

One-pot synthesis of β -O-4 lignin models via the insertion of stable 2-diazo-1,3-dicarbonyls into O-H bonds

Rafael Mafra P. Dias, Gabriela Pilli, Antonio C. B. Burtoloso

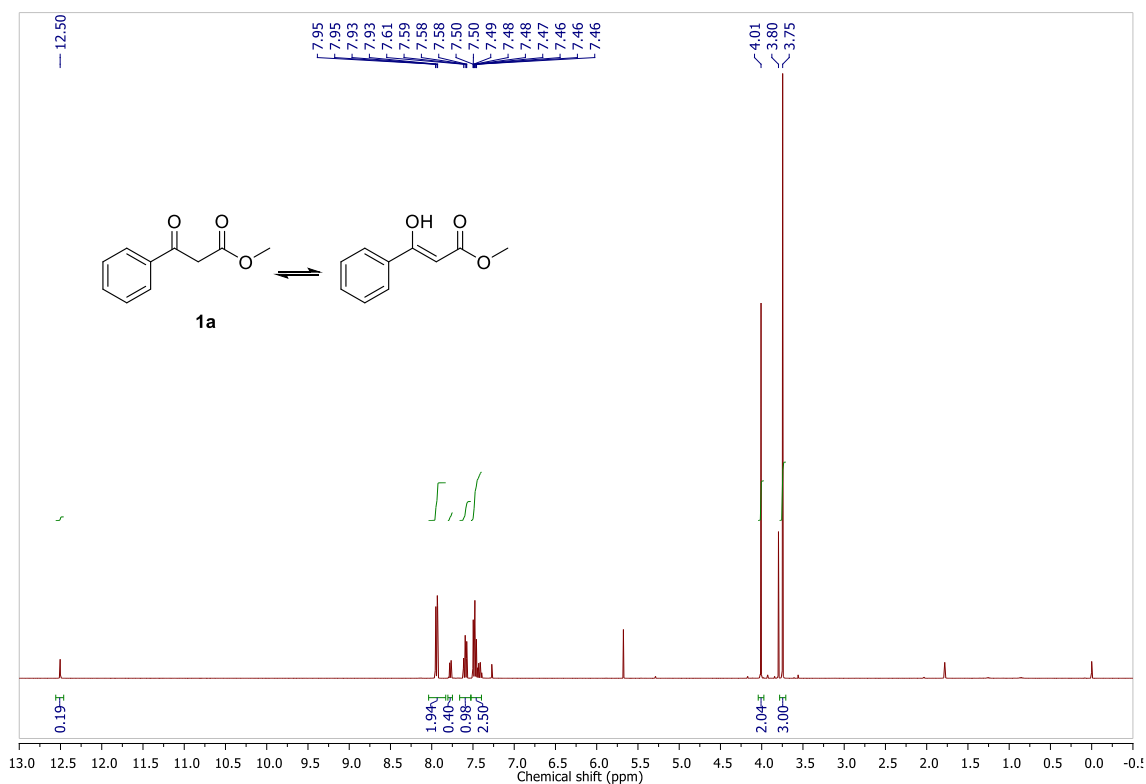
Spectra data

Summary

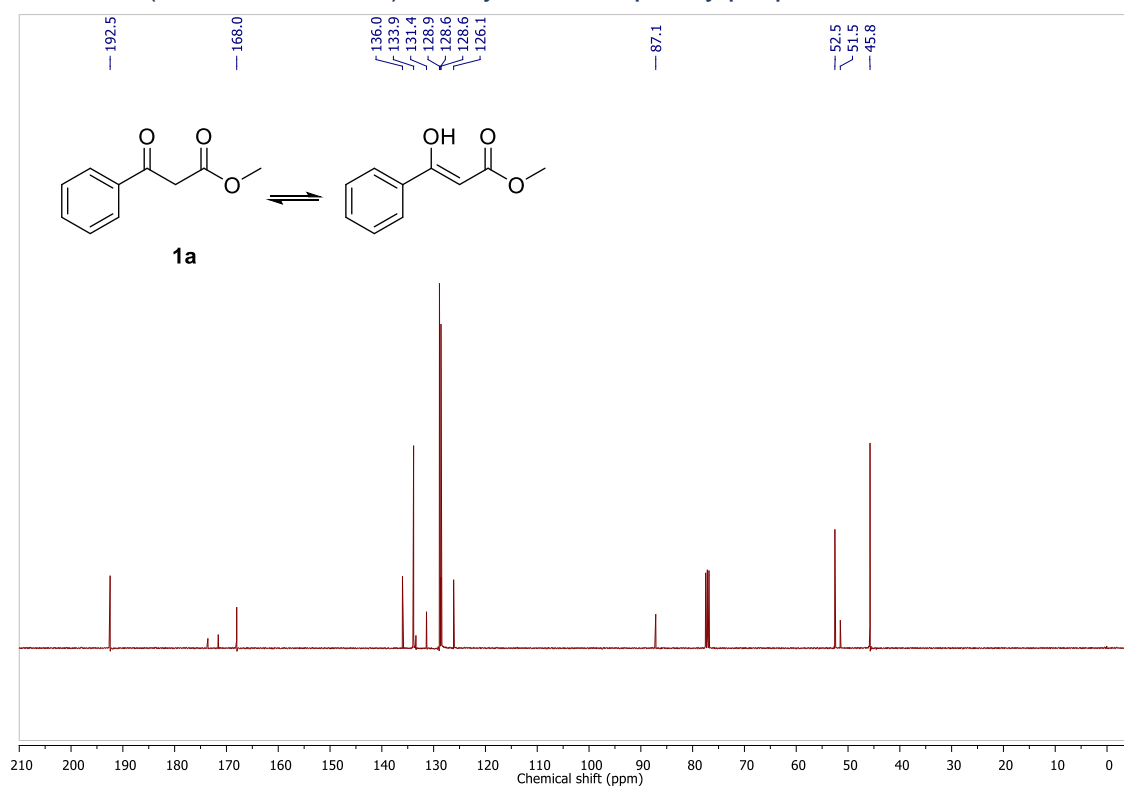
¹ H NMR (500 MHz, CDCl ₃) methyl 3-oxo-3-phenylpropanoate 1a	3
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¹³ C NMR (126 MHz, CDCl ₃) methyl 3-(4-(benzyloxy)-3,5-dimethoxyphenyl)-2-diazo-3-oxopropanoate 2d	10
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¹ H NMR (500 MHz, CDCl ₃) 1-(4-(benzyloxy)phenyl)-2-(2-methoxyphenoxy)propane-1,3-diol 4g	18
¹³ C NMR (126 MHz, CDCl ₃) 1-(4-(benzyloxy)phenyl)-2-(2-methoxyphenoxy)propane-1,3-diol 4g	18
¹ H NMR (500 MHz, CDCl ₃ + few drops of D ₂ O) 1-(4-(benzyloxy)-3-methoxyphenyl)-2-(2-methoxyphenoxy)propane-1,3-diol 4h	19
¹³ C NMR (126 MHz, CDCl ₃) 1-(4-(benzyloxy)-3-methoxyphenyl)-2-(2-methoxyphenoxy)propane-1,3-diol 4h	19
¹ H NMR (500 MHz, CDCl ₃) 1-(4-(benzyloxy)-3,5-dimethoxyphenyl)-2-(2-methoxyphenoxy)propane-1,3-diol 4i	20
¹³ C NMR (126 MHz, CDCl ₃) 1-(4-(benzyloxy)-3,5-dimethoxyphenyl)-2-(2-methoxyphenoxy)propane-1,3-diol 4i	20
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¹ H NMR (500 MHz, CDCl ₃ + few drops of D ₂ O) 1-(4-hydroxy-3,5-dimethoxyphenyl)-2-(2-methoxyphenoxy)propane-1,3-diol 4n	24
¹³ C NMR (126 MHz, CDCl ₃) 1-(4-hydroxy-3,5-dimethoxyphenyl)-2-(2-methoxyphenoxy)propane-1,3-diol 4n	24
¹ H NMR (500 MHz, CDCl ₃ + few drops of D ₂ O) 1-(4-hydroxy-3,5-dimethoxyphenyl)-2-(2-methoxy-4-methylphenoxy)propane-1,3-diol 4o	25
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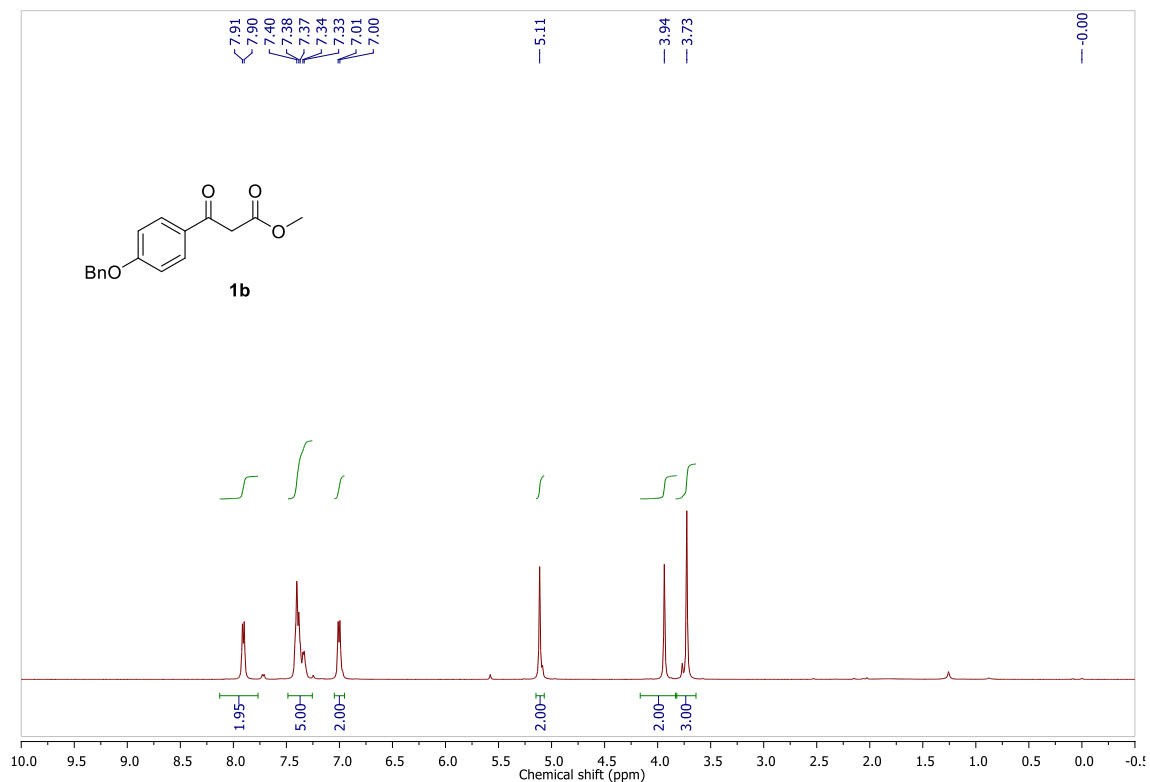
¹H NMR (500 MHz, CDCl₃) methyl 3-oxo-3-phenylpropanoate 1a



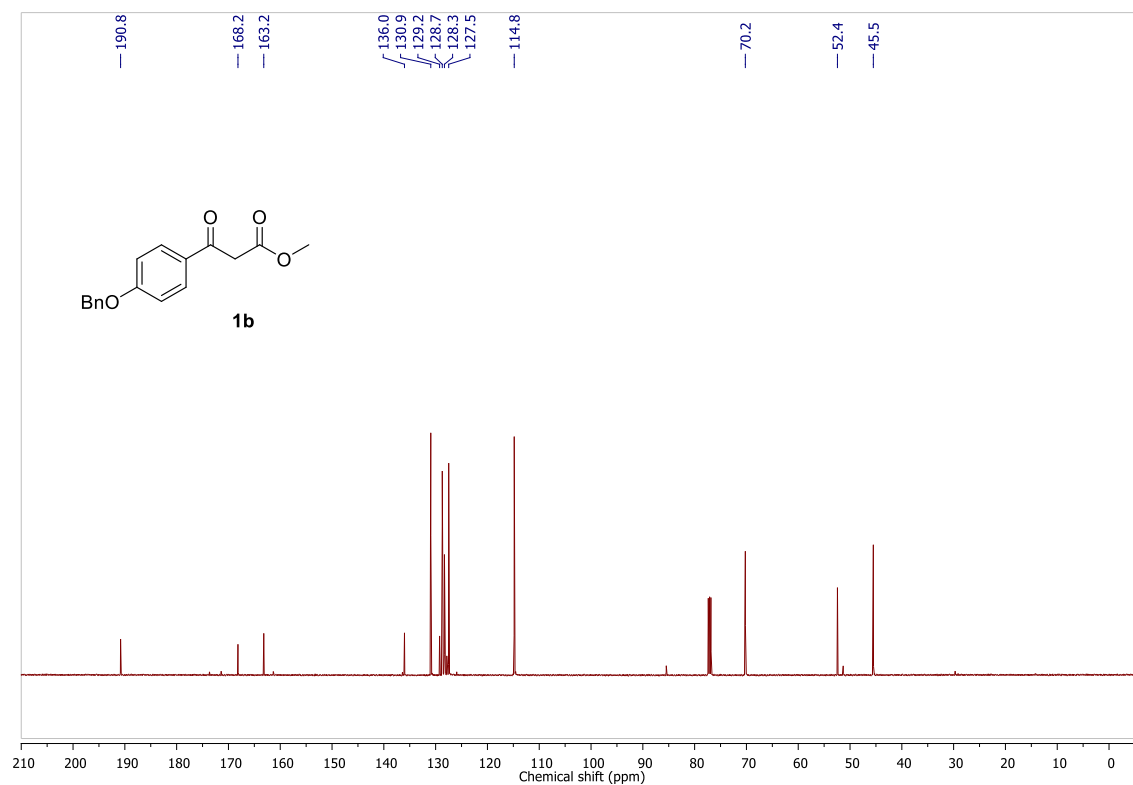
¹³C NMR (126 MHz, CDCl₃) methyl 3-oxo-3-phenylpropanoate 1a



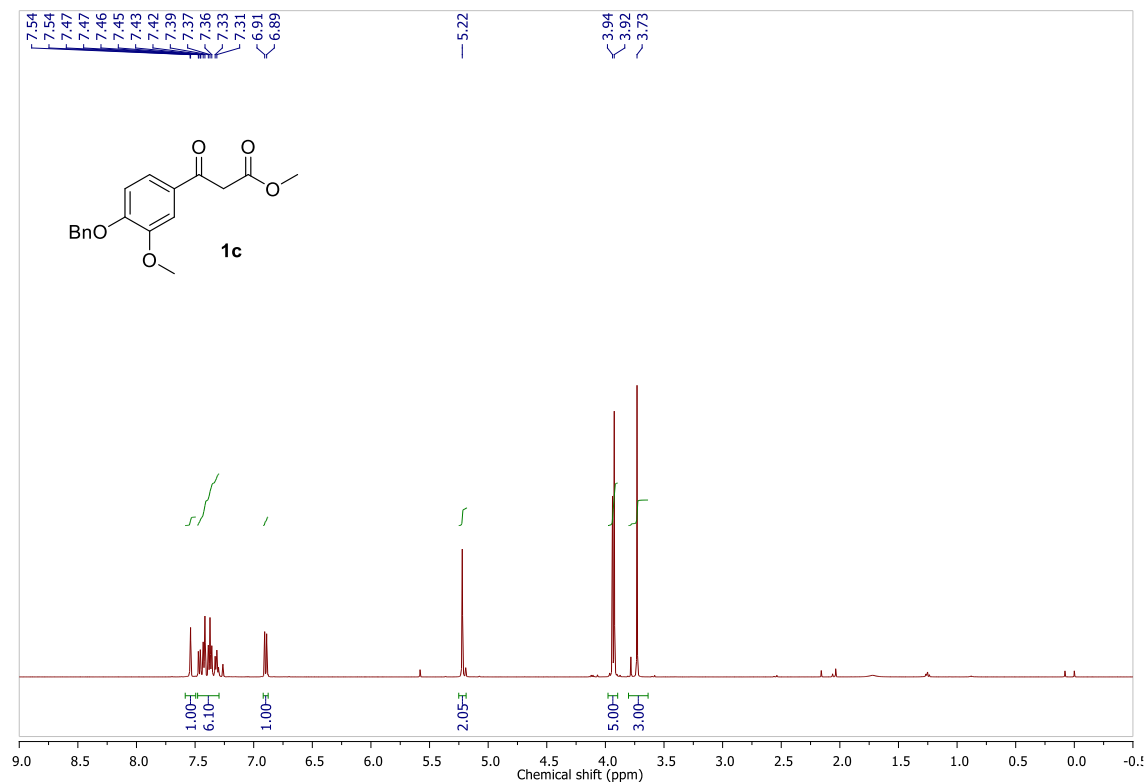
¹H NMR (500 MHz, CDCl₃) methyl 3-(4-(benzyloxy)phenyl)-3-oxopropanoate **1b**



