

## Supporting Information for

### A Concise and Fully Selective Synthesis of the Ant Venom Alkaloid

#### (3*S*,5*R*,8*S*,9*S*)-3-Butyl-5-propyl-8-hydroxyindolizidine

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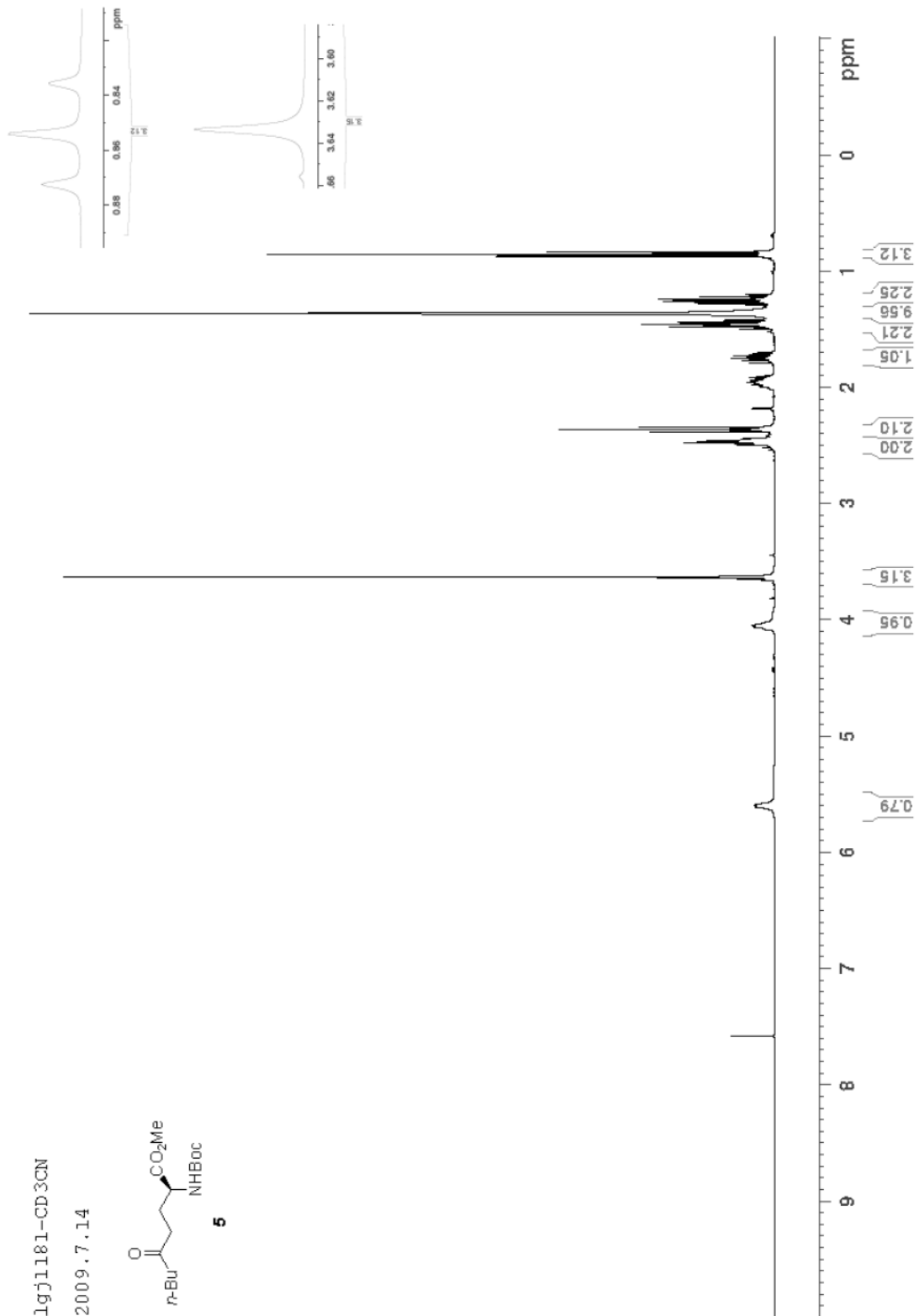
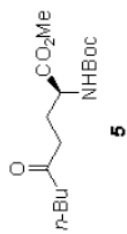
E-mail: (pqhuang@xmu.edu.cn)

