

**Synthesis of indoxylic acid esters by rhodium carbene N-H insertion and thermal  
cyclization**

Mark A. Honey and Christopher J. Moody\*

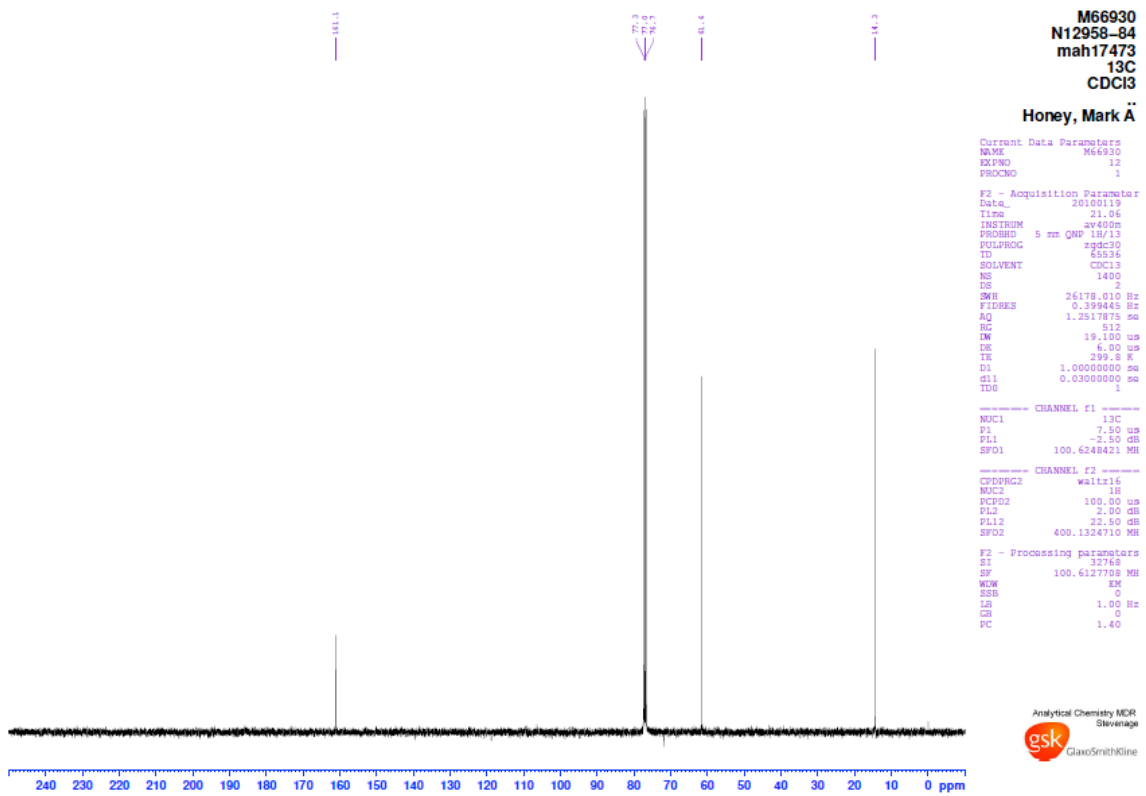
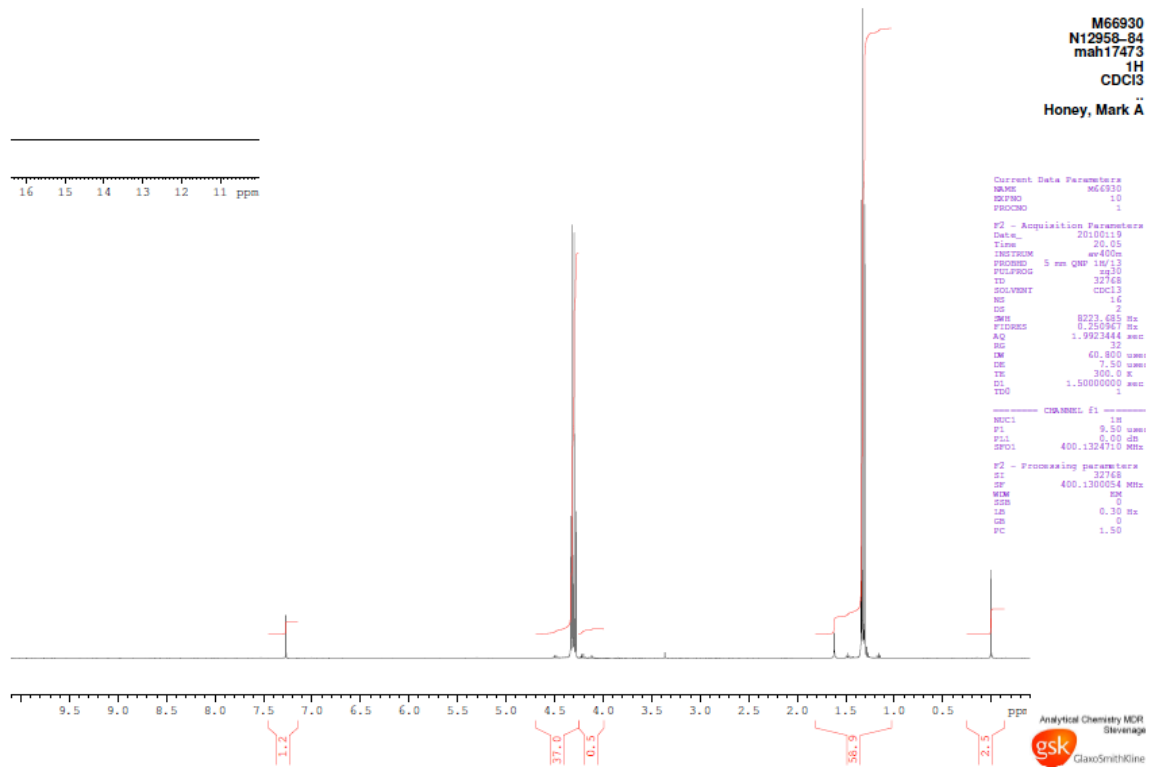
School of Chemistry, University of Nottingham, University Park, Nottingham NG7 2RD,

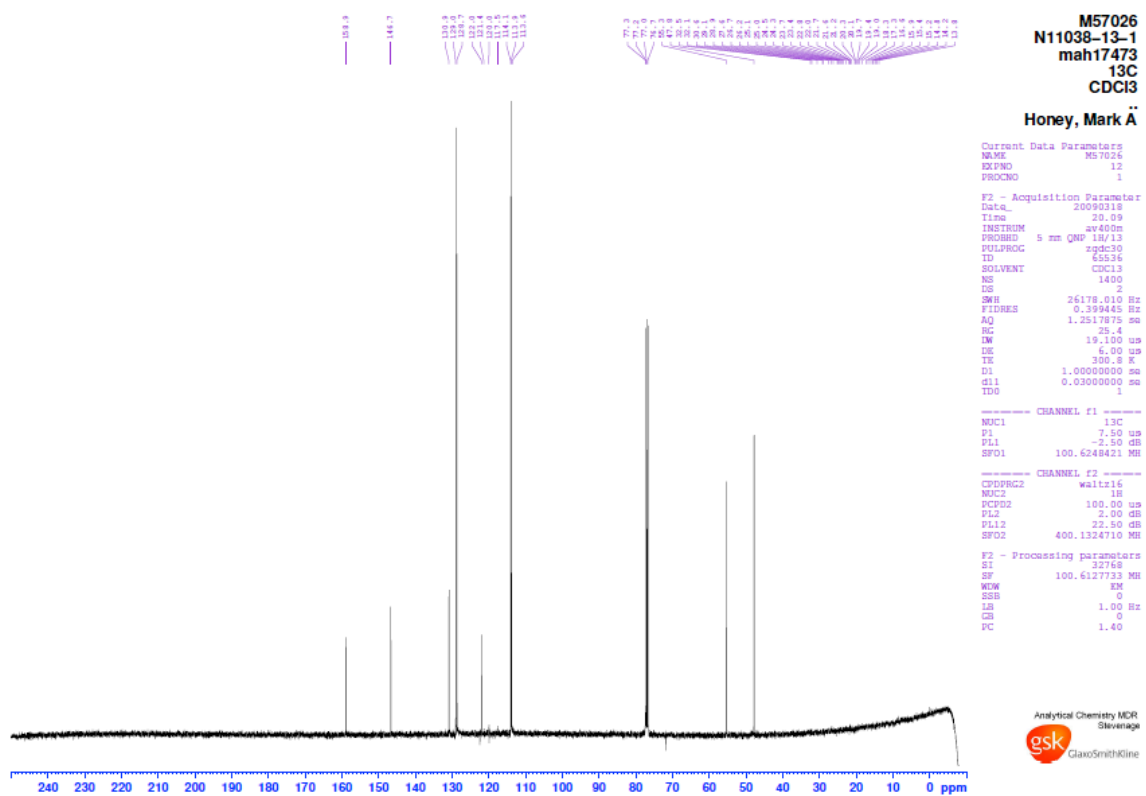
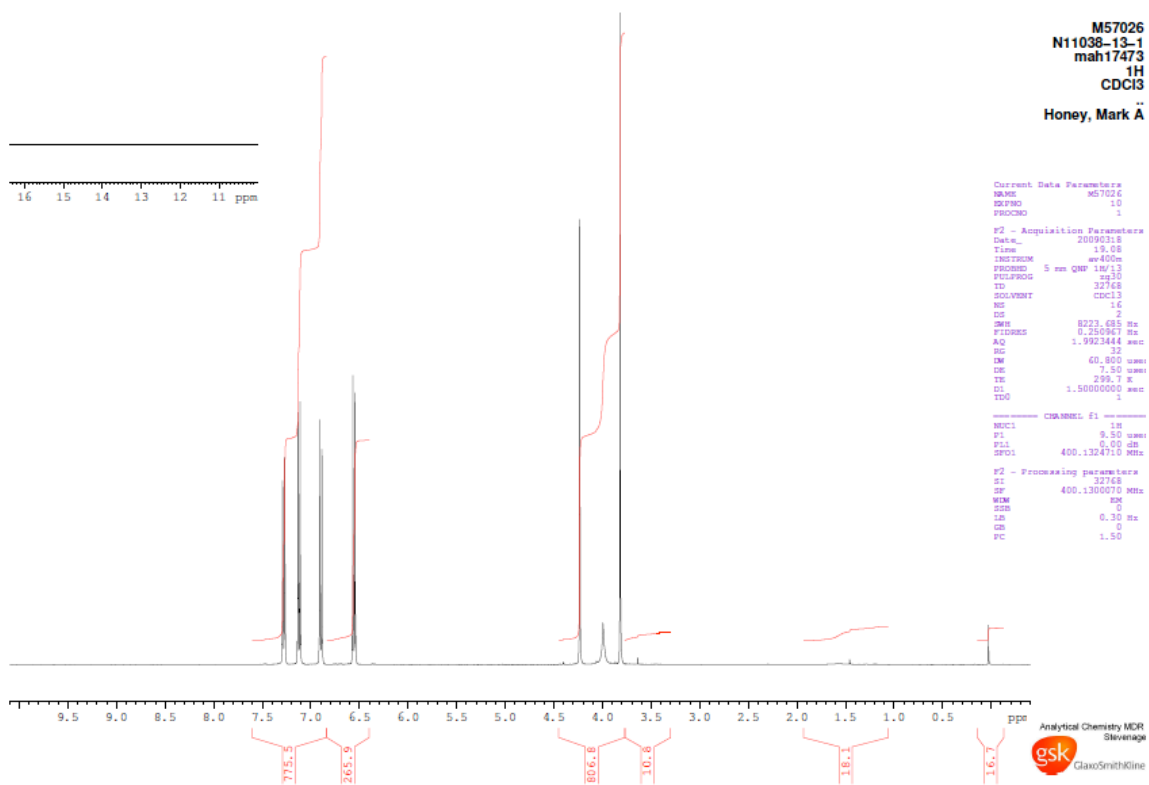
U.K. Fax: 44 115 951 3564; E-mail: [c.j.moody@nottingham.ac.uk](mailto:c.j.moody@nottingham.ac.uk)

