

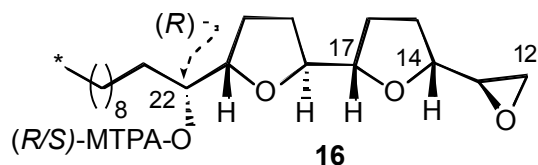
# A Metal-oxo Mediated Approach to the Synthesis of 21,22-Diepimembrarollin

## Supporting Information

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### Mosher Ester Data

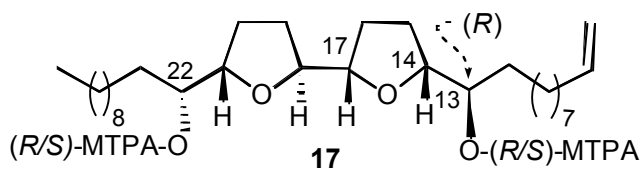
**Table 1.** Diagnostic <sup>1</sup>H-NMR values (400 MHz, CDCl<sub>3</sub>) of (*S*)- and (*R*)-MTPA esters **16** of the epoxide **12**.



Proton <sup>a</sup>	( <i>S</i> )-MTPA ester	( <i>R</i> )-MTPA ester	$\Delta_{(S-R)}$	Configuration <sup>a</sup>
21	4.05 ppm	4.13 ppm	-0.08	22 <i>R</i>
23	1.64 ppm	1.57 ppm	+0.07	

<sup>a</sup> membrarollin numbering used

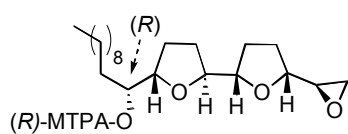
**Table 2.** Diagnostic <sup>1</sup>H-NMR values (400 MHz, CDCl<sub>3</sub>) of (*S*)- and (*R*)-MTPA esters **17** of the diol **13**.



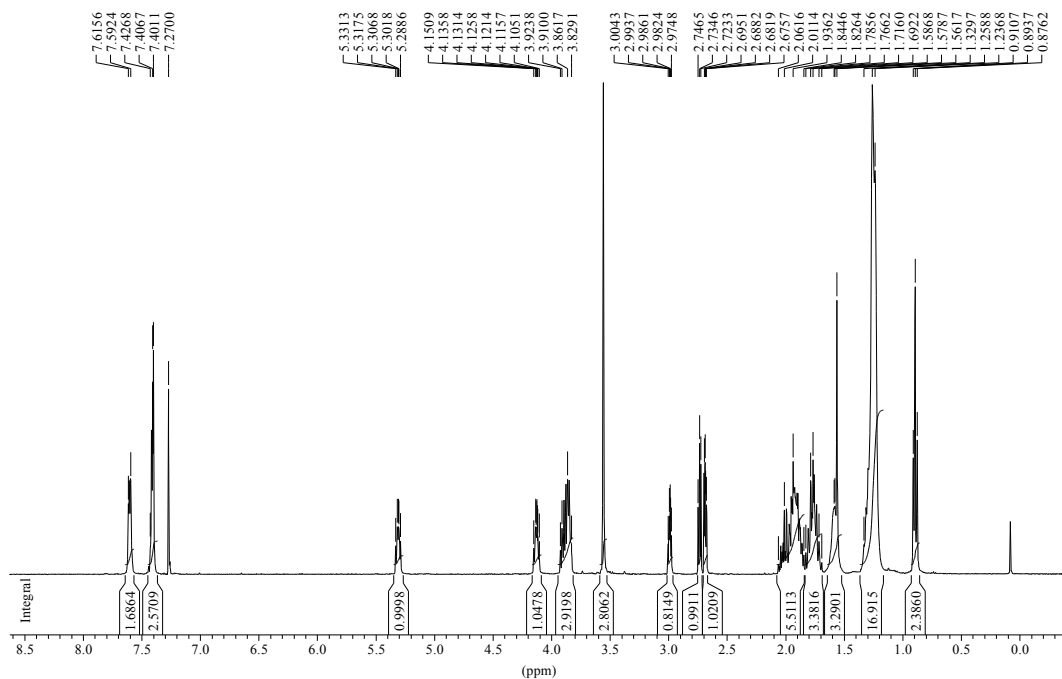
Proton <sup>a</sup>	( <i>S</i> )-MTPA ester	( <i>R</i> )-MTPA ester	$\Delta_{(S-R)}$	Configuration <sup>a</sup>
12	1.62 ppm	1.50 ppm	+0.12	13 <i>R</i>
14	3.796 ppm	3.977 ppm	-0.001	
21	4.04 ppm	4.16 ppm	-0.12	22 <i>R</i>
23	1.60 ppm	1.56 ppm	+0.04	