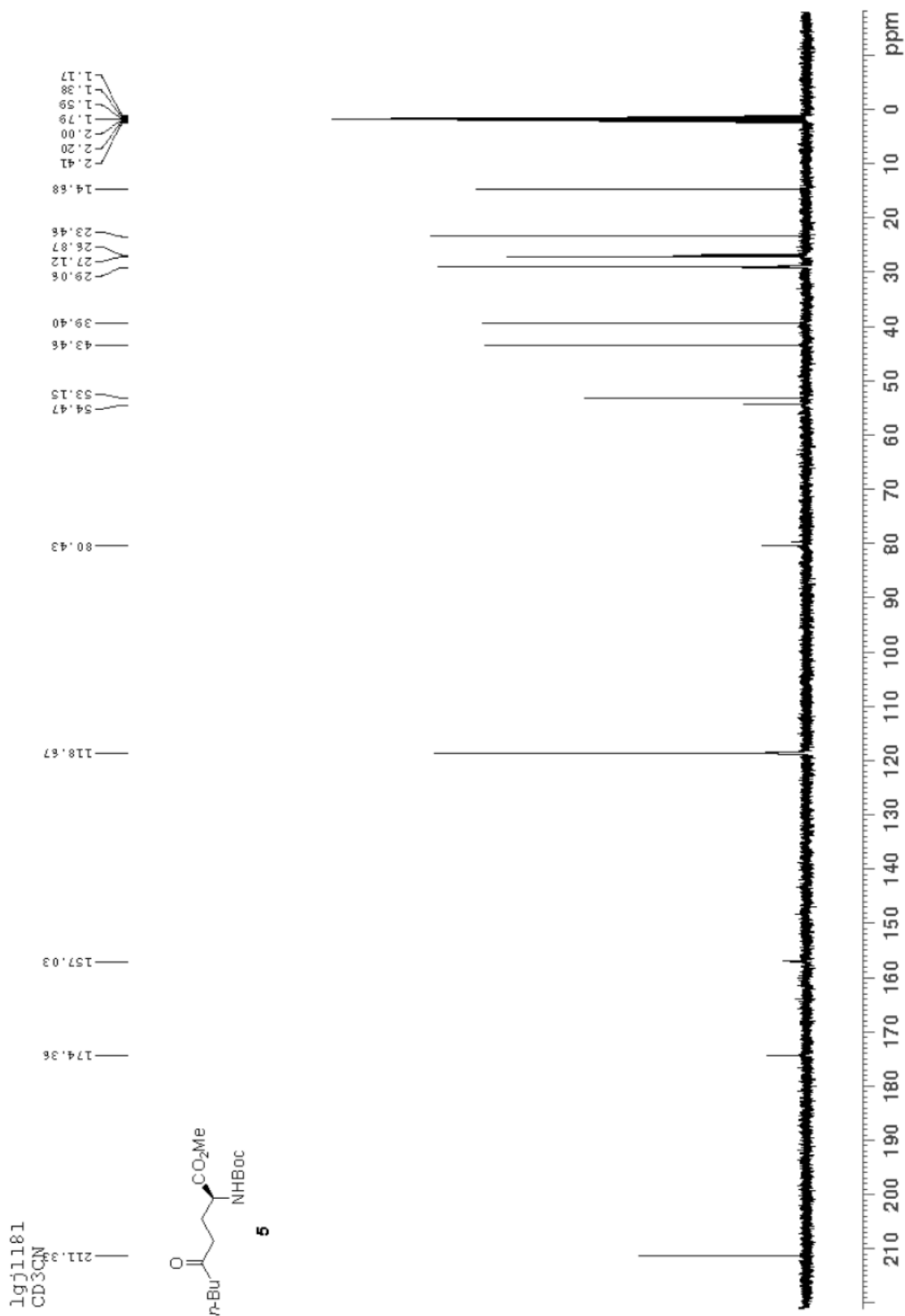
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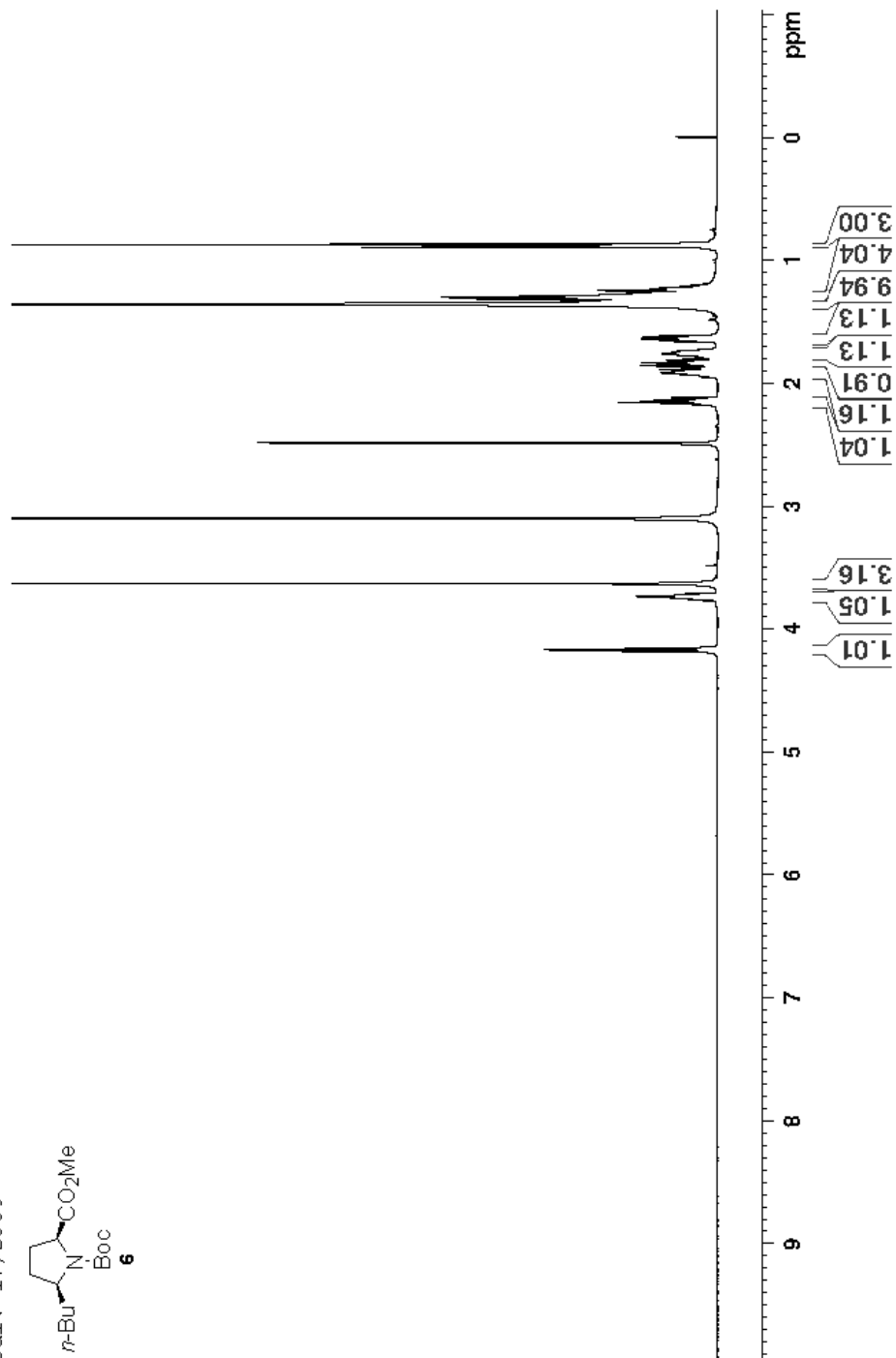
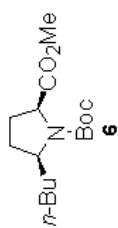
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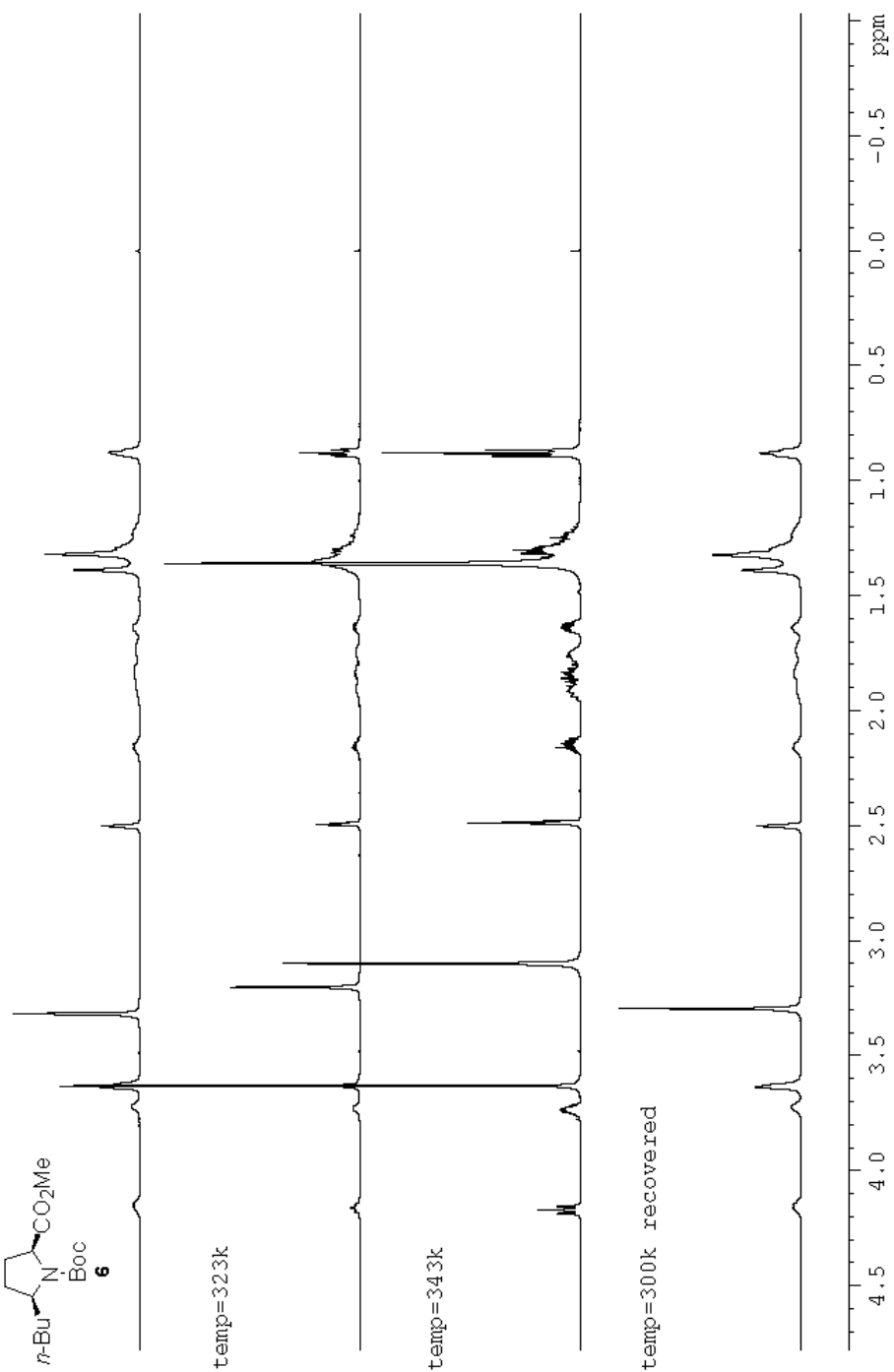
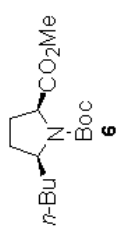


