

Hypervalent Iodine-Mediated Oxidative Cyclisation of *p*-Hydroxy Acetanilides to 1,2-Dispirodienones

Laurent Chabaud,* Tatiana Hromjakova, Matt Rambla, Pascal Retailleau, and Catherine Guillou*

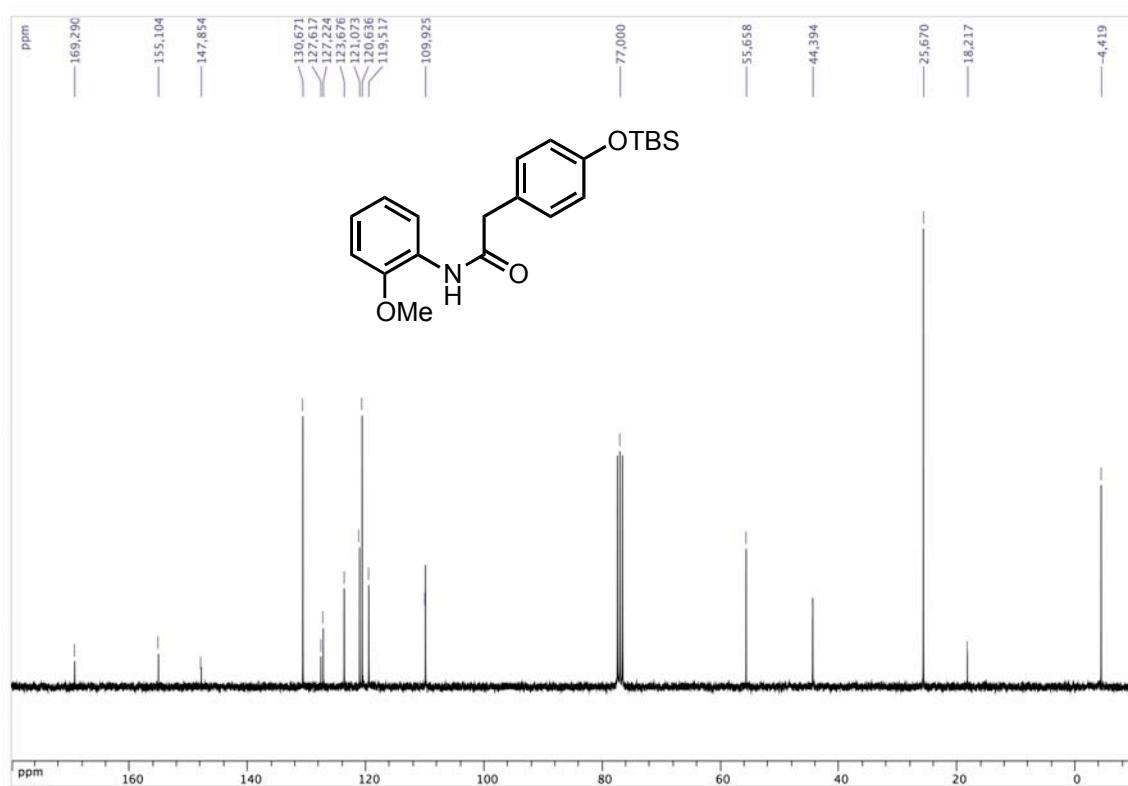
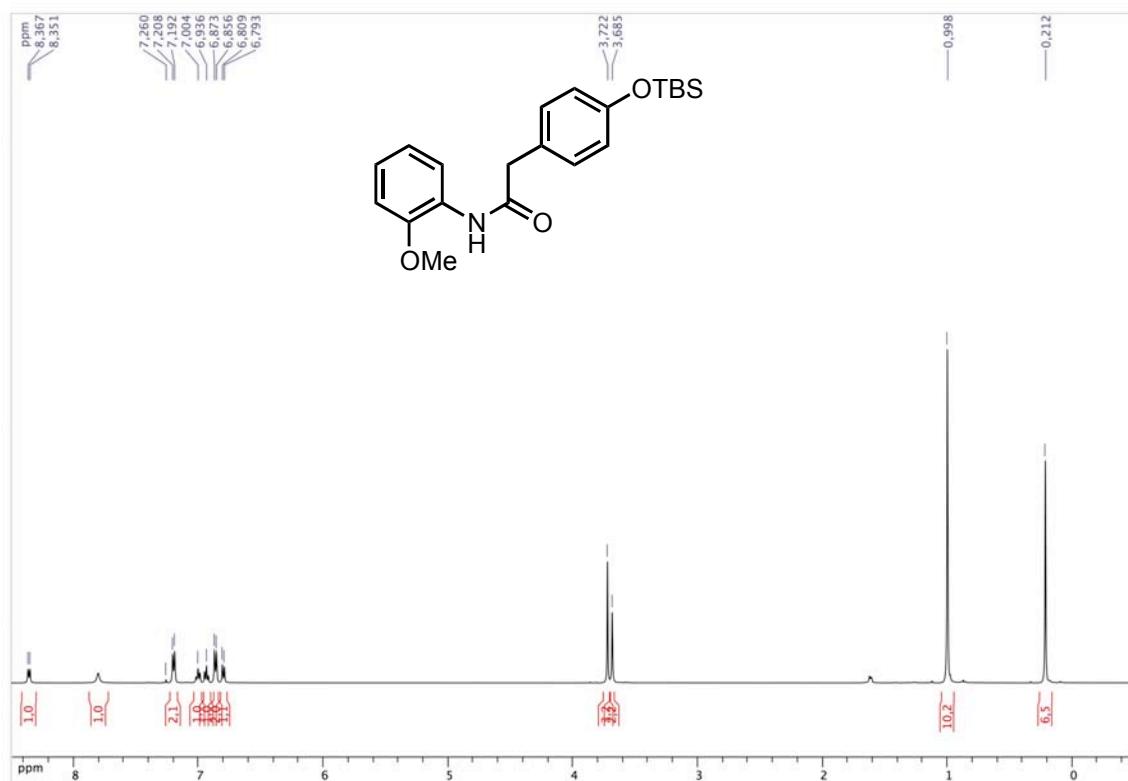
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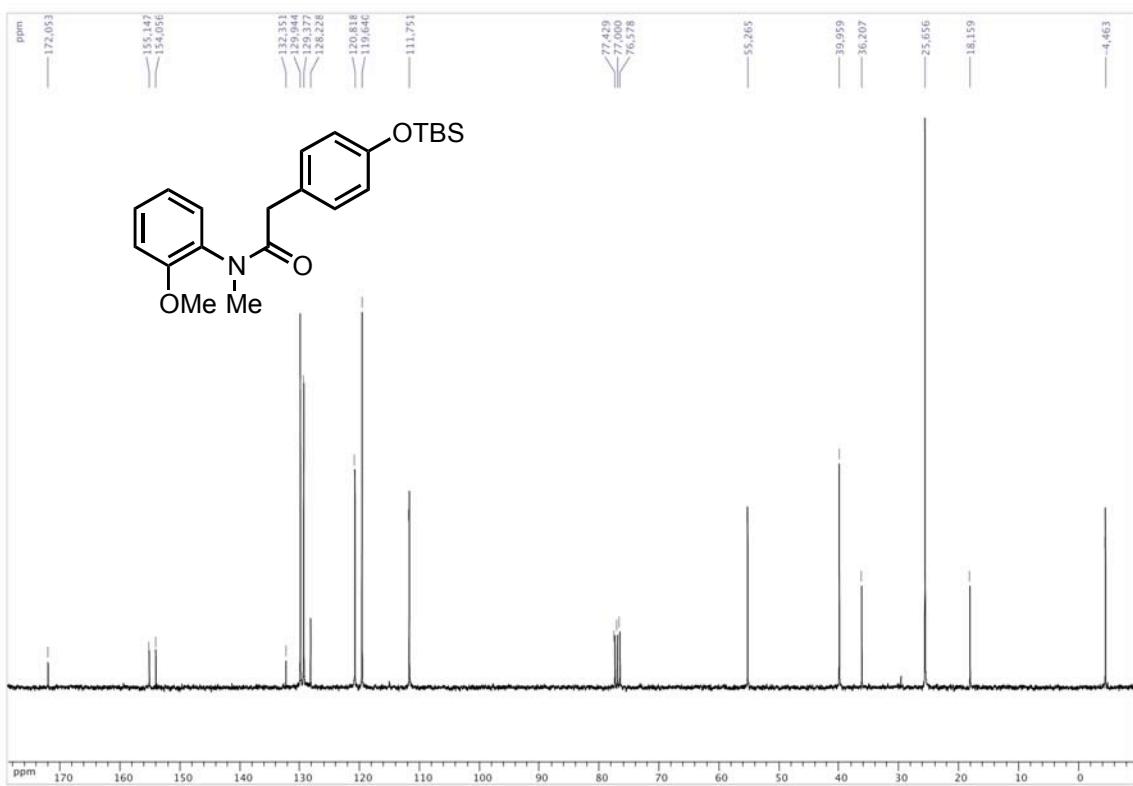
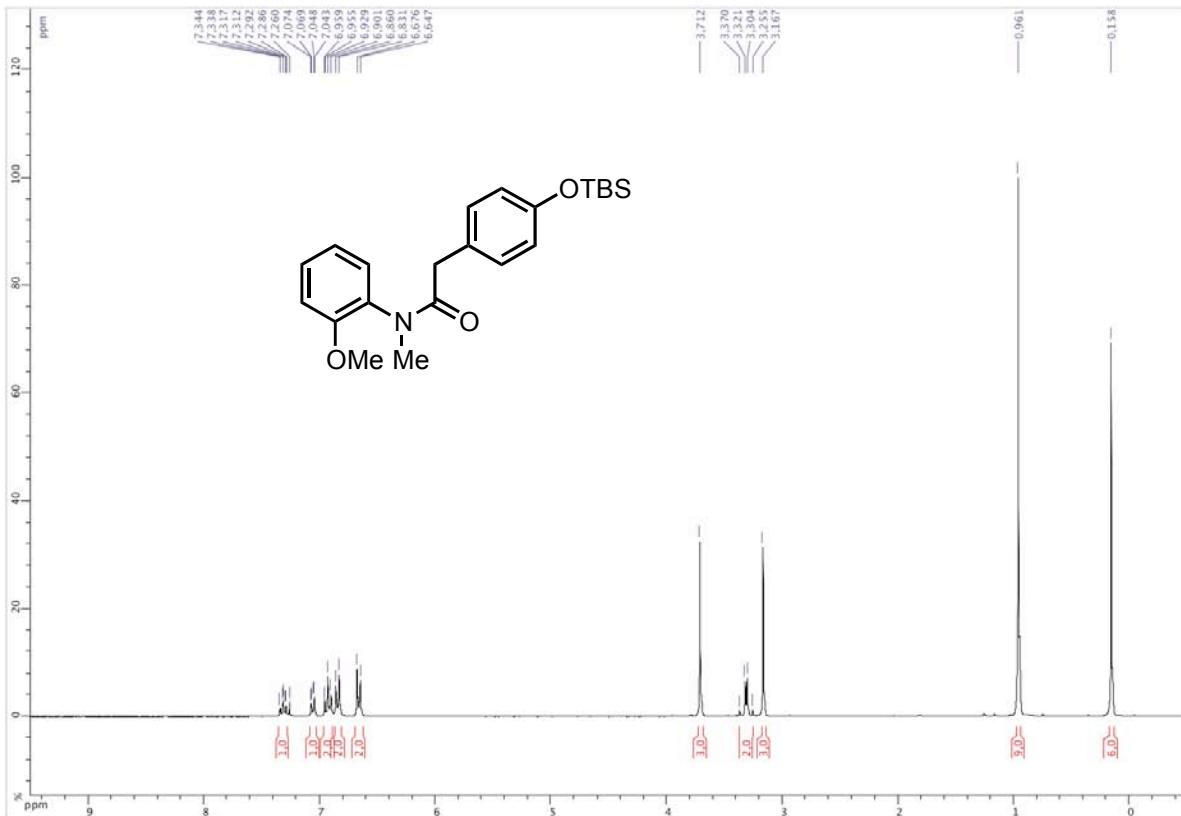
Supporting information

NMR Spectra

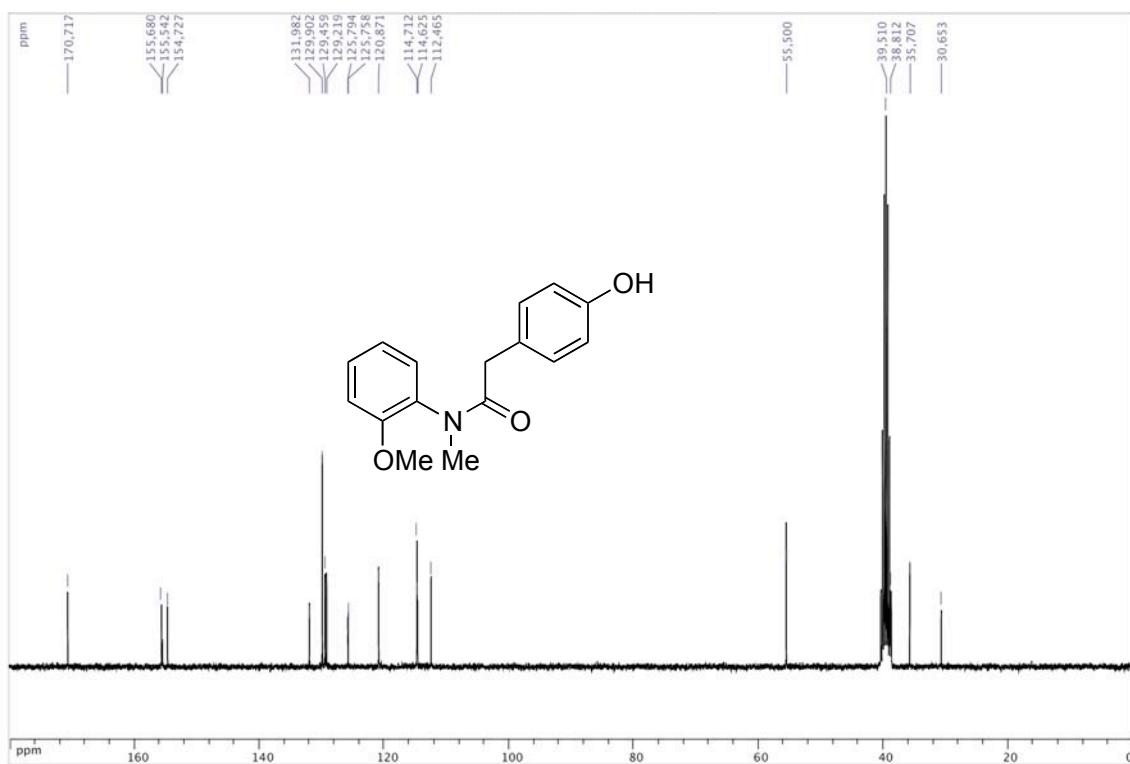
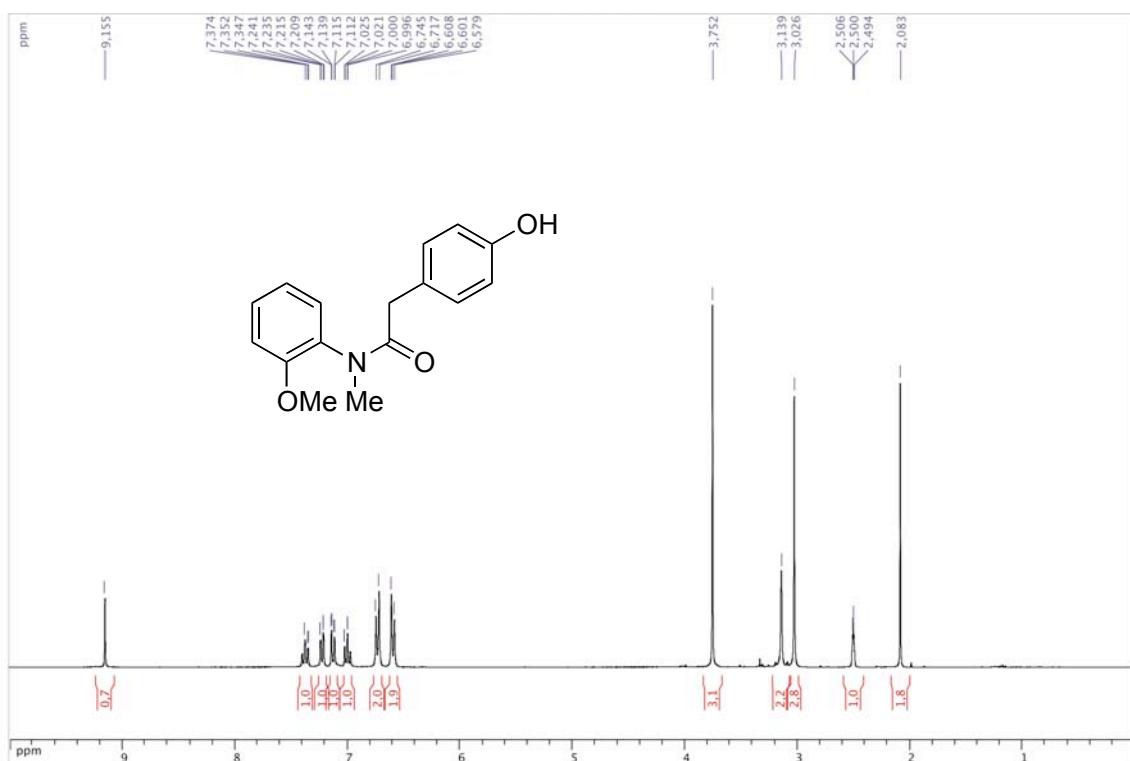
2-(4-((*tert*-butyldimethylsilyl)oxy)phenyl)-*N*-(2-methoxyphenyl)acetamide (1cA)



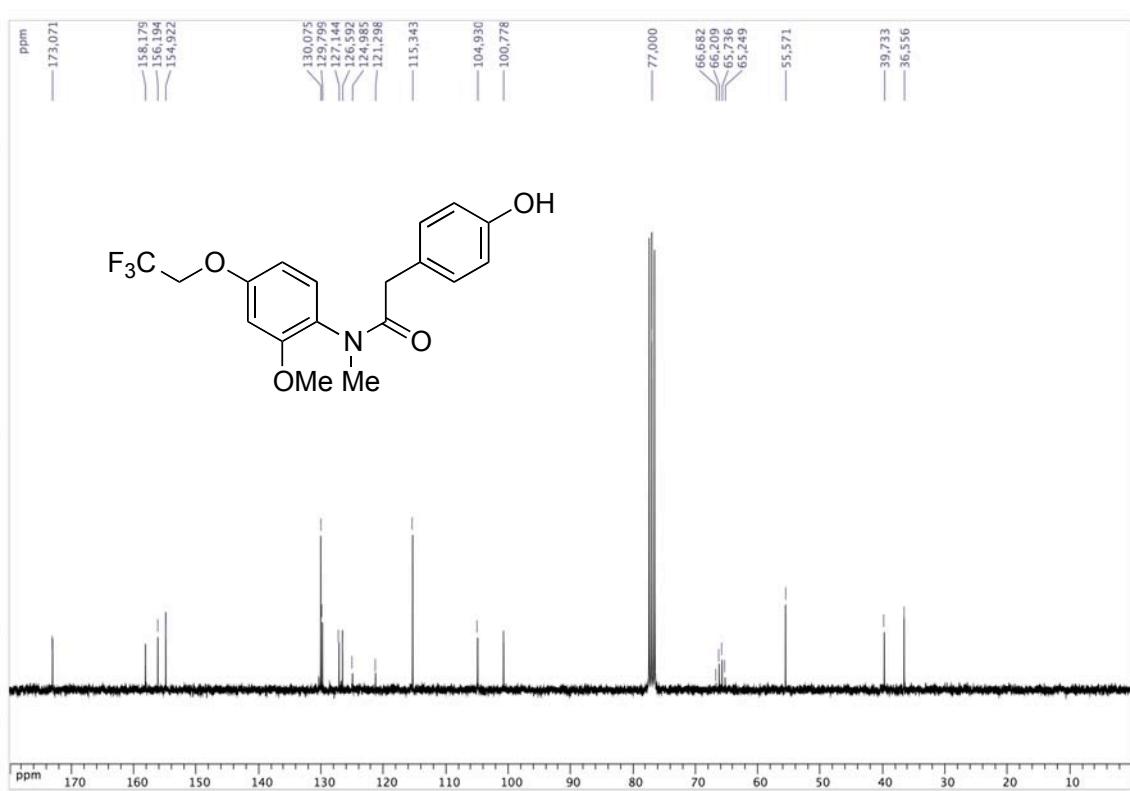
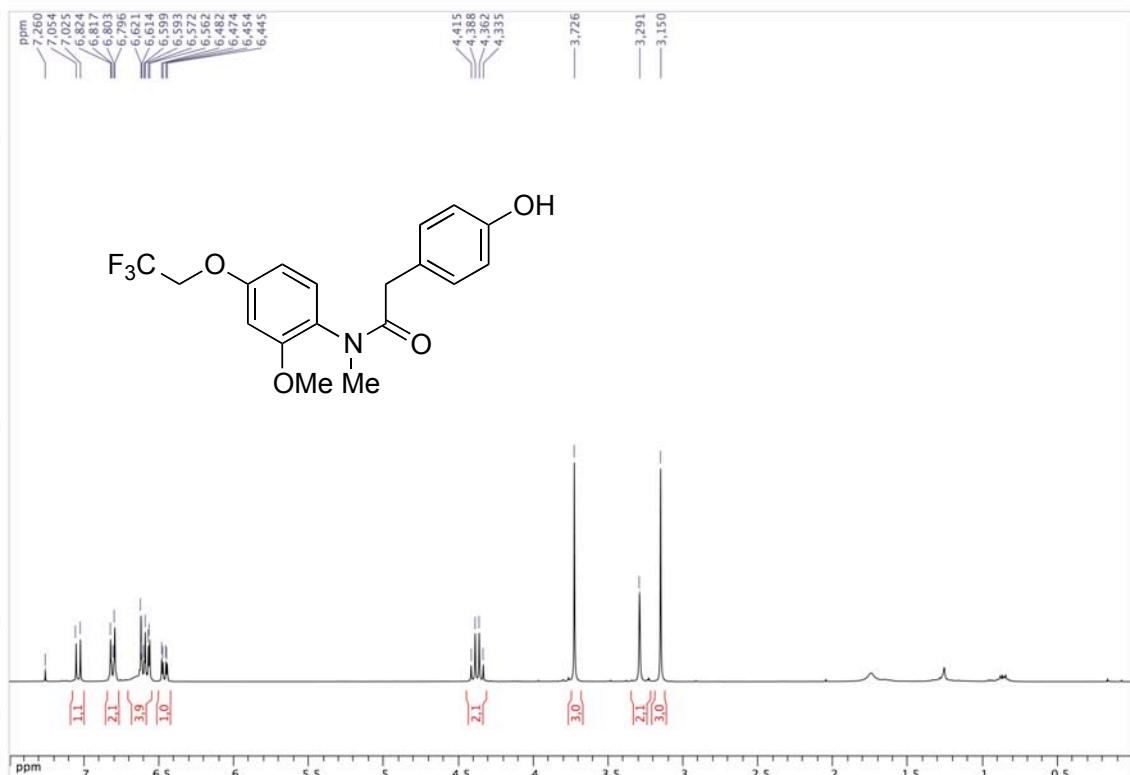
**2-((tert-butylidimethylsilyl)oxy)phenyl)-N-(2-methoxyphenyl)-N-methylacetamide
(1cB)**



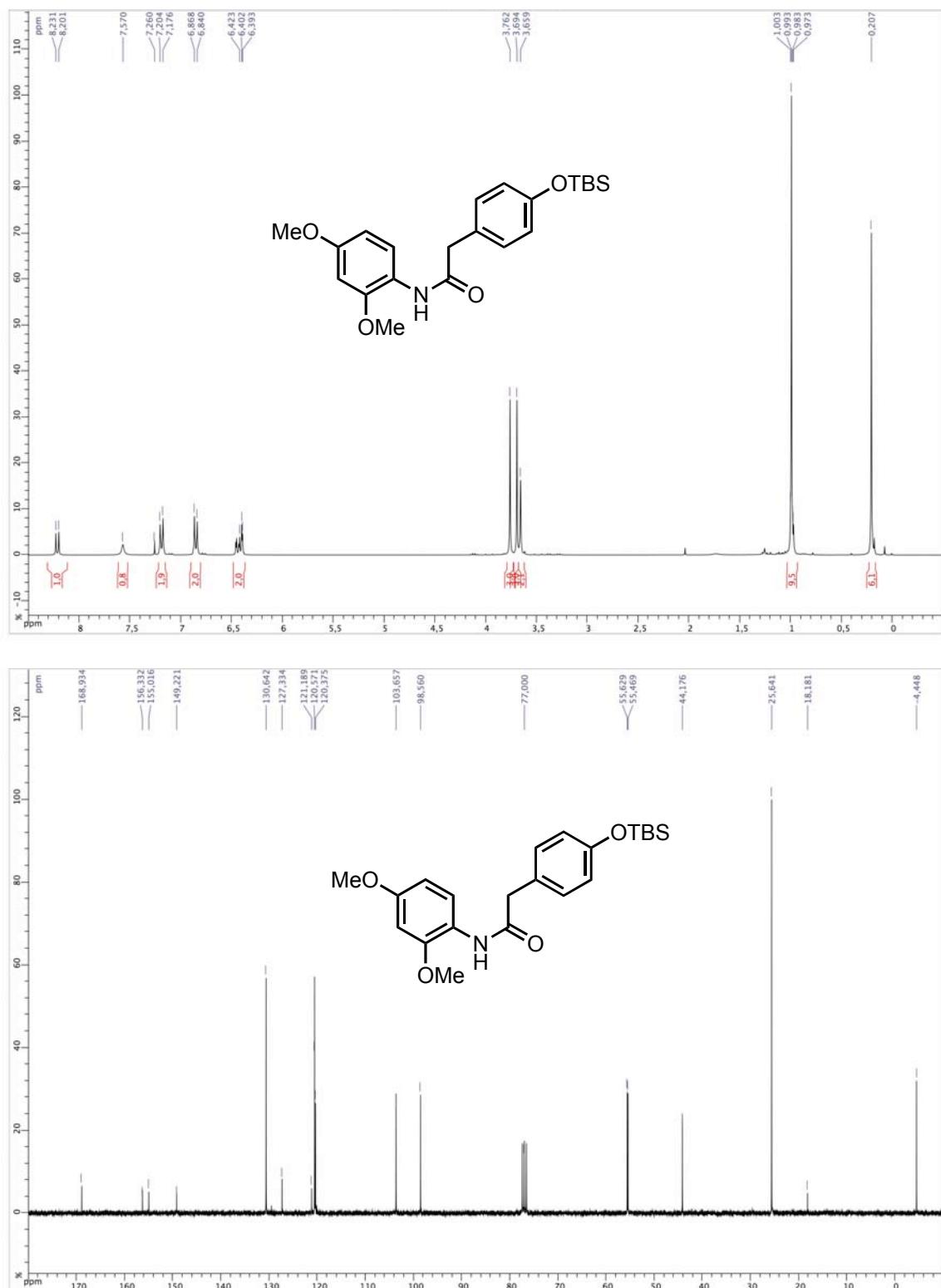
2-(4-hydroxyphenyl)-N-(2-methoxyphenyl)-N-methylacetamide (1c)



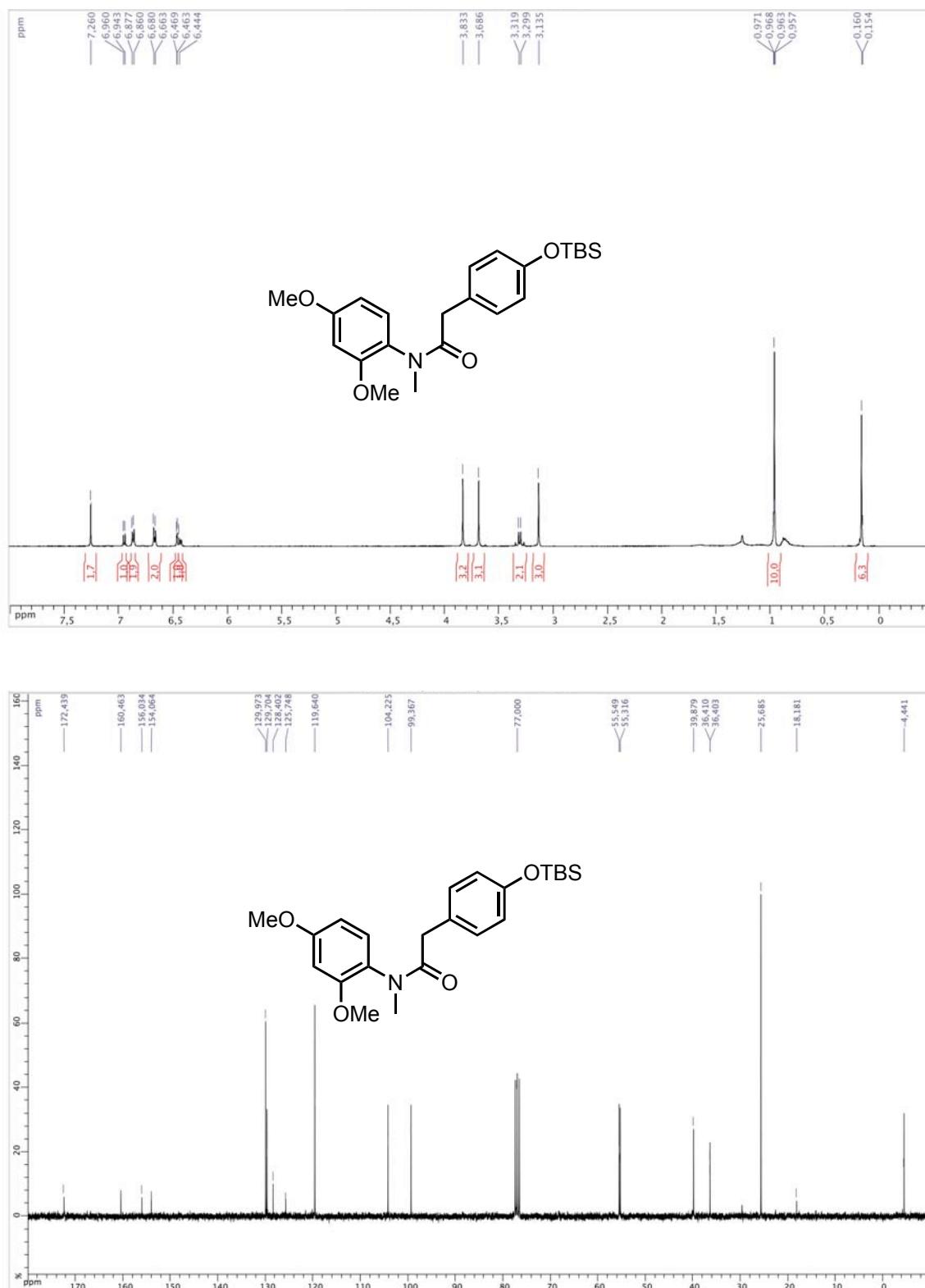
**2-(4-hydroxyphenyl)-N-(2-methoxy-4-(2,2,2-trifluoroethoxy)phenyl)-N-methylacetamide
(3a)**



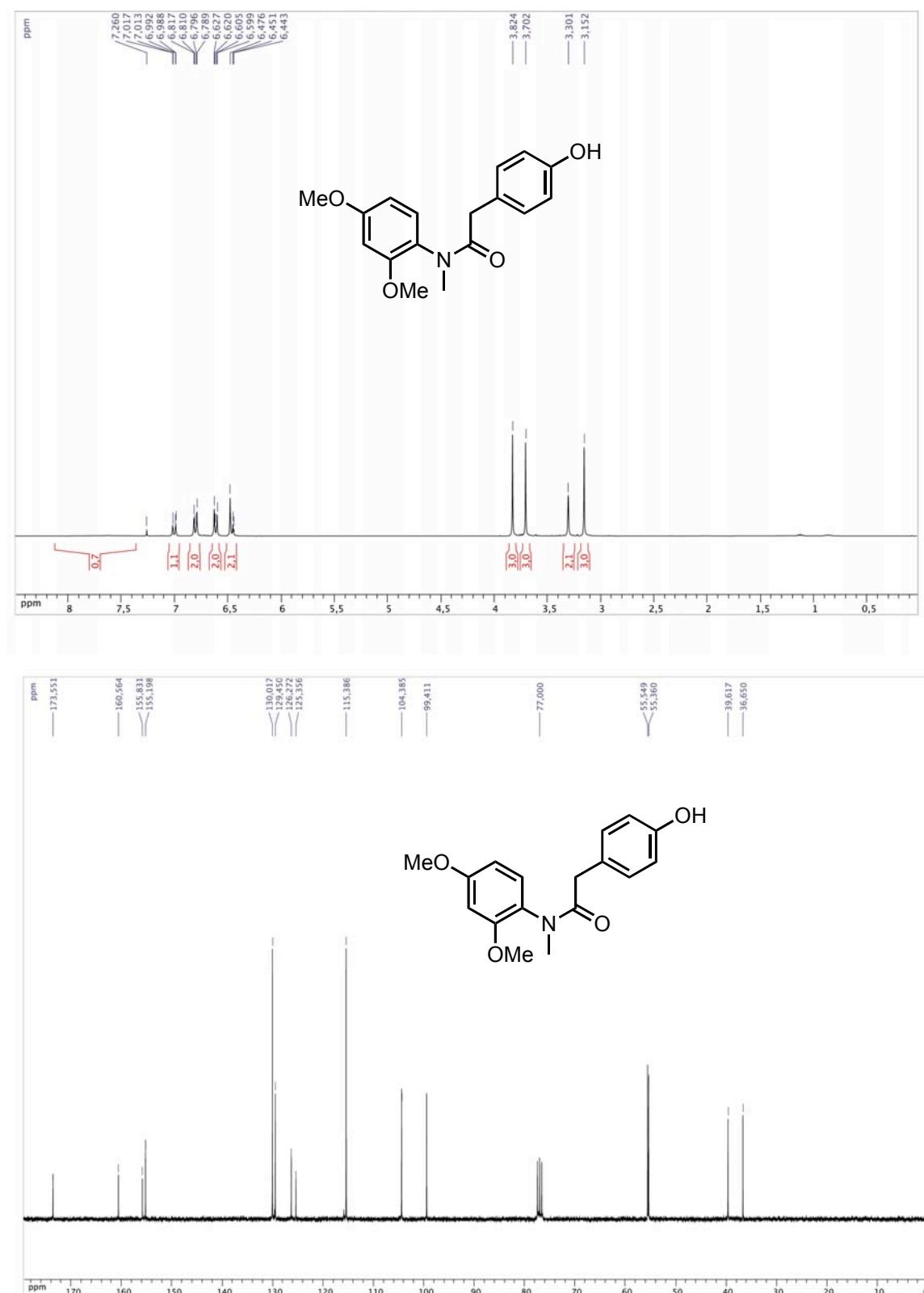
2-(4-((tert-butyldimethylsilyl)oxy)phenyl)-N-(2,4-dimethoxyphenyl)acetamide (3a'A)



