

Supplementary Materials

Enantioselective 1,3-Dipolar Cycloaddition Using (Z)- α -Amidonitroalkenes as a Key Step to the Access to Chiral *cis*-3,4-Diaminopyrrolidines [†]

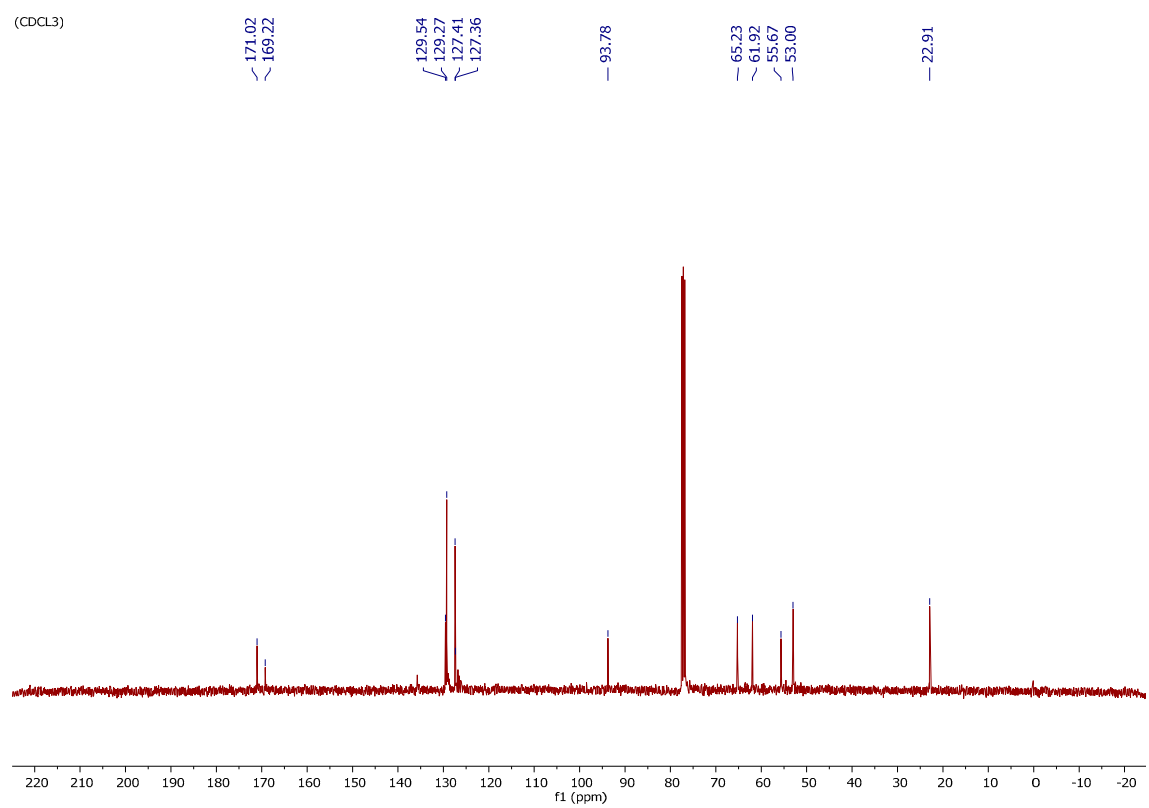
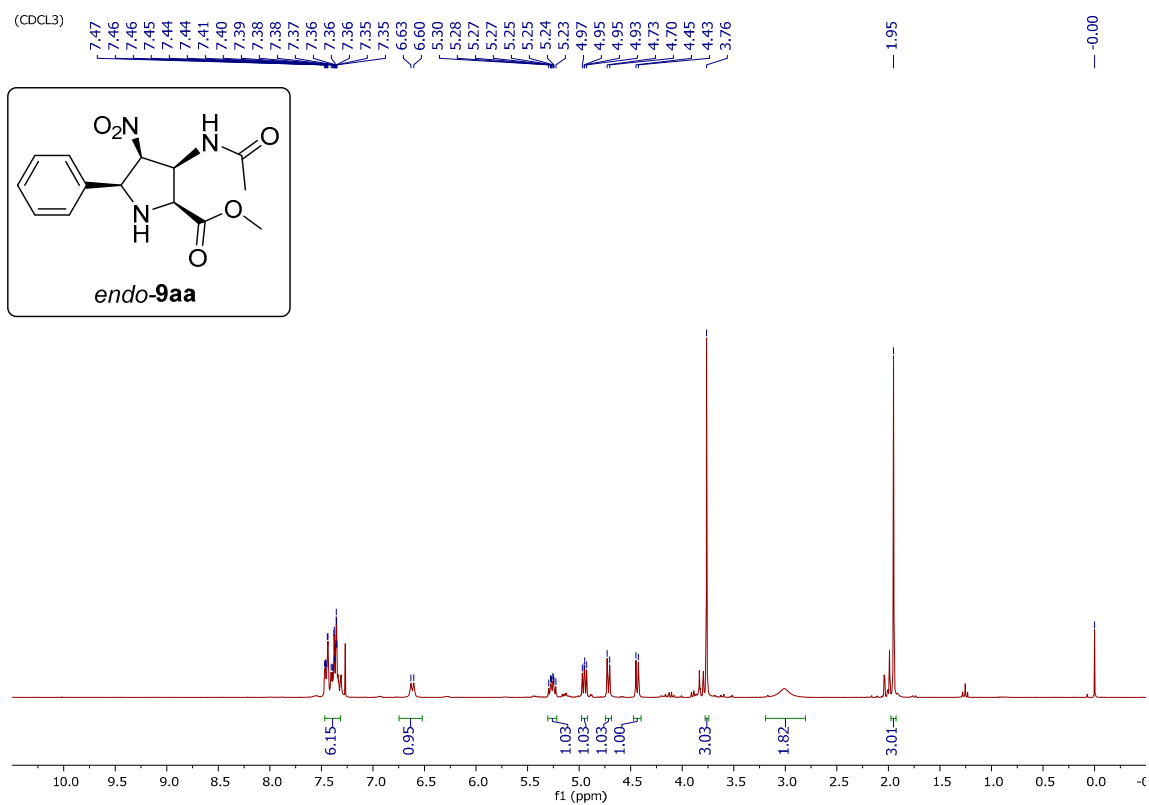
Eduardo García-Mingüens ^{1,2}, Marcos Ferrándiz-Saperas ^{1,2}, M. de Gracia Retamosa ^{1,2}, Carmen Nájera ^{2,*}, Miguel Yus ² and José M. Sansano ^{1,2,*}

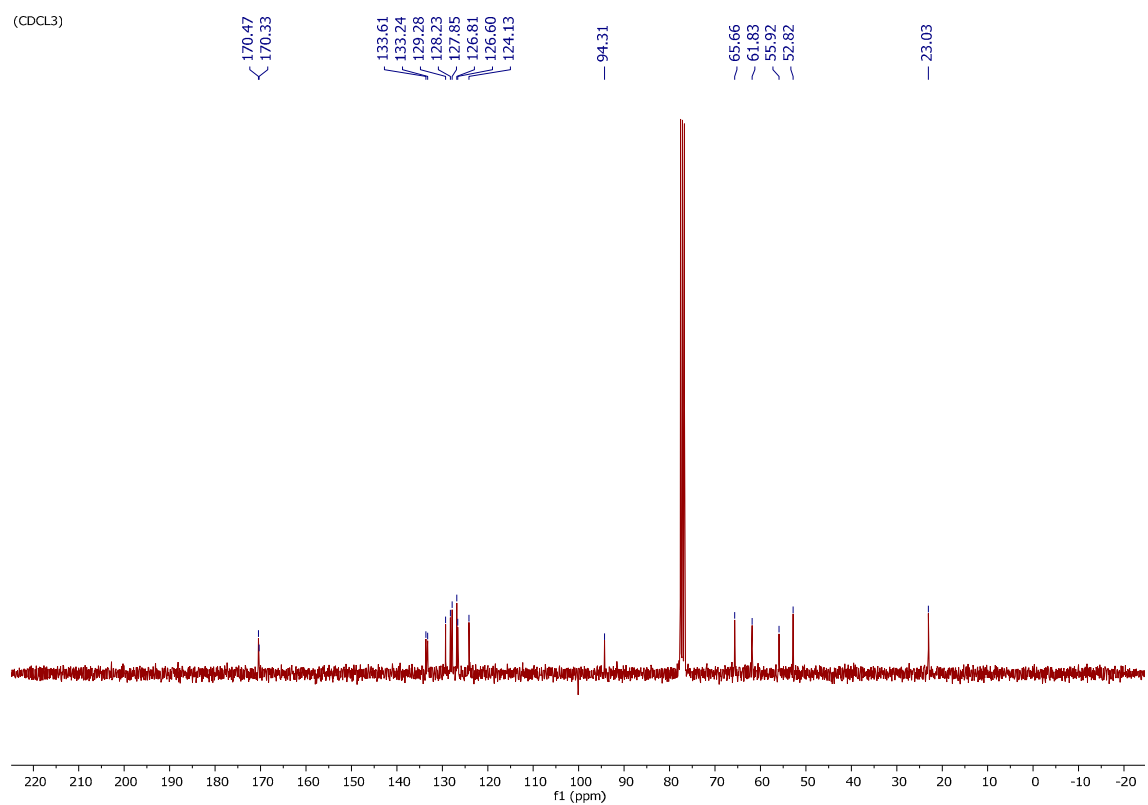
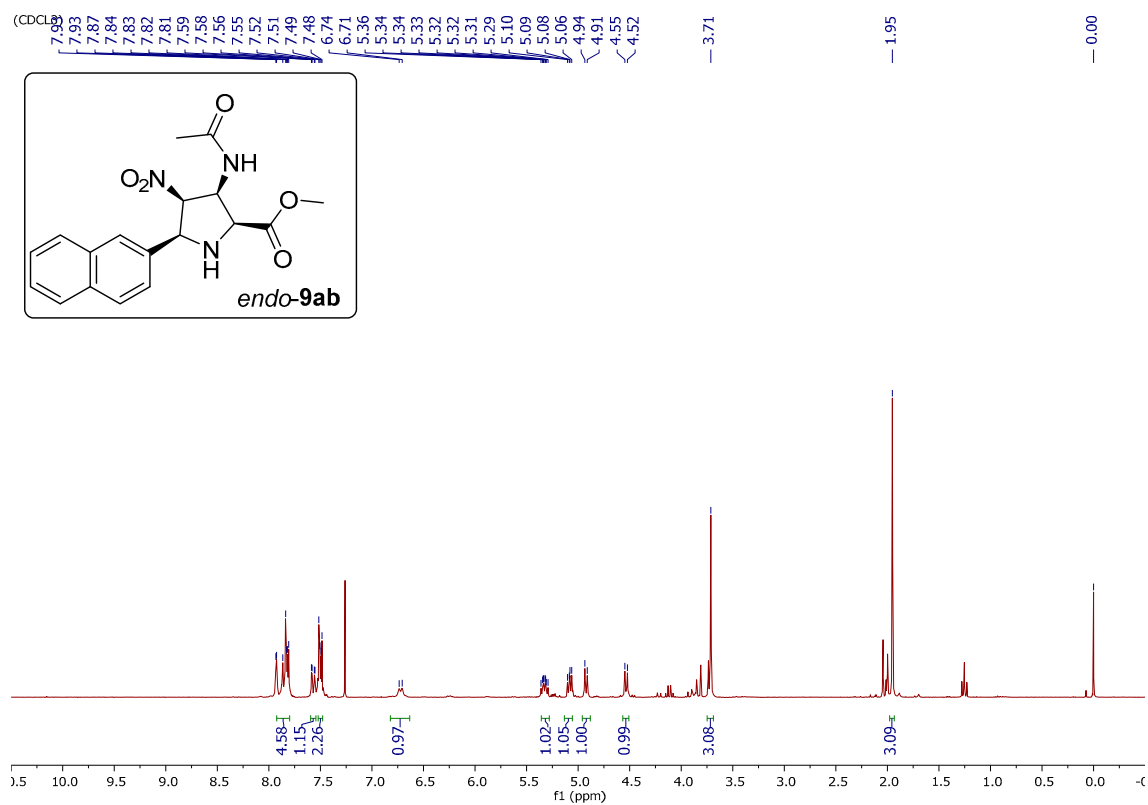
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- ² Centro de Innovación en Química Avanzada (ORFEO-CINQA), P.O. Box 99, 03690 San Vicente del Raspeig, Spain; yus@ua.es
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- [†] Dedicated to Prof. Henri B. Kagan.