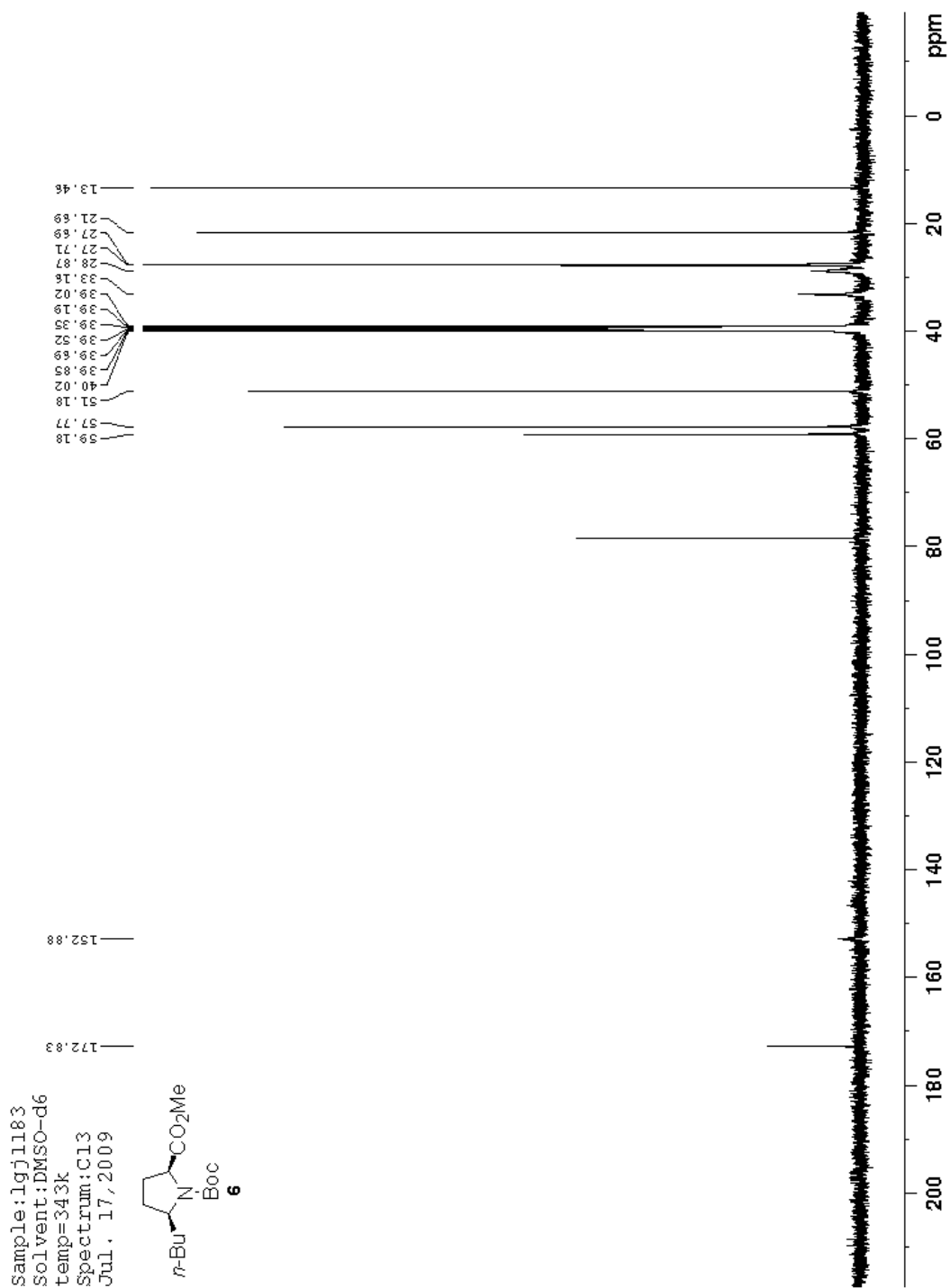


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Jul, 17, 2009

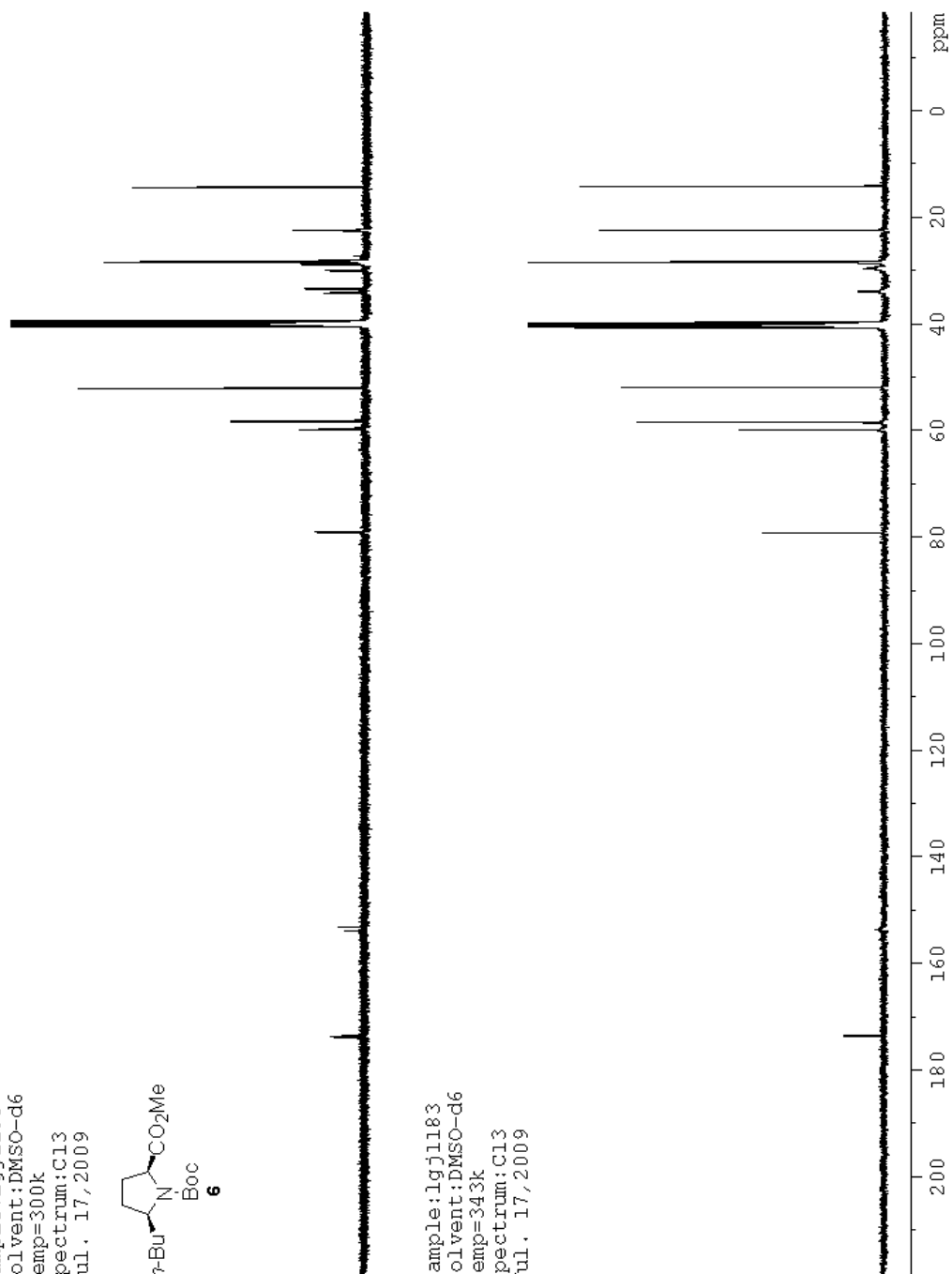
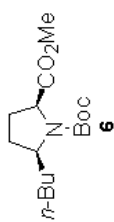


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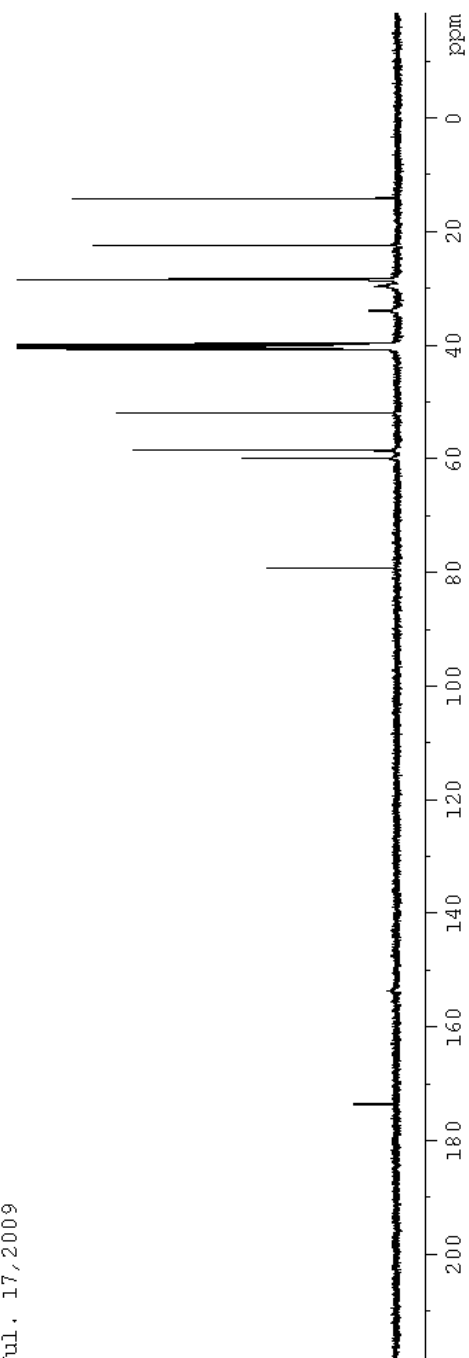




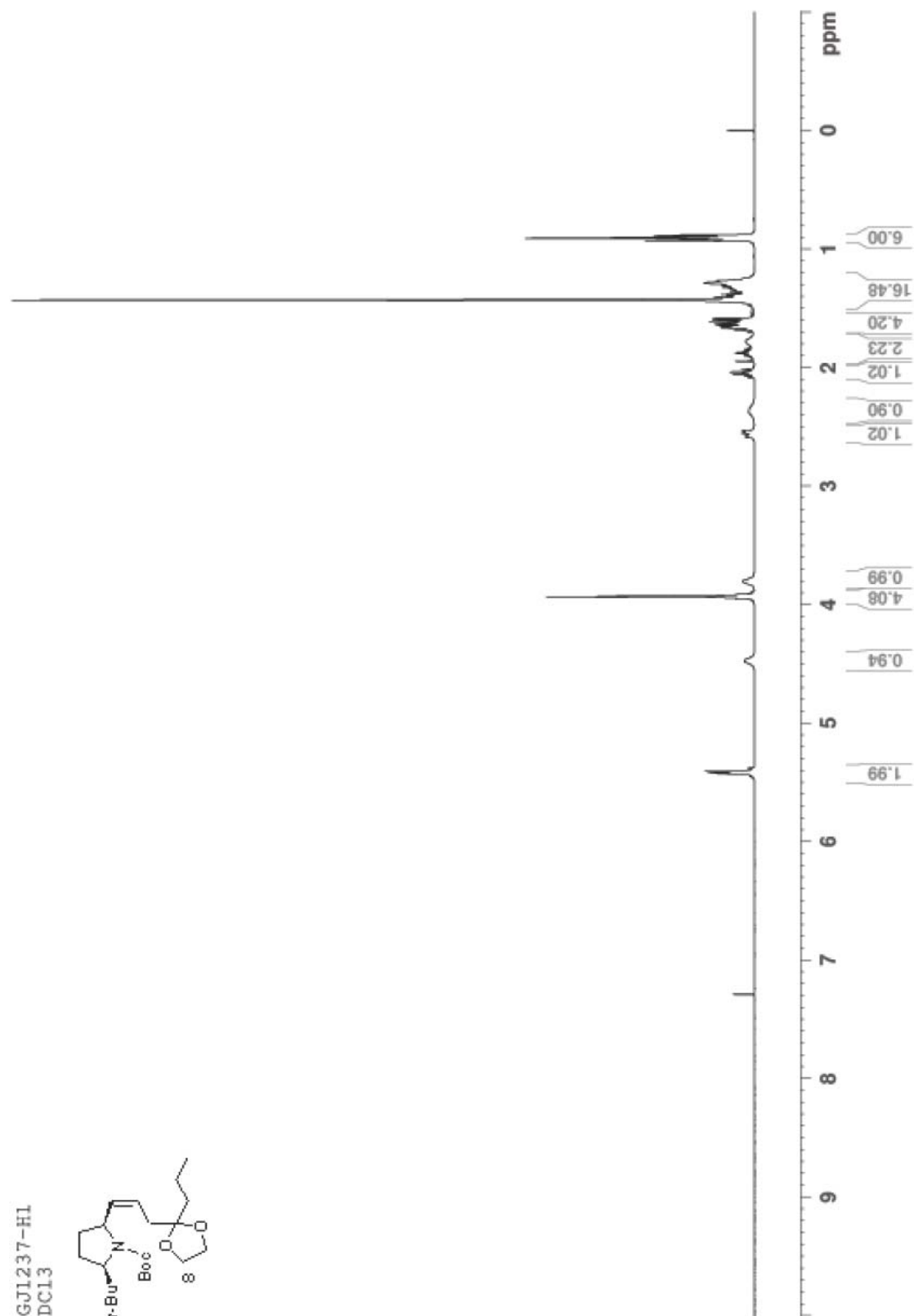
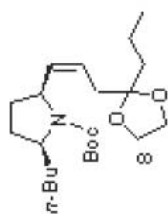
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Jul. 17,2009