<sup>a</sup> membrarollin numbering used

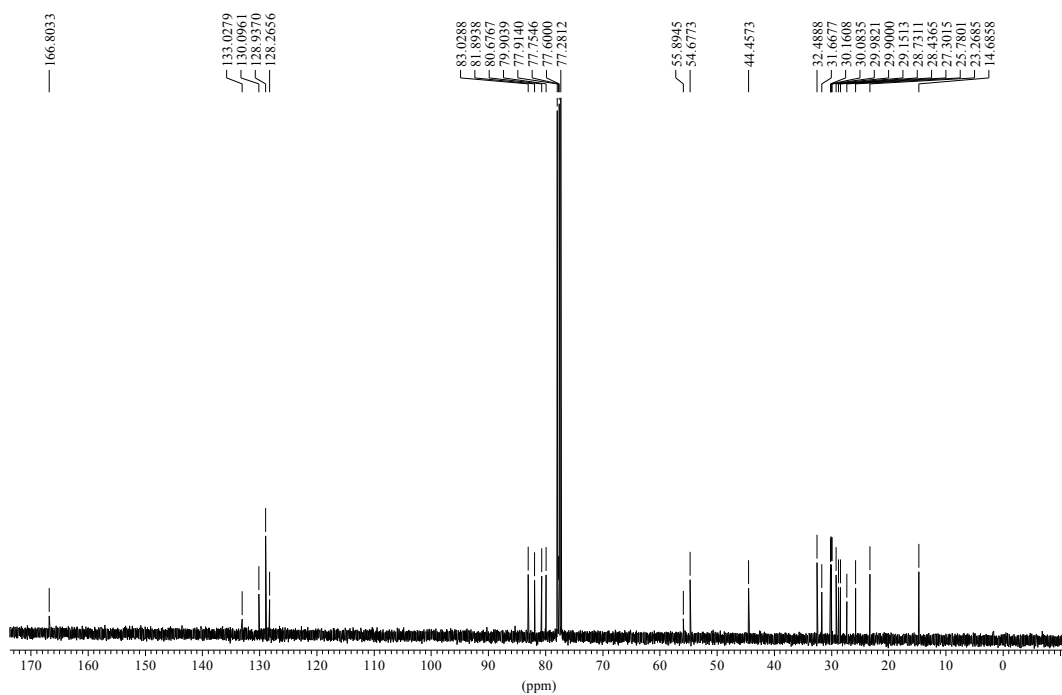
# $^1\text{H}$ and $^{13}\text{C}$ NMR for the (*R*)-Mosher ester derivative 16