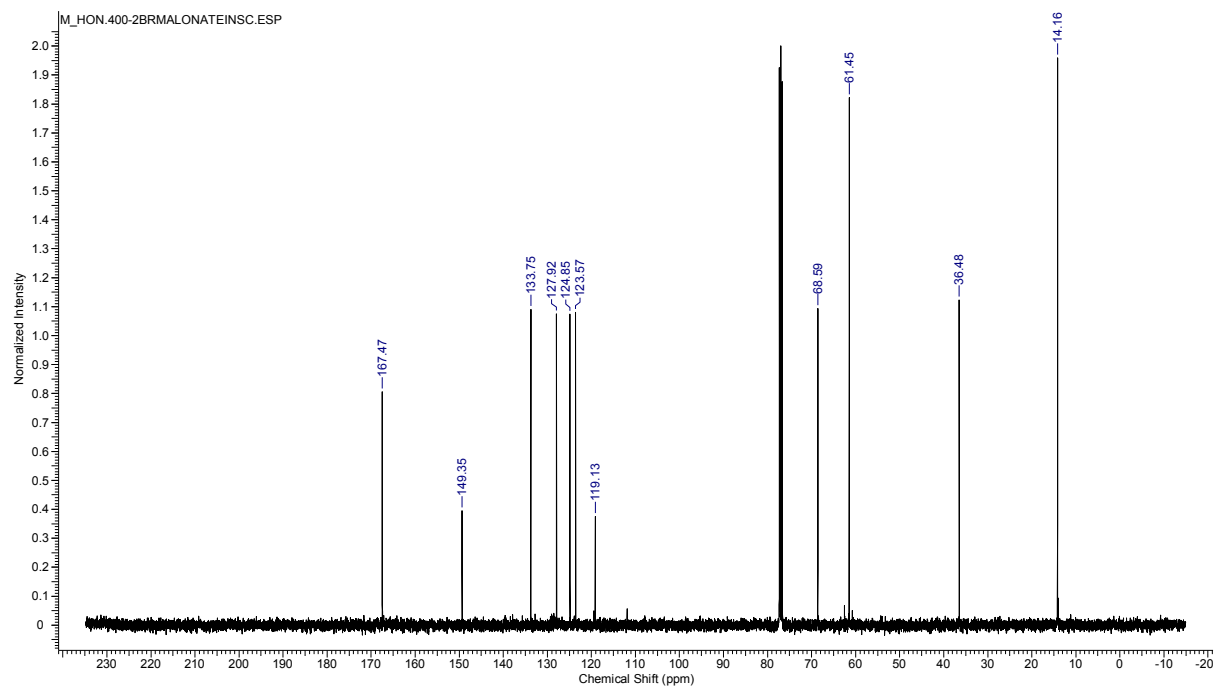
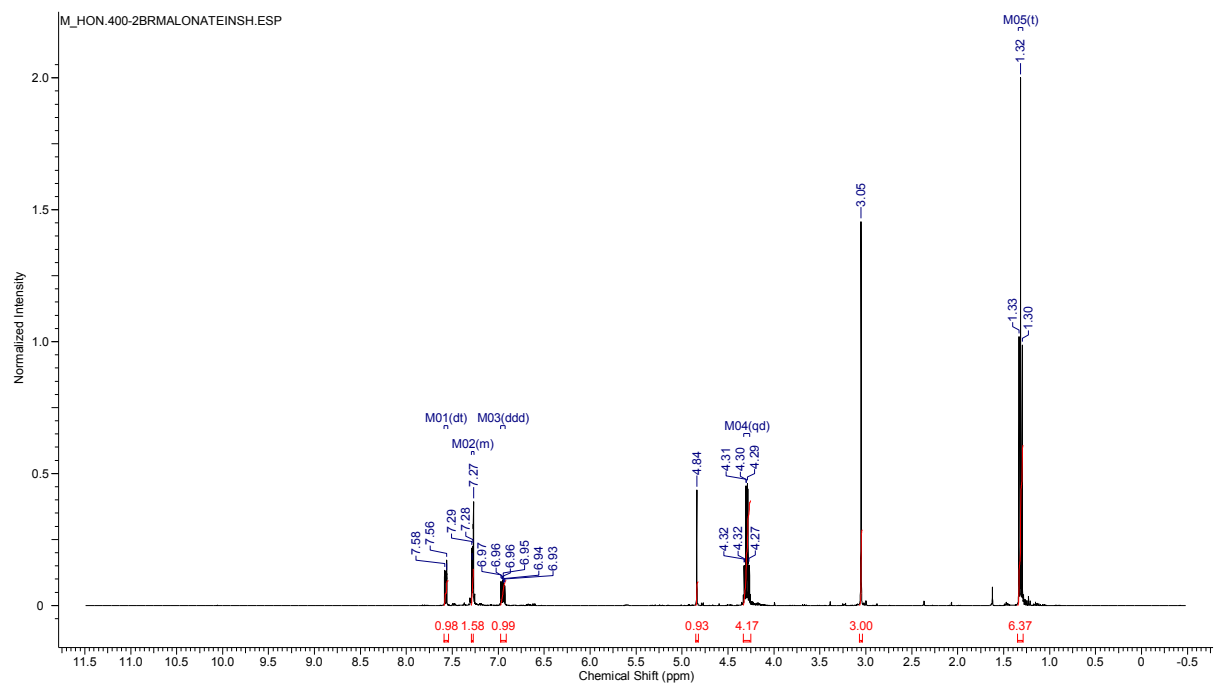
**Supplementary Material**

Copies of NMR Spectra

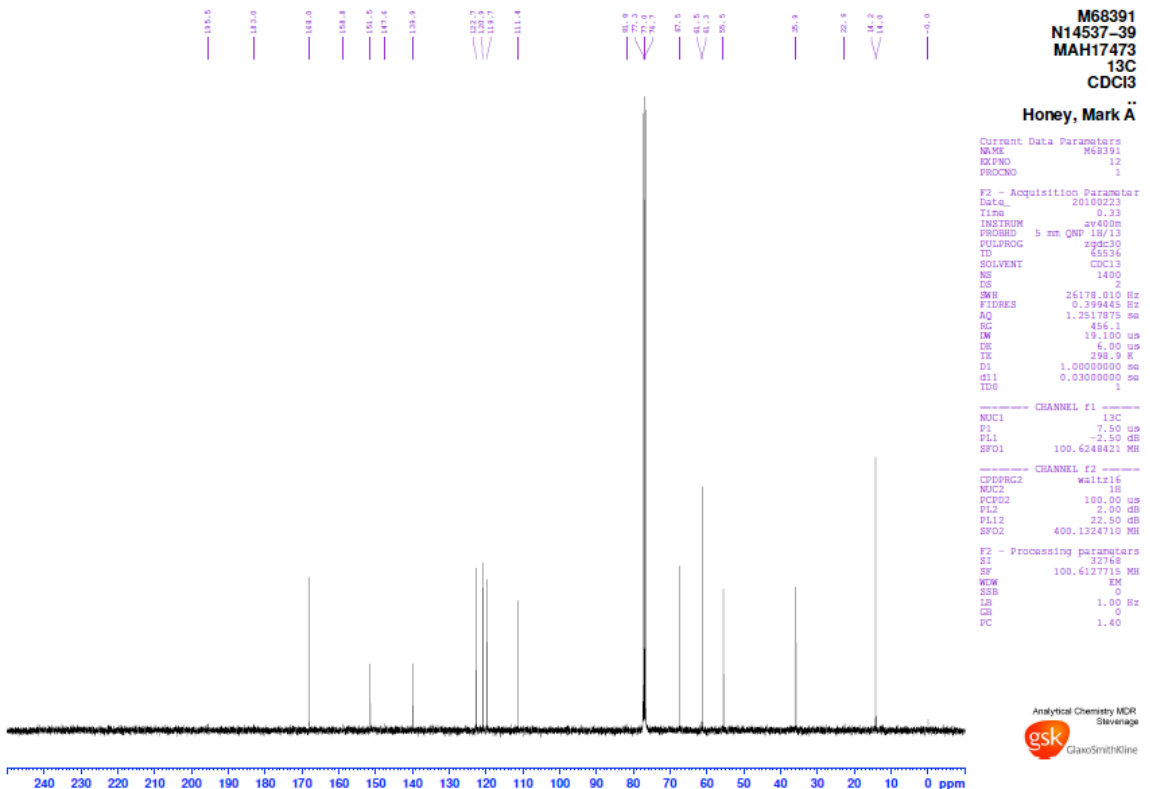
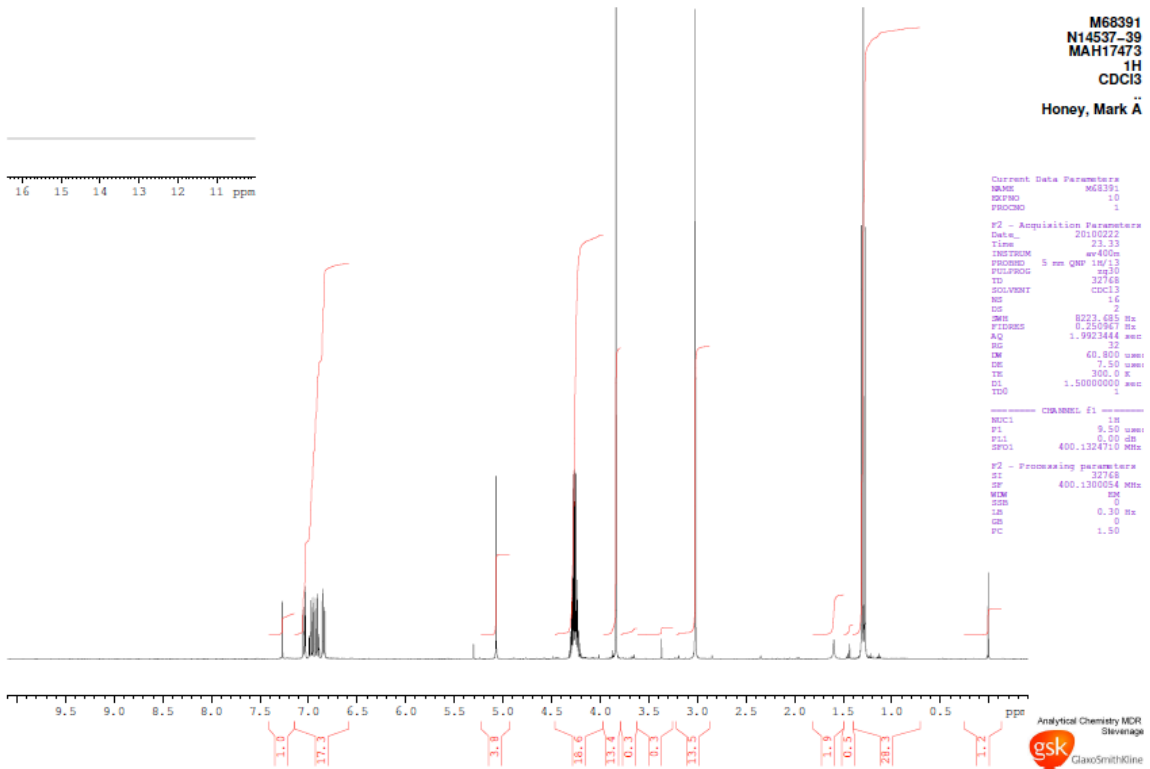
Diethyl diazopropanedioate