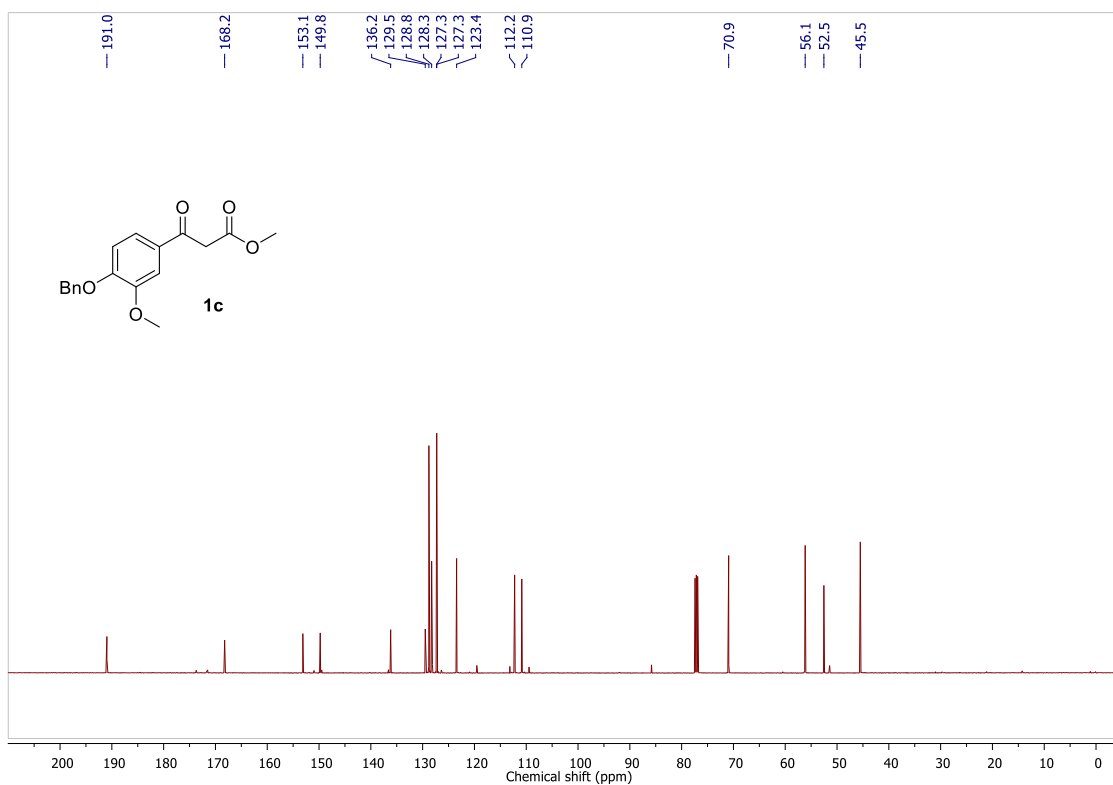
¹³C NMR (126 MHz, CDCl₃) methyl 3-(4-(benzyloxy)phenyl)-3-oxopropanoate **1b**



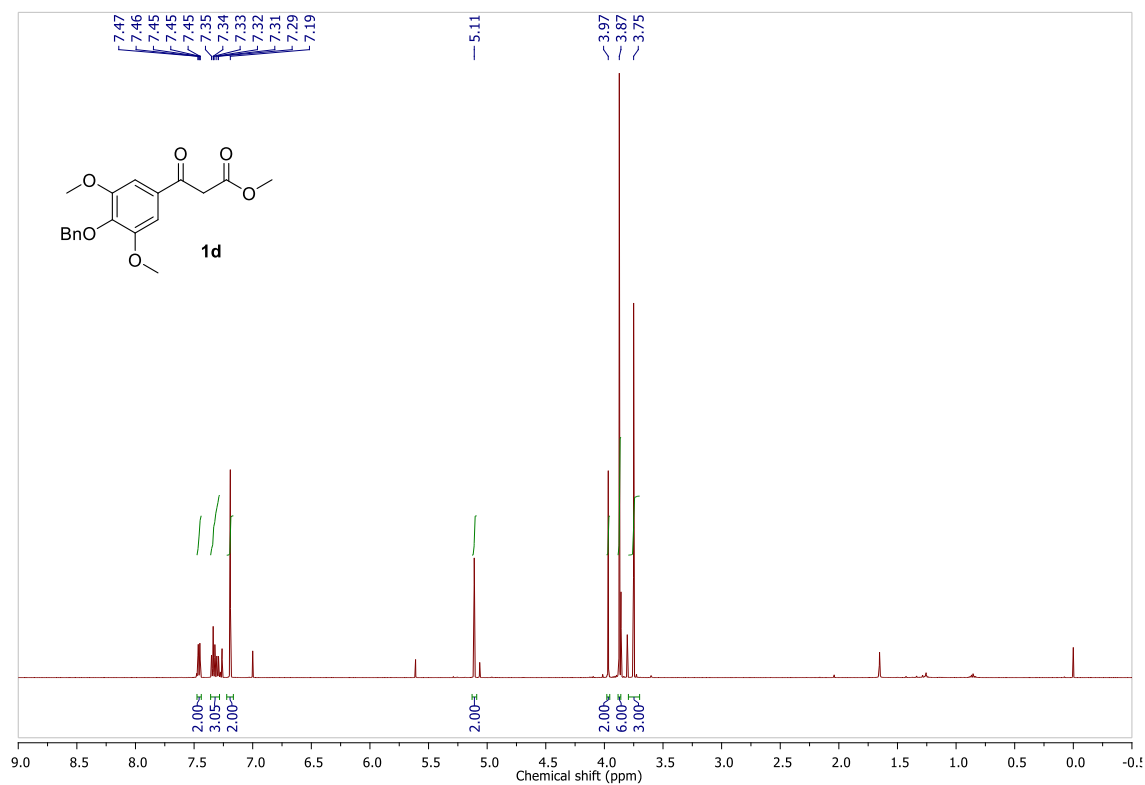
¹H NMR (500 MHz, CDCl₃) methyl 3-(4-(benzyloxy)-3-methoxyphenyl)-3-oxopropanoate 1c



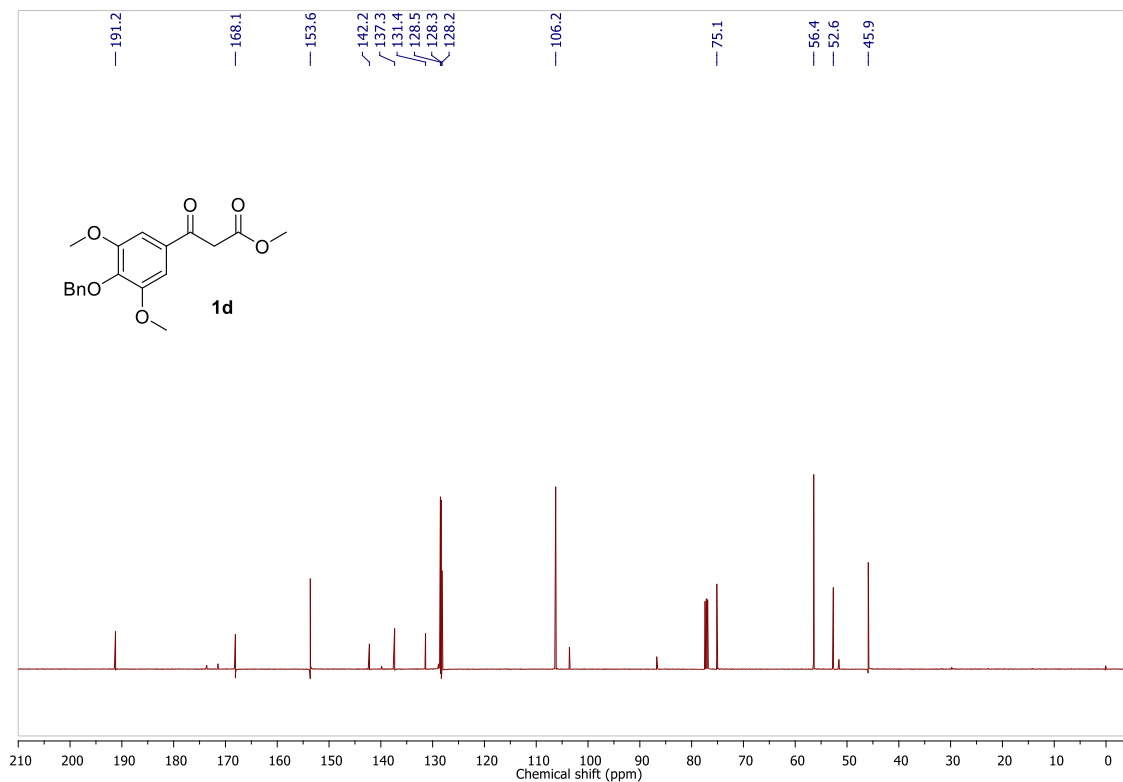
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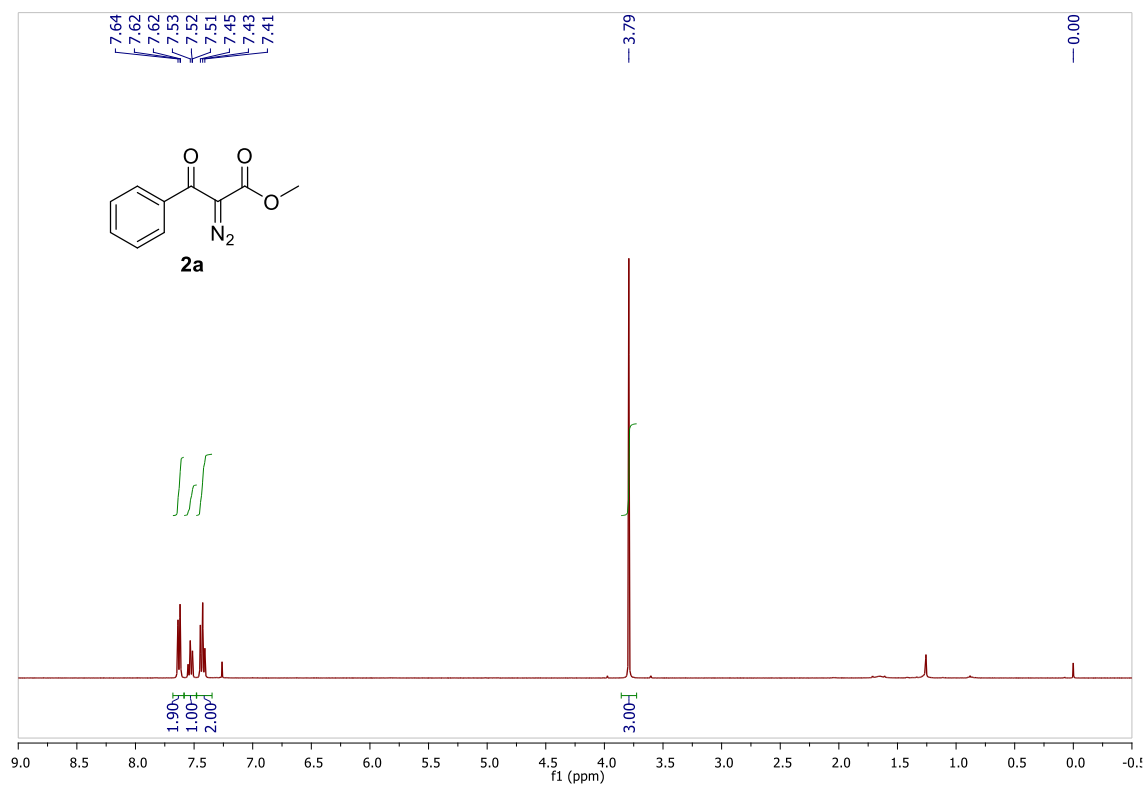
¹H NMR (500 MHz, CDCl₃) methyl 3-(4-(benzyloxy)-3,5-dimethoxyphenyl)-3-oxopropanoate **1d**



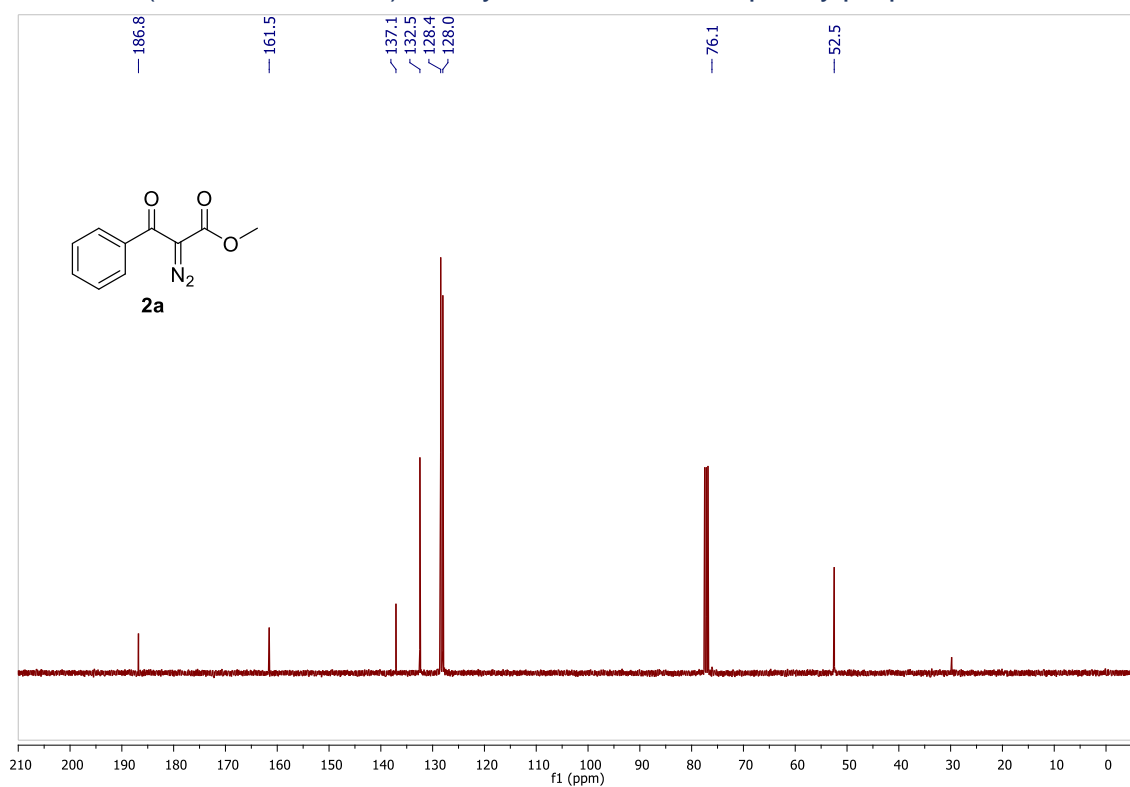
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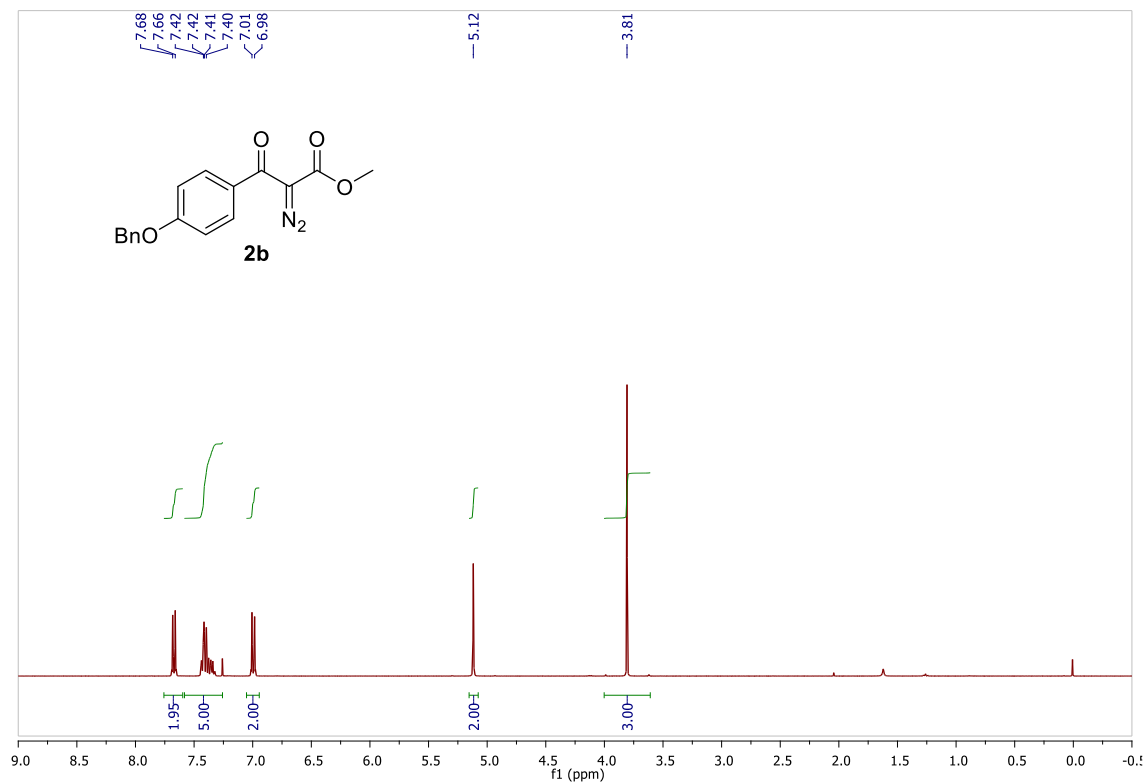
¹H NMR (500 MHz, CDCl₃) methyl 2-diazo-3-oxo-3-phenylpropanoate **2a**