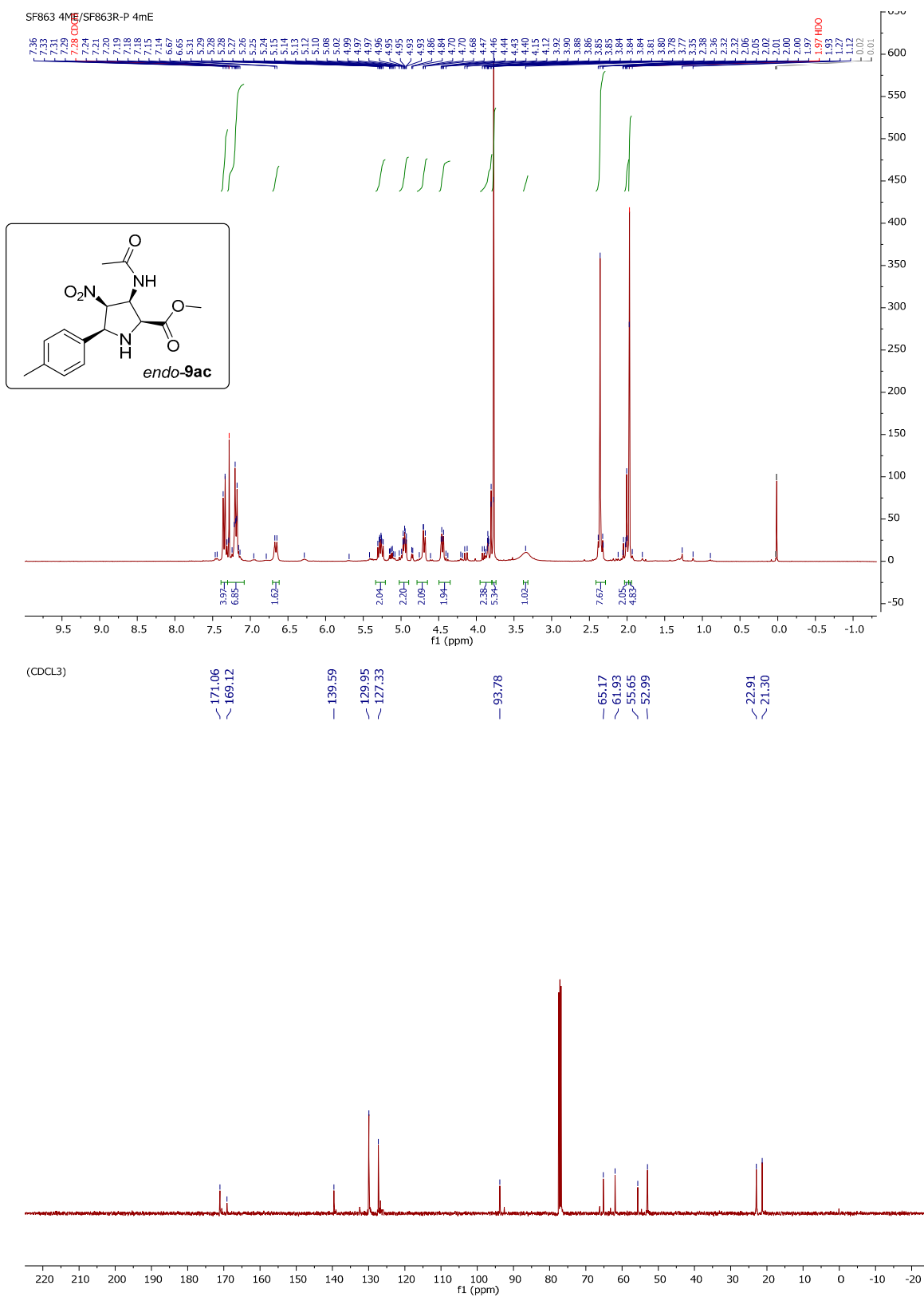
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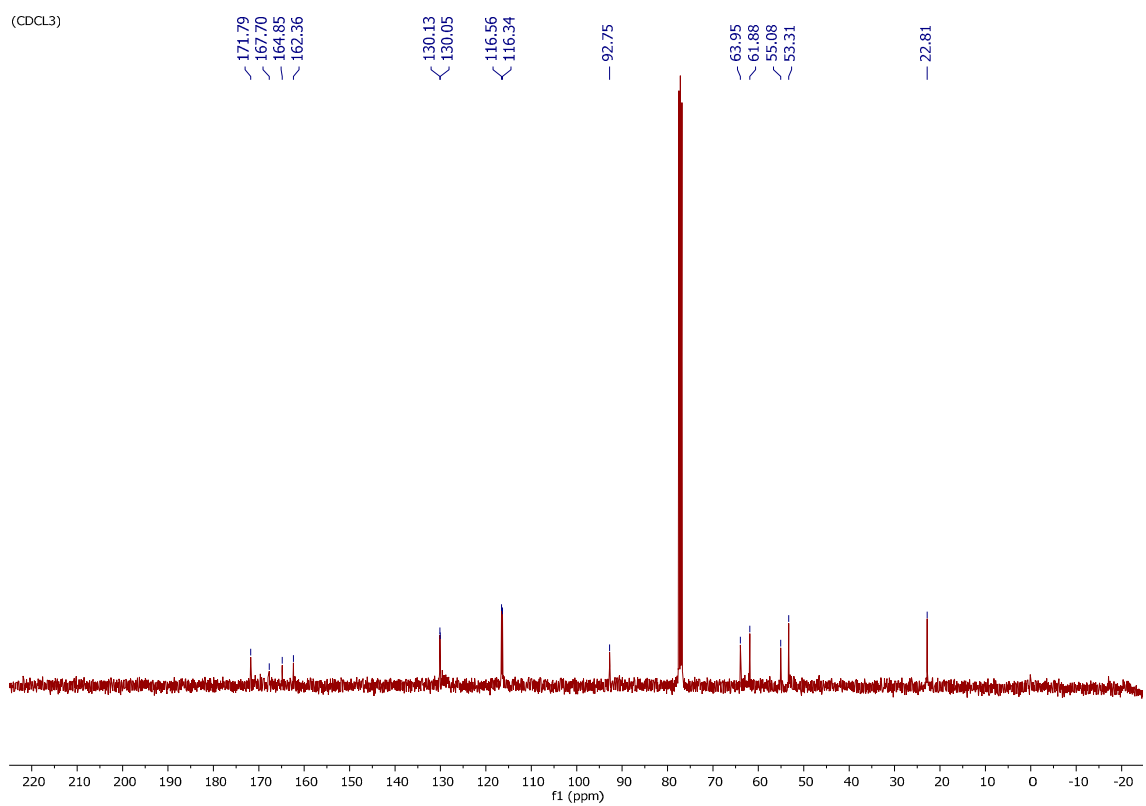
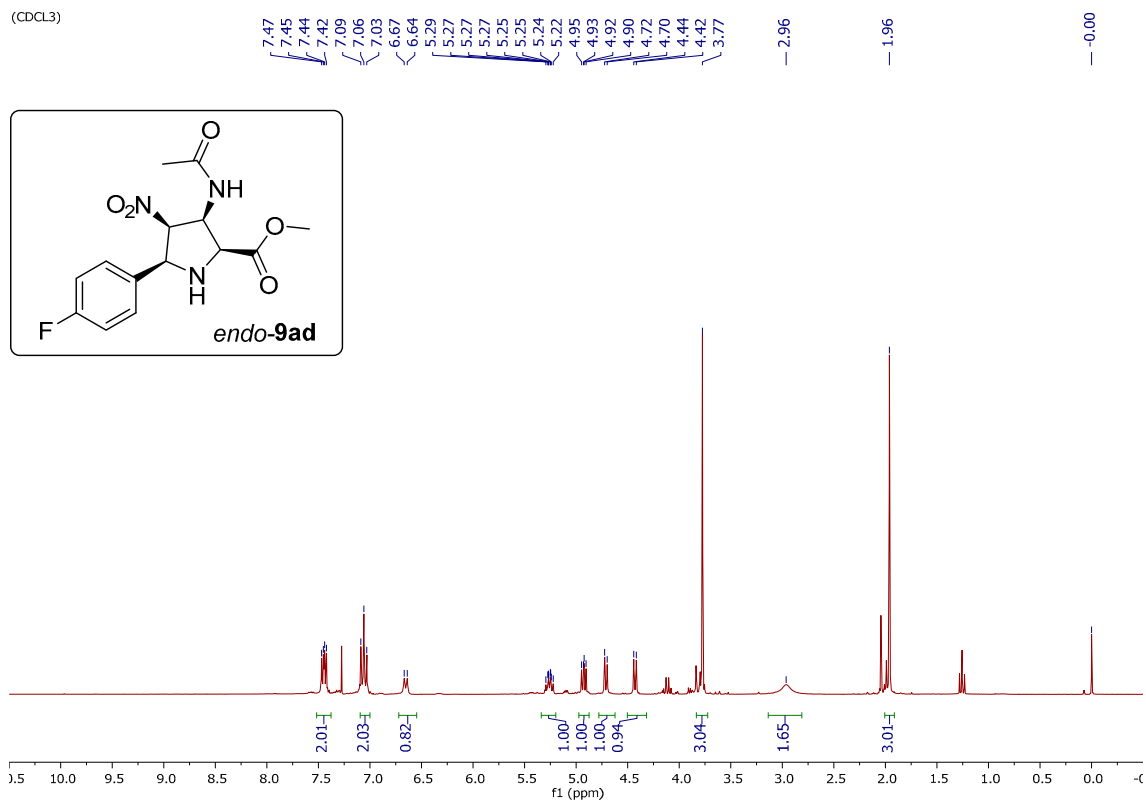
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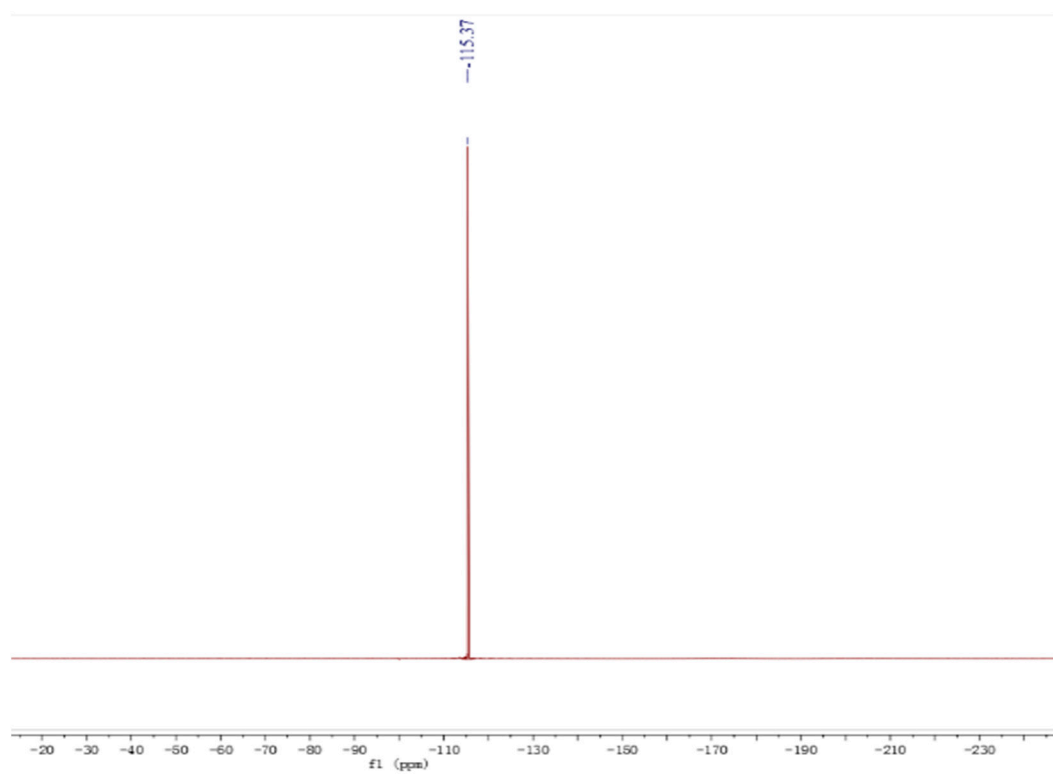
1. NMR spectra of Products