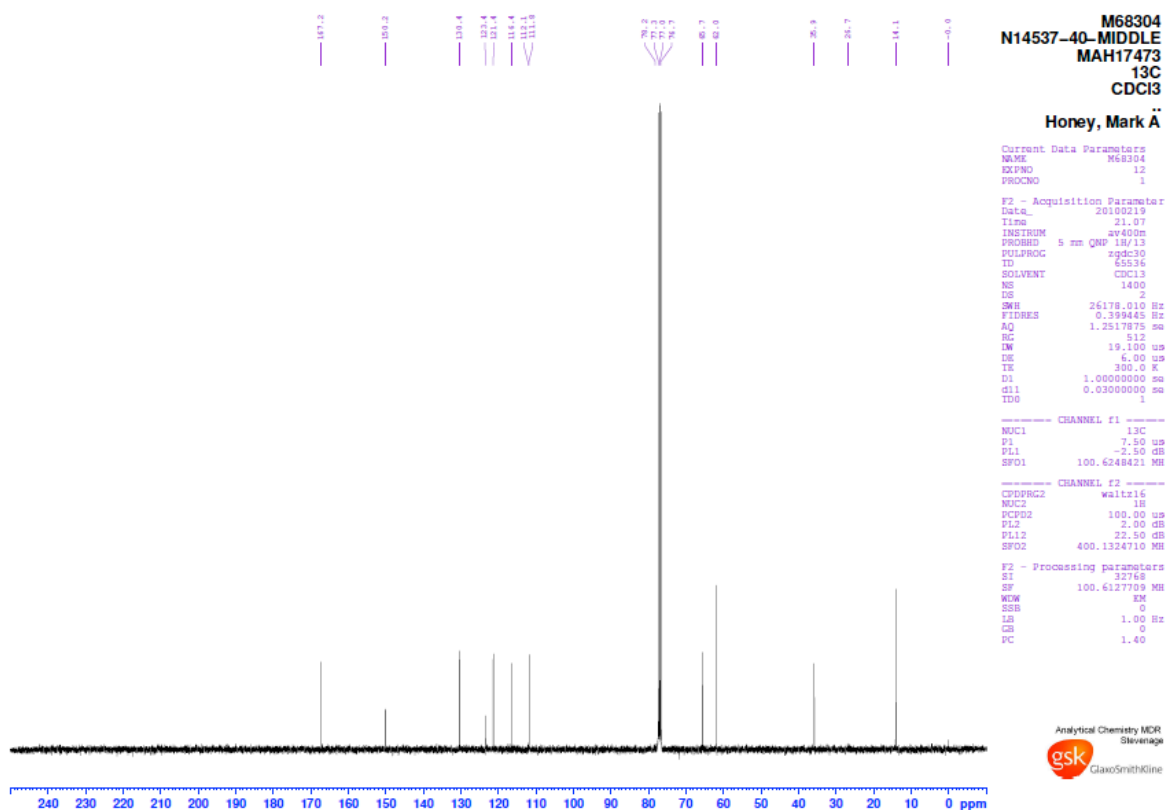
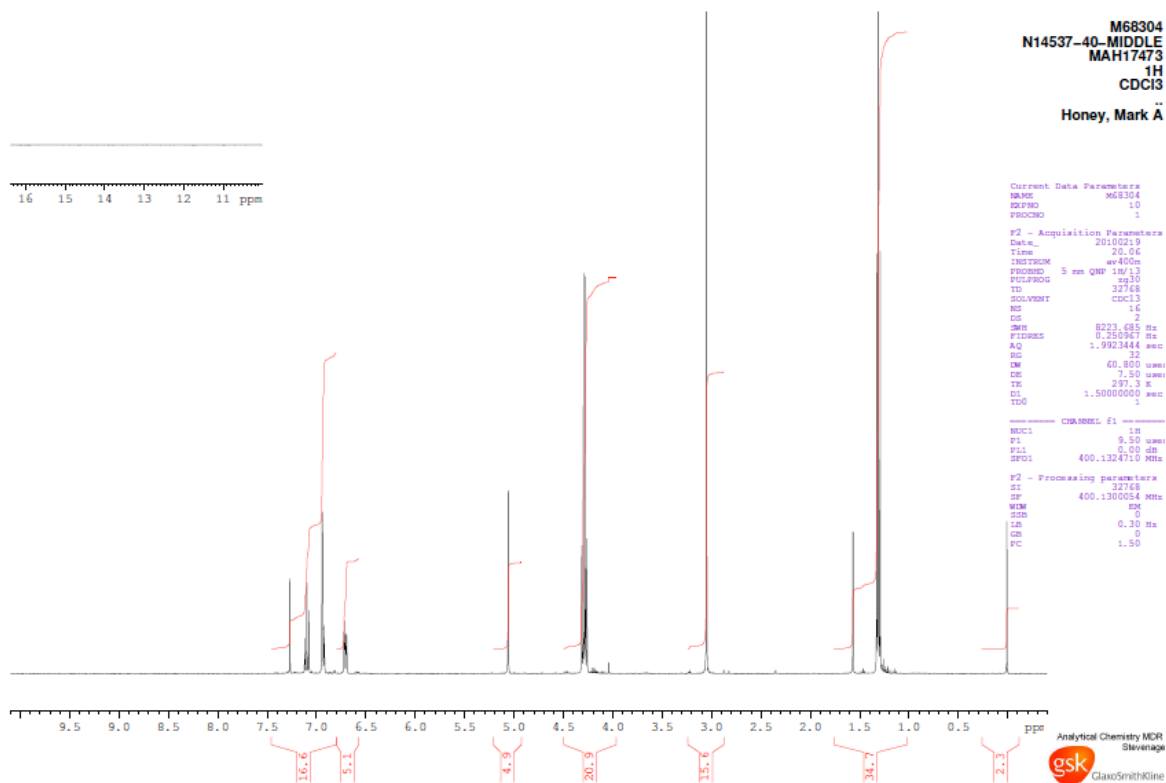


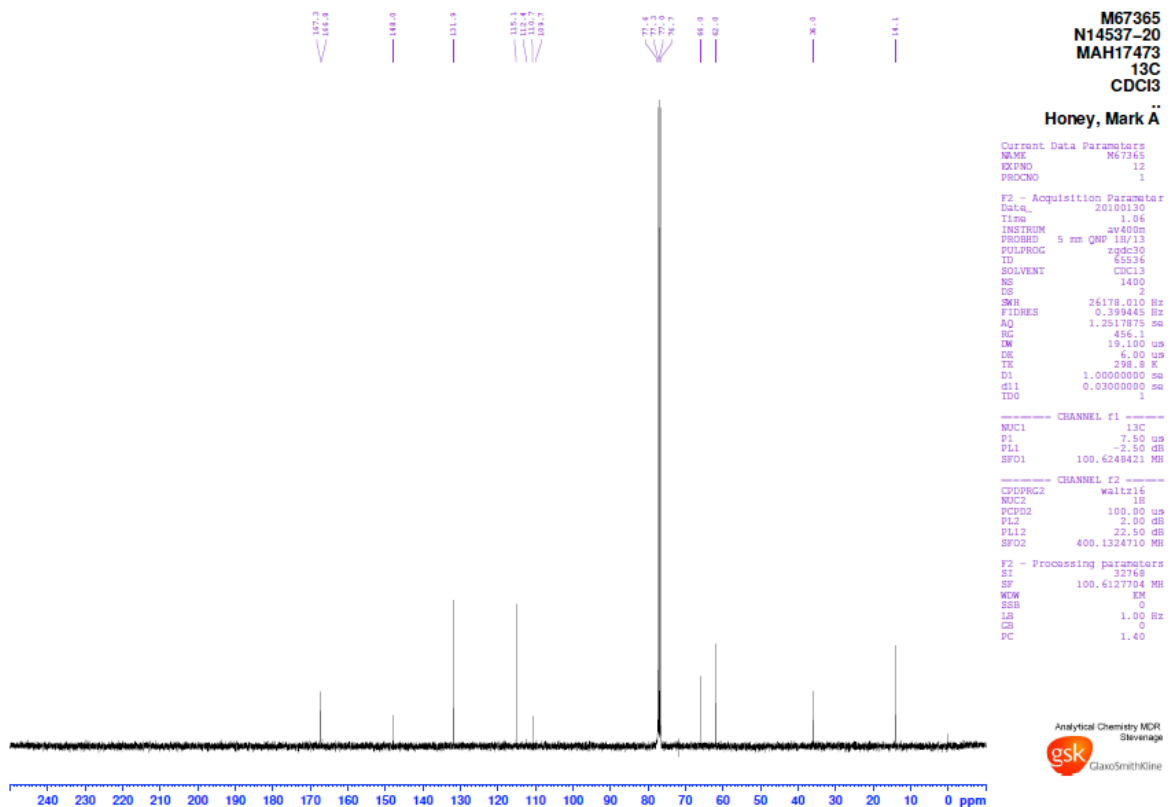
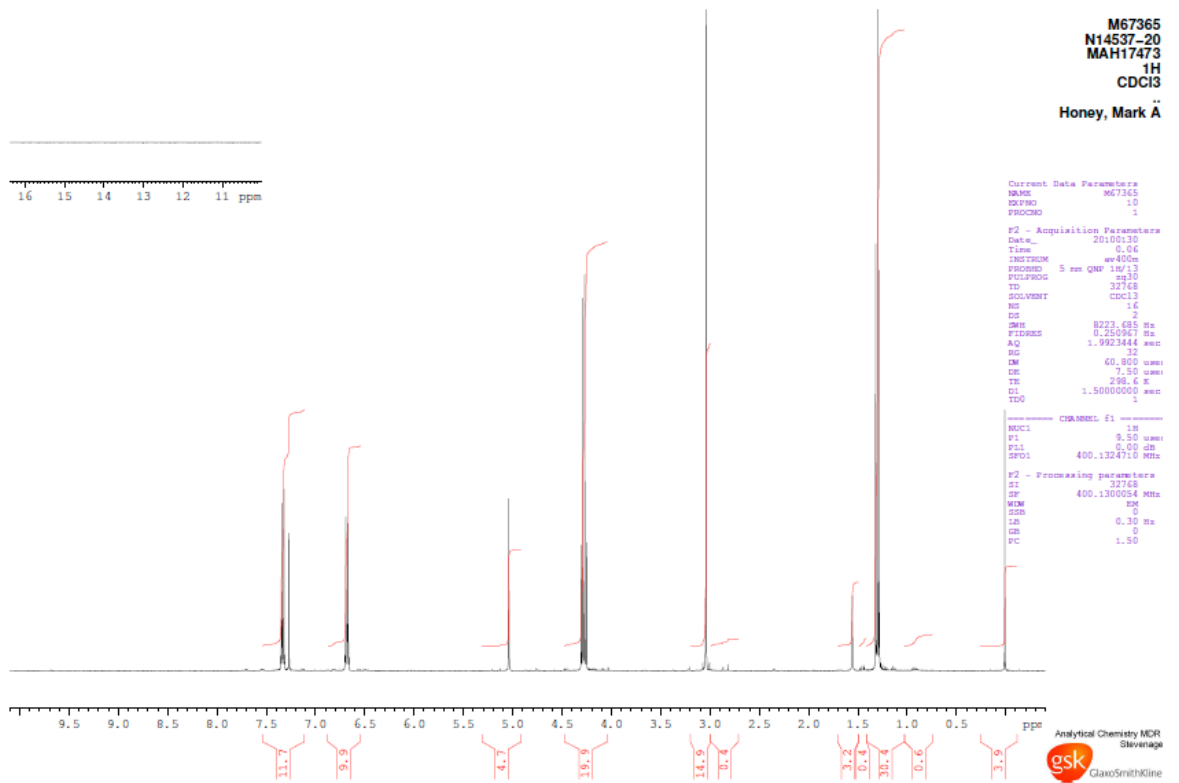
4-Chloro-*N*-(4-methoxyphenyl)methylaniline 1f