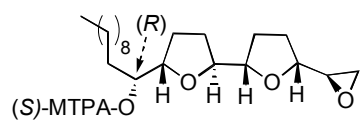
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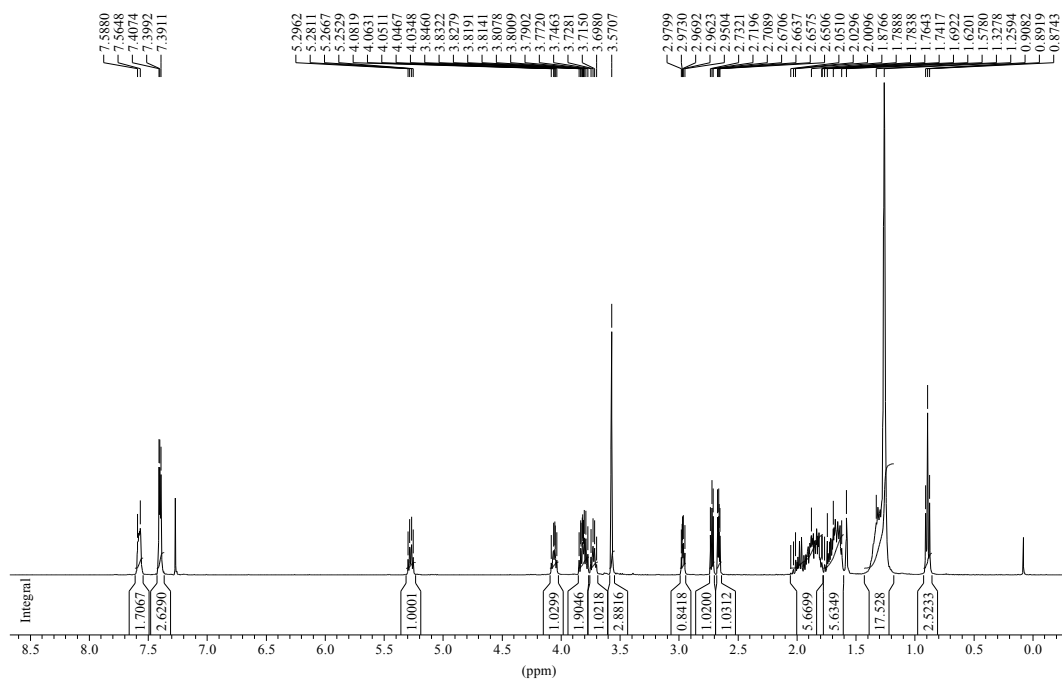
3498/78



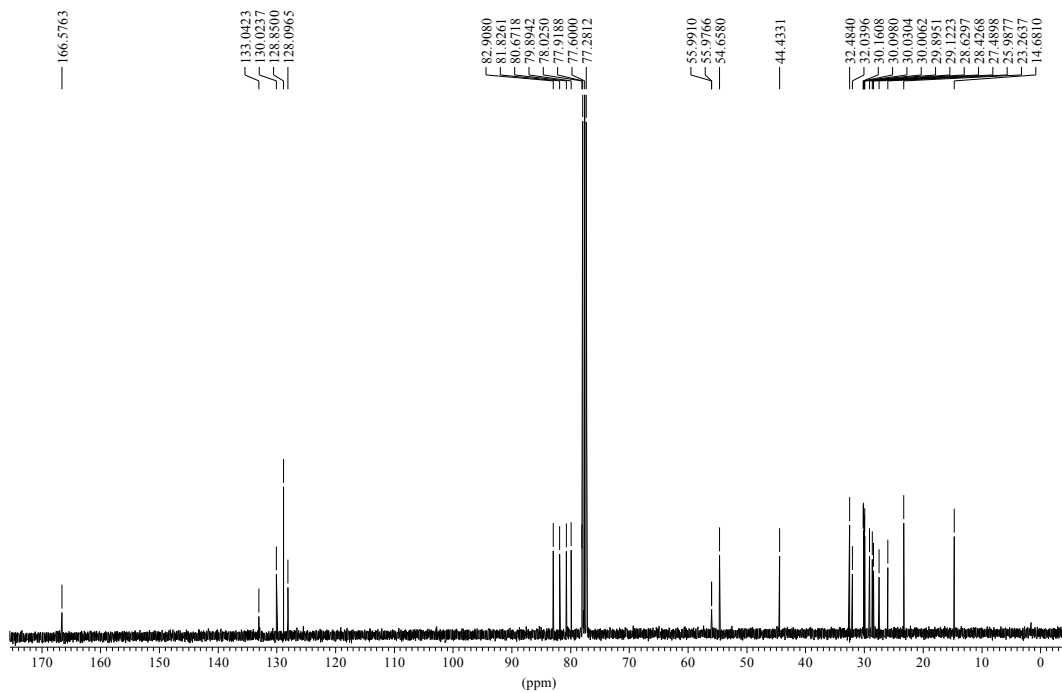
# $^1\text{H}$ and $^{13}\text{C}$ NMR for the (*S*)-Mosher ester derivative of **16**