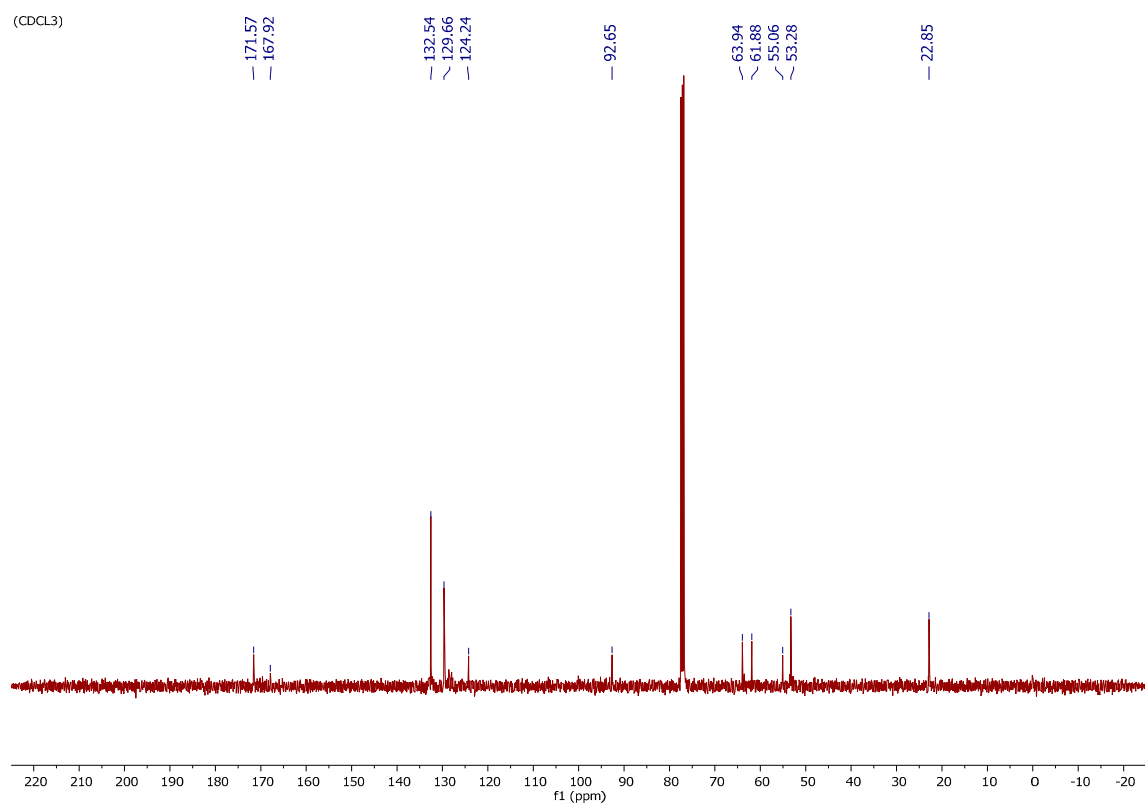
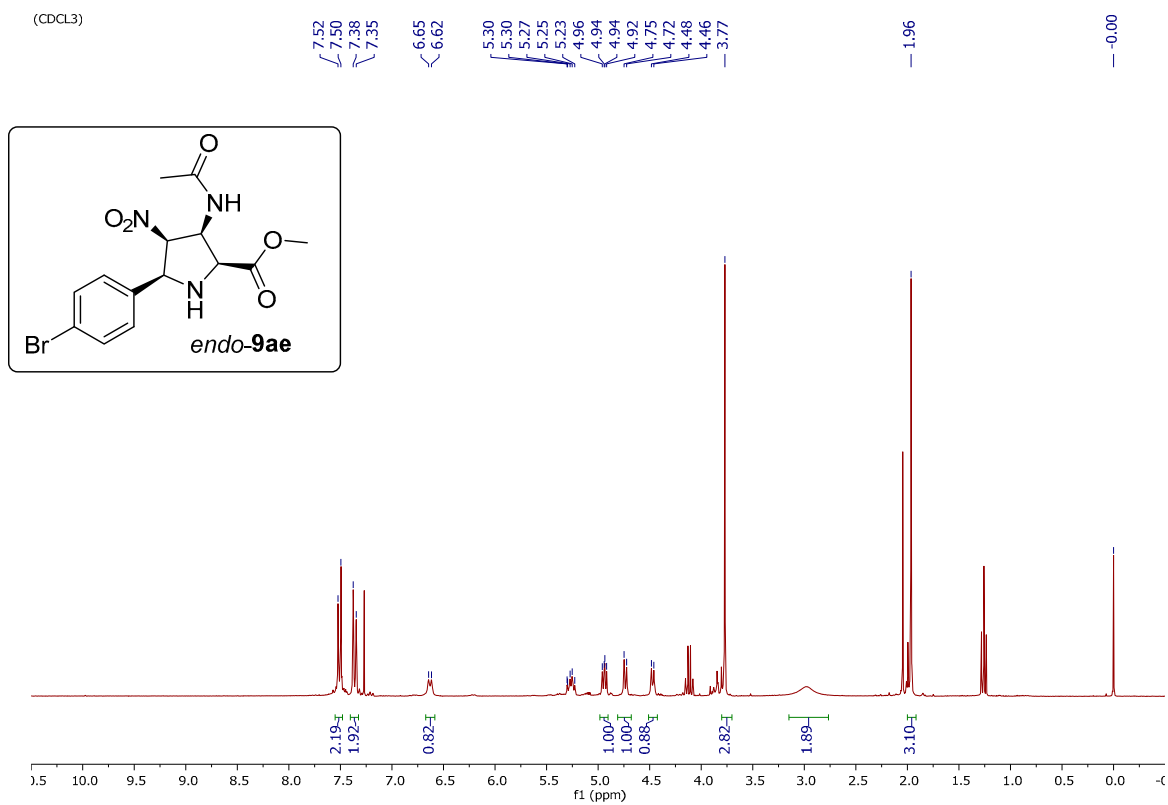




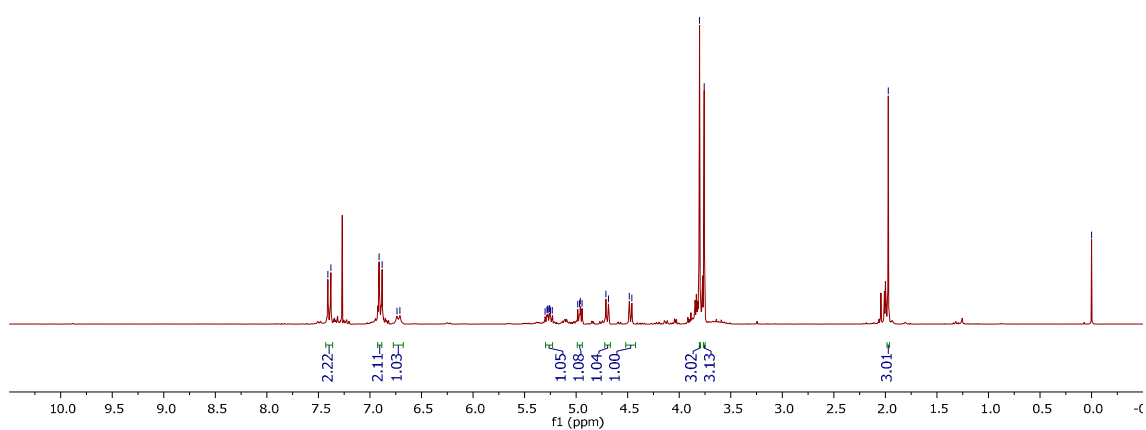
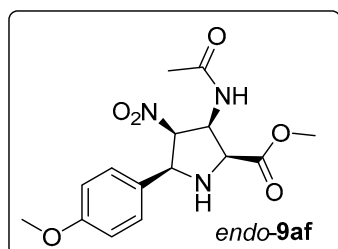