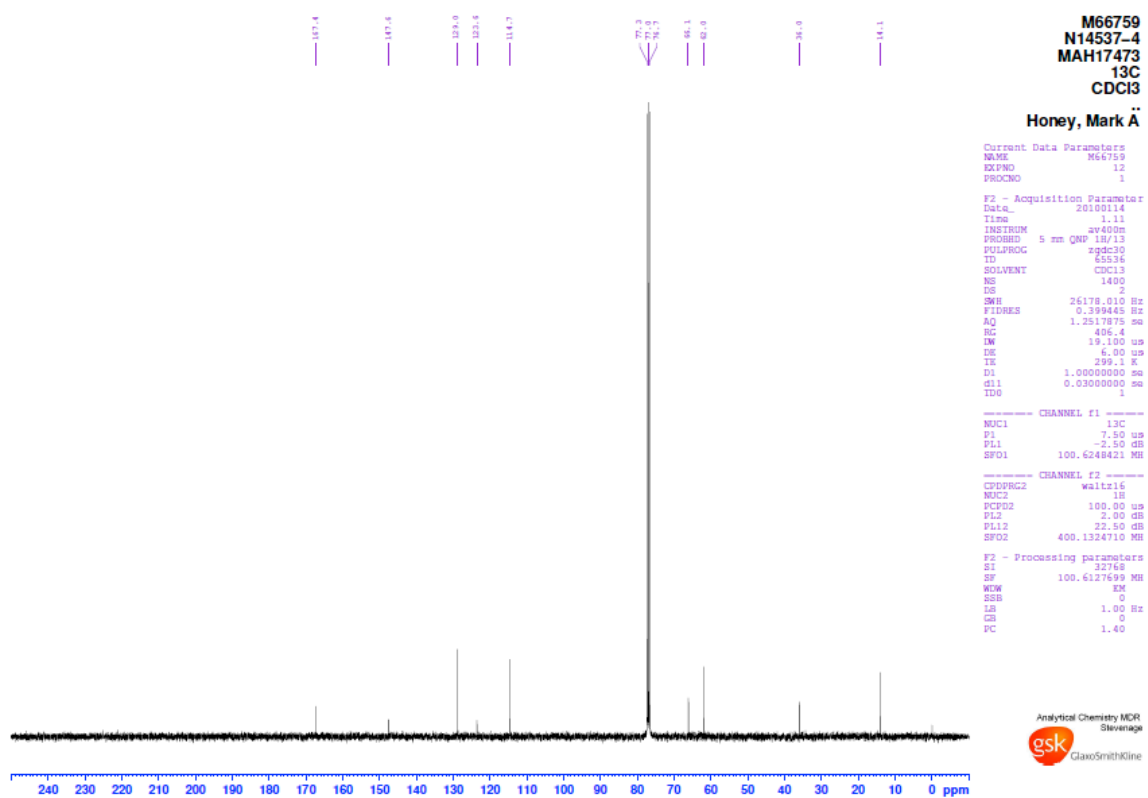
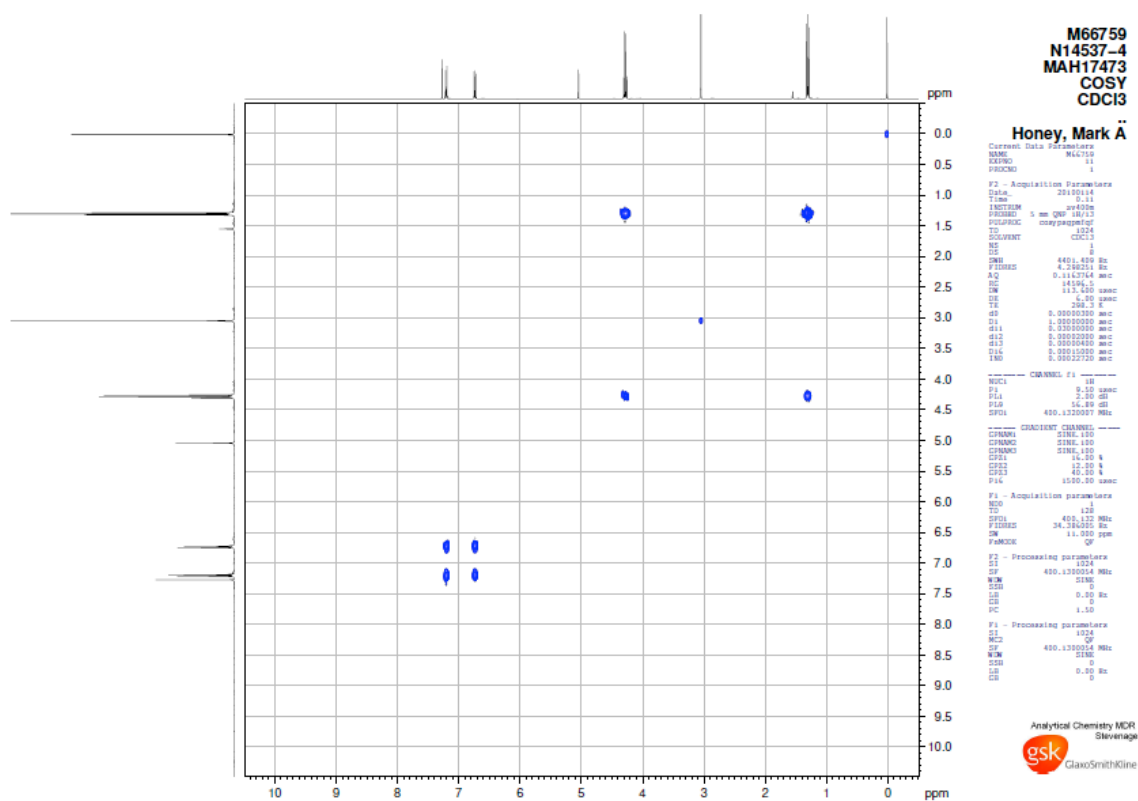
Diethyl 2-[N-(2-bromophenyl)-N-methylamino]propanedioate **2a**

Diethyl 2-[N-(2-methoxyphenyl)-N-methylamino]propanedioate **2b**

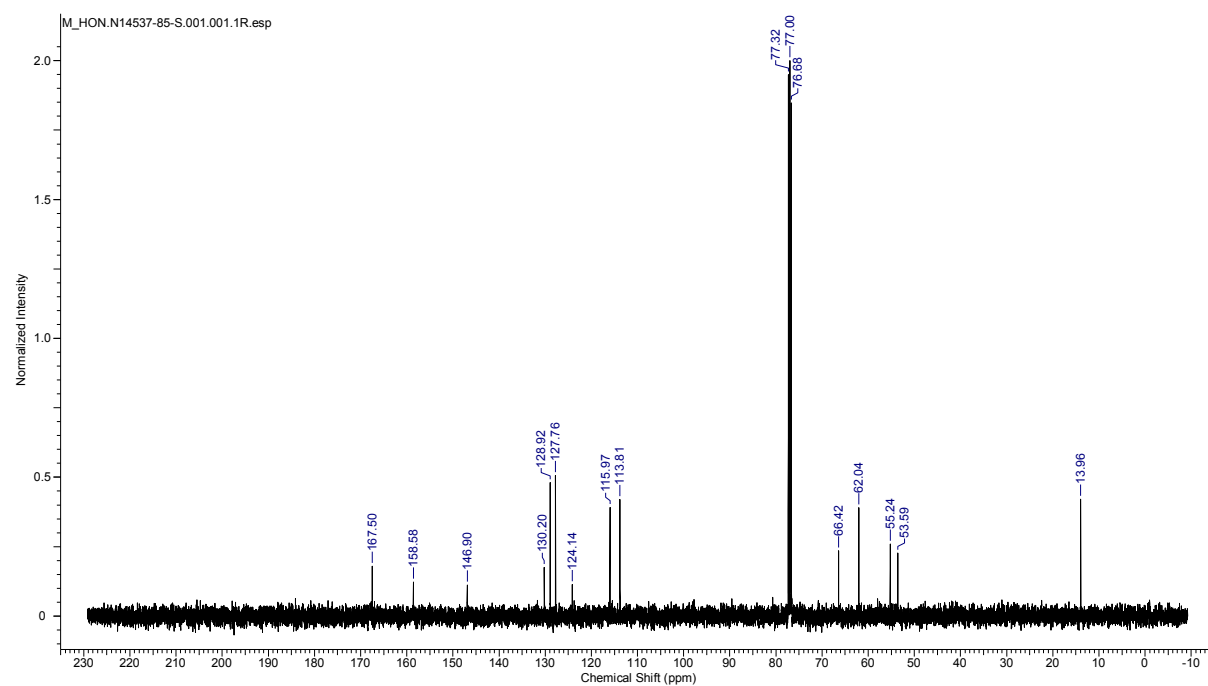
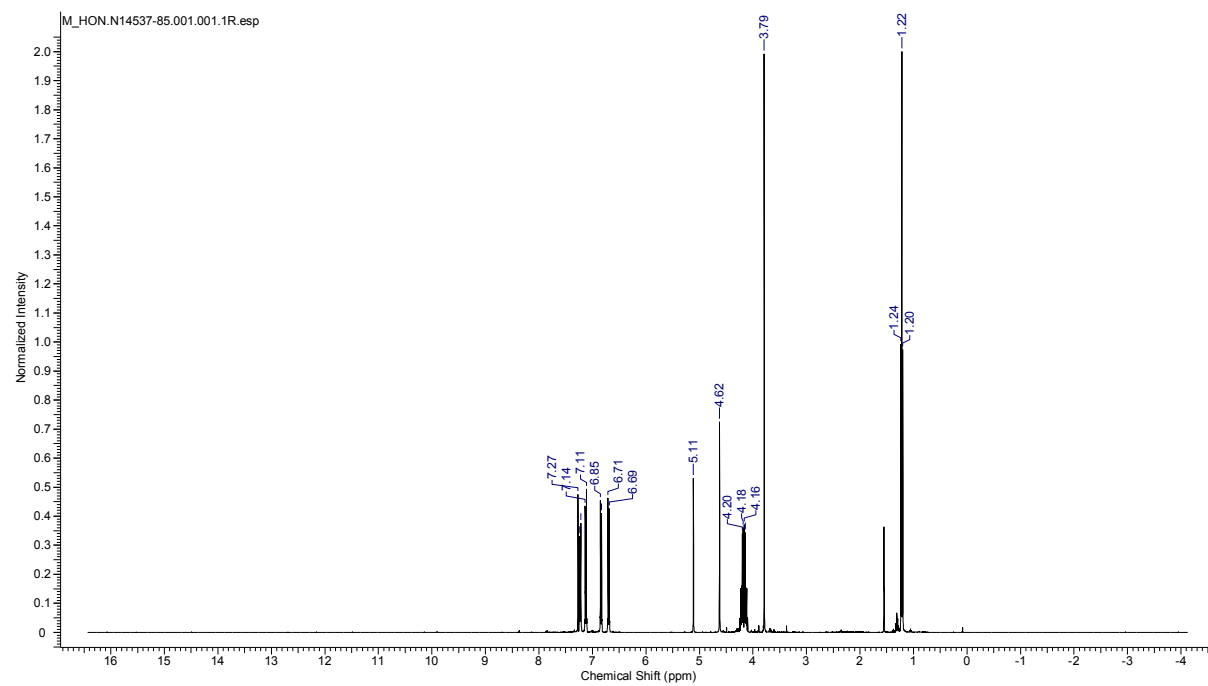