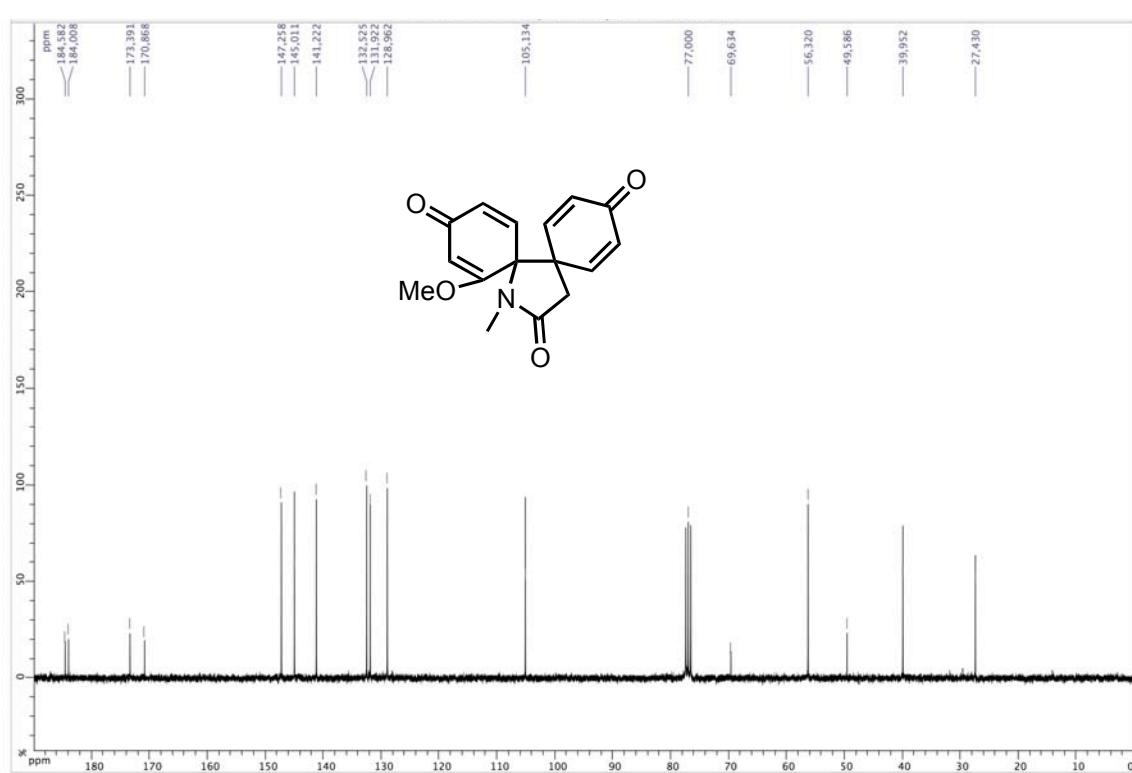
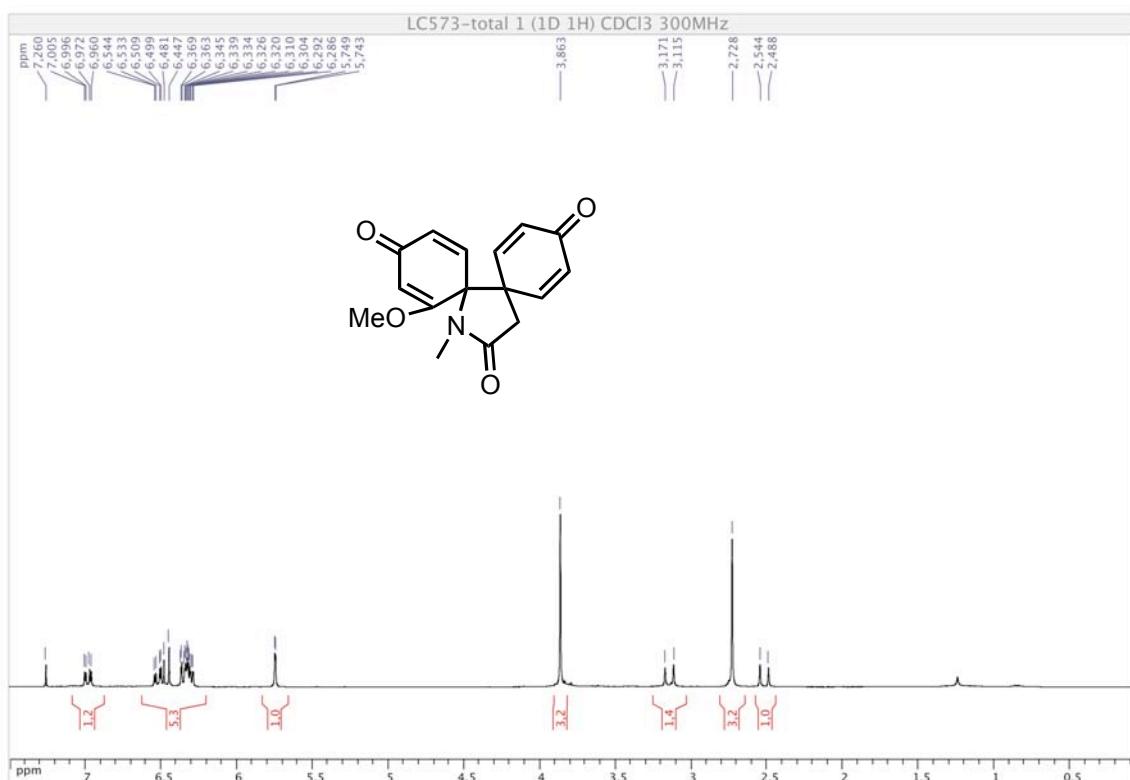
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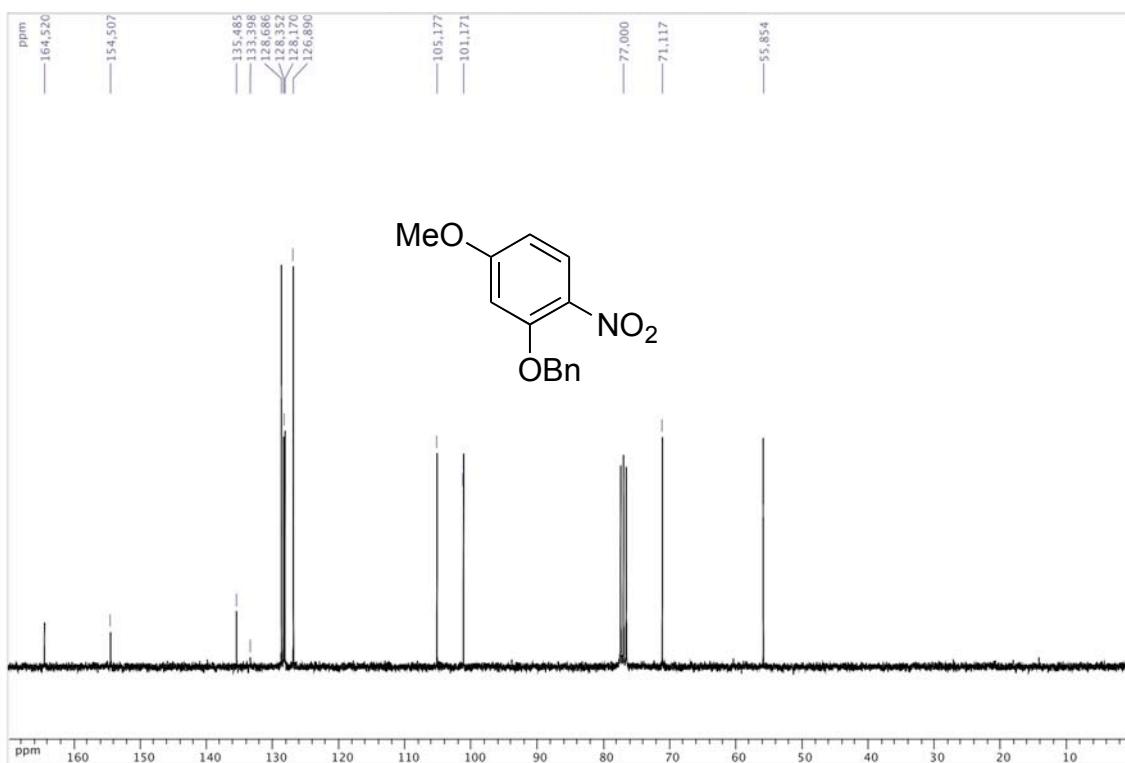
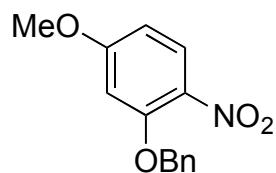
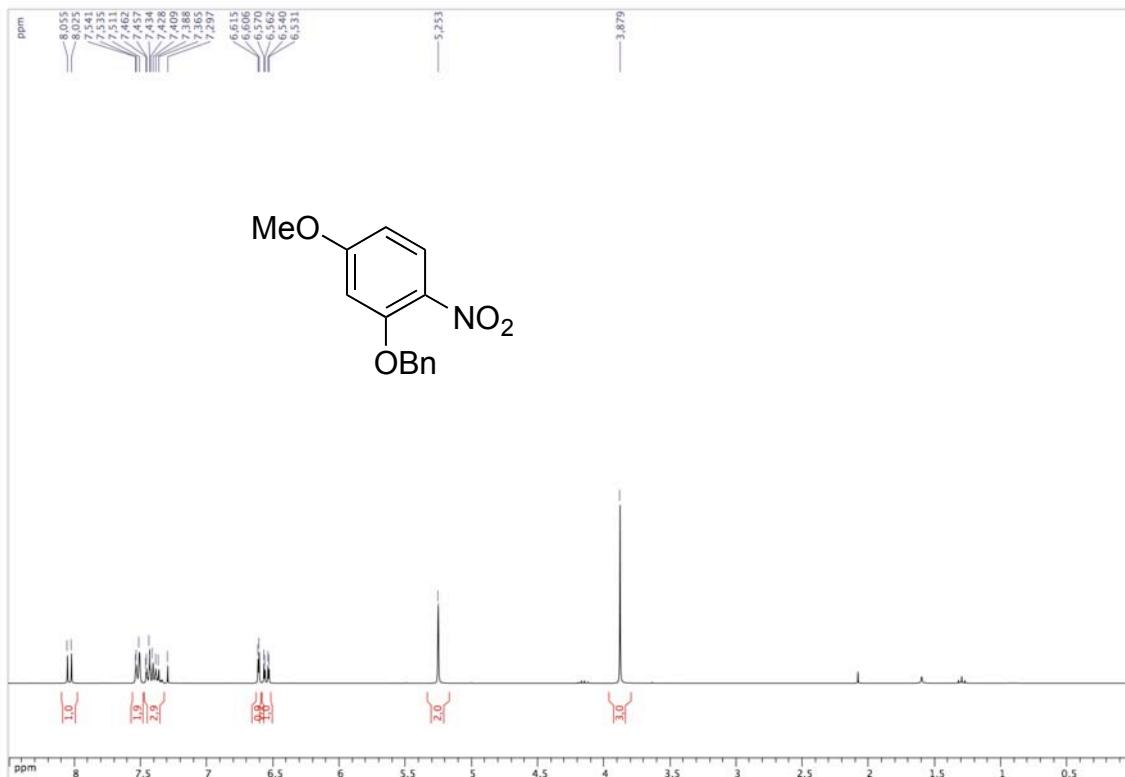
***N*-(2,4-dimethoxyphenyl)-2-(4-hydroxyphenyl)-*N*-methylacetamide (3a')**



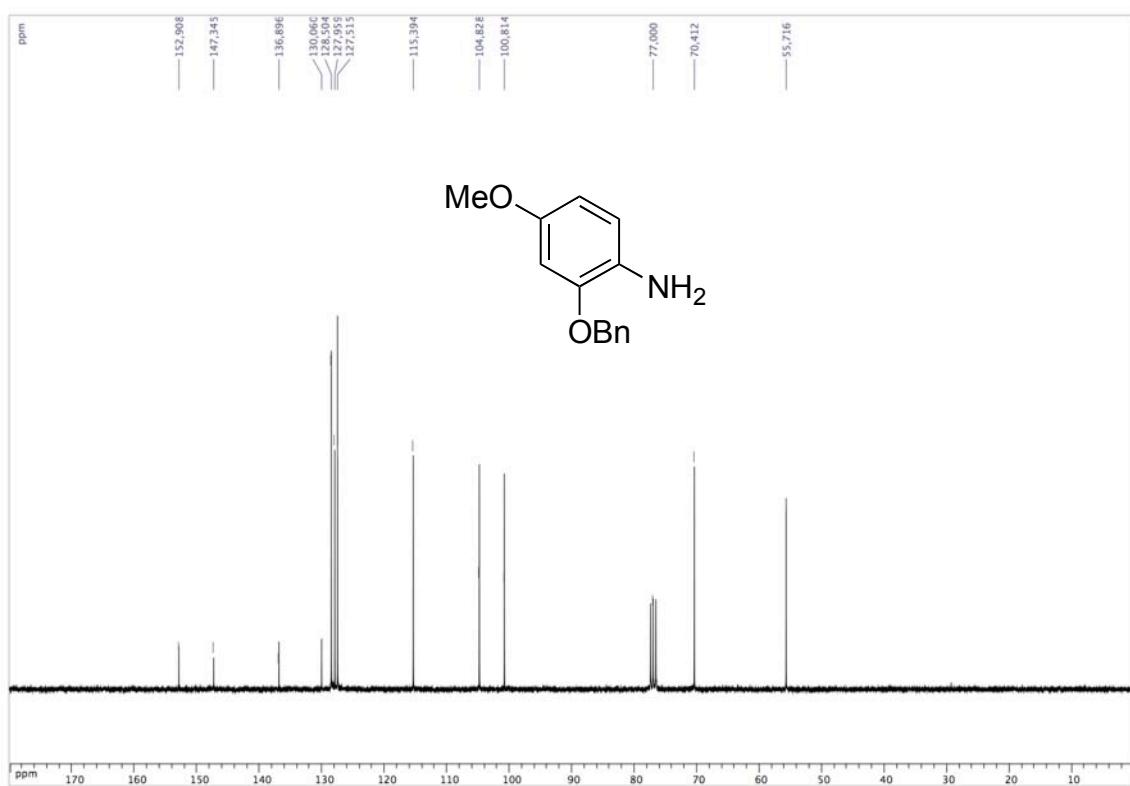
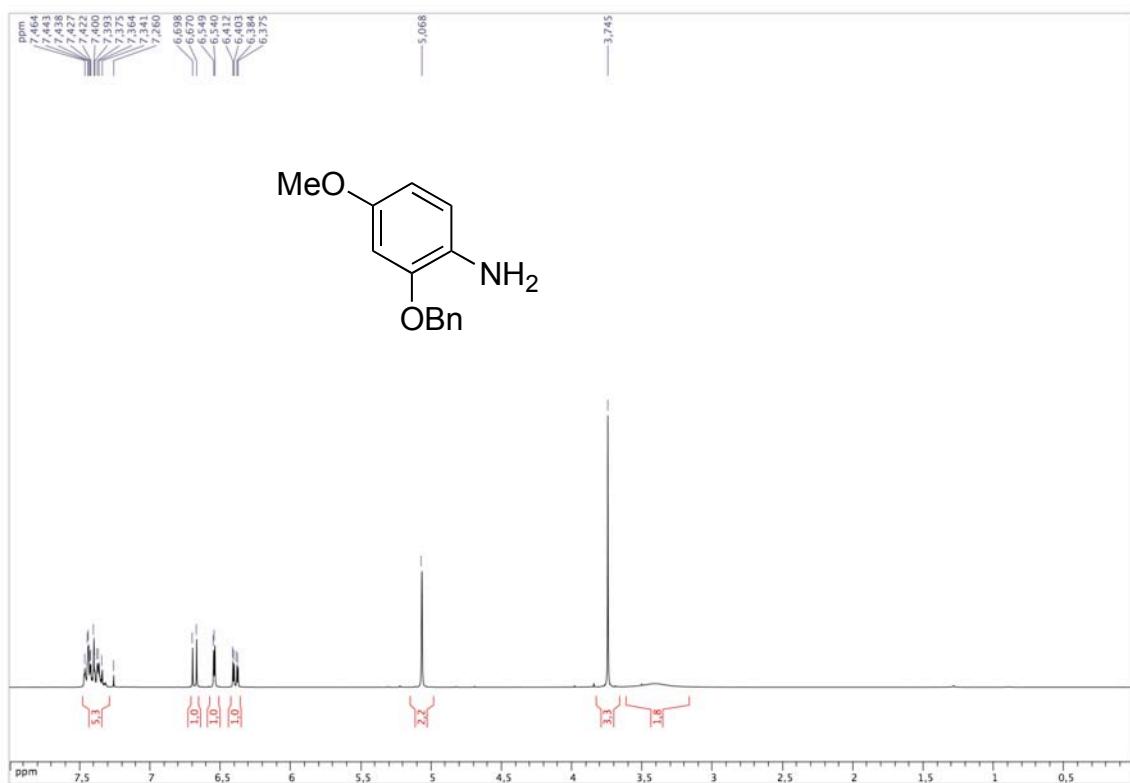
8-methoxy-13-methyl-13-azadispiro[5.0.5.3]pentadeca-1,4,8,11-tetraene-3,10,14-trione (4a)



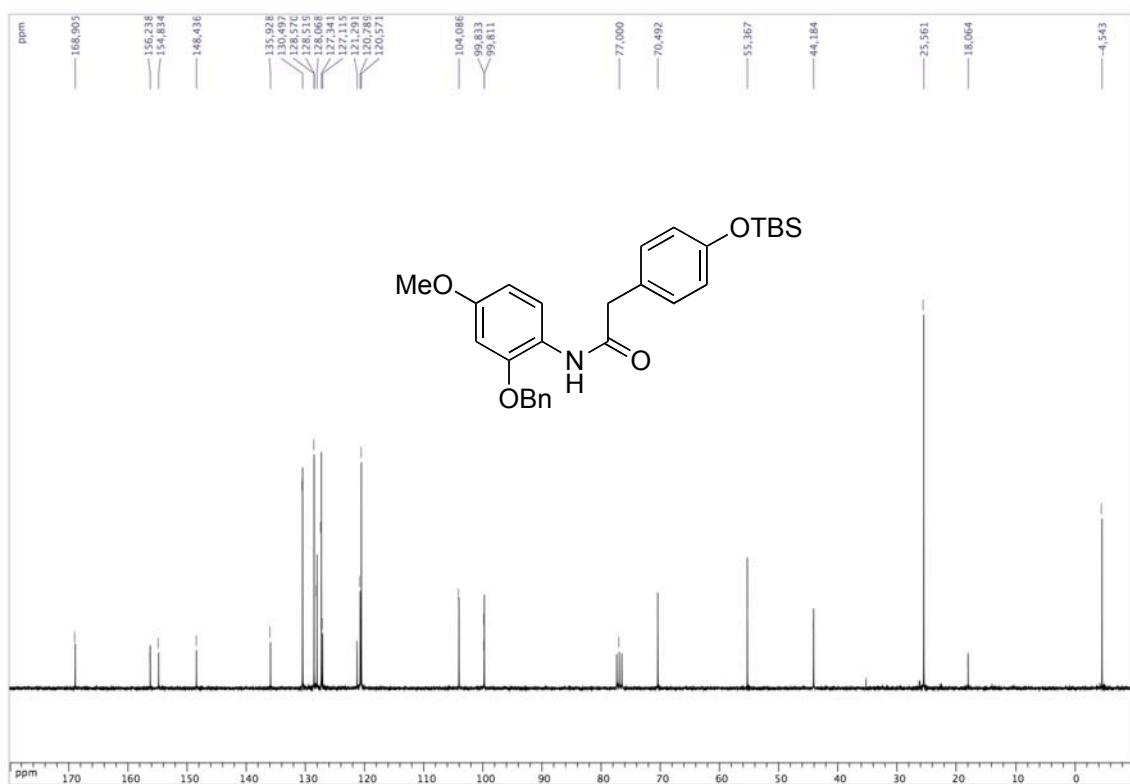
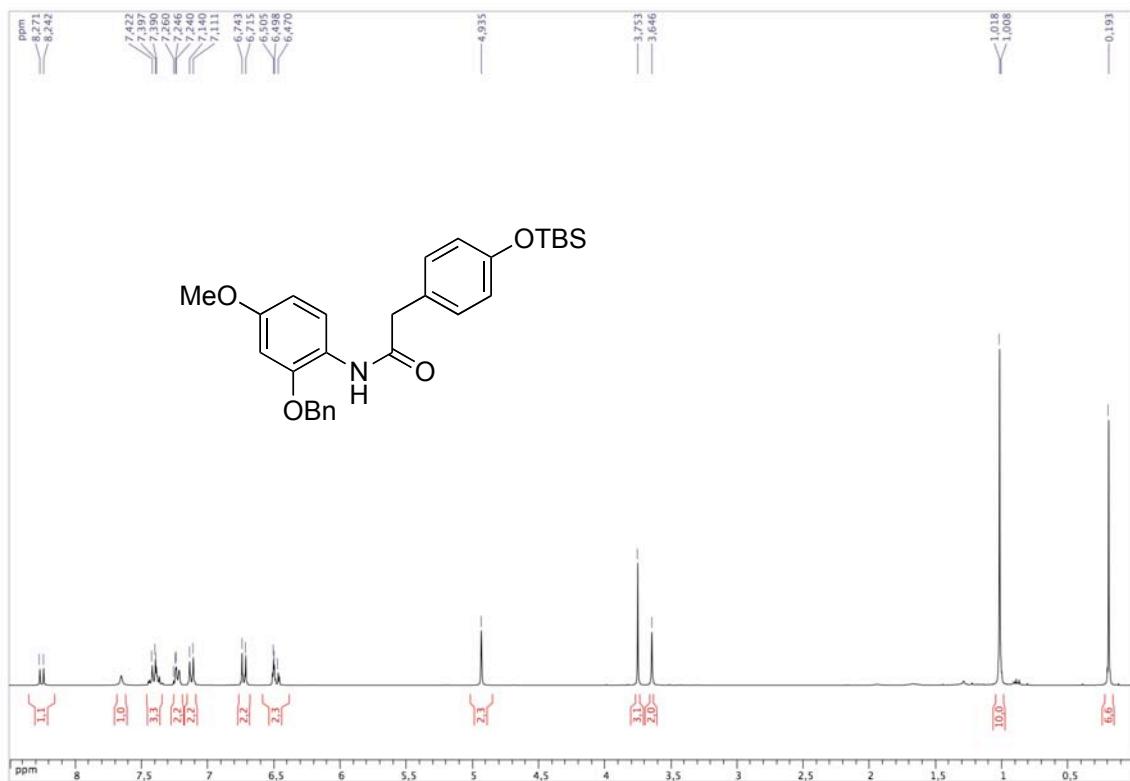
2-(benzyloxy)-4-methoxy-1-nitrobenzene (S1)



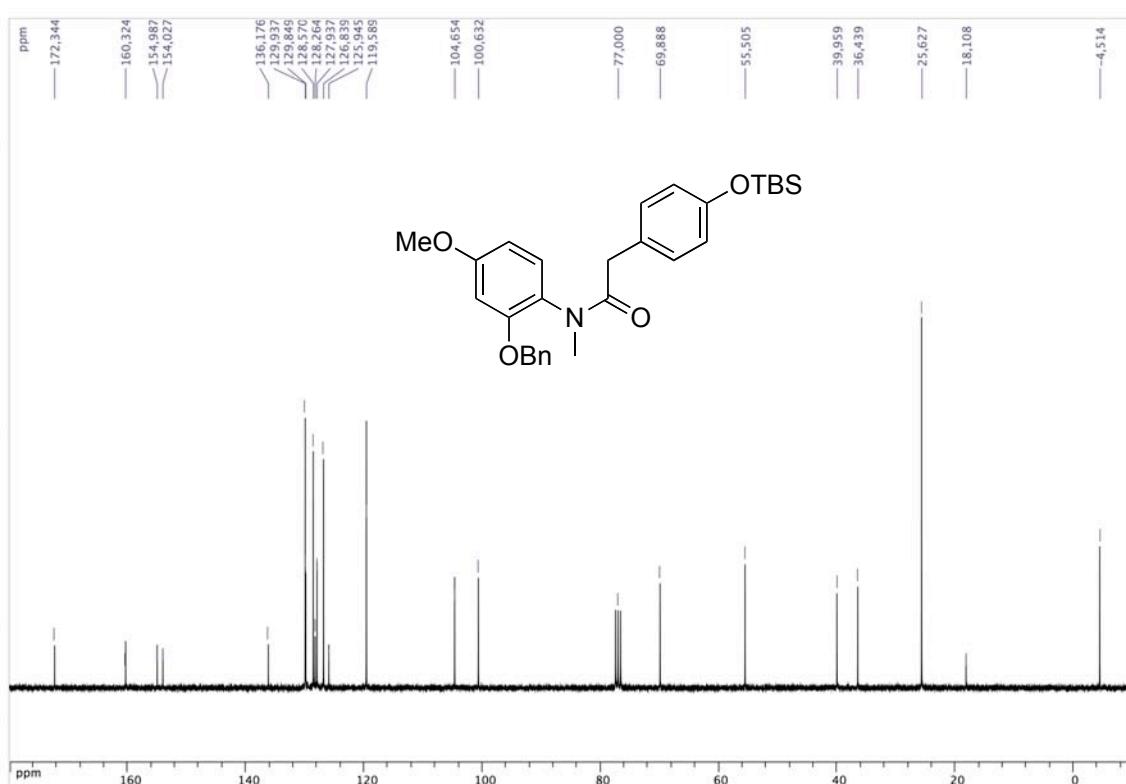
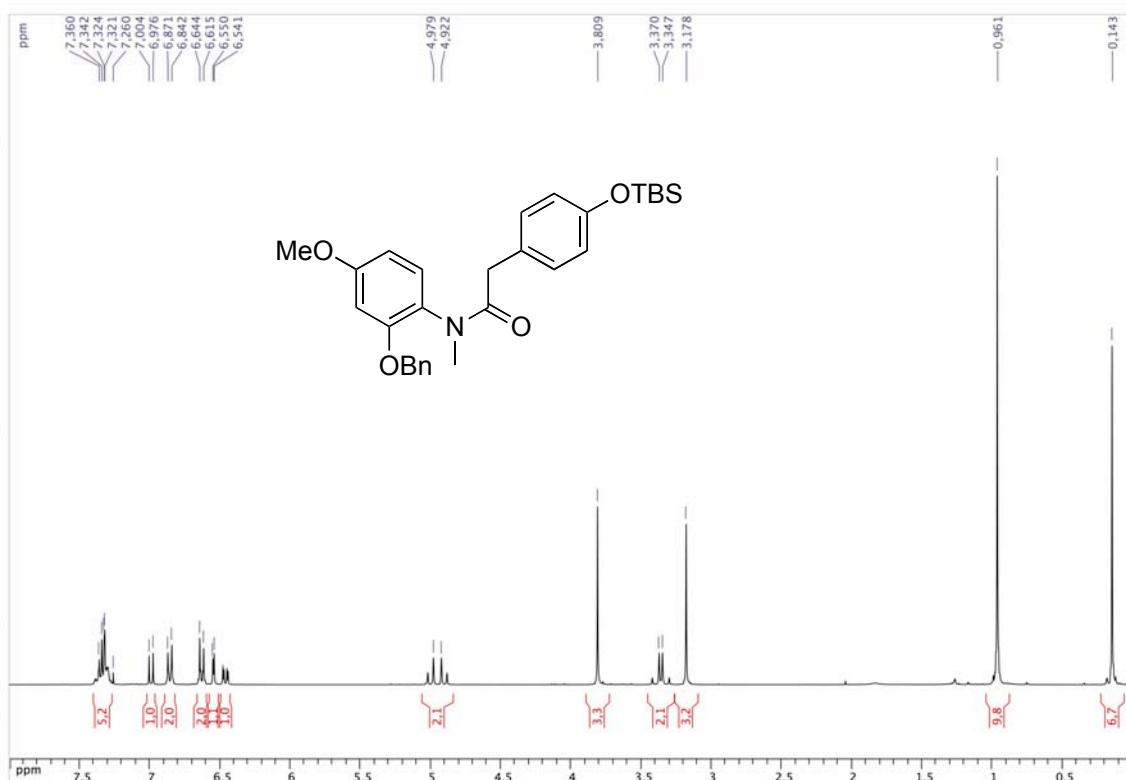
2-(benzyloxy)-4-methoxyaniline (S2)



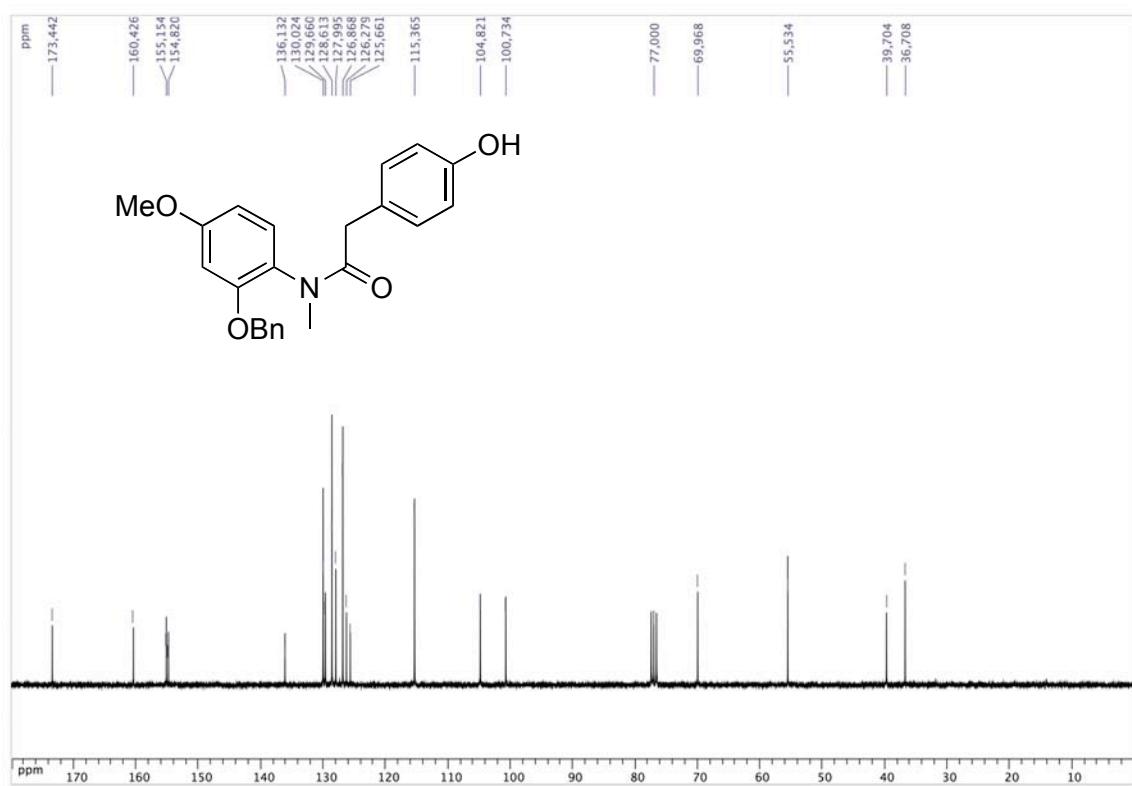
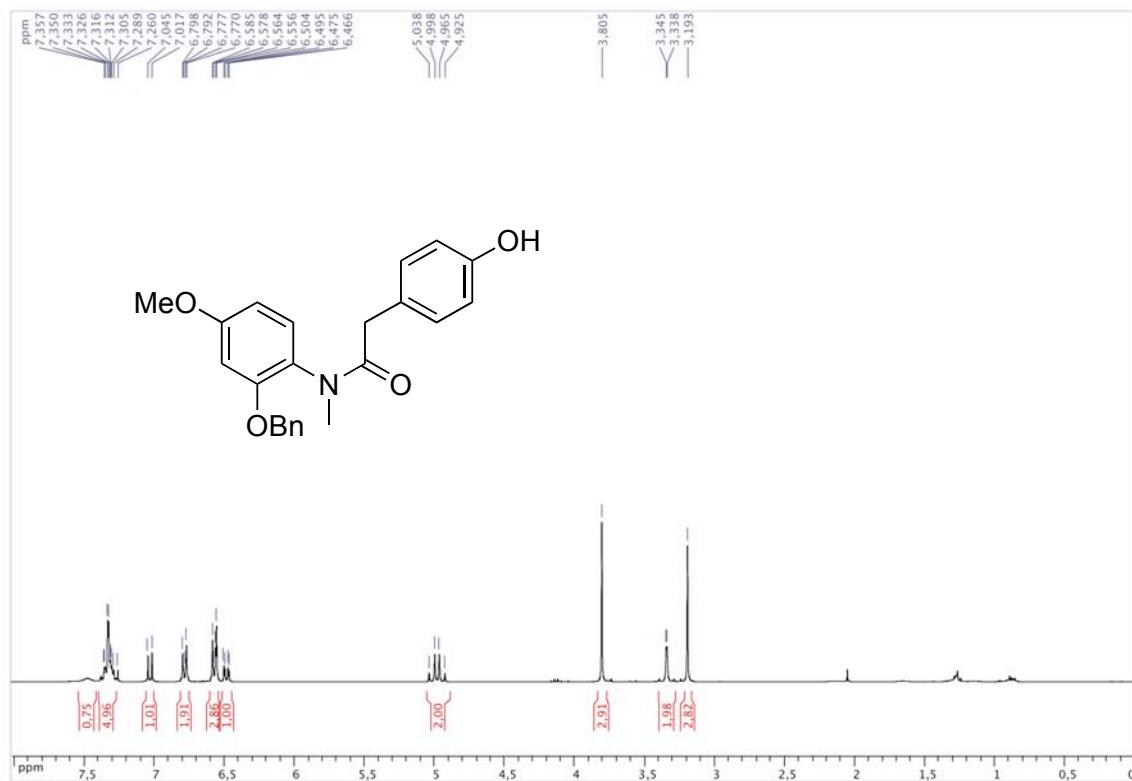
N-(2-(benzyloxy)-4-methoxyphenyl)-2-((tert-butyldimethylsilyl)oxy)phenyl)acetamide (3bA)