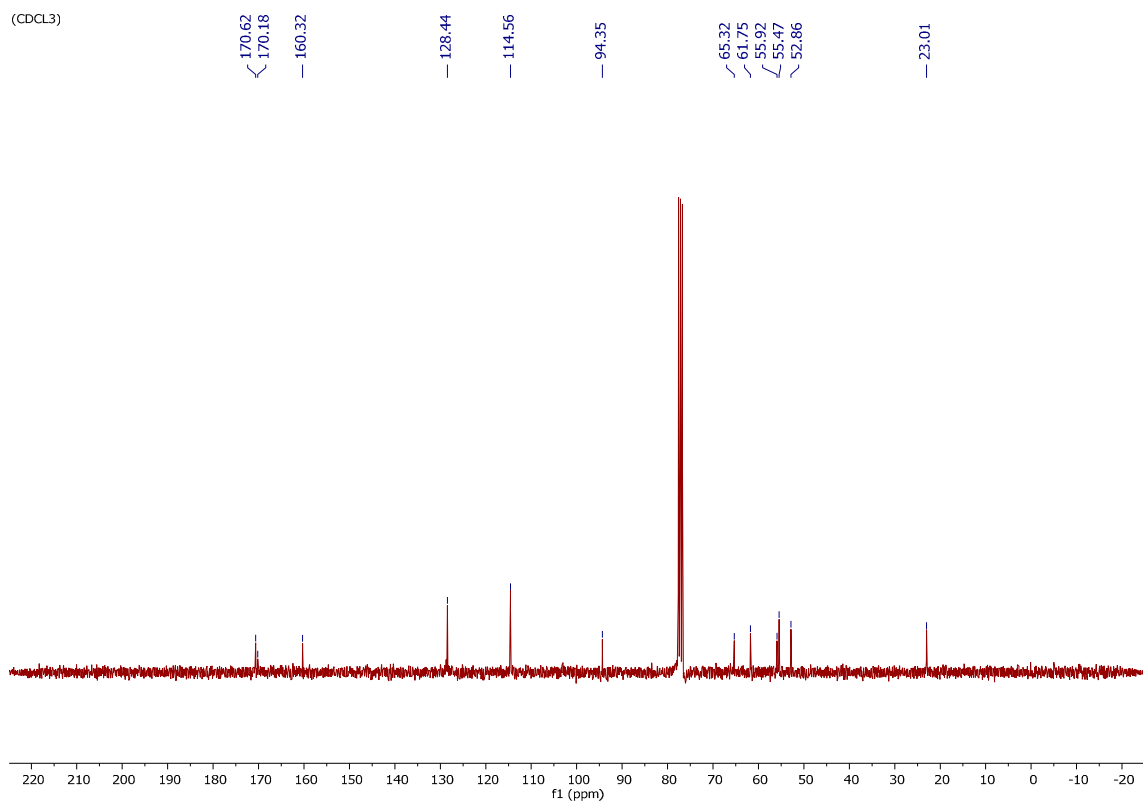




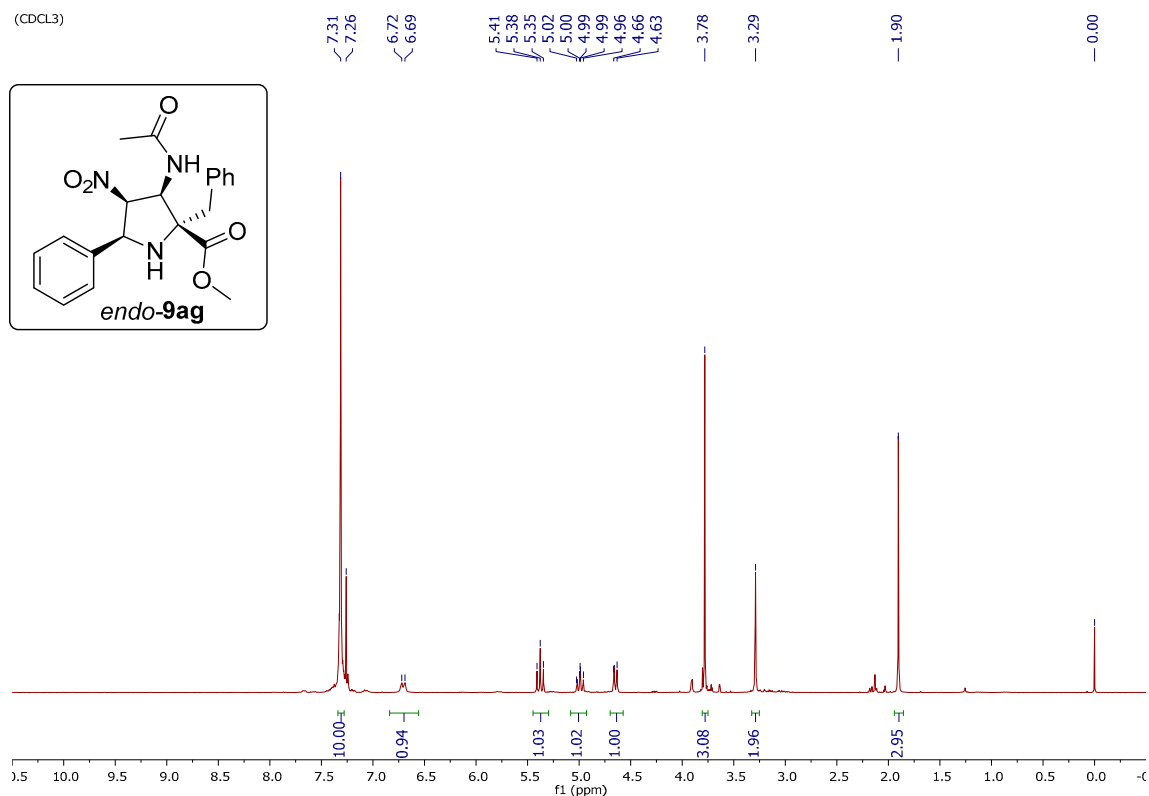
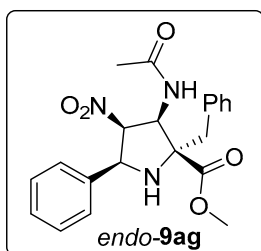
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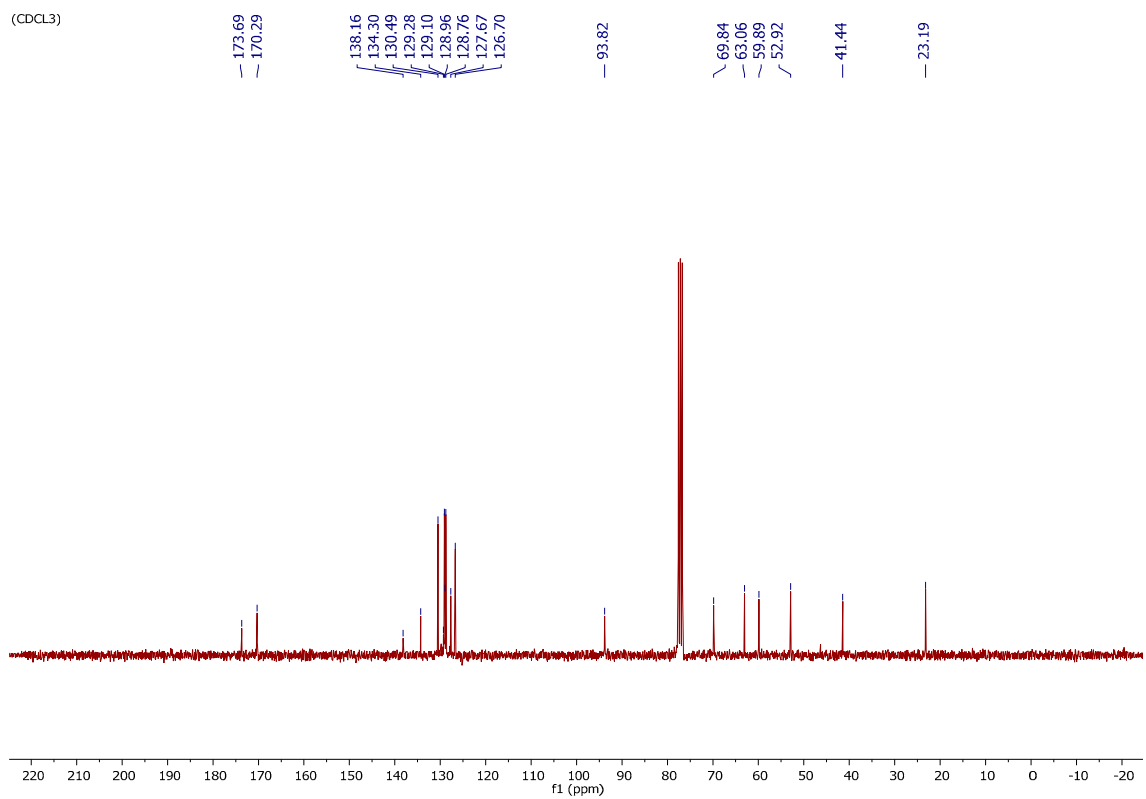
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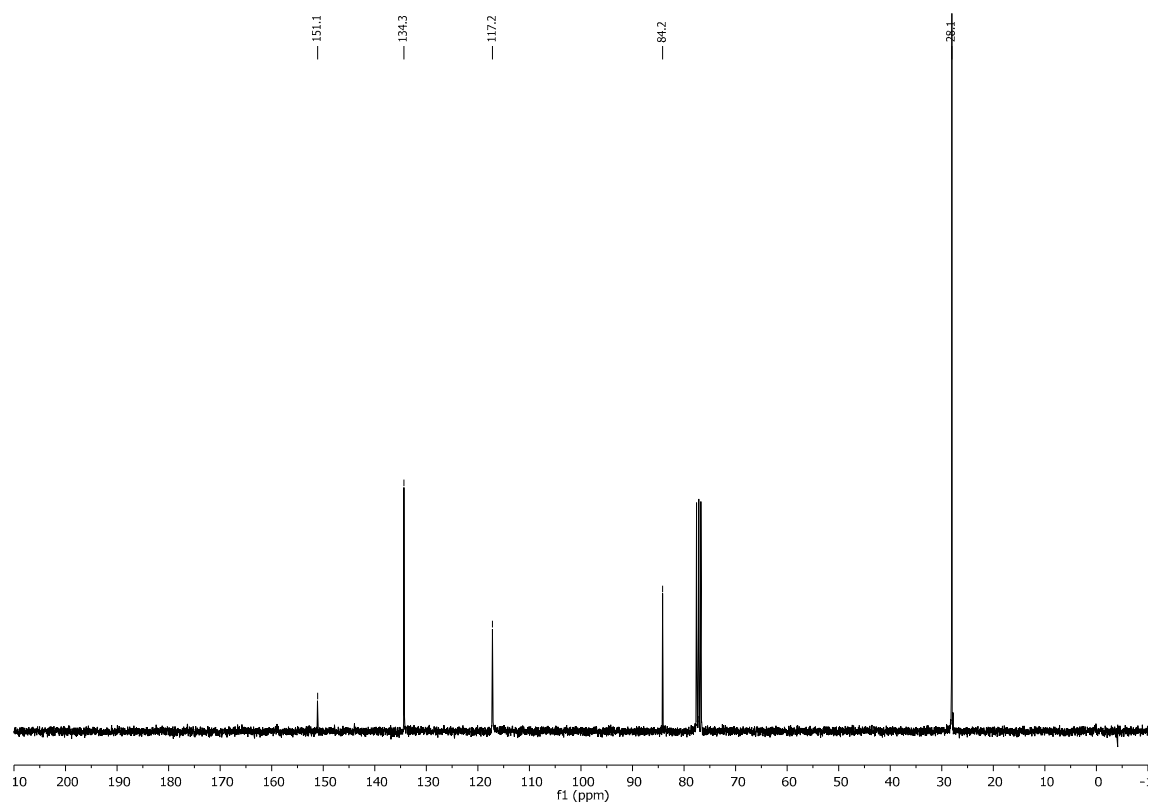
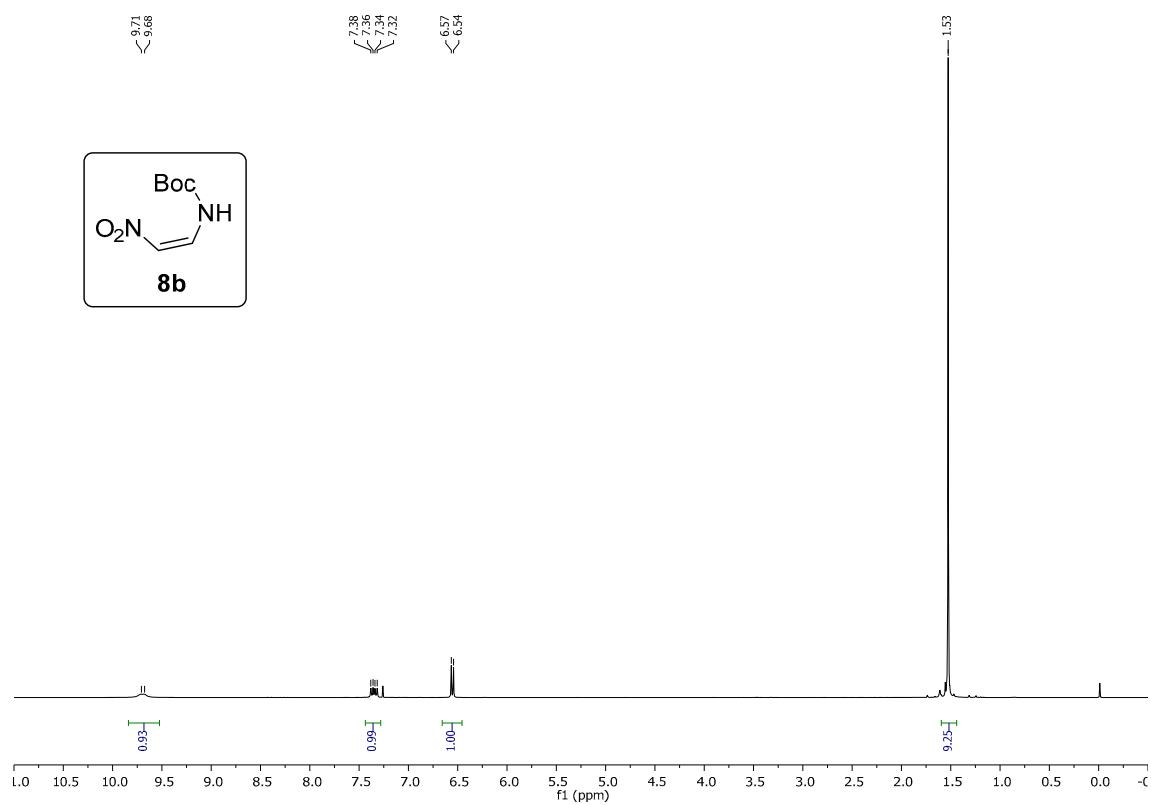