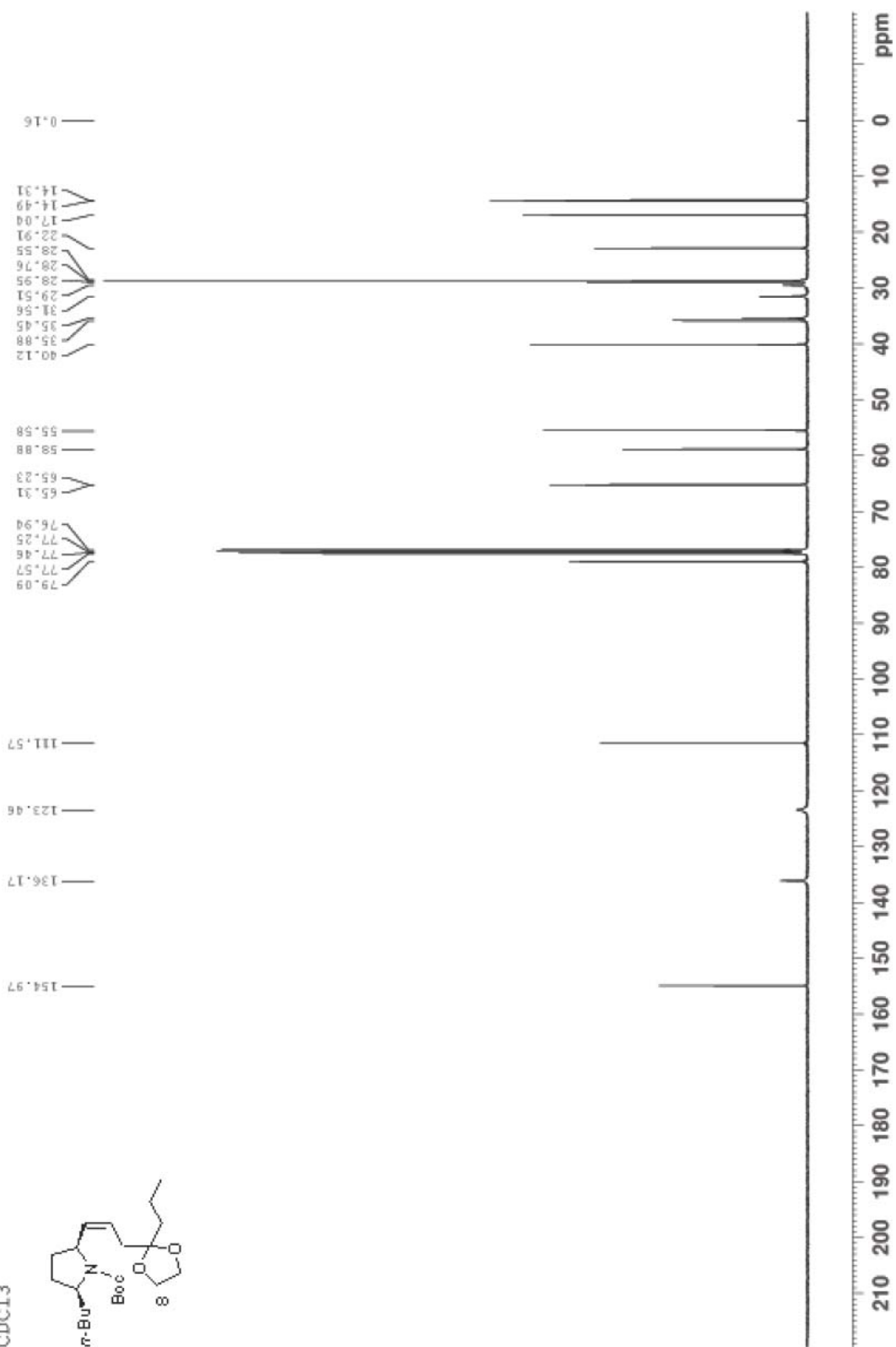
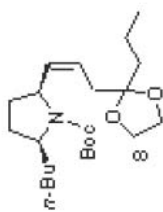


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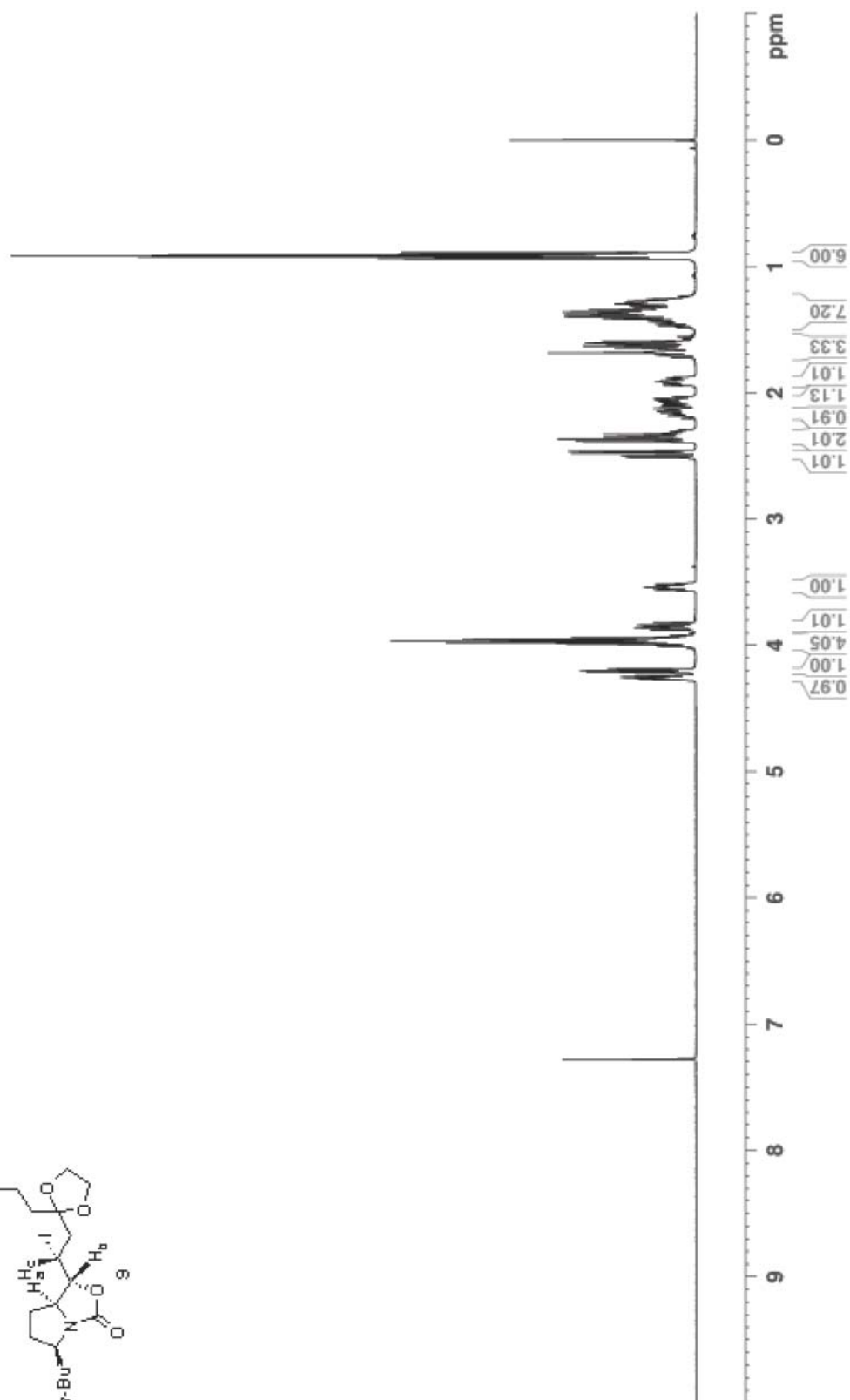
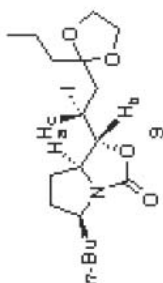