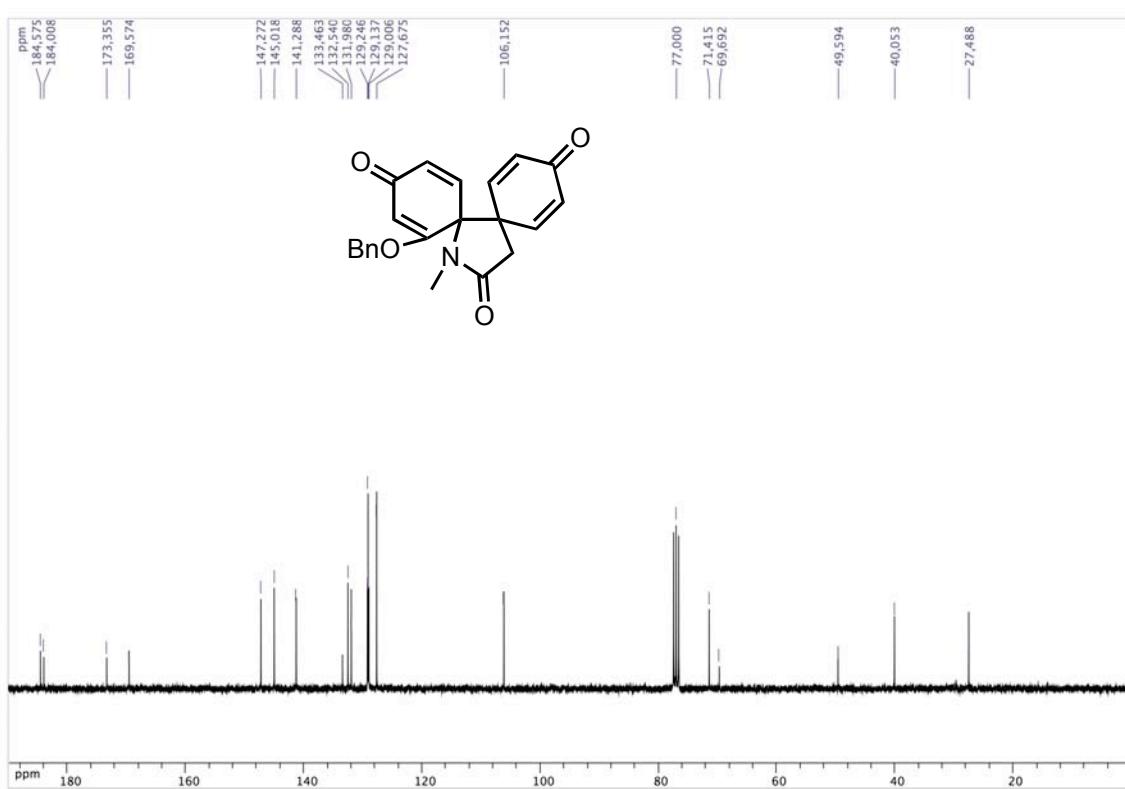
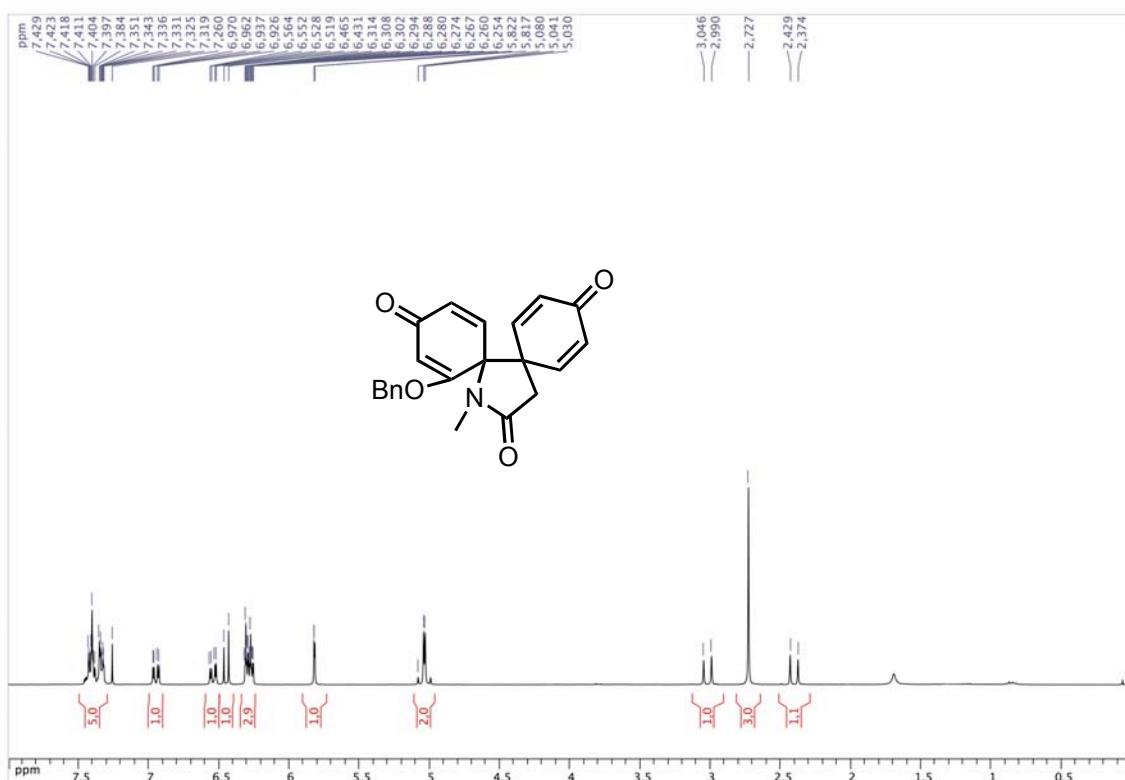
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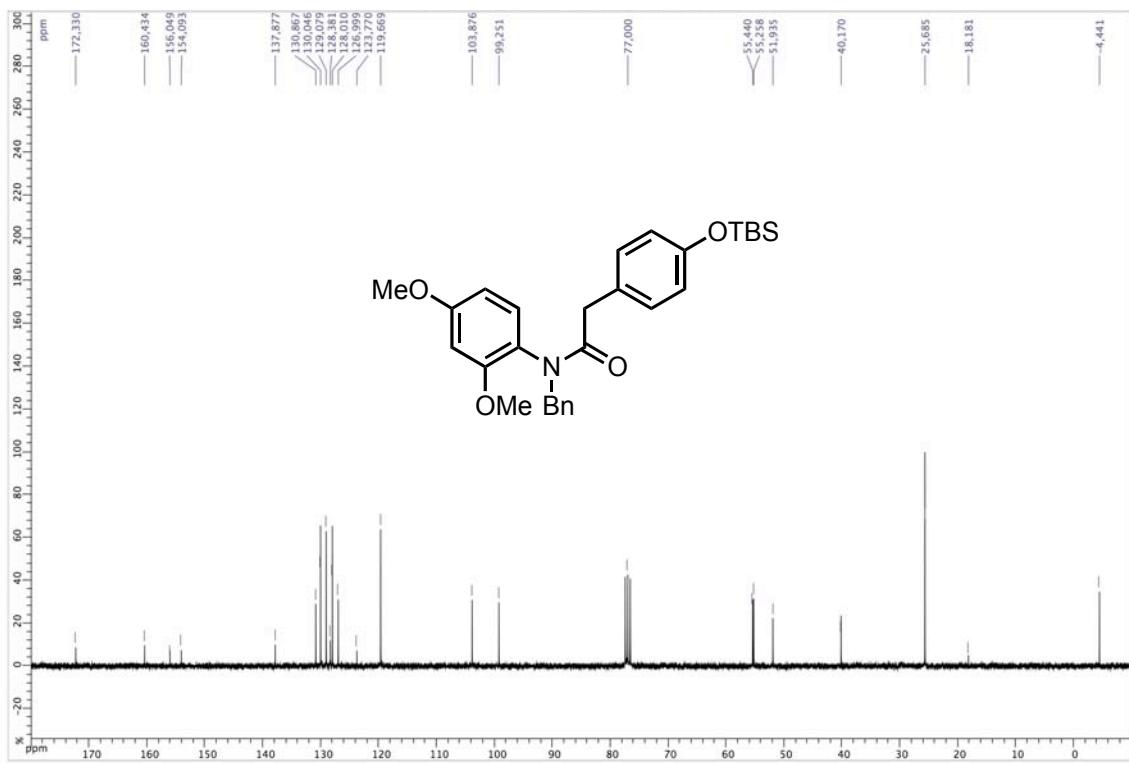
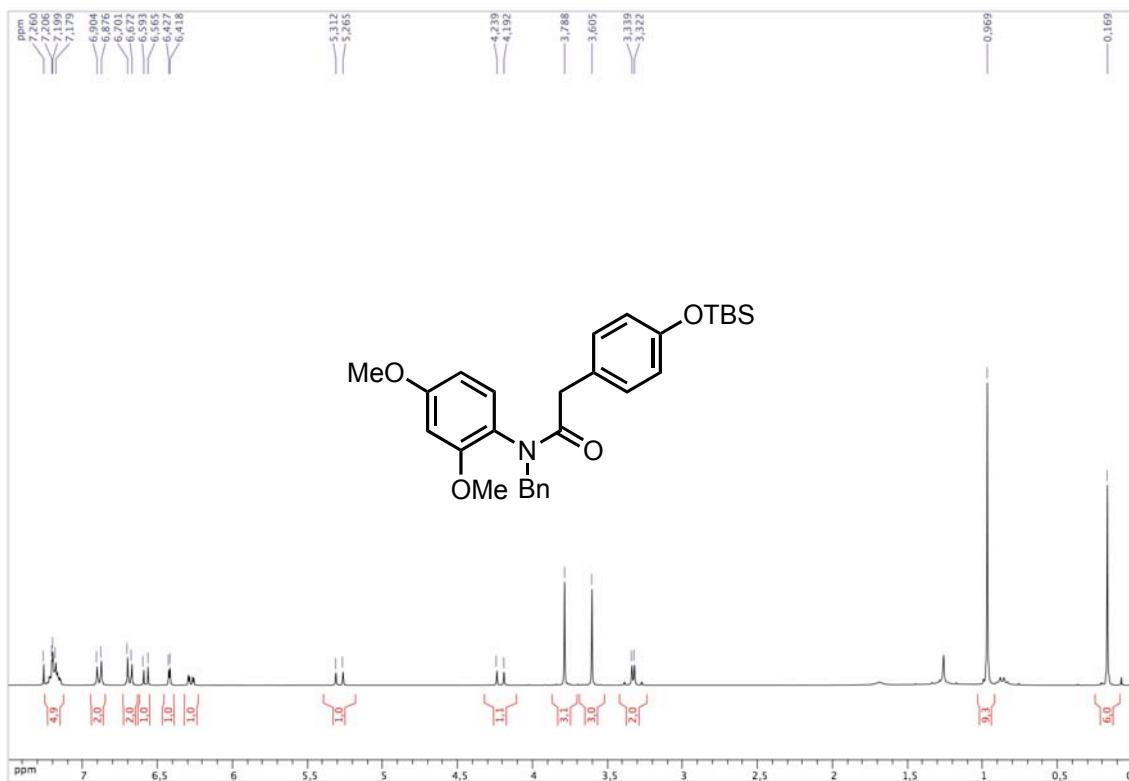
N-(2-(benzyloxy)-4-methoxyphenyl)-2-(4-hydroxyphenyl)-N-methylacetamide (3b)



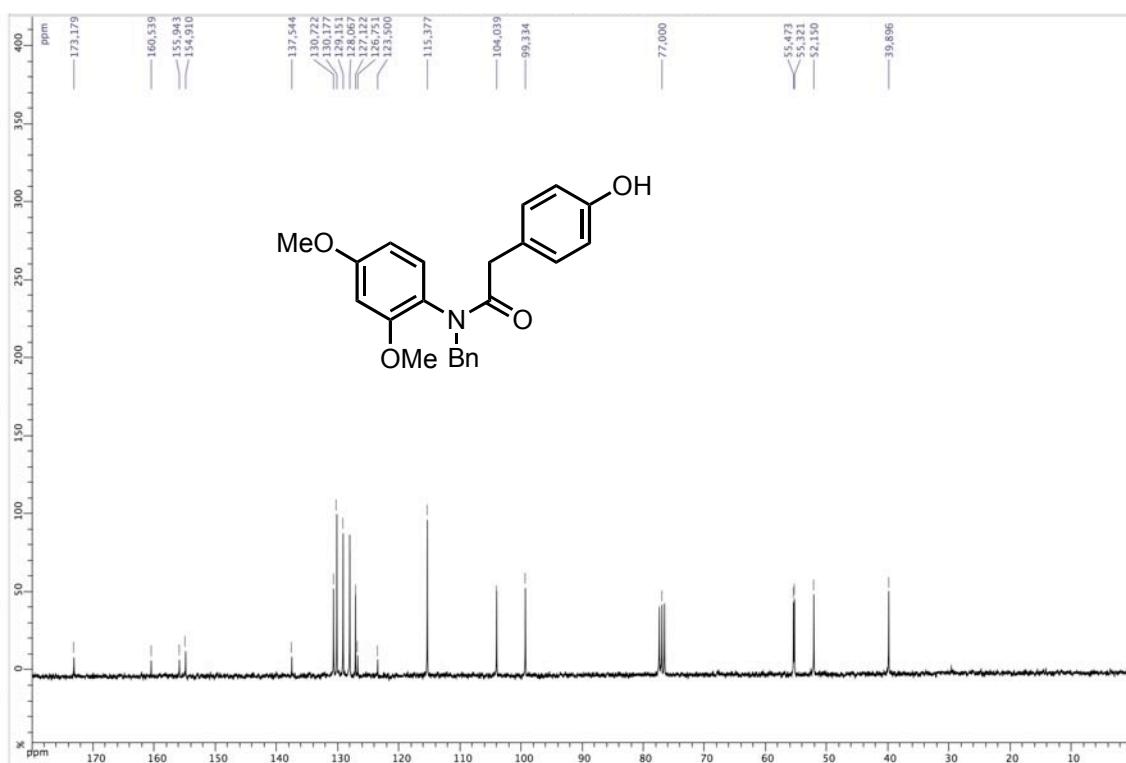
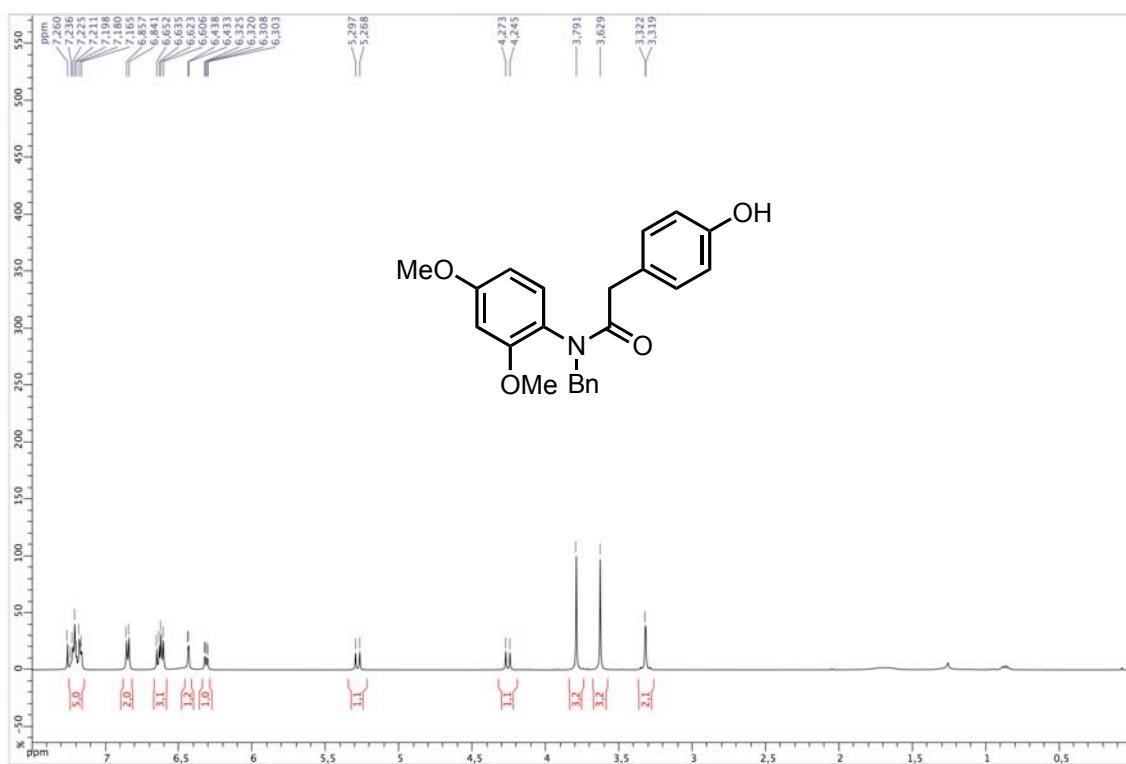
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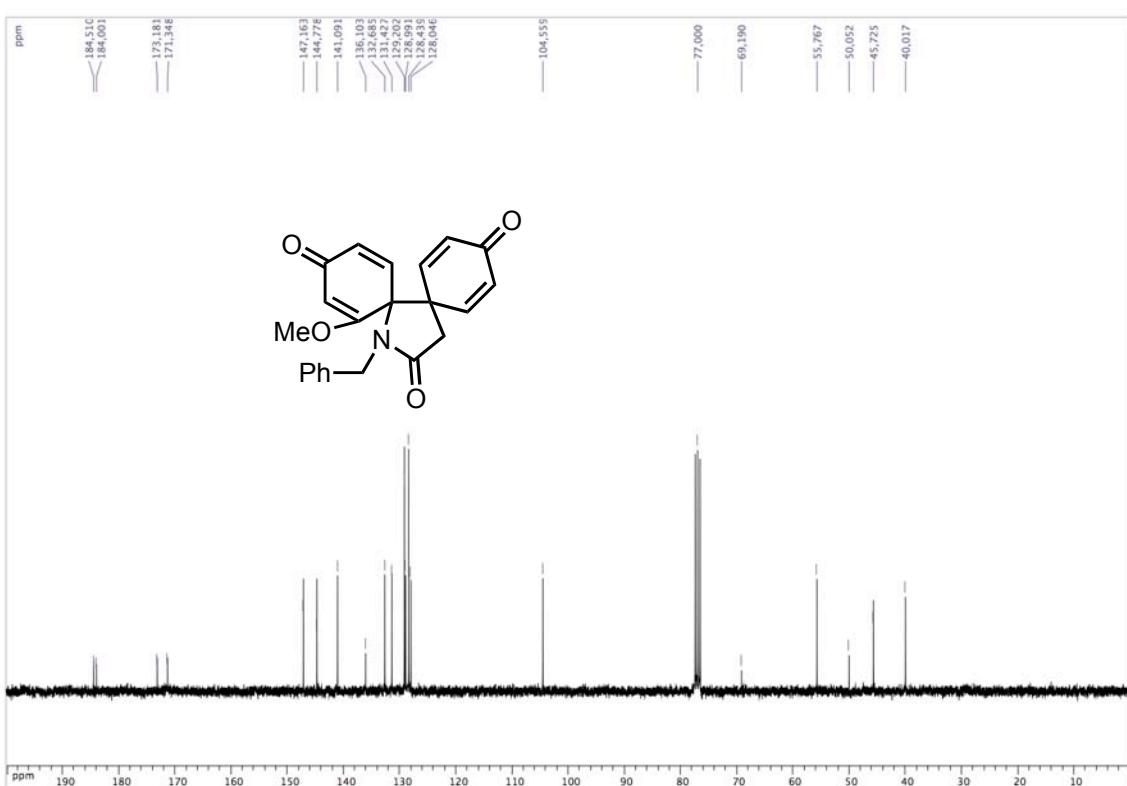
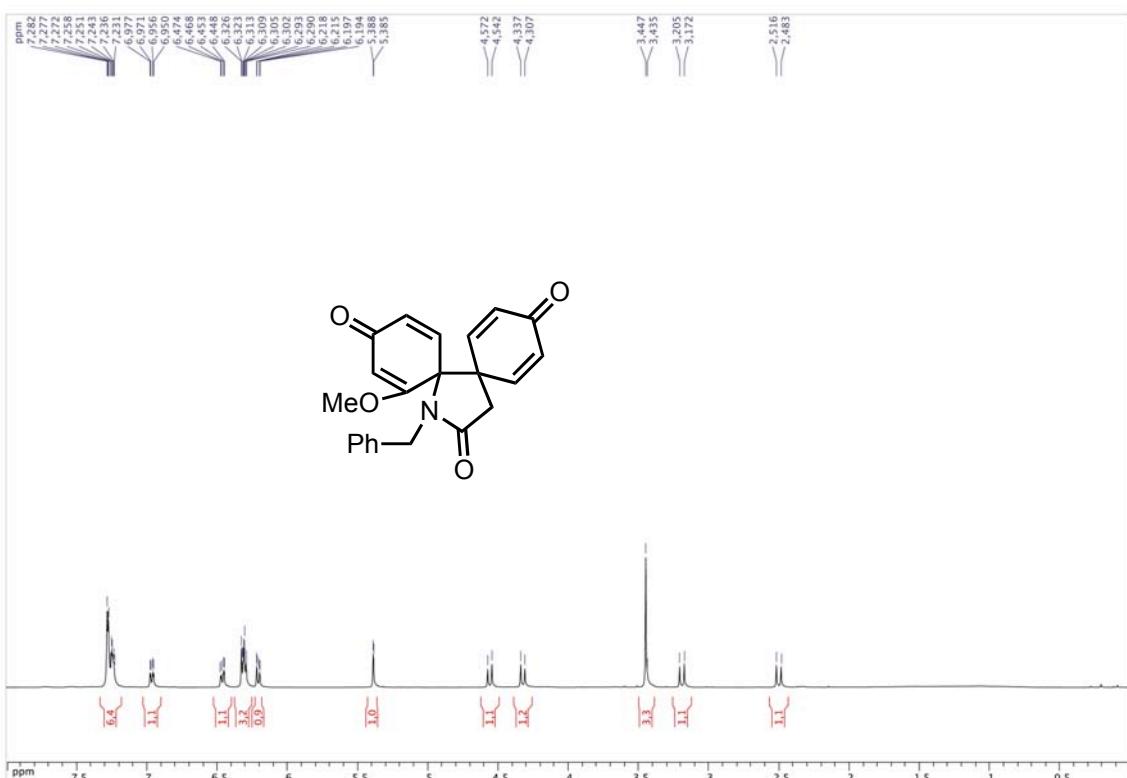
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N-benzyl-N-(2,4-dimethoxyphenyl)-2-(4-hydroxyphenyl)acetamide (3c)

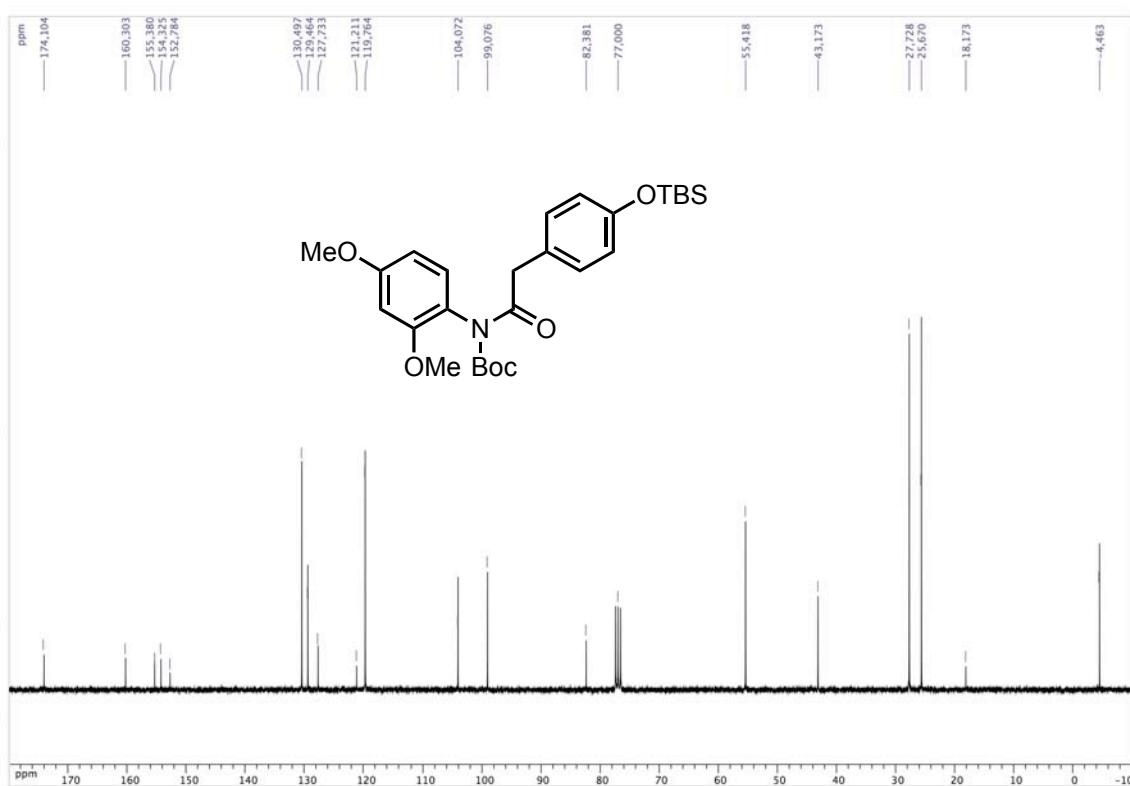
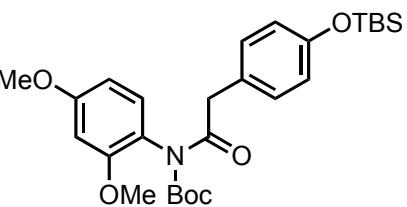
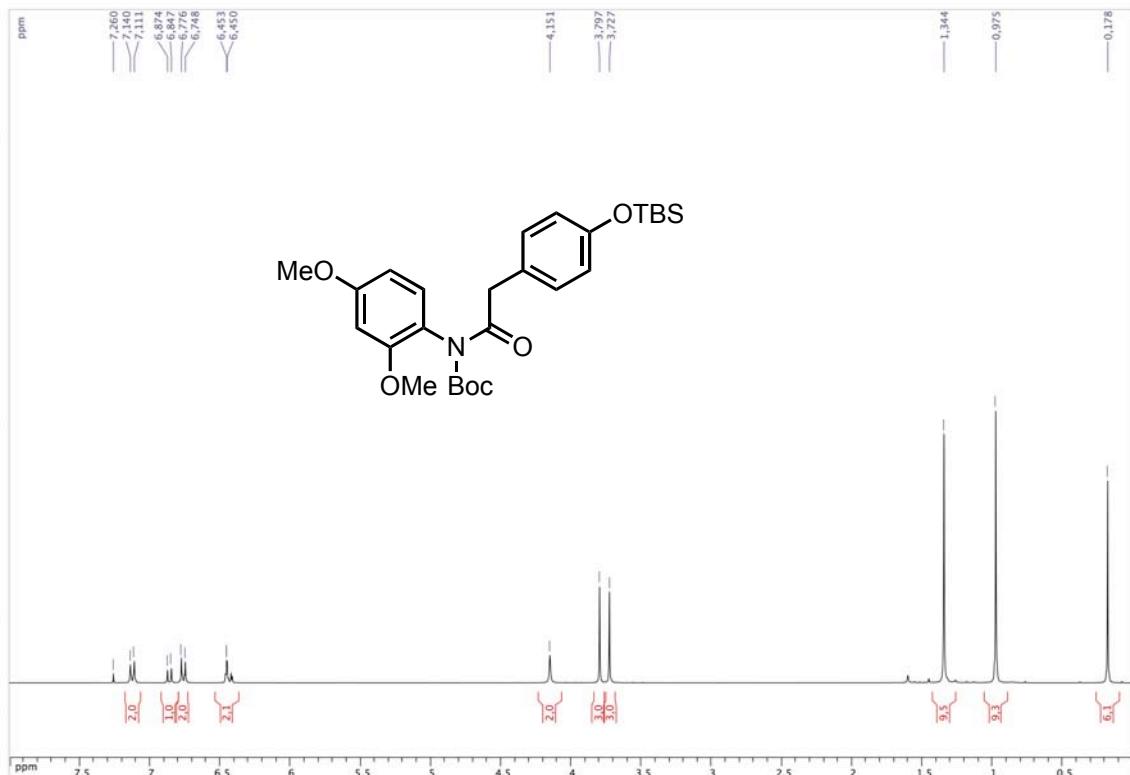


13-benzyl-8-methoxy-13-azadispiro[5.0.5.3]pentadeca-1,4,8,11-tetraene-3,10,14-trione (4c)

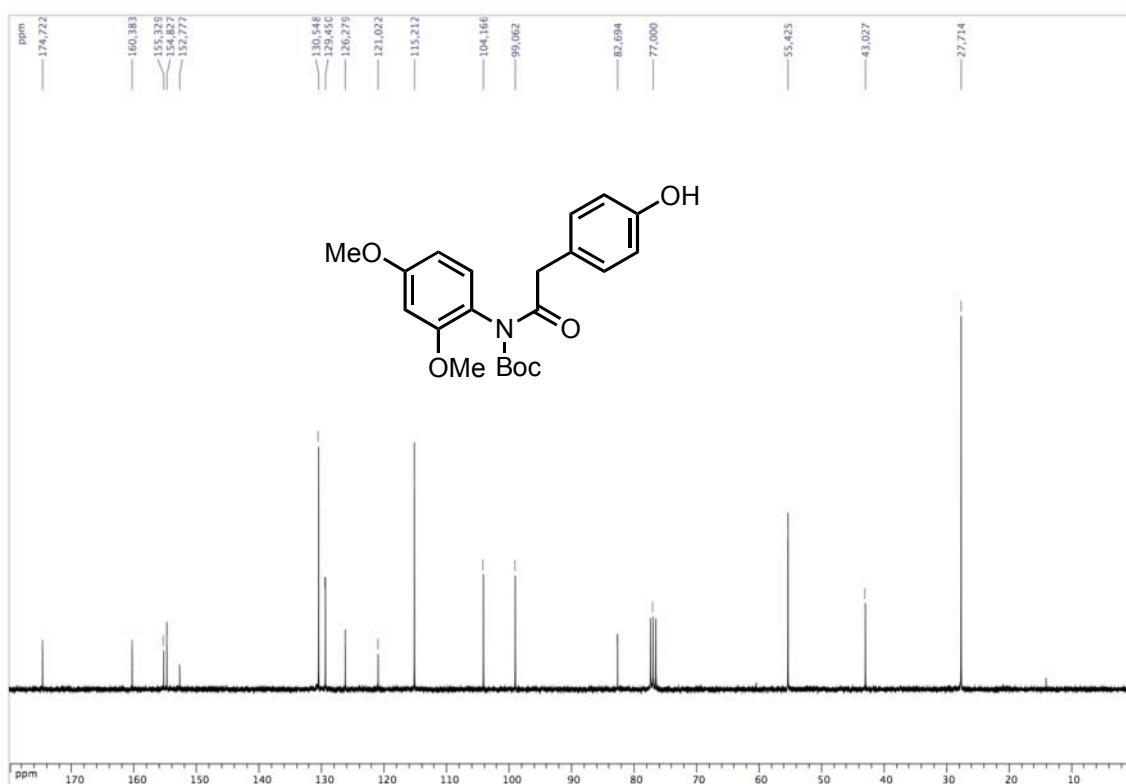
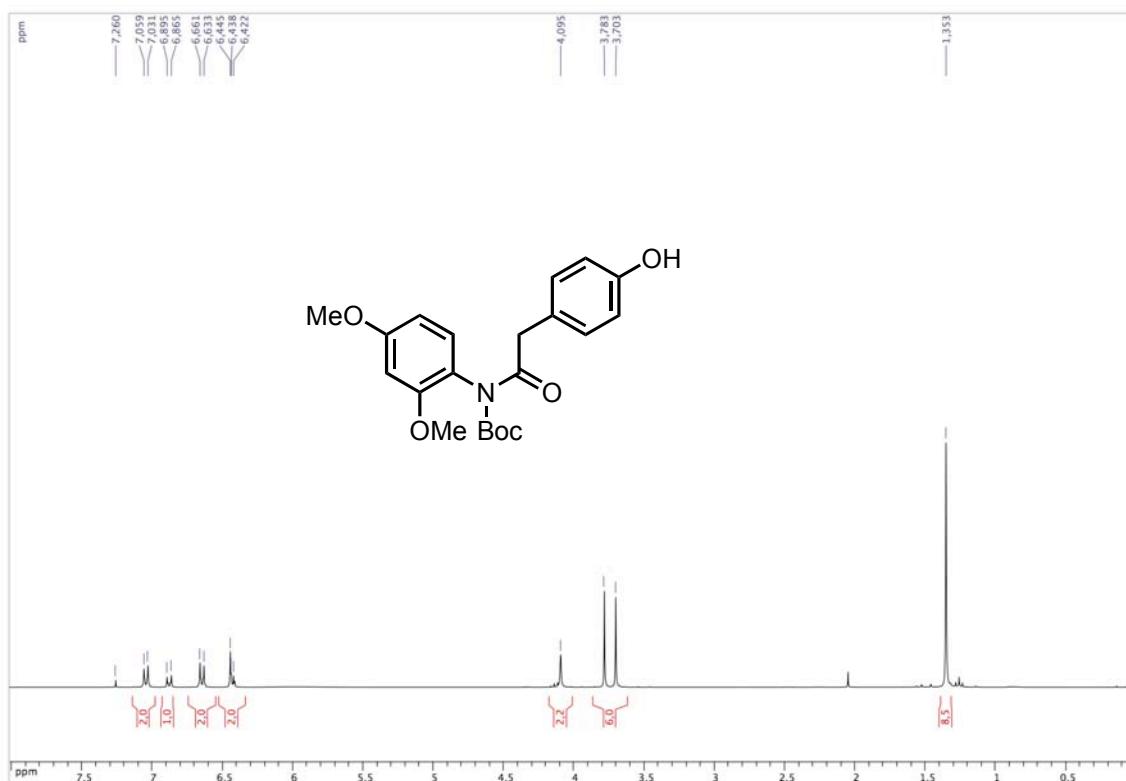


tert-butyl

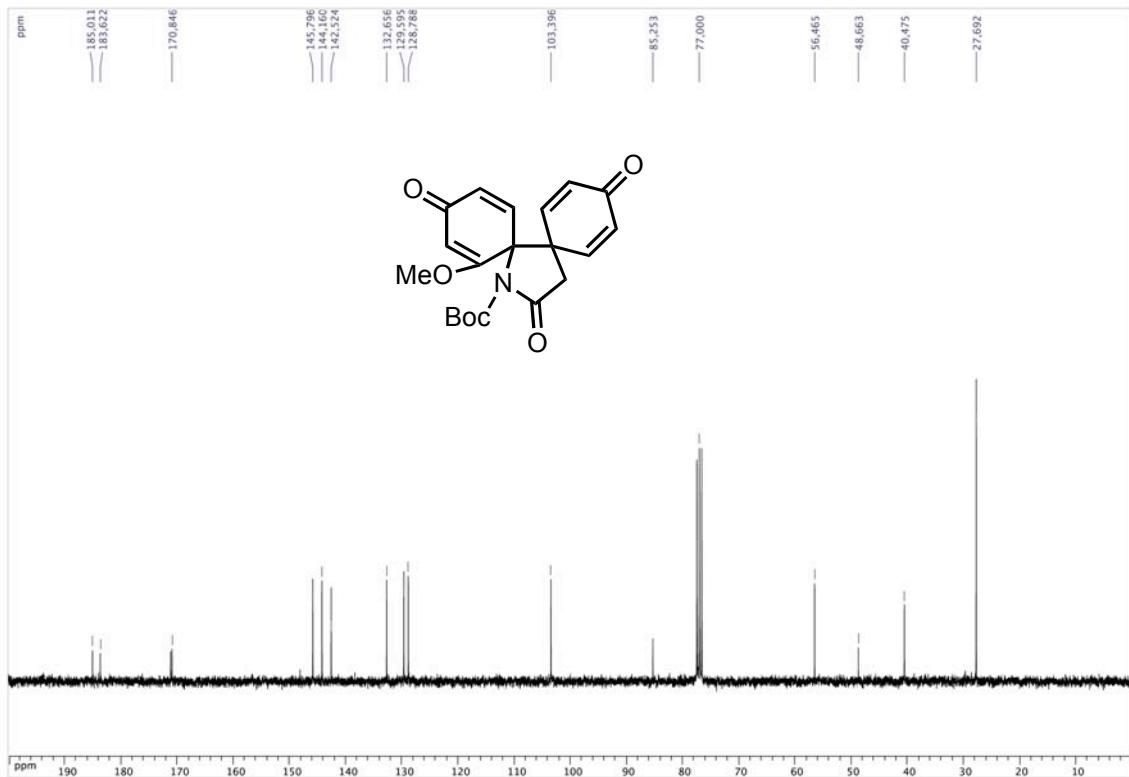
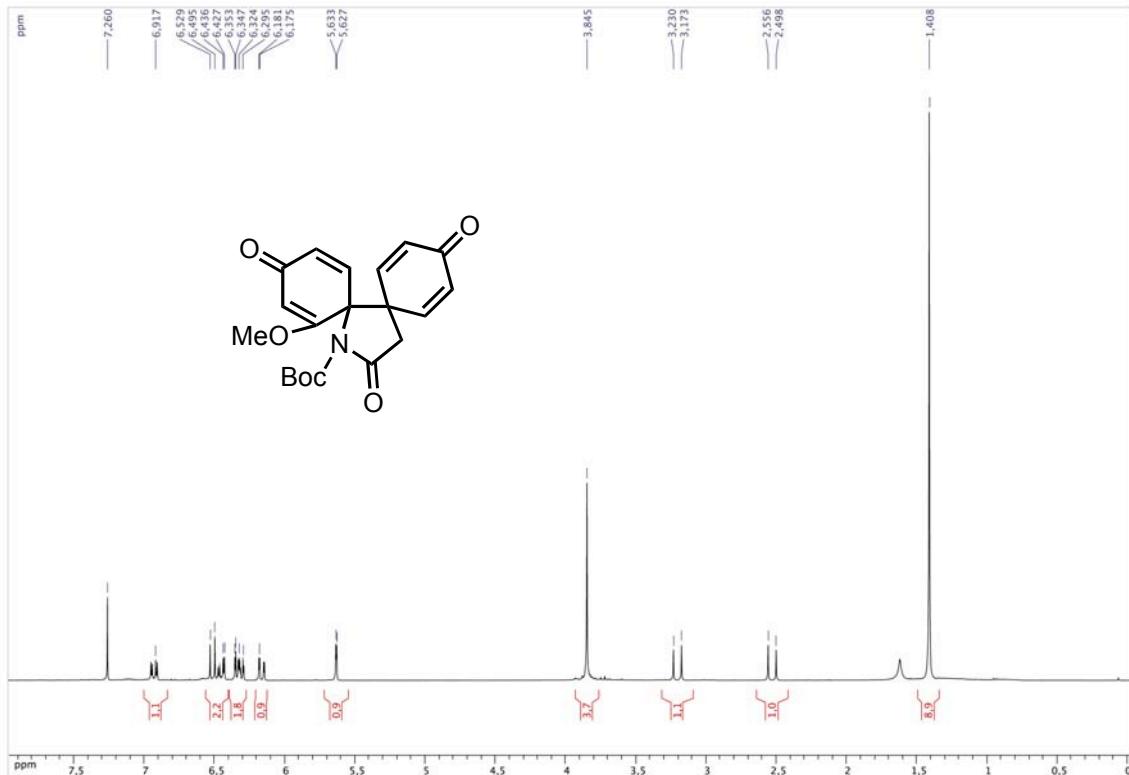
tert-butyl (2-(4-((*tert*-butyldimethylsilyl)oxy)phenyl)acetyl)(2,4-dimethoxyphenyl)carbamate (3dB)