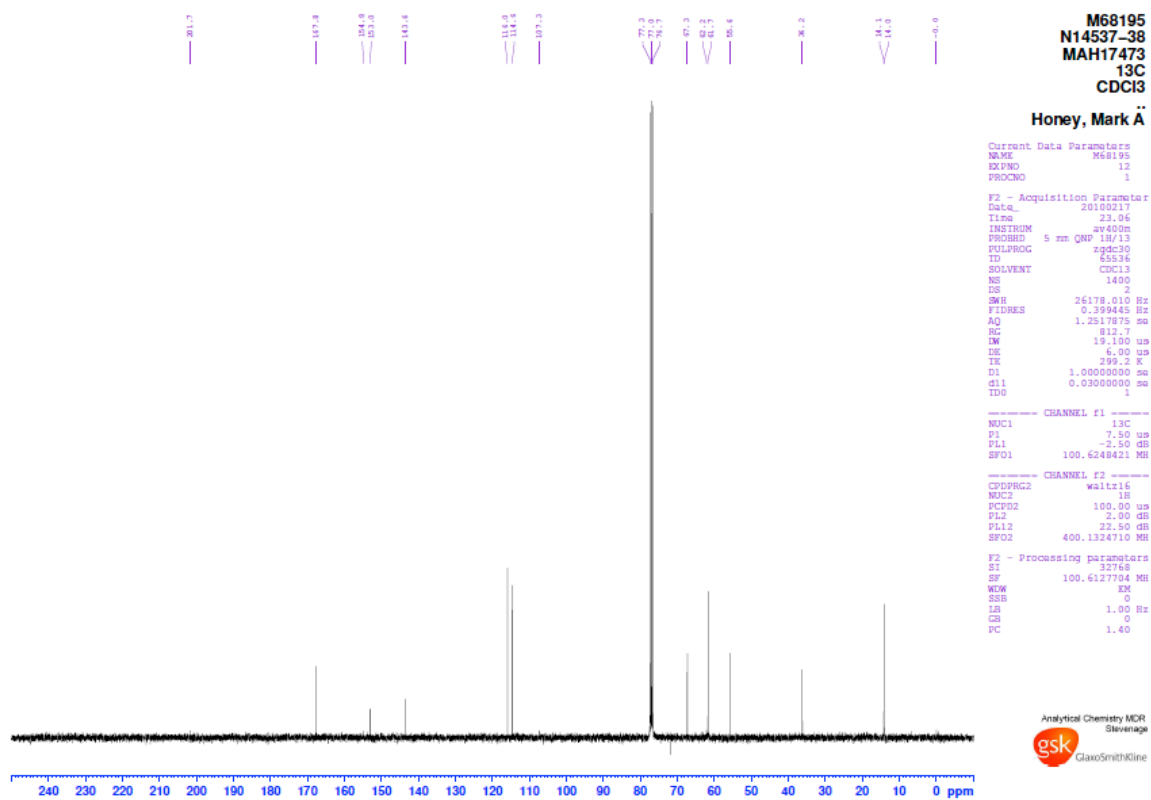
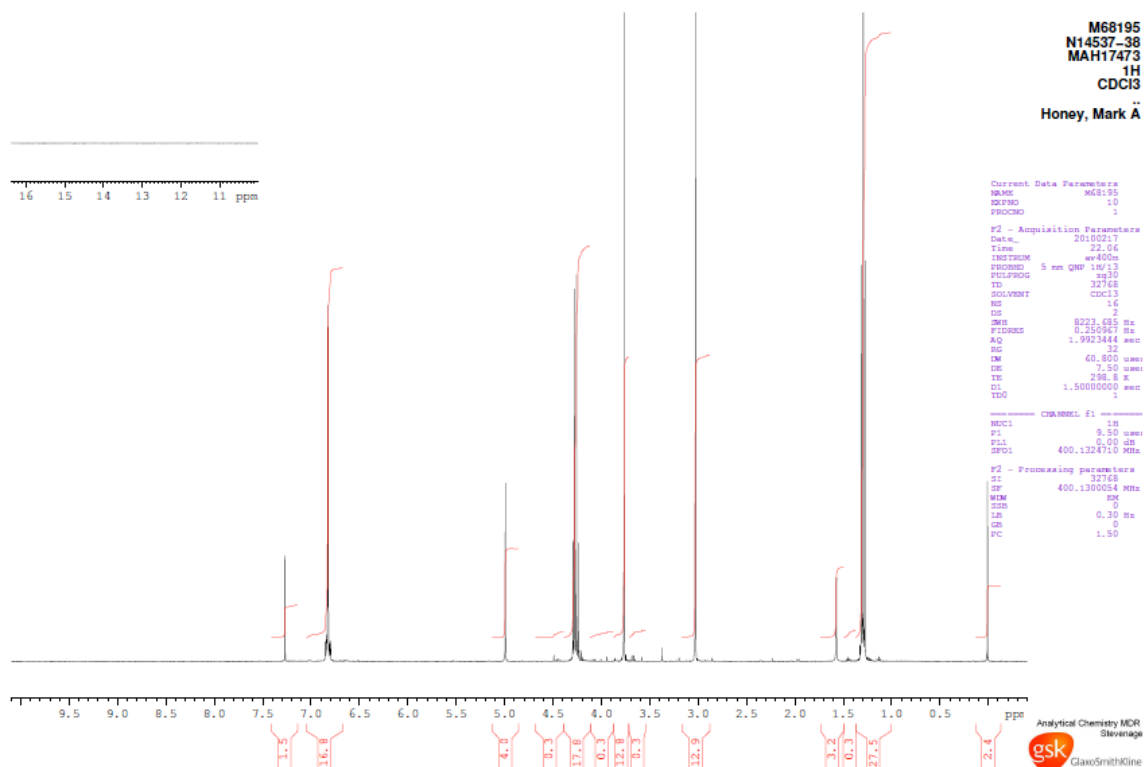
Diethyl 2-[N-(3-bromophenyl)-N-methylamino]propanedioate **2c**

