

Supporting Information

Ag(I)/*Sec*-Amine-Amidphos-Catalyzed *Endo*-stereoselective Synthesis of Fully Substituted Pyrrolidines via 1,3-Dipolar Cycloaddition

Based on Azomethine Ylides

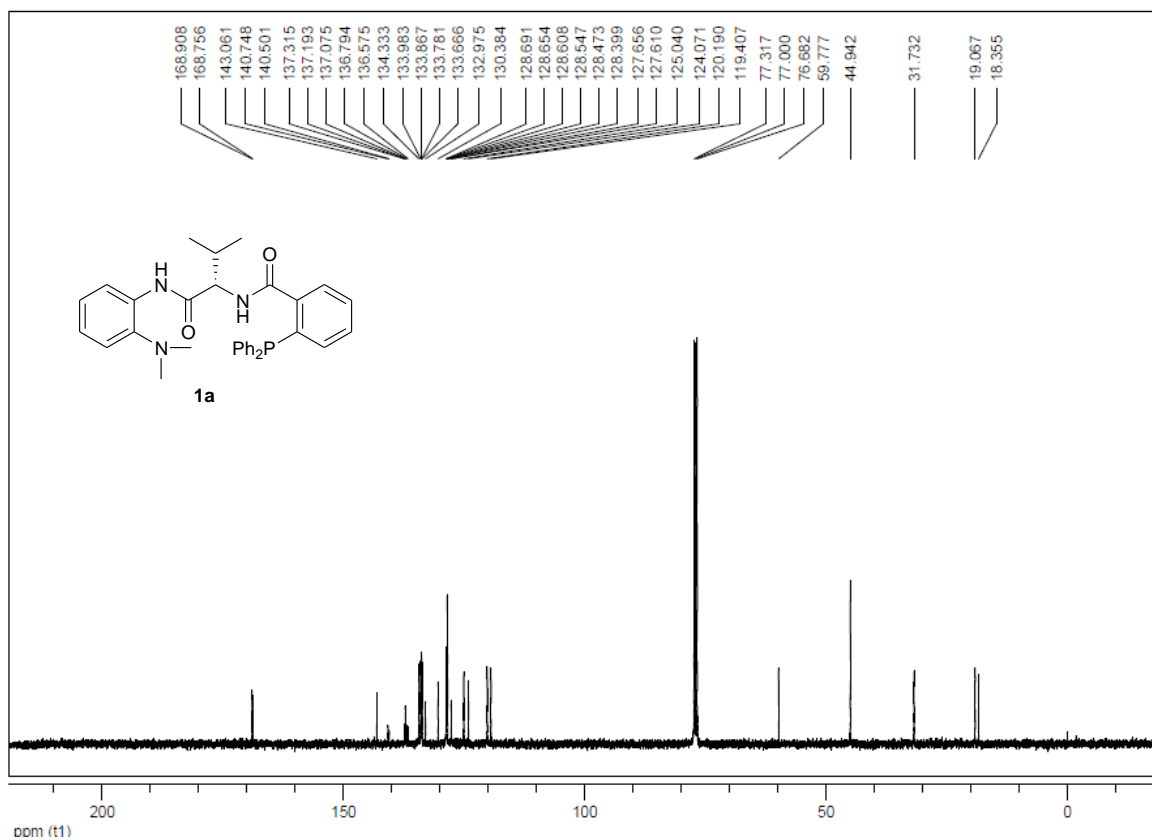
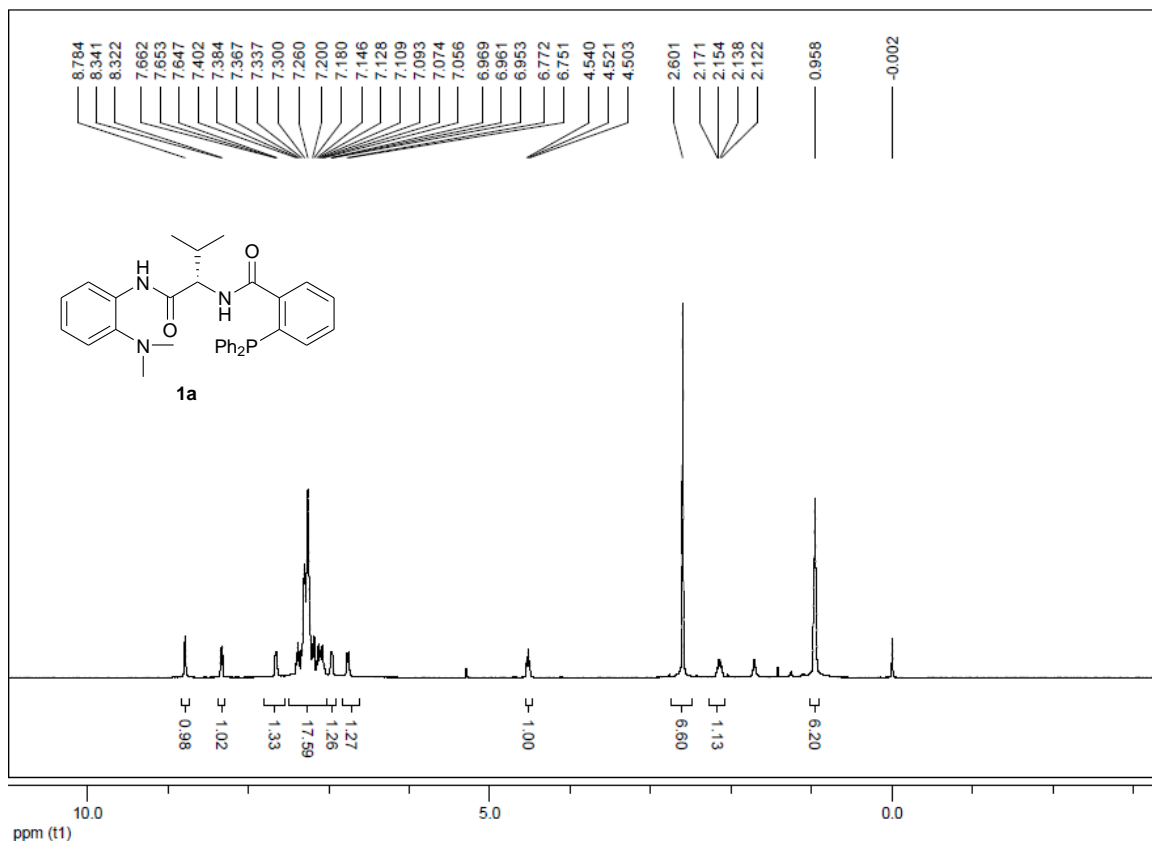
Haifei Wang¹, Chen Zhang¹, Jialin Liu¹, Xinluo Song¹, and Haiyun Jiang^{2,*}

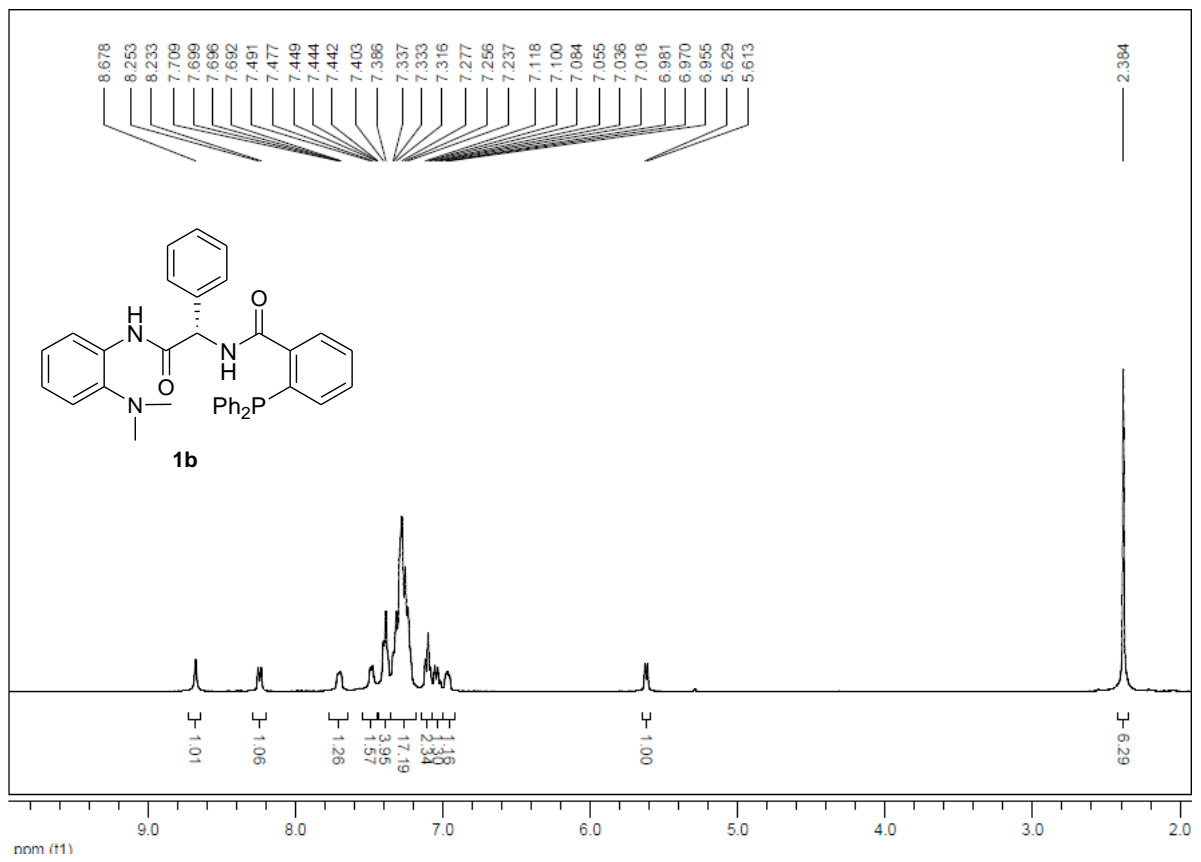
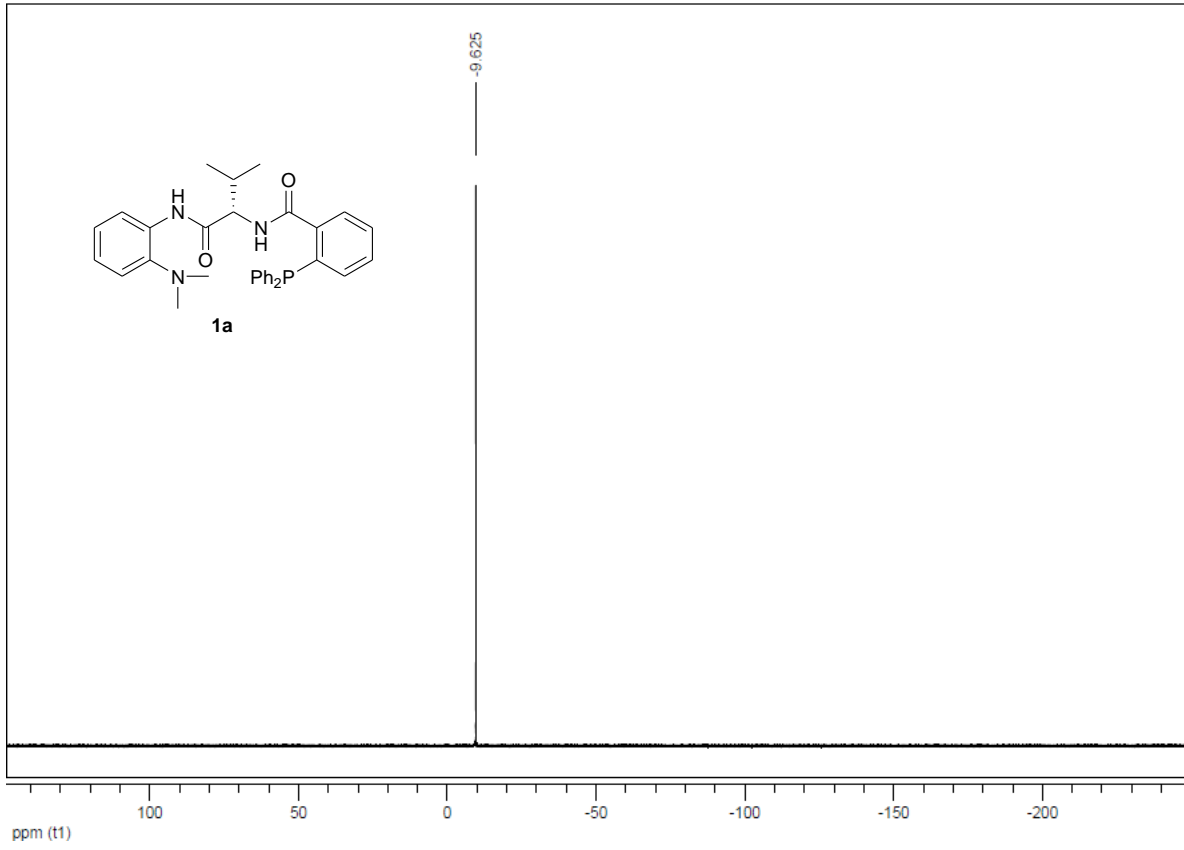
¹*College of Life Science and Chemistry, Hunan University of Technology, Zhuzhou 412007, P. R. of China;* ²*College of Packaging and Materials Engineering, Hunan University of Technology, Zhuzhou 412007, P. R. of China; E-mail: jhyun@163.com*

