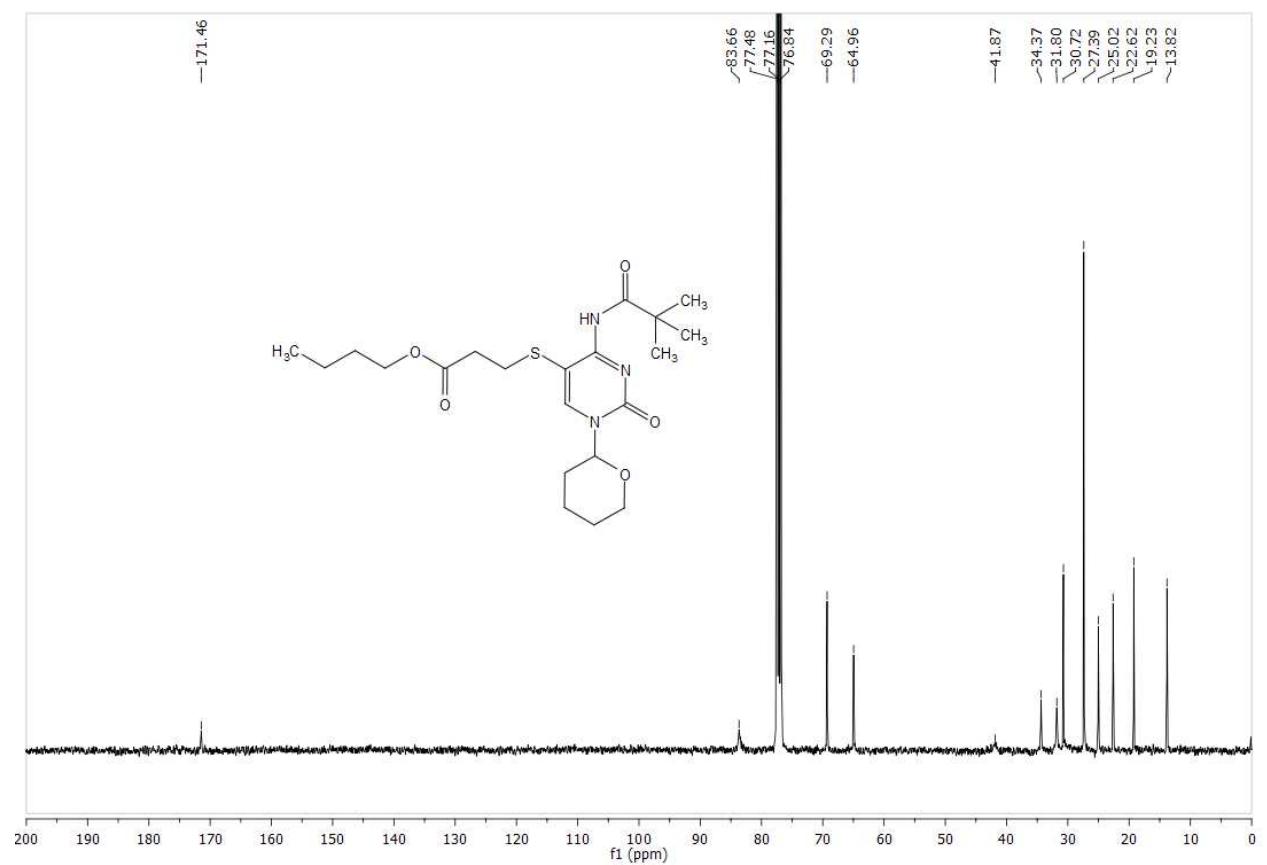
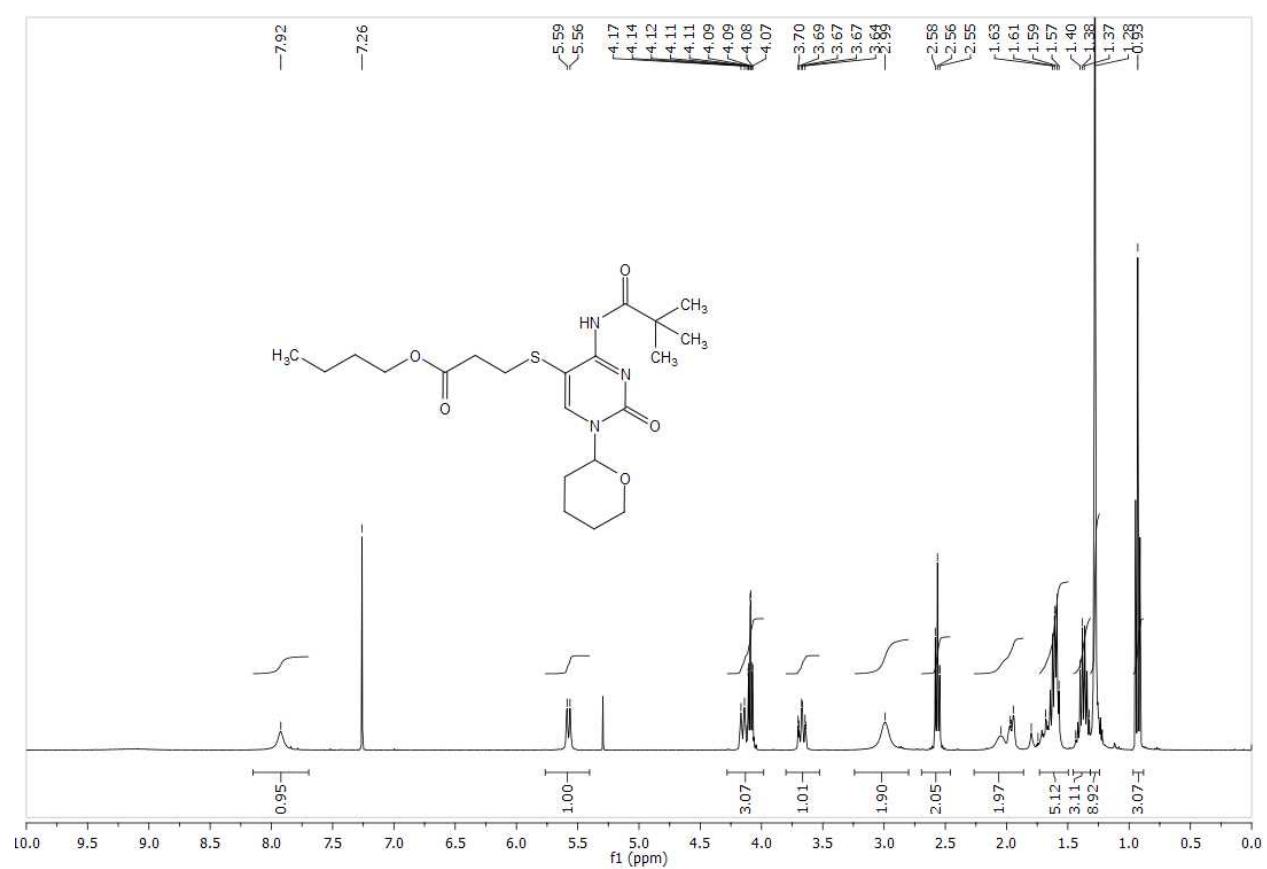


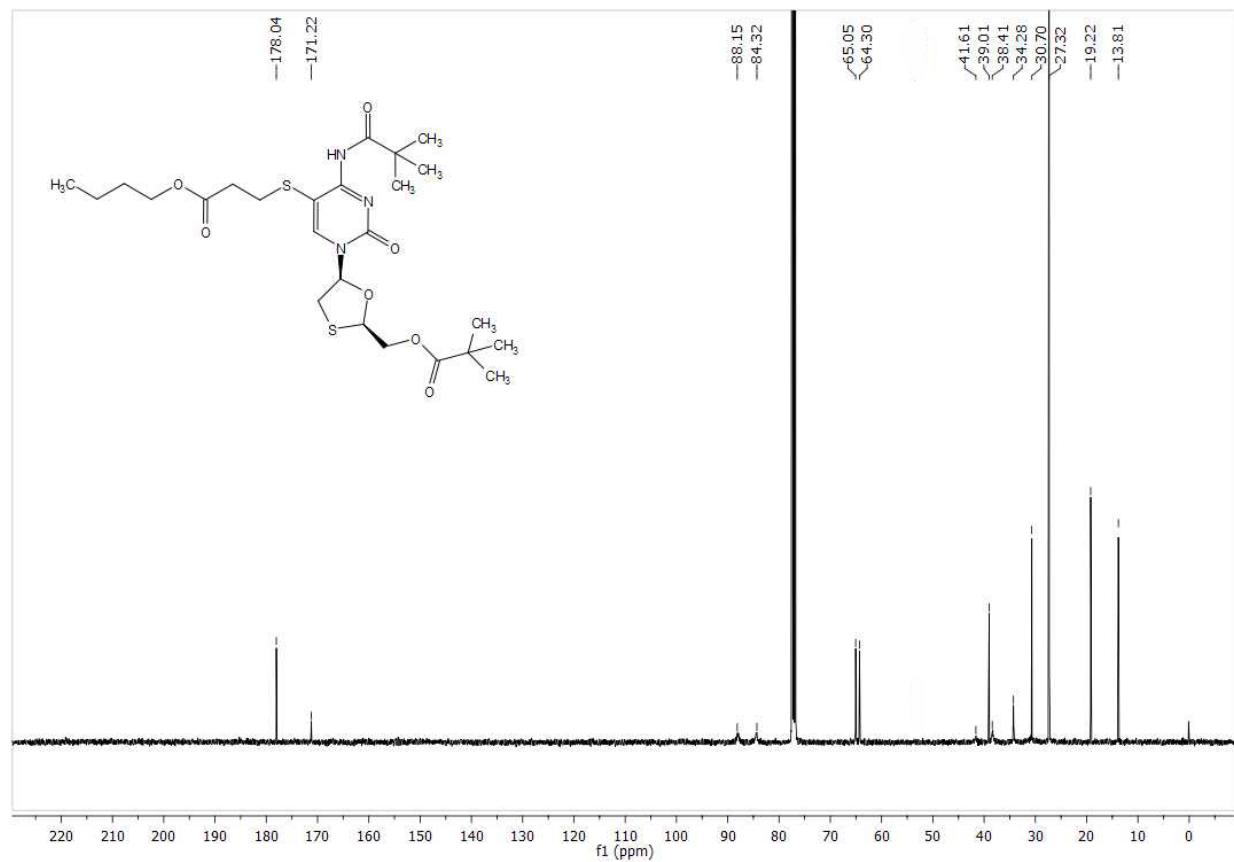
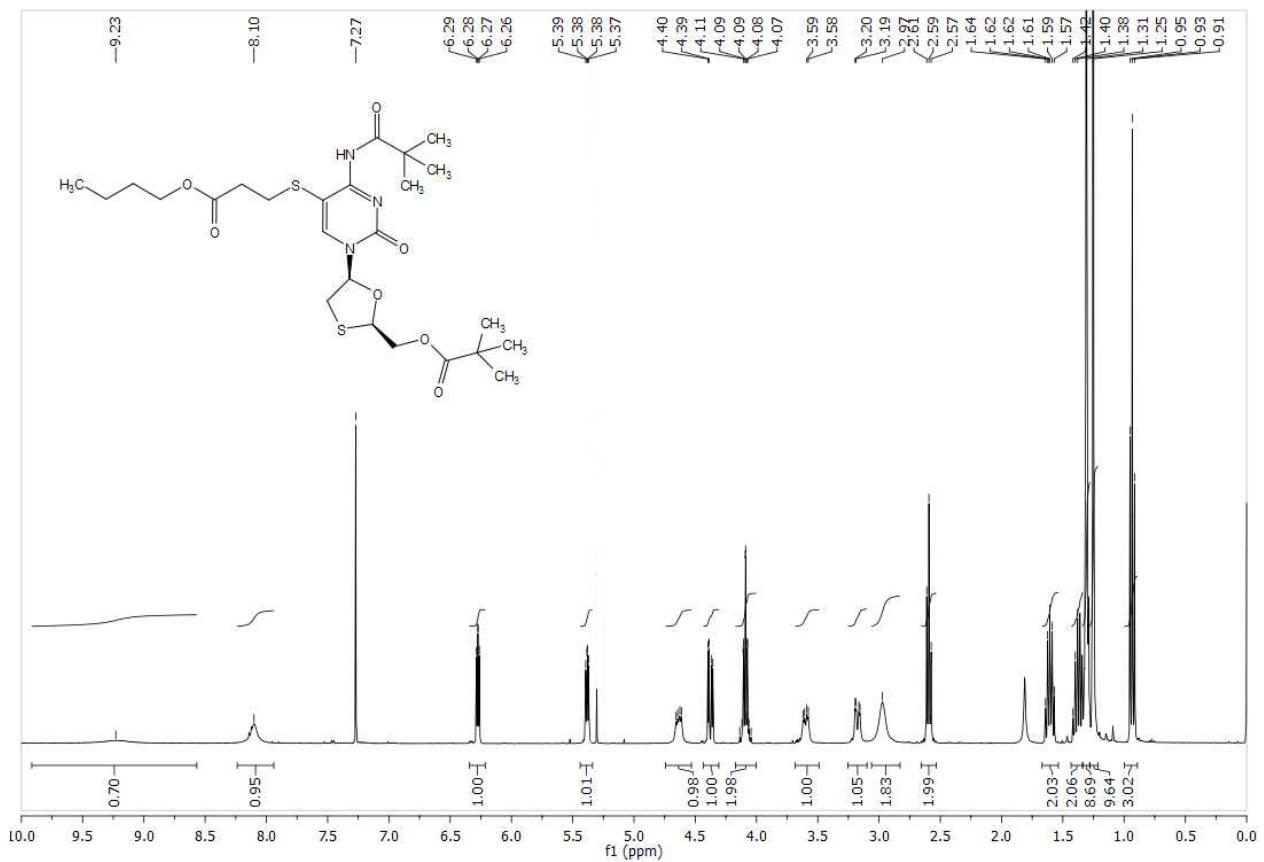


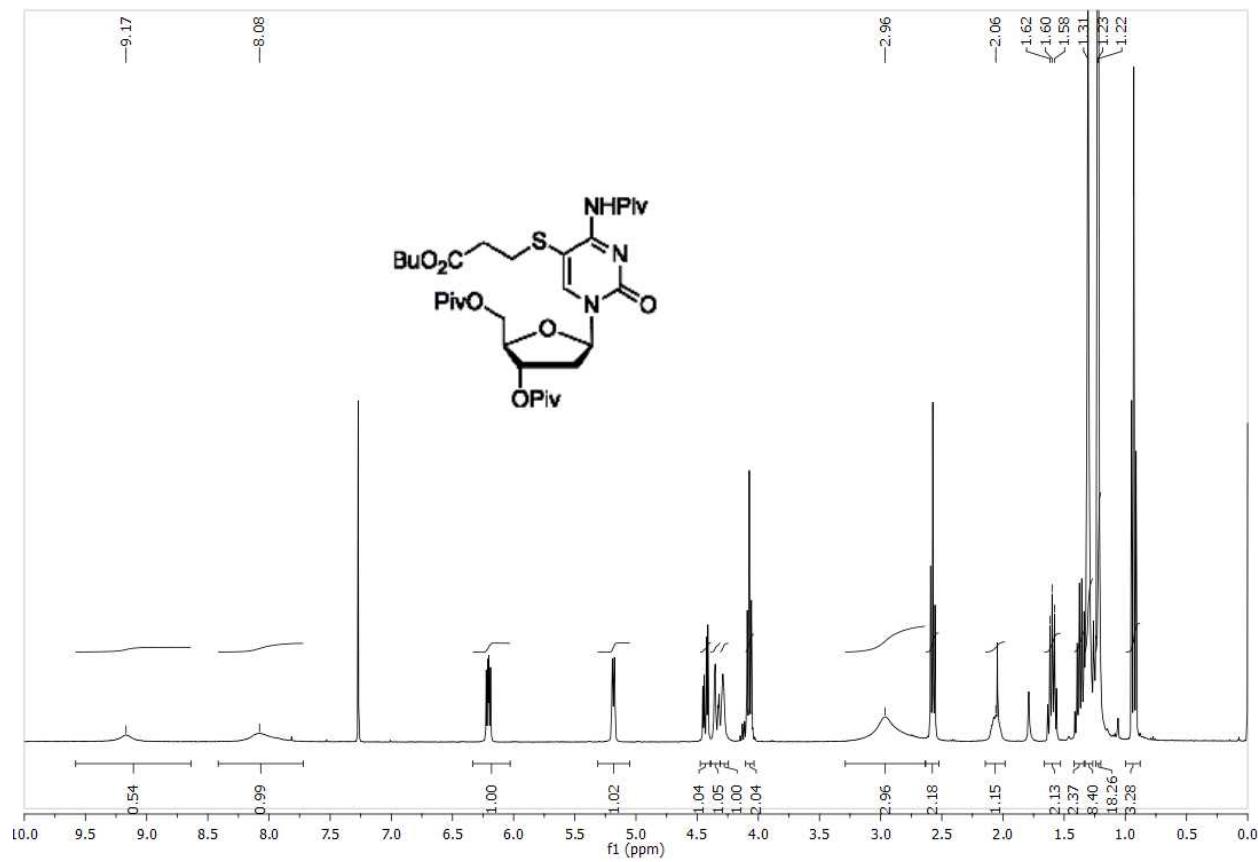


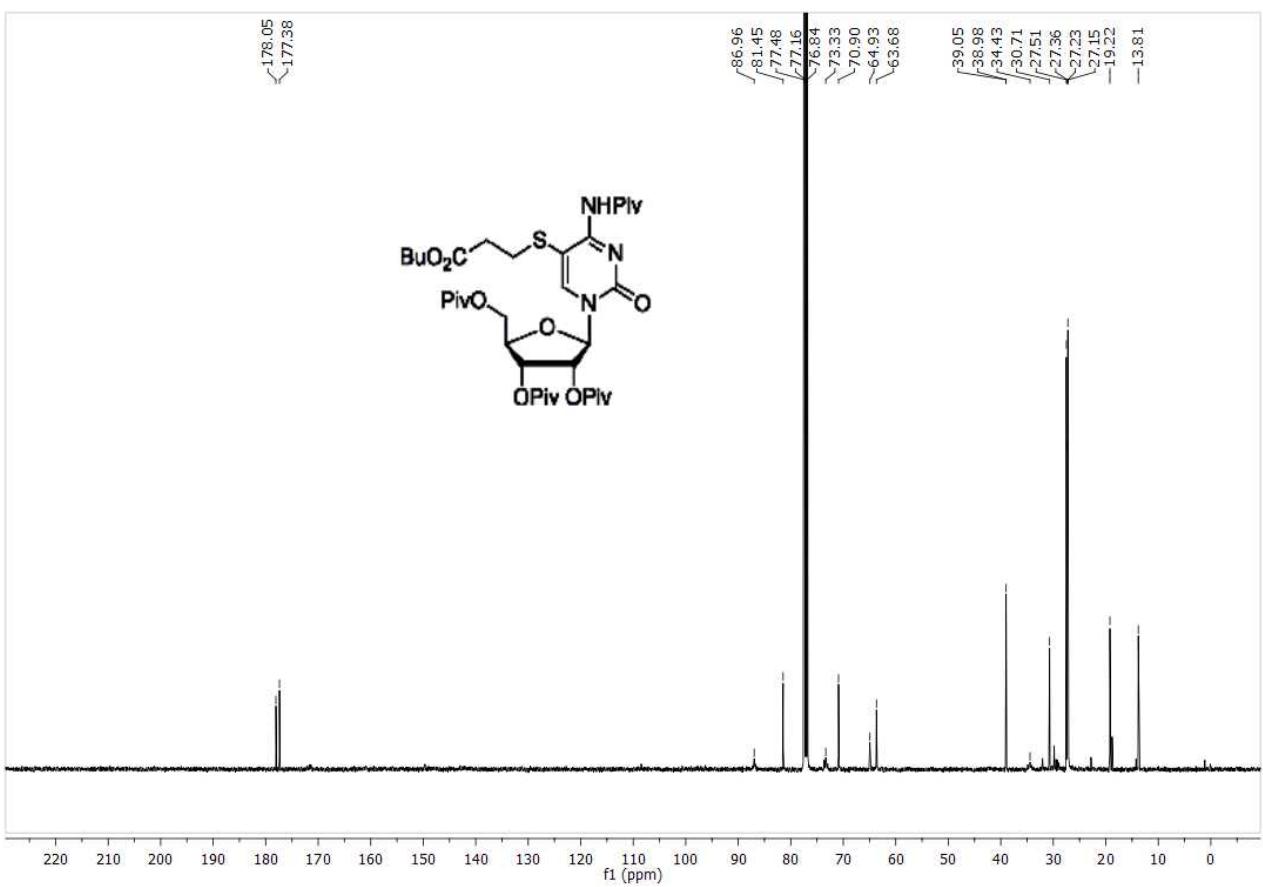