Diethyl 2-[N-(4-bromophenyl)-N-methylamino]propanedioate **2d**

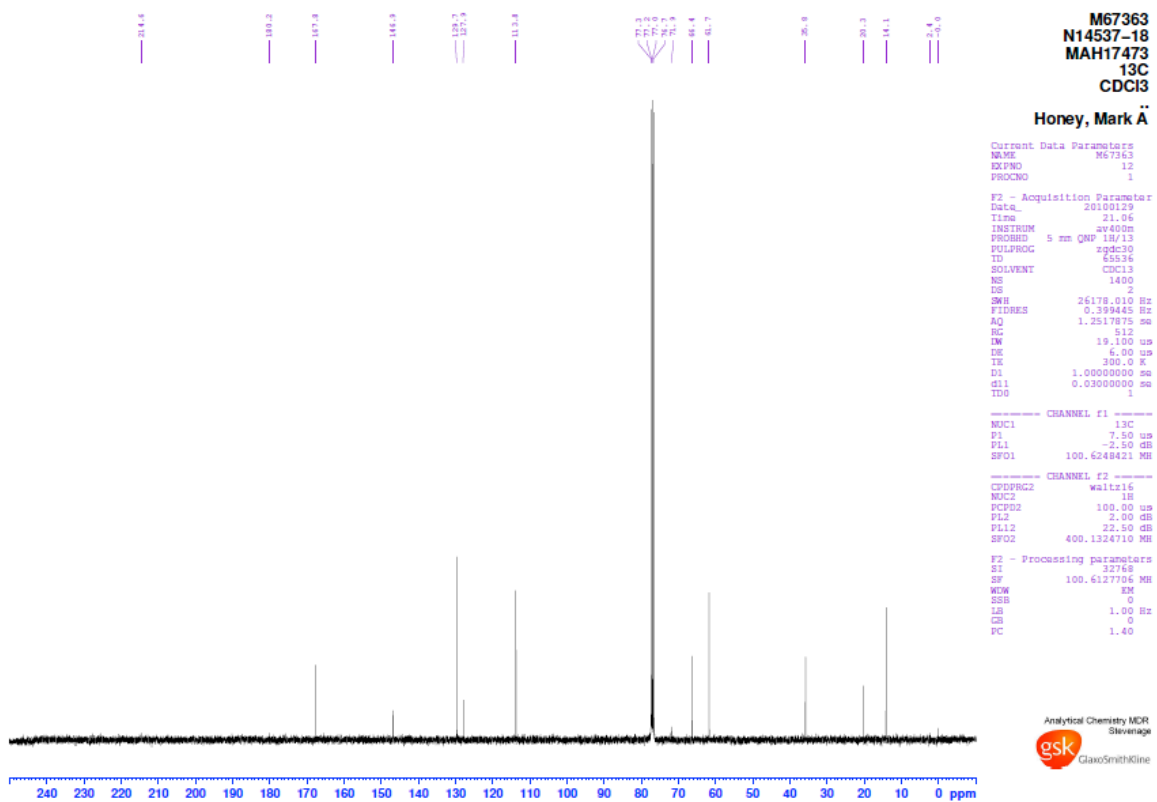
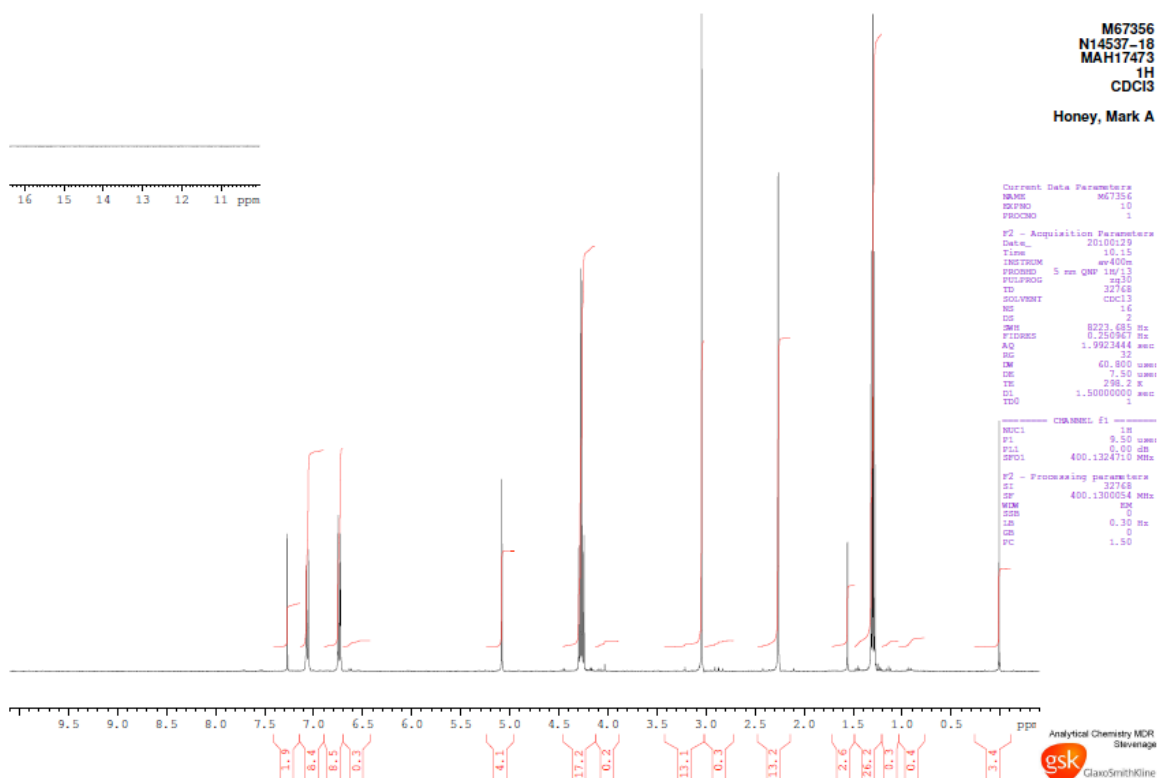
Diethyl 2-[N-(4-chlorophenyl)-N-methylamino]propanedioate **2e**



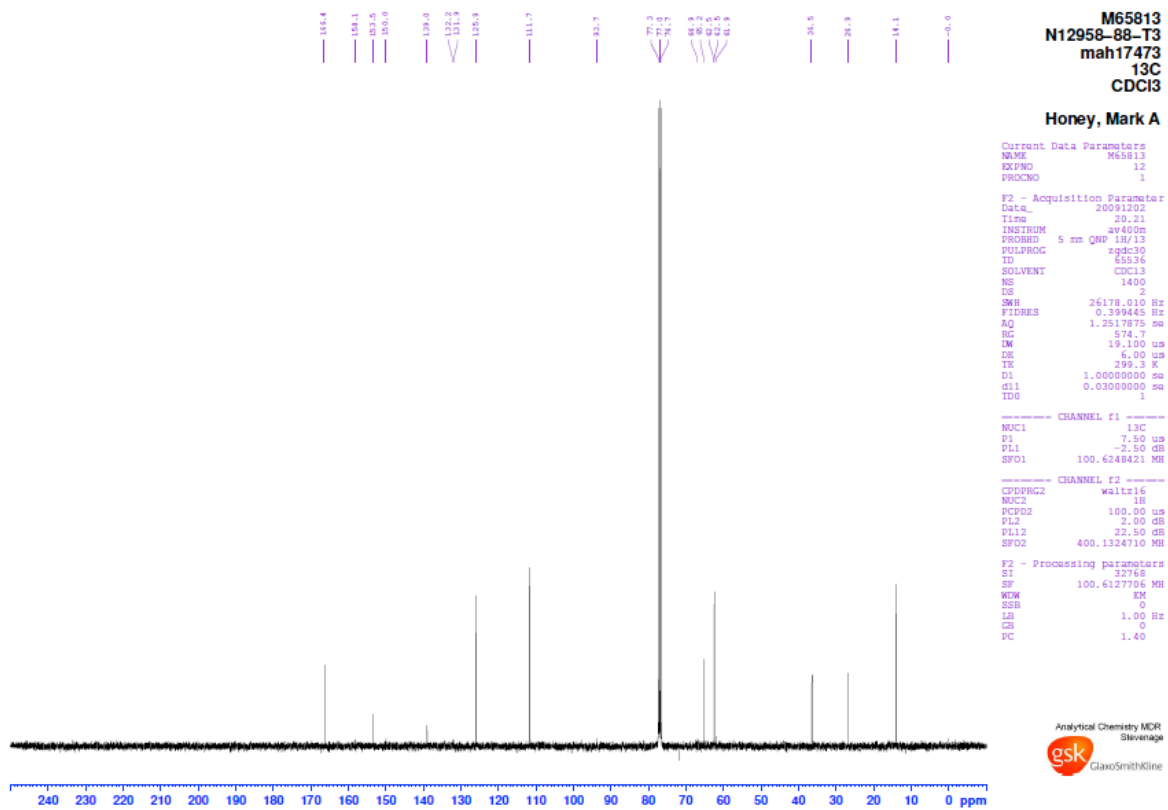
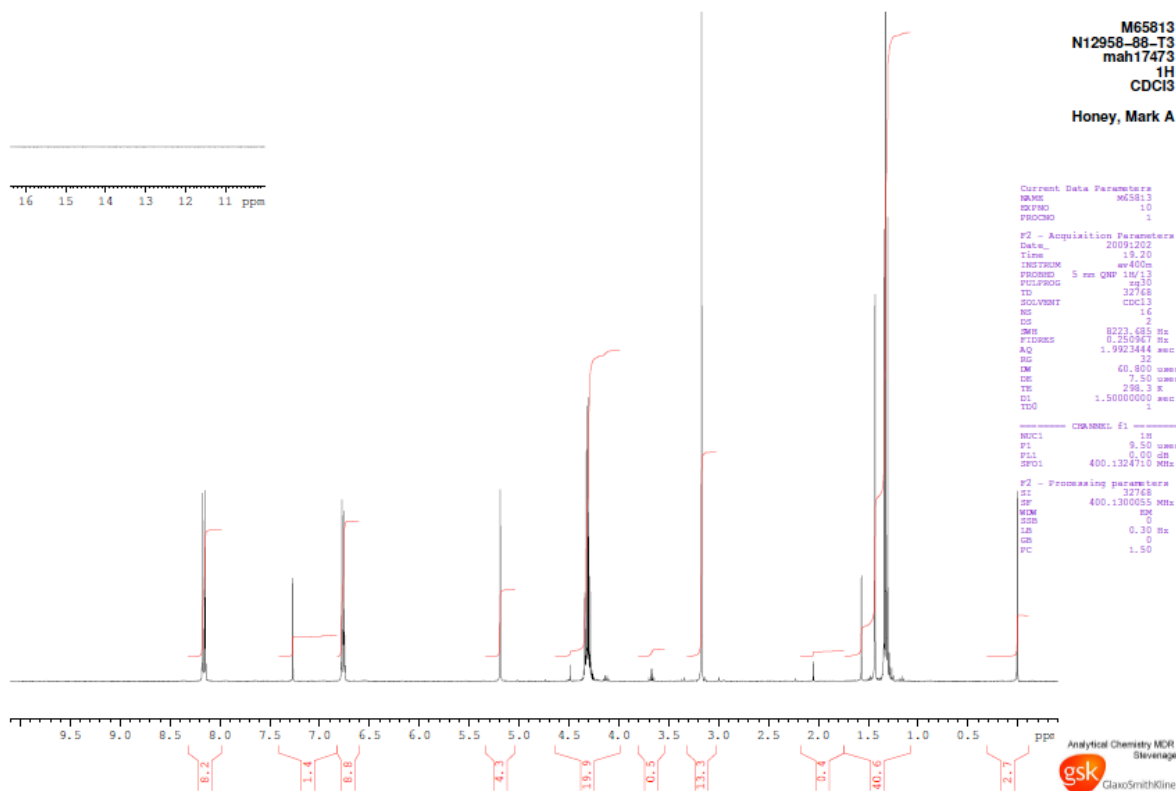
Diethyl 2-[N-(4-chlorophenyl)-N-(4-methoxybenzyl)amino]propanedioate **2f**