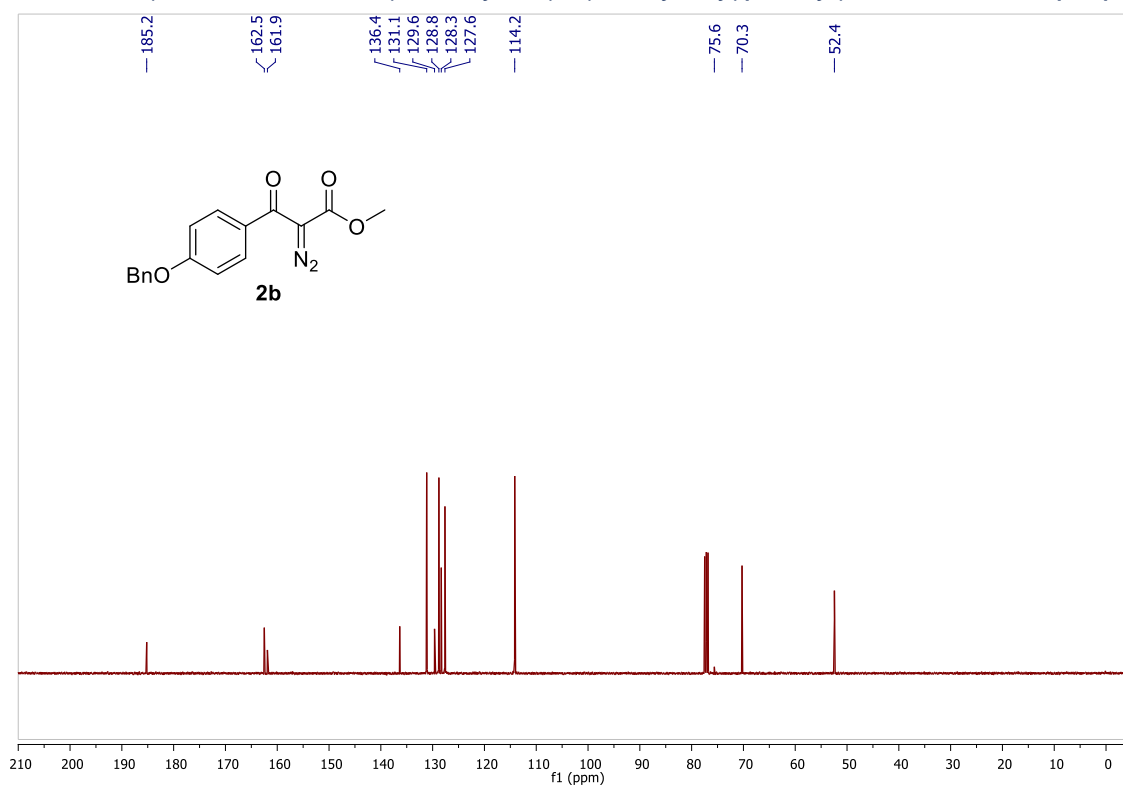
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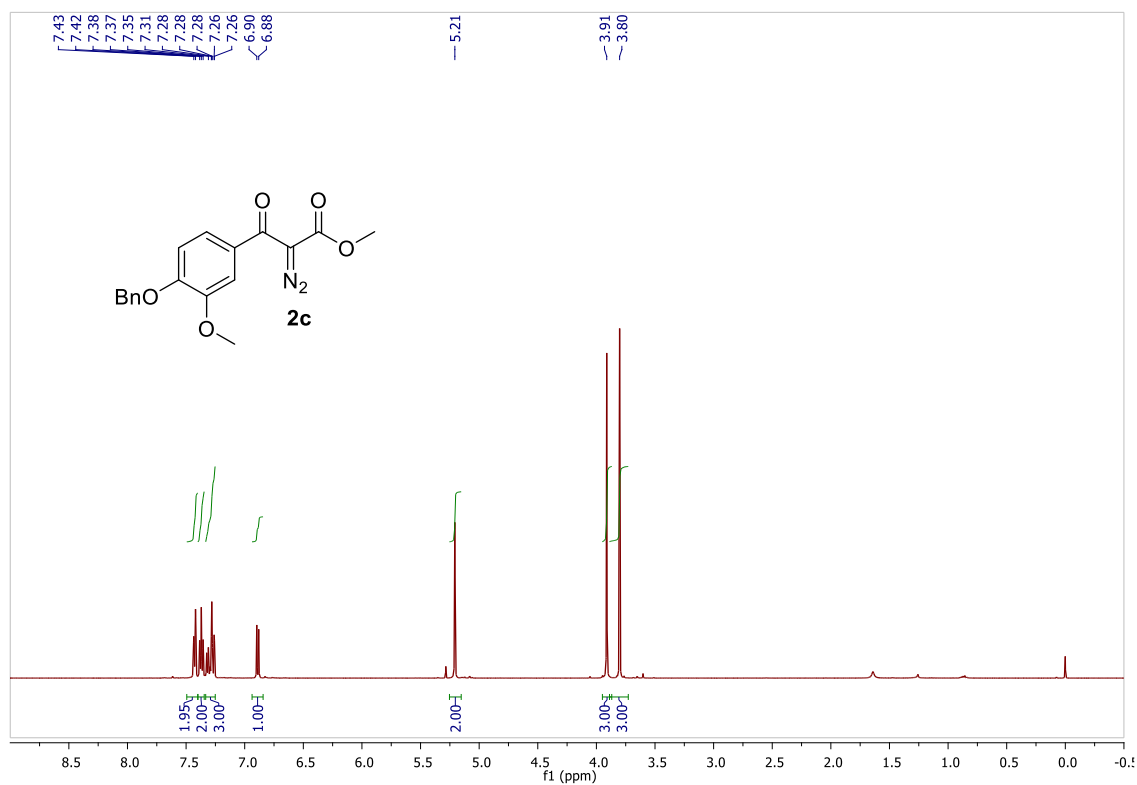
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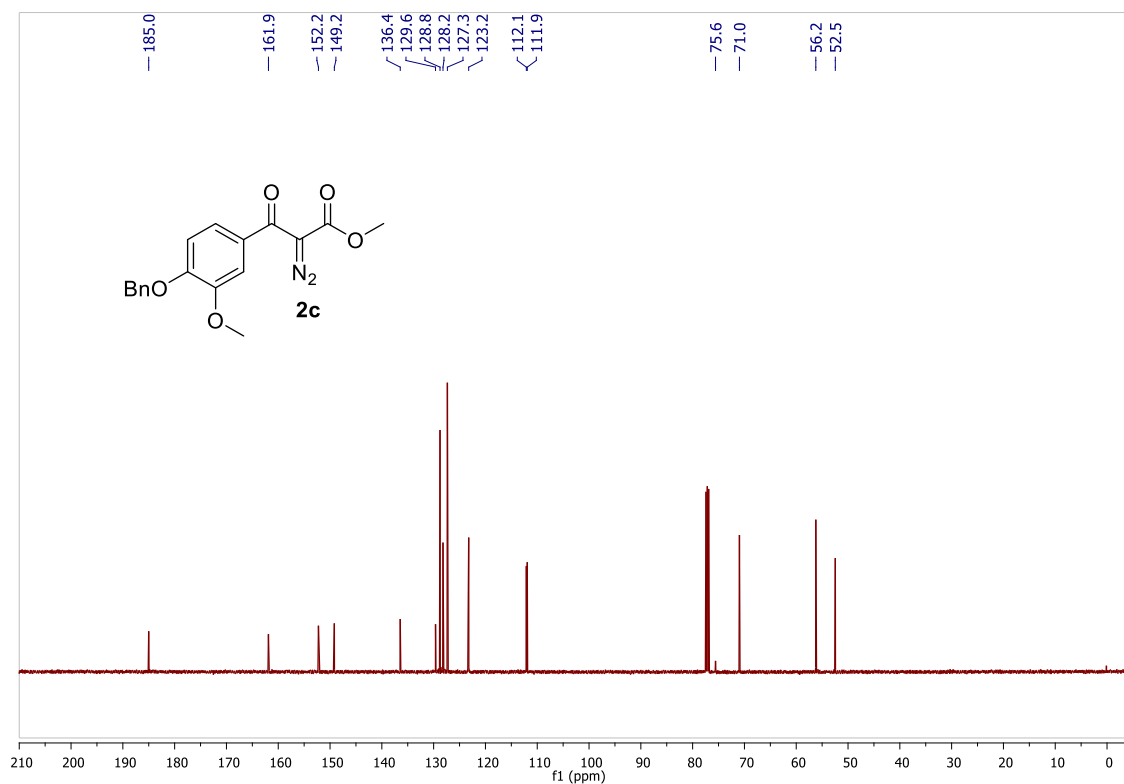
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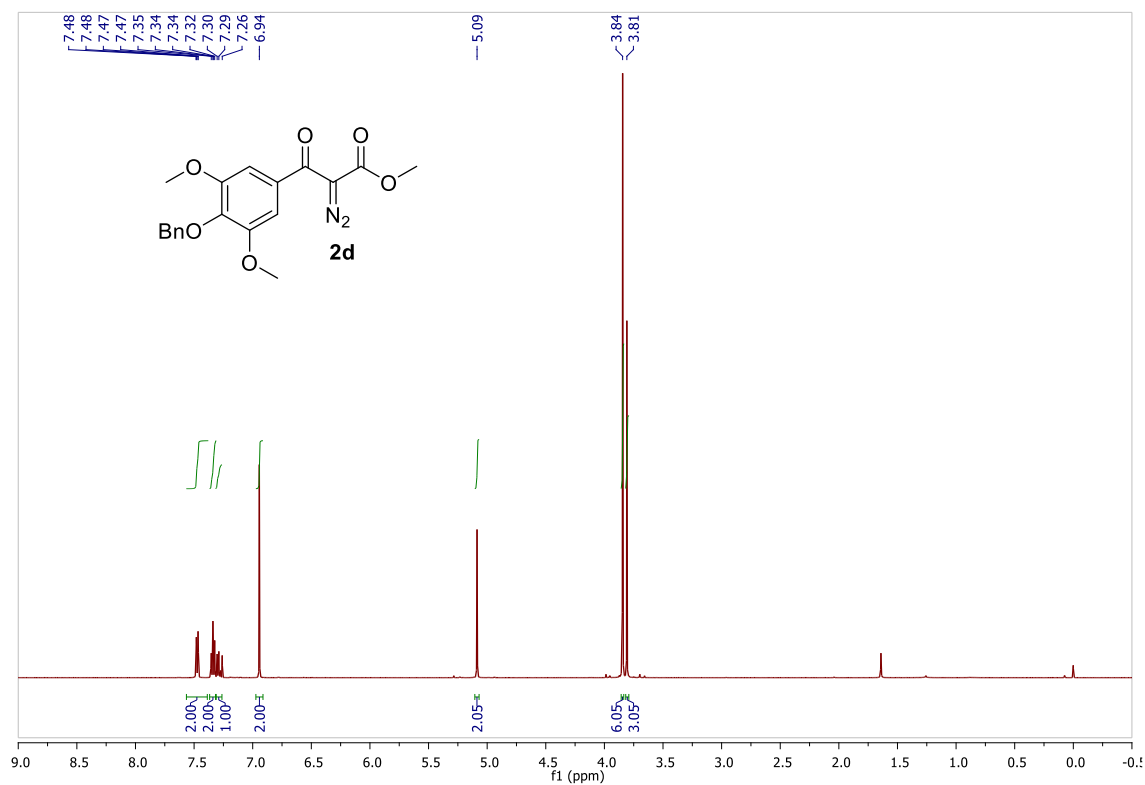
¹H NMR (500 MHz, CDCl₃) methyl 3-(4-(benzyloxy)-3-methoxyphenyl)-2-diazo-3-oxopropanoate **2c**



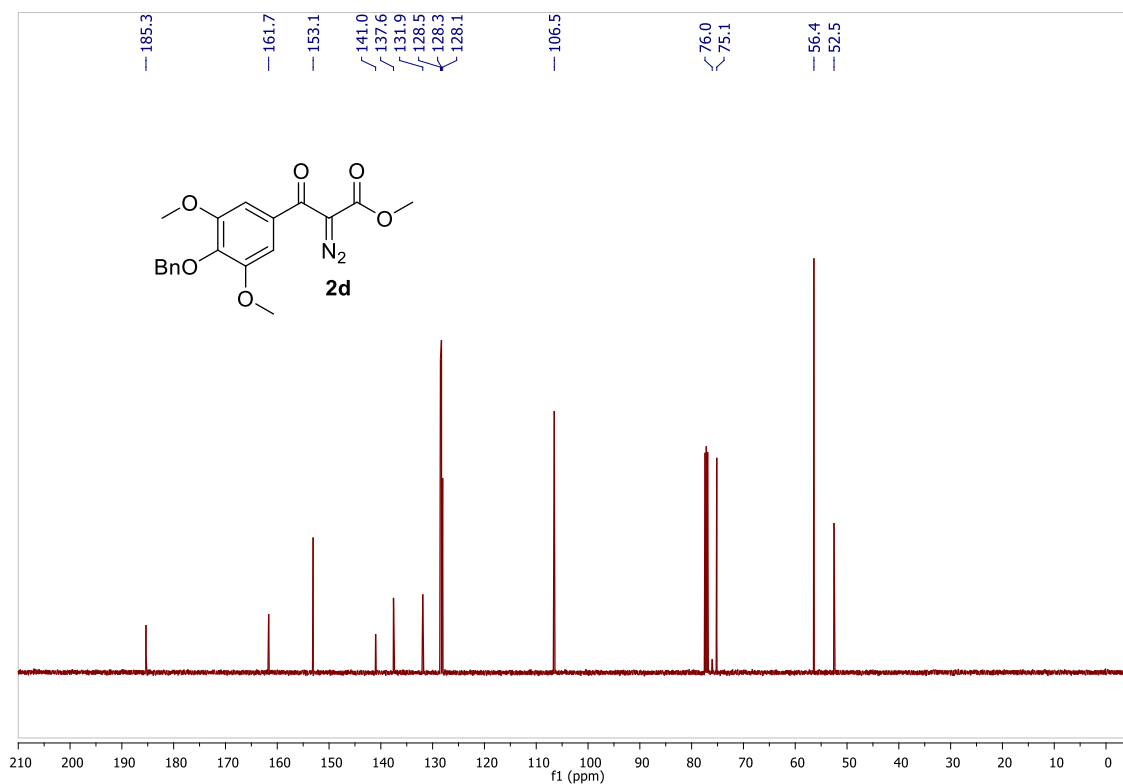
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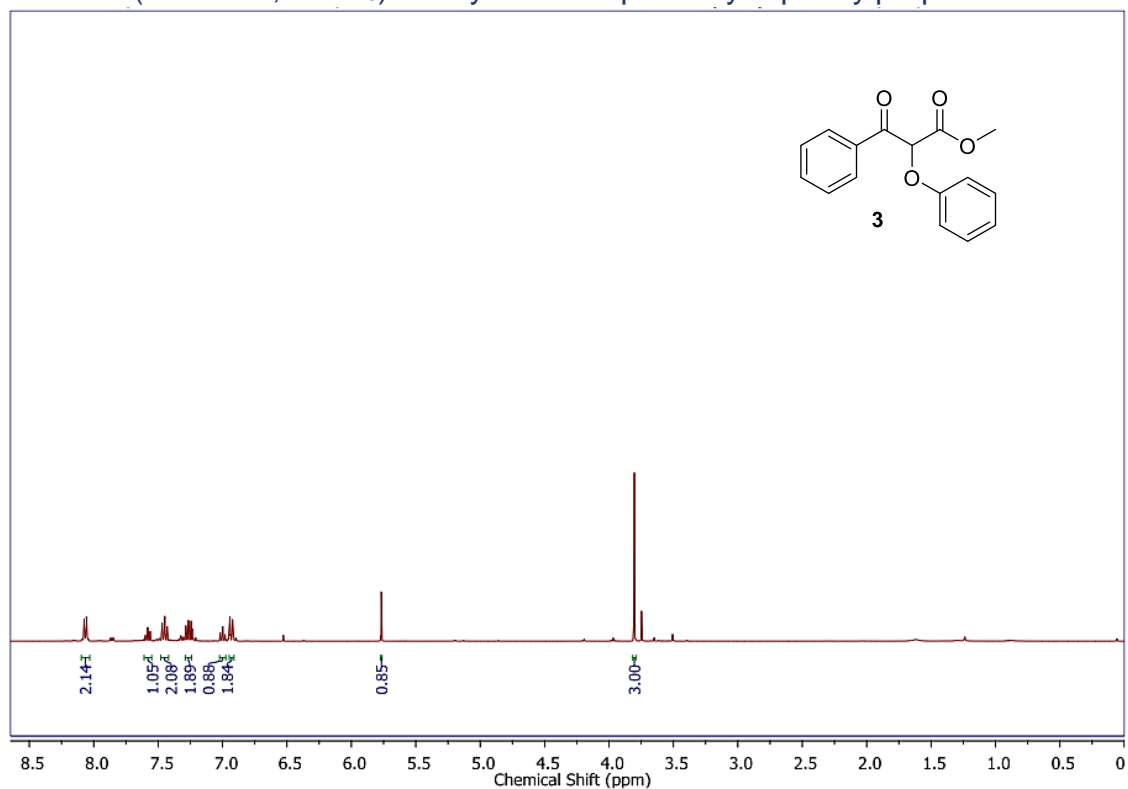
¹H NMR (500 MHz, CDCl₃) methyl 3-(4-(benzyloxy)-3,5-dimethoxyphenyl)-2-diazo-3-oxopropanoate **2d**