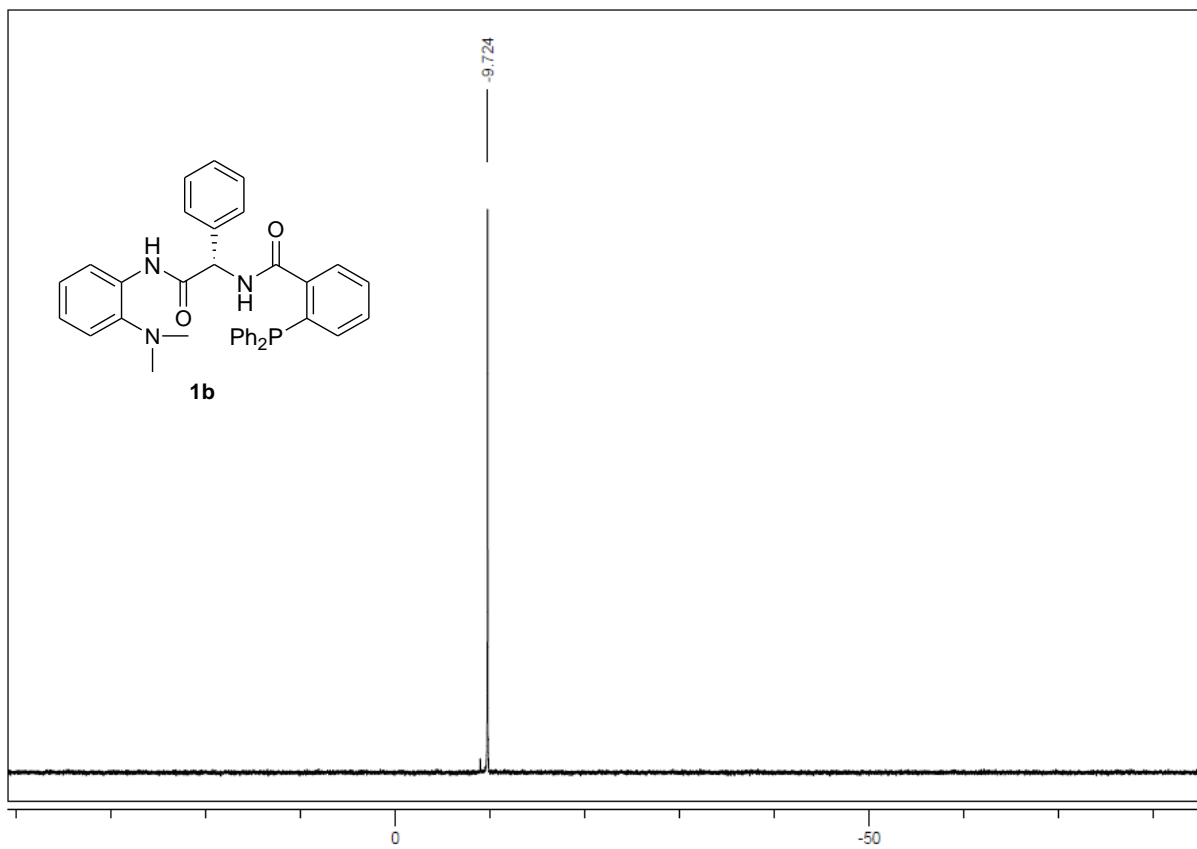
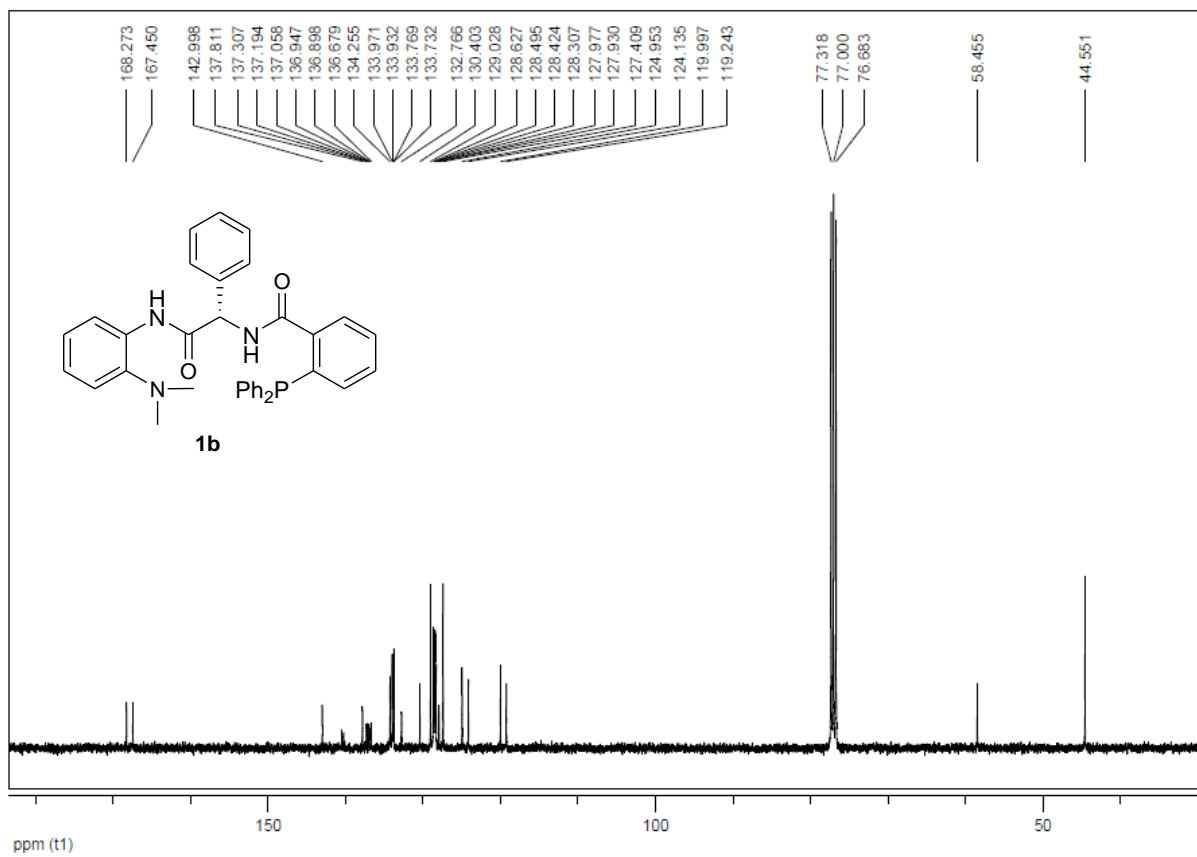
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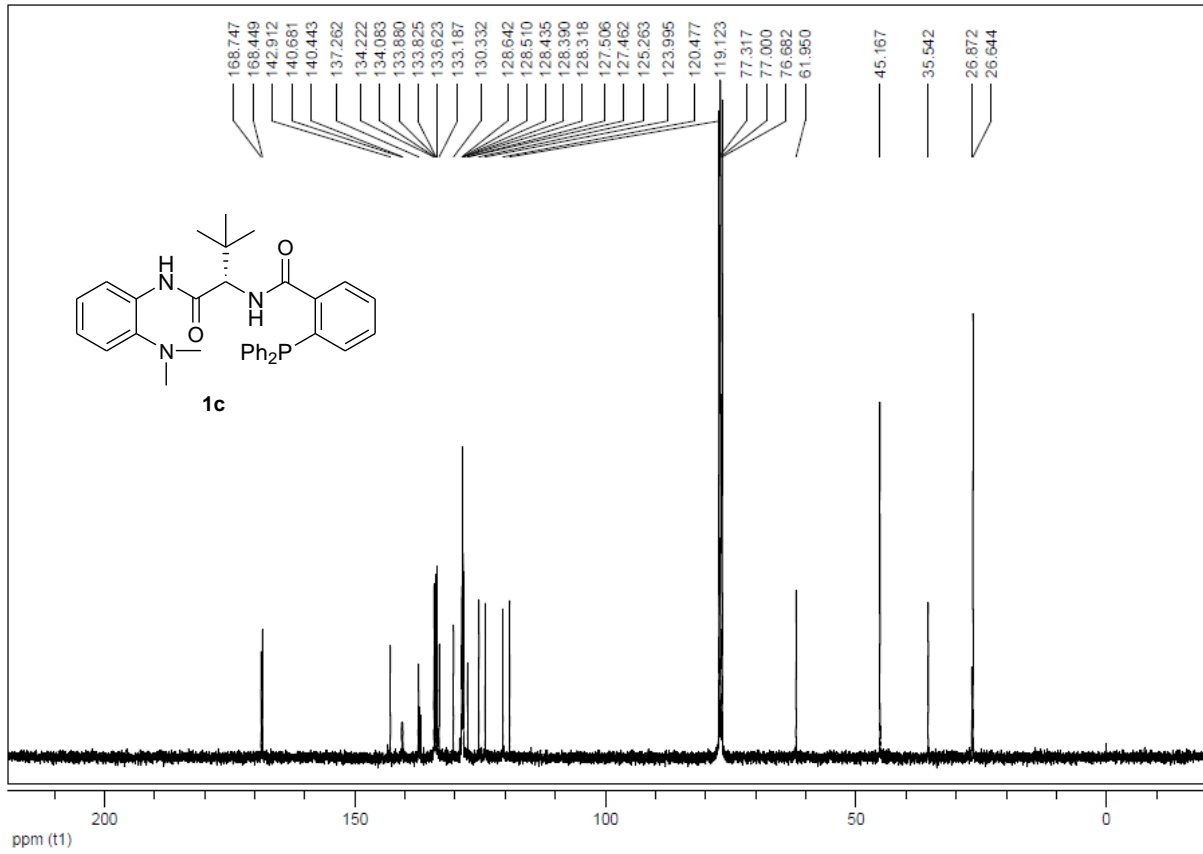
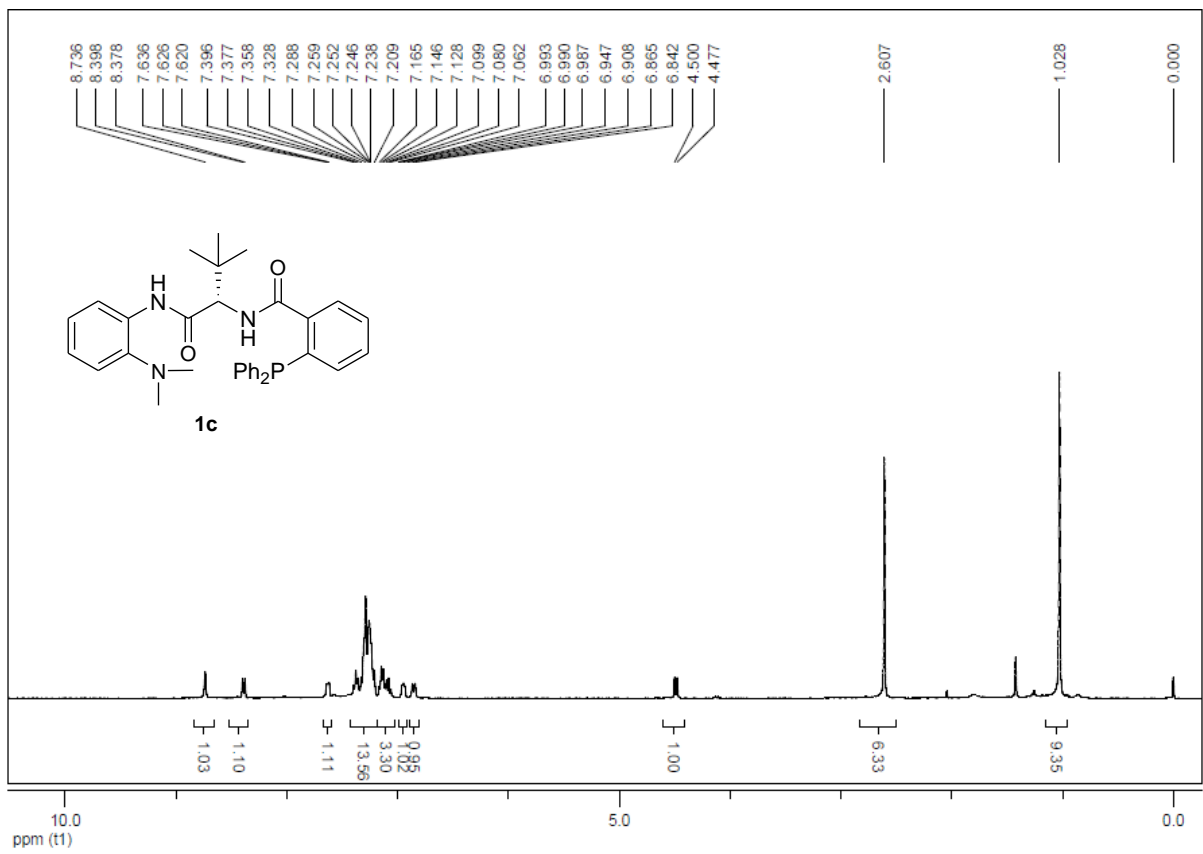
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2. Copies of HPLC Chromatographs-----	S10