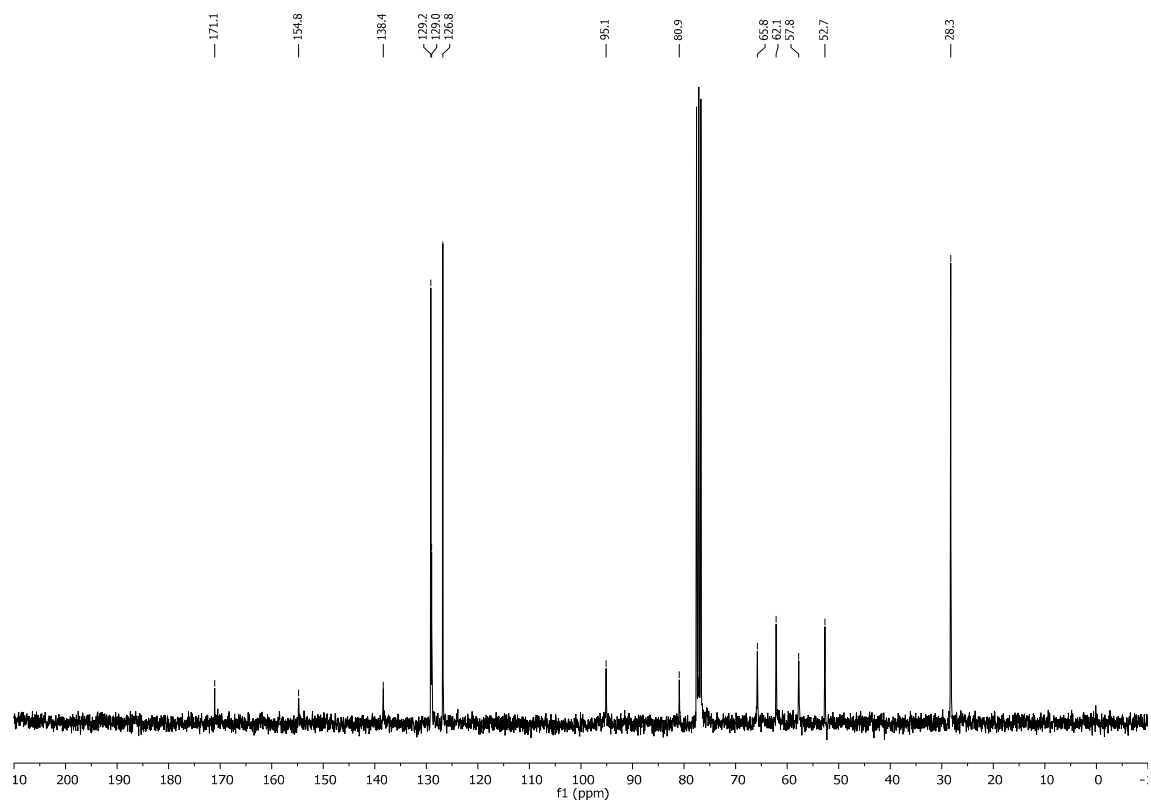
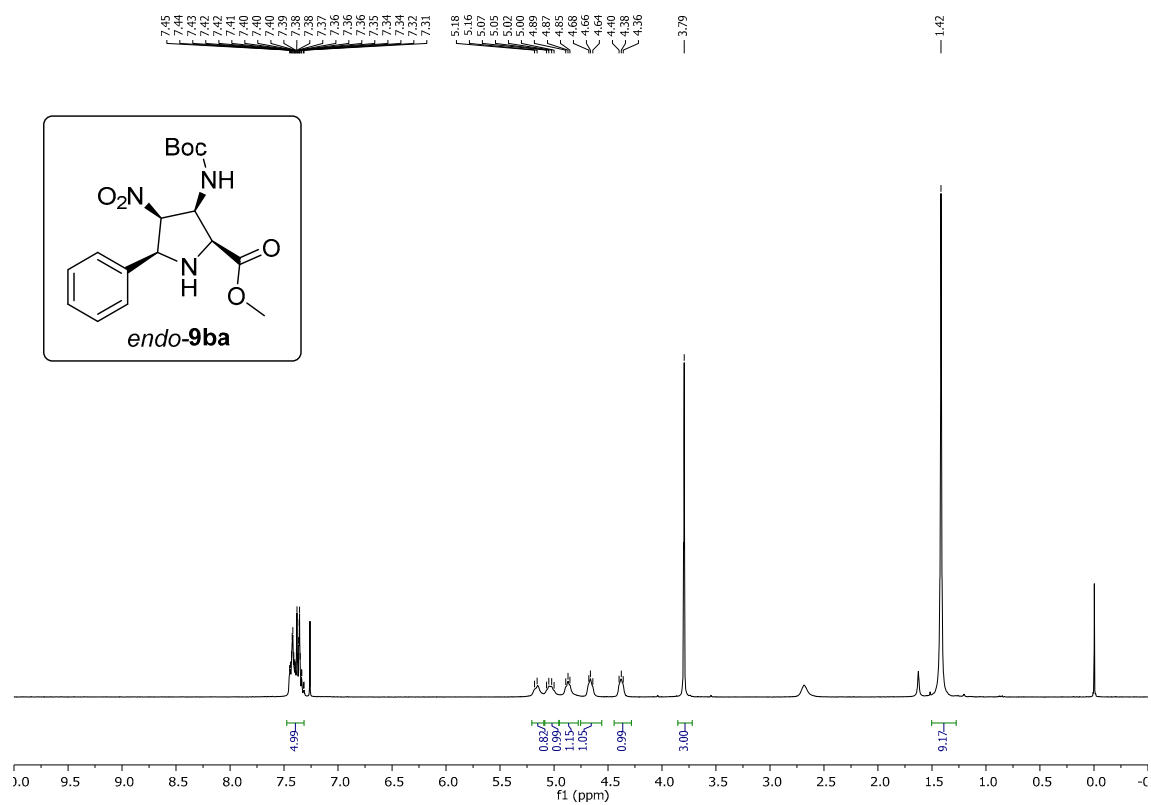
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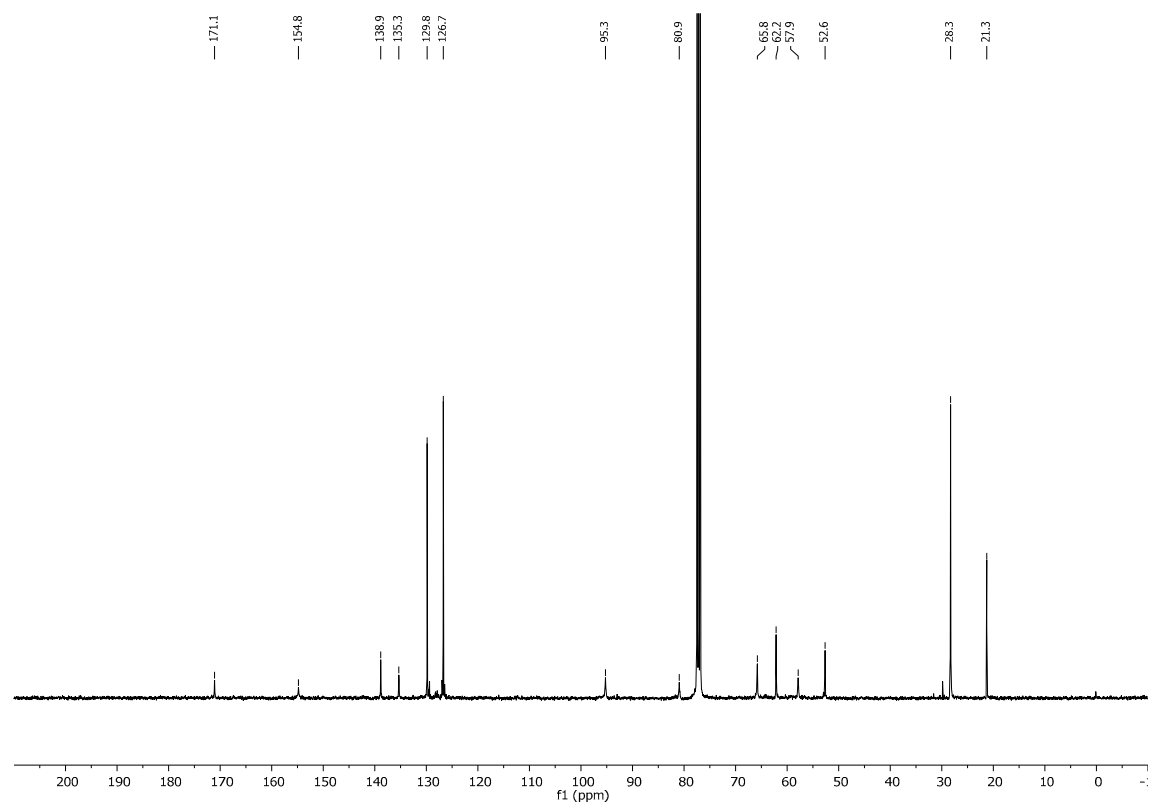
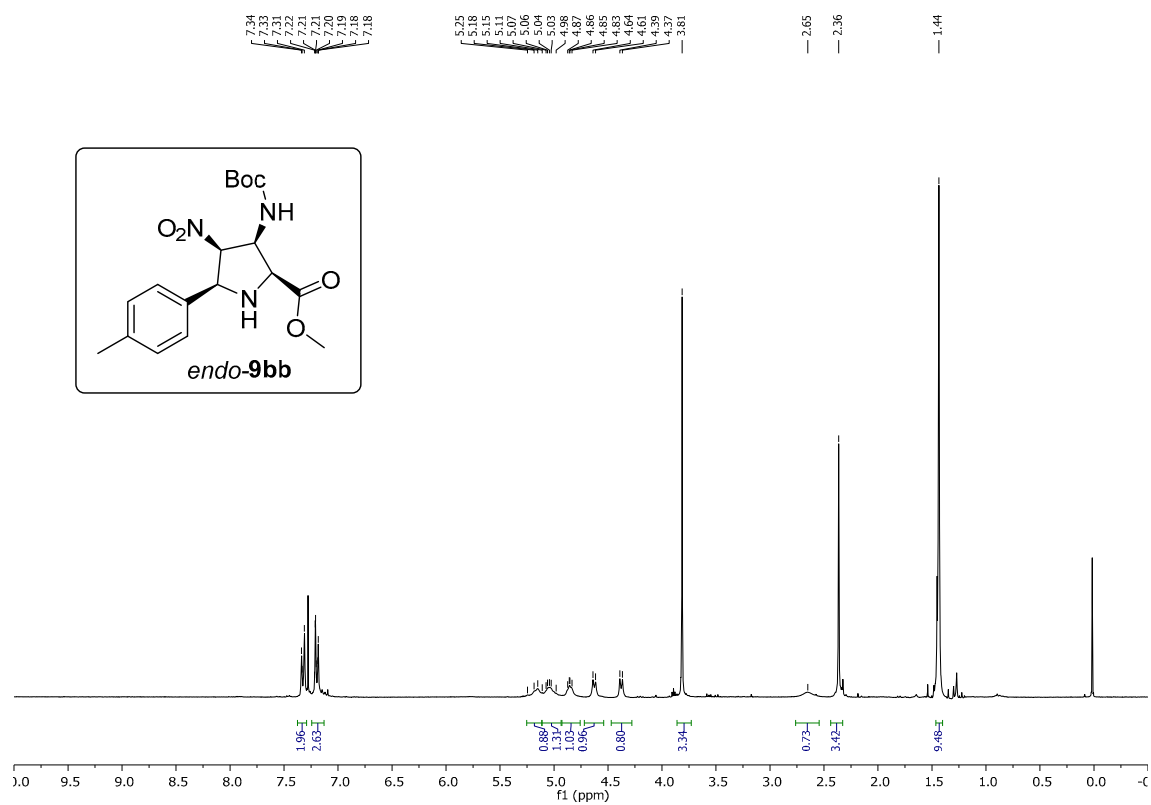