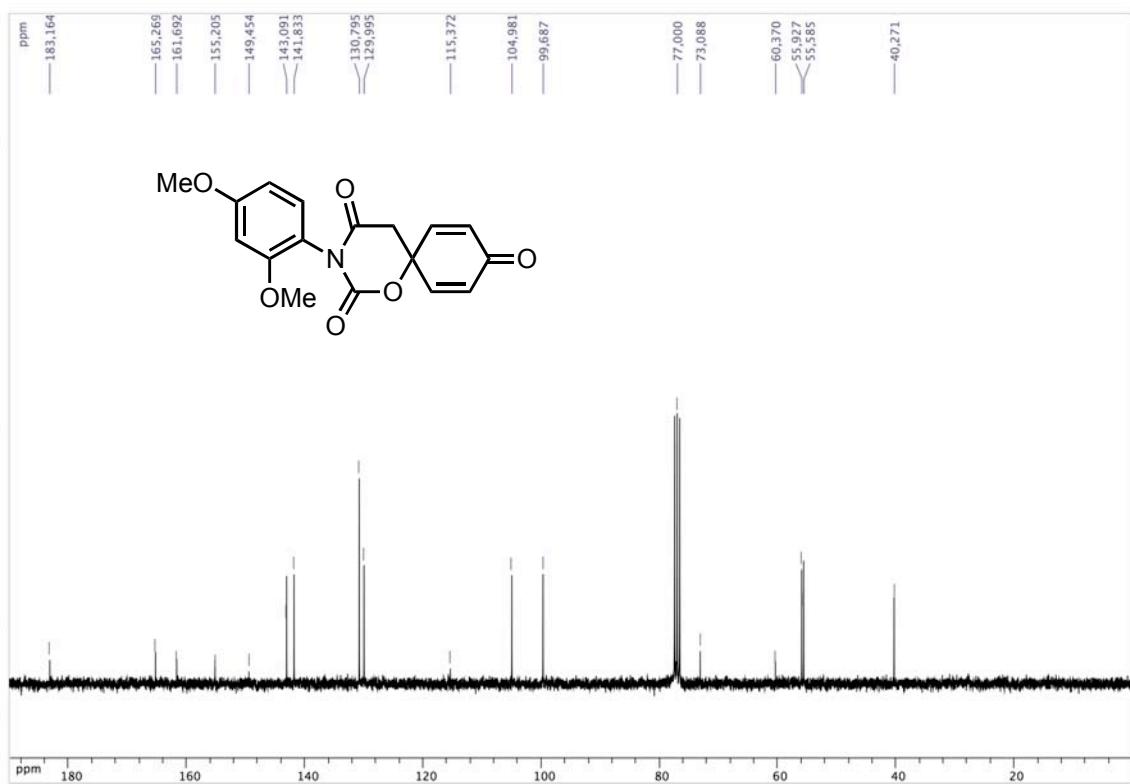
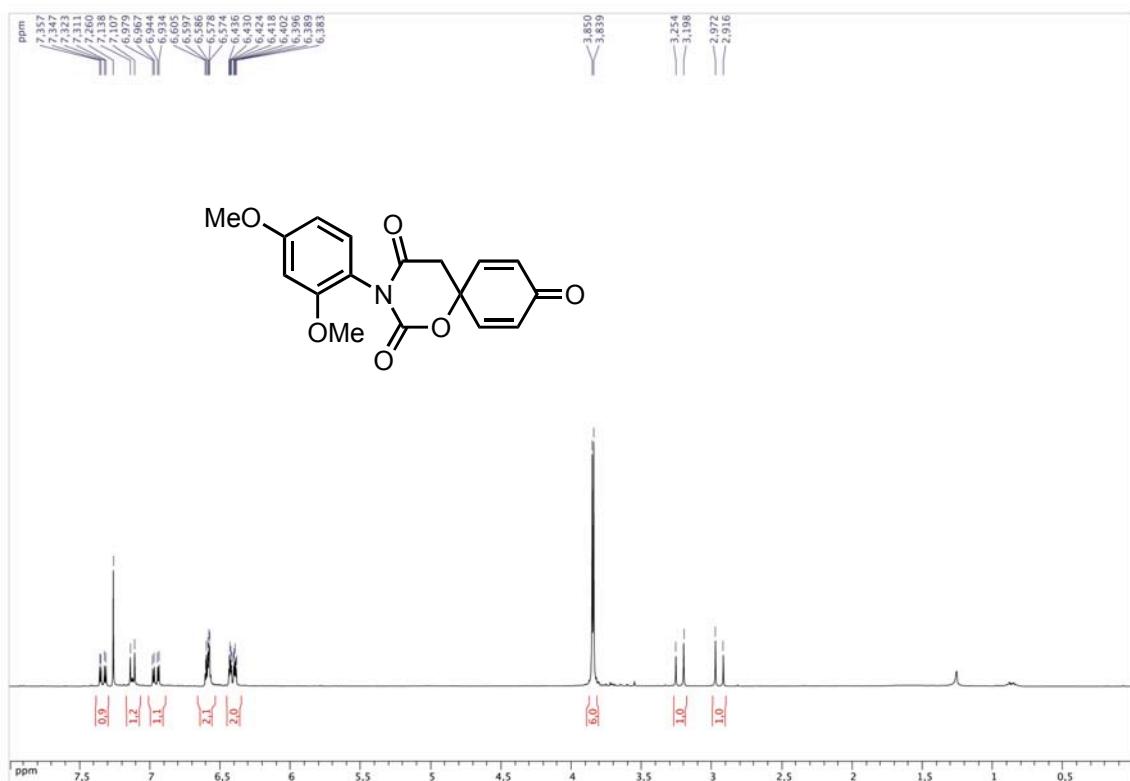
***tert*-butyl (2,4-dimethoxyphenyl)(2-(4-hydroxyphenyl)acetyl)carbamate (3d)**



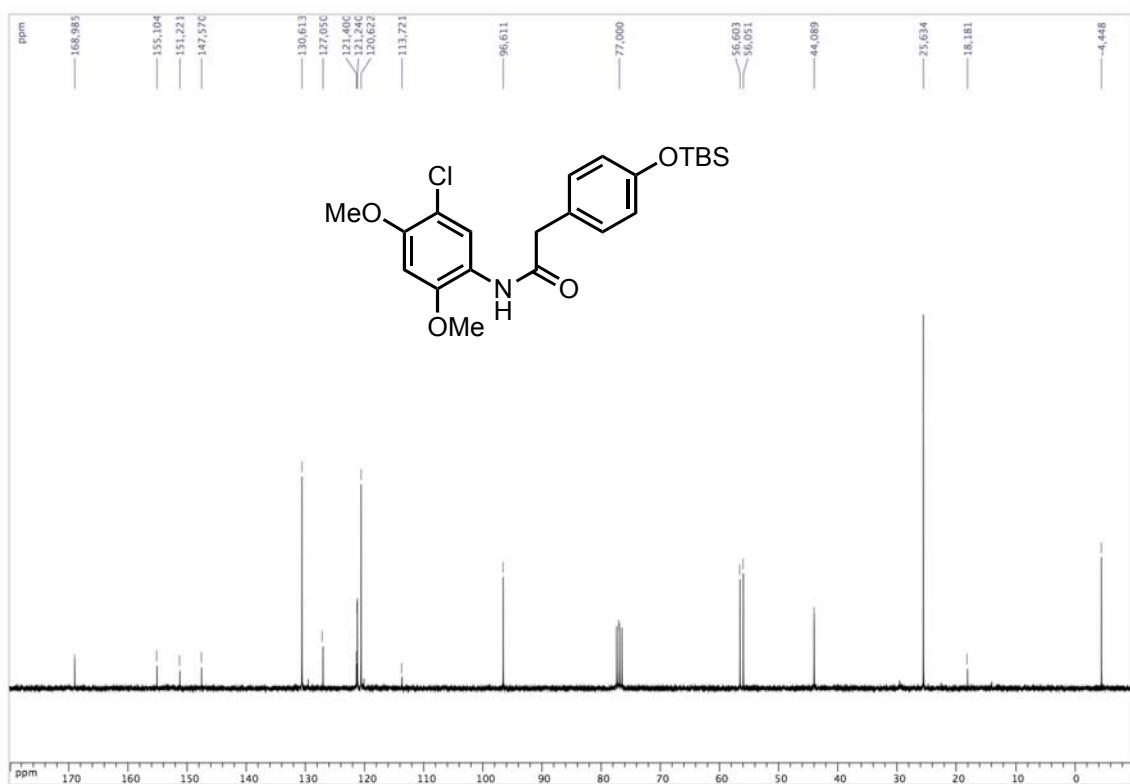
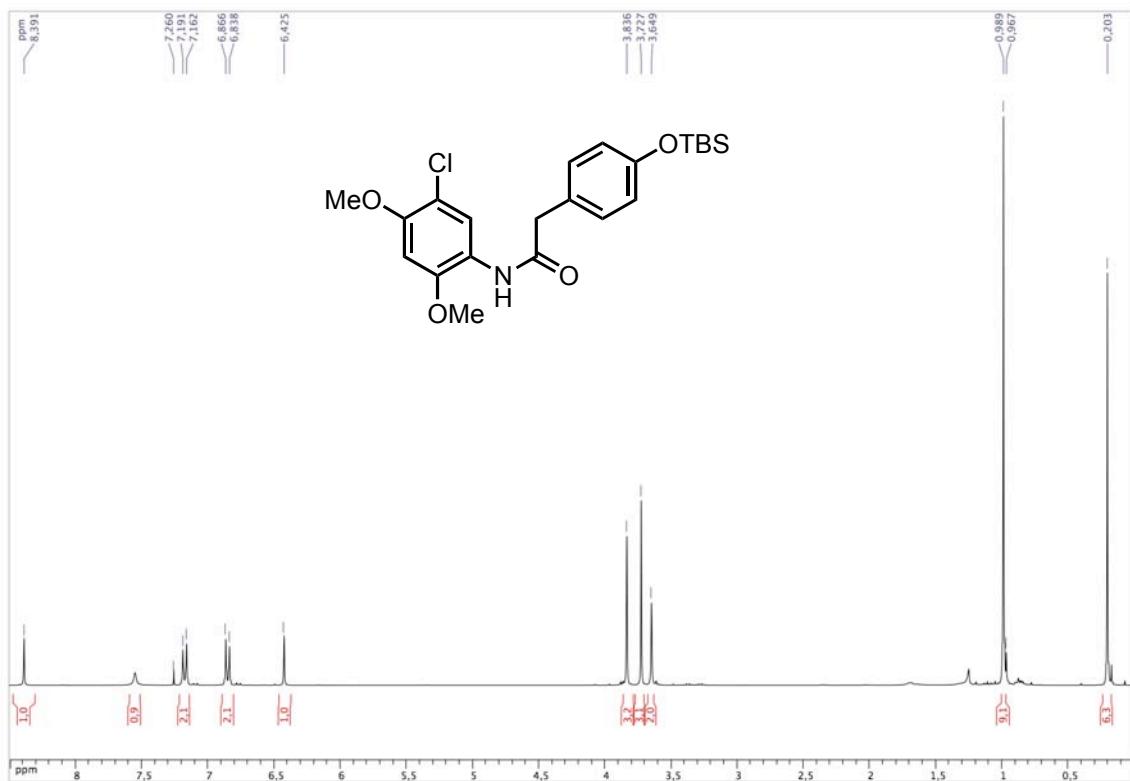
tert-butyl 8-methoxy-3,10,14-trioxo-13-azadispiro[5.0.5.3]pentadeca-1,4,8,11-tetraene-13-carboxylate (4d)



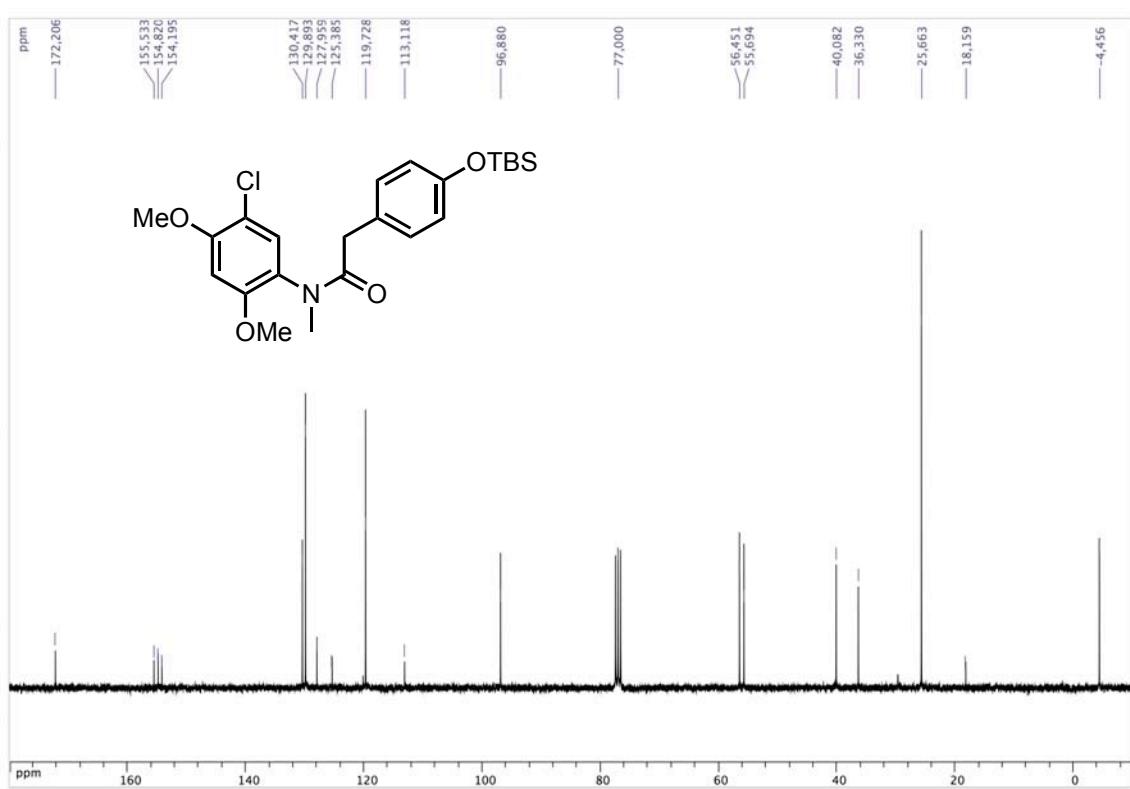
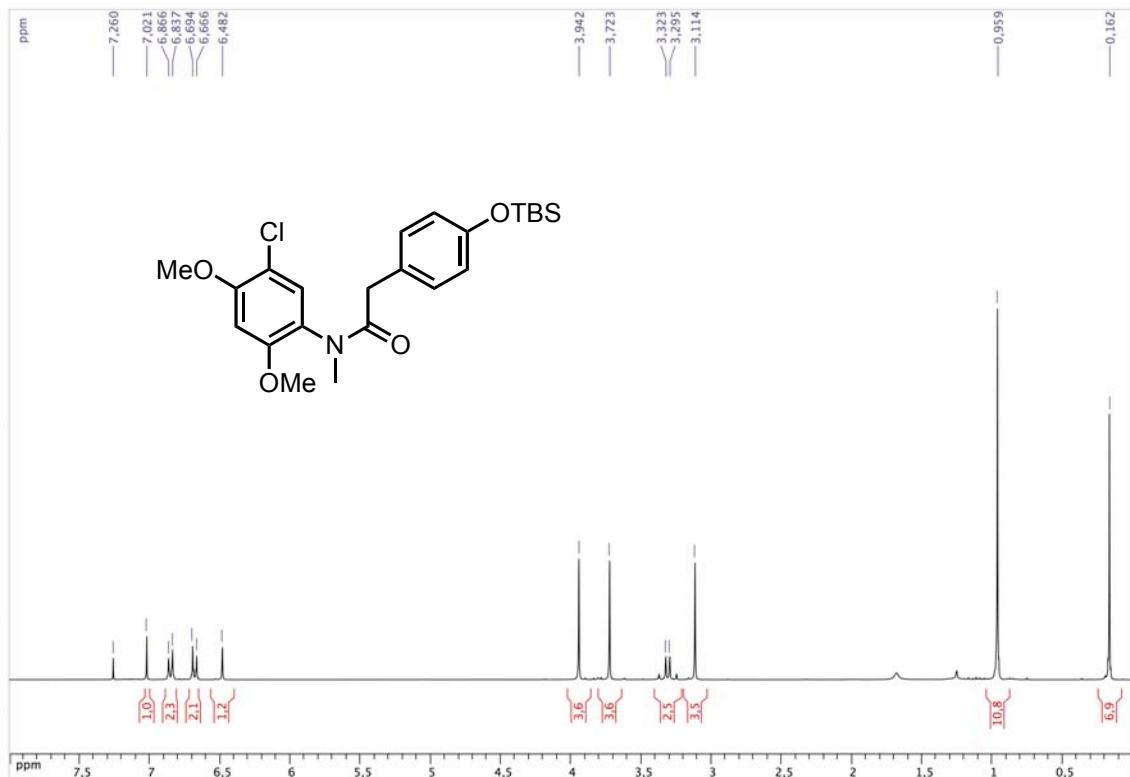
3-(2,4-dimethoxyphenyl)-1-oxa-3-azaspiro[5.5]undeca-7,10-diene-2,4,9-trione (5)



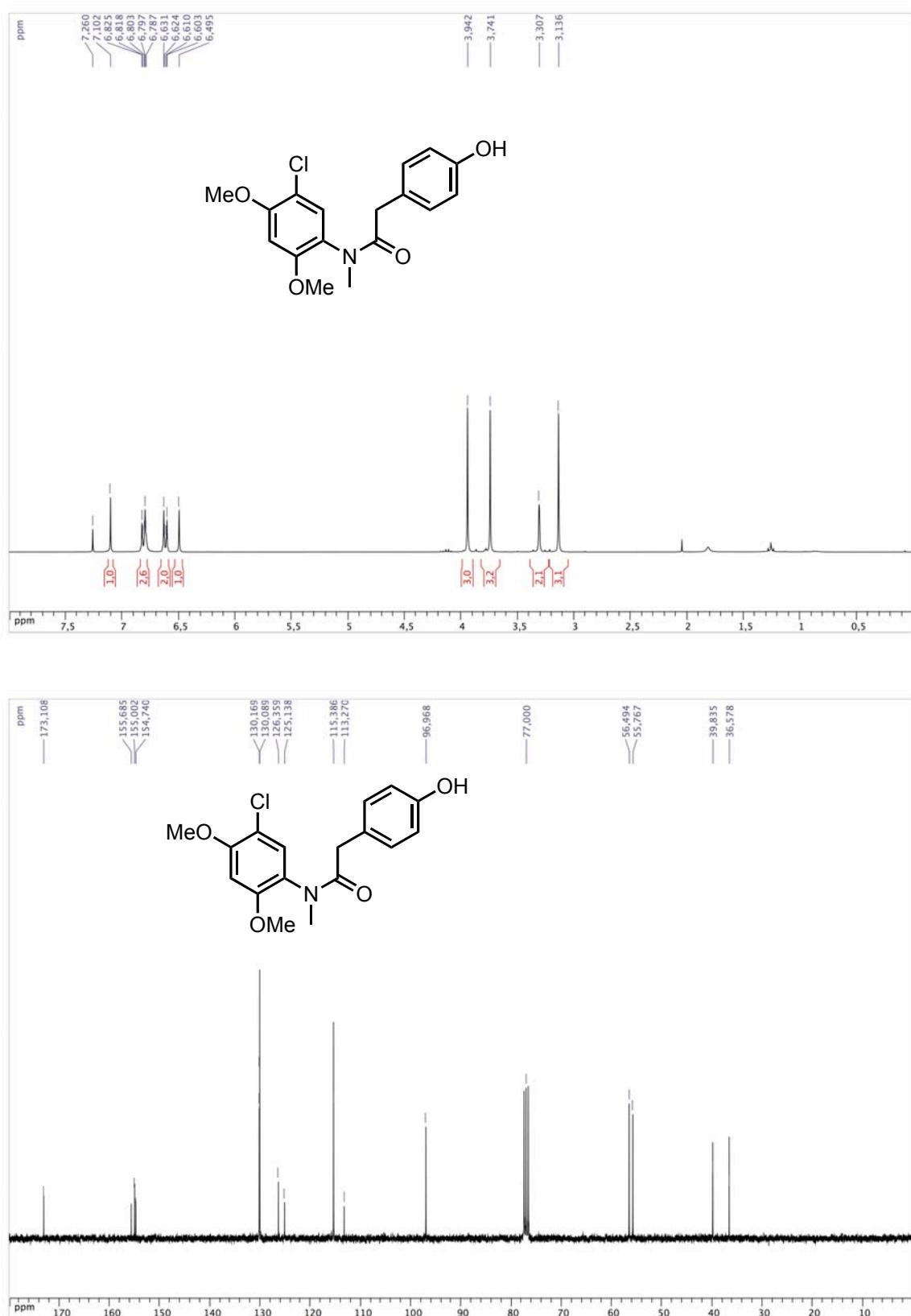
**2-((tert-butyldimethylsilyl)oxy)phenyl)-N-(5-chloro-2,4-dimethoxyphenyl)acetamide
(3eA)**