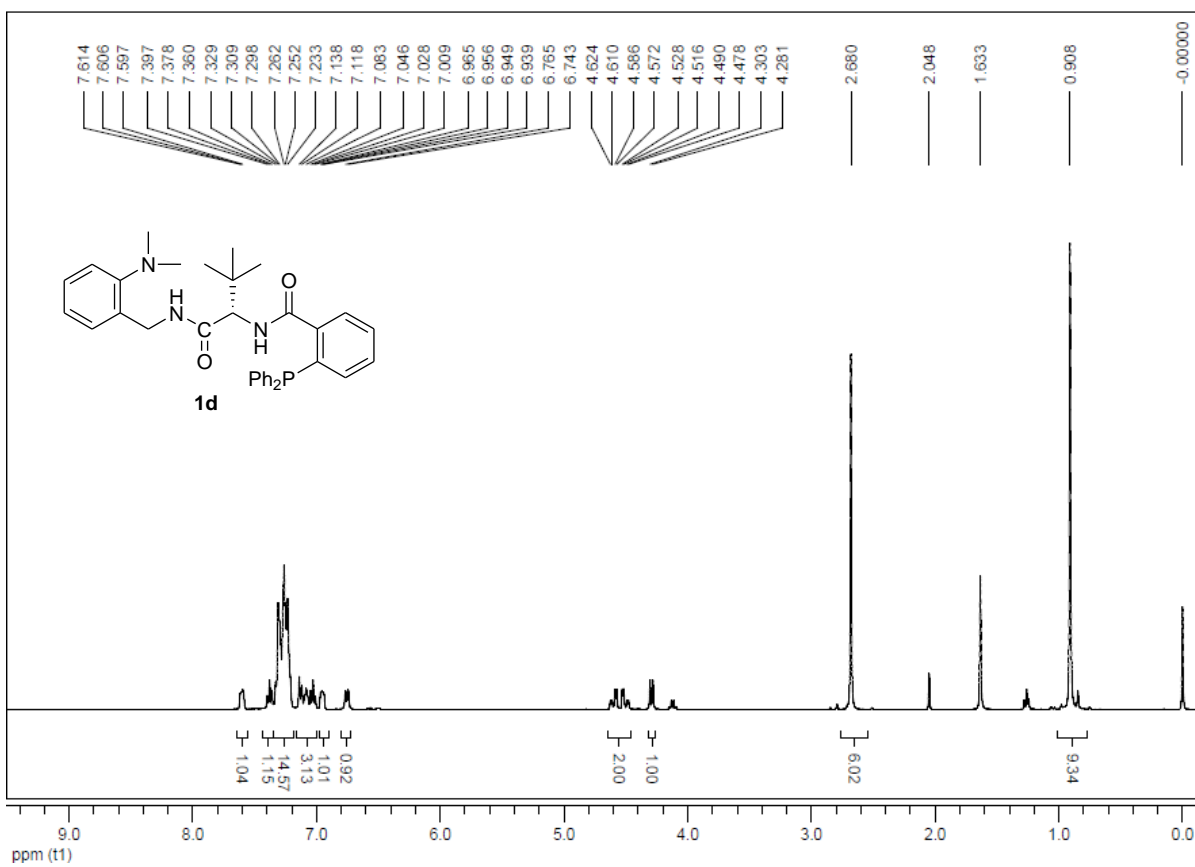
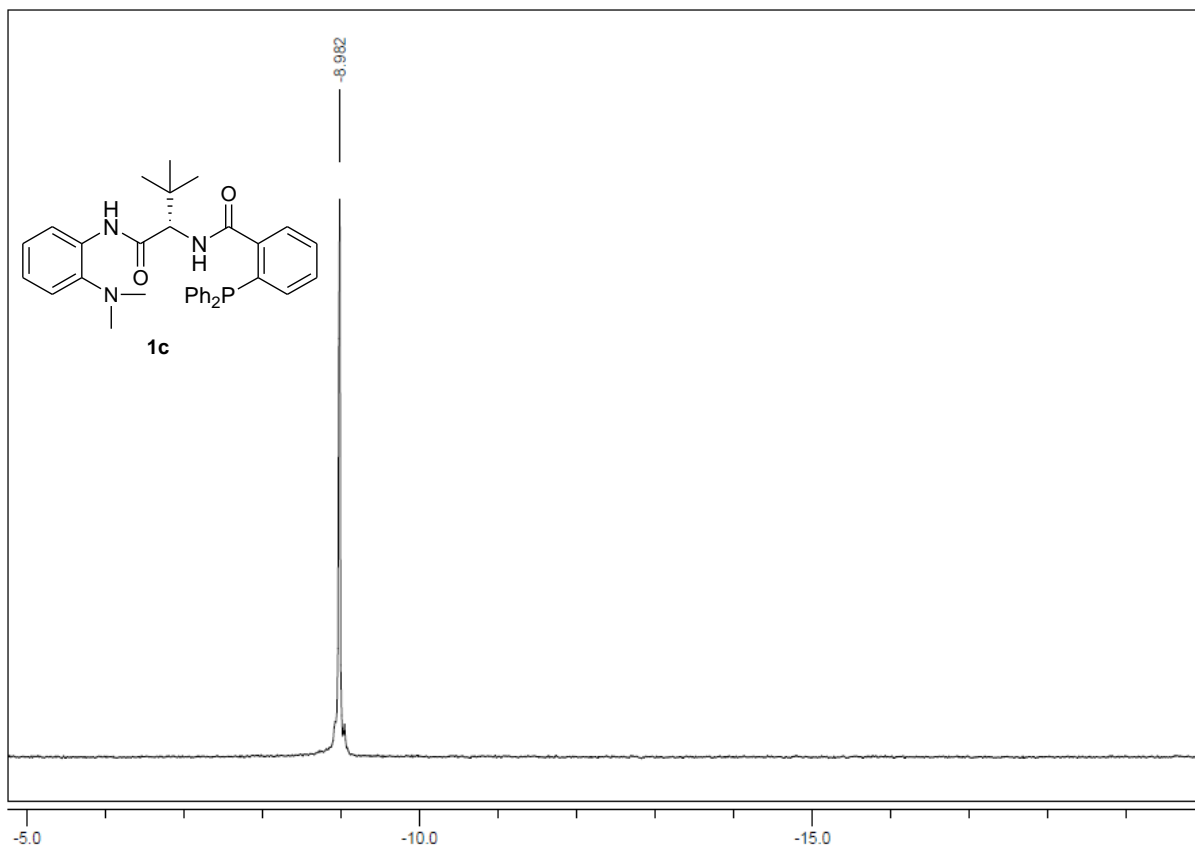
1. Copies of NMR Spectra