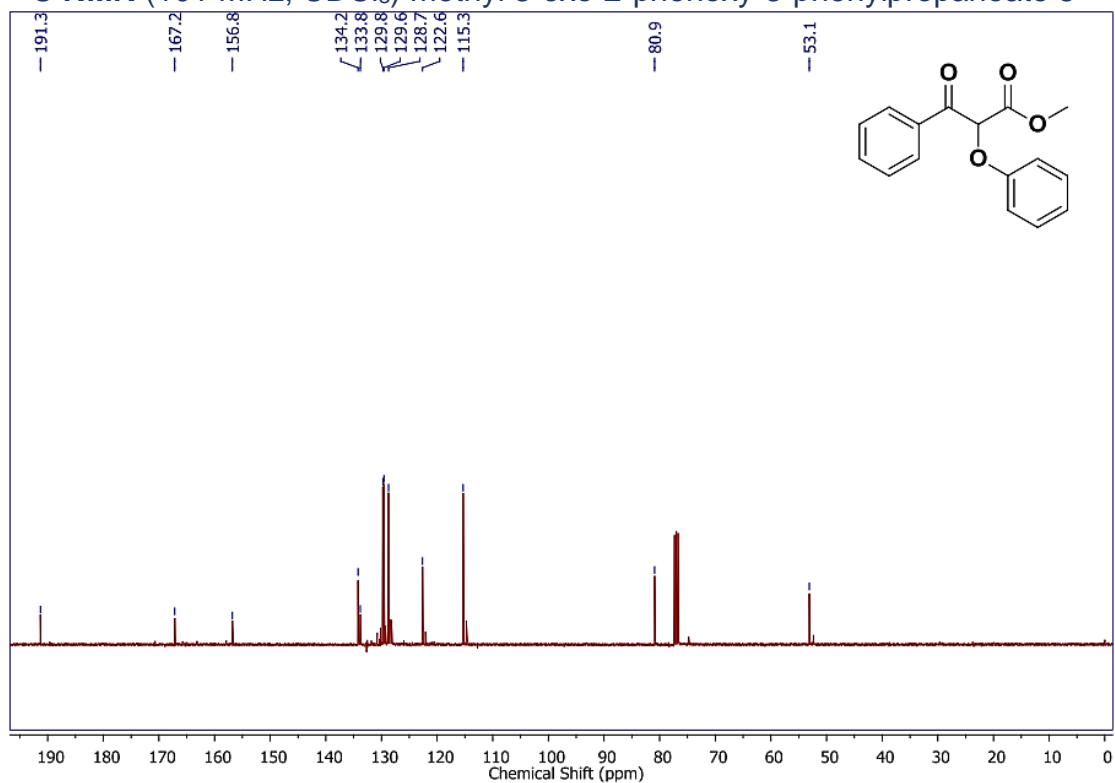
¹³C NMR (126 MHz, CDCl₃) methyl 3-(4-(benzyloxy)-3,5-dimethoxyphenyl)-2-diazo-3-oxopropanoate **2d**



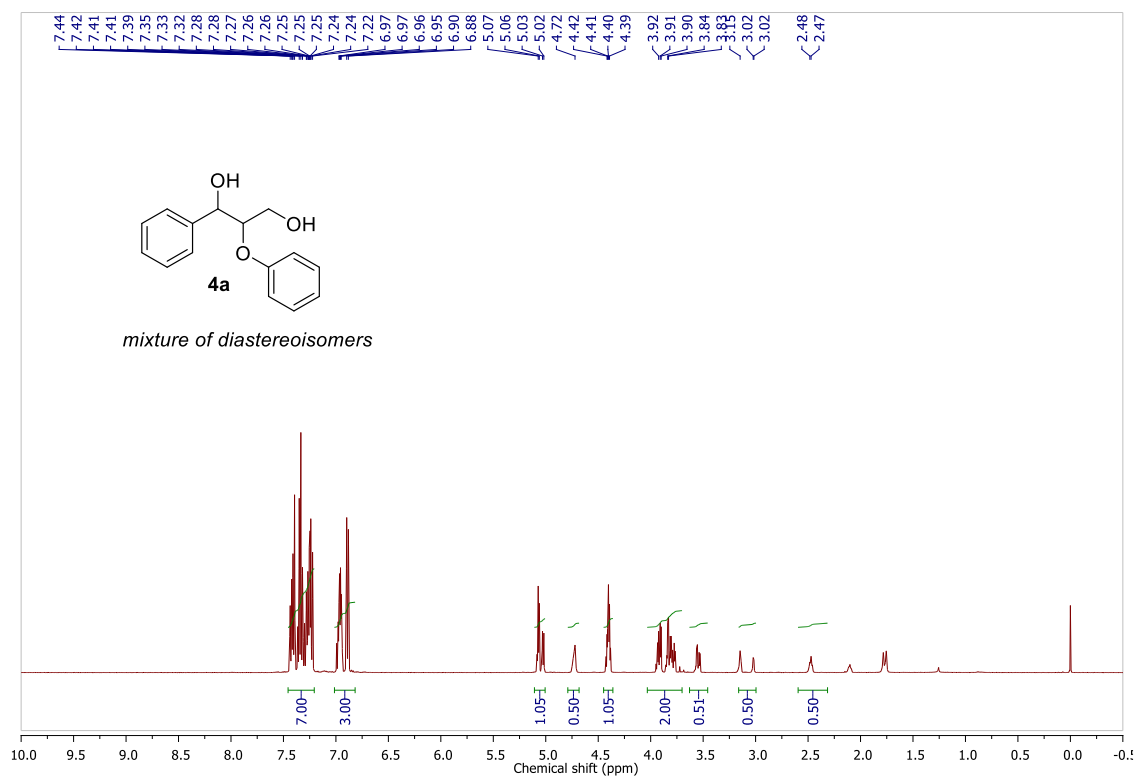
¹H NMR (400 MHz, CDCl₃) methyl 3-oxo-2-phenoxy-3-phenylpropanoate **3**



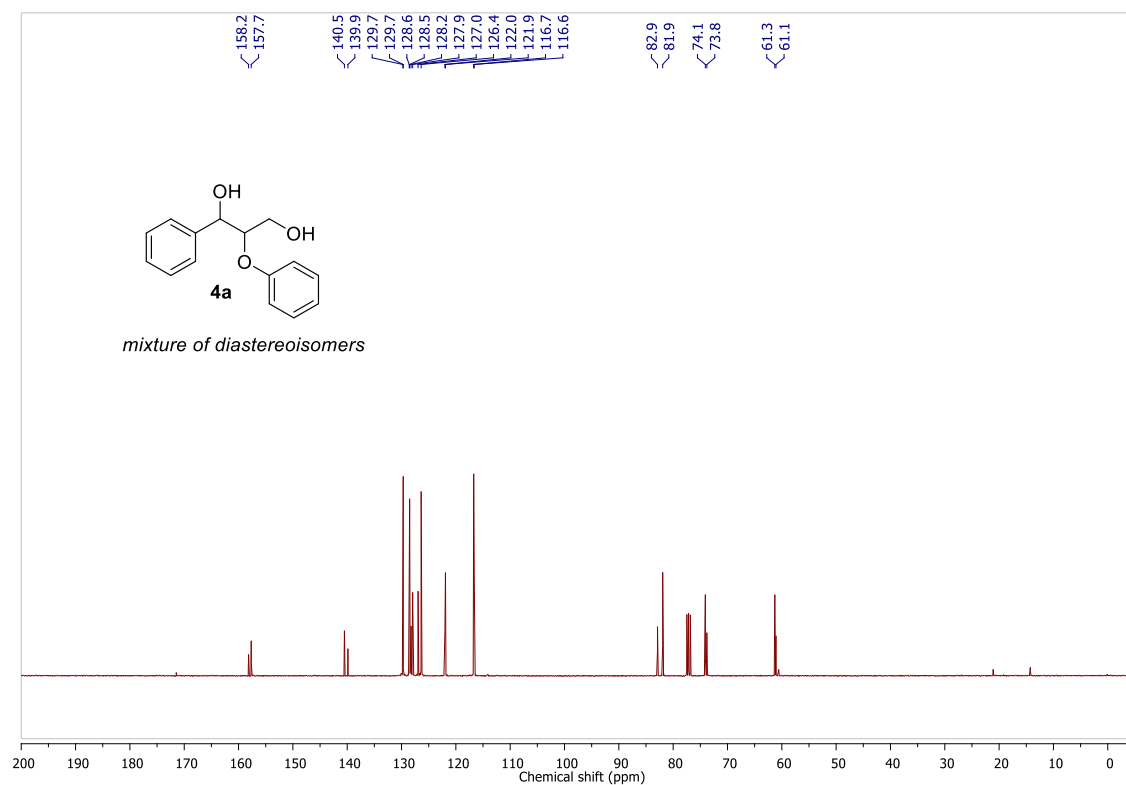
¹³C NMR (101 MHz, CDCl₃) methyl 3-oxo-2-phenoxy-3-phenylpropanoate **3**



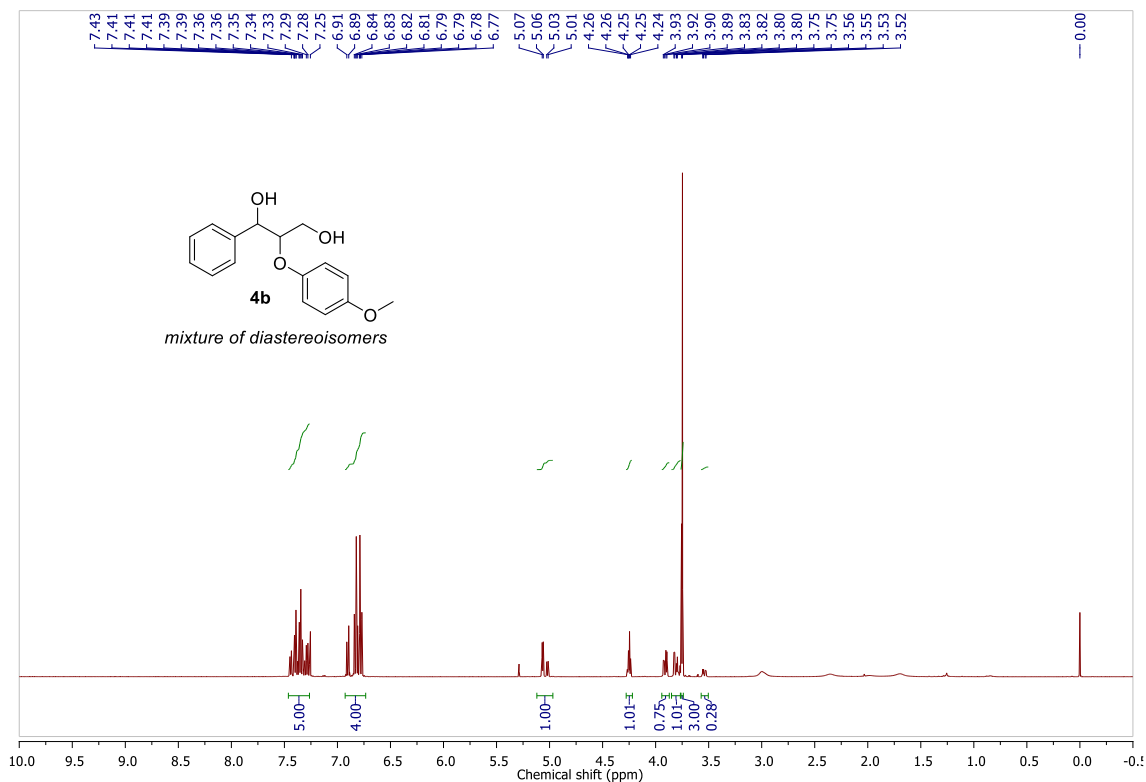
¹H NMR (500 MHz, CDCl₃) 2-phenoxy-1-phenylpropane-1,3-diol **4a**



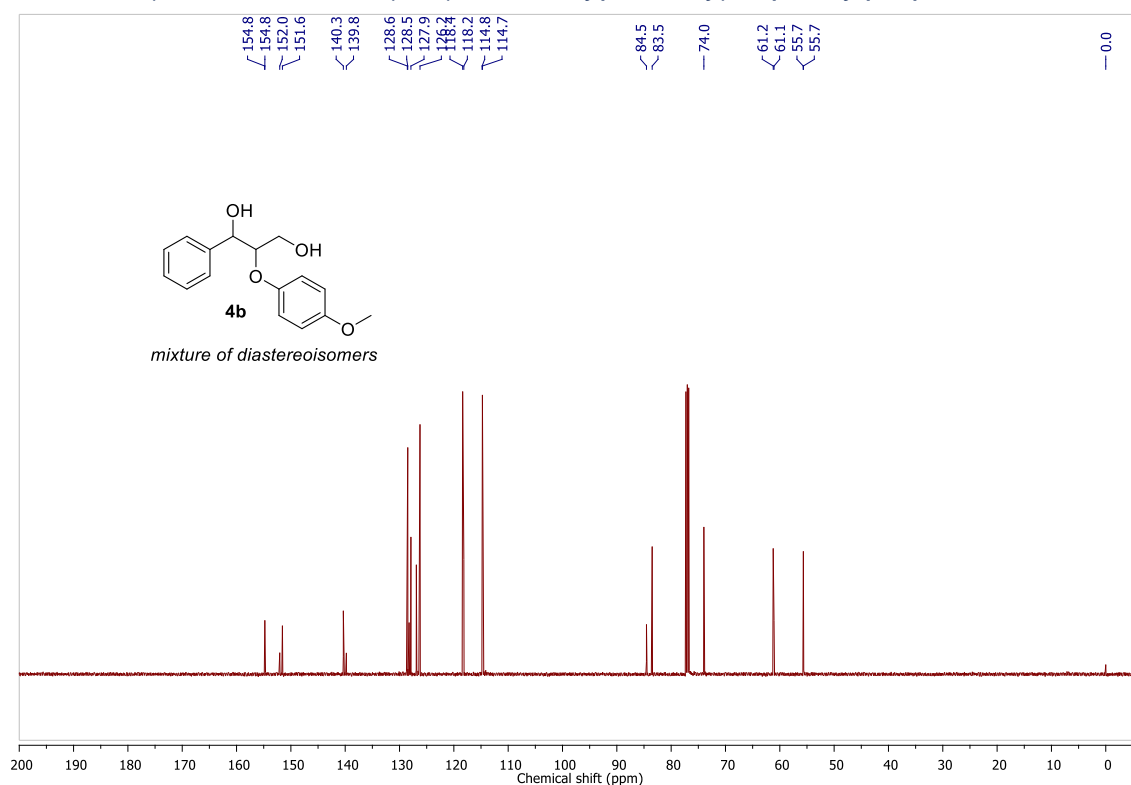
¹³C NMR (126 MHz, CDCl₃) 2-phenoxy-1-phenylpropane-1,3-diol **4a**



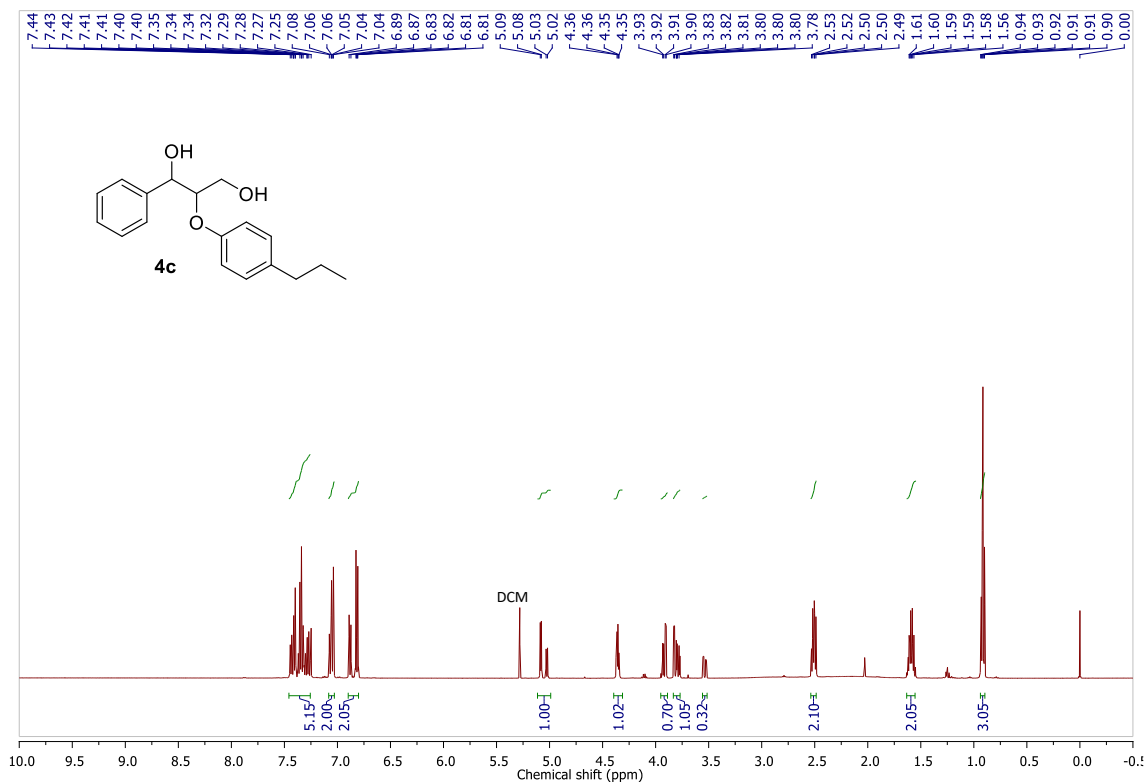
¹H NMR (500 MHz, CDCl₃) 2-(4-methoxyphenoxy)-1-phenylpropane-1,3-diol **4b**