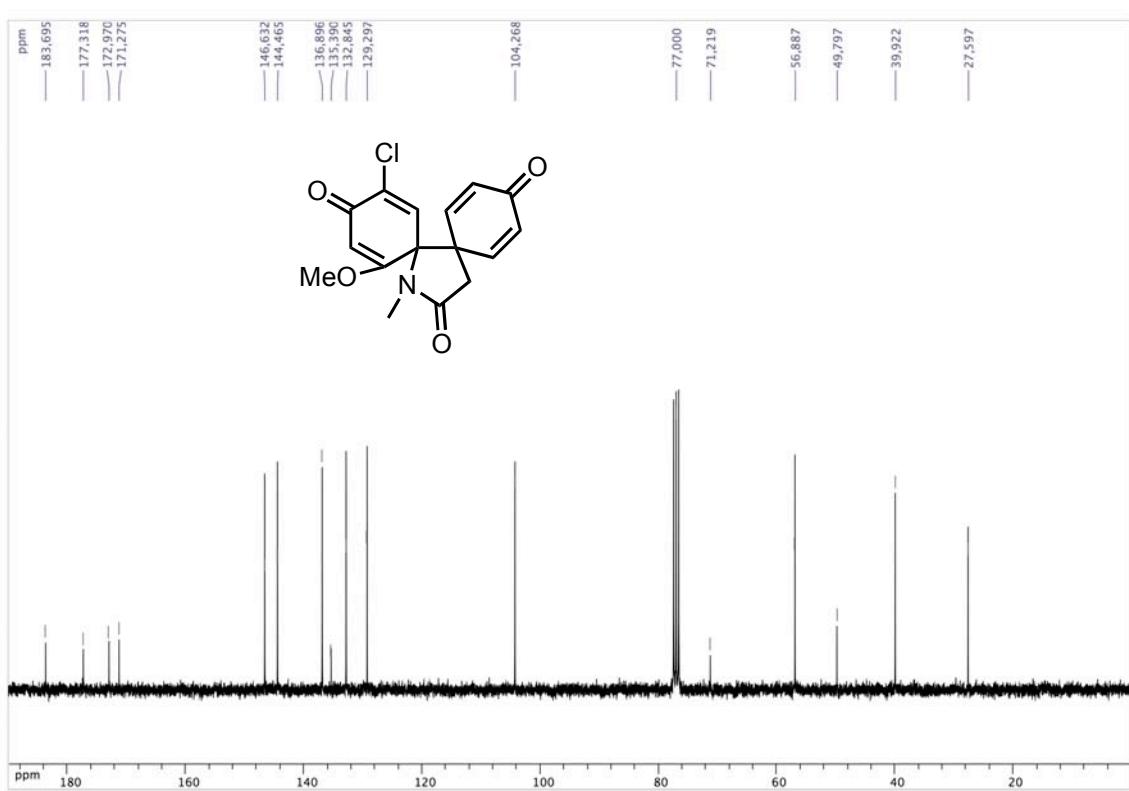
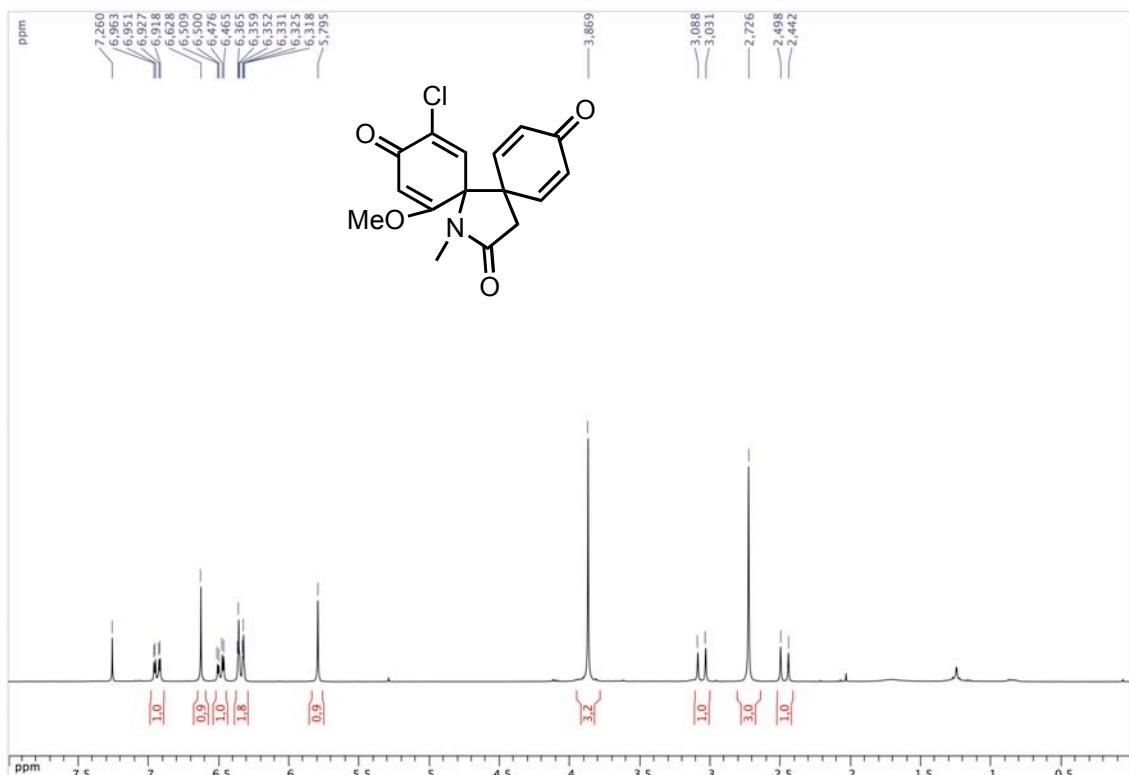
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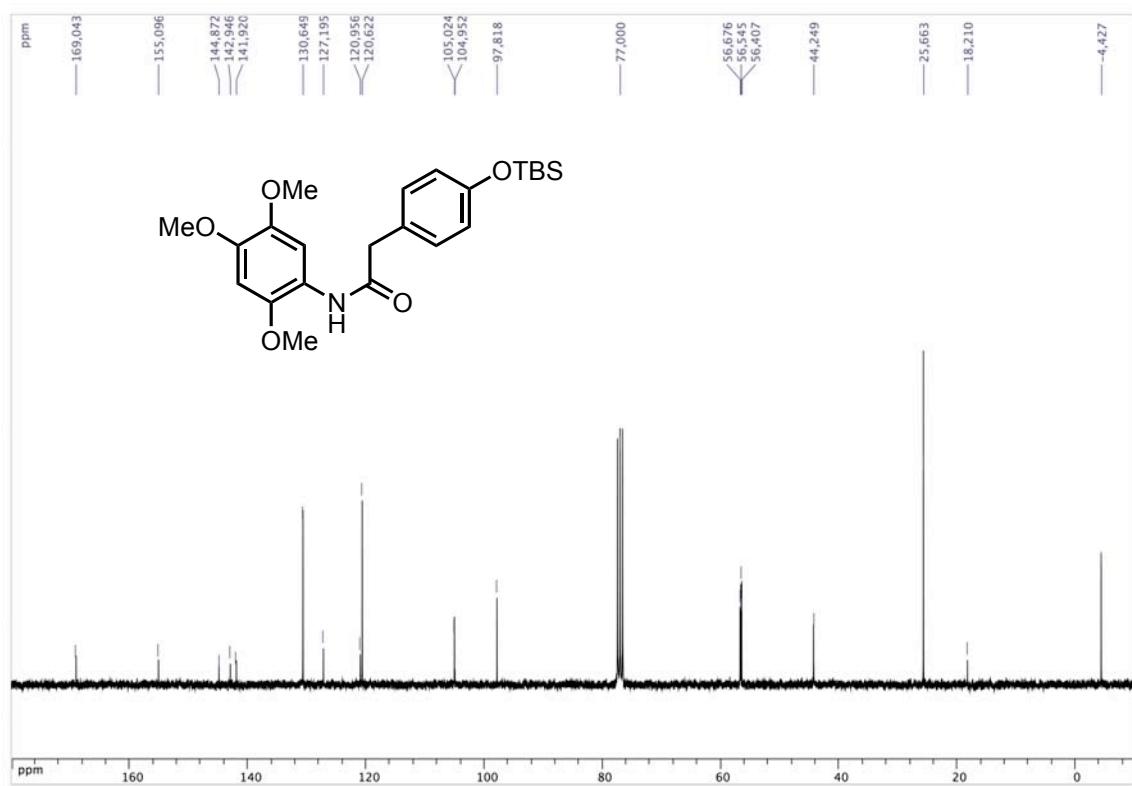
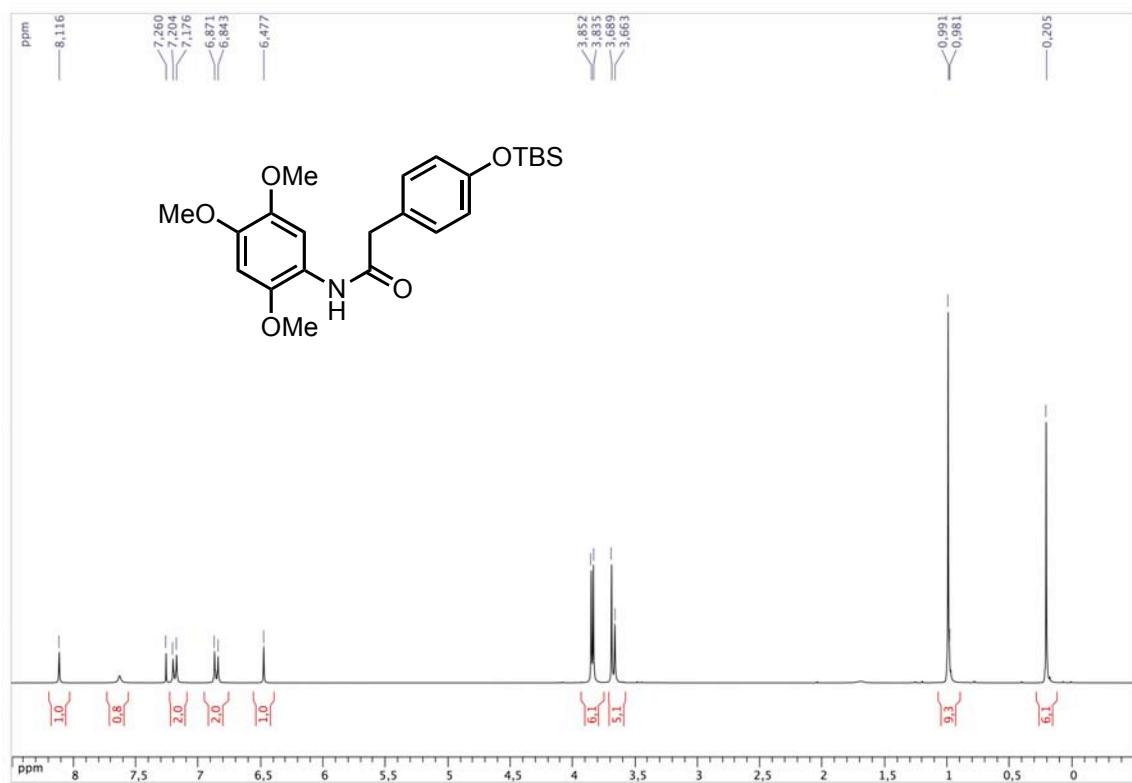
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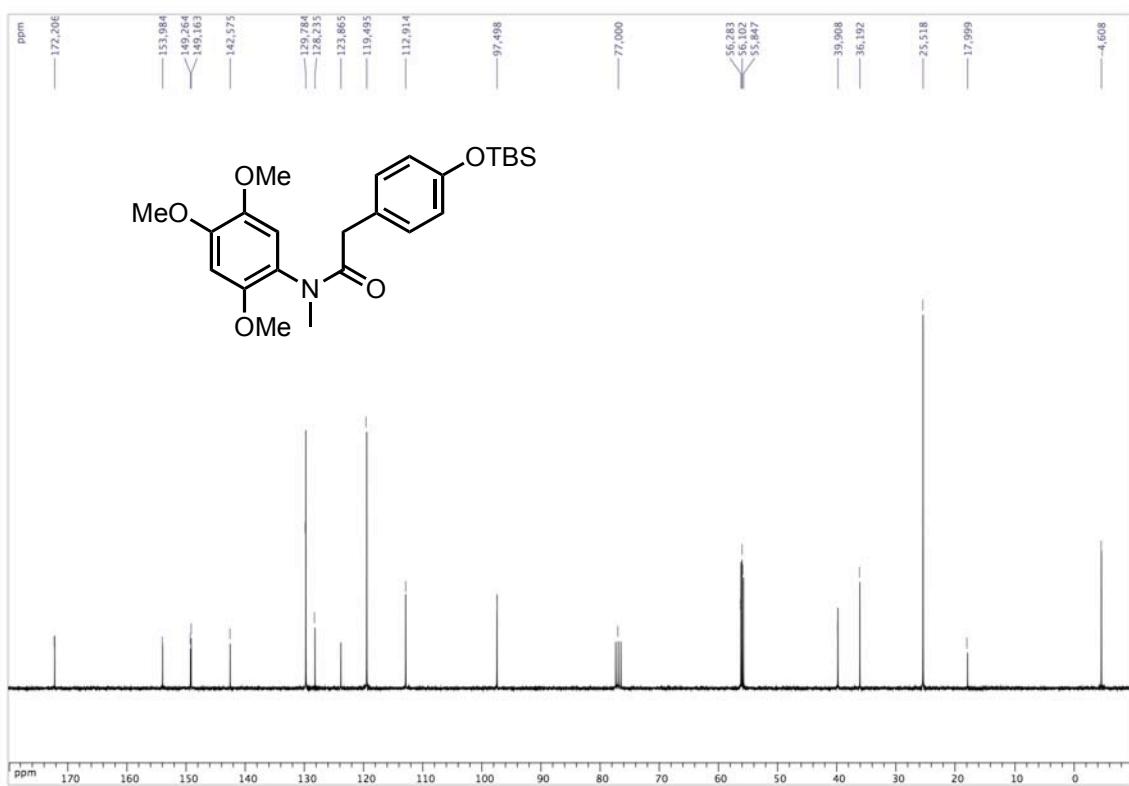
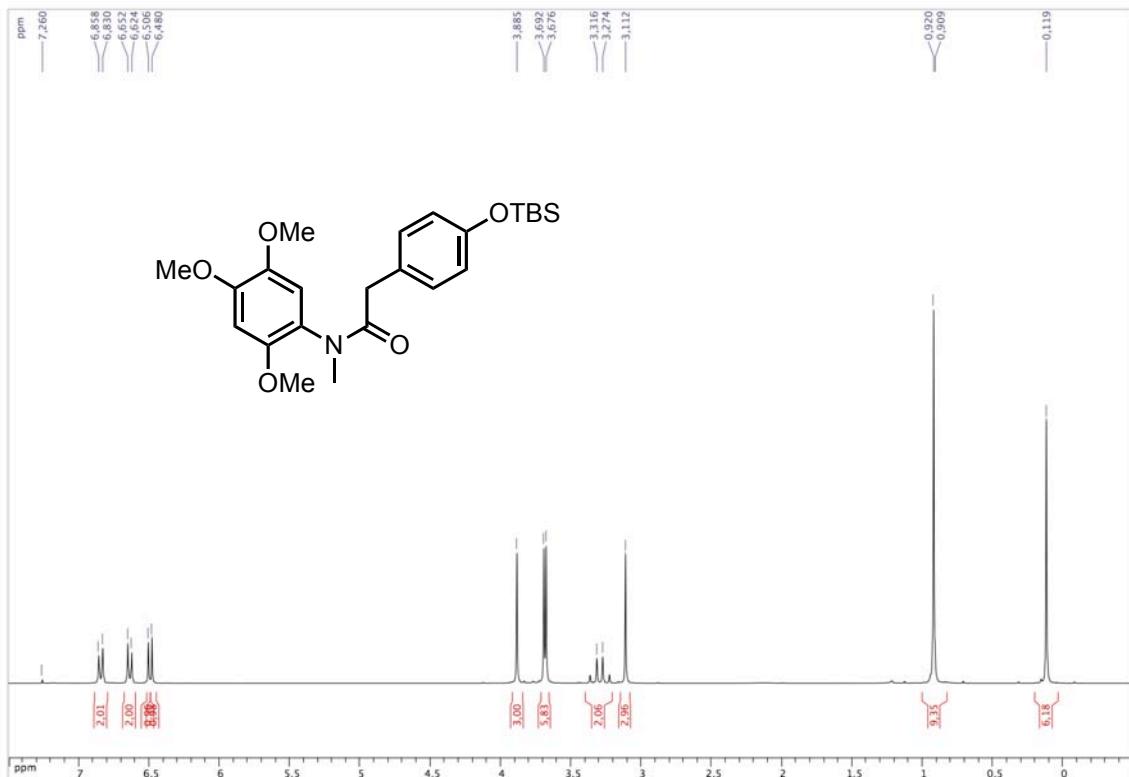
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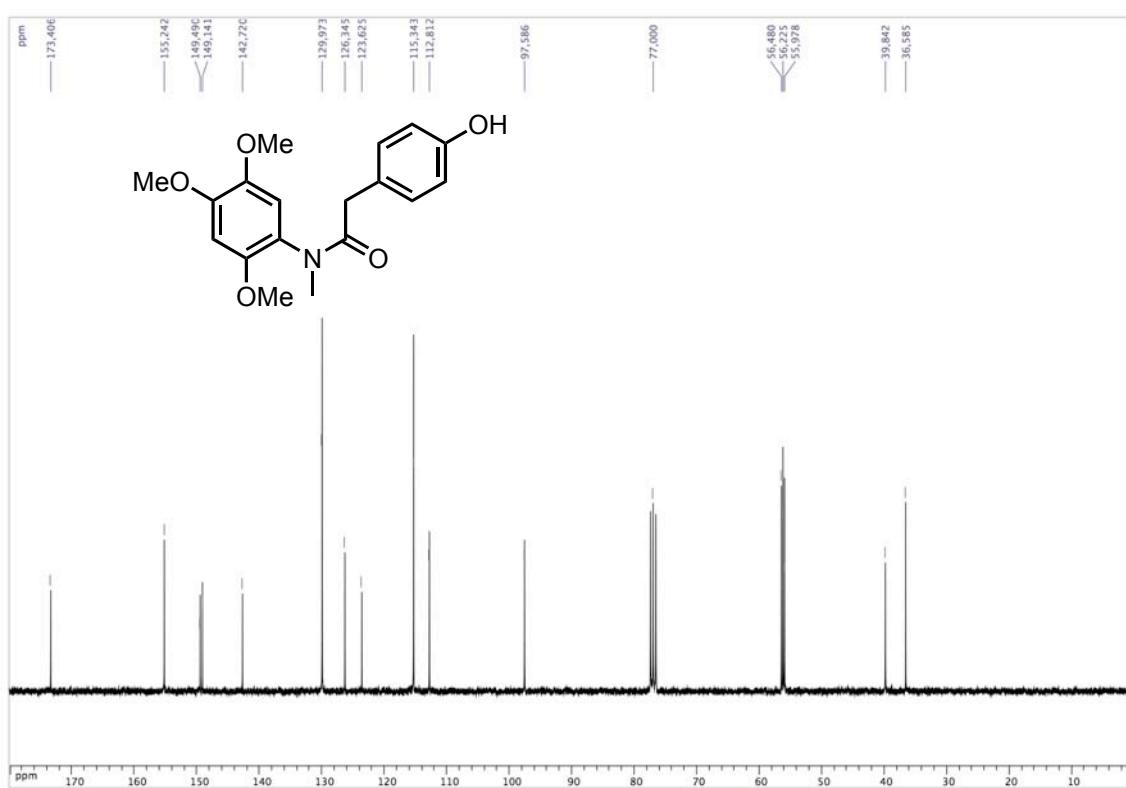
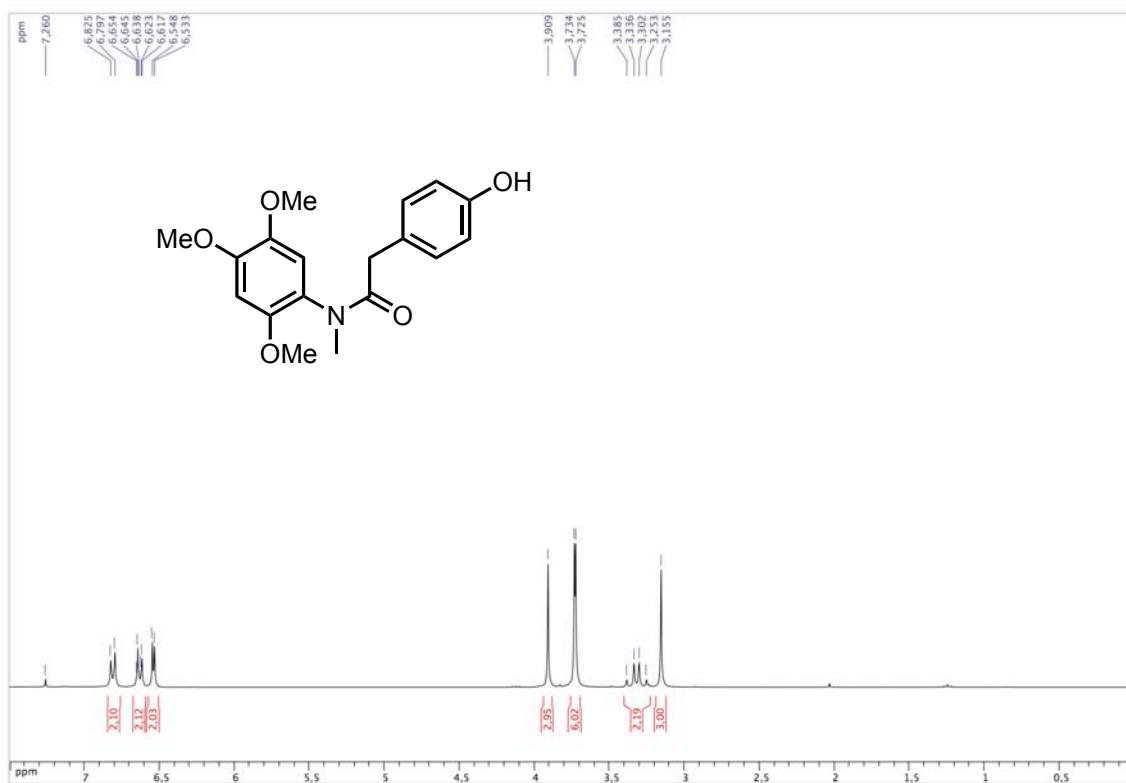
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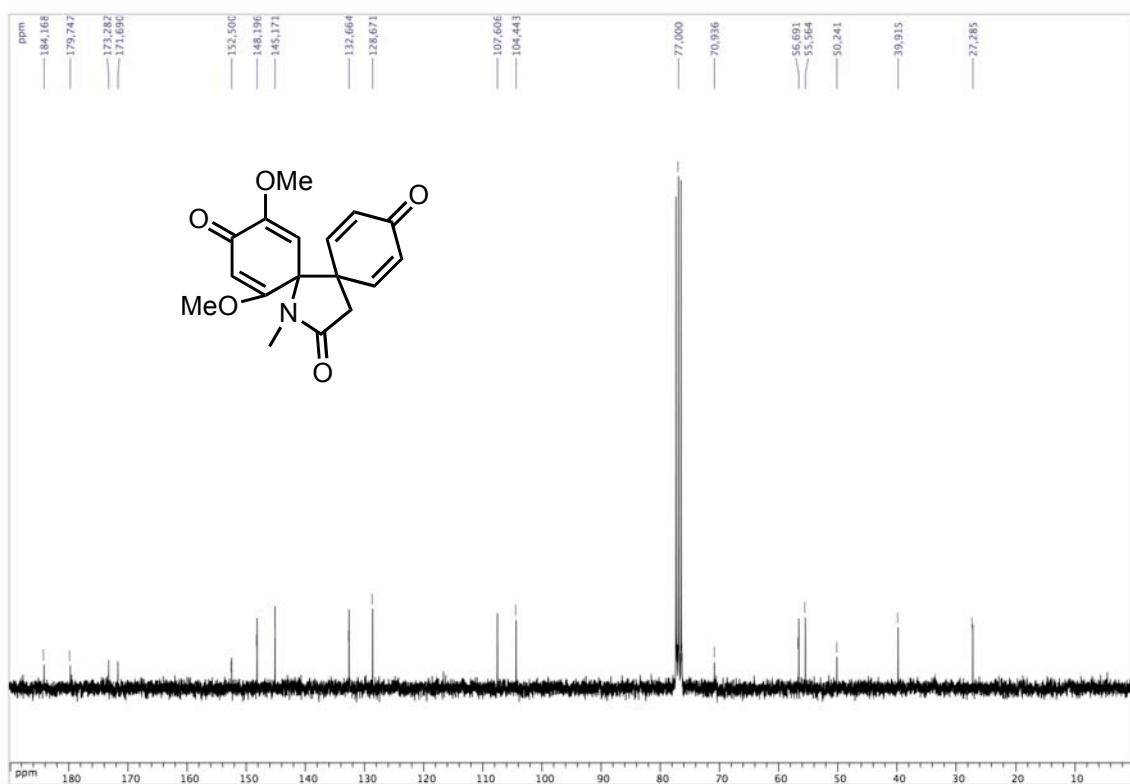
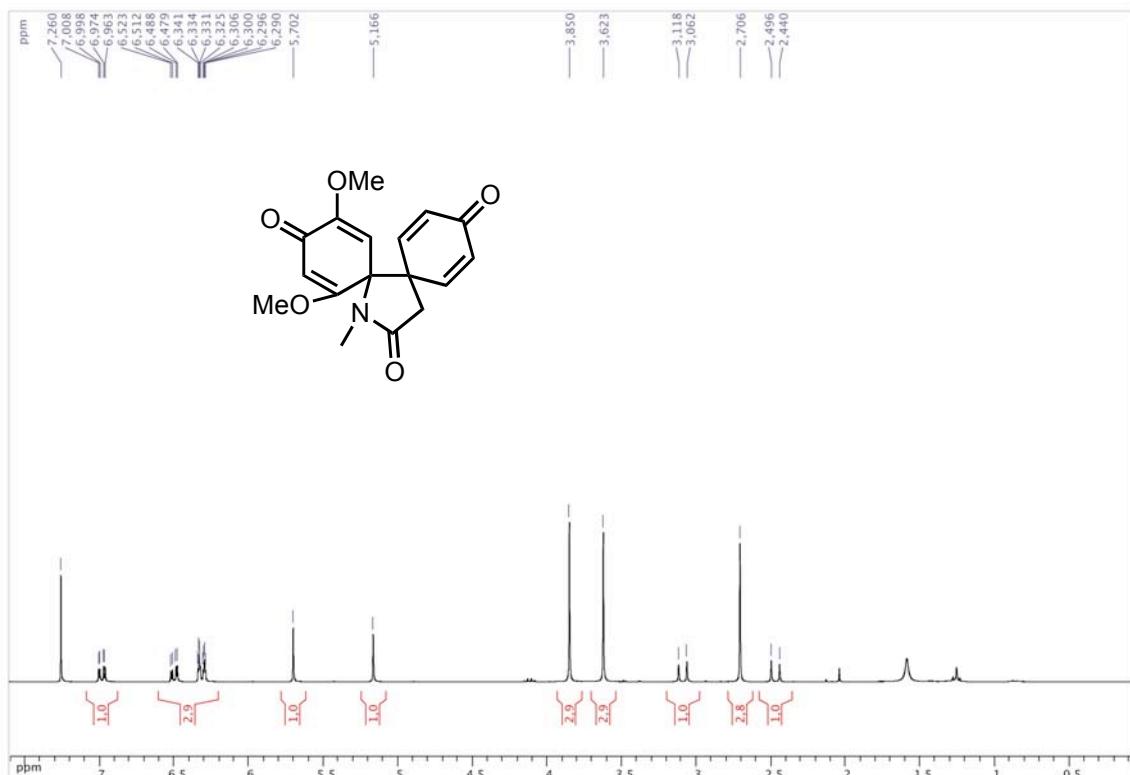
2-((tert-butylidemethylsilyl)oxy)phenyl)-N-methyl-N-(2,4,5-trimethoxyphenyl)acetamide (3fB)



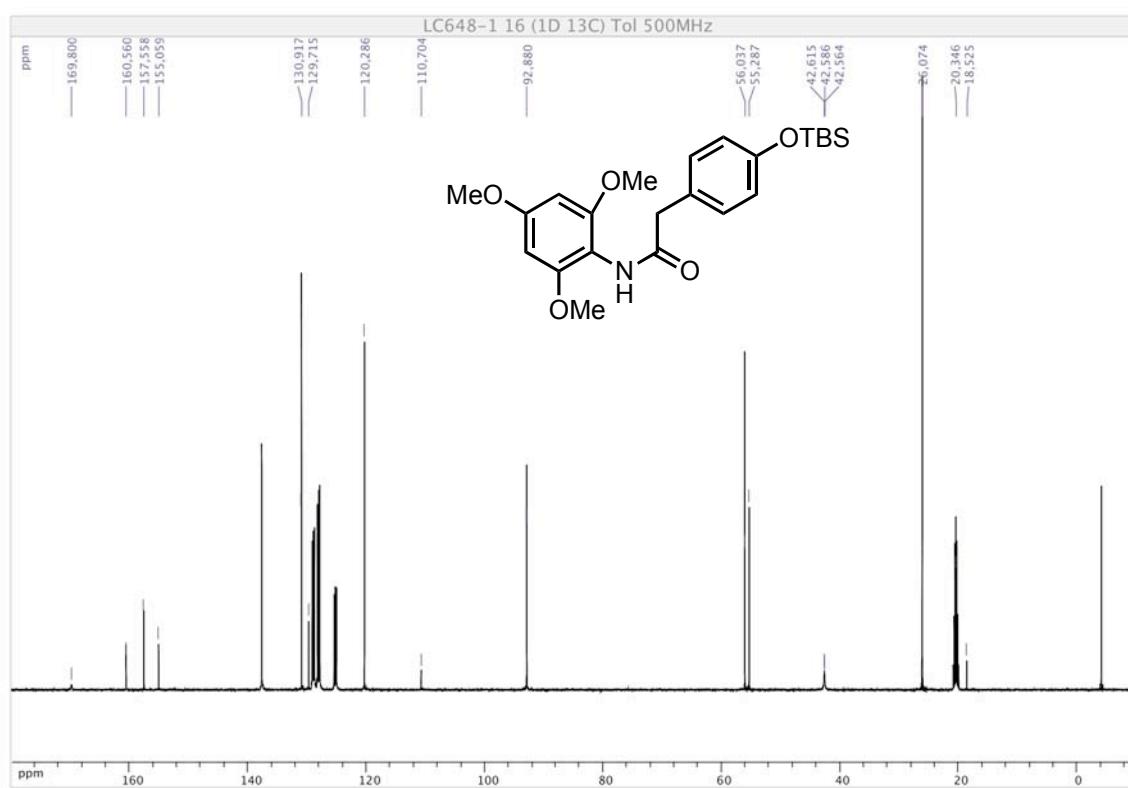
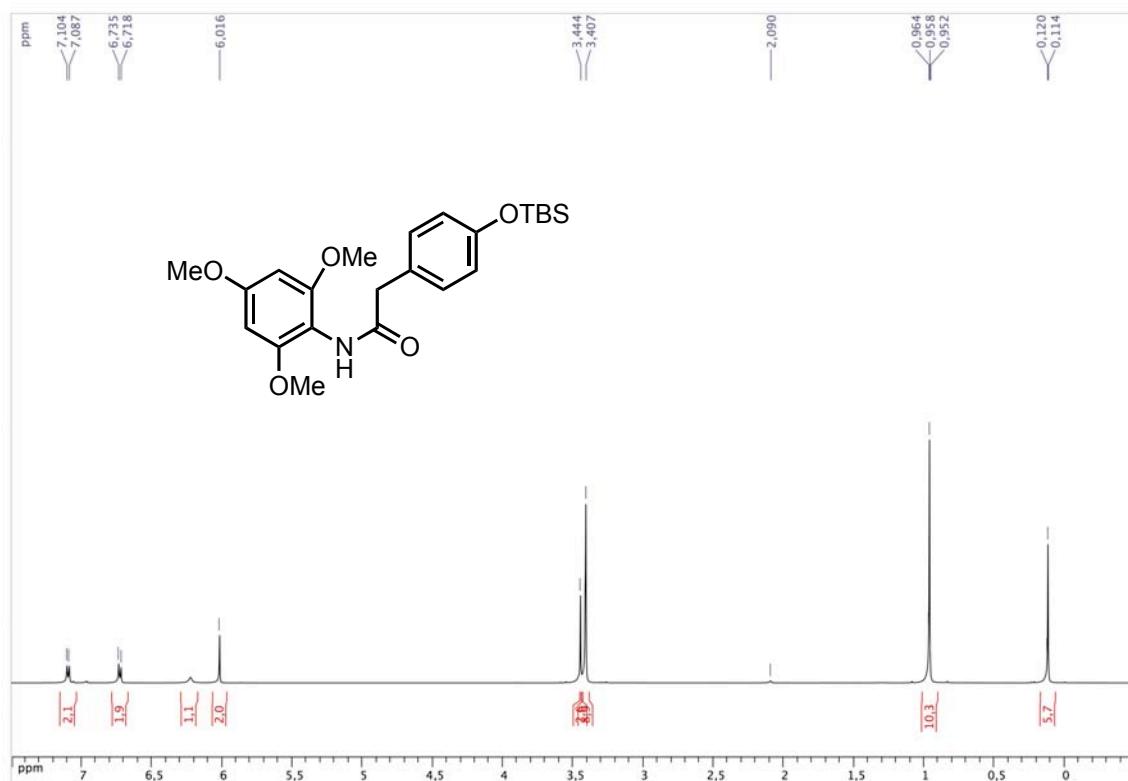
2-(4-hydroxyphenyl)-N-methyl-N-(2,4,5-trimethoxyphenyl)acetamide (3f)



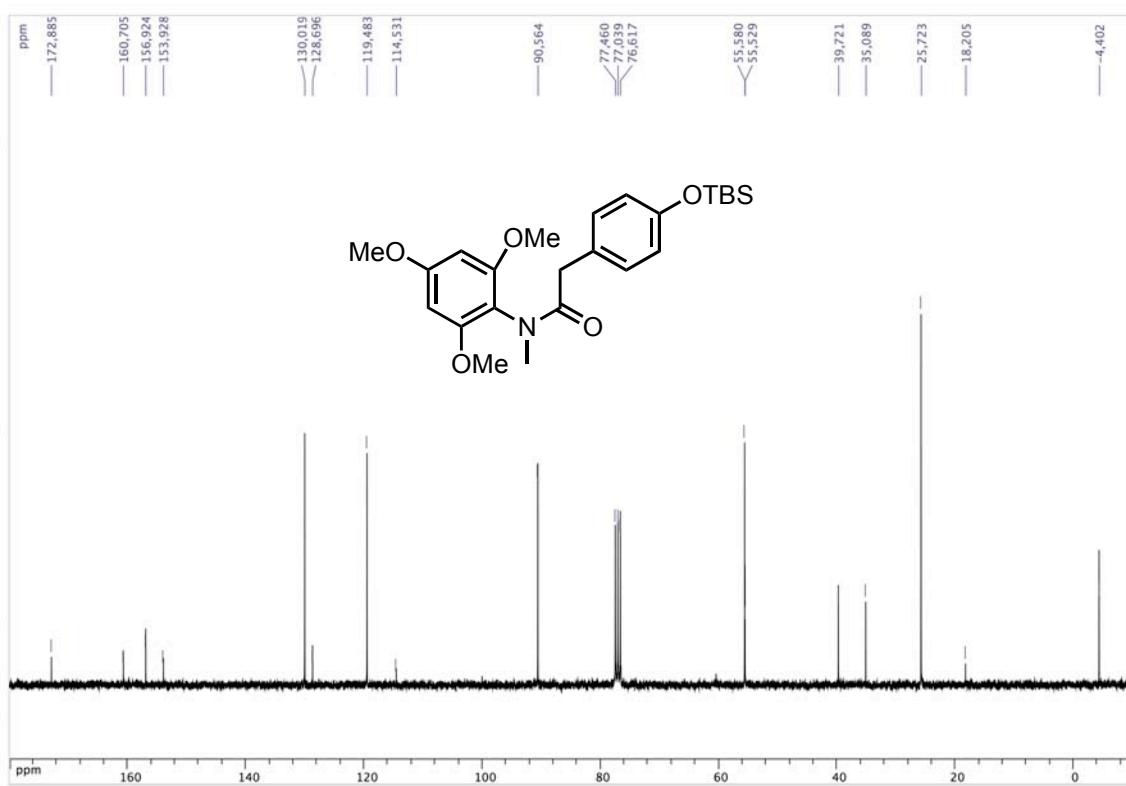
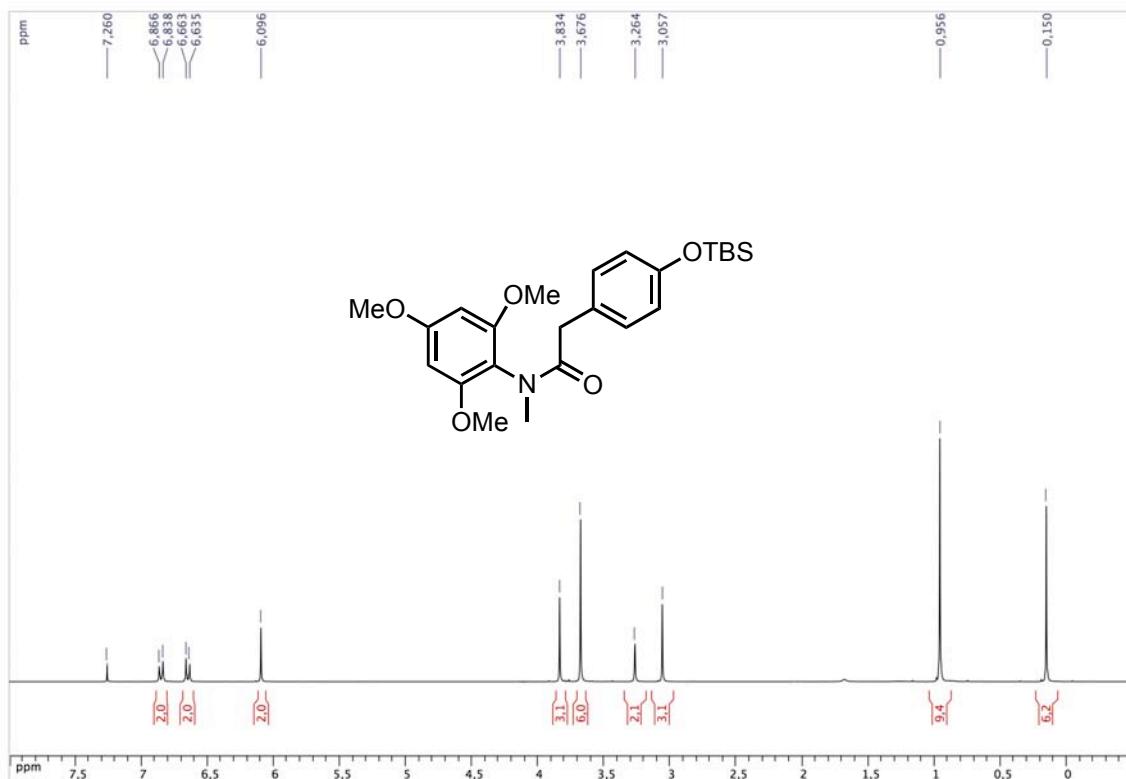
8,11-dimethoxy-13-methyl-13-azadispiro[5.0.5.3]pentadeca-1,4,8,11-tetraene-3,10,14-trione (4f)