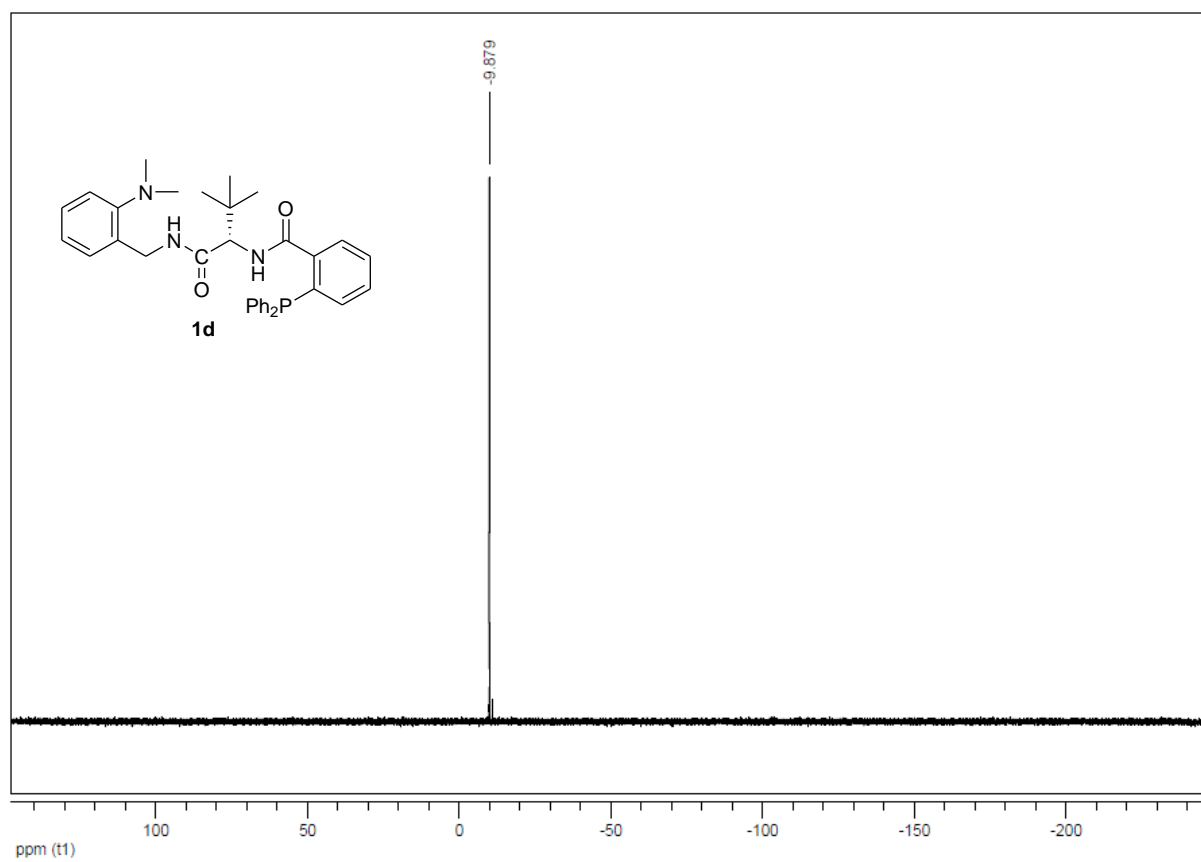
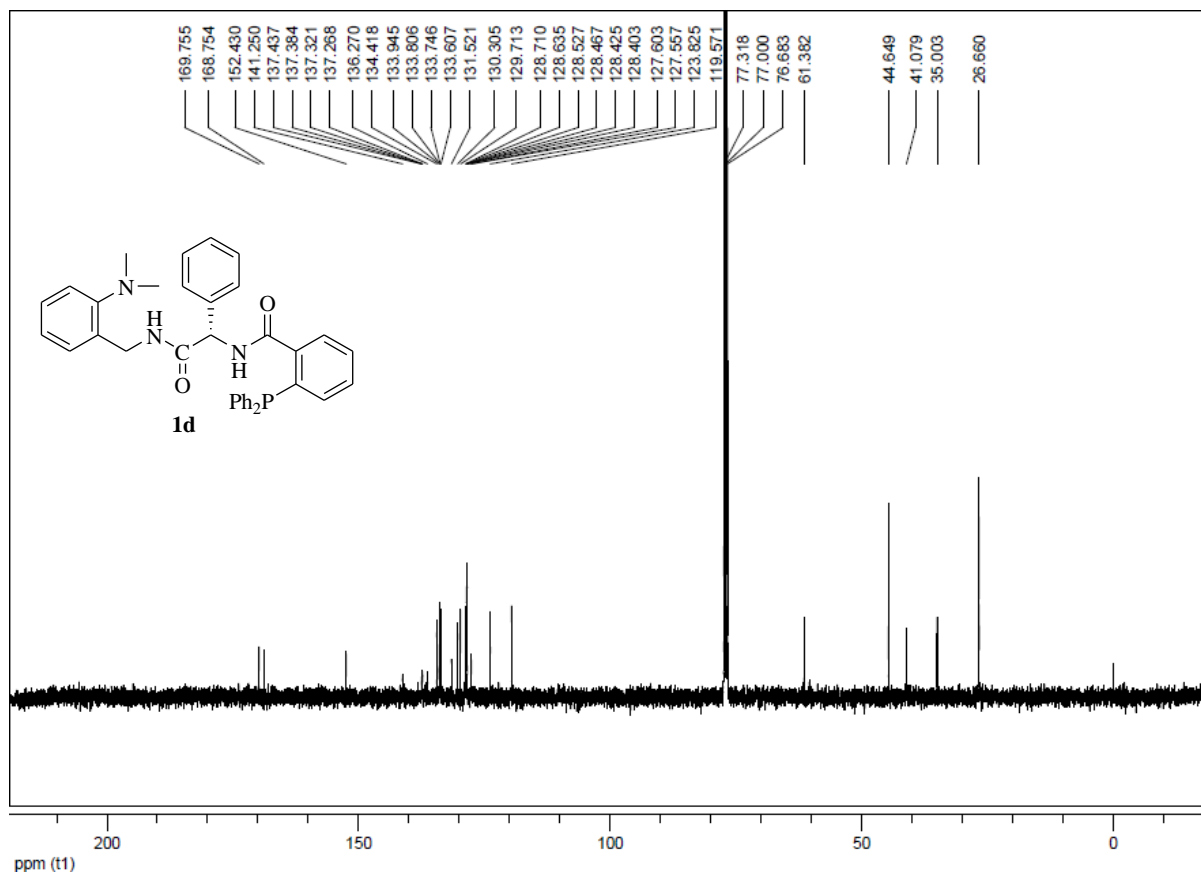