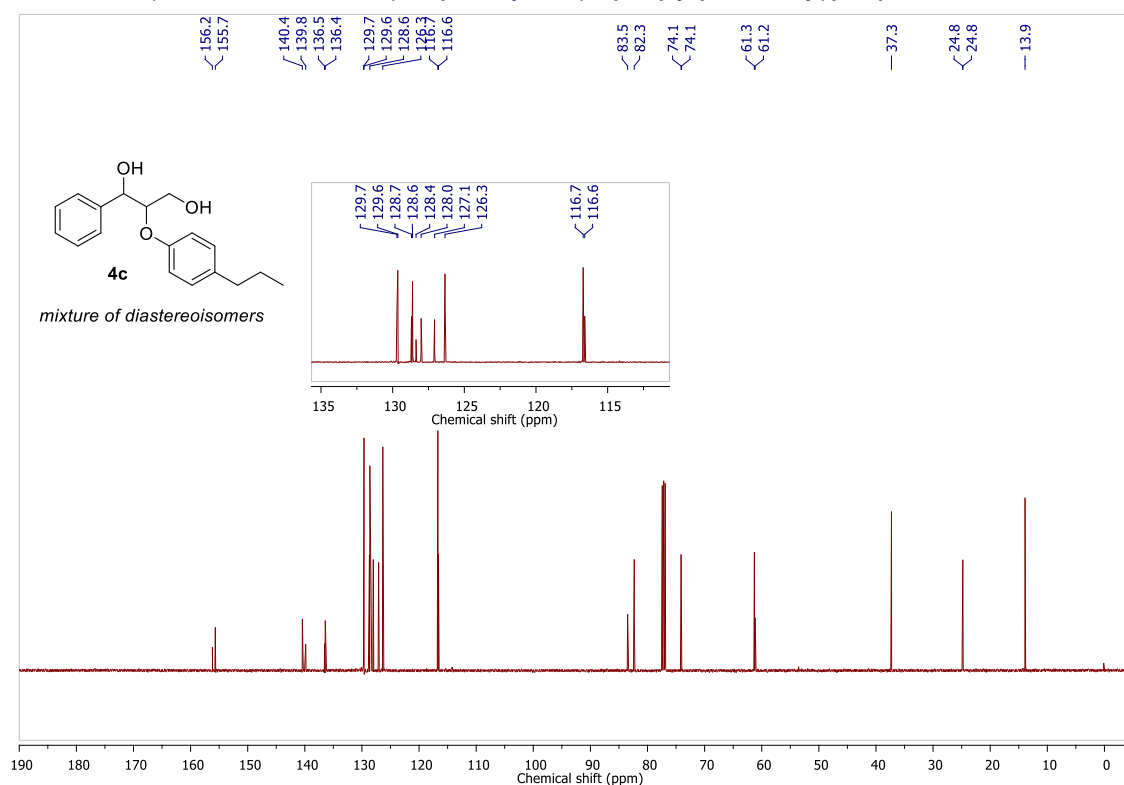
¹³C NMR (126 MHz, CDCl₃) 2-(4-methoxyphenoxy)-1-phenylpropane-1,3-diol **4b**



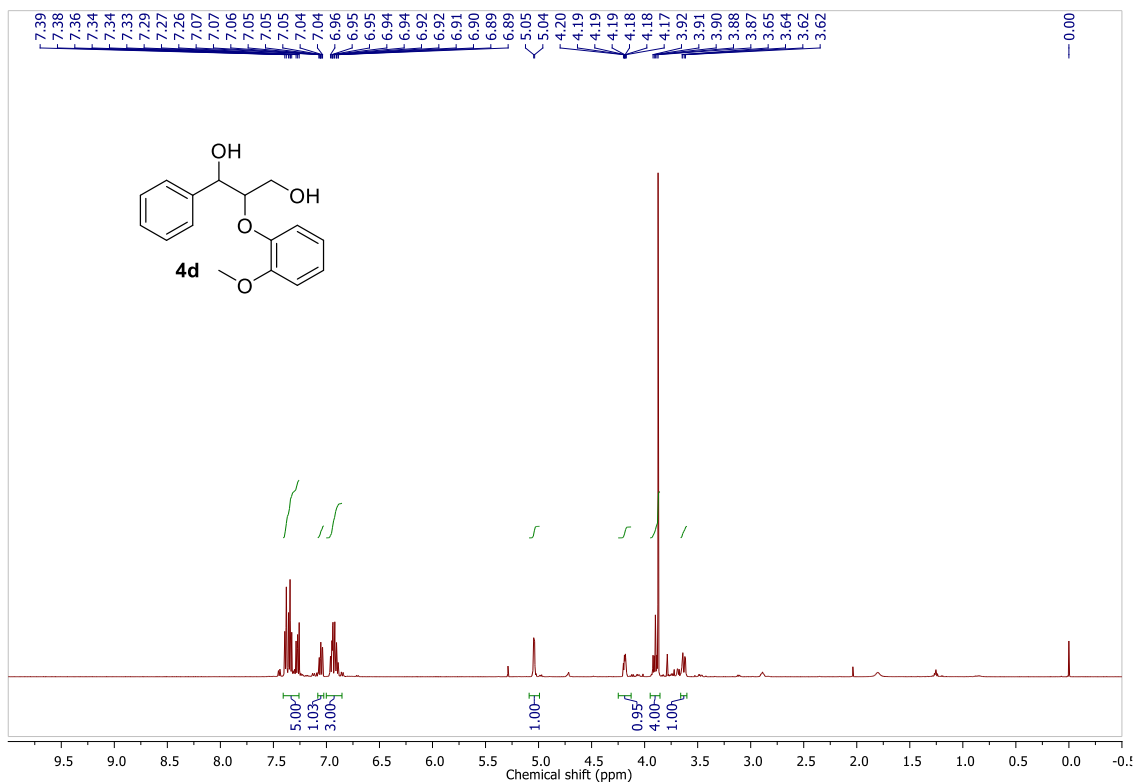
¹H NMR (500 MHz, CDCl₃) 1-phenyl-2-(4-propylphenoxy)propane-1,3-diol **4c**



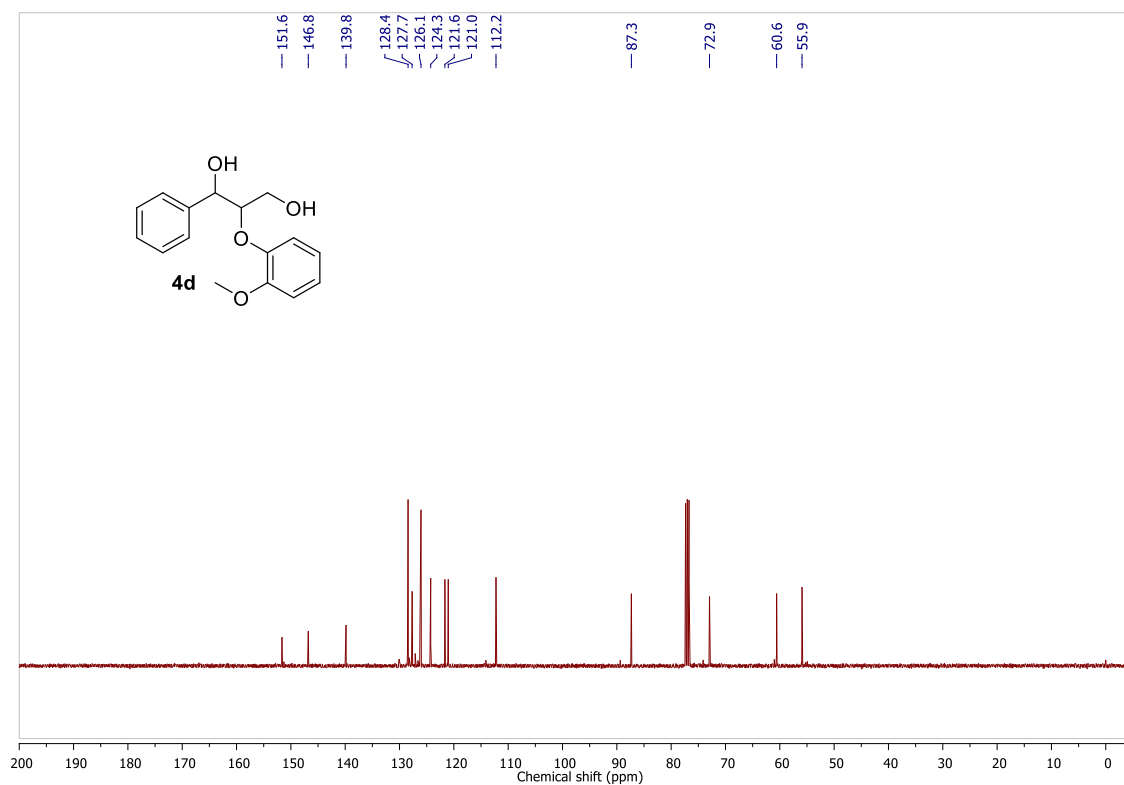
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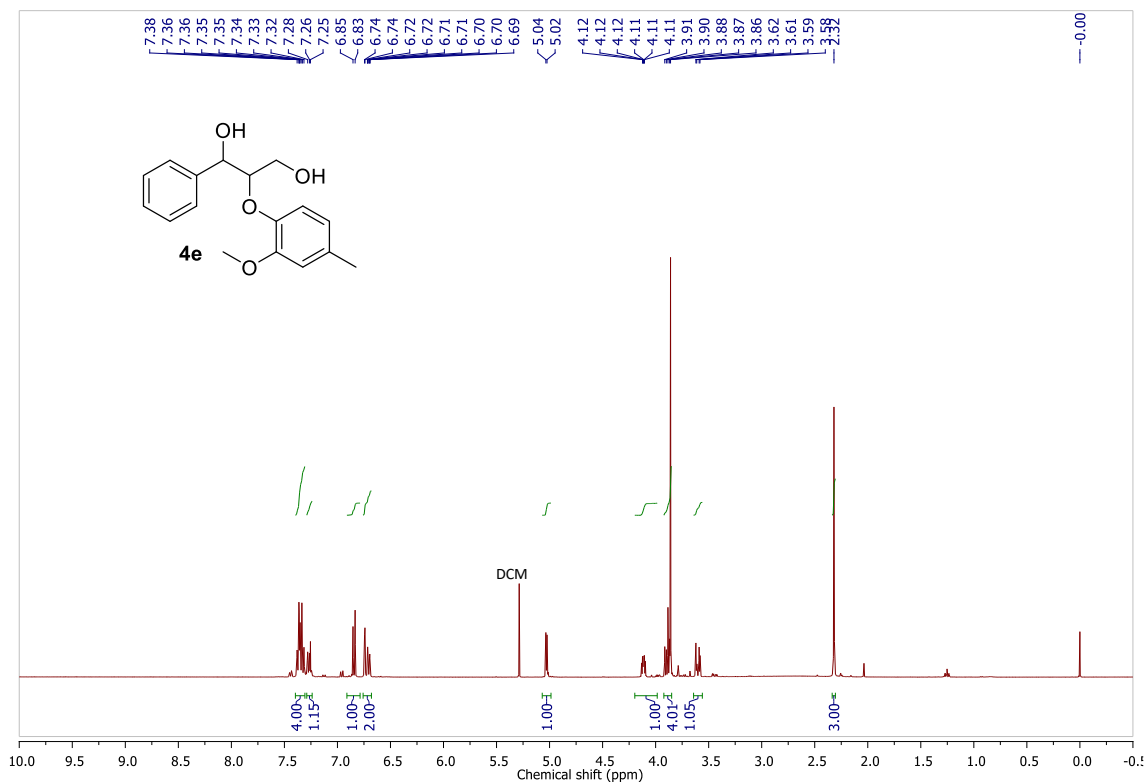
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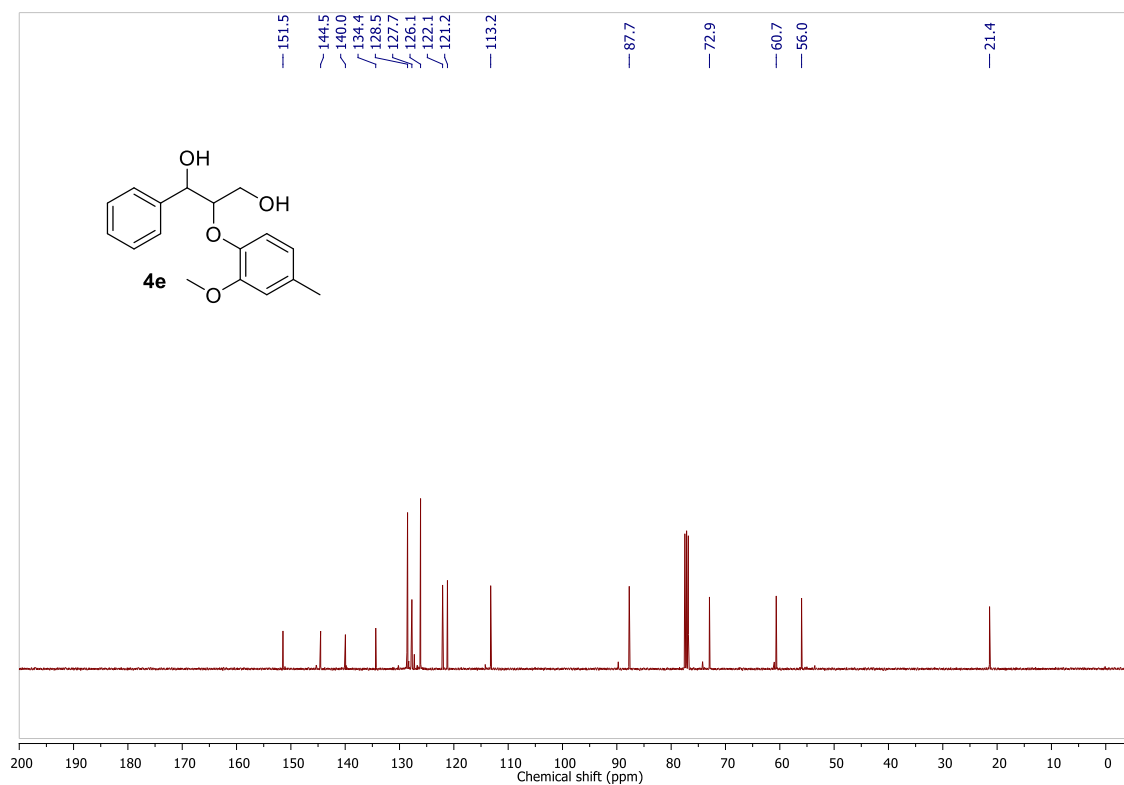
¹³C NMR (126 MHz, CDCl₃) 2-(2-methoxyphenoxy)-1-phenylpropane-1,3-diol **4d**



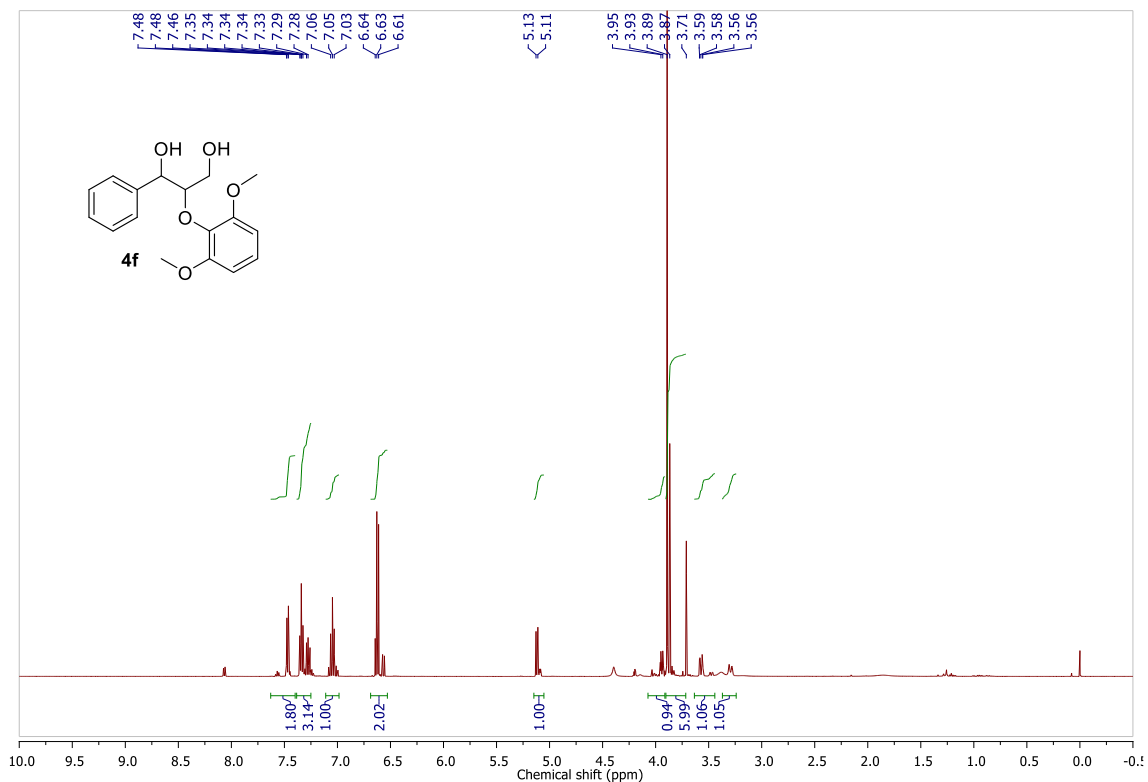
¹H NMR (500 MHz, CDCl₃) 2-(2-methoxy-4-methylphenoxy)-1-phenylpropane-1,3-diol **4e**