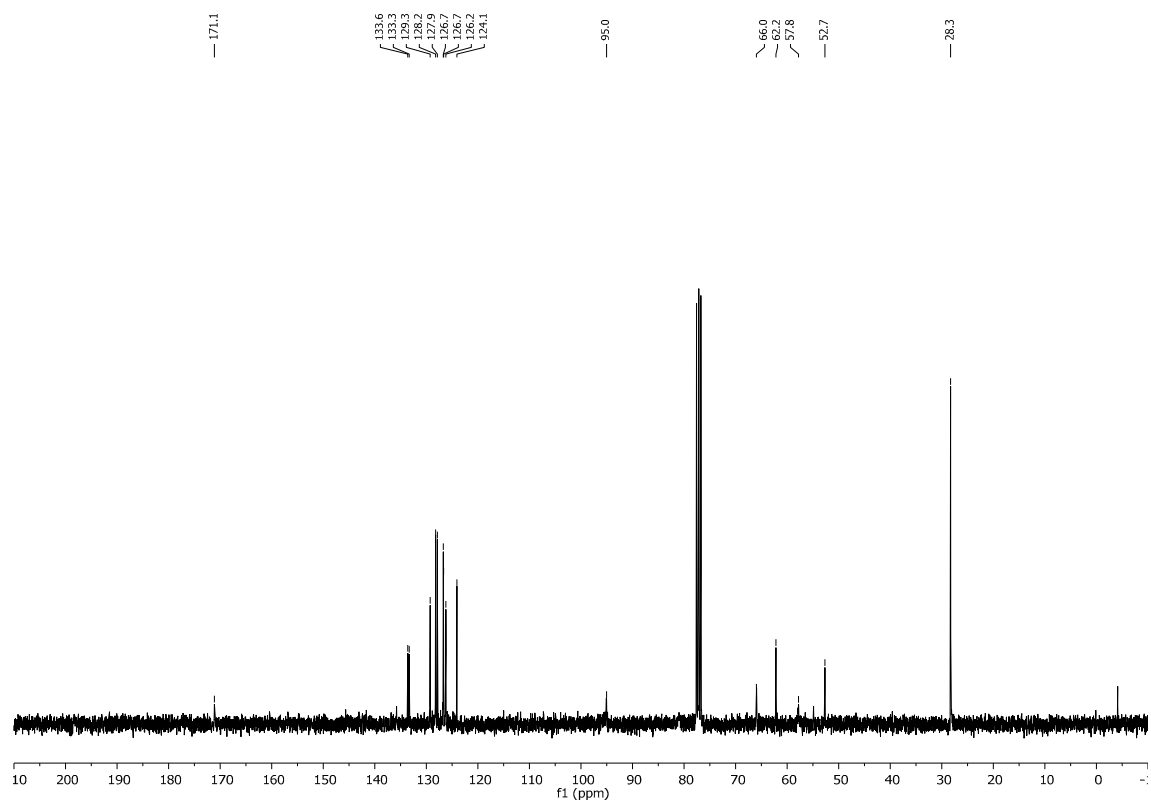
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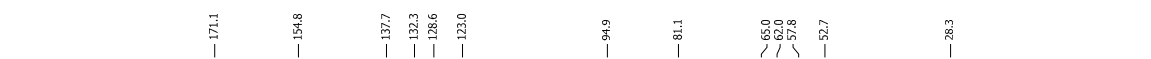




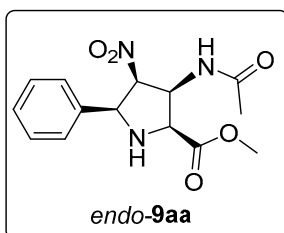




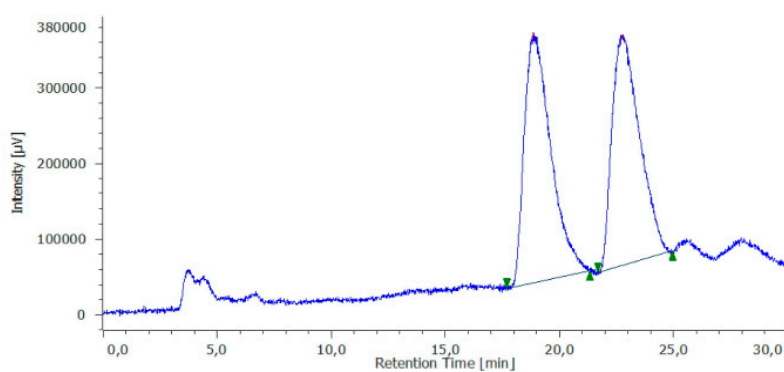




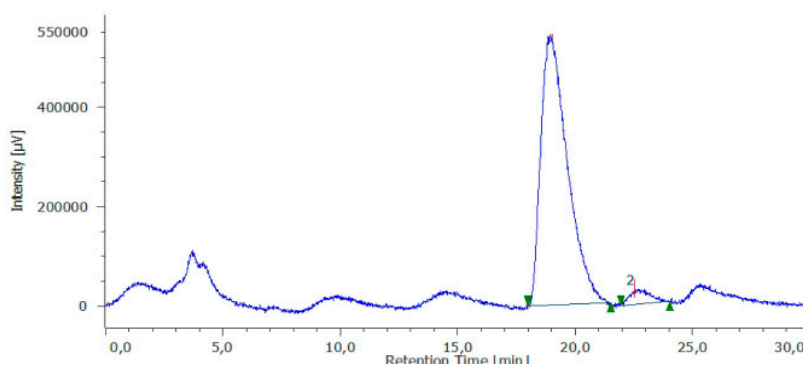
2. HPLC Chromatograms



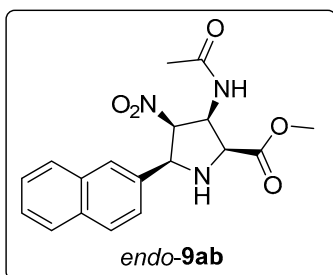
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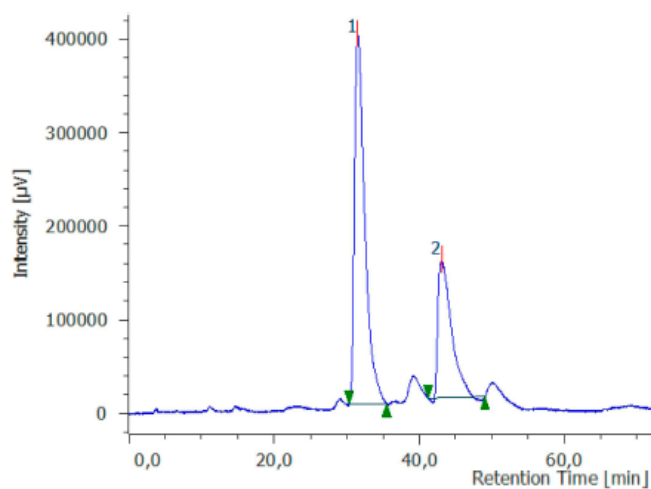
#	Peak Name	CH	tR [min]	Area [μV·sec]	Height [μV]	Area%
1	Unknown	9	18.853	26648375	330323	51.127
2	Unknown	9	22.773	25473651	310092	48.873



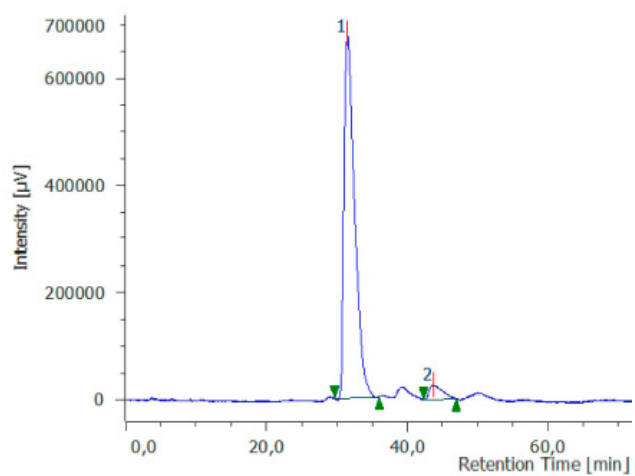
#	Peak Name	CH	tR [min]	Area [μV·sec]	Height [μV]	Area%
1	Unknown	5	19.027	42616905	554421	96.107
2	Unknown	5	22.547	1726115	31963	3.893



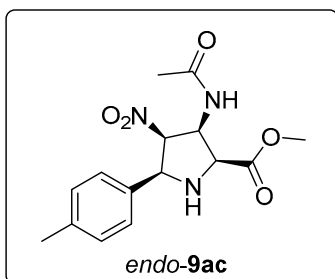
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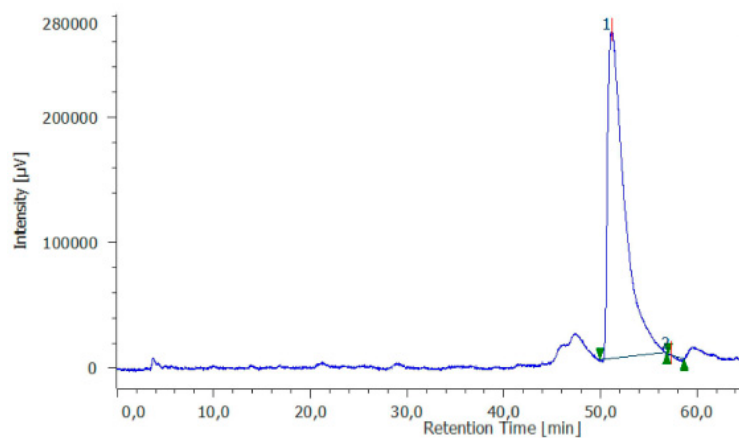
#	Peak Name	CH	tR [min]	Area [μV·sec]	Height [μV]	Area%
1	Unknown	11	31.507	39040649	395906	67.239
2	Unknown	11	43.120	19021771	146546	32.761



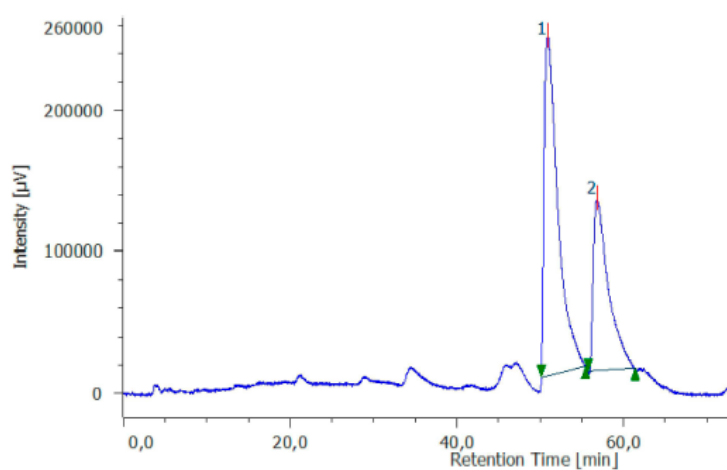
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1	Unknown	11	31.453	70529994	681252	95.247
2	Unknown	11	43.693	3519454	27033	4.753