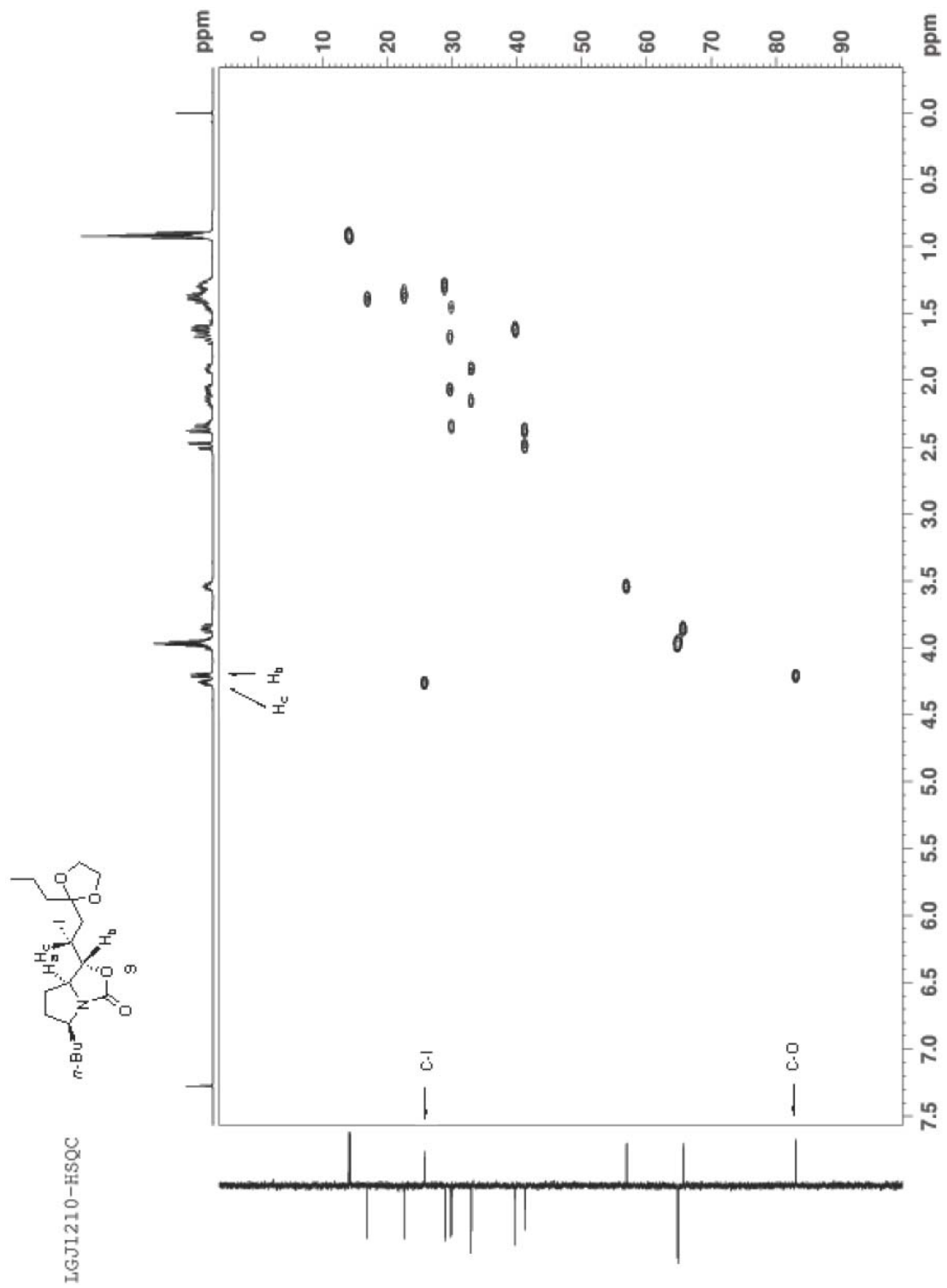


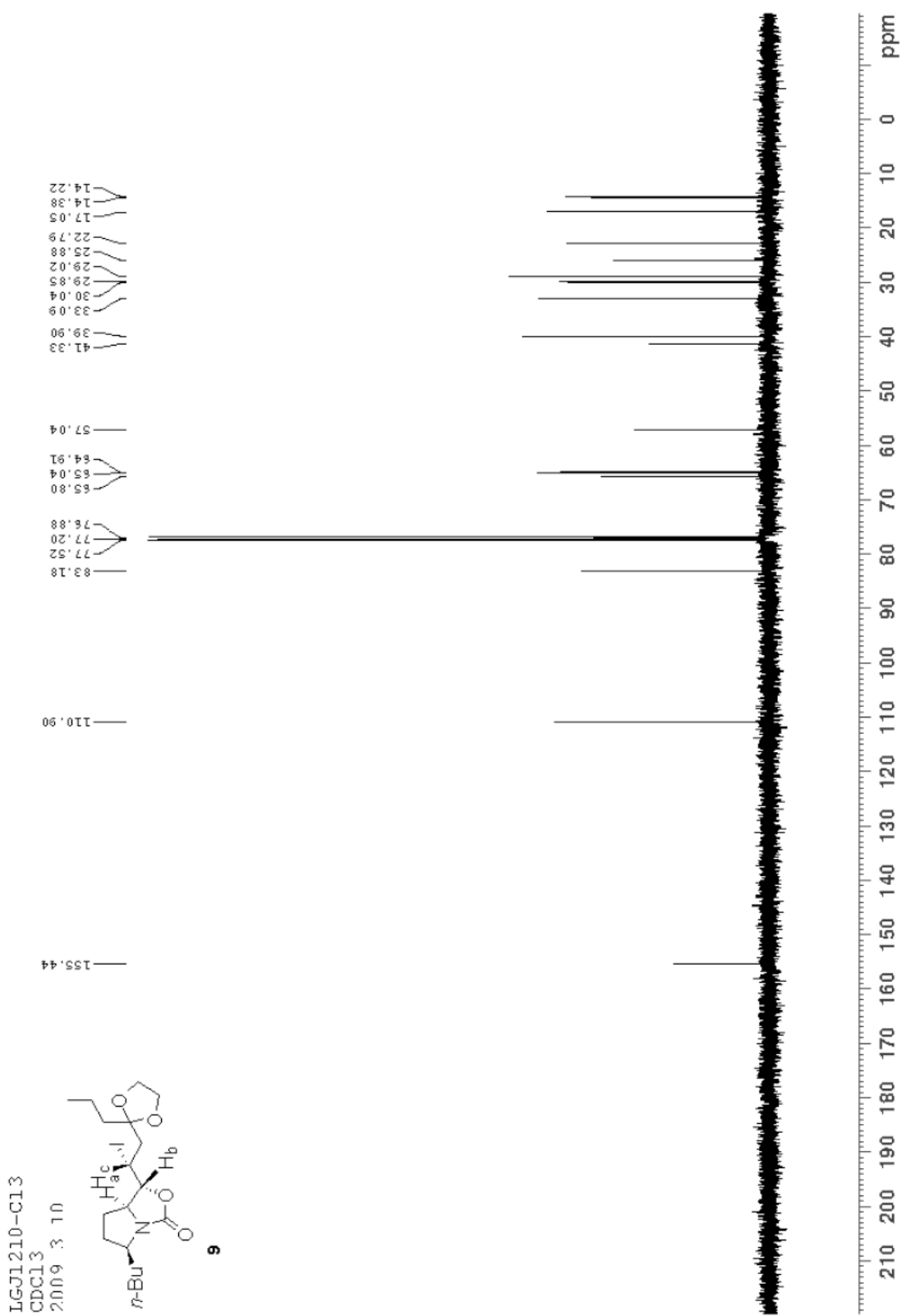
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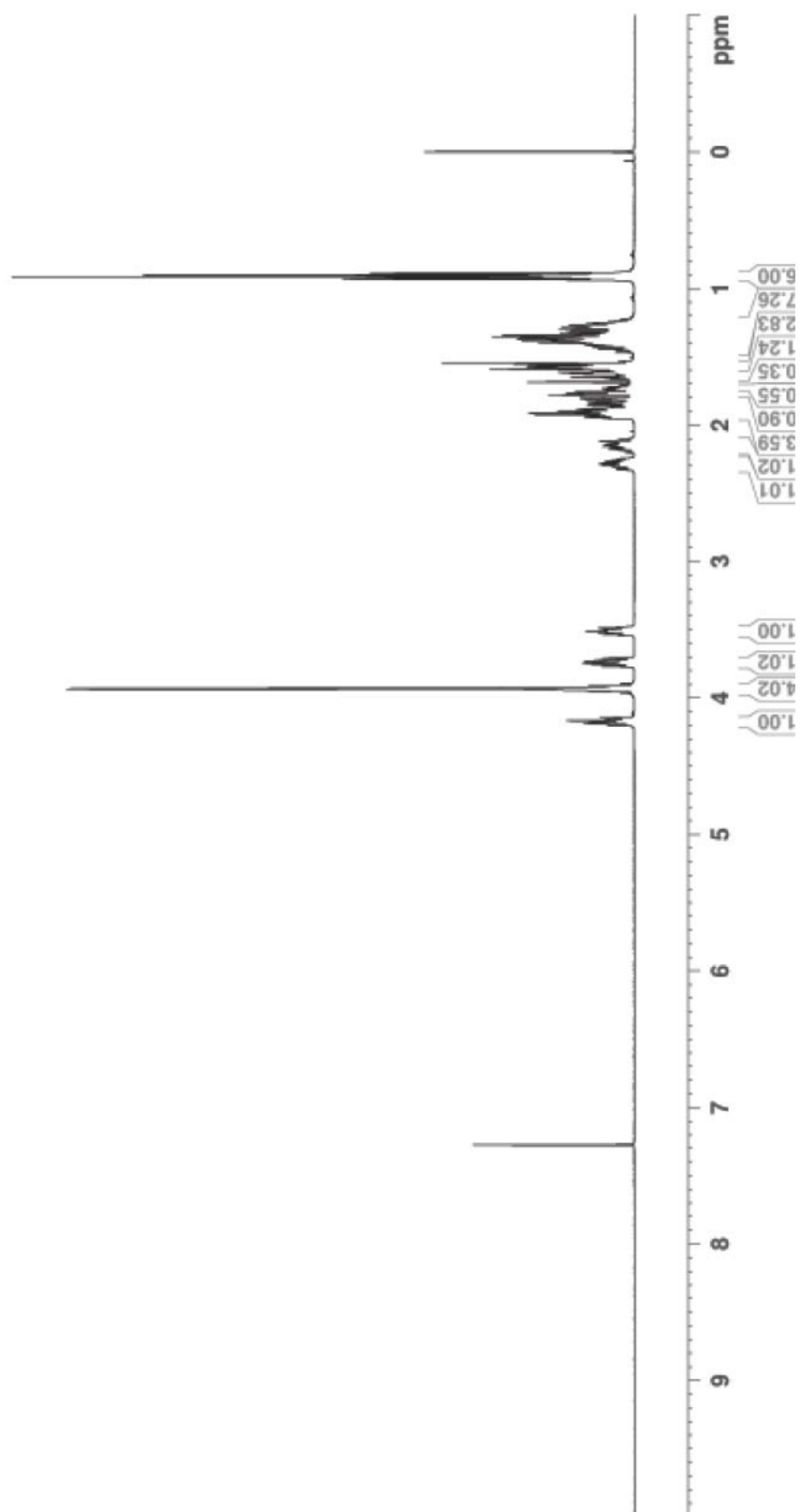
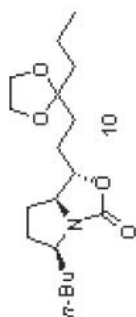
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2009 3 10