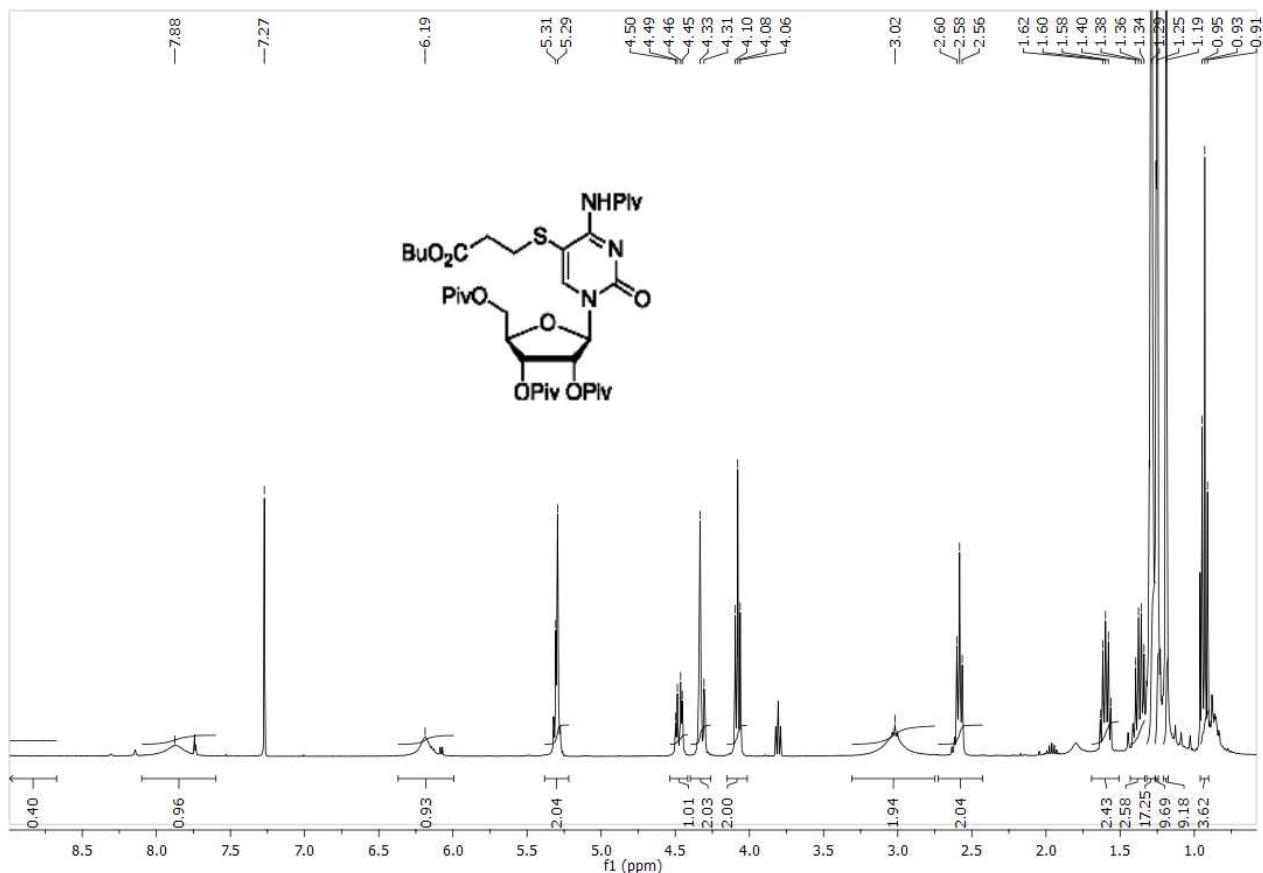


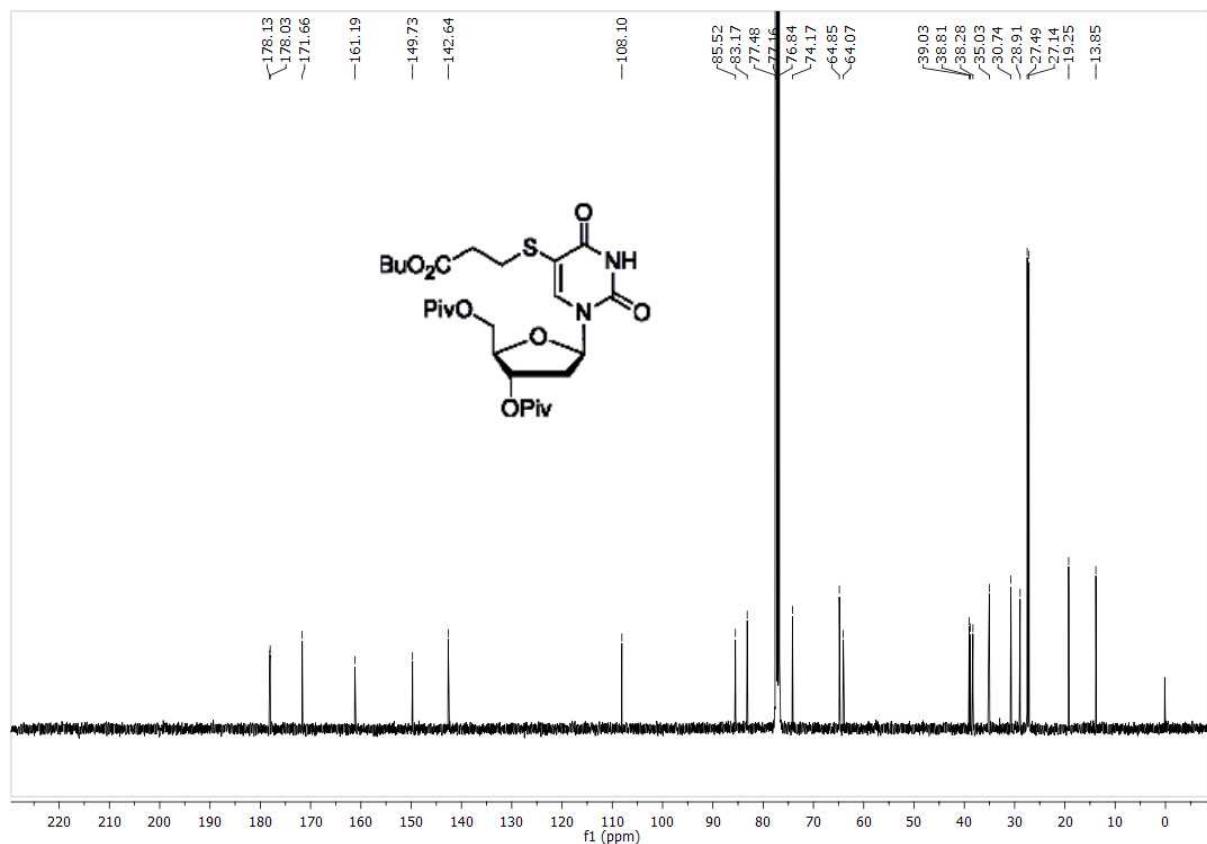
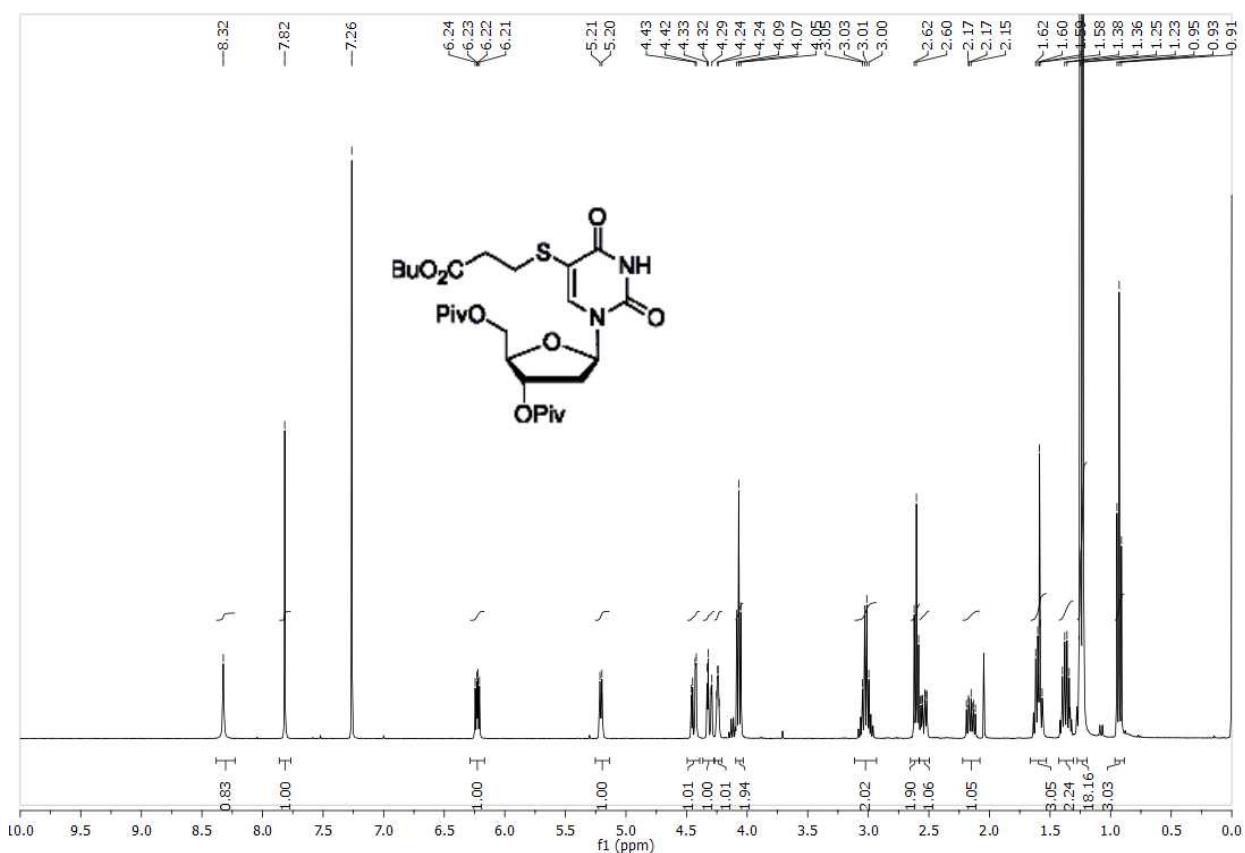


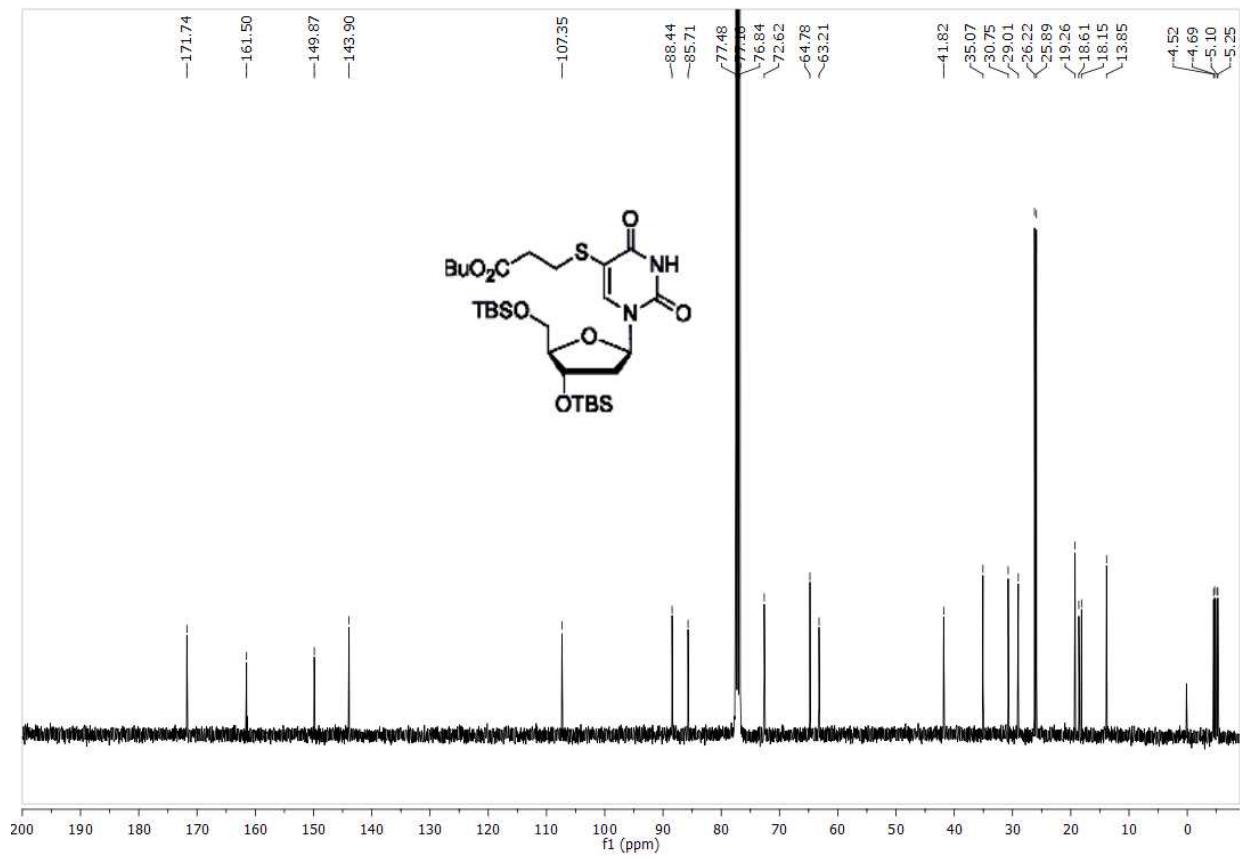
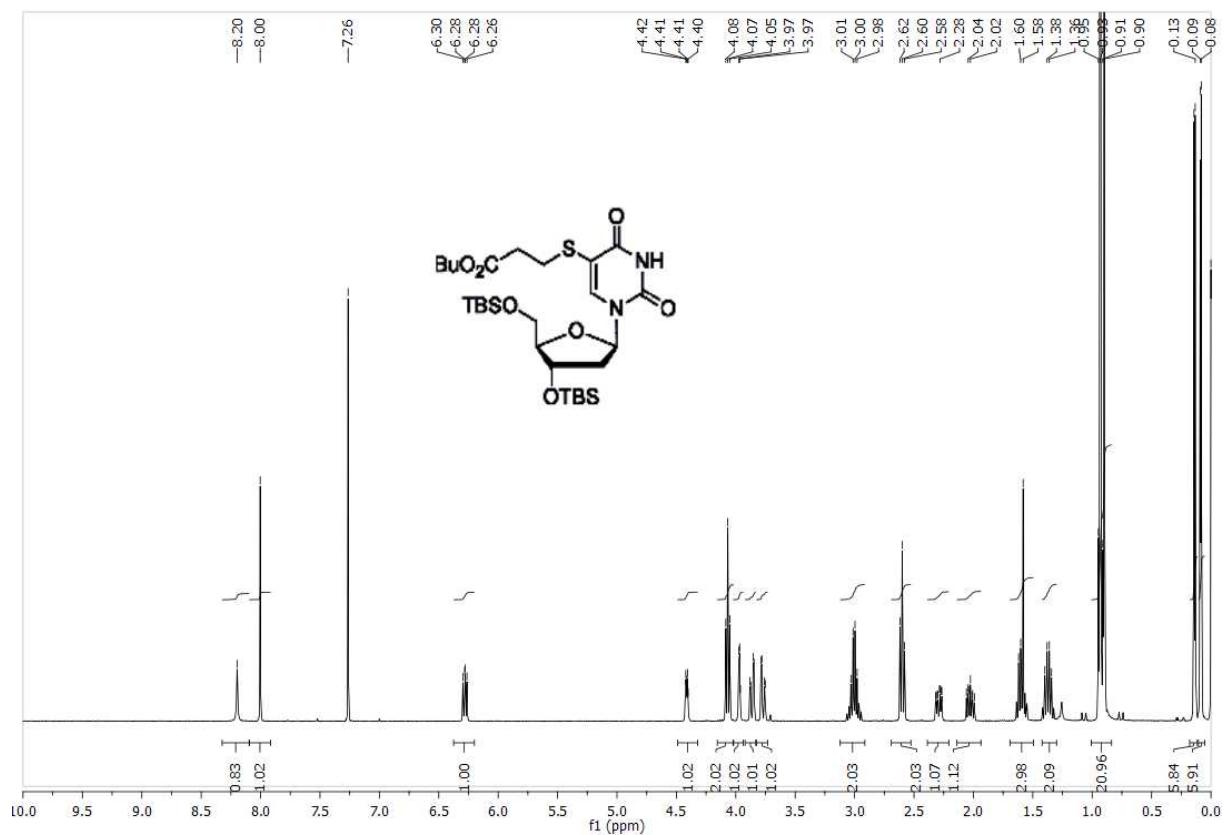


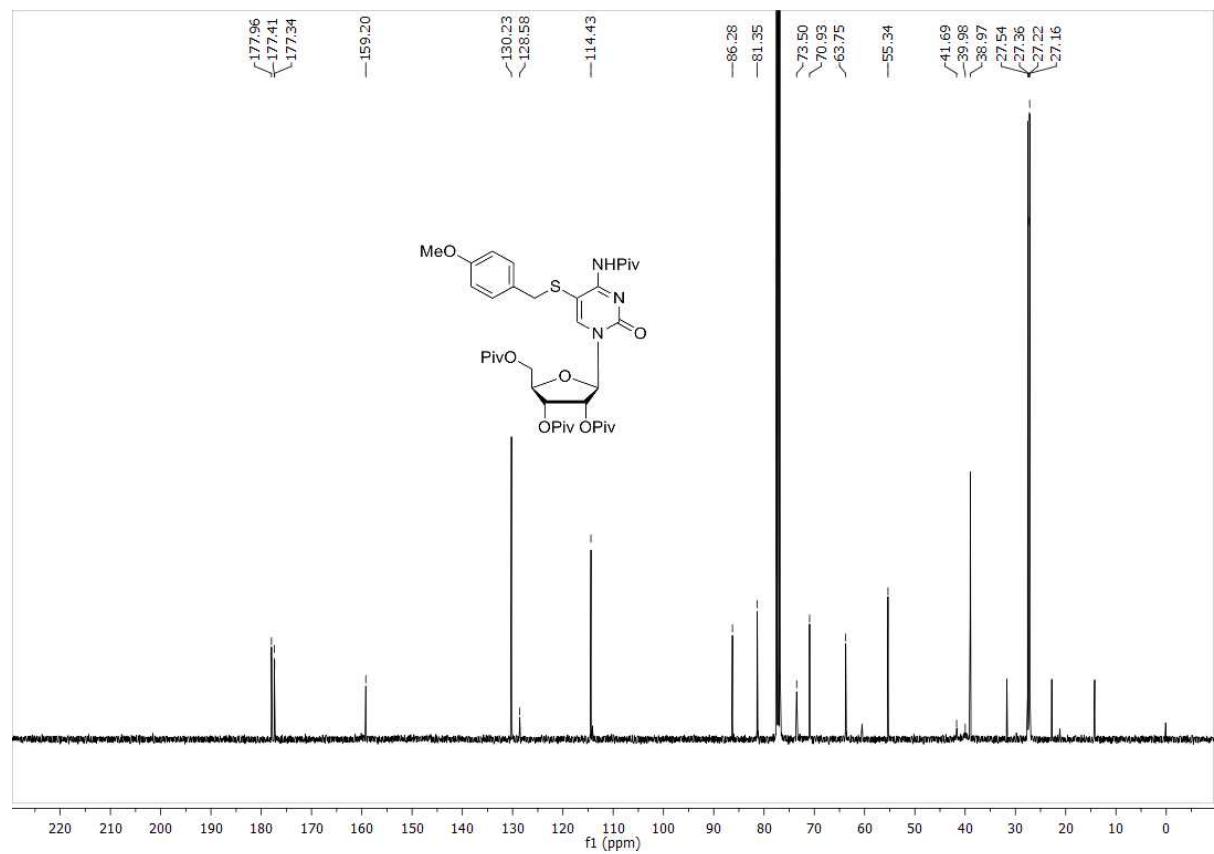