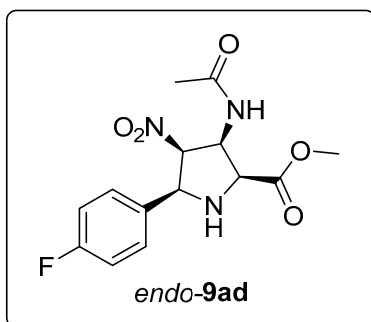
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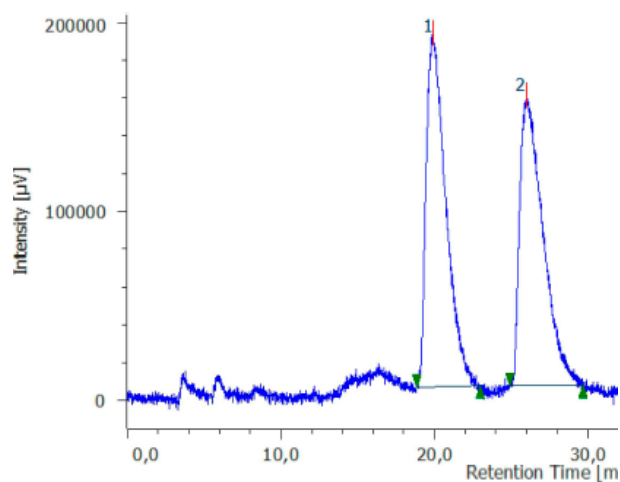
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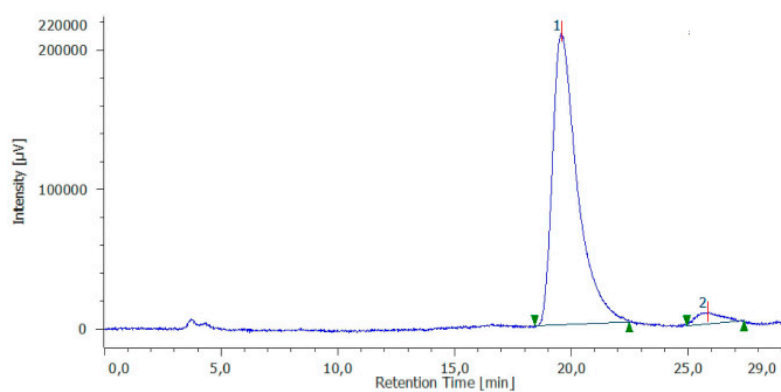
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2	Unknown	11	57.280	12311	1899	0.039



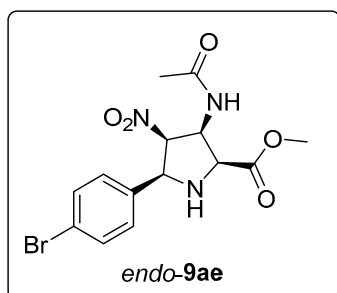
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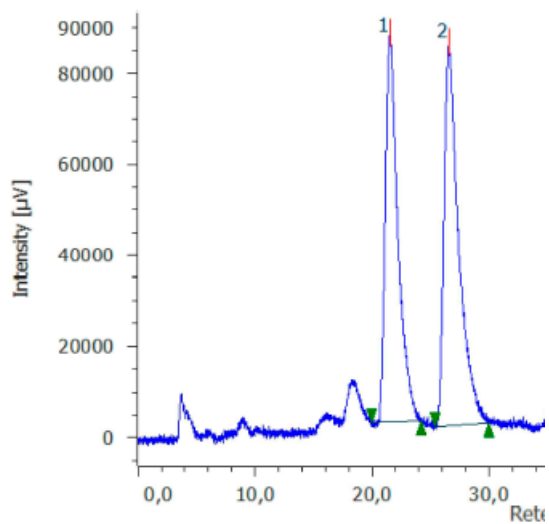
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1	Unknown	5	19,947	16539196	187009	50,804
2	Unknown	5	26,000	16015602	153229	49,196



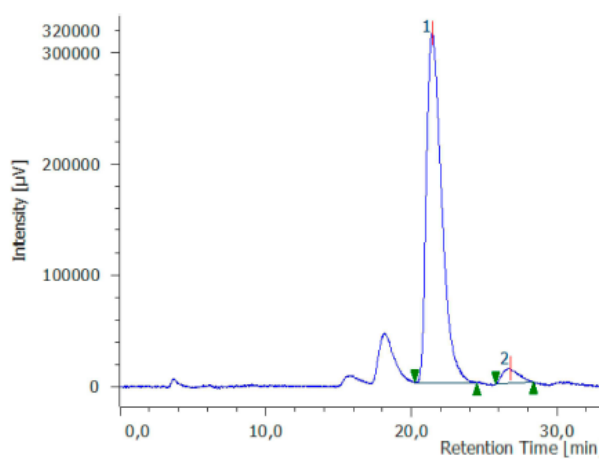
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1	Unknown	11	19,573	15396861	210334	96,085
2	Unknown	11	25,813	627351	9037	3,915



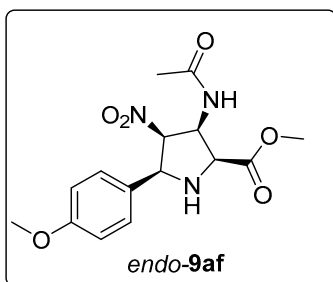
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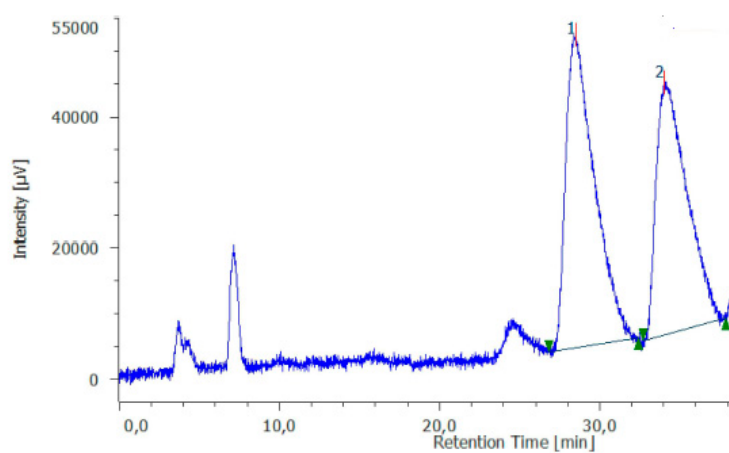
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2	Unknown	11	26,533	7346071	84203	53,609



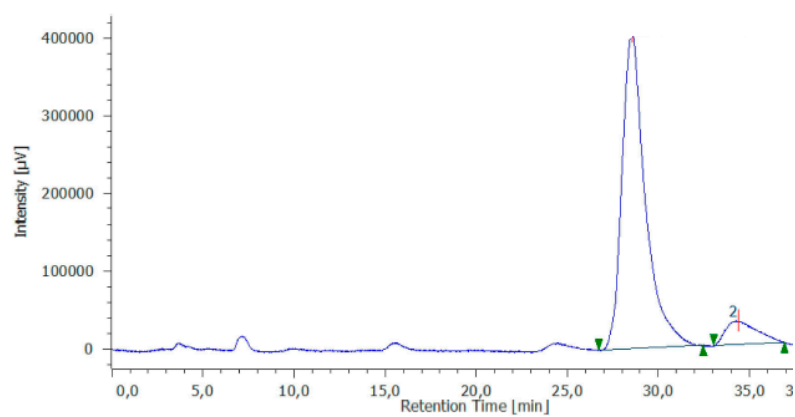
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2	Unknown	11	26,800	1050547	13450	4,406



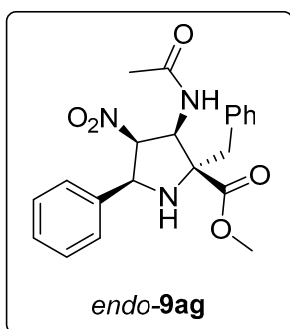
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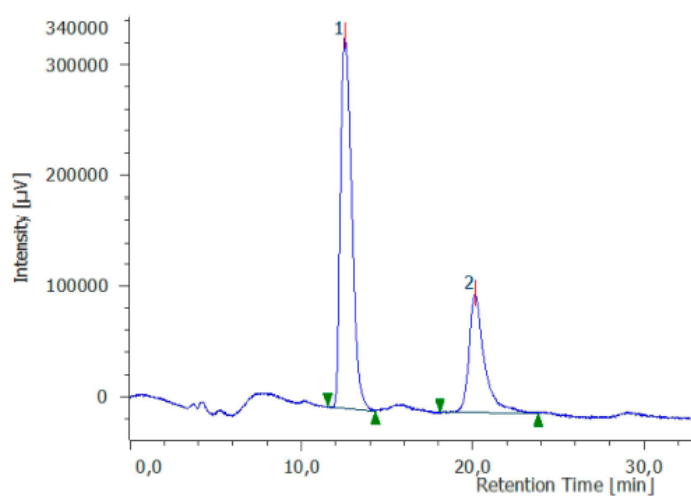
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2	Unknown	11	34,067	5144939	38521	46,423



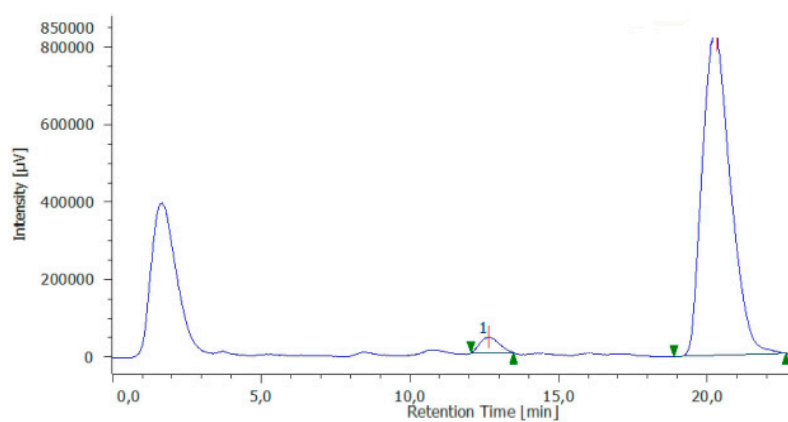
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1	Unknown	11	12,560	15554140	336842	69,895
2	Unknown	11	20,173	6699291	107587	30,105



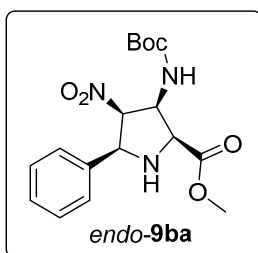
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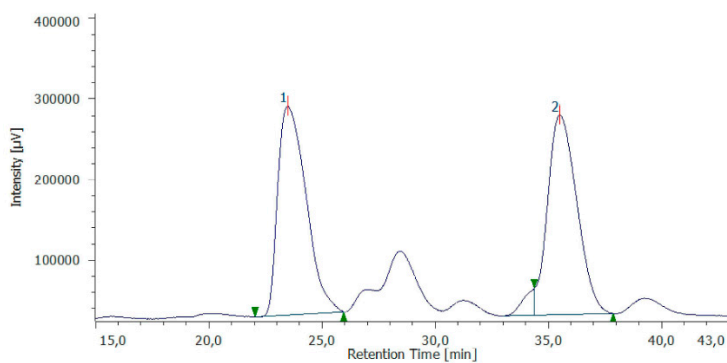
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1	Unknown	11	12.560	15554140	336842	69.895
2	Unknown	11	20.173	6699291	107587	30.105



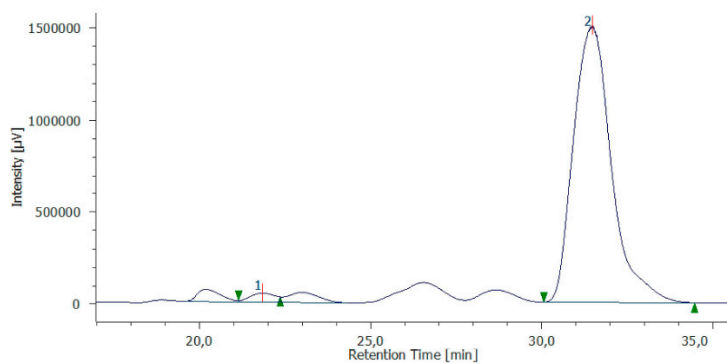
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2	Unknown	11	20.333	54723891	811737	96.853