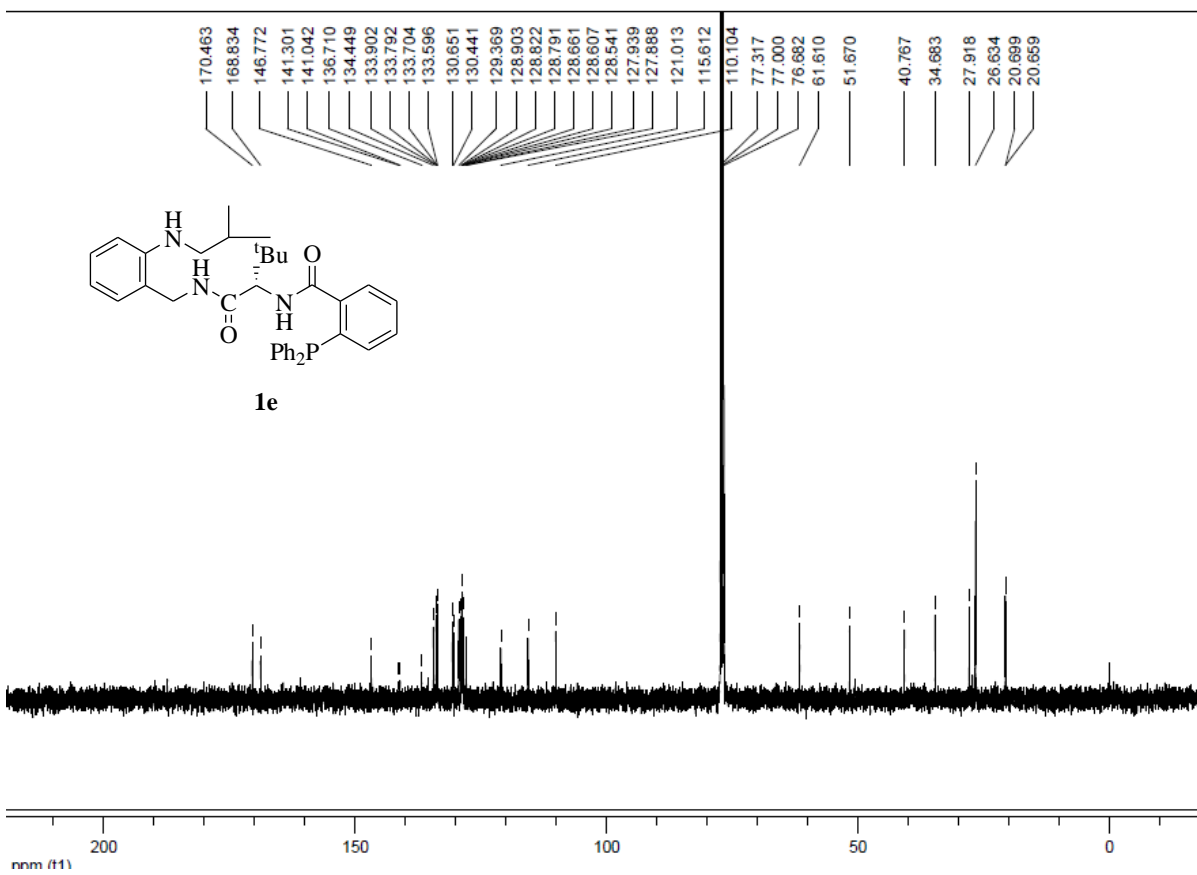
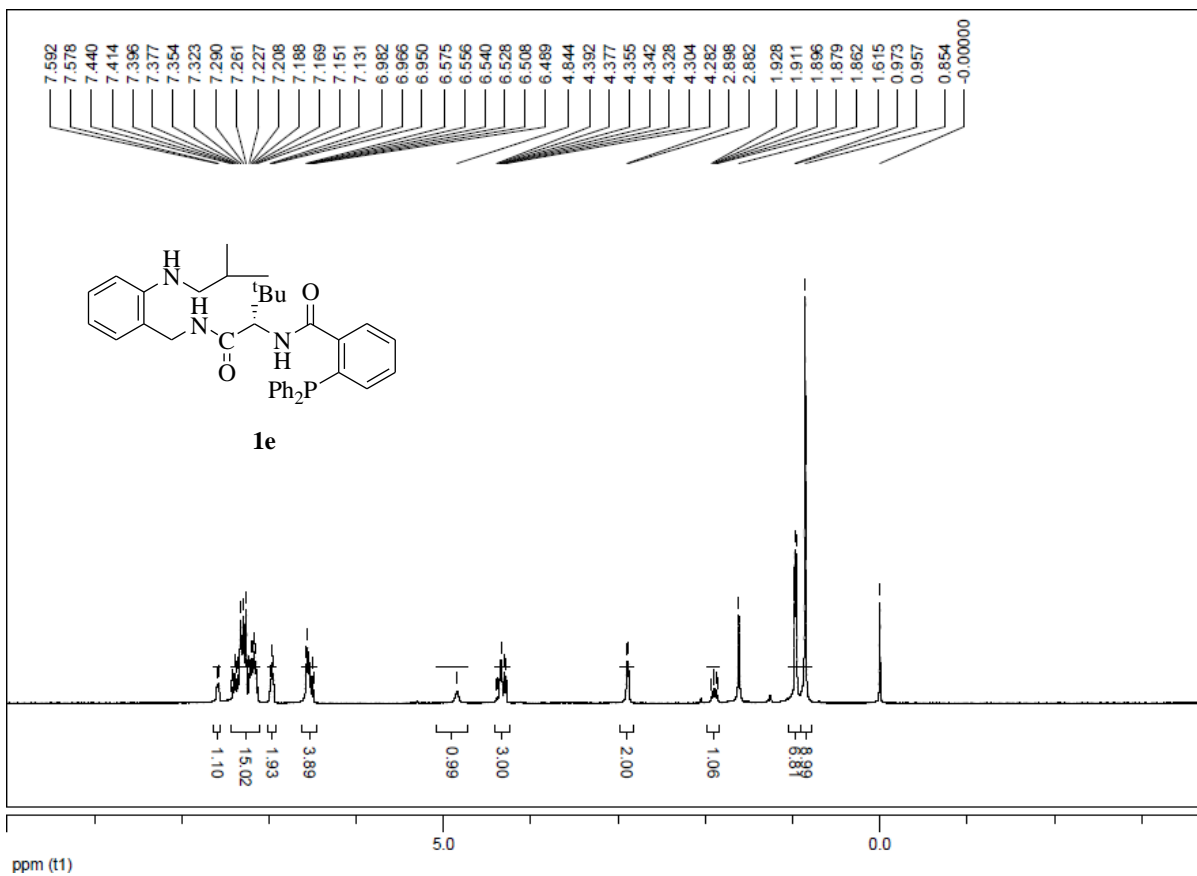


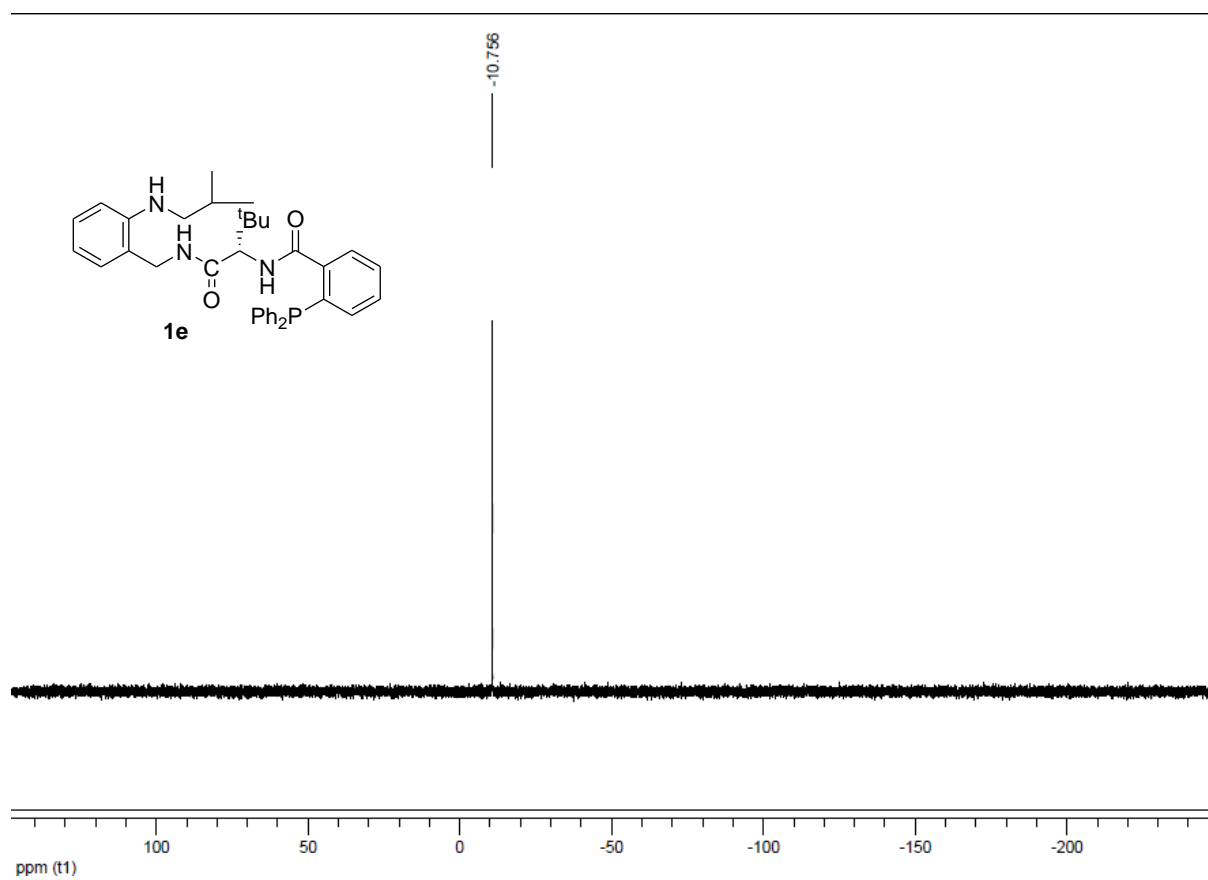






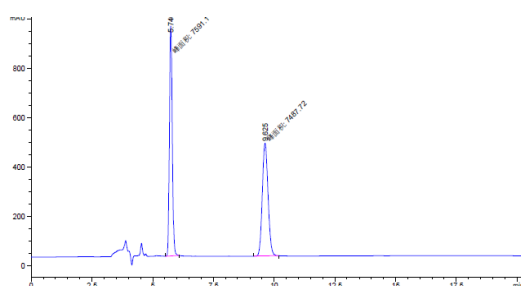
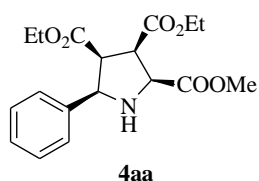




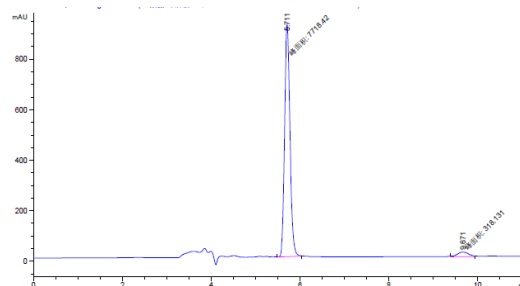


2. Copies of HPLC Chromatographs

(2S,3R,4S,5R)-3,4-diethyl 2-methyl 5-phenylpyrrolidine-2,3,4-tricarboxylate(4aa)

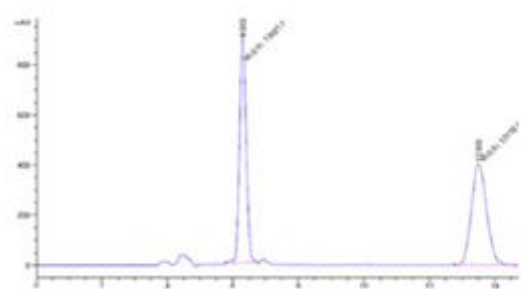
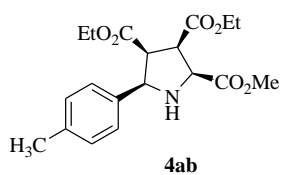