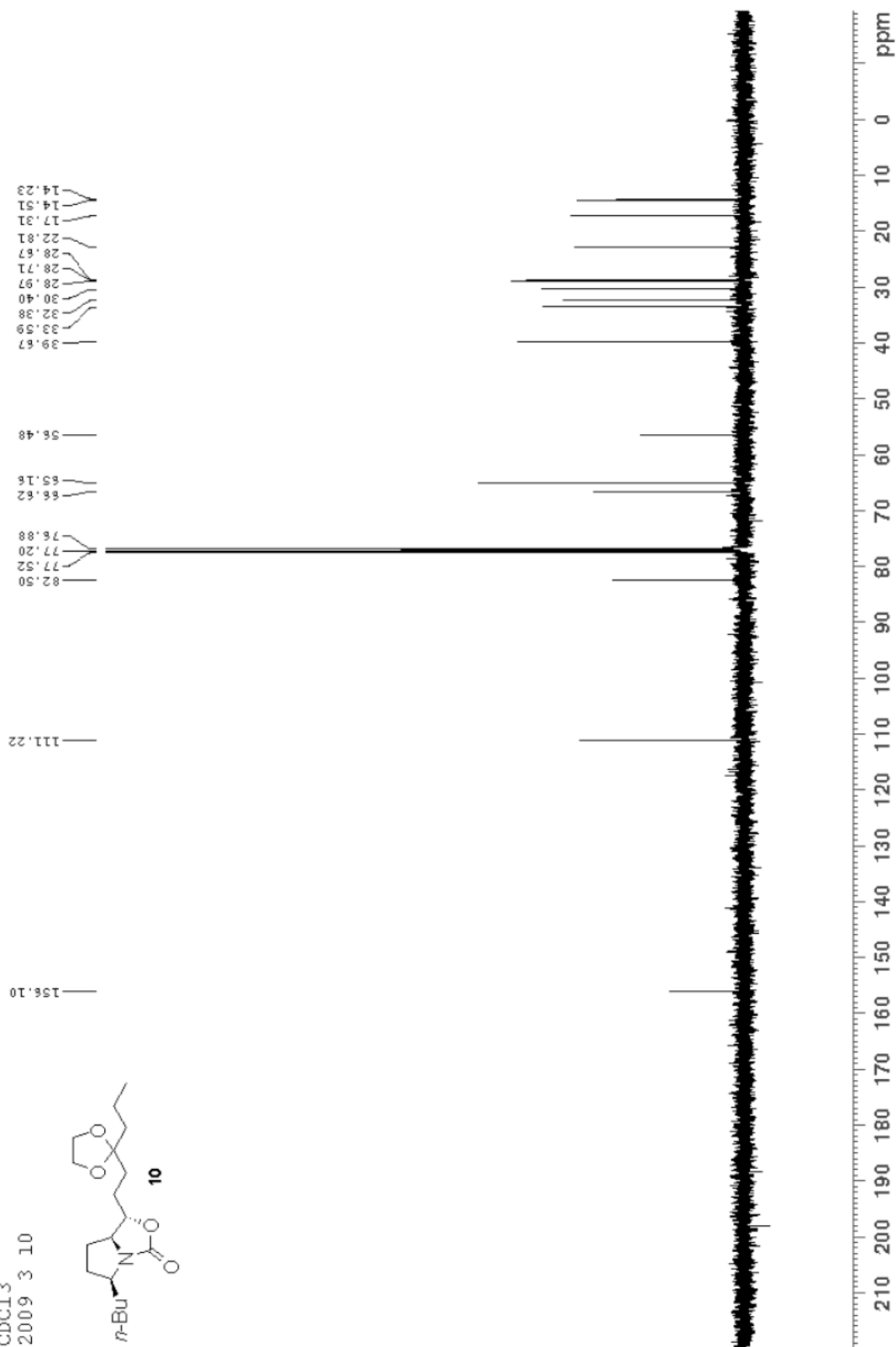
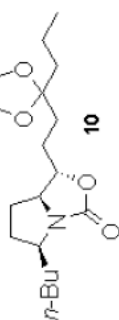




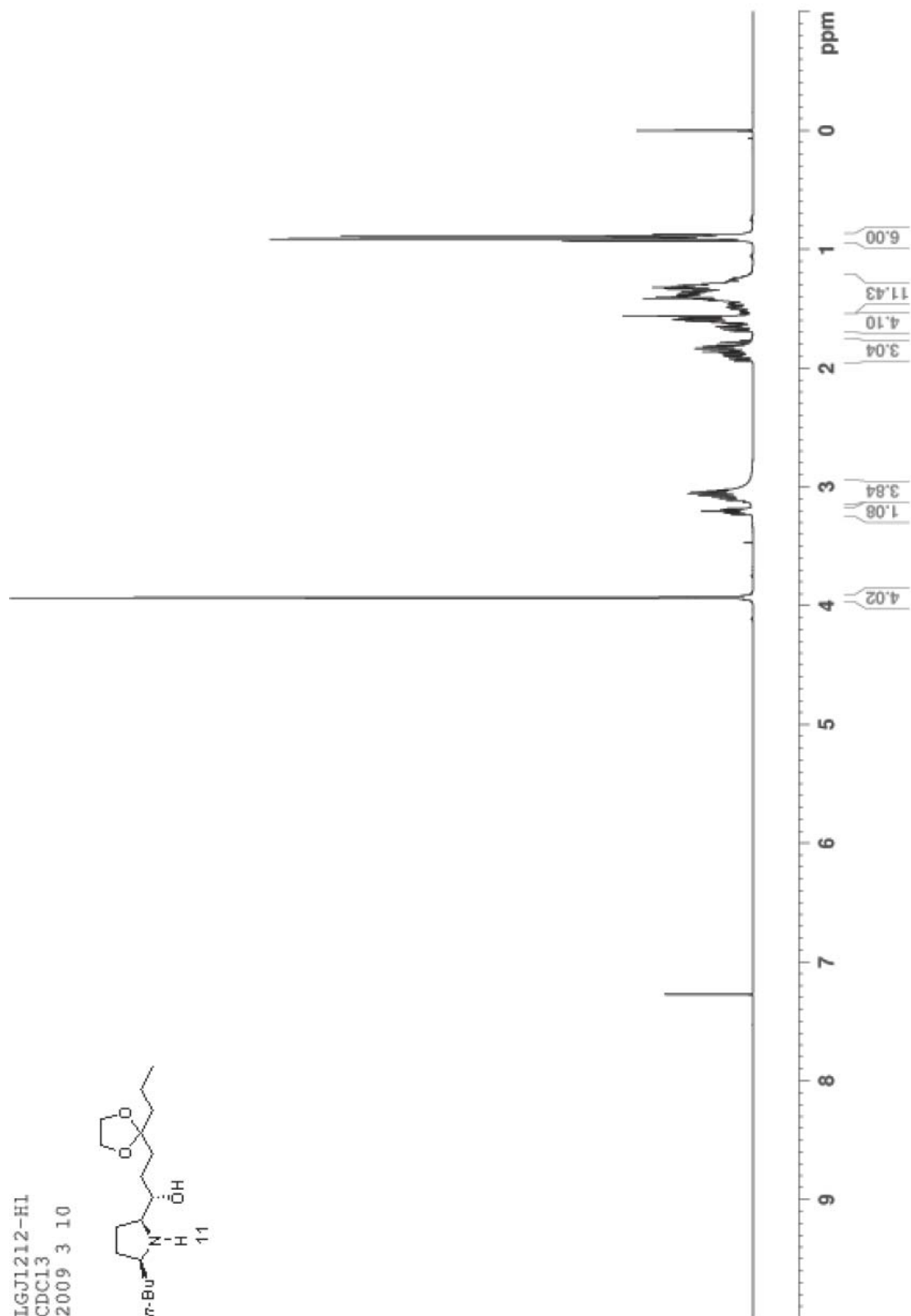
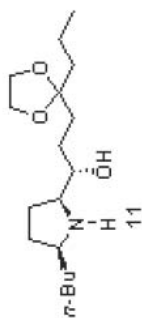
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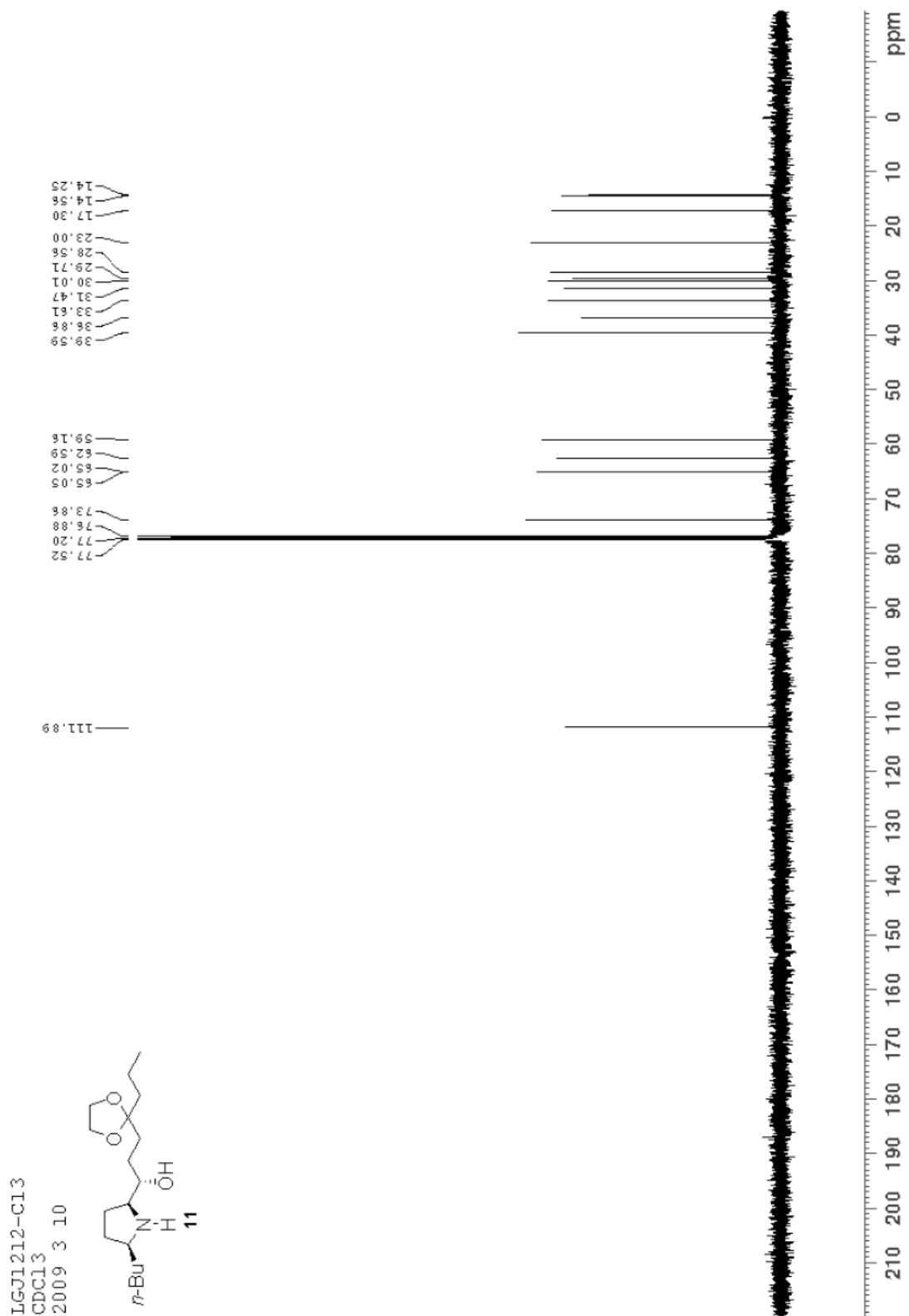