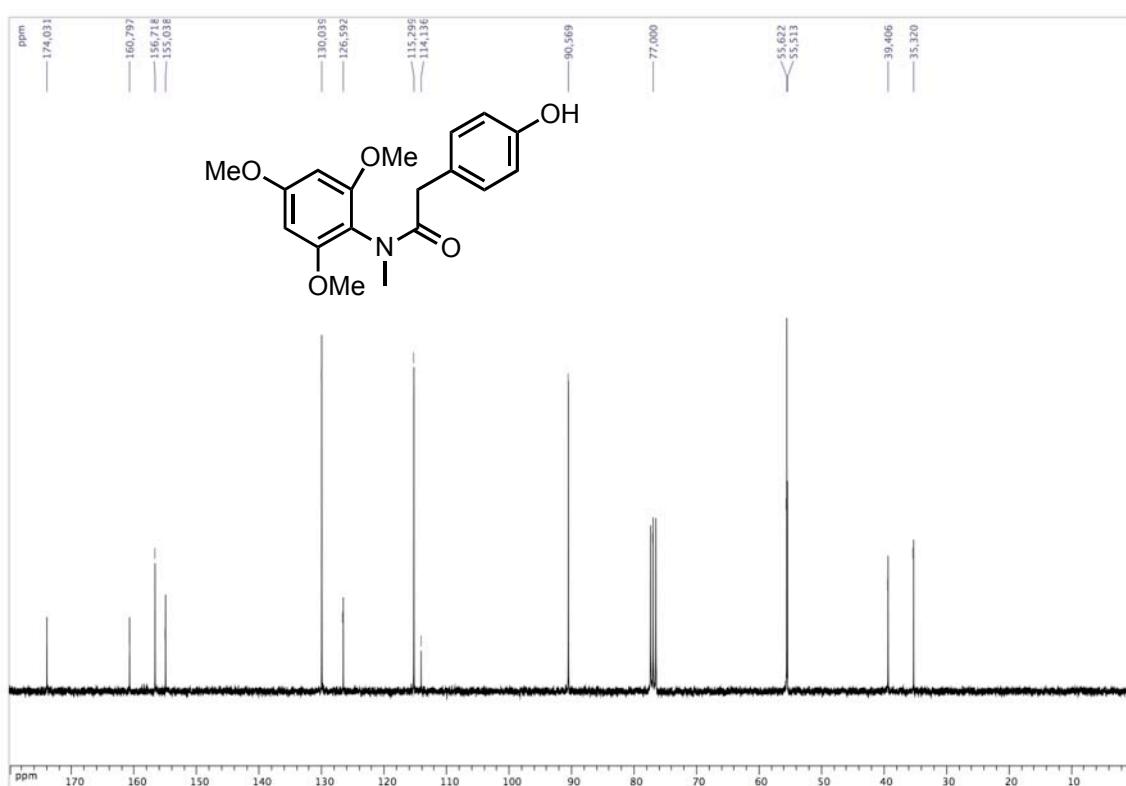
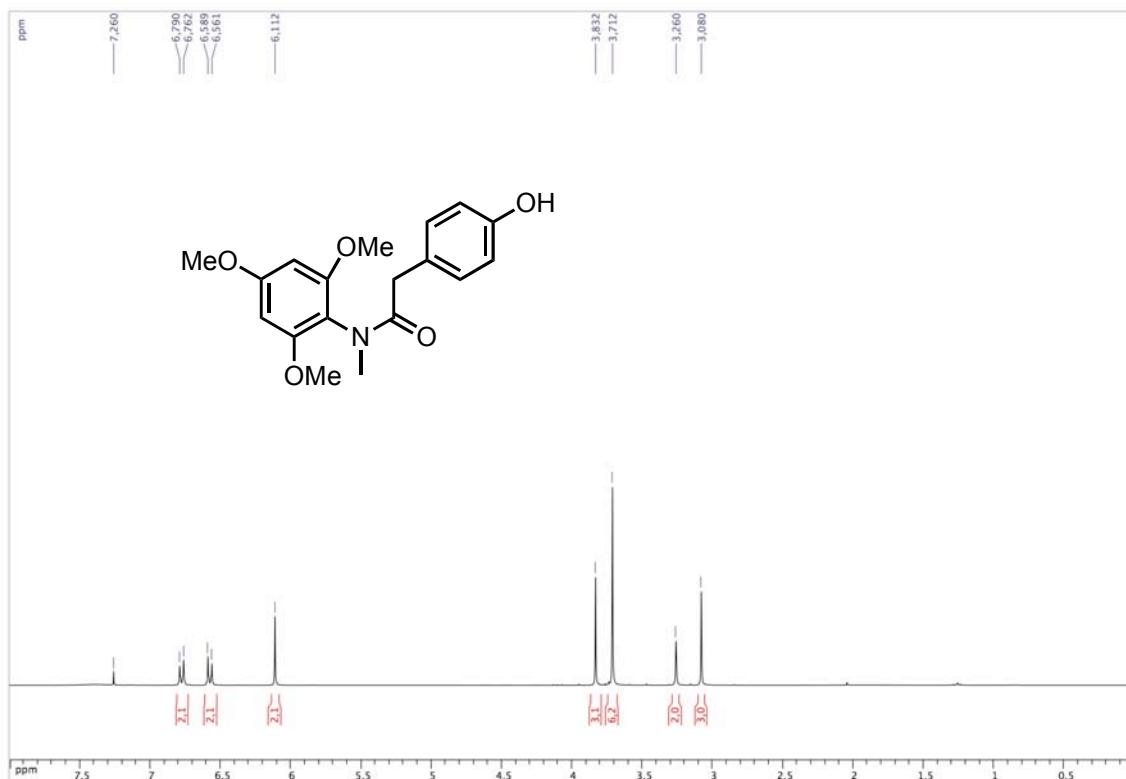
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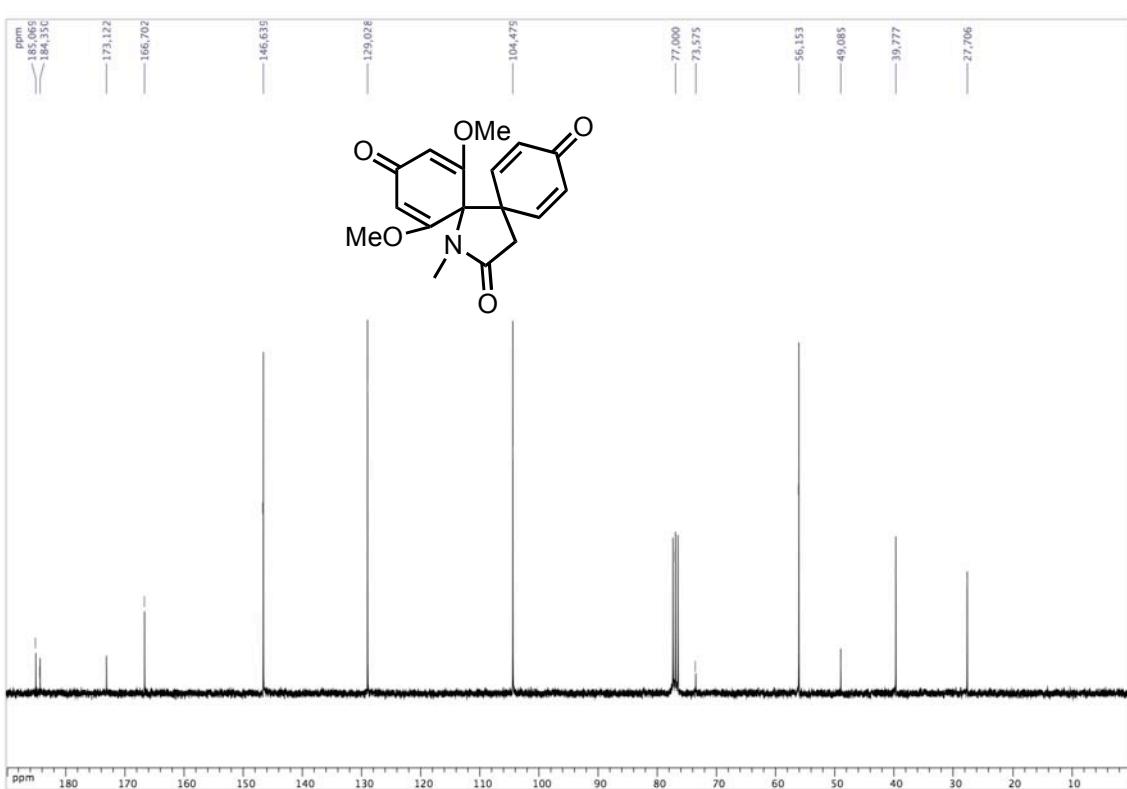
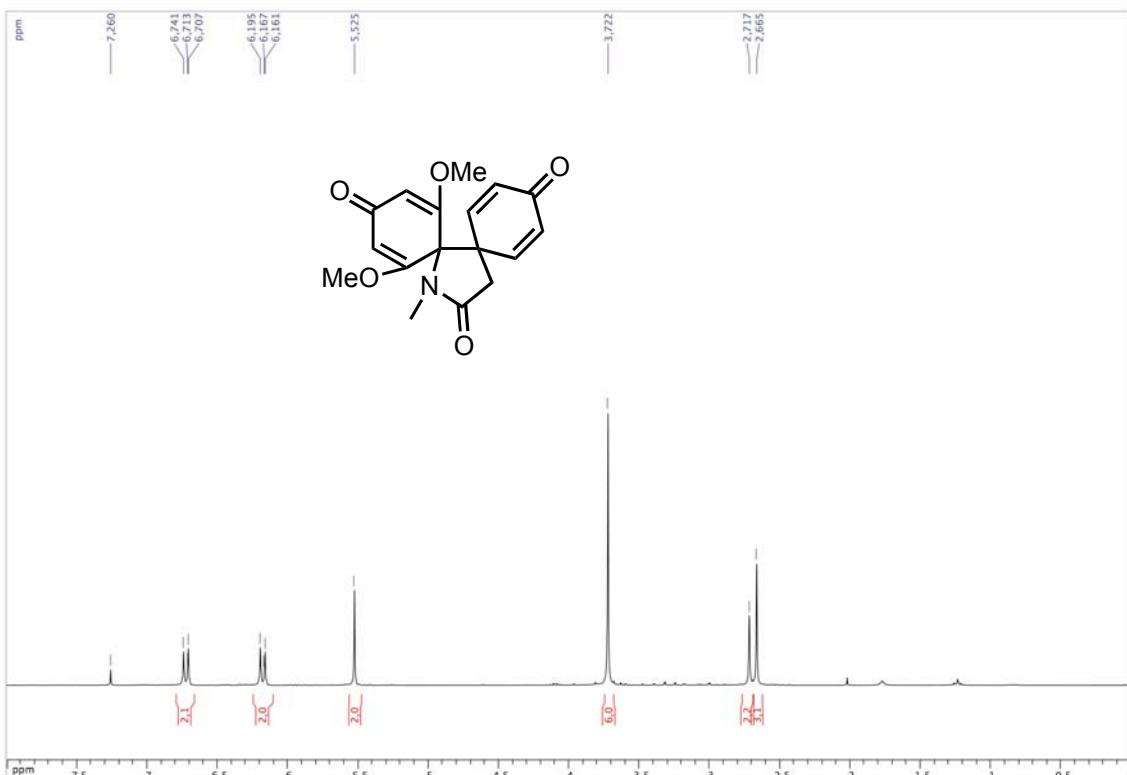
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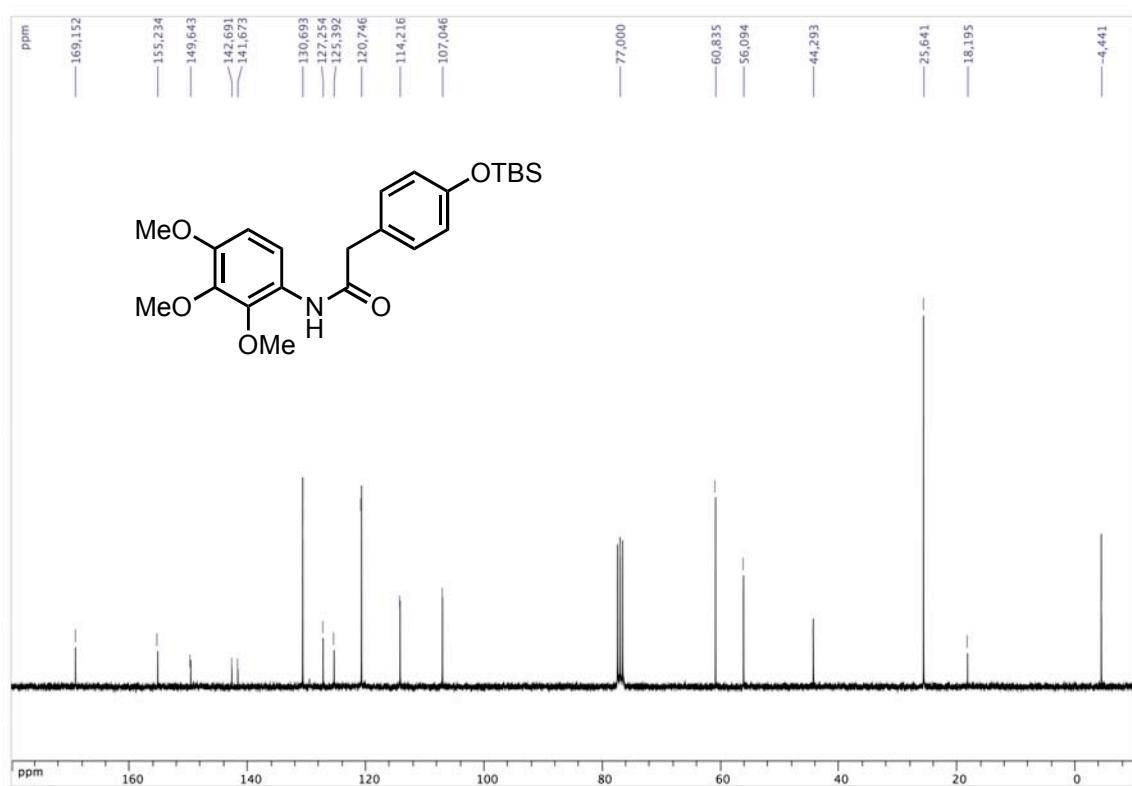
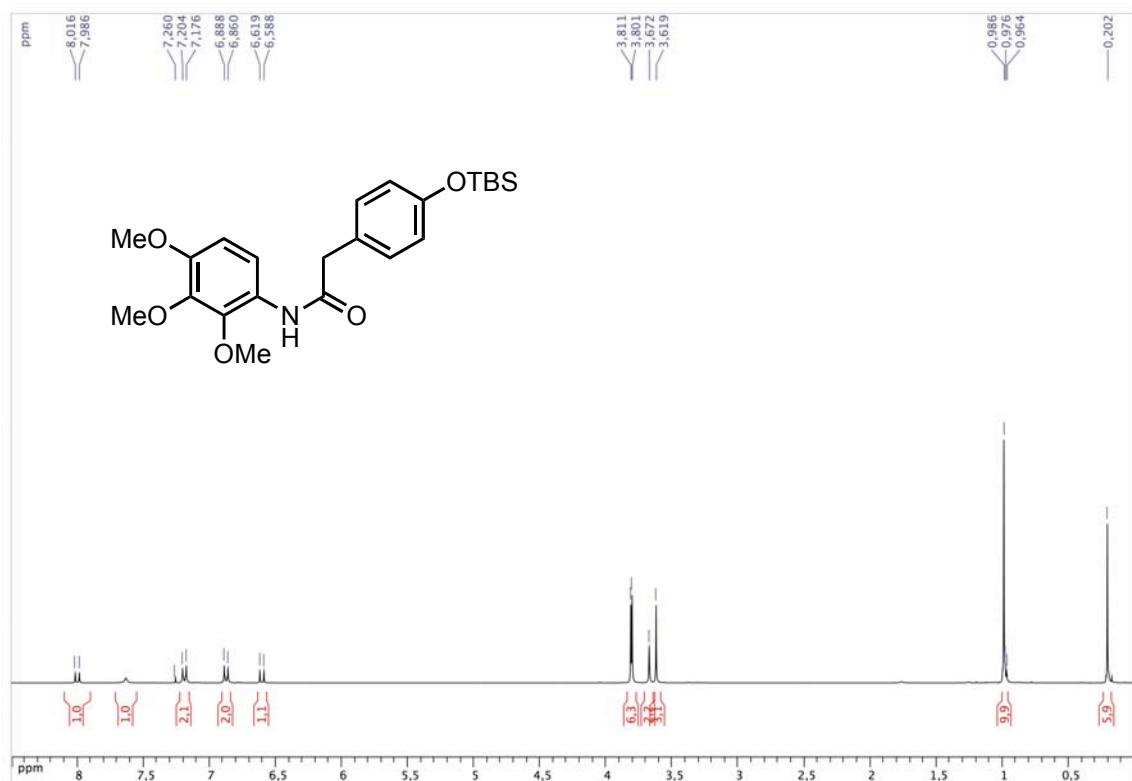
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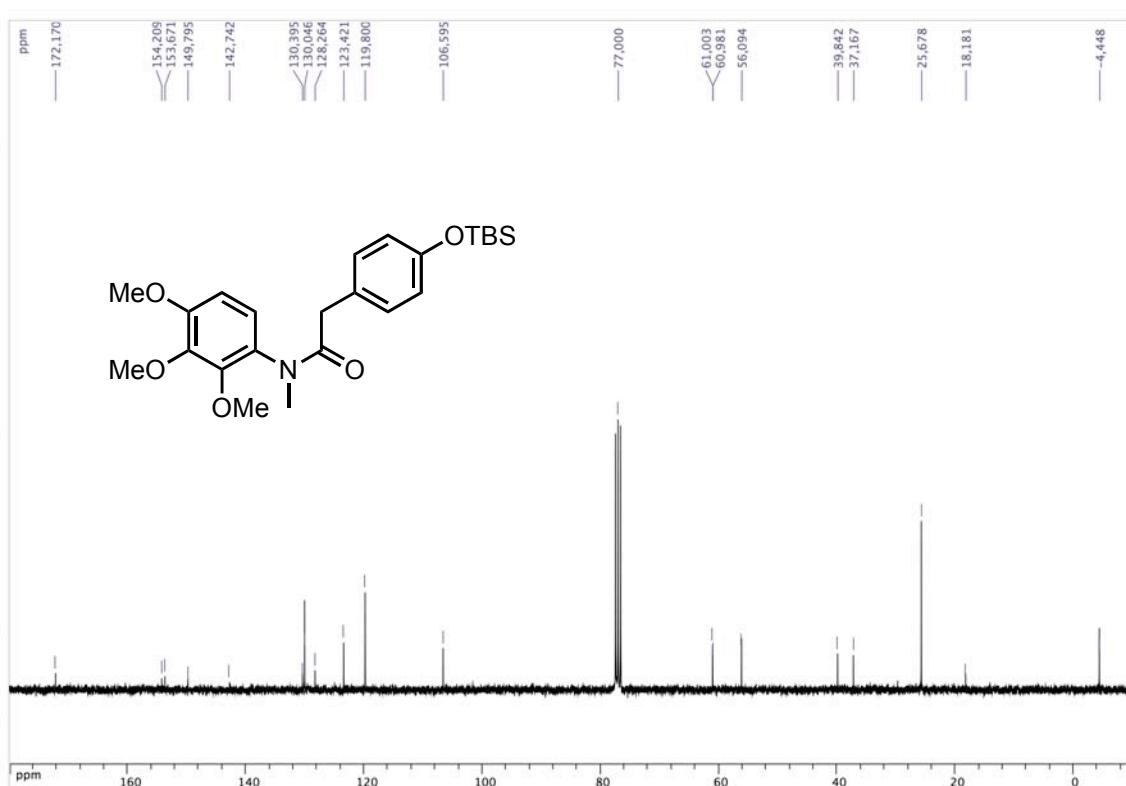
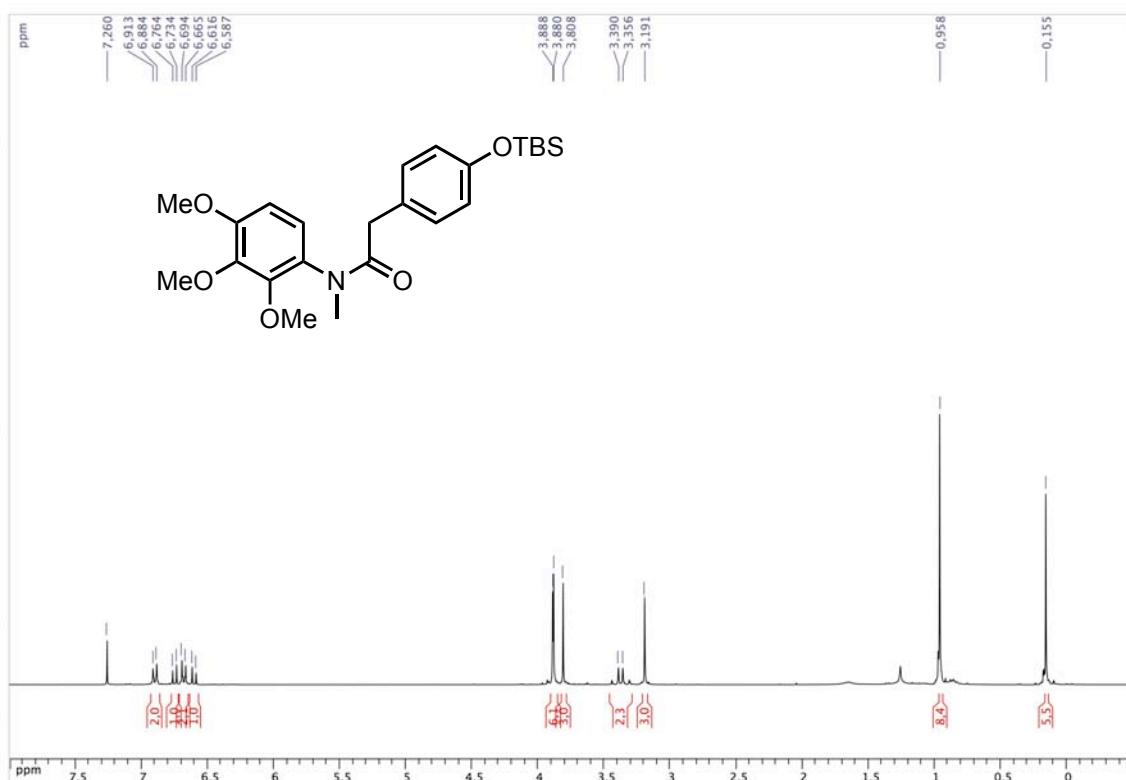
8,12-dimethoxy-13-methyl-13-azadispiro[5.0.5.3]pentadeca-1,4,8,11-tetraene-3,10,14-trione (4g)



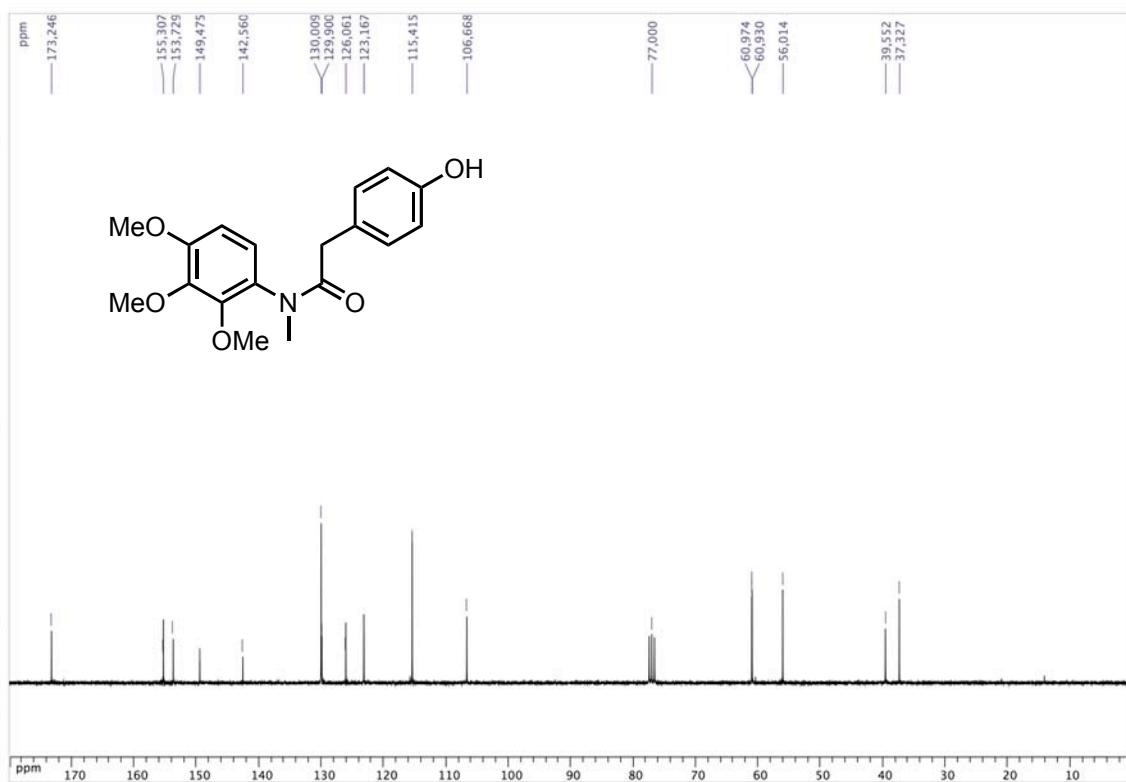
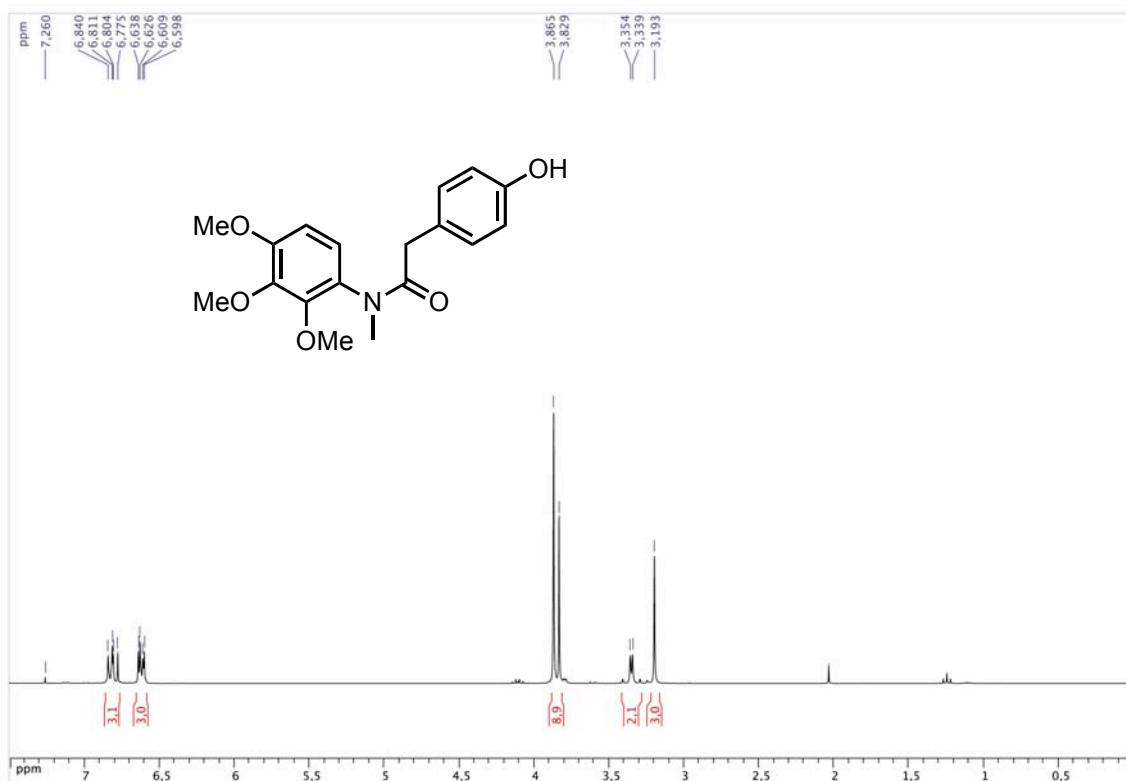
2-(4-((tert-butyldimethylsilyl)oxy)phenyl)-N-(2,3,4-trimethoxyphenyl)acetamide (3hA)



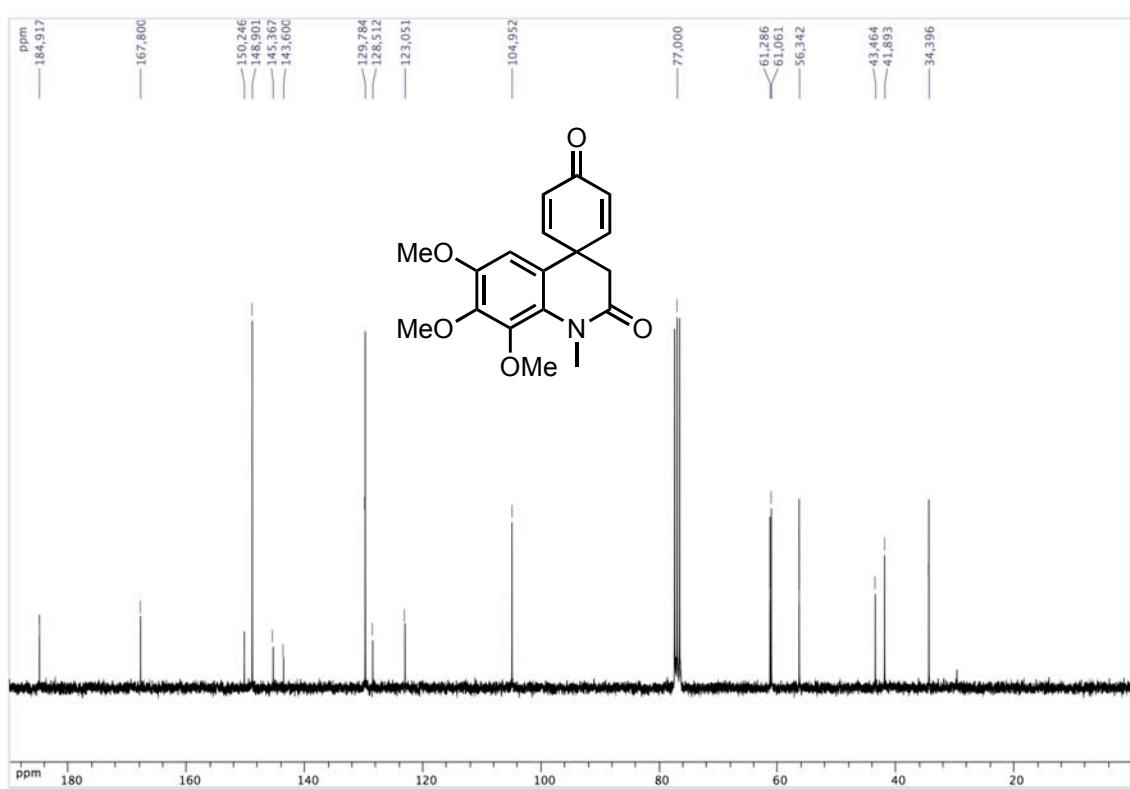
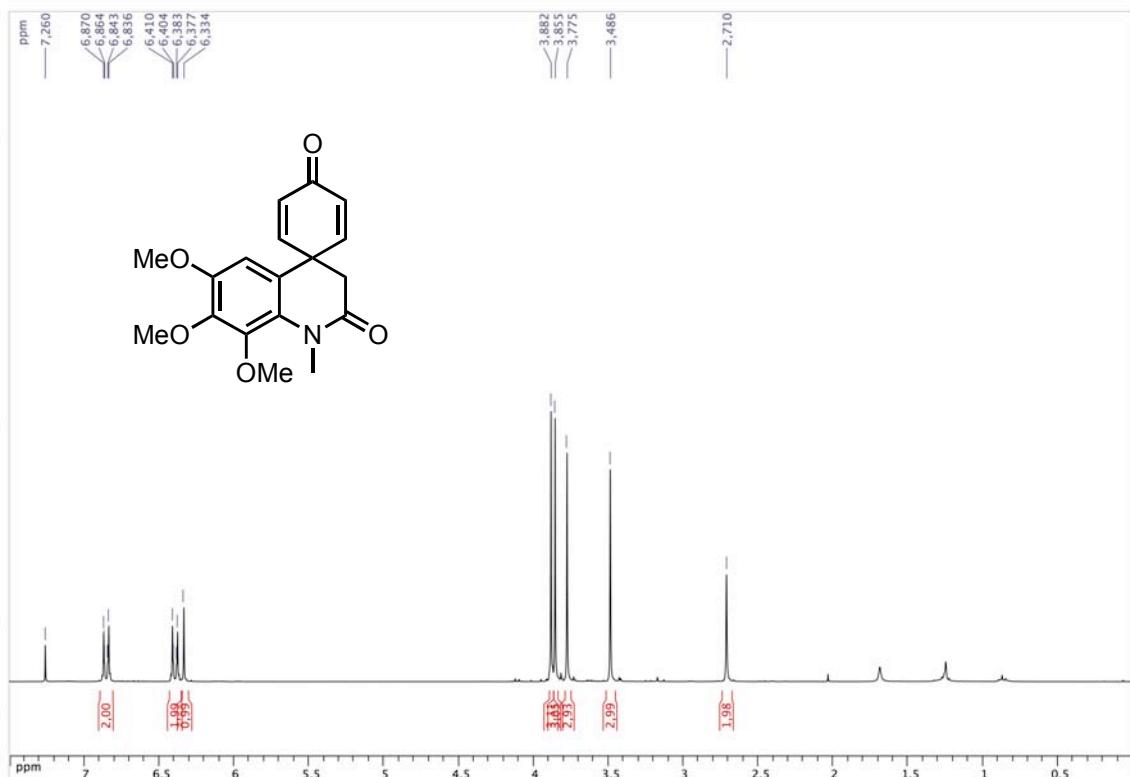
2-(4-((tert-butyldimethylsilyl)oxy)phenyl)-N-methyl-N-(2,3,4-trimethoxyphenyl)acetamide (3hB)



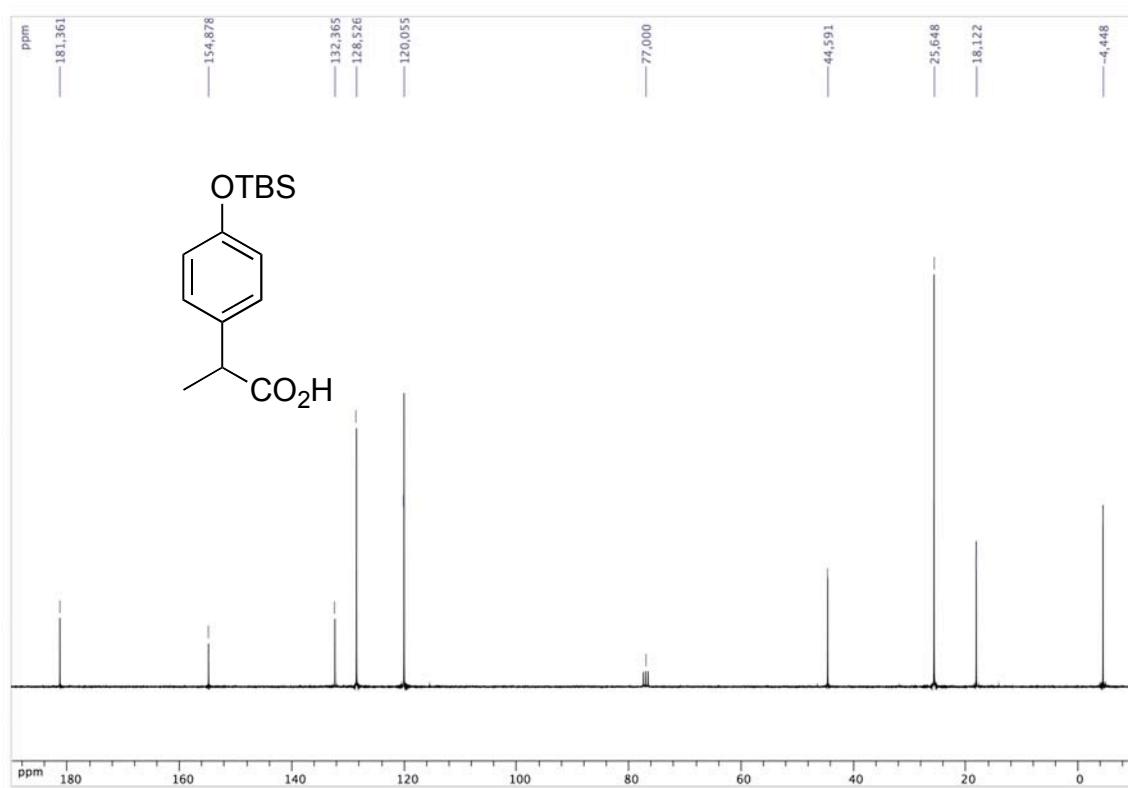
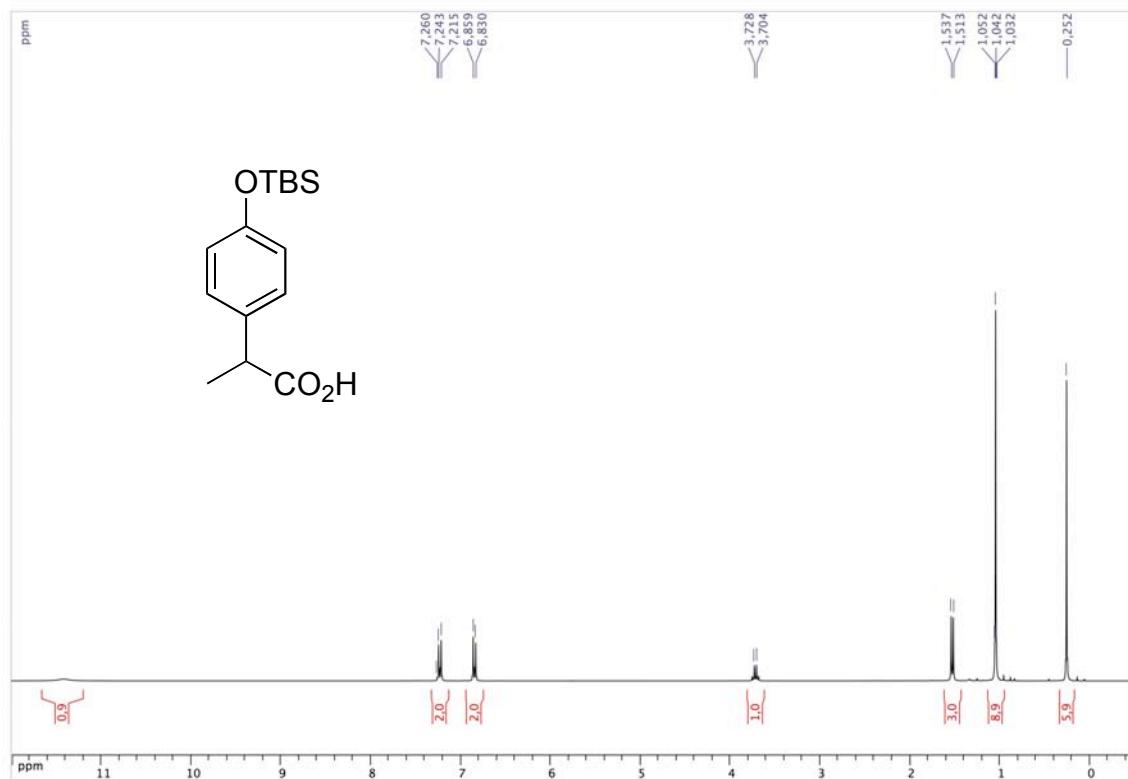
2-(4-hydroxyphenyl)-N-methyl-N-(2,3,4-trimethoxyphenyl)acetamide (3h)