#	[min]	[min]	[mAU*s]	[mAU]	%
1	5.746 MM	0.1355	7591.10254	933.44385	50.3428
2	9.625 MM	0.2729	7487.72217	457.22919	49.6572

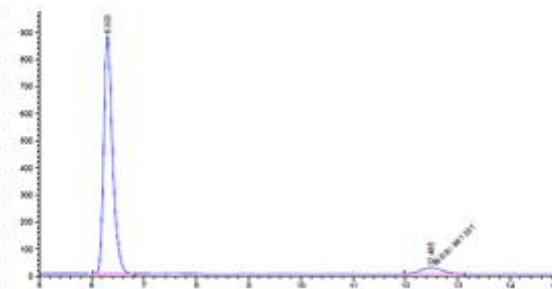


#	[min]	[min]	[mAU*s]	[mAU]	%
1	5.711 MM	0.1401	7718.42236	918.04327	96.0414
2	9.671 MM	0.2865	318.13113	18.50755	3.9586

(2S,3R,4S,5R)-3,4-diethyl 2-methyl 5-(p-tolyl)pyrrolidine-2,3,4-tricarboxylate(4ab)

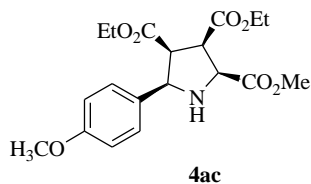


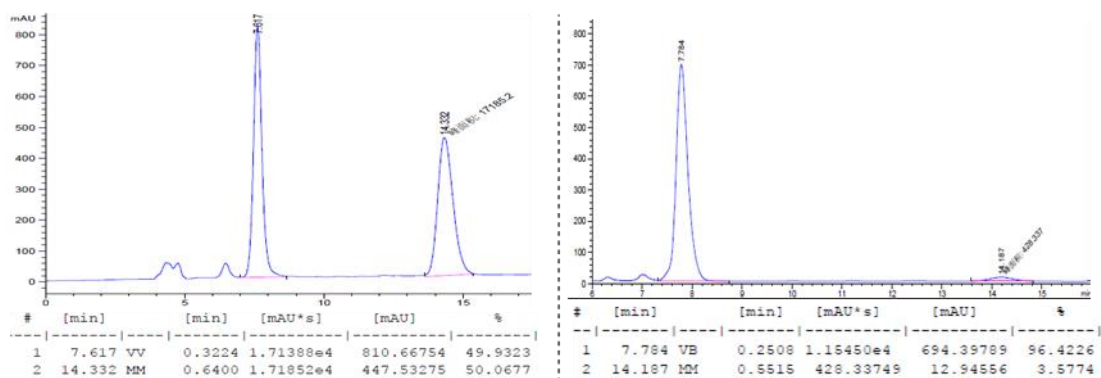
#	[min]	[min]	[mAU*s]	[mAU]	%
1	6.303 MM	0.2340	1.30217e4	927.43251	49.0309
2	13.503 MM	0.5395	1.31103e4	405.50149	50.1495



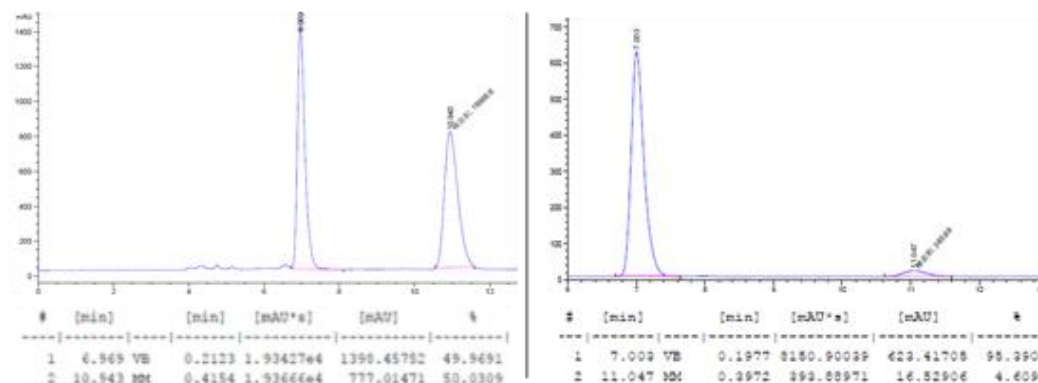
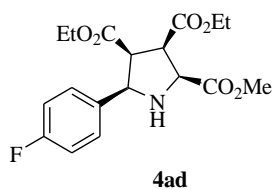
#	[min]	[min]	[mAU*s]	[mAU]	%
1	6.303 MM	0.1773	1.02846e4	876.46674	99.9416
2	12.485 MM	0.4898	661.92112	22.50528	6.0584

(2S,3R,4S,5R)-3,4-diethyl 2-methyl 5-(4-methoxyphenyl)pyrrolidine-2,3,4-tricarboxylate (4ac)

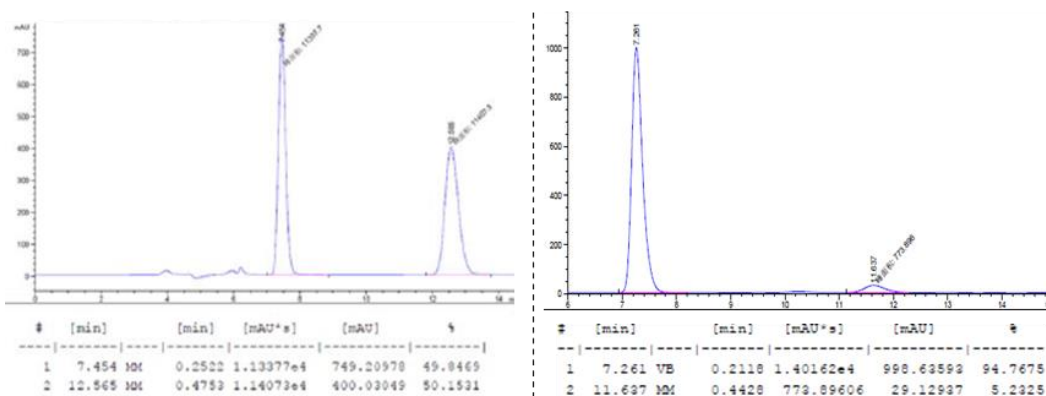
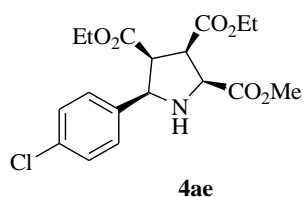




(2S,3R,4S,5R)-3,4-diethyl 2-methyl 5-(4-fluorophenyl)pyrrolidine-2,3,4-tricarboxylate (4ad)

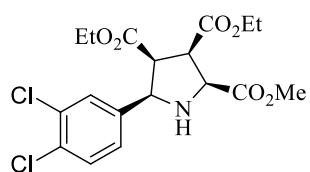


(2S,3R,4S,5R)-3,4-diethyl 2-methyl 5-(4-chlorophenyl)pyrrolidine-2,3,4-tricarboxylate (4ae)

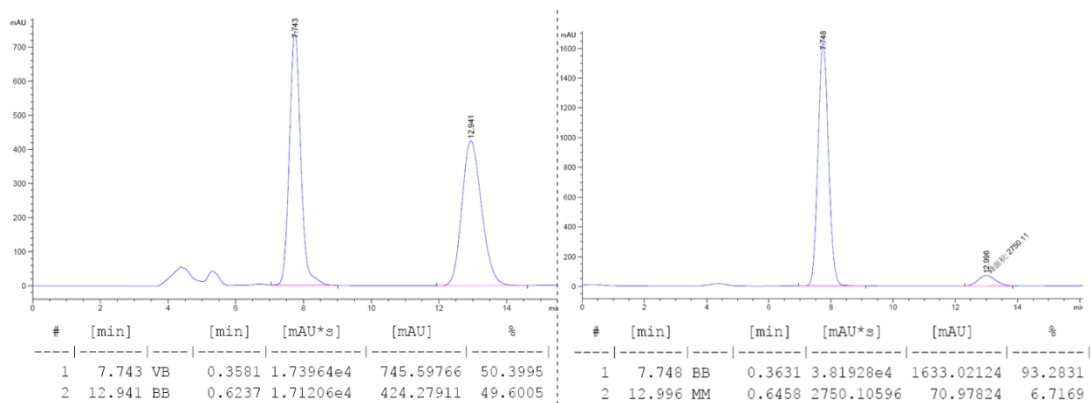


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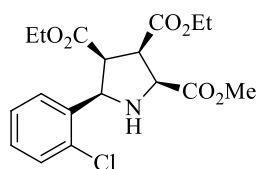
(4af)^{10c}



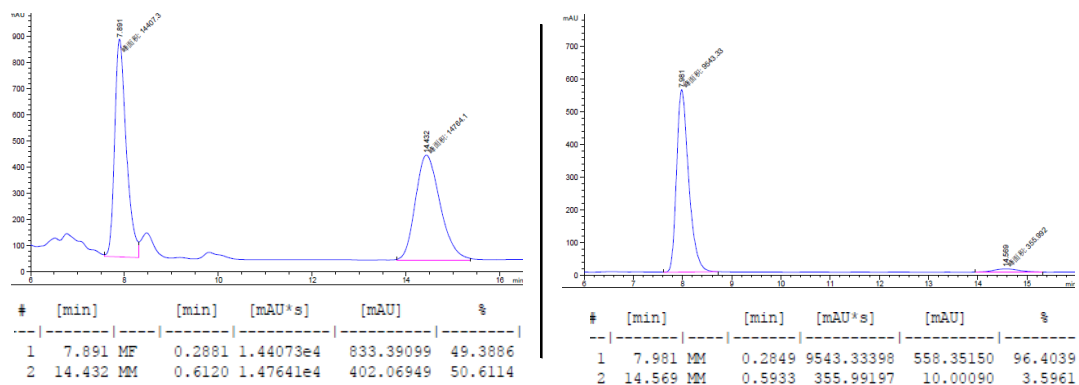
4af



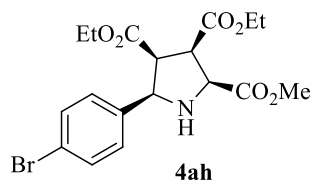
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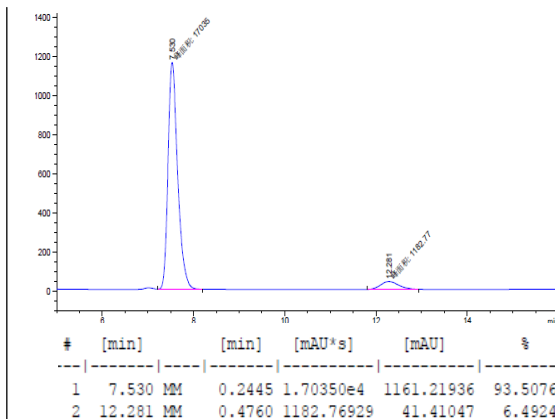
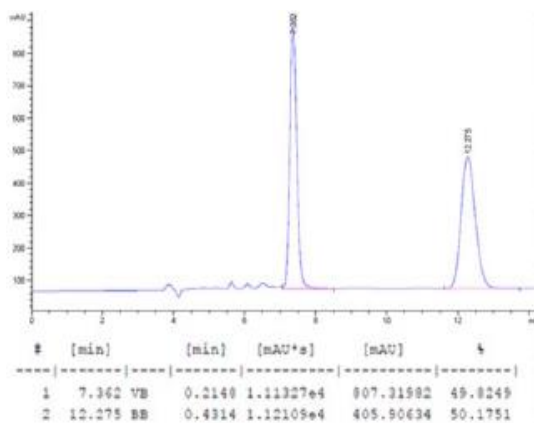
4ag