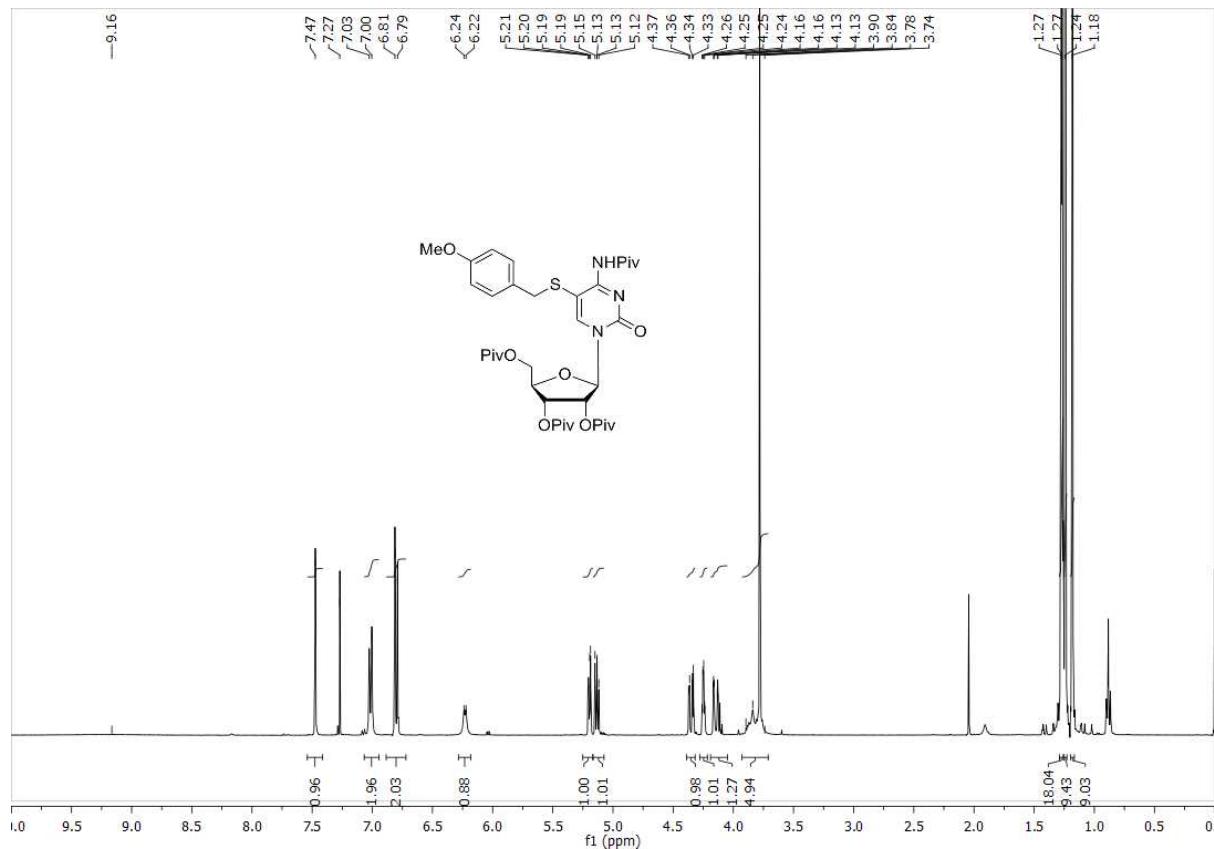


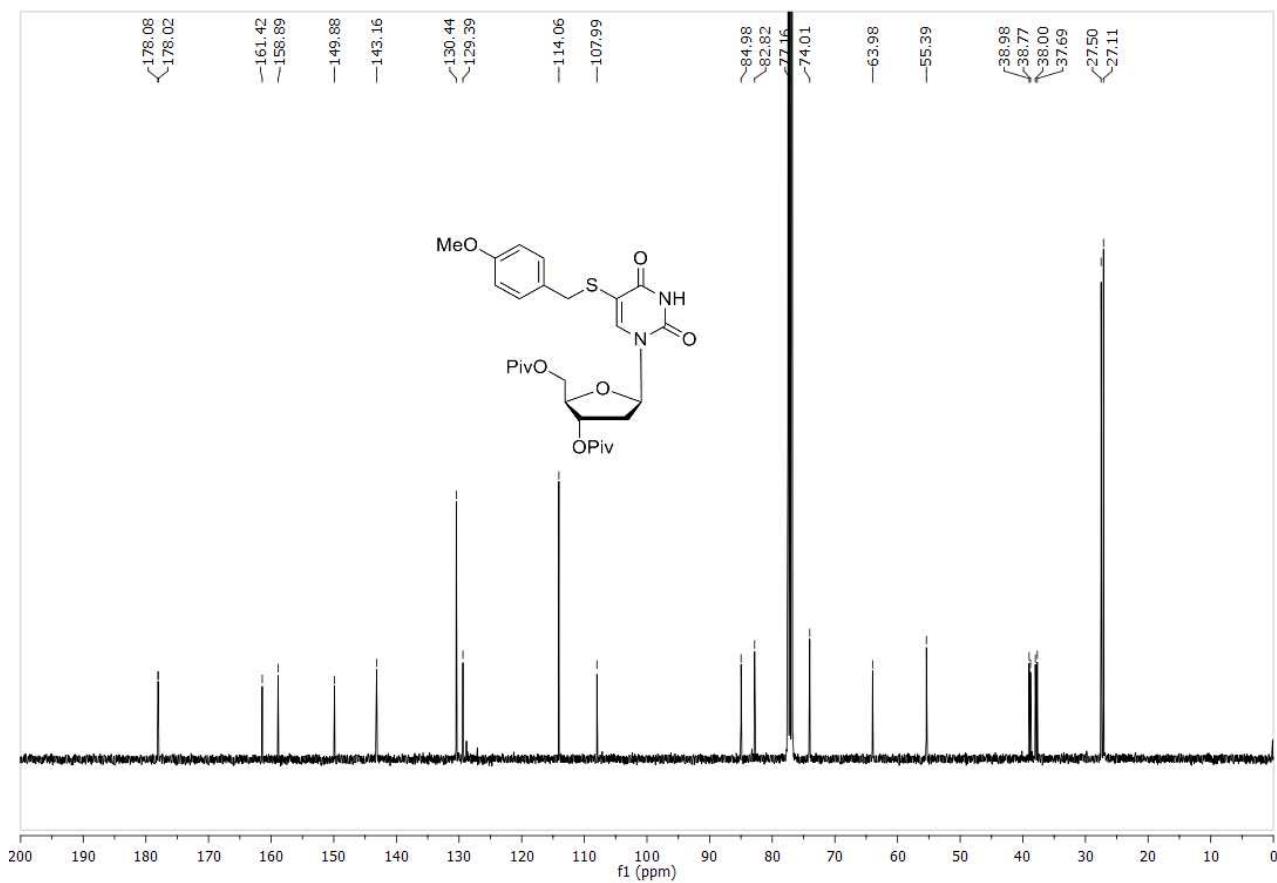
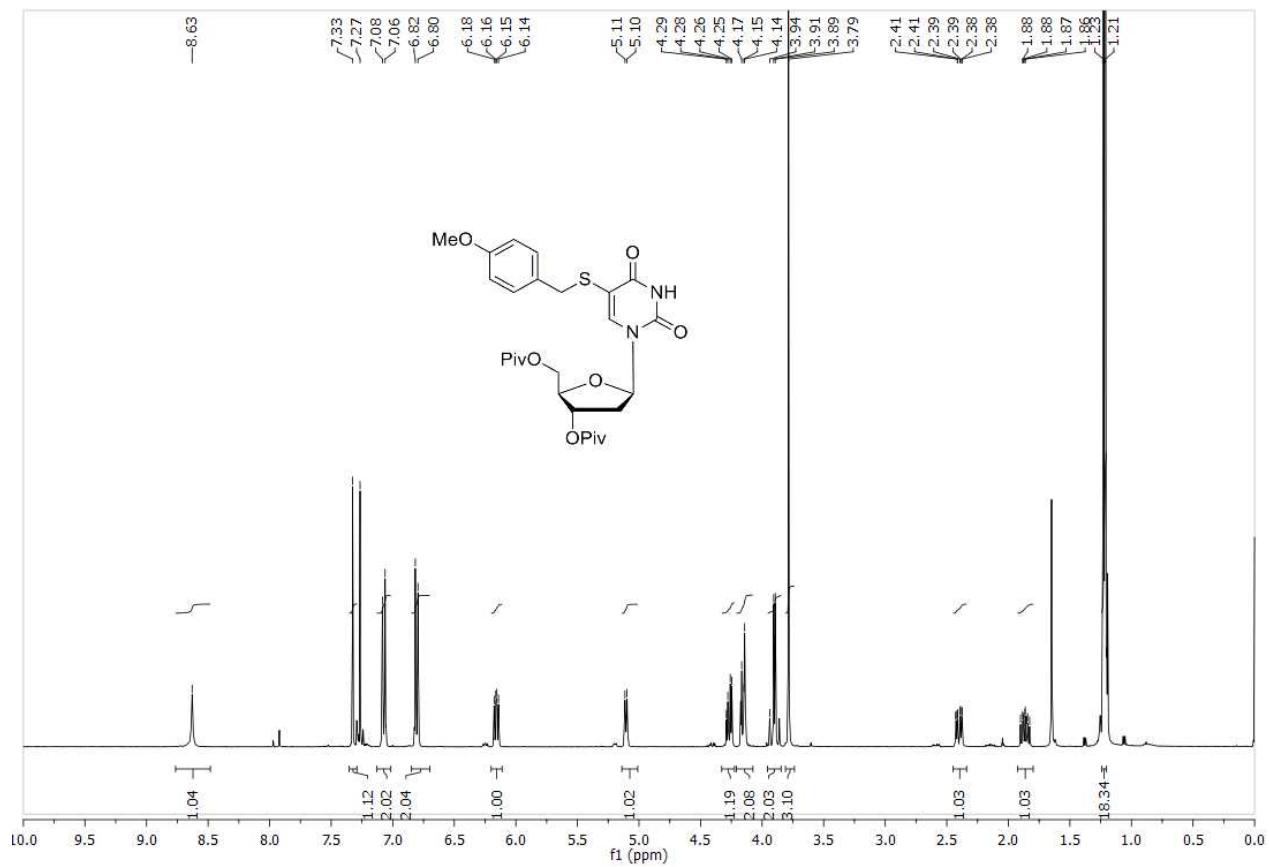


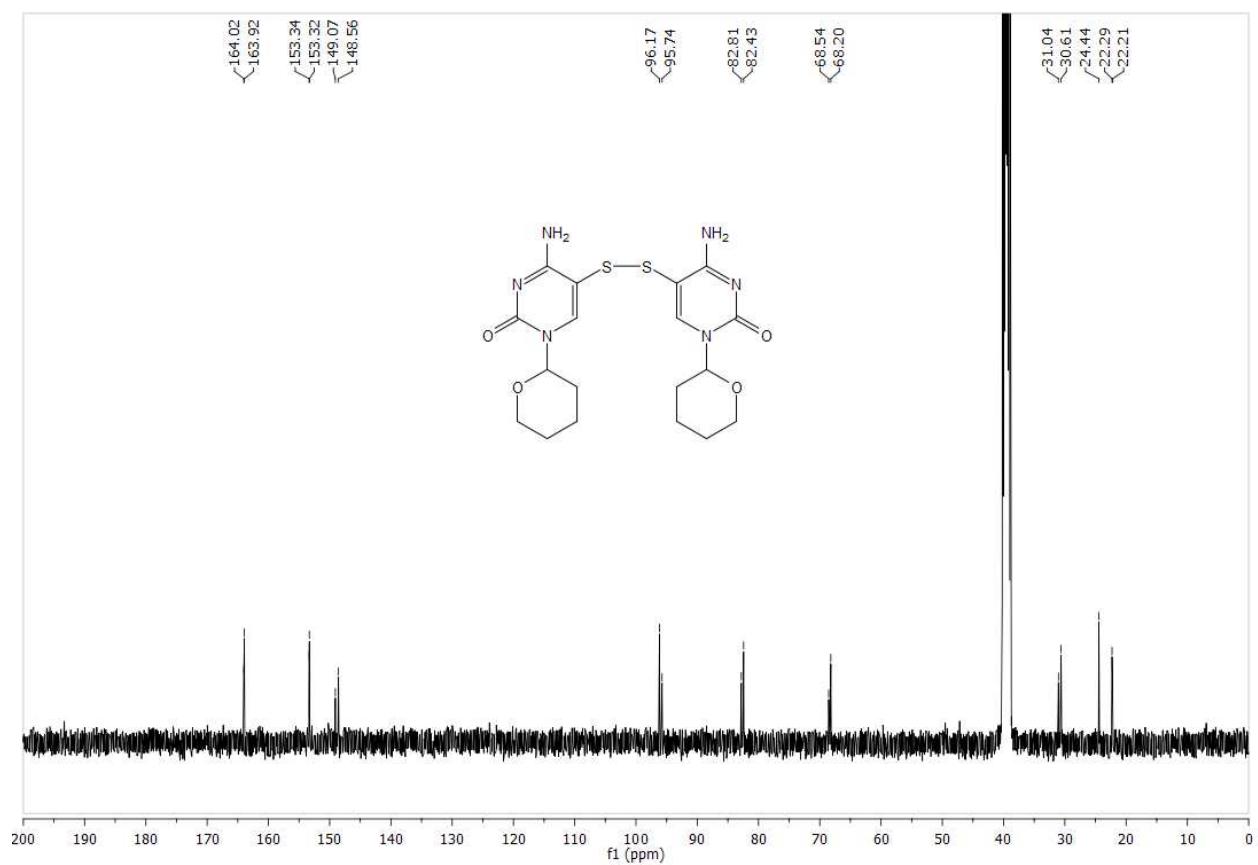
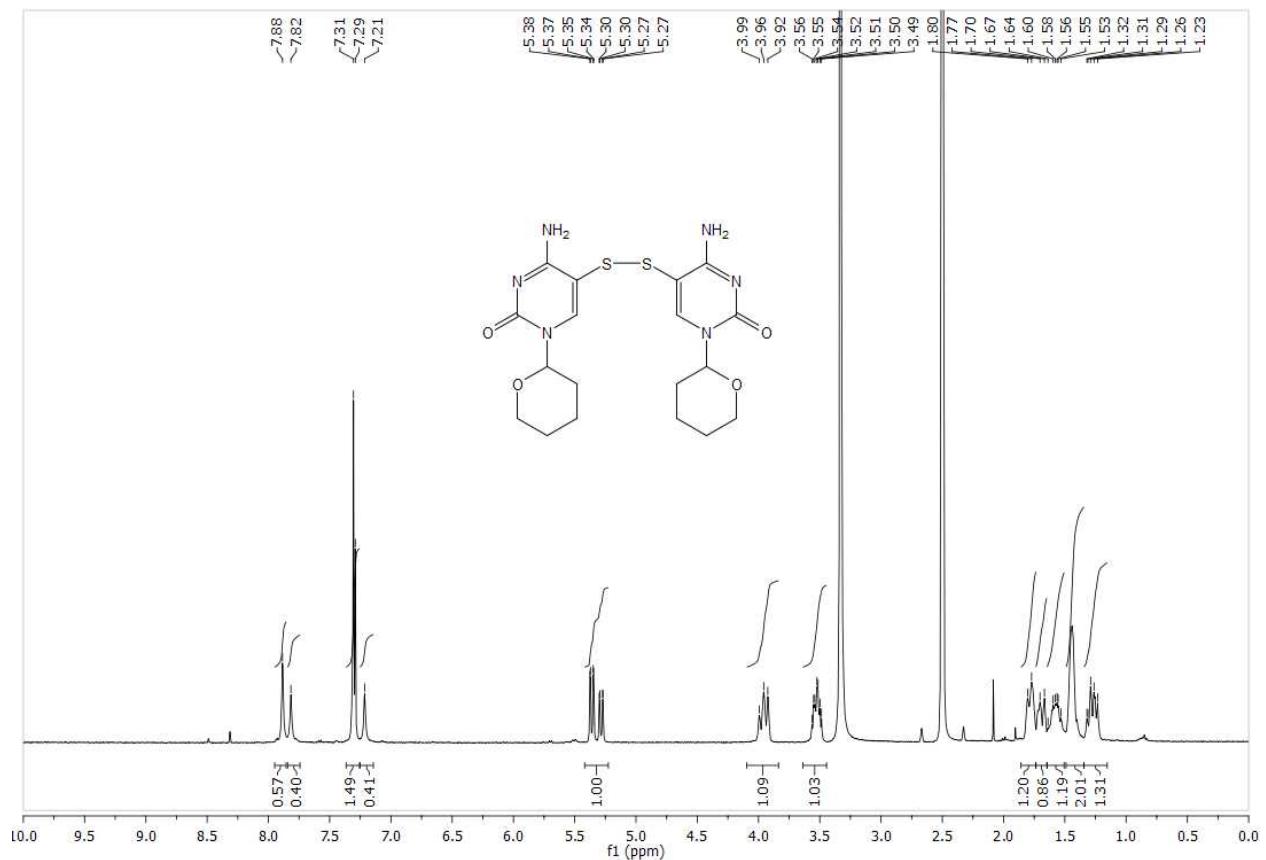