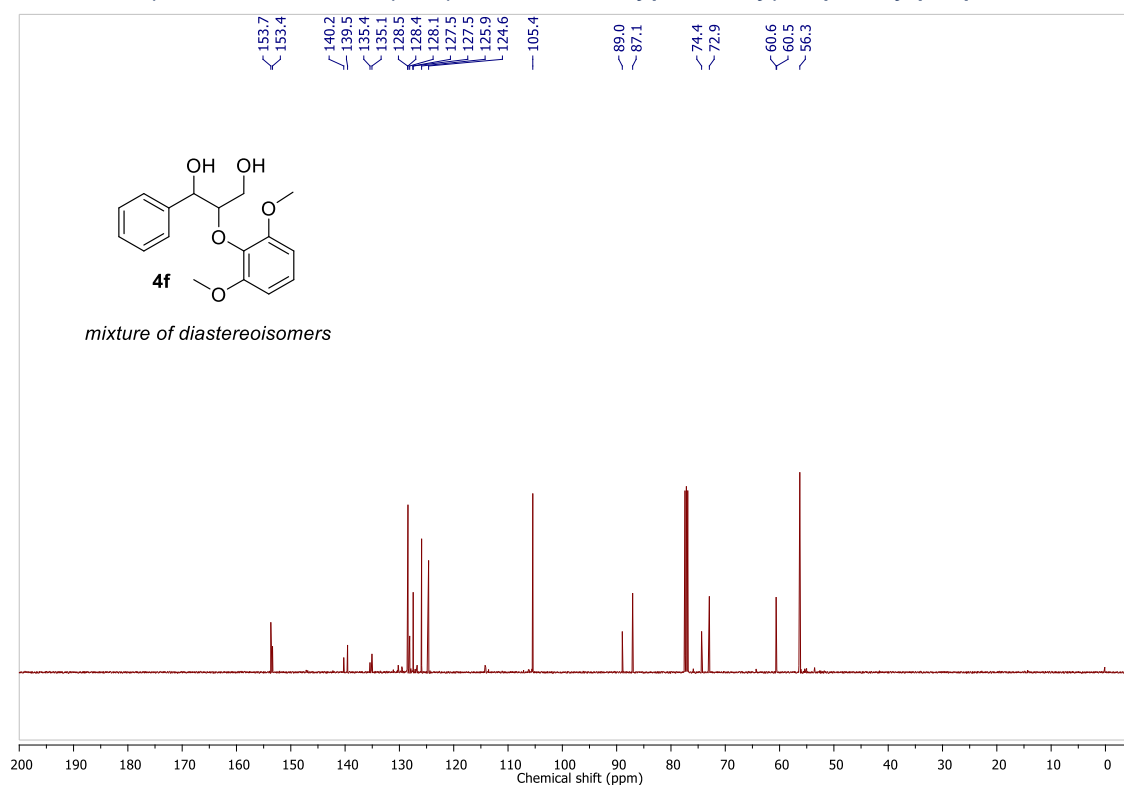
¹³C NMR (126 MHz, CDCl₃) 2-(2-methoxy-4-methylphenoxy)-1-phenylpropane-1,3-diol **4e**



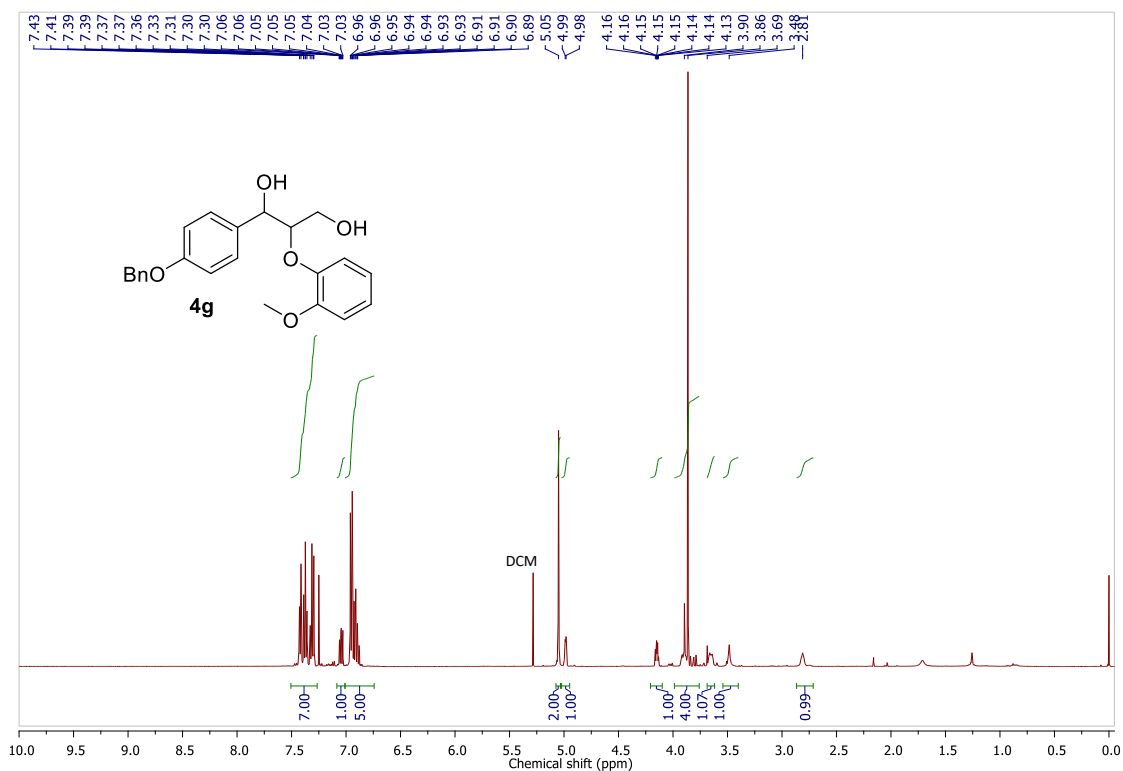
¹H NMR (500 MHz, CDCl₃) 2-(2,6-dimethoxyphenoxy)-1-phenylpropane-1,3-diol **4f**



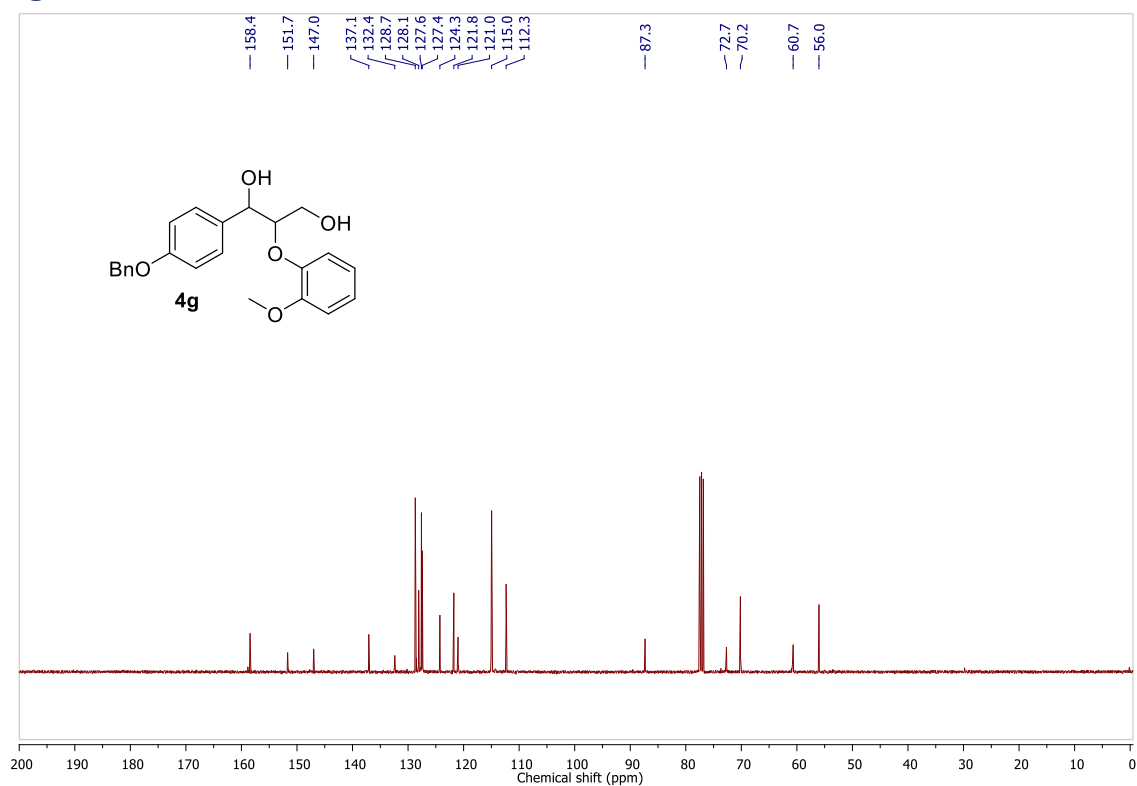
¹³C NMR (126 MHz, CDCl₃) 2-(2,6-dimethoxyphenoxy)-1-phenylpropane-1,3-diol **4f**



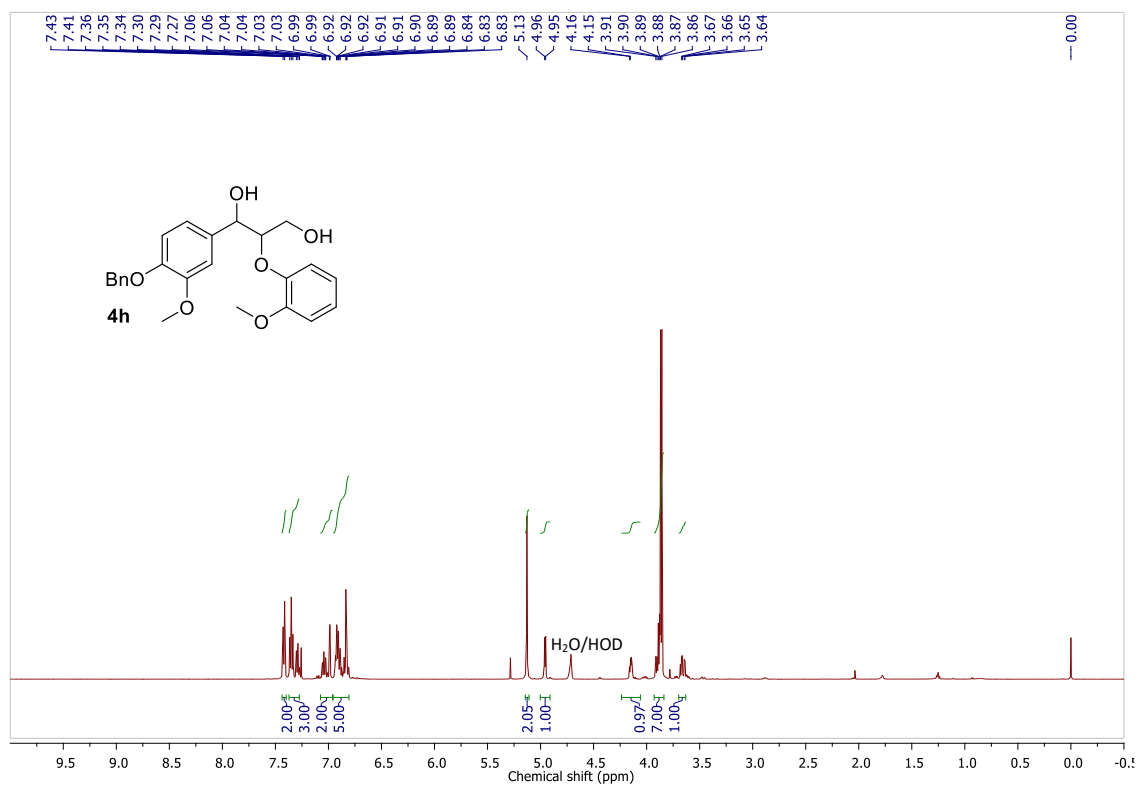
¹H NMR (500 MHz, CDCl₃) 1-(4-(benzyloxy)phenyl)-2-(2-methoxyphenoxy)propane-1,3-diol
4g



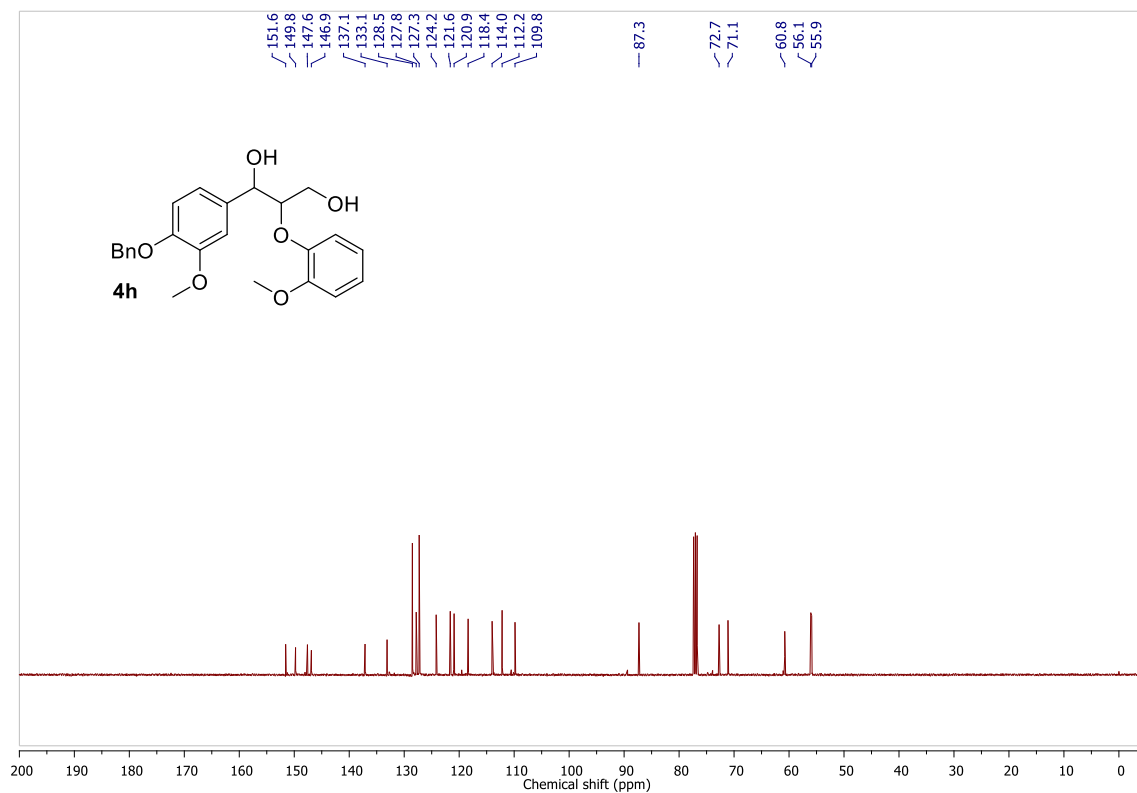
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4g



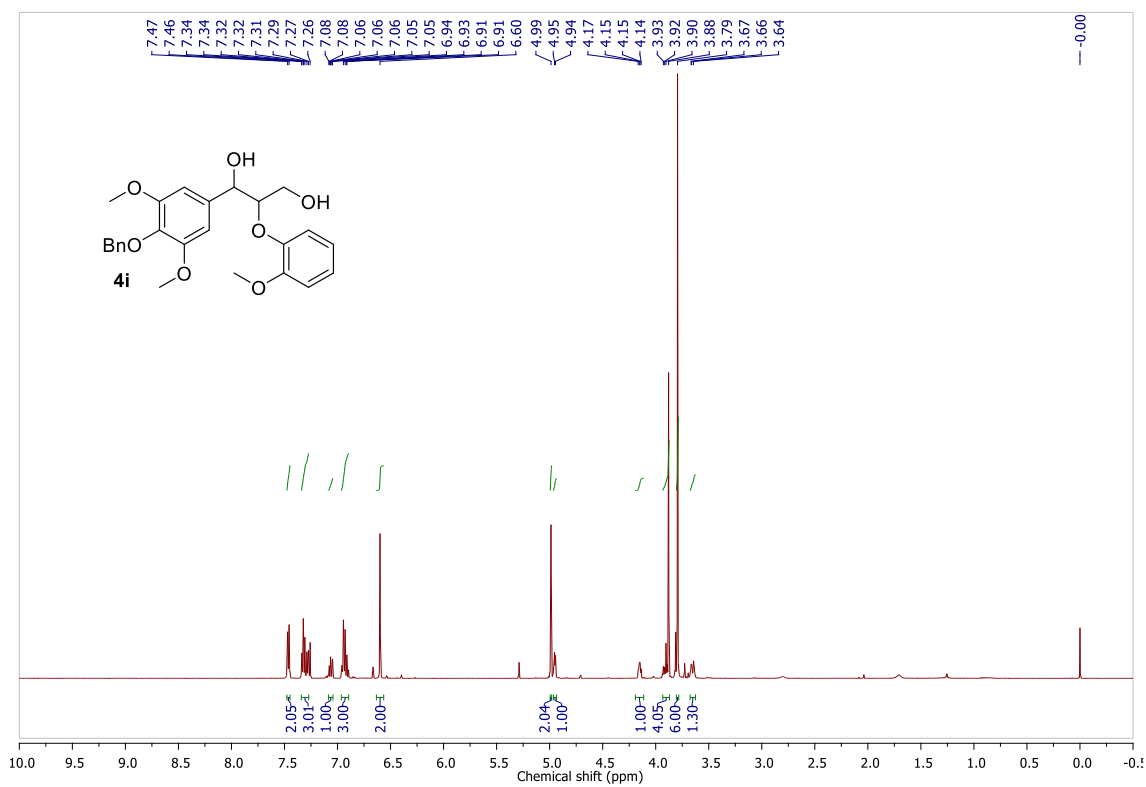
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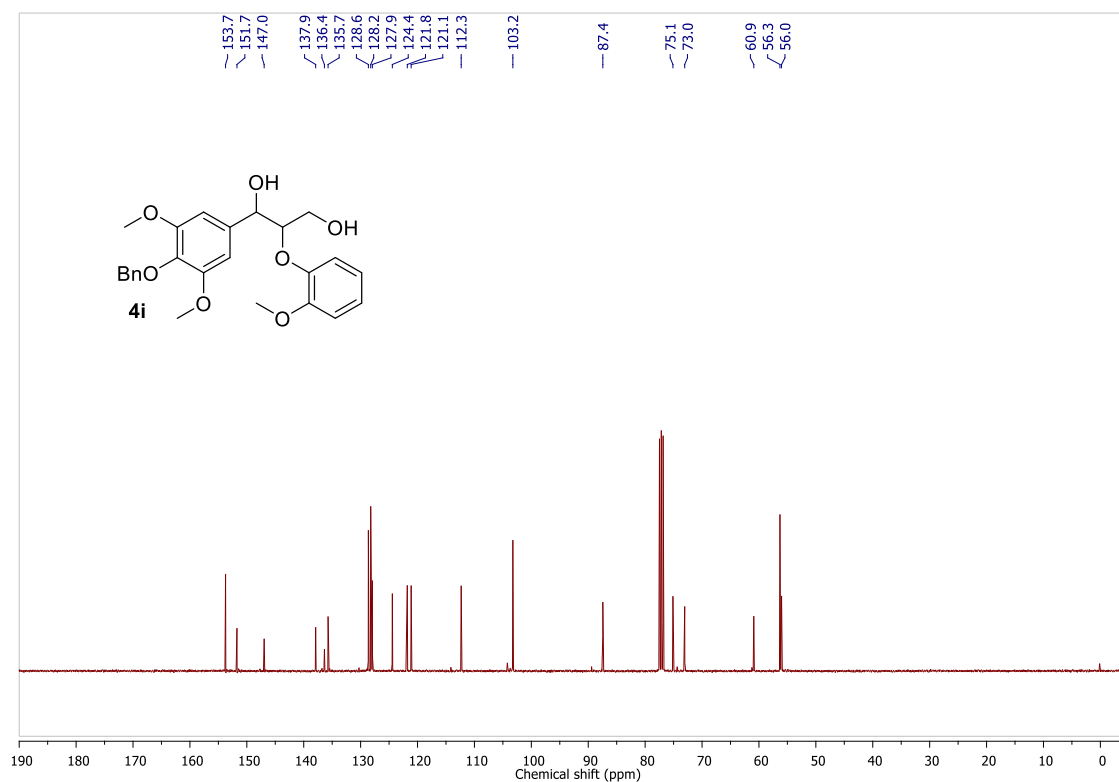
¹³C NMR (126 MHz, CDCl₃) 1-(4-(benzyloxy)-3-methoxyphenyl)-2-(2-methoxyphenoxy)propane-1,3-diol **4h**