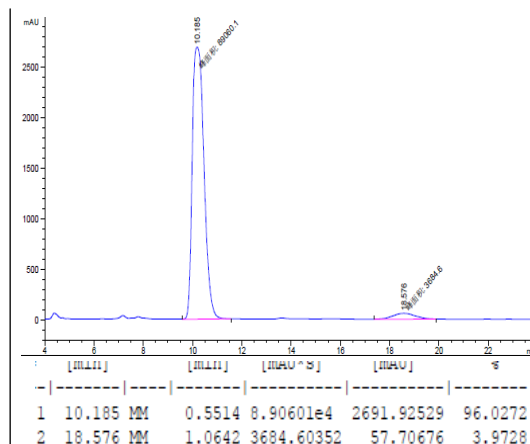
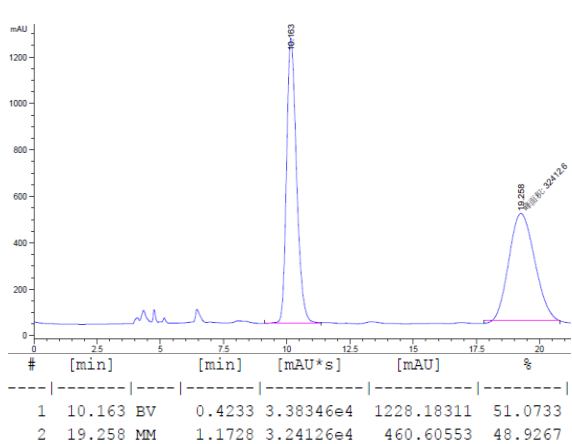
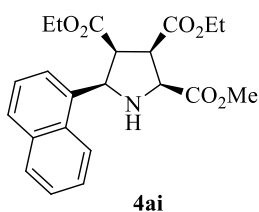
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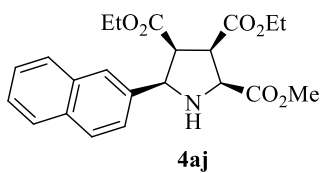
4ah

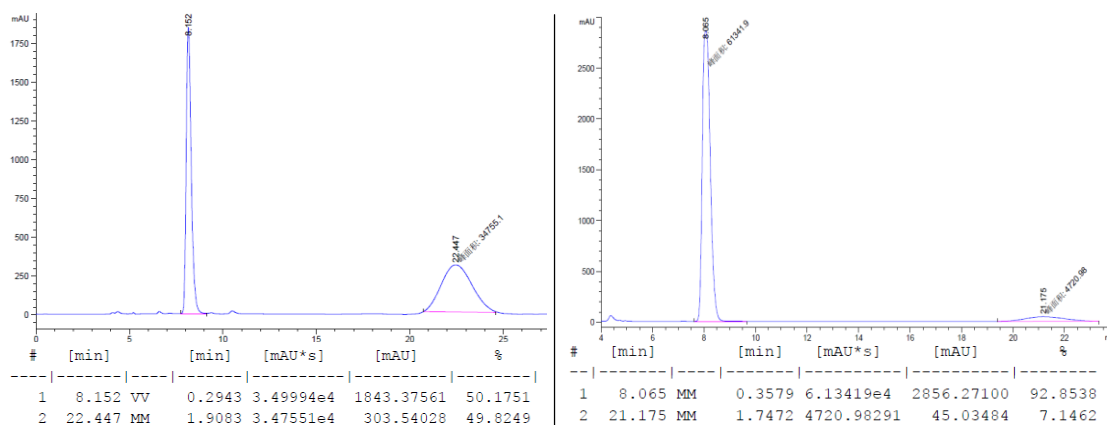


(2S,3R,4S,5R)-3,4-diethyl 2-methyl 5-(naphthalen-1-yl)pyrrolidine-2,3,4-tricarboxylate (4ai)

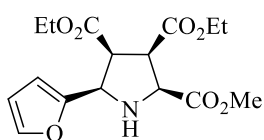


(2S,3R,4S,5R)-3,4-diethyl 2-methyl 5-(naphthalen-2-yl)pyrrolidine-2,3,4-tri carboxylate (4aj)

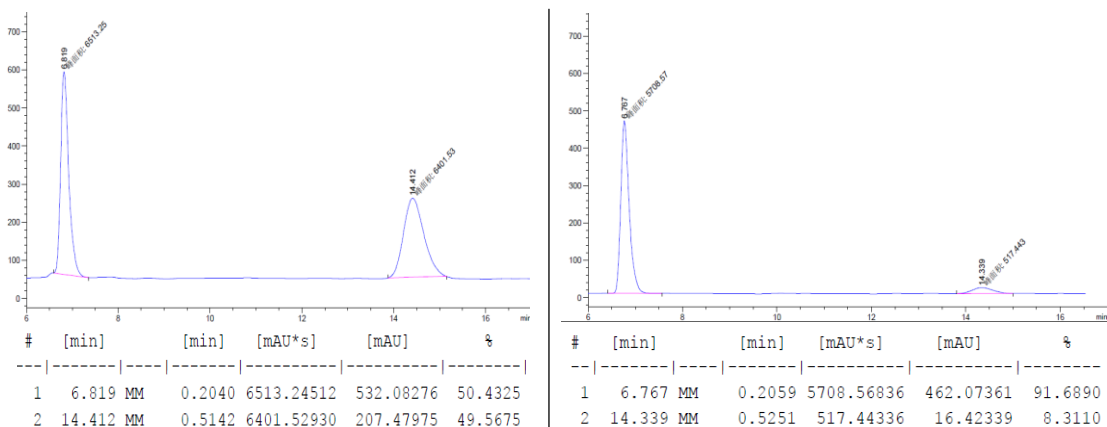




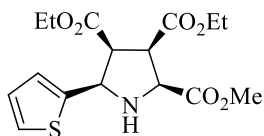
(2S,3R,4S,5R)-3,4-diethyl 2-methyl 5-(furan-2-yl)pyrrolidine-2,3,4-tricarboxylate (4ak)



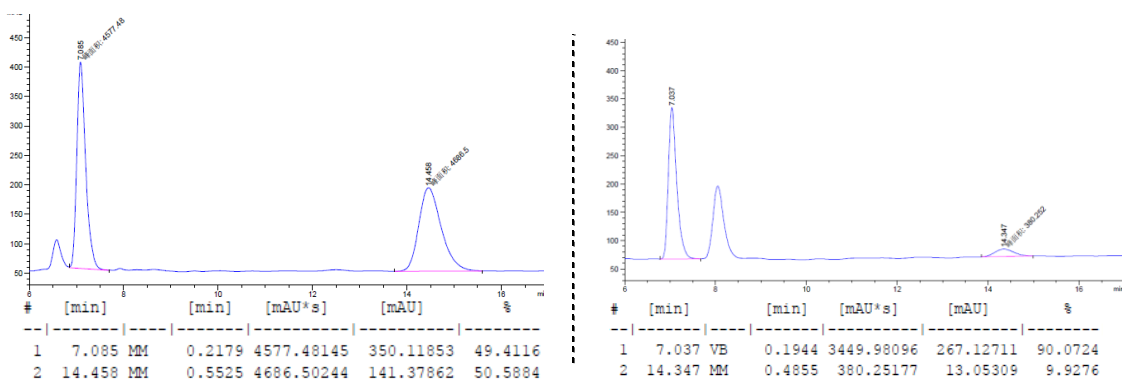
4ak



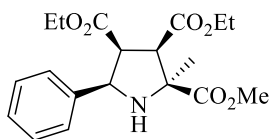
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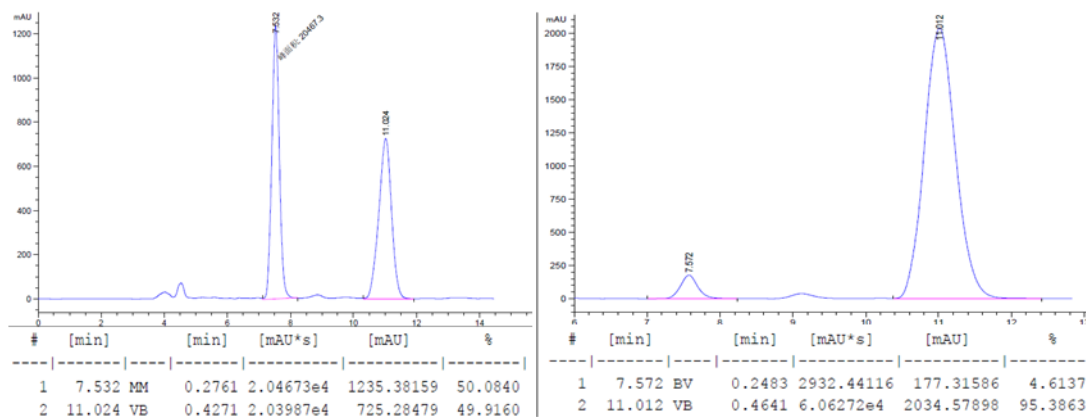
4al