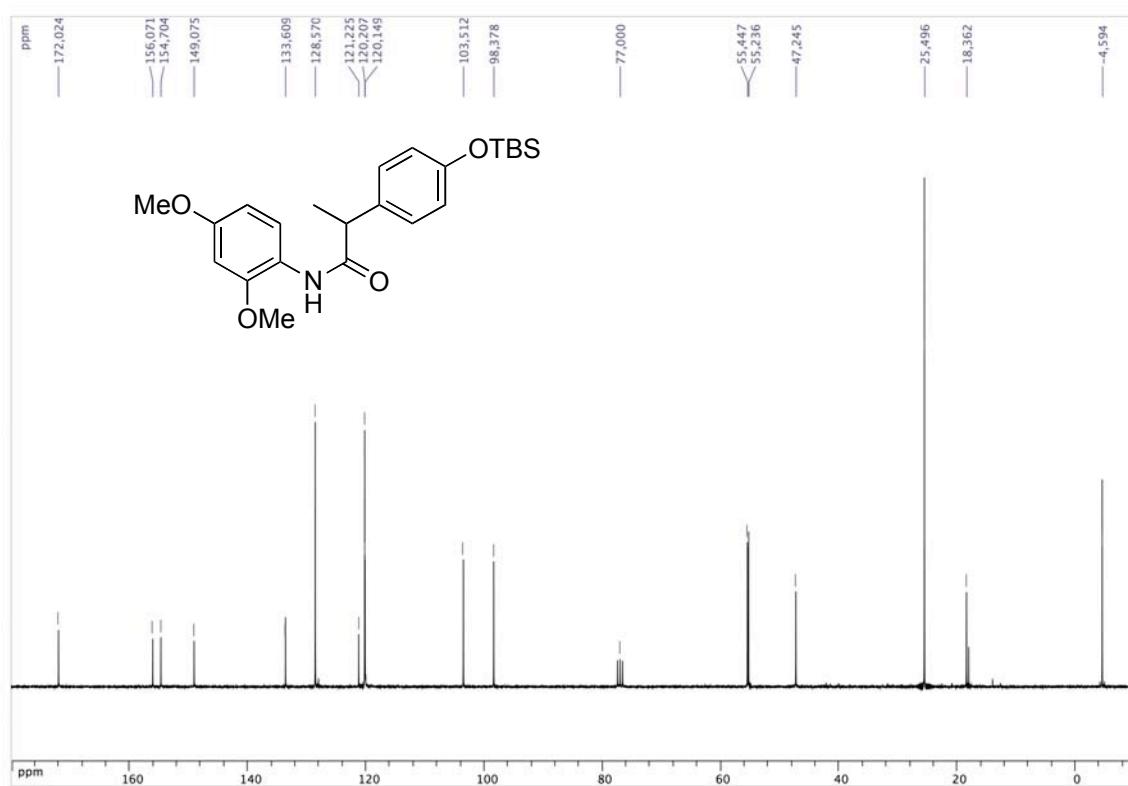
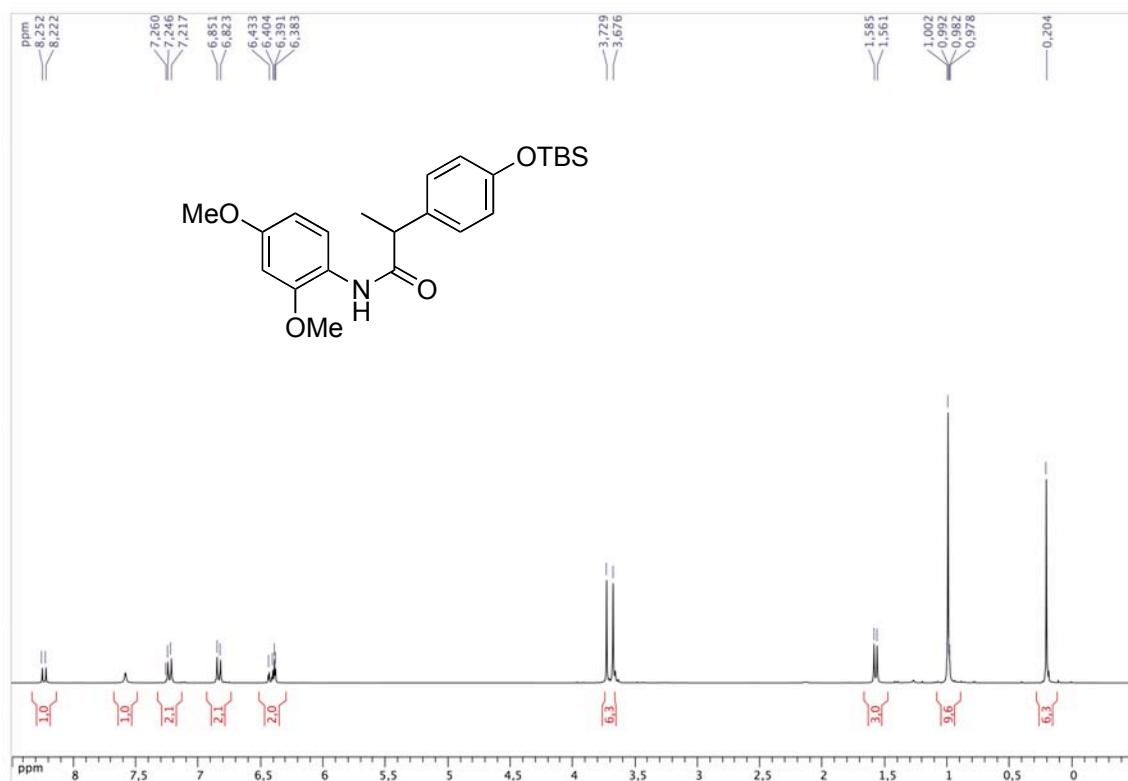
6',7',8'-trimethoxy-1'-methyl-1'H,4H-spiro[cyclohexa-2,5-diene-1,4'-quinoline]-2',4(3'H)-dione (6)



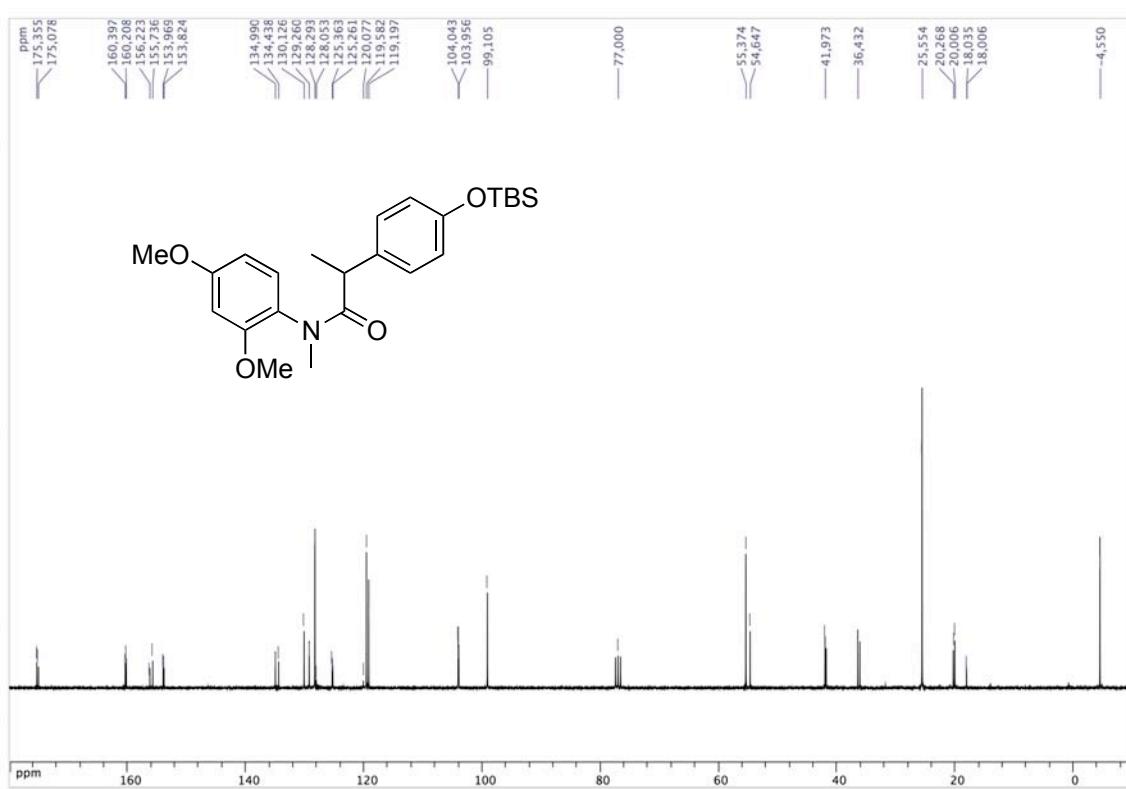
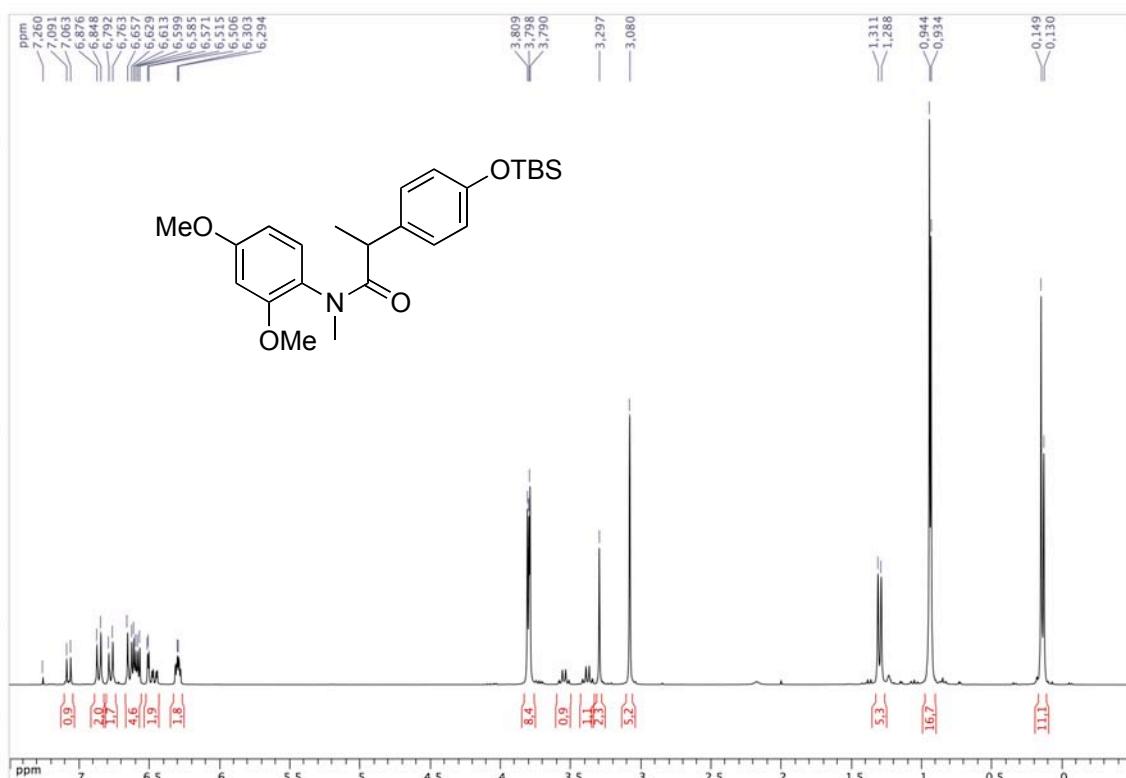
2-((tert-butyldimethylsilyl)oxy)phenyl)propanoic acid (S3)



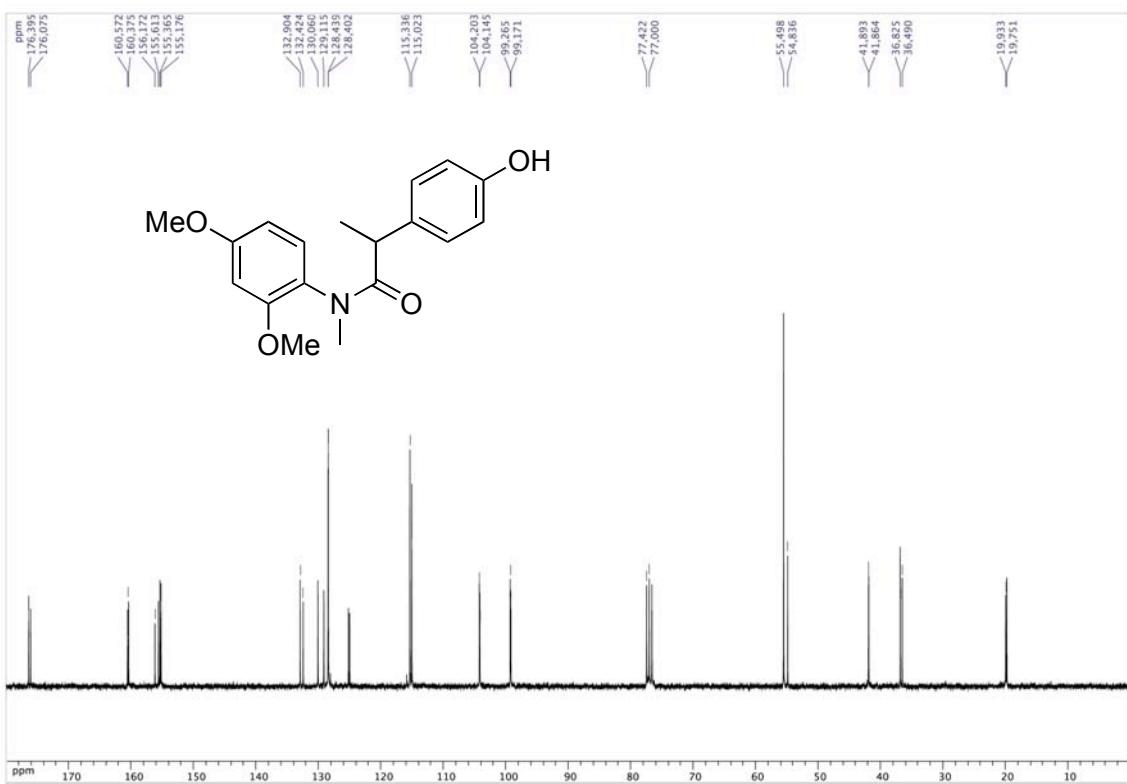
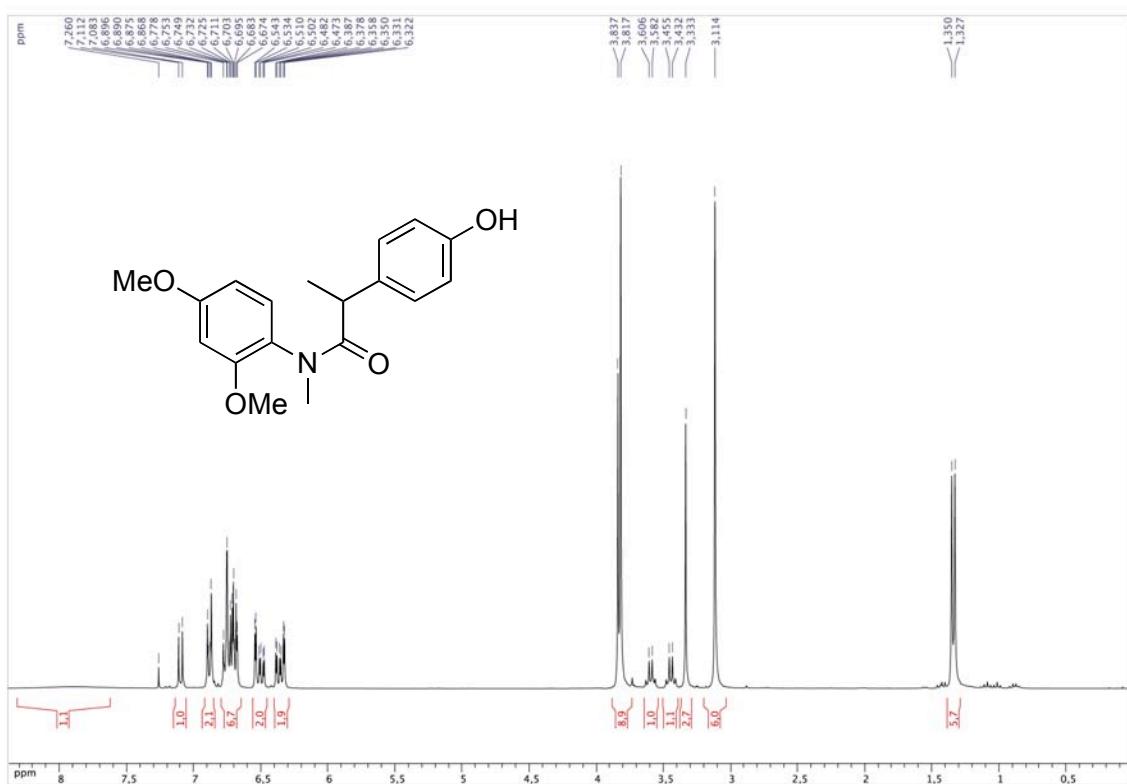
2-((tert-butyldimethylsilyl)oxy)phenyl)-N-(2,4-dimethoxyphenyl)propanamide (3iA)



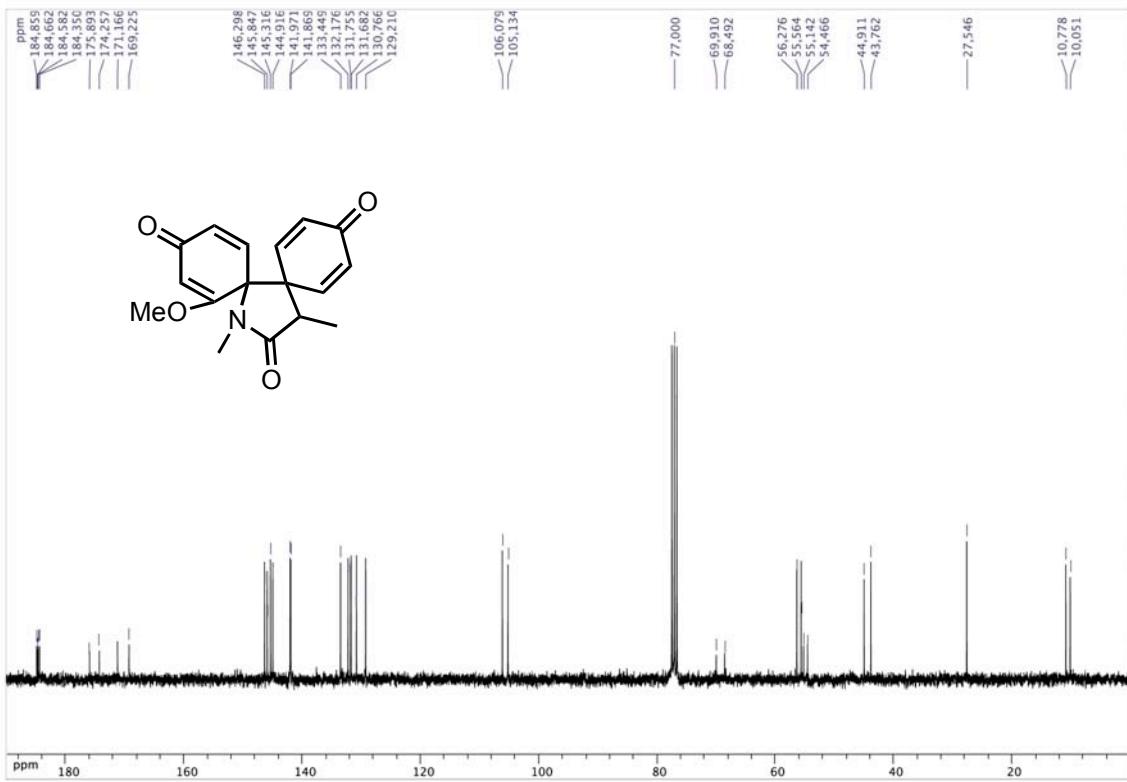
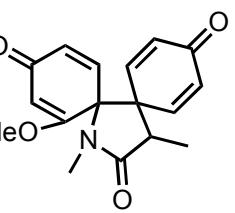
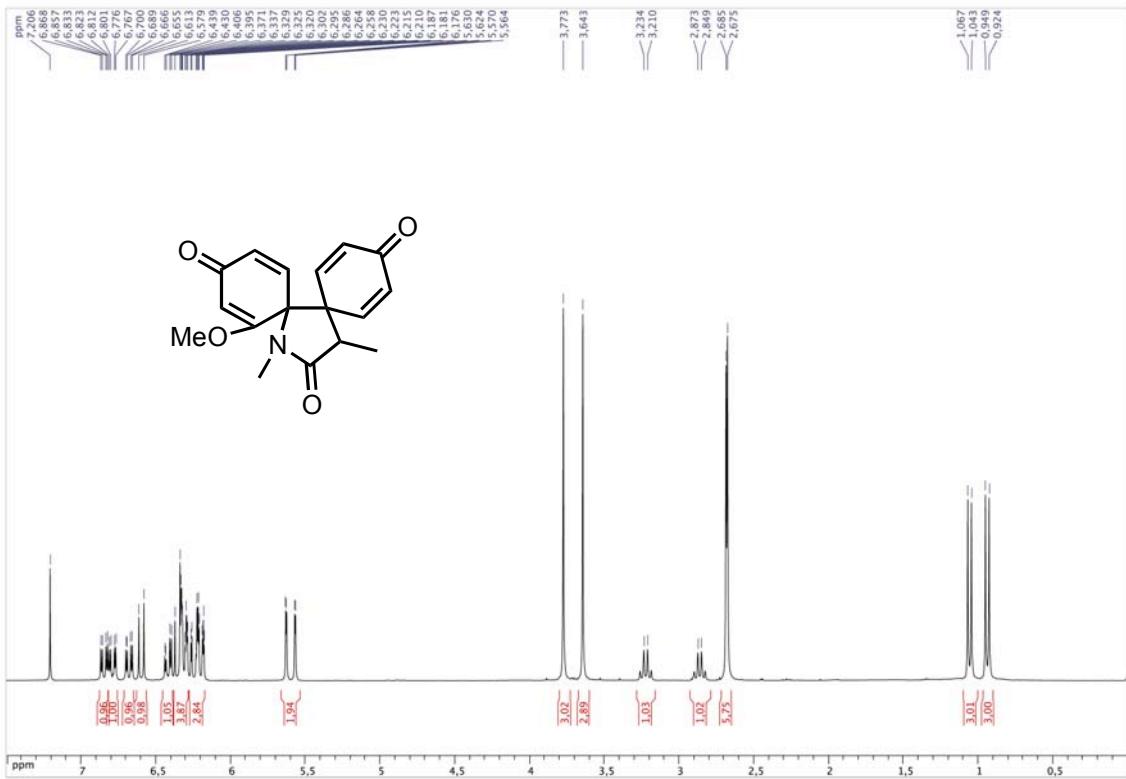
2-(4-((tert-butyldimethylsilyl)oxy)phenyl)-N-(2,4-dimethoxyphenyl)-N-methylpropanamide (3iB)



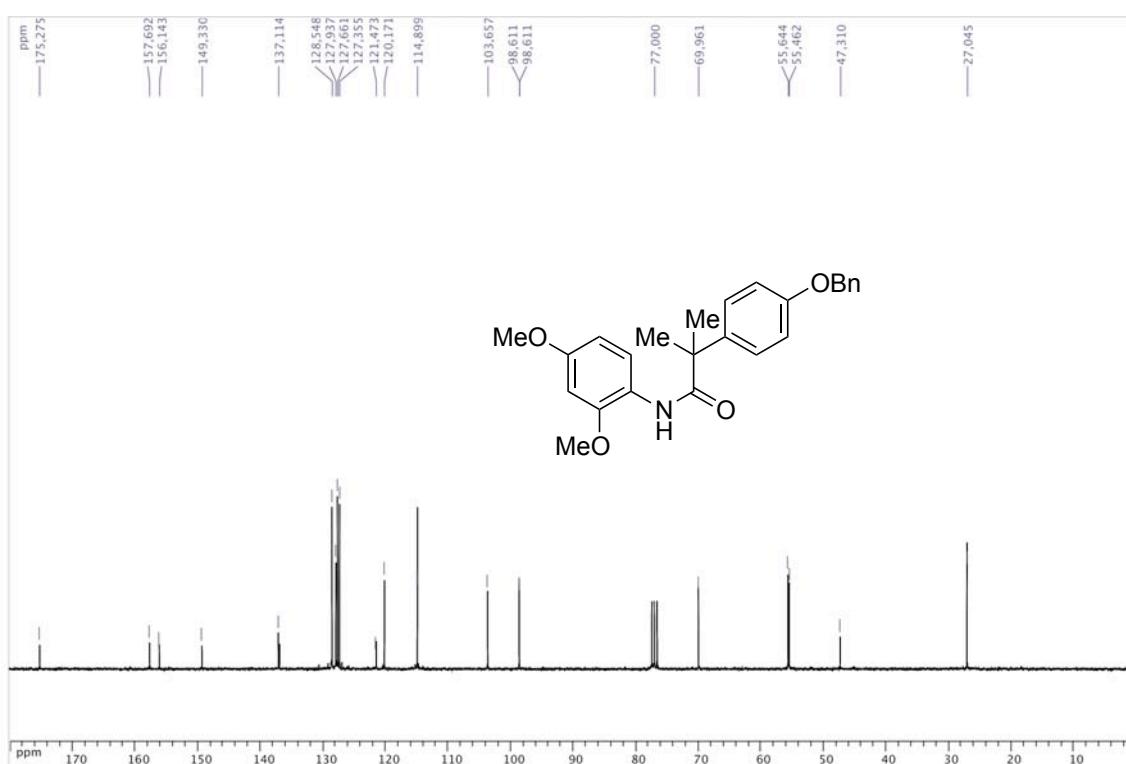
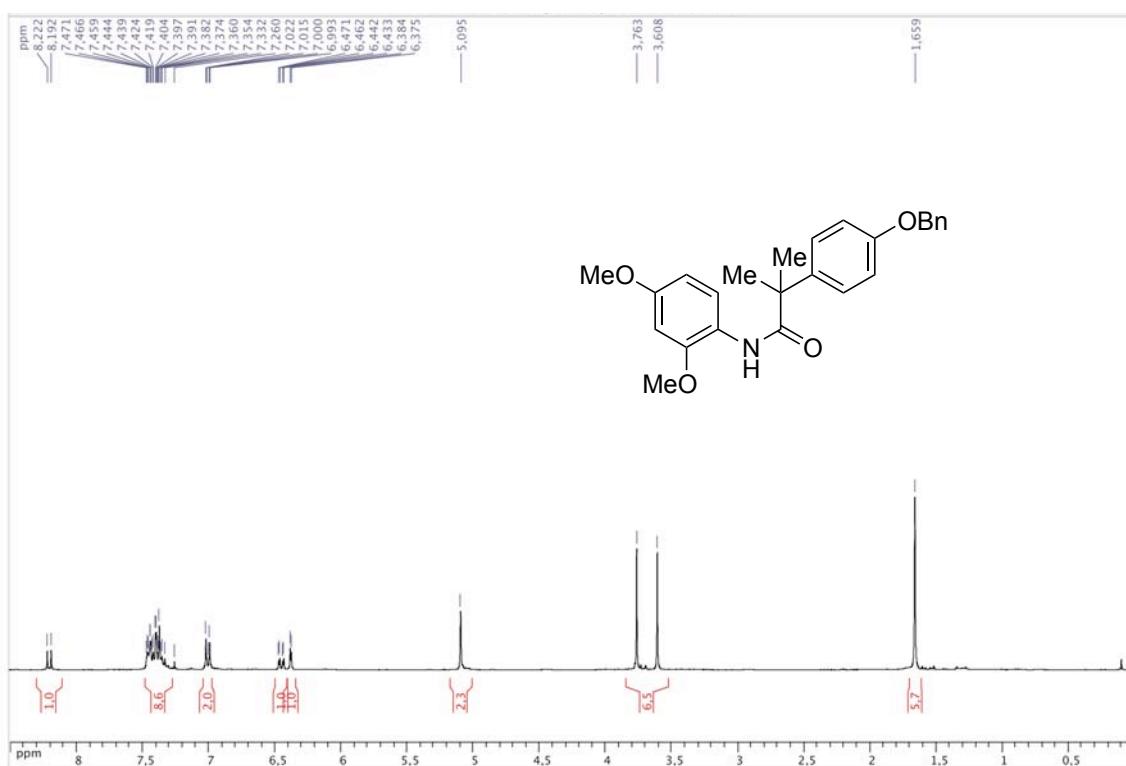
N-(2,4-dimethoxyphenyl)-2-(4-hydroxyphenyl)-N-methylpropanamide (3i)



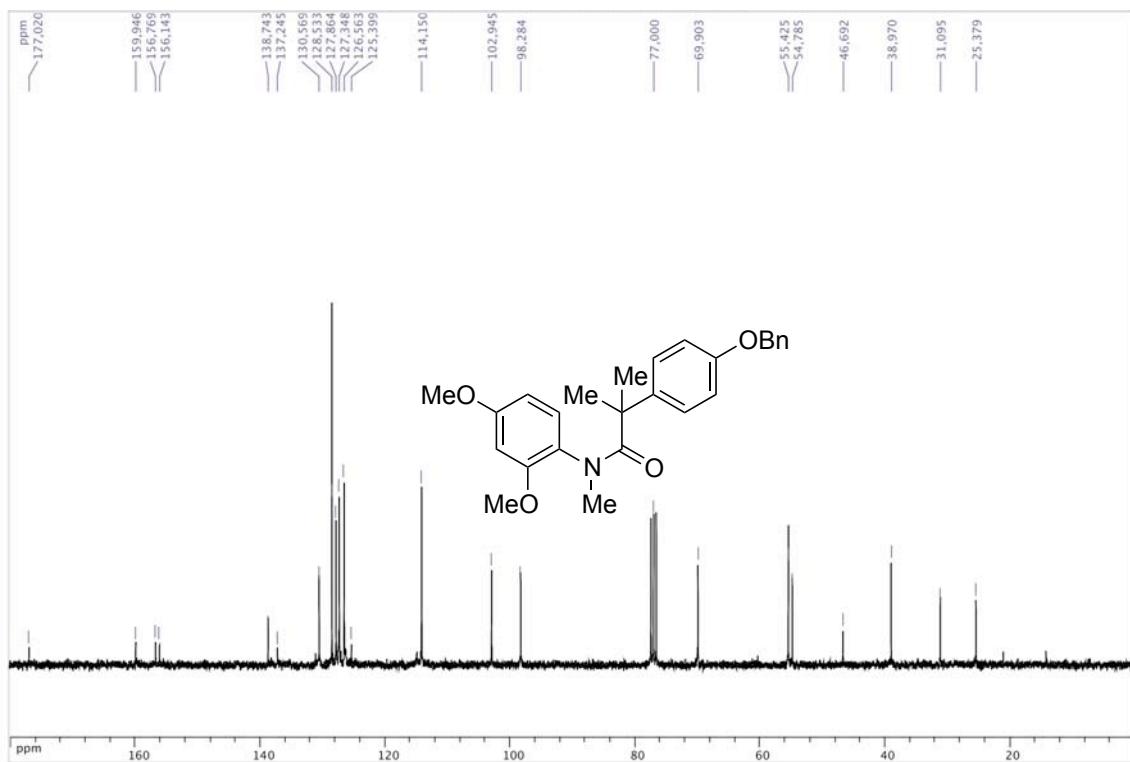
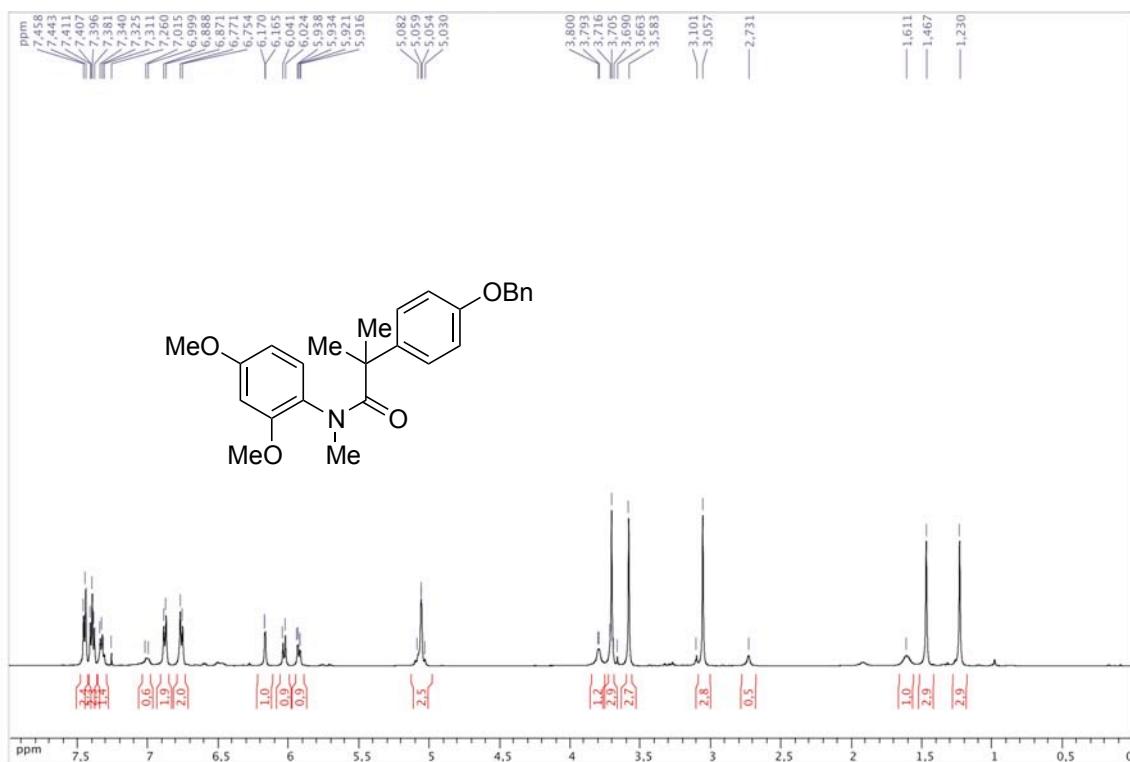
8-methoxy-13,15-dimethyl-13-azadispiro[5.0.5.3]pentadeca-1,4,8,11-tetraene-3,10,14-trione (4i)