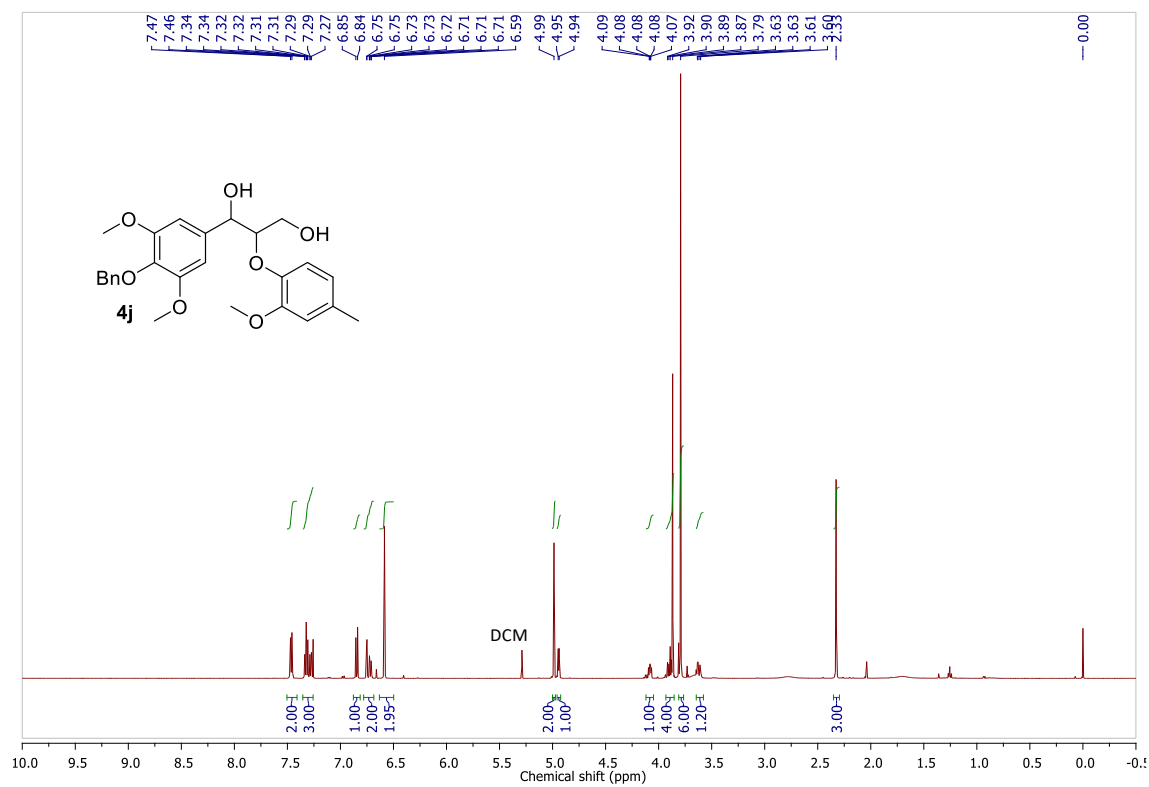
¹H NMR (500 MHz, CDCl₃) 1-(4-(benzyloxy)-3,5-dimethoxyphenyl)-2-(2-methoxyphenoxy)propane-1,3-diol **4i**



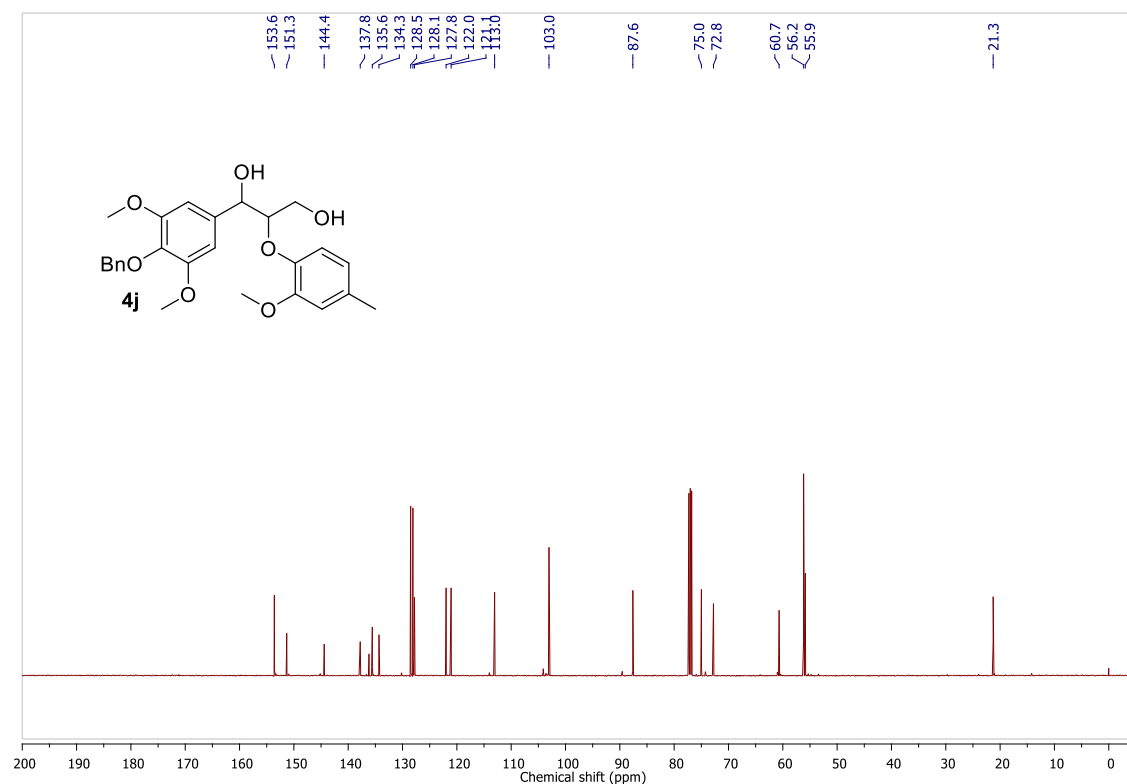
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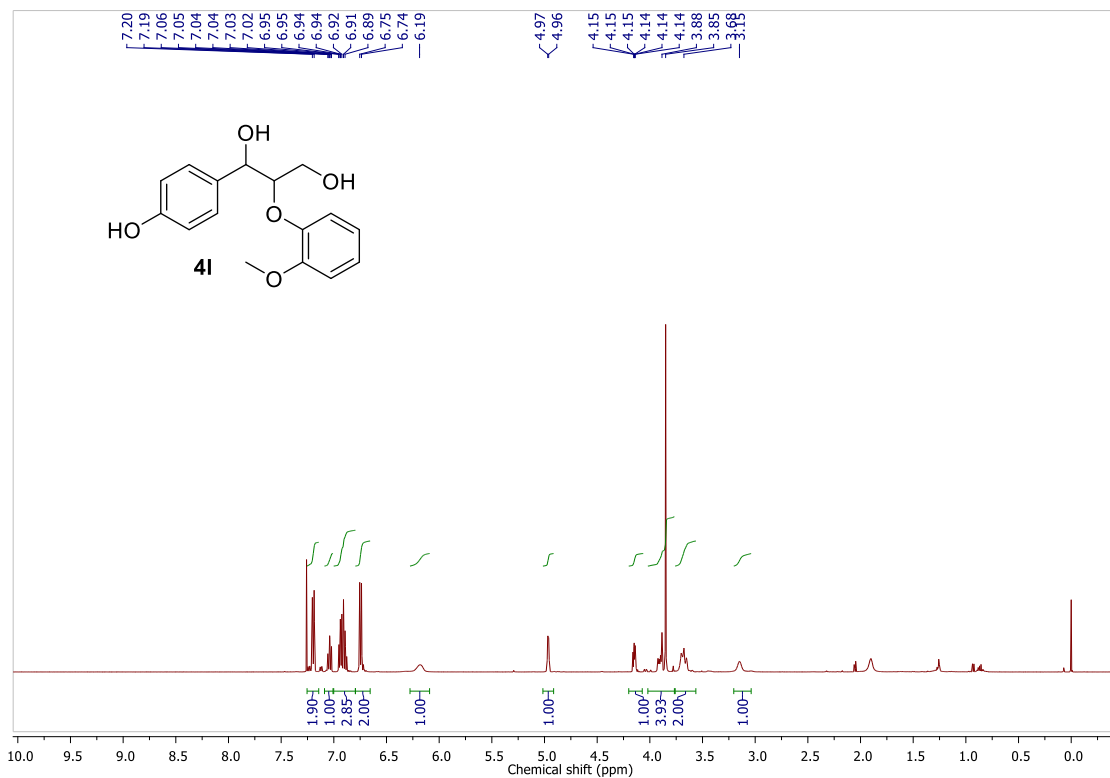
¹H NMR (500 MHz, CDCl₃) 1-(4-(benzyloxy)-3,5-dimethoxyphenyl)-2-(2-methoxy-4-methylphenoxy)propane-1,3-diol **4j**



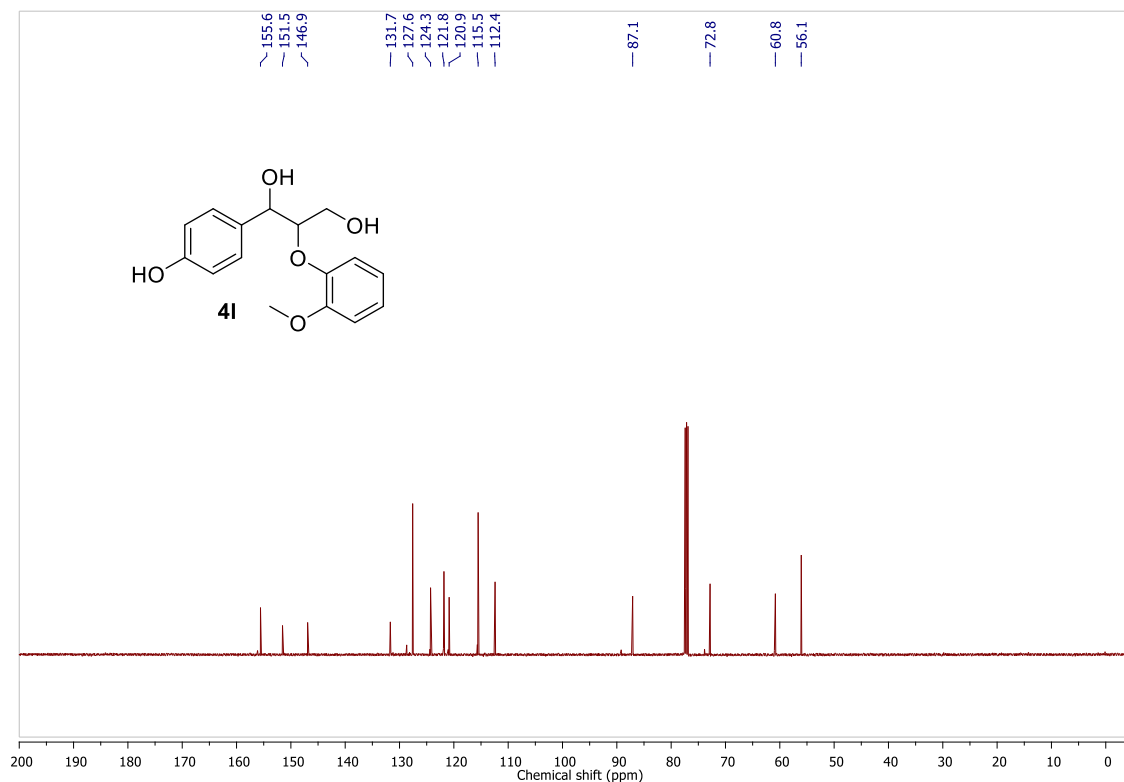
¹³C NMR (126 MHz, CDCl₃) 1-(4-(benzyloxy)-3,5-dimethoxyphenyl)-2-(2-methoxy-4-methylphenoxy)propane-1,3-diol **4j**



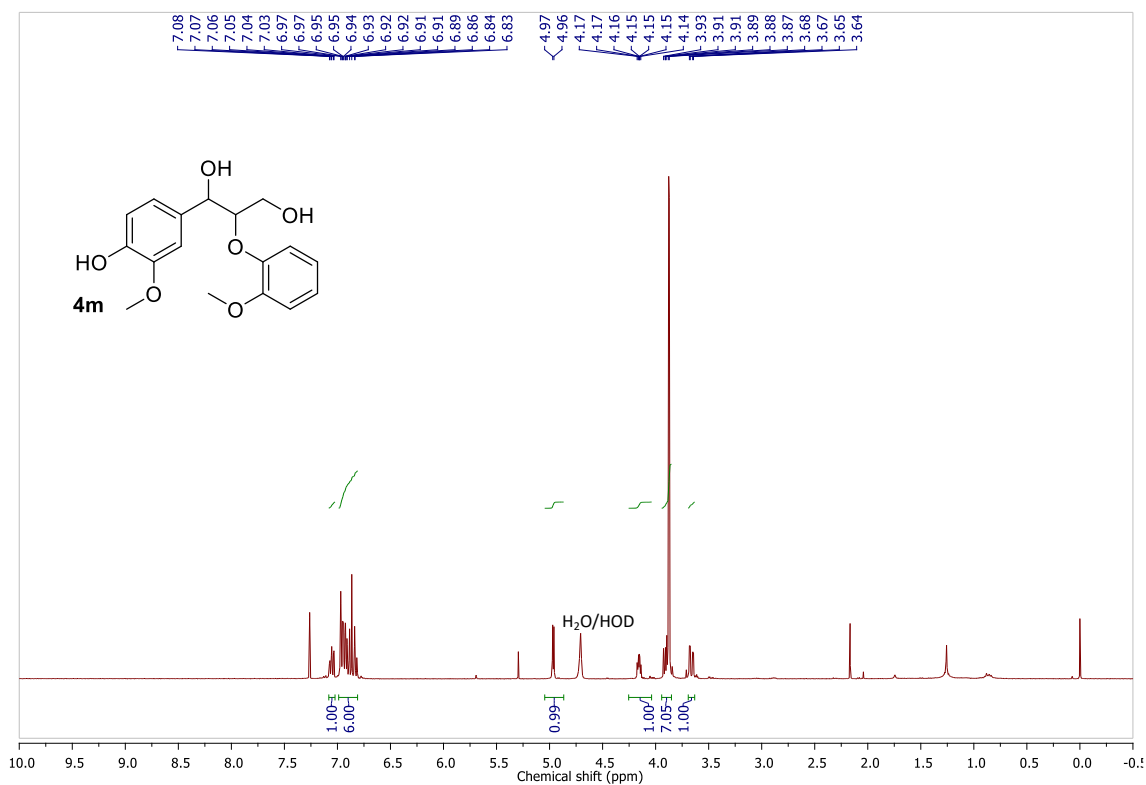
^1H NMR (500 MHz, CDCl_3) 1-(4-hydroxyphenyl)-2-(2-methoxyphenoxy)propane-1,3-diol **4I**