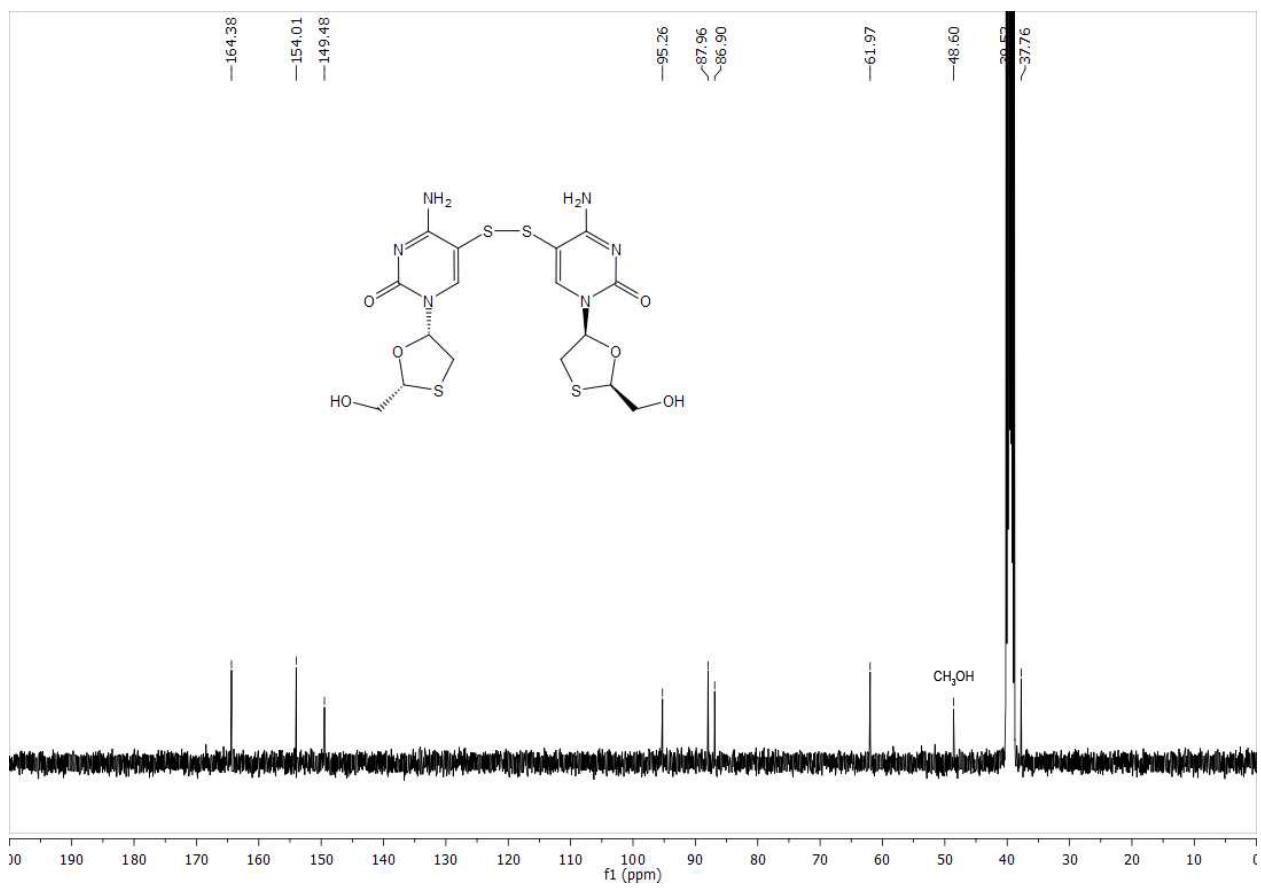
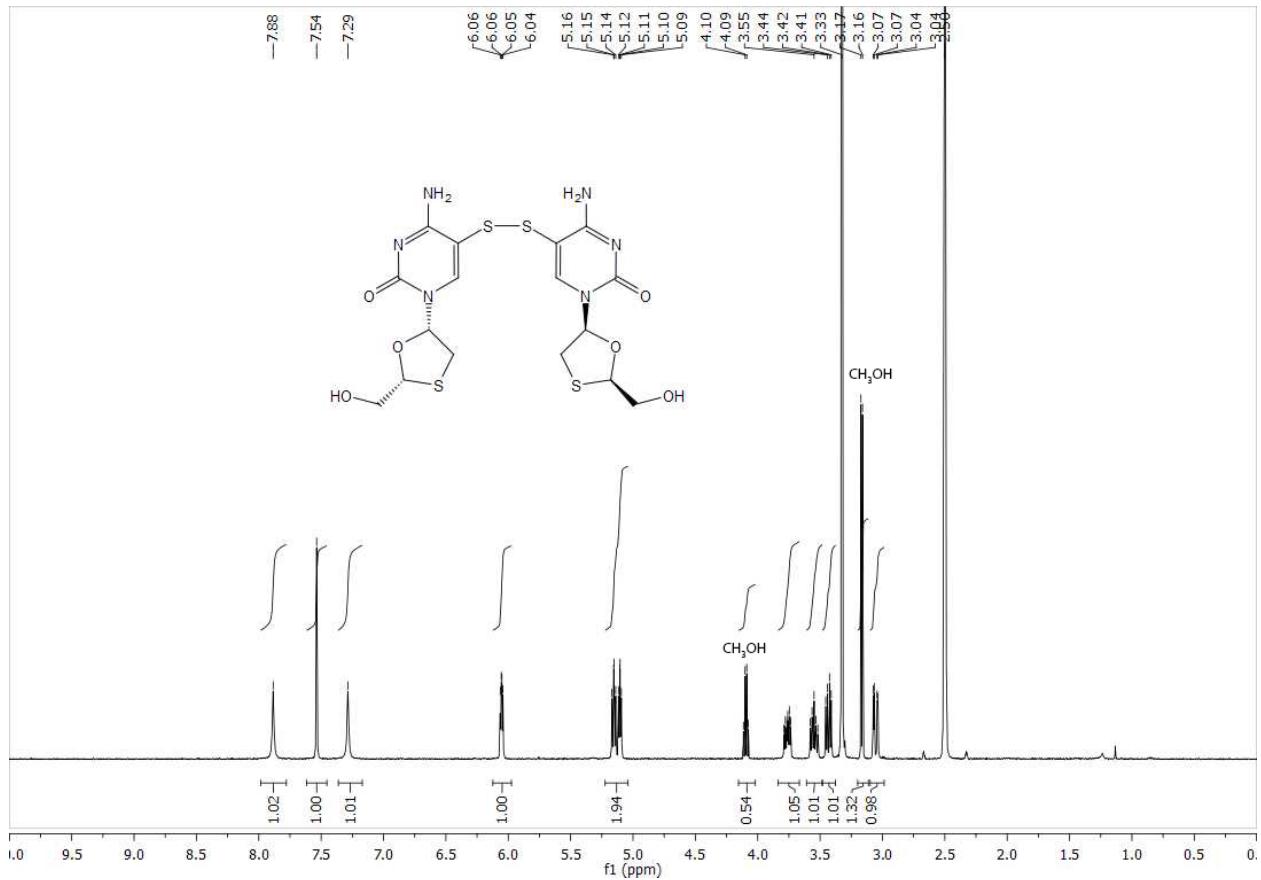


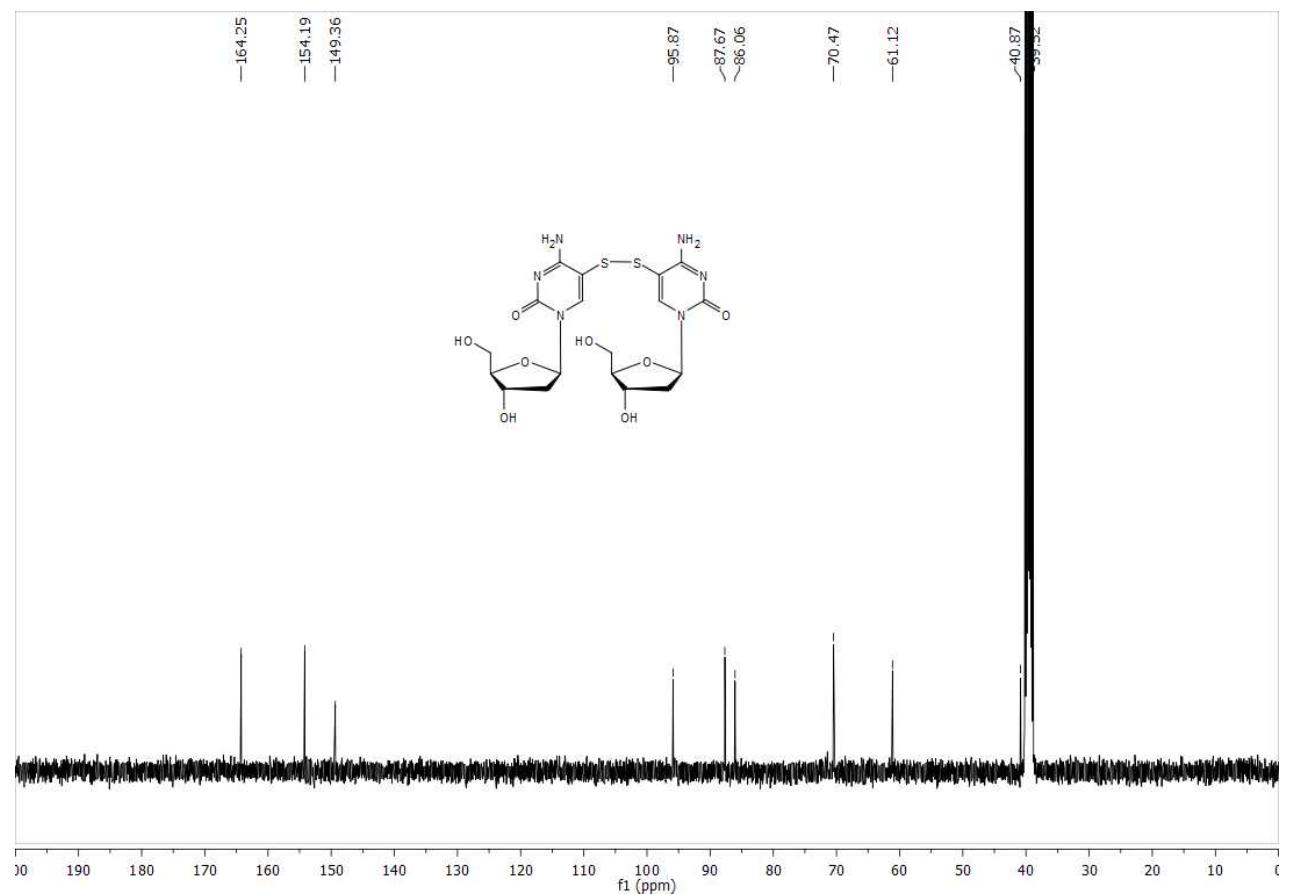












## 2. Crystallographic data for the compound 1b

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Bond precision: C-C = 0.0025 Å Wavelength=0.71073  