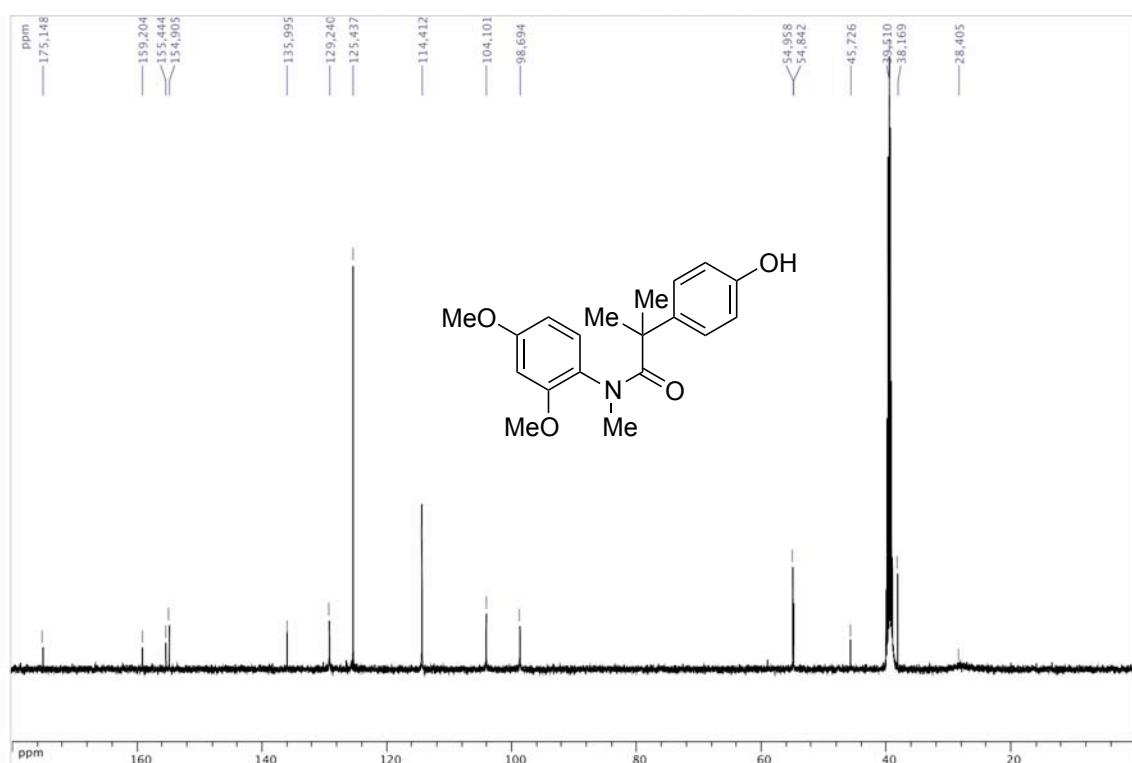
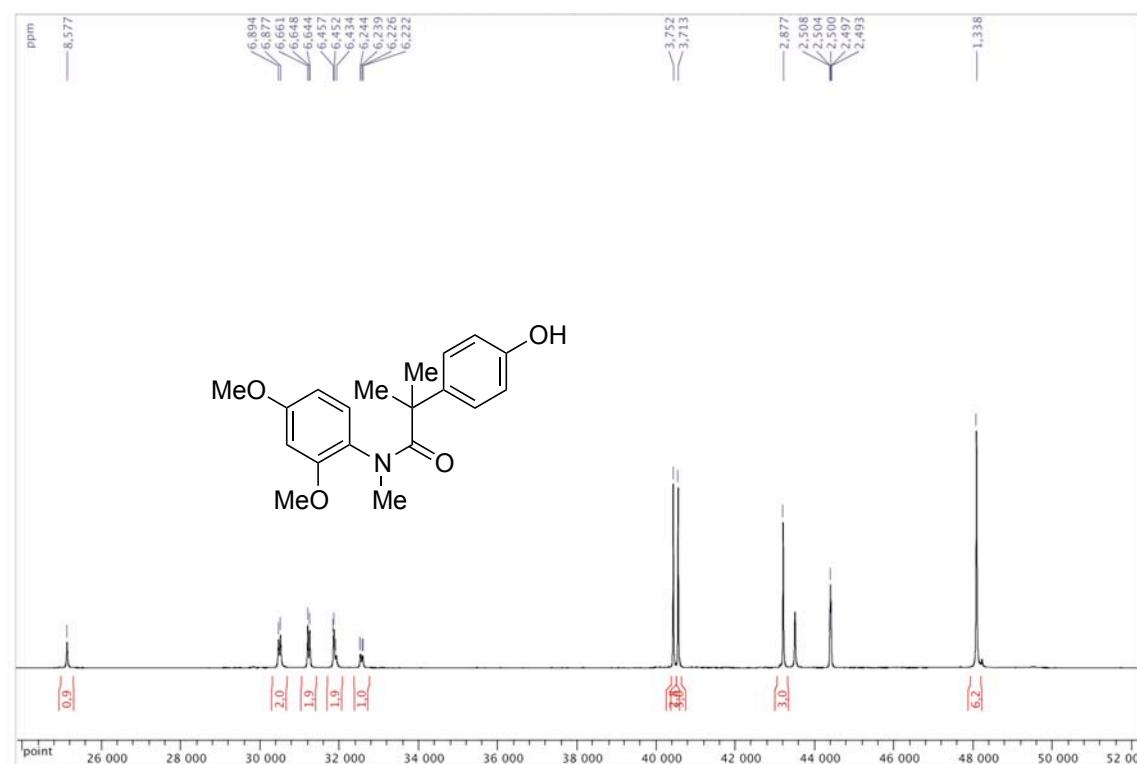
2-(4-(benzyloxy)phenyl)-N-(2,4-dimethoxyphenyl)-2-methylpropanamide (3jA)



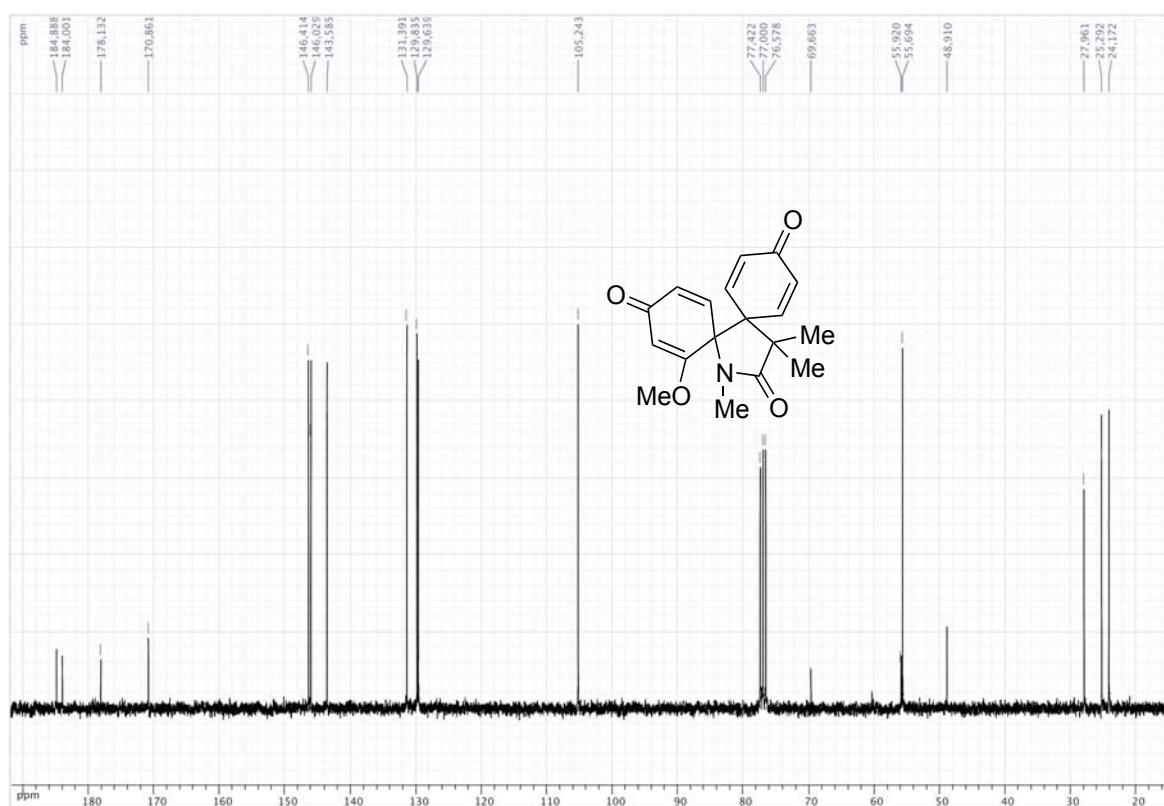
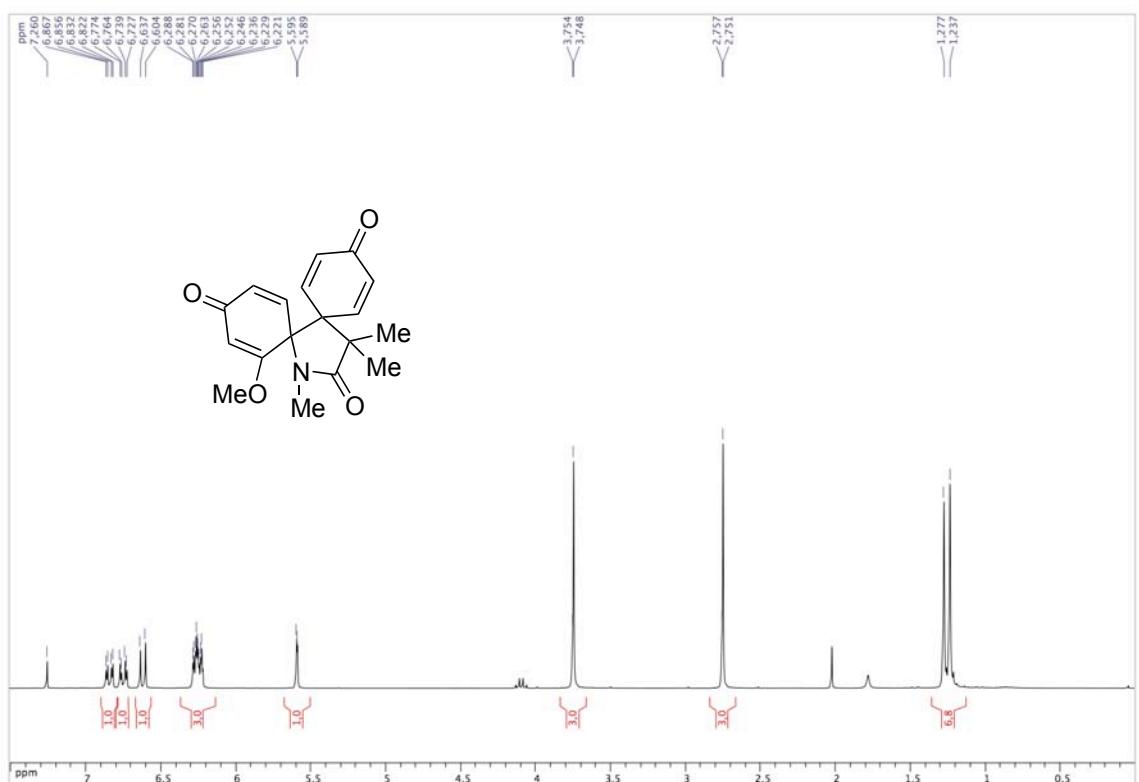
2-(4-(benzyloxy)phenyl)-N-(2,4-dimethoxyphenyl)-N,2-dimethylpropanamide (3jB)



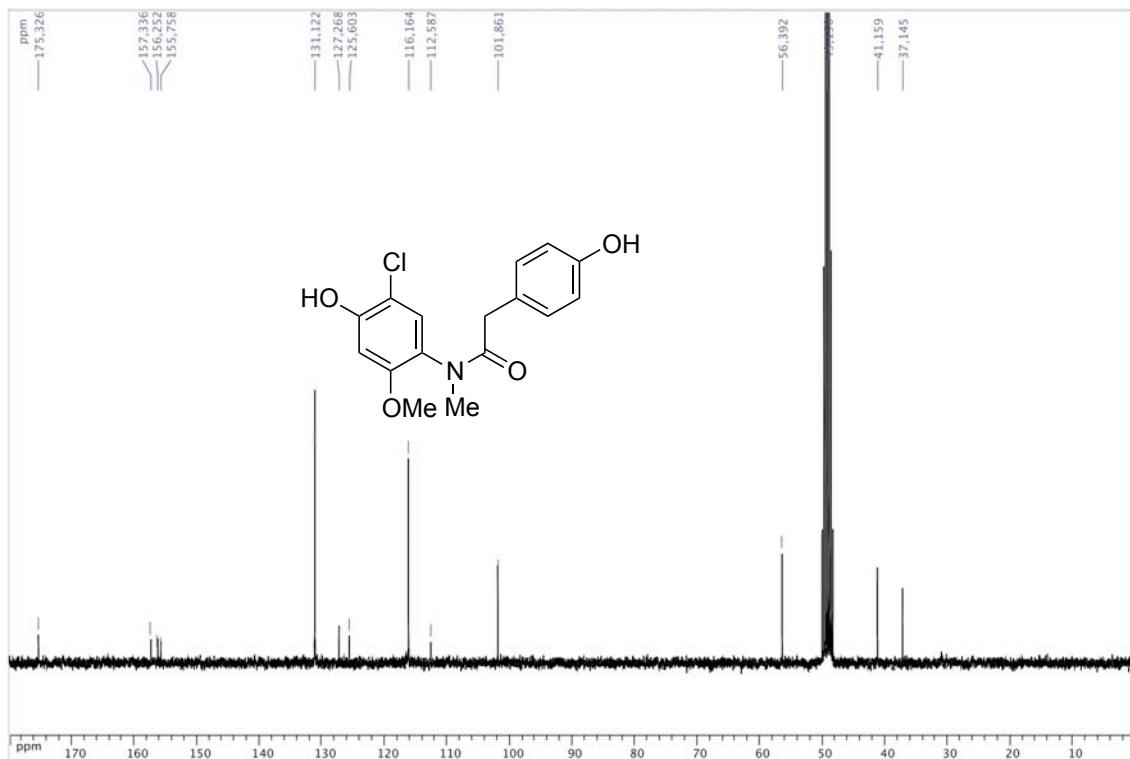
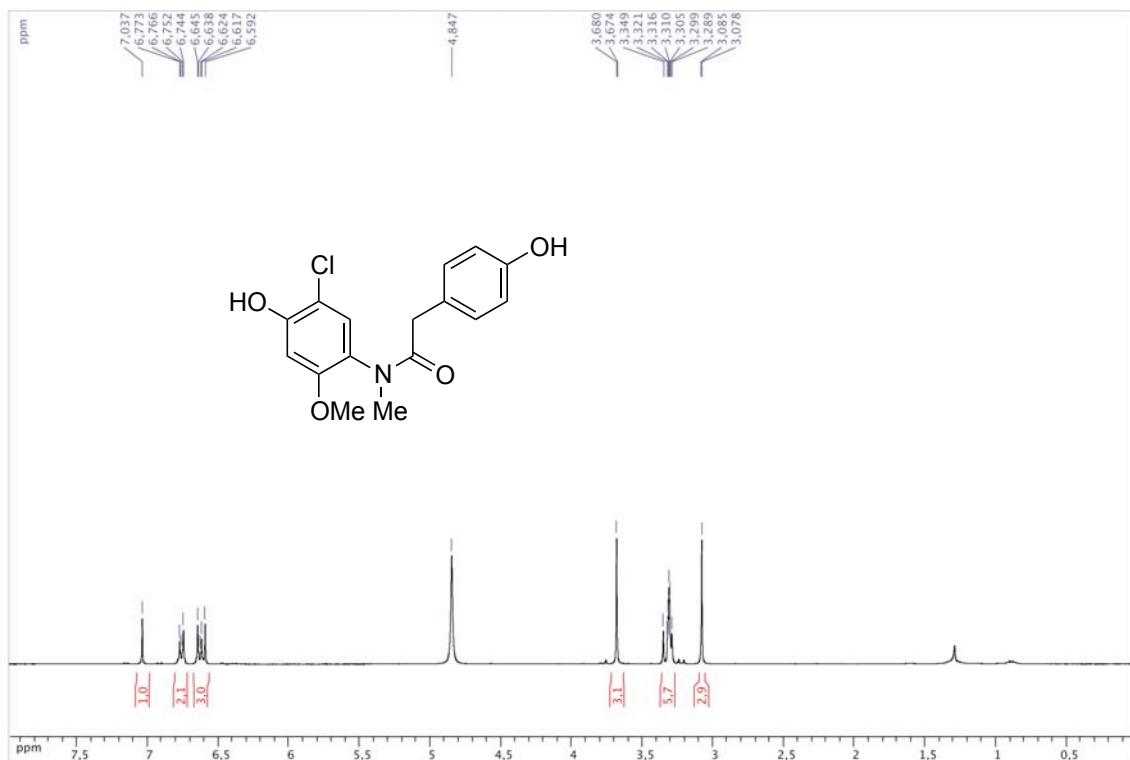
***N*-(2,4-dimethoxyphenyl)-2-(4-hydroxyphenyl)-*N*,2-dimethylpropanamide (3j)**



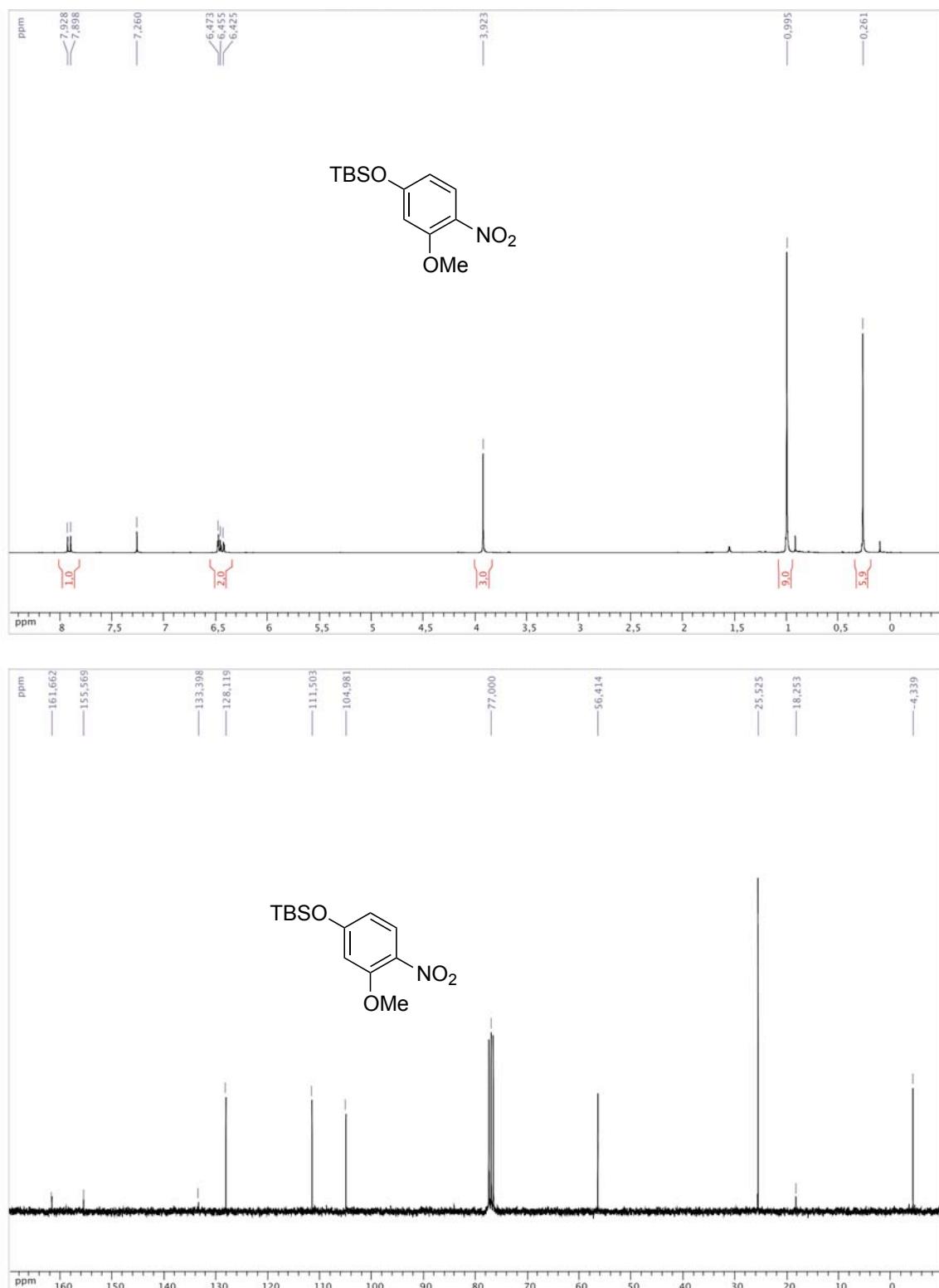
8-methoxy-13,15,15-trimethyl-13-azadispiro[5.0.5.3]pentadeca-1,4,8,11-tetraene-3,10,14-trione (4j)



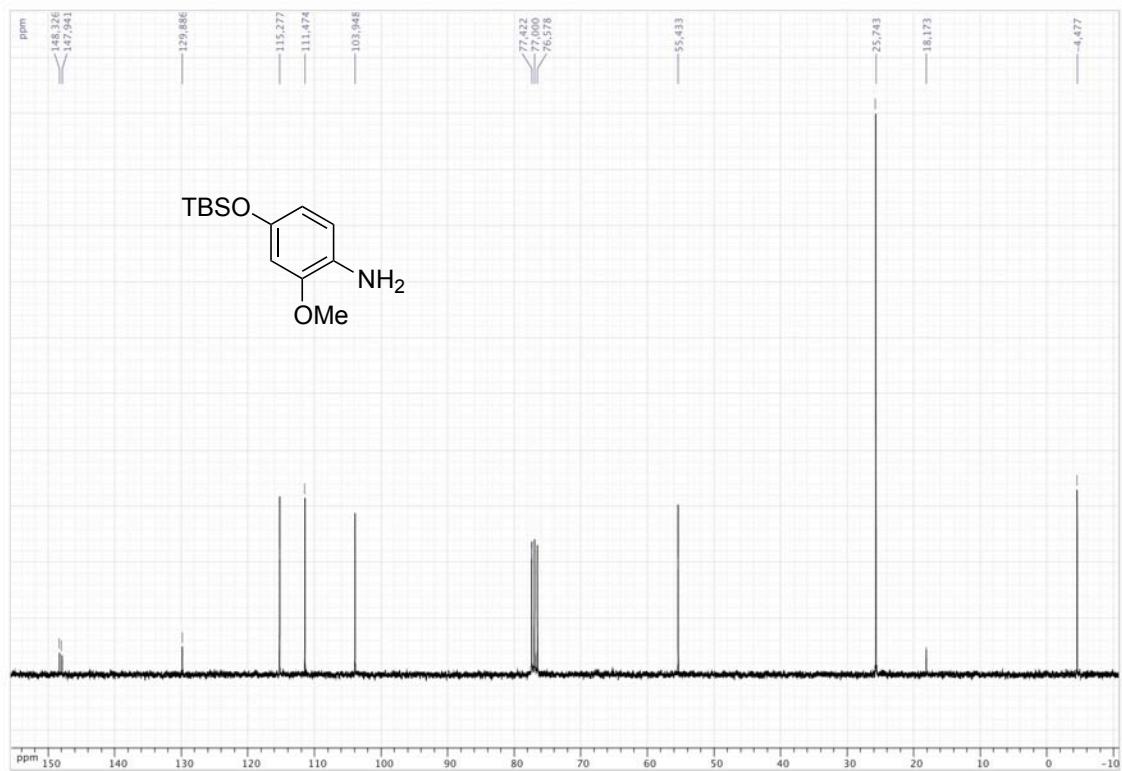
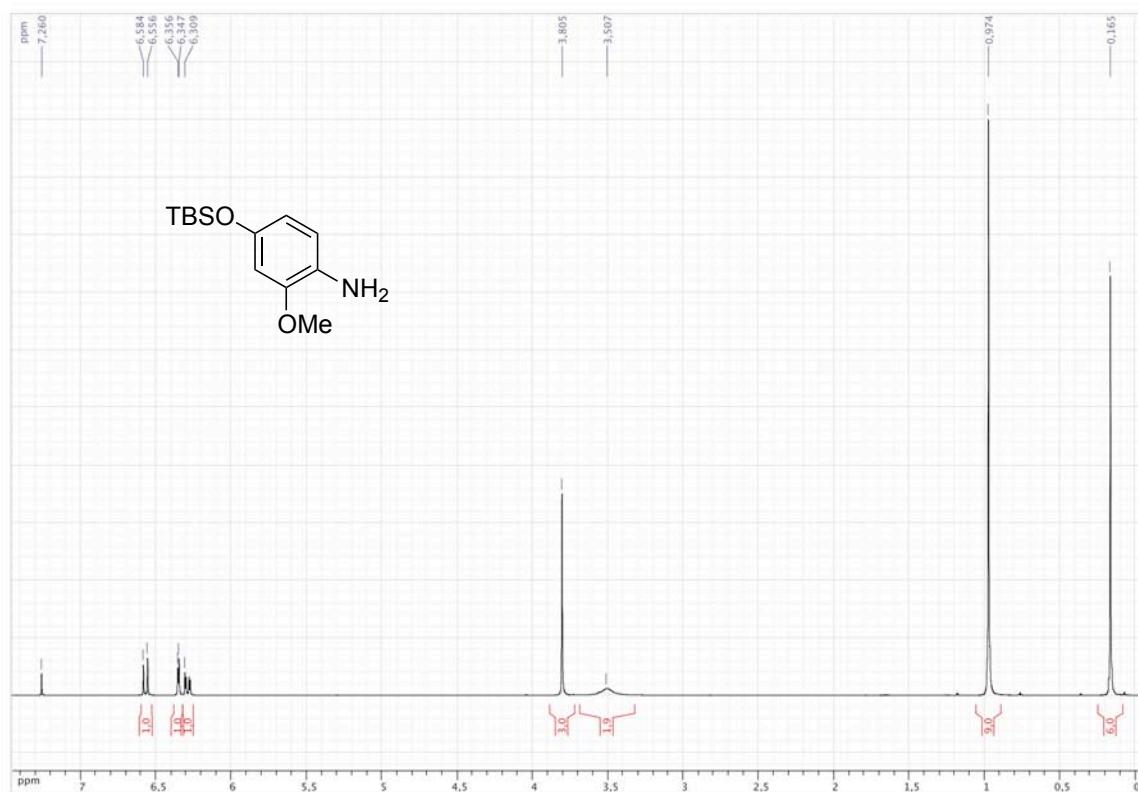
N-(5-chloro-4-hydroxy-2-methoxyphenyl)-2-(4-hydroxyphenyl)-N-methylacetamide (8)



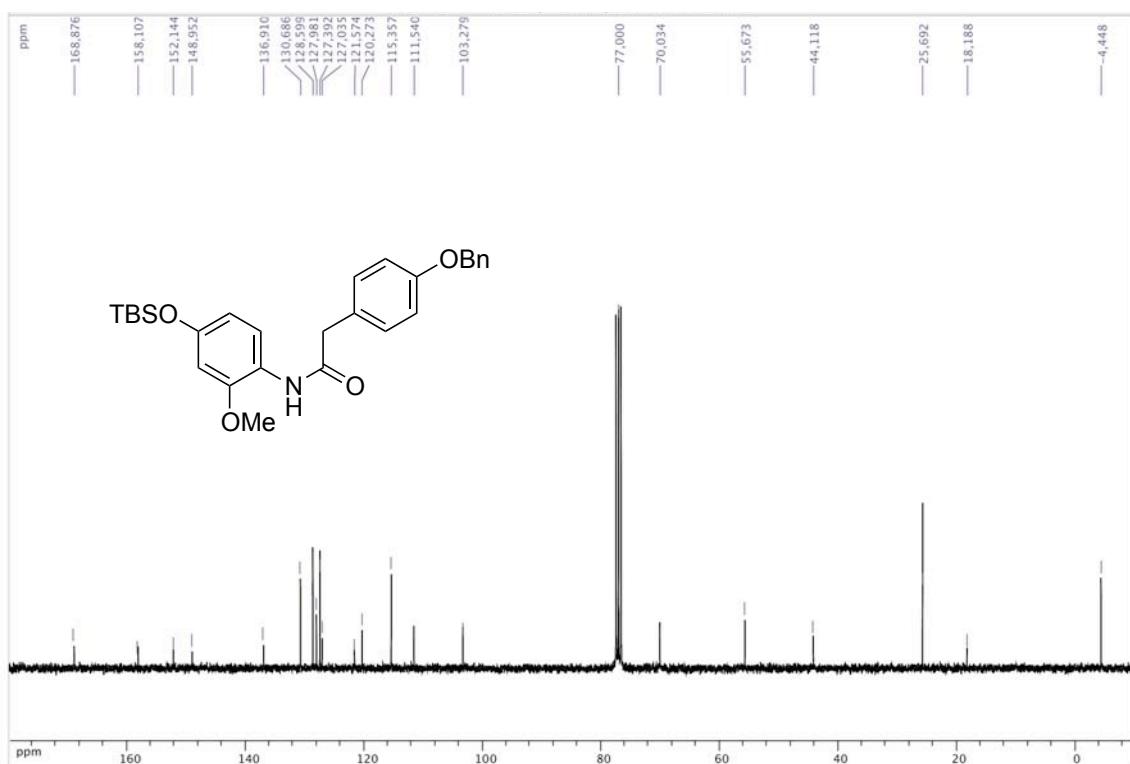
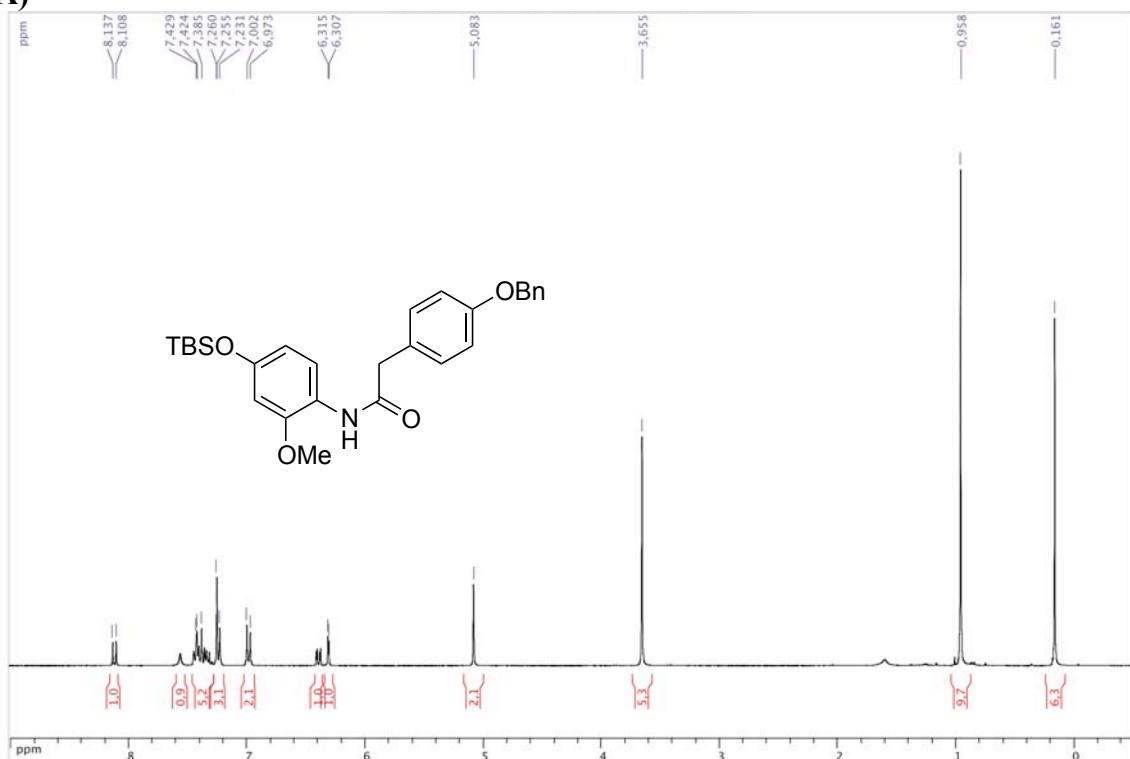
tert-butyl(3-methoxy-4-nitrophenoxy)dimethylsilane (S5)



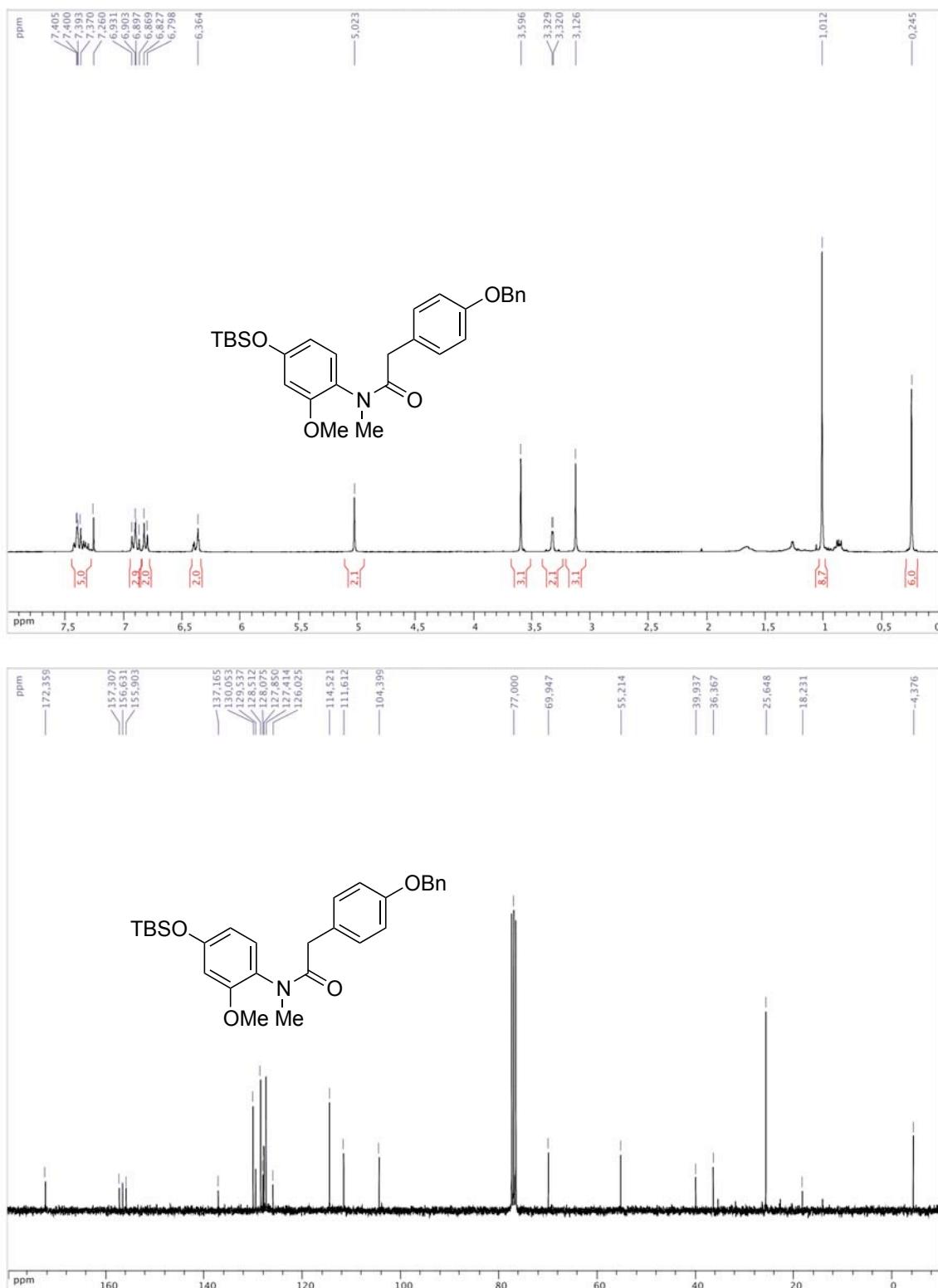
4-((*tert*-butyldimethylsilyl)oxy)-2-methoxyaniline (S6**)**



2-(4-(benzyloxy)phenyl)-N-(4-((*tert*-butyldimethylsilyl)oxy)-2-methoxyphenyl)acetamide (9A)



2-(4-(benzyloxy)phenyl)-N-(4-((*tert*-butyldimethylsilyl)oxy)-2-methoxyphenyl)-N-methylacetamide (9B)



2-(4-(benzyloxy)phenyl)-N-(4-hydroxy-2-methoxyphenyl)-N-methylacetamide (9)