Diethyl 2-[N-(4-methoxyphenyl)-N-methylamino]propanedioate **2g**

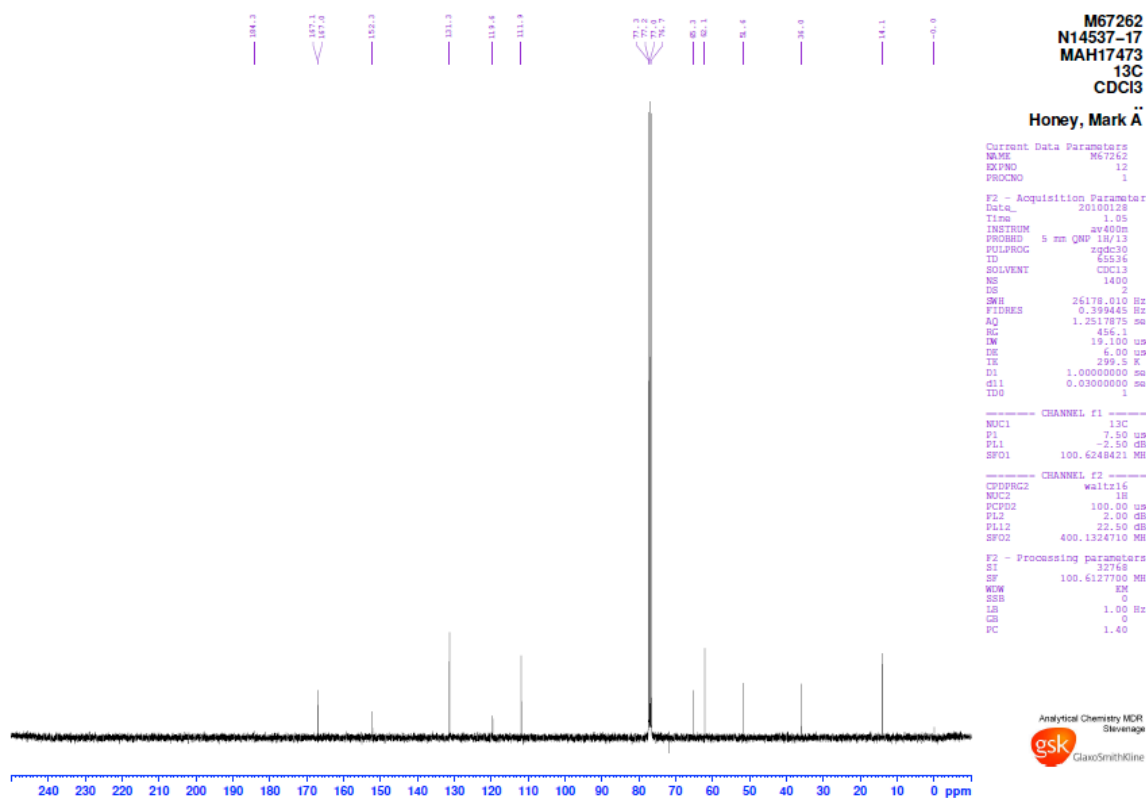
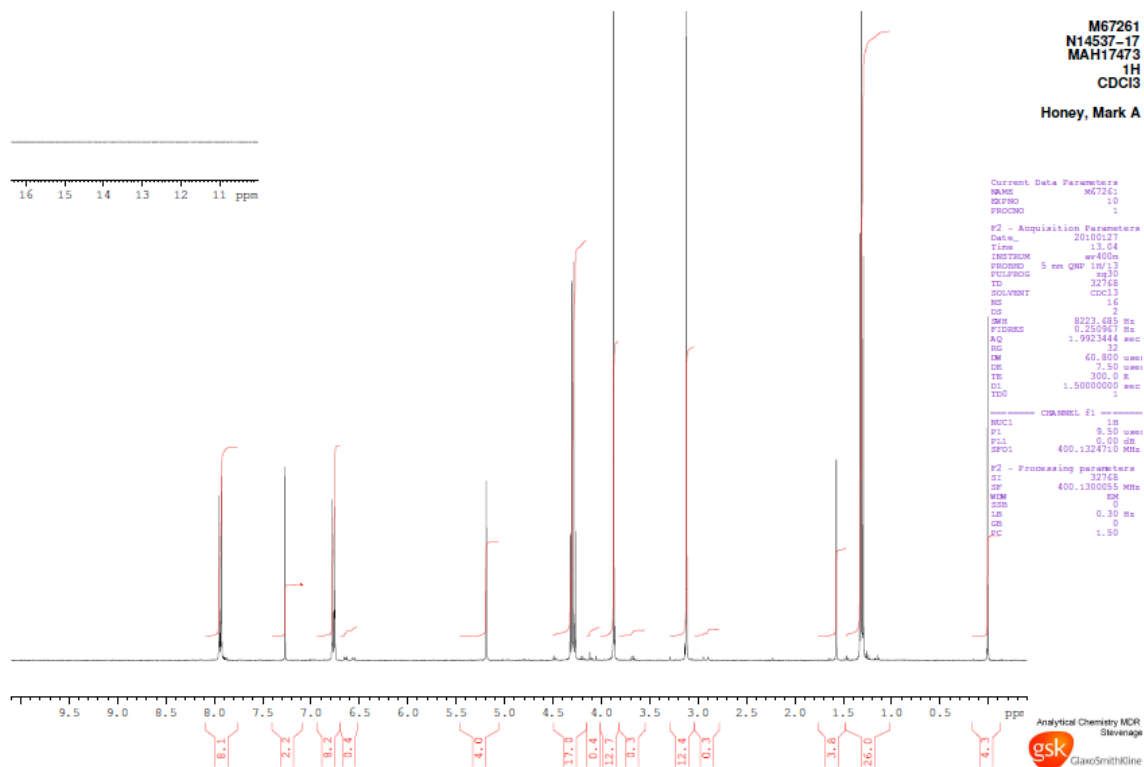
Diethyl 2-[N-methyl-N-(4-methylphenyl)amino]propanedioate **2h**