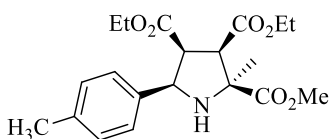
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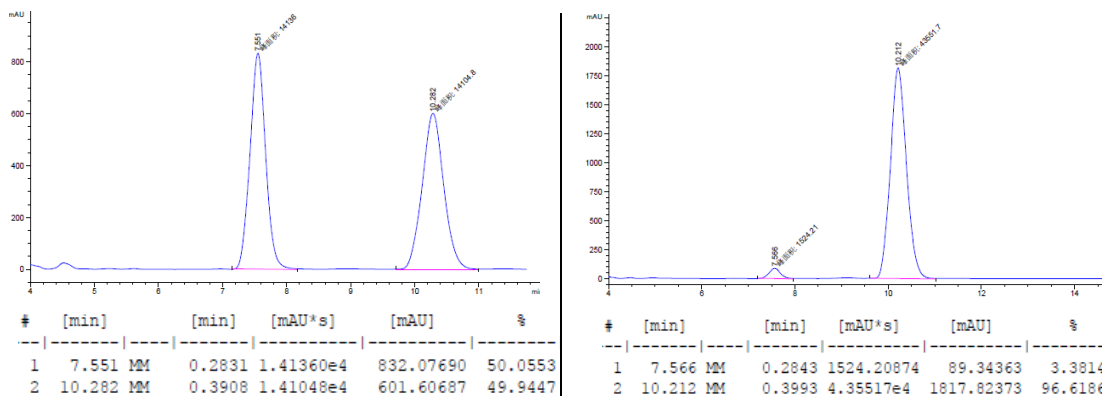
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(2S,3R,4S,5R)-3,4-diethyl 2-methyl 2-methyl-5-(p-tolyl)pyrrolidine-2,3,4-tricarboxylate (4an)

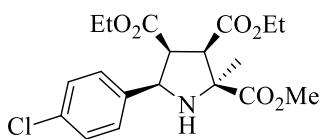


4an

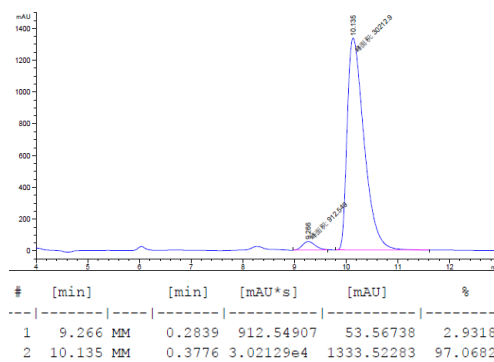
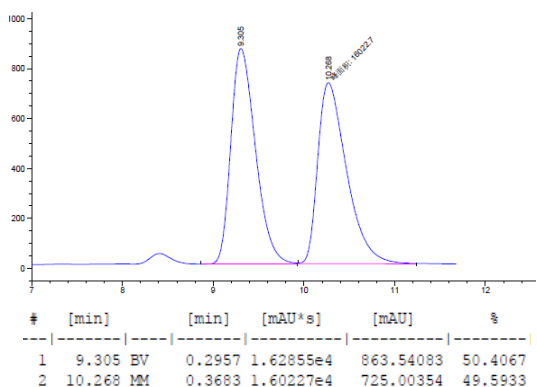


(2S,3R,4S,5R)-3,4-diethyl 2-methyl 5-(4-chlorophenyl)-2-methylpyrrolidine-2,3,4-tricarboxylate

(4ao)

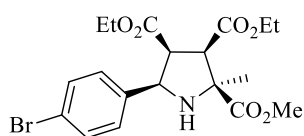


4ao

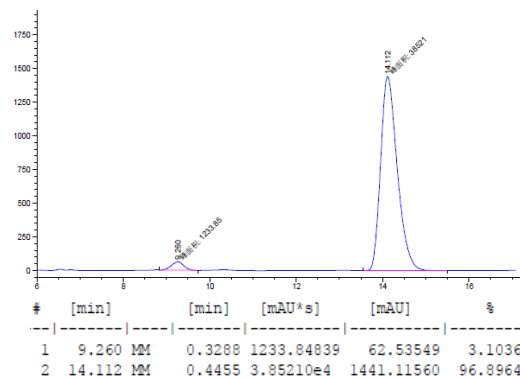
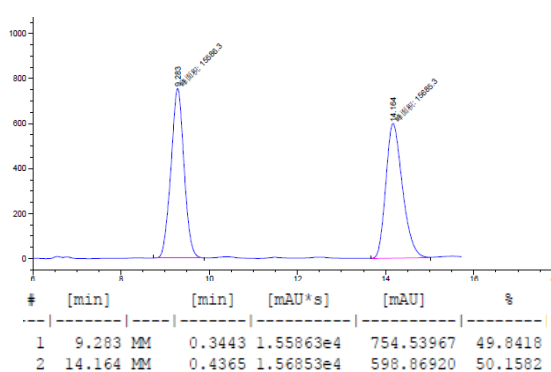


(2S,3R,4S,5R)-3,4-diethyl-2-methyl-5-(4-bromophenyl)-2-methylpyrrolidine-2,3,4-tricarboxylate

(4ap)

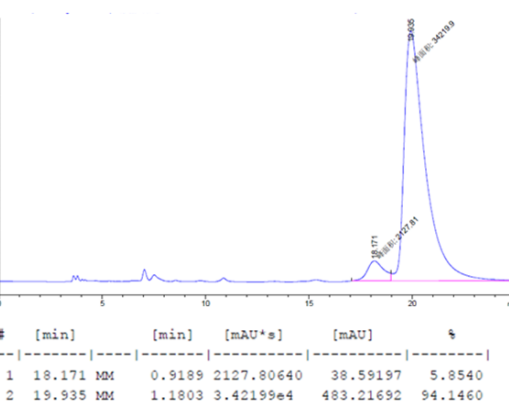
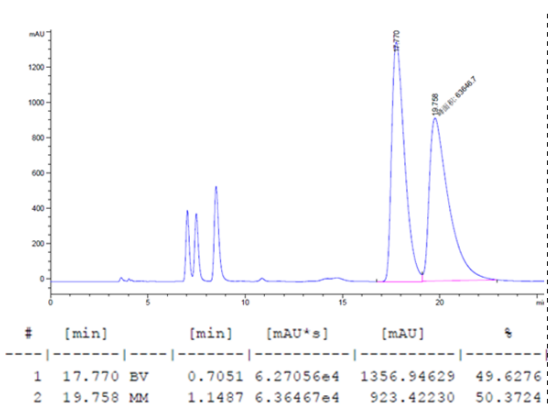


4ap

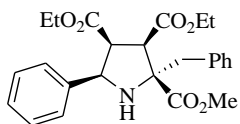


(2S,3R,4S,5R)-3,4-diethyl-2-methyl-2-methyl-5-(naphthalen-2-yl)pyrrolidine-2,3,4-tricarboxylate

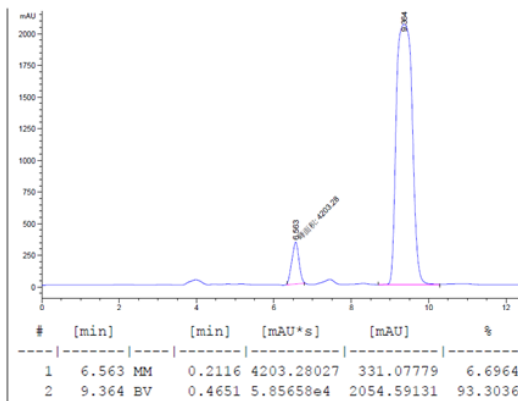
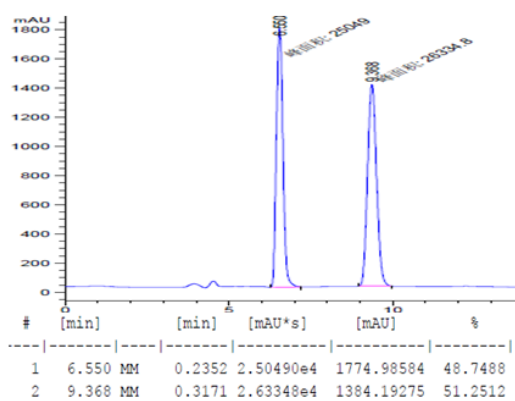
(4aq)



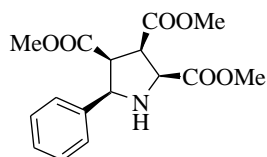
(2S,3R,4S,5R)-3,4-diethyl-2-methyl-2-benzyl-5-phenylpyrrolidine-2,3,4-tricarboxylate (4ar)



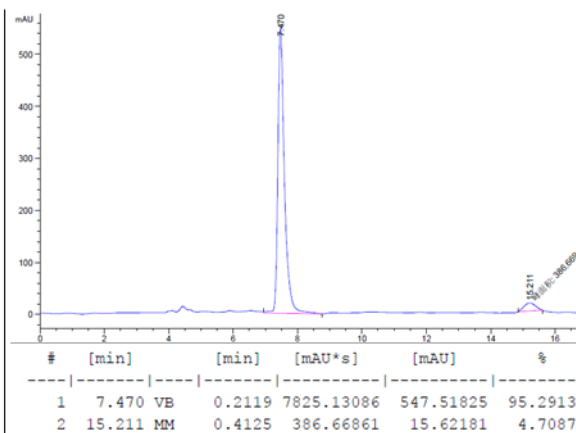
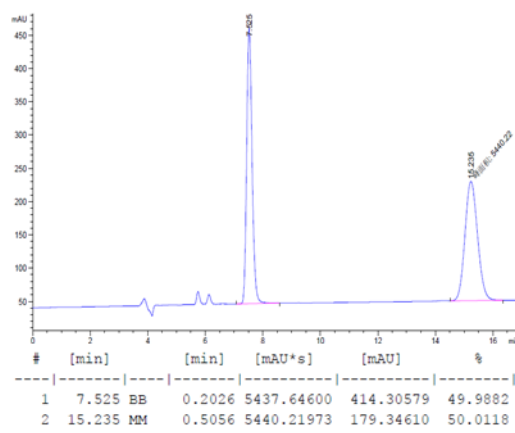
4ar



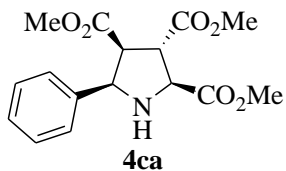
(2S,3R,4S,5R)-trimethyl 5-phenylpyrrolidine-2,3,4-tricarboxylate (4ba)



4ba



(2S,3S,4S,5R)-trimethyl 5-phenylpyrrolidine-2,3,4-tricarboxylate (4ca)



4ca