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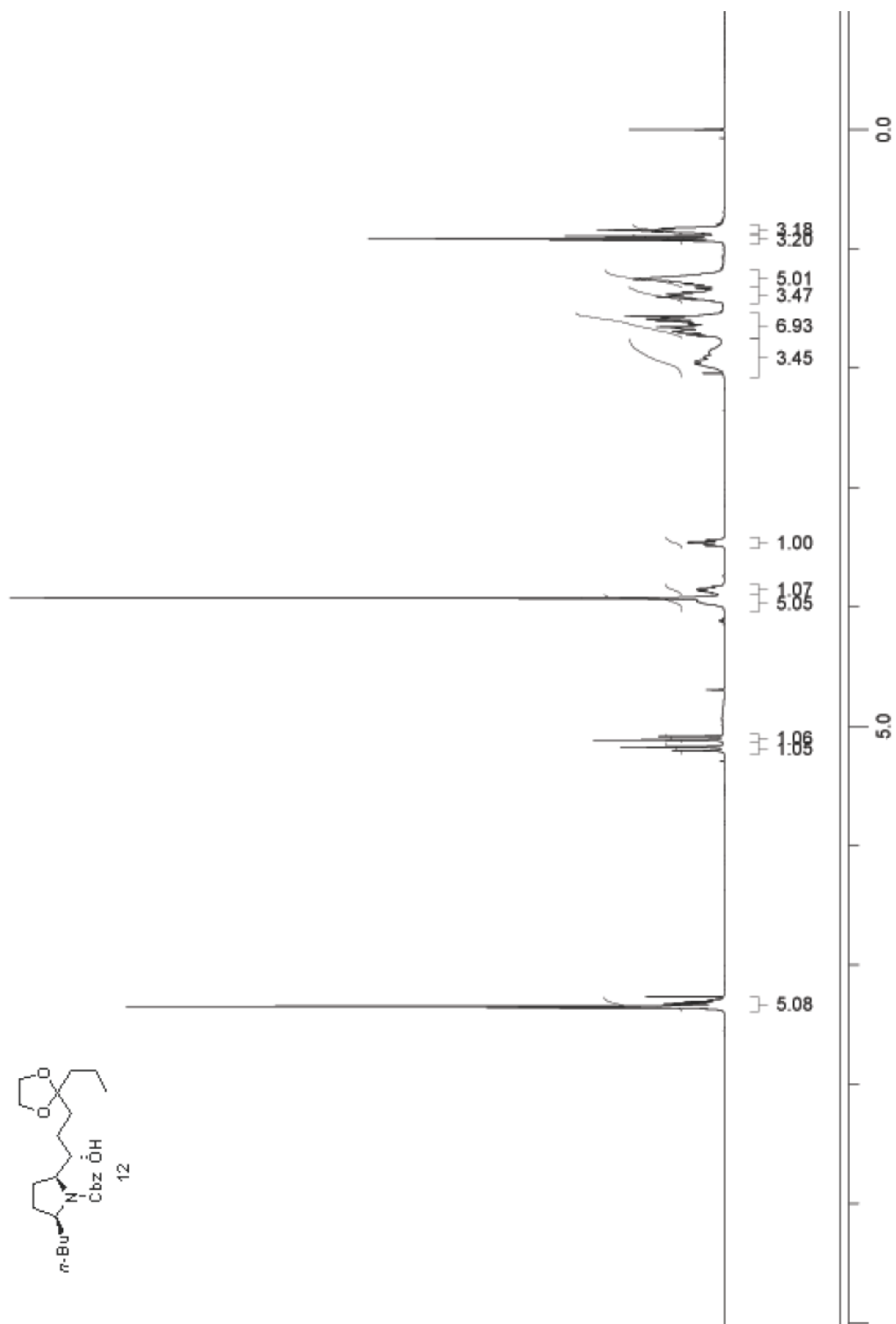