 Cell: a=8.3283(10) b=10.8019(13) c=10.6819(12)  
 alpha=90 beta=90.740(4) gamma=90  
 Temperature: 200 K

	Calculated	Reported
Volume	960.9(2)	960.9(2)
Space group	P 21/c	P 21/c
Hall group	-P 2ybc	-P 2ybc
Moiety formula	C <sub>9</sub> H <sub>13</sub> N <sub>3</sub> O <sub>2</sub>	C <sub>9</sub> H <sub>13</sub> N <sub>3</sub> O <sub>2</sub>
Sum formula	C <sub>9</sub> H <sub>13</sub> N <sub>3</sub> O <sub>2</sub>	C <sub>9</sub> H <sub>13</sub> N <sub>3</sub> O <sub>2</sub>
Mr	195.22	195.22
D <sub>x</sub> , g cm <sup>-3</sup>	1.349	1.349
Z	4	4
$\mu$ (mm <sup>-1</sup> )	0.098	0.098
F <sub>000</sub>	416.0	416.0
F <sub>000'</sub>	416.18	
h, k, lmax	9, 12, 12	9, 12, 12
Nref	1702	1696
Tmin, Tmax	0.945, 0.969	0.877, 0.969
Tmin'	0.938	
Correction method	MULTI-SCAN	
Data completeness	0.996	Theta(max) = 25.031
R(reflections)	0.0413(1438)	wR2(reflections) = 0.1178(1696)
S	1.035	Npar = Npar = 133

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