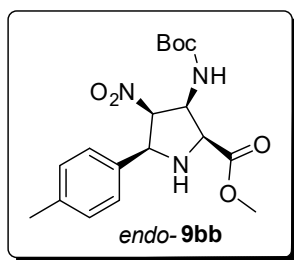
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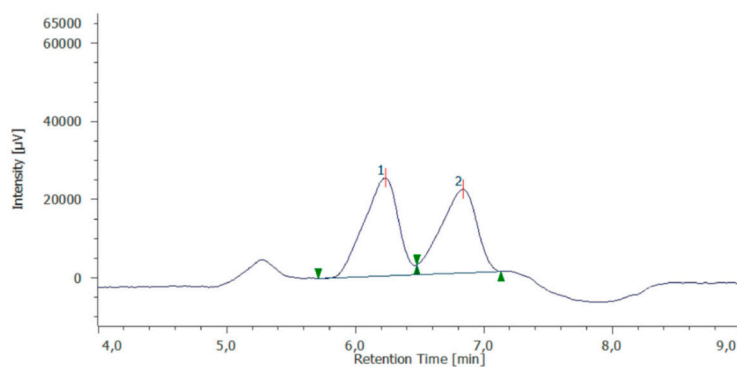
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1	Unknown	5	23.493	22527182	259396	50.179	51.052	N/A	1575	5.046	1.662	
2	Unknown	5	35.507	22366555	248703	49.821	48.948	N/A	3482	N/A	N/A	



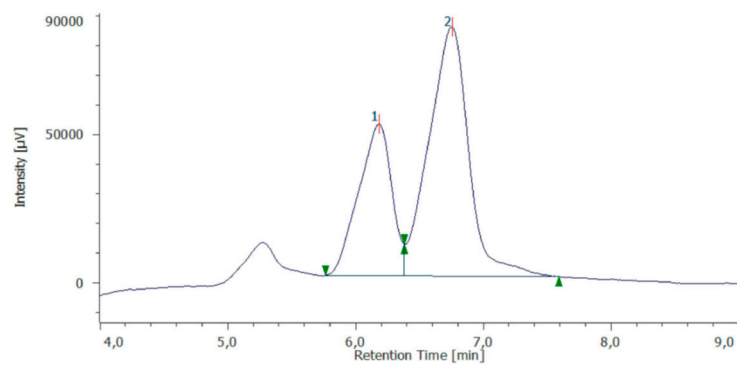
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1	Unknown	5	21.840	2463709	48543	2.089	3.125	N/A	N/A	N/A	N/A	
2	Unknown	5	31.480	115484522	1504902	97.911	96.875	N/A	4013	N/A	1.321	



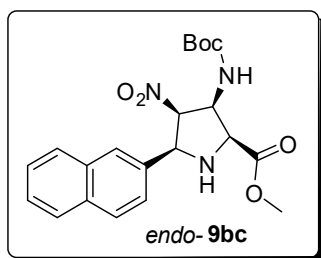
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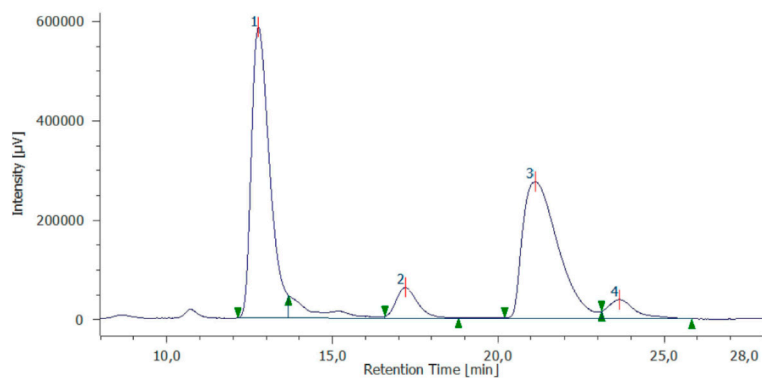
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1	Unknown	9	6.230	463261	25022	52.765	54.048	N/A	2445	1.174	N/A	
2	Unknown	9	6.837	414706	21274	47.235	45.952	N/A	2641	N/A	N/A	



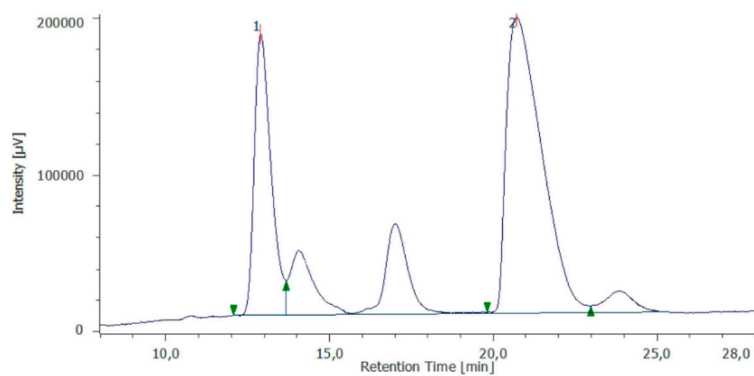
#	Peak Name	CH	tR [min]	Area [μV·sec]	Height [μV]	Area%	Height%	Quantity	NTP	Resolution	Symmetry Factor	Warning
1	Unknown	5	6.183	918552	51099	33.614	37.857	N/A	2502	1.086	N/A	
2	Unknown	5	6.753	1814084	83880	66.386	62.143	N/A	2342	N/A	N/A	



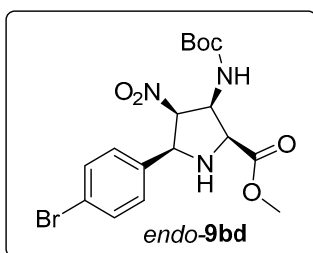
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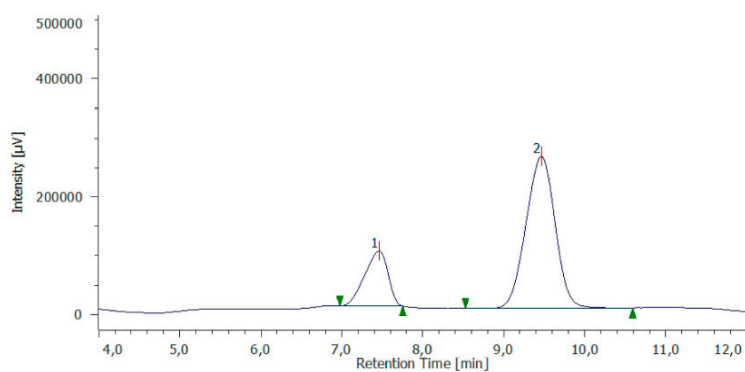
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1	Unknown	9	12.770	22278570	584788	46.999	60.999	N/A	2659	4.113	N/A	
2	Unknown	9	17.207	2814507	61504	5.937	6.415	N/A	3447	2.509	N/A	
3	Unknown	9	21.107	20096329	274347	42.395	28.617	N/A	1886	1.482	N/A	
4	Unknown	9	23.640	2213192	38044	4.669	3.968	N/A	4061	N/A	N/A	



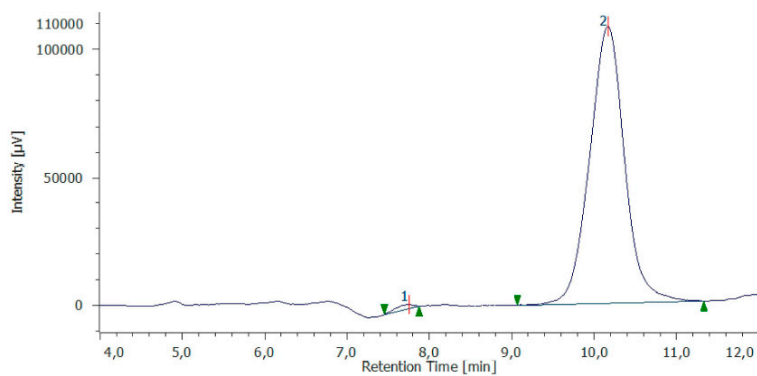
#	Peak Name	CH	tR [min]	Area [μV·sec]	Height [μV]	Area%	Height%	Quantity	NTP	Resolution	Symmetry Factor	Warning
1	Unknown	9	12.893	6393754	179191	31.164	48.684	N/A	3114	5.285	N/A	
2	Unknown	9	20.713	14122429	188880	68.836	51.316	N/A	1645	N/A	2.144	



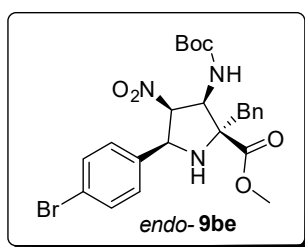
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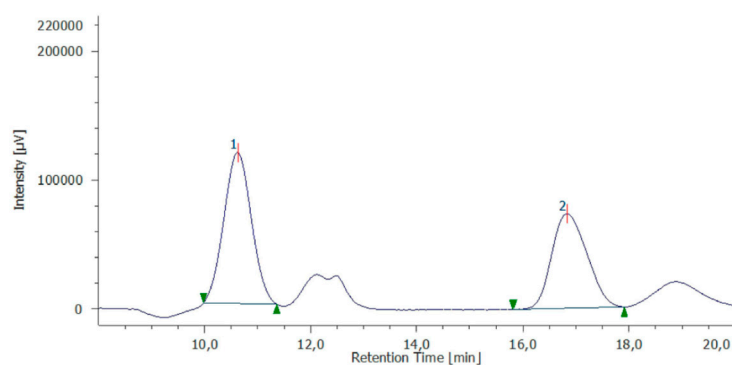
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1	Unknown	5	7.460	1874974	93175	22.557	26.521	N/A	2890	3.290	0.810	
2	Unknown	5	9.463	6437310	258149	77.443	73.479	N/A	3231	N/A	0.974	



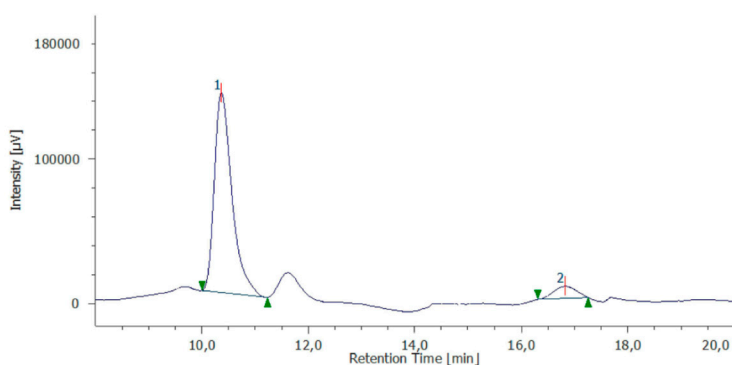
#	Peak Name	CH	tR [min]	Area [μV·sec]	Height [μV]	Area%	Height%	Quantity	NTP	Resolution	Symmetry Factor	Warning
1	Unknown	5	7.750	28229	1632	0.876	1.486	N/A	4538	3.995	0.705	
2	Unknown	5	10.167	3193503	108204	99.124	98.514	N/A	2918	N/A	1.030	



Obtained using $\text{AgClO}_4 \cdot (R_a, S, S)\text{-15}$



#	Peak Name	CH	tR [min]	Area [μV·sec]	Height [μV]	Area%	Height%	Quantity	NTP	Resolution	Symmetry Factor	Warning
1	Unknown	5	10.623	4223982	117060	55.603	61.508	N/A	1924	5.572	1.032	
2	Unknown	5	16.827	3372752	73255	44.397	38.492	N/A	2836	N/A	1.188	



#	Peak Name	CH	tR [min]	Area [μV·sec]	Height [μV]	Area%	Height%	Quantity	NTP	Resolution	Symmetry Factor	Warning
1	Unknown	5	10.363	3172644	138345	92.685	94.212	N/A	5097	9.202	1.547	
2	Unknown	5	16.813	250412	8500	7.315	5.788	N/A	6646	N/A	0.968	