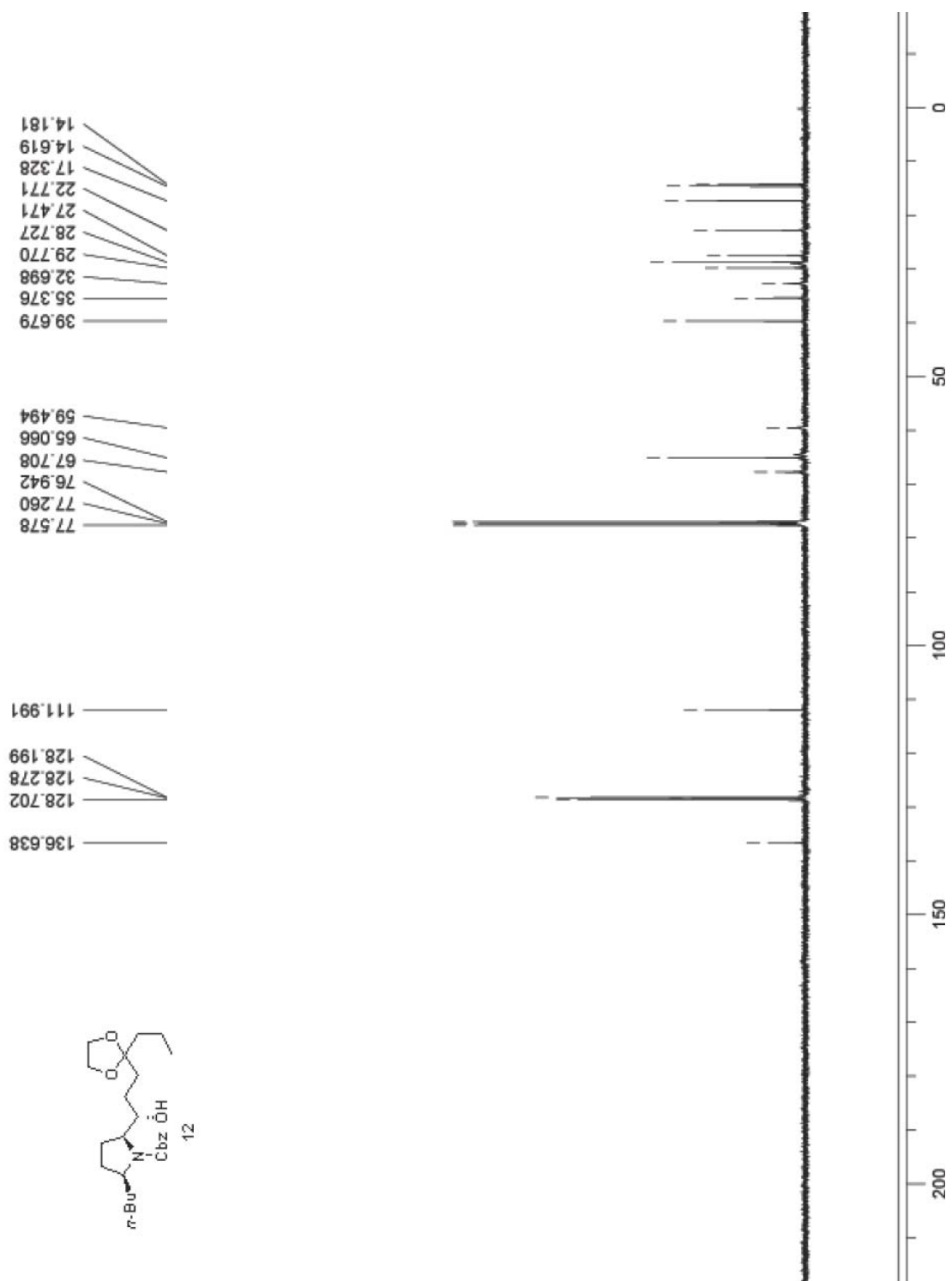
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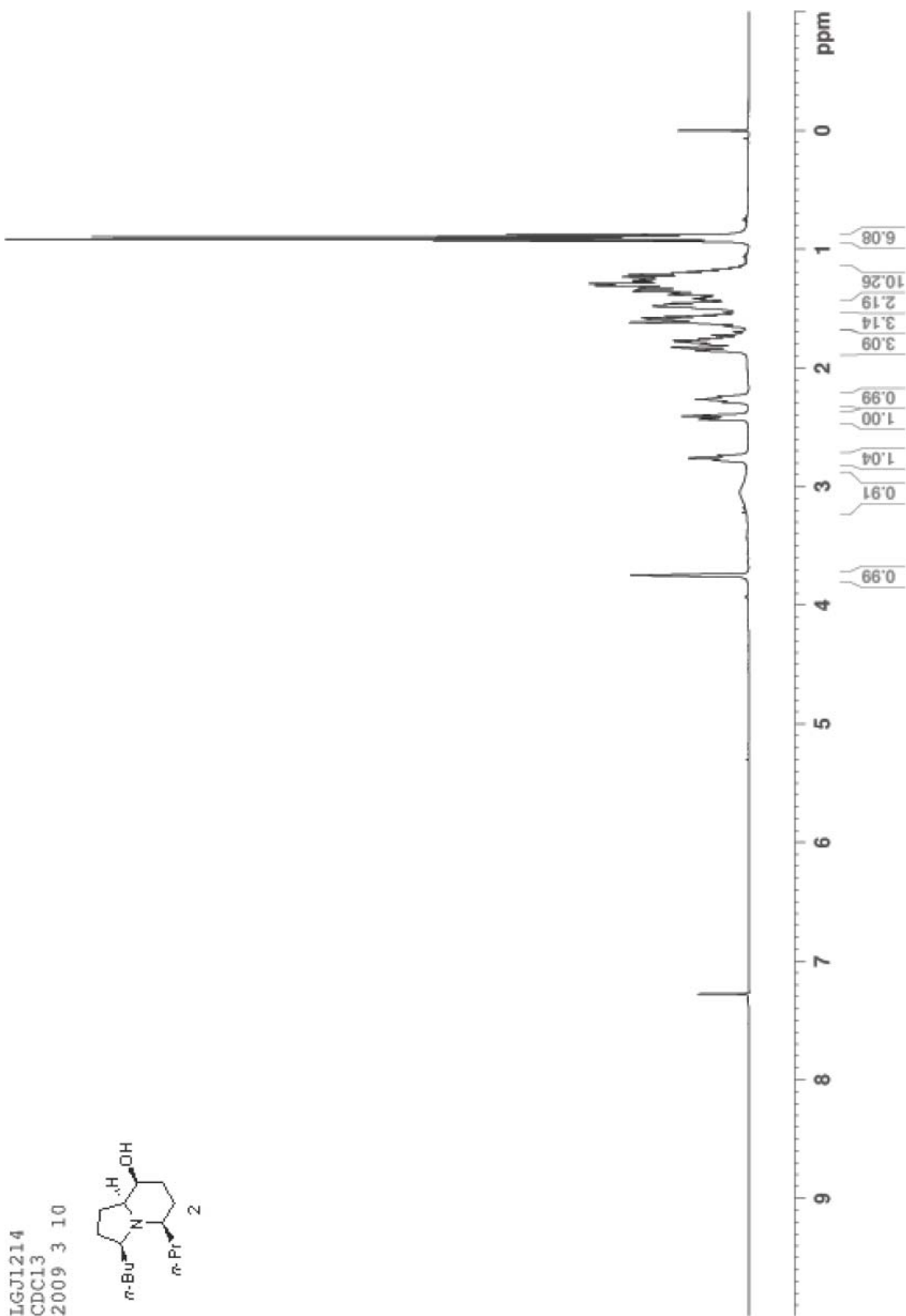












LGJ1214-Cl3  
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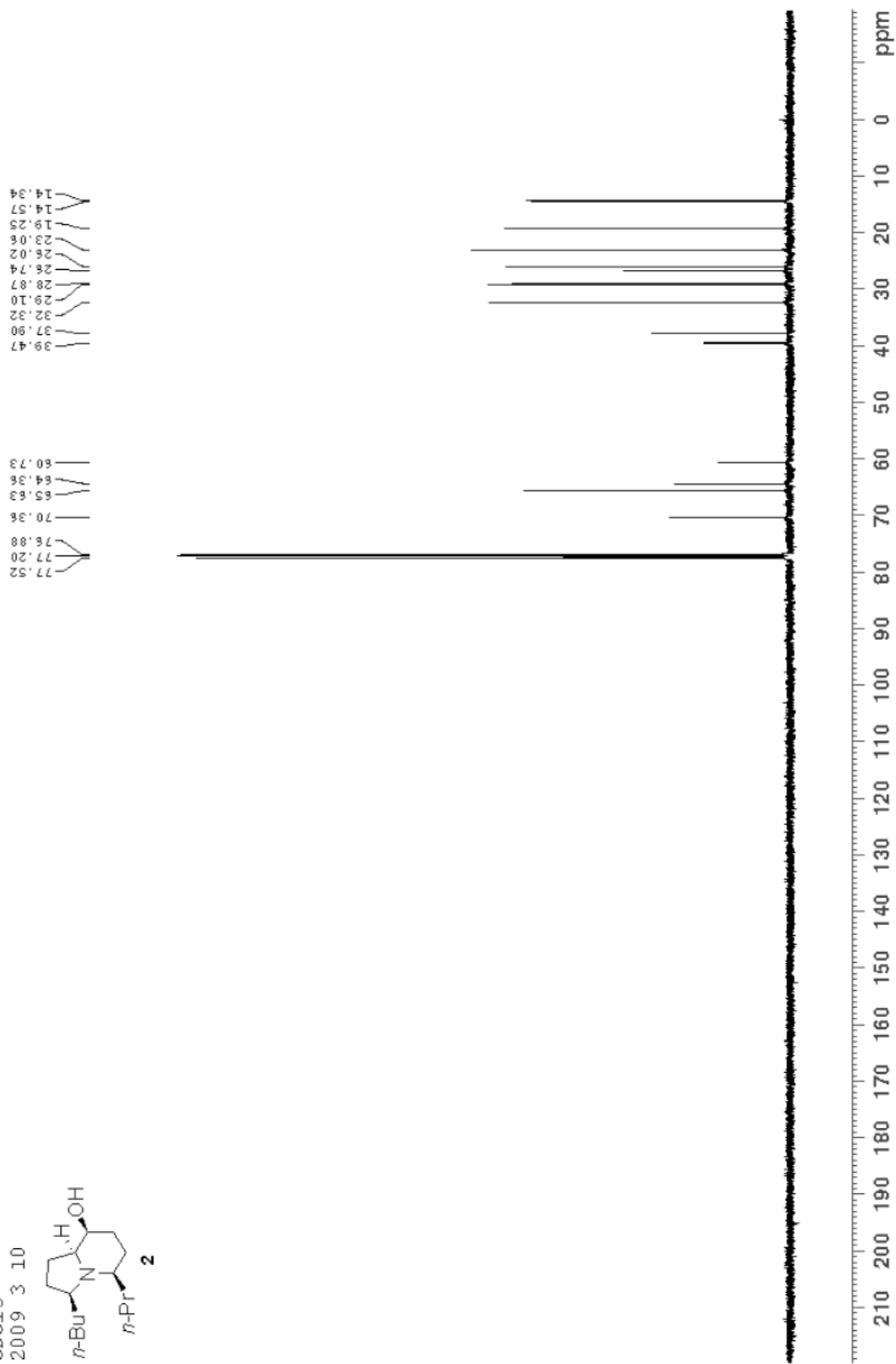
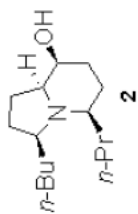


Table 1. Comparison of the NMR data between our synthetic product **2** and those reported.

$\delta_{\text{H}}$ (our synthetic product)	$\delta_{\text{H}}$ (Toyooka's synthetic product) <sup>1</sup>	$\delta_{\text{C}}$ (our product)	$\delta_{\text{C}}$ (Toyooka's product) <sup>1</sup>
0.90 (3H, t, $J = 7.2$ Hz)	0.90 (3H, t, $J = 7.2$ Hz)	14.3	14.3
0.92 (3H, t, $J = 7.3$ Hz)	0.91 (3H, t, $J = 7.2$ Hz)	14.6	14.5
1.14-1.53 (12H, br m)	1.17-1.49 (11H, brm)	19.3	19.2
1.54-1.66 (3H, m)	1.53-1.62 (4H, m)	23.1	23.0
1.68-1.88 (3H, m)	1.68-1.86 (3H, m)	26.0	25.9
2.27 (1H, apparent t, $J = 9.7$ Hz) (NCH)	2.25 (1H, t-like, $J = 9.8$ Hz)	26.7	26.7
2.42 (1H, dd, $J = 4.5, 10.7$ Hz) (NCH)	2.40 (1H, m)	28.9	28.8
2.76 (1H, apparent t, $J = 8.1$ Hz) (NCH)	2.75 (1H, t-like, $J = 8.5$ Hz)	29.1	29.0
3.05 (1H, br, D <sub>2</sub> O exchangeable) (OH)	3.03 (1H, d, $J = 10.3$ Hz)	32.3	32.2
3.75 (1H, br) (CHOH)	3.74 (1H, d, $J = 9.8$ Hz)	37.9	37.8
		39.5	39.4
		60.7	60.4
		64.4	64.1
		65.6	65.5
		70.4	70.1

Reference:

1. N. Toyooka, D. J. Zhou, H. Nemoto, Y. Tezuka, S. Kadota, T. H. Jones, H. M. Garraffo, T. F. Spande and J. W. Daly, *Synlett*, 2008, 1894-1896.