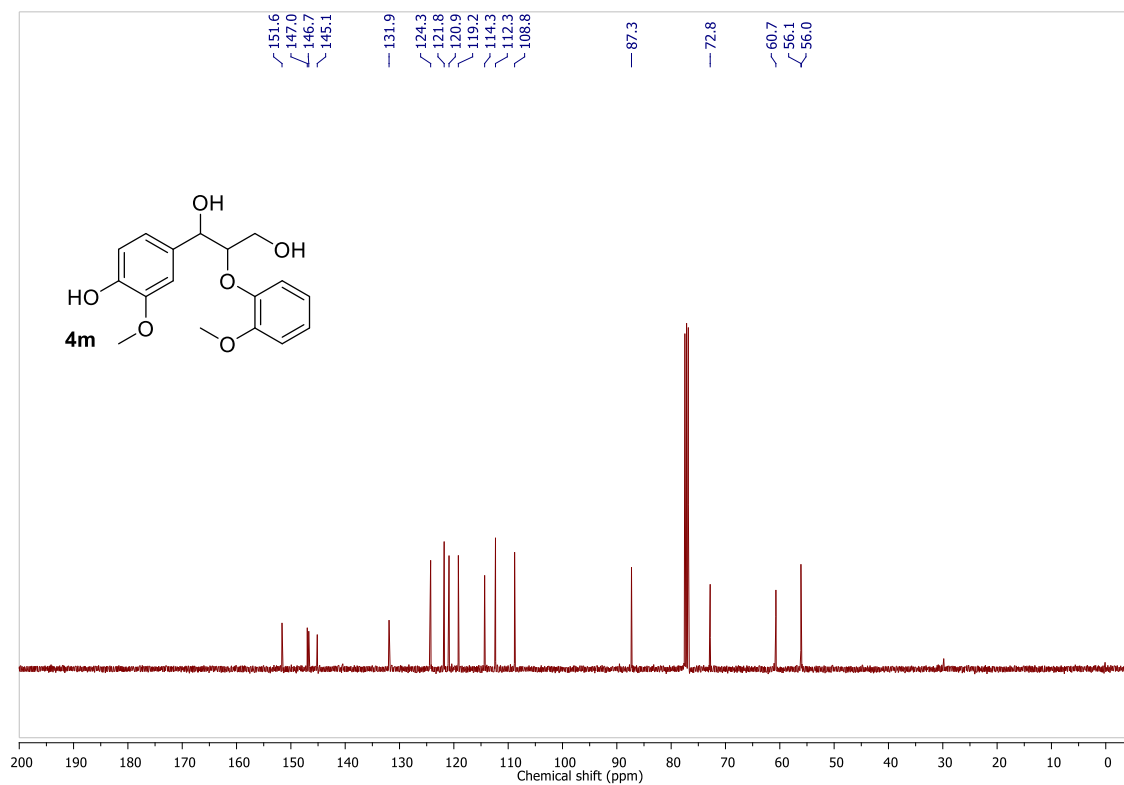
^{13}C NMR (126 MHz, CDCl_3) 1-(4-hydroxyphenyl)-2-(2-methoxyphenoxy)propane-1,3-diol **4I**



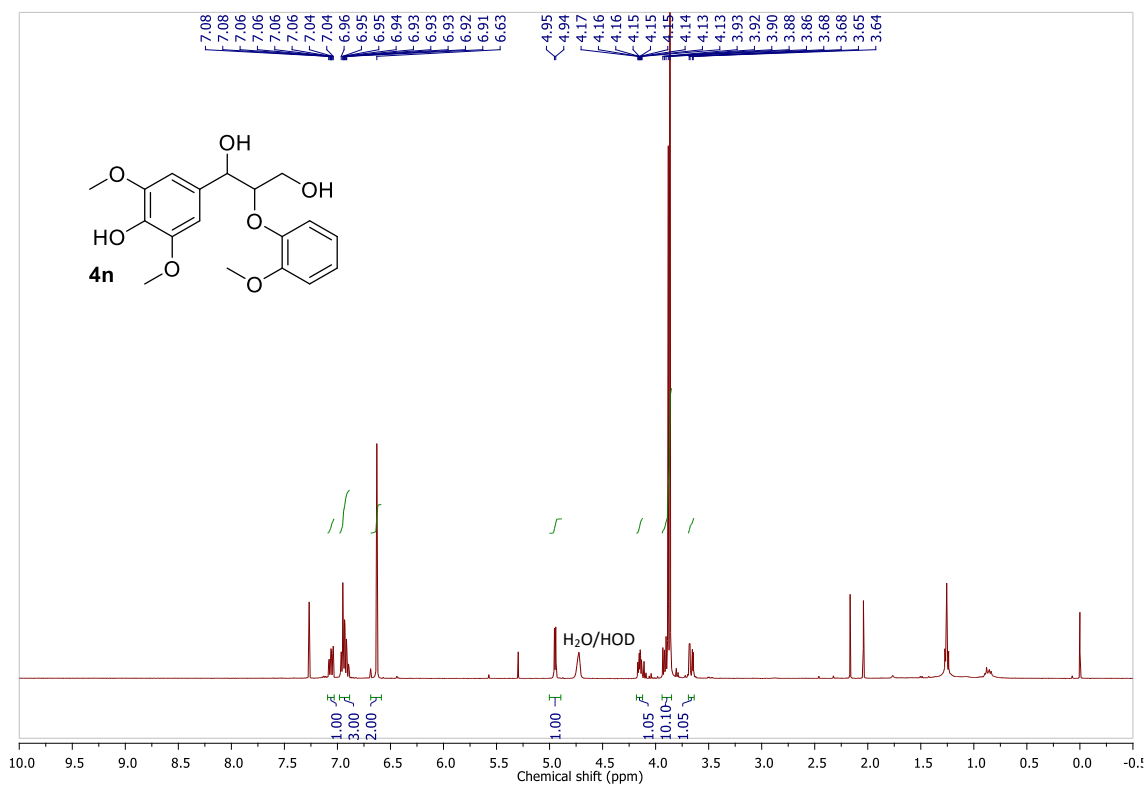
¹H NMR (500 MHz, CDCl₃ + few drops of D₂O) 1-(4-hydroxy-3-methoxyphenyl)-2-(2-methoxyphenoxy)propane-1,3-diol **3m**



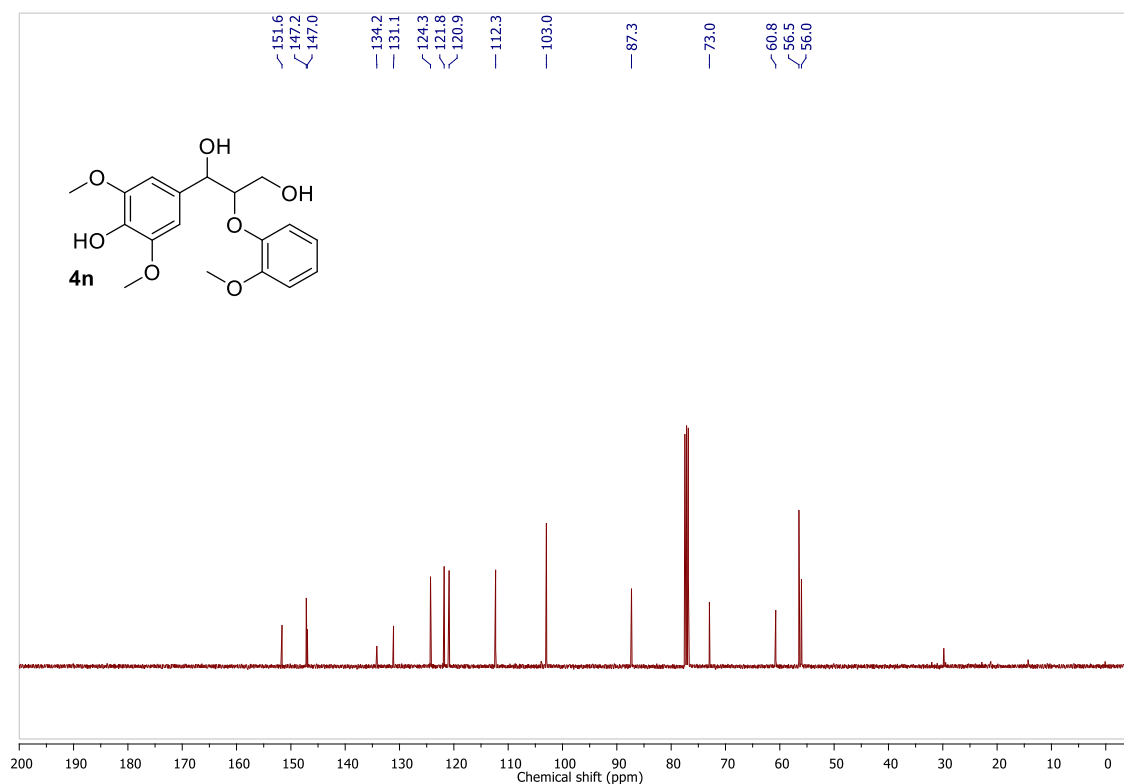
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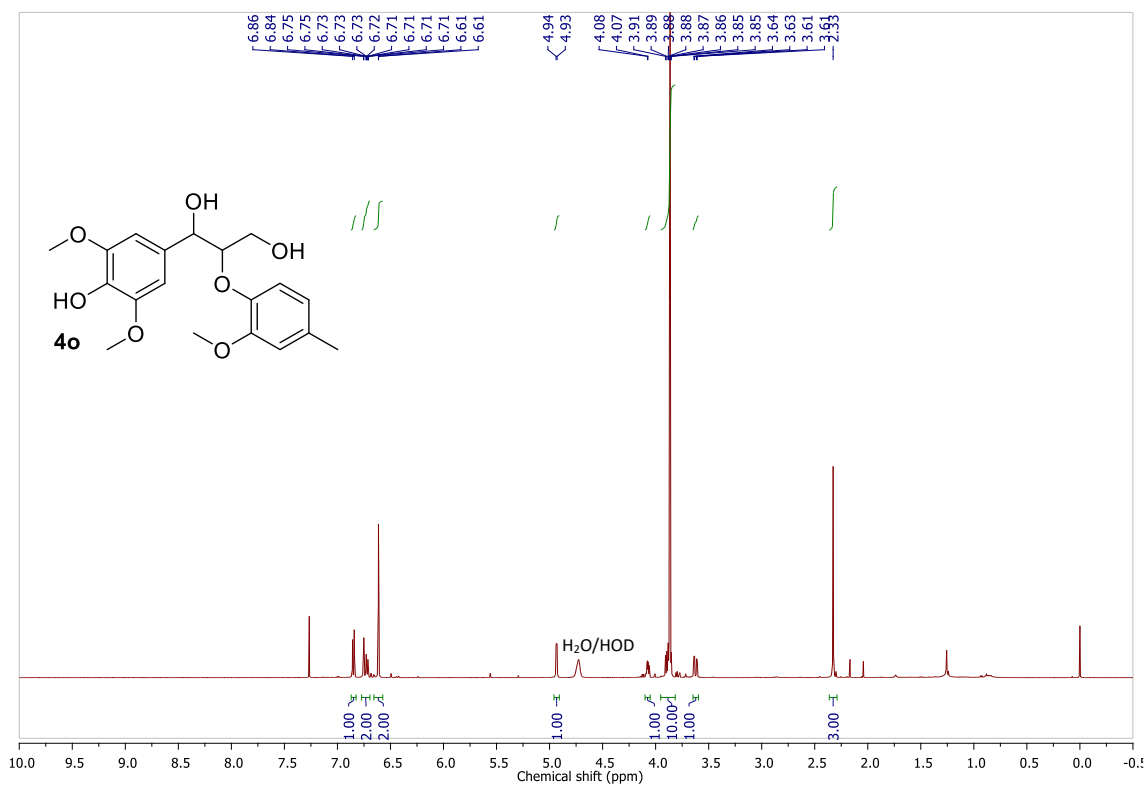
¹H NMR (500 MHz, CDCl₃ + few drops of D₂O) 1-(4-hydroxy-3,5-dimethoxyphenyl)-2-(2-methoxyphenoxy)propane-1,3-diol **4n**



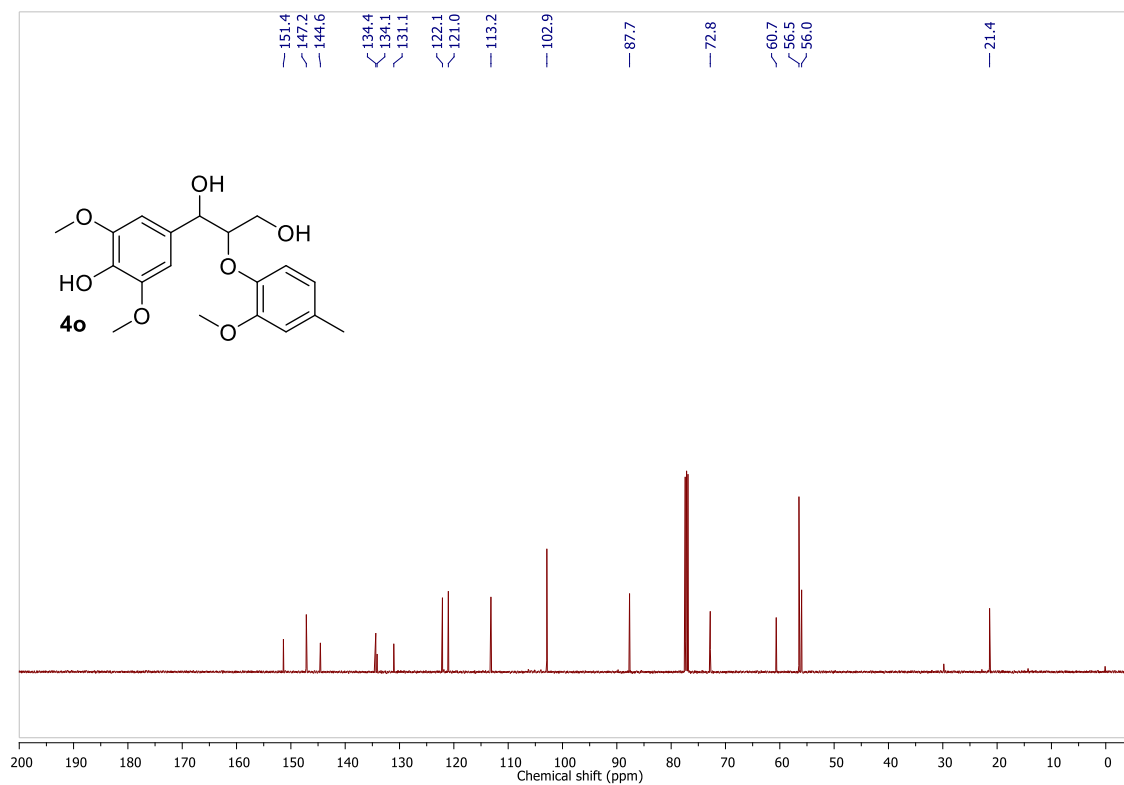
¹³C NMR (126 MHz, CDCl₃) 1-(4-hydroxy-3,5-dimethoxyphenyl)-2-(2-methoxyphenoxy)propane-1,3-diol **4n**



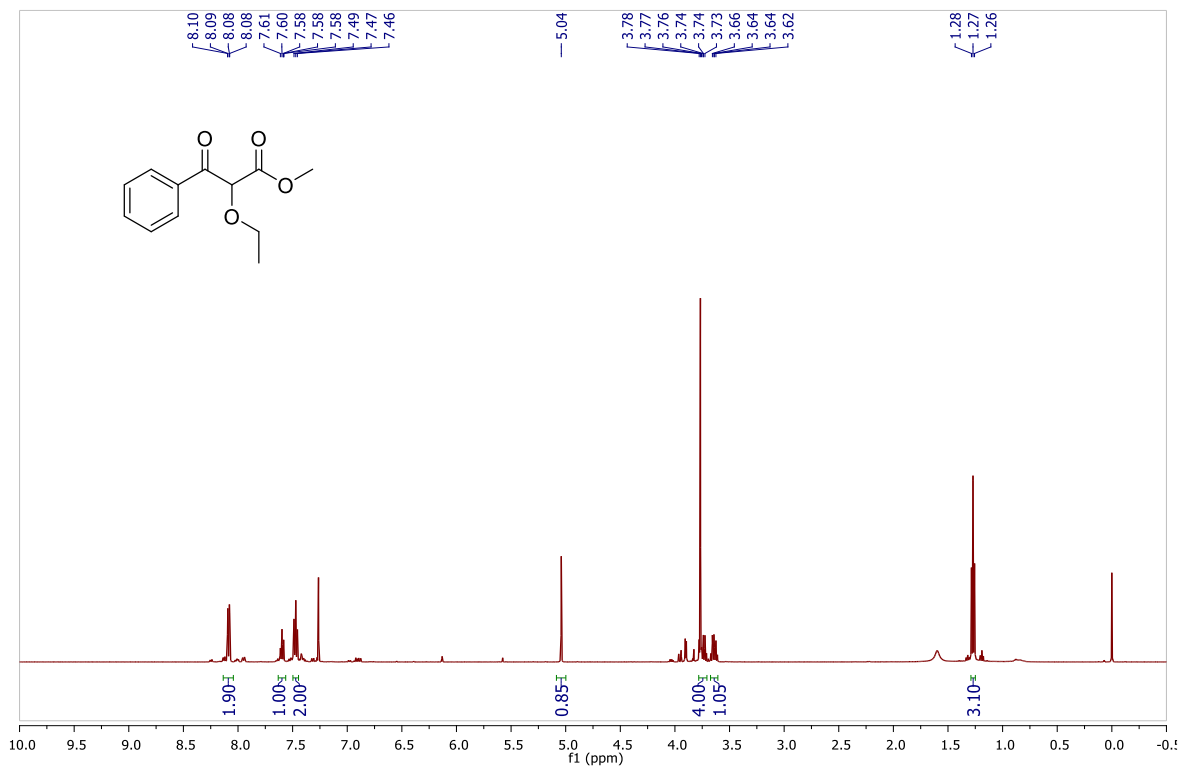
¹H NMR (500 MHz, CDCl₃ + few drops of D₂O) 1-(4-hydroxy-3,5-dimethoxyphenyl)-2-(2-methoxy-4-methylphenoxy)propane-1,3-diol **4o**



¹³C NMR (126 MHz, CDCl₃) 1-(4-hydroxy-3,5-dimethoxyphenyl)-2-(2-methoxy-4-methylphenoxy)propane-1,3-diol **4o**



¹H NMR (500 MHz, CDCl₃) methyl 2-ethoxy-3-oxo-3-phenylpropanoate



¹³C NMR (126 MHz, CDCl₃) methyl 2-ethoxy-3-oxo-3-phenylpropanoate