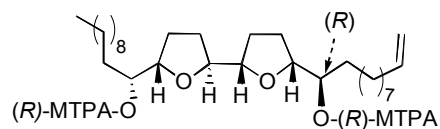
3498/76



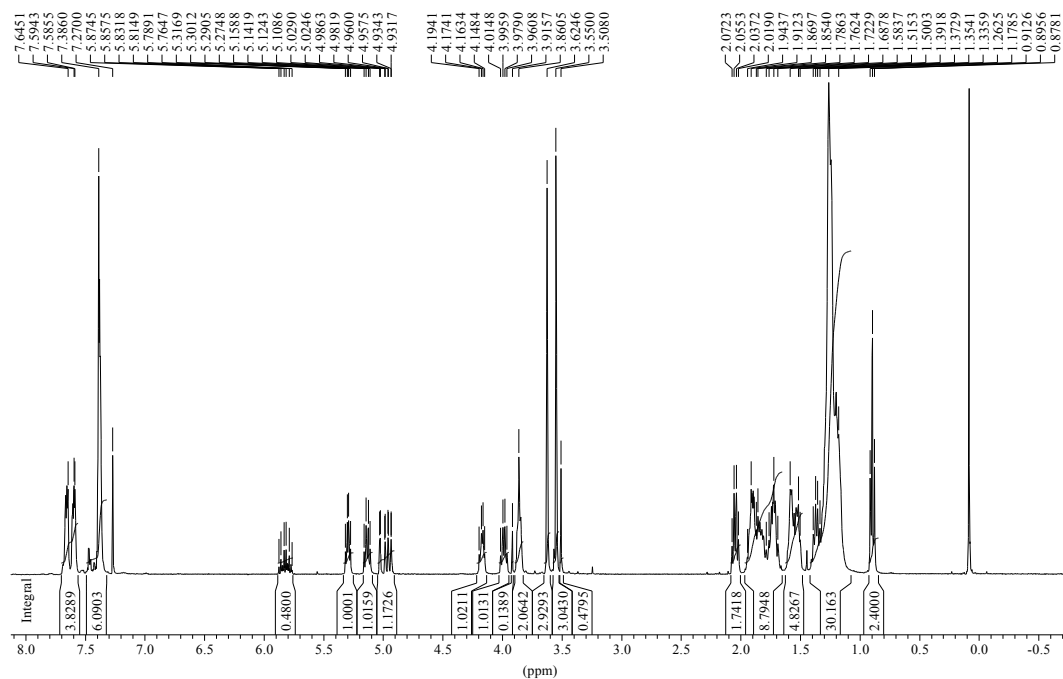
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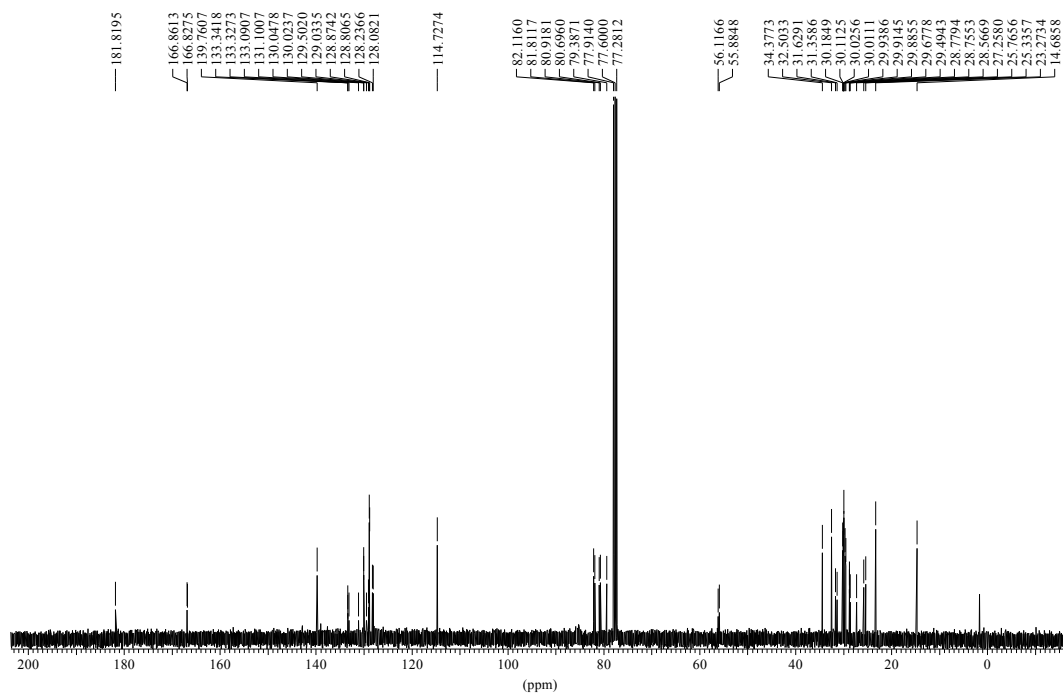
$^1\text{H}$  and  $^{13}\text{C}$  NMR for the *bis*-(*R*)-Mosher ester derivative **17**