Diethyl 2-[N-methyl-N-(4-nitrophenyl)amino]propanedioate **2i**

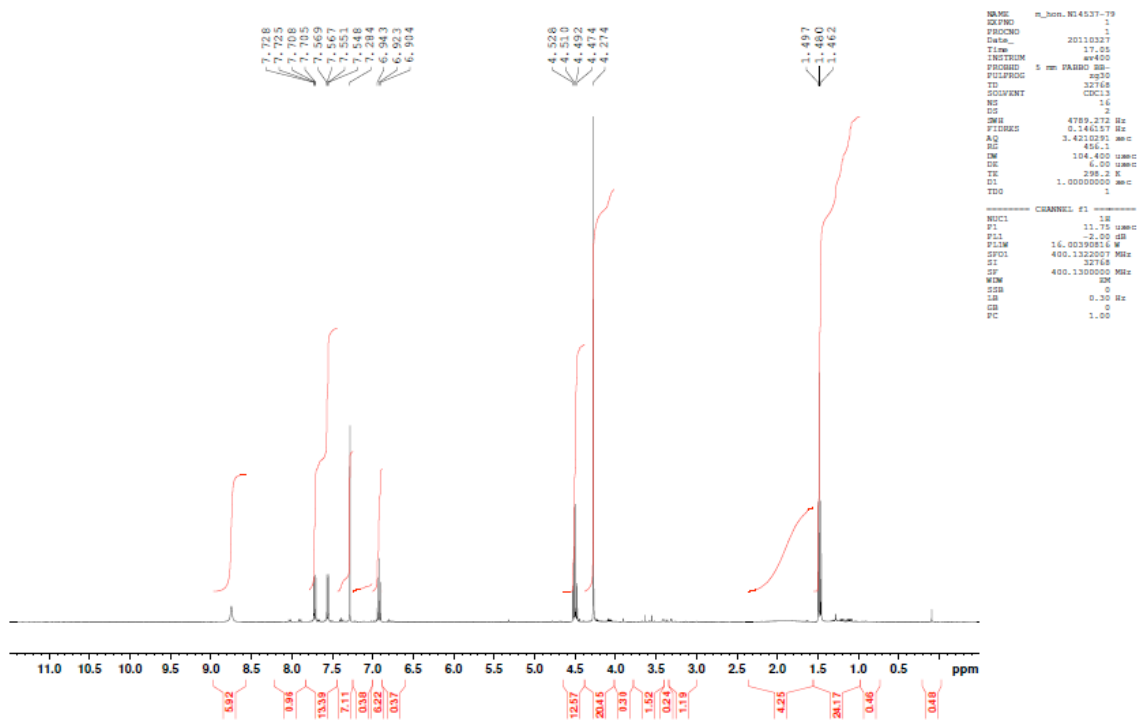


Diethyl 2-[N-(4-methoxycarbonylphenyl)-N-methylamino]propanedioate **2j**

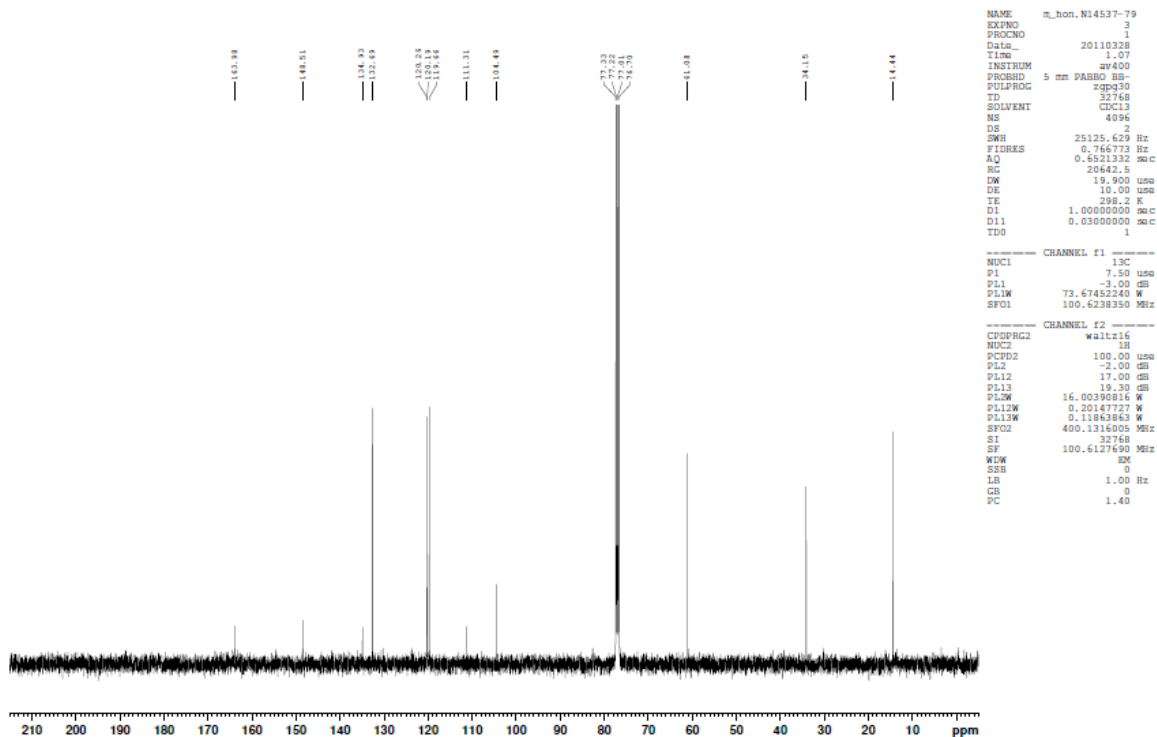


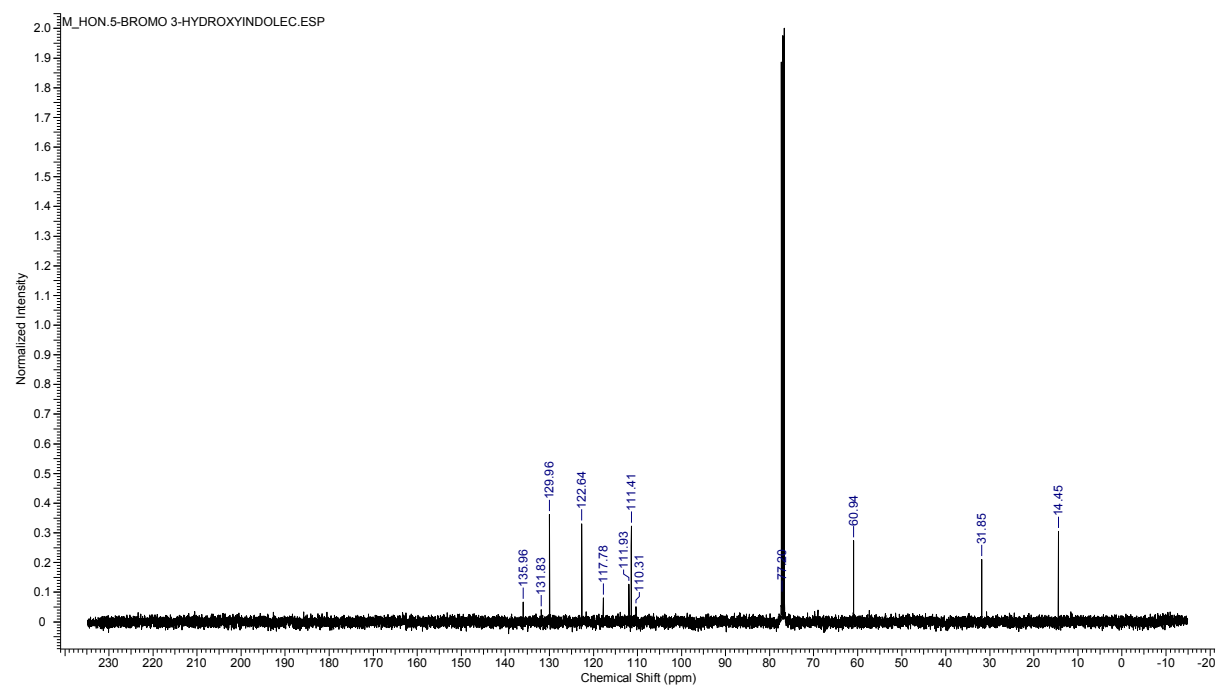
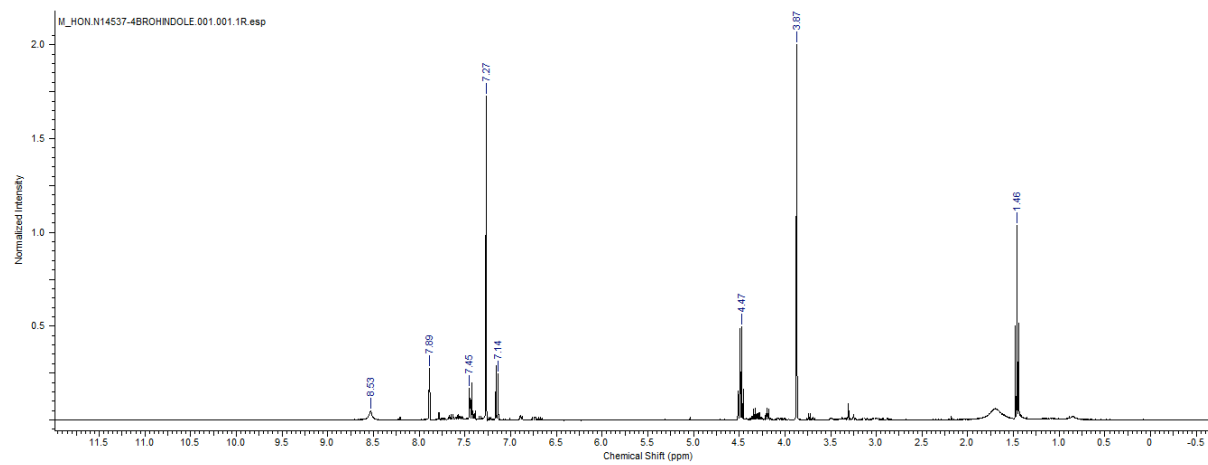
Ethyl 7-bromo-3-hydroxy-1-methyl-1*H*-indole-2-carboxylate **3a**

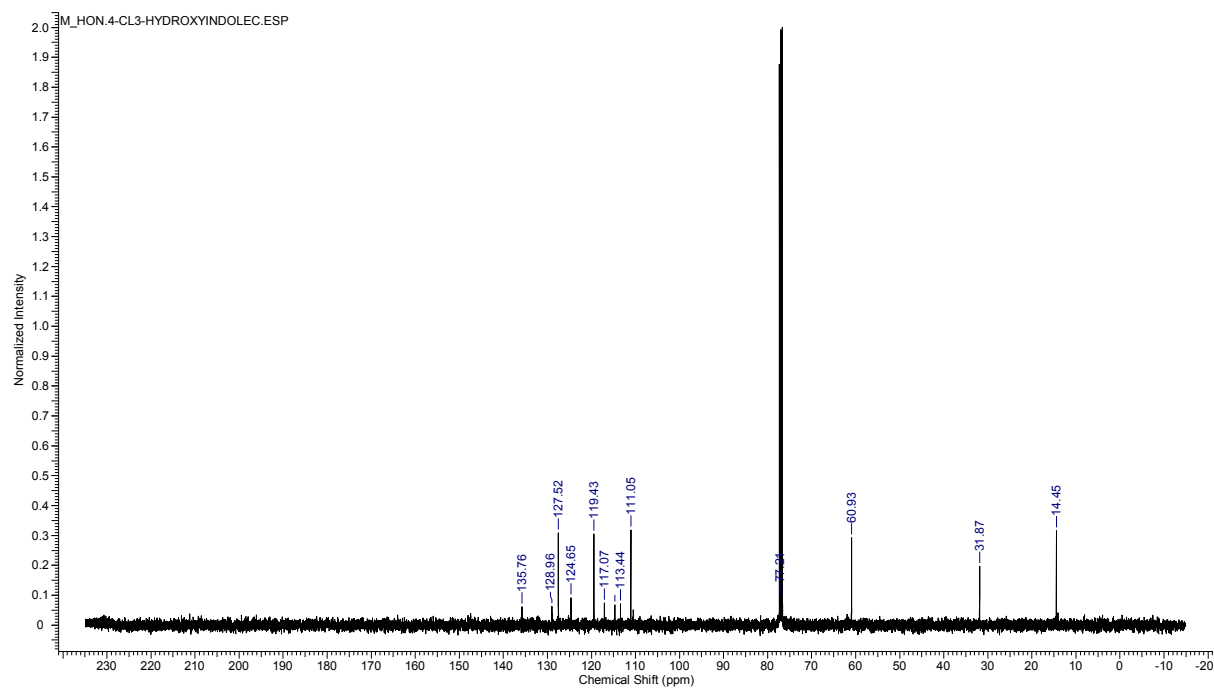
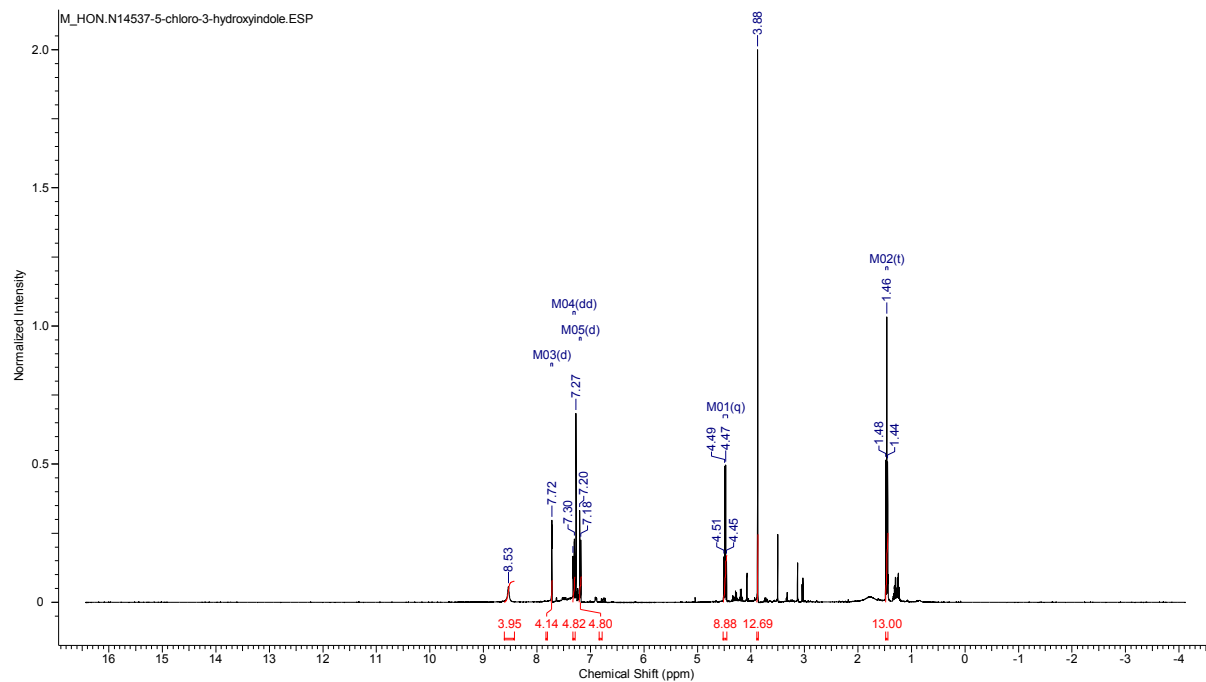
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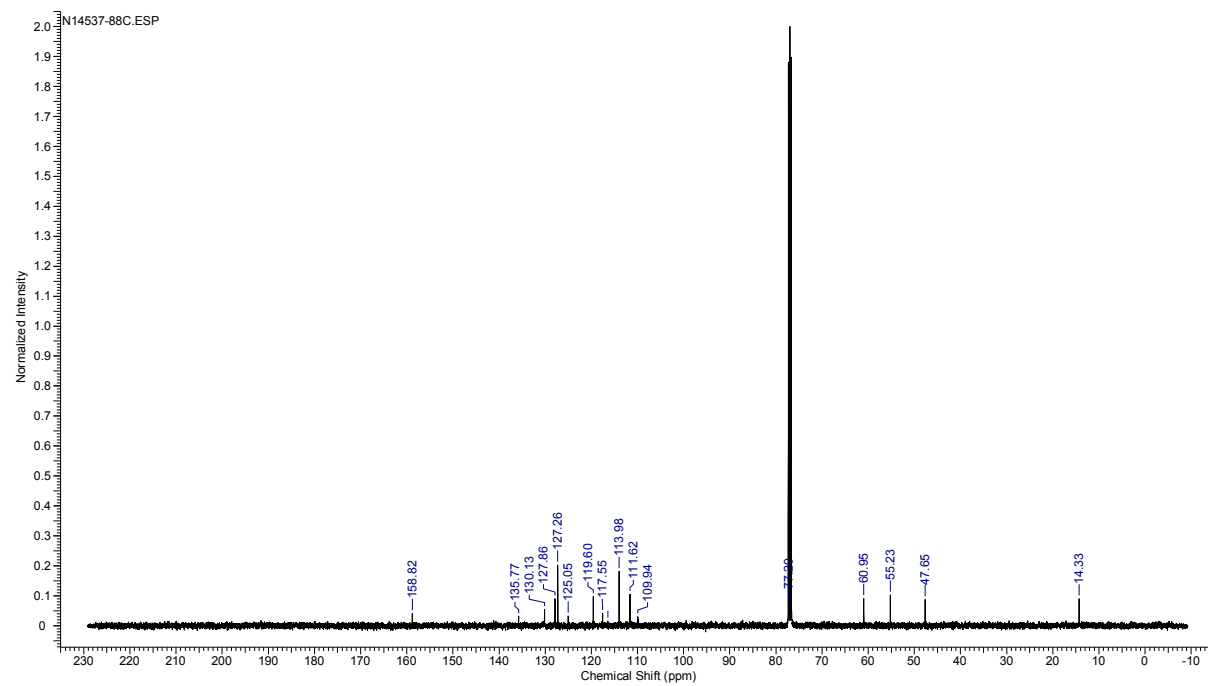