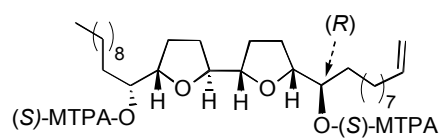
3498/79



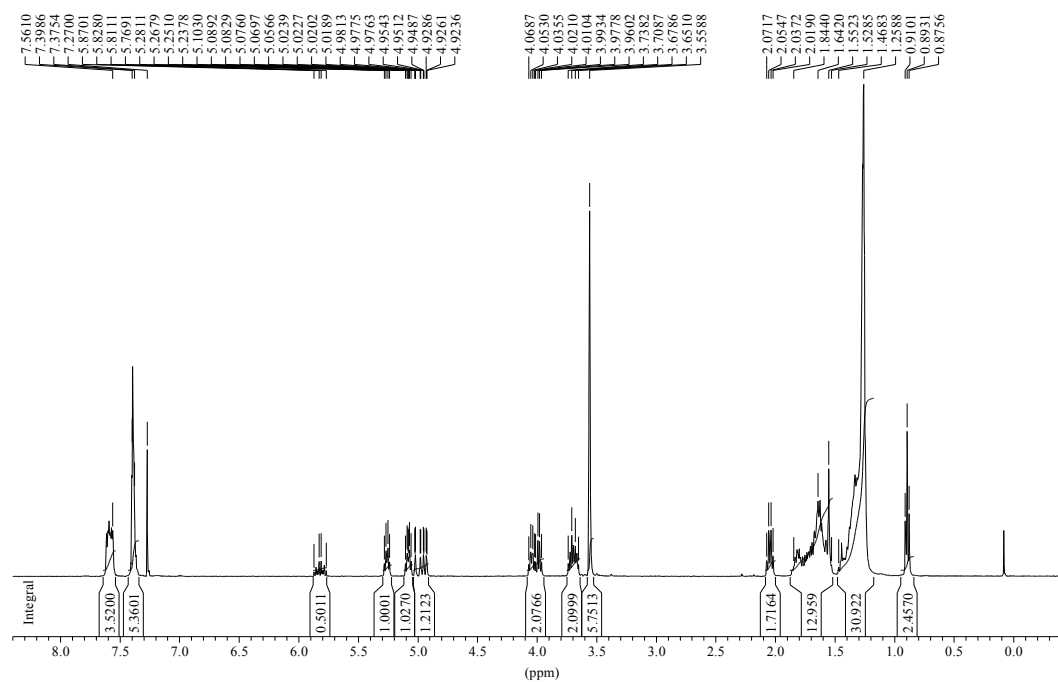
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$^1\text{H}$  and  $^{13}\text{C}$  NMR for the *bis*-(*S*)-Mosher ester derivative **17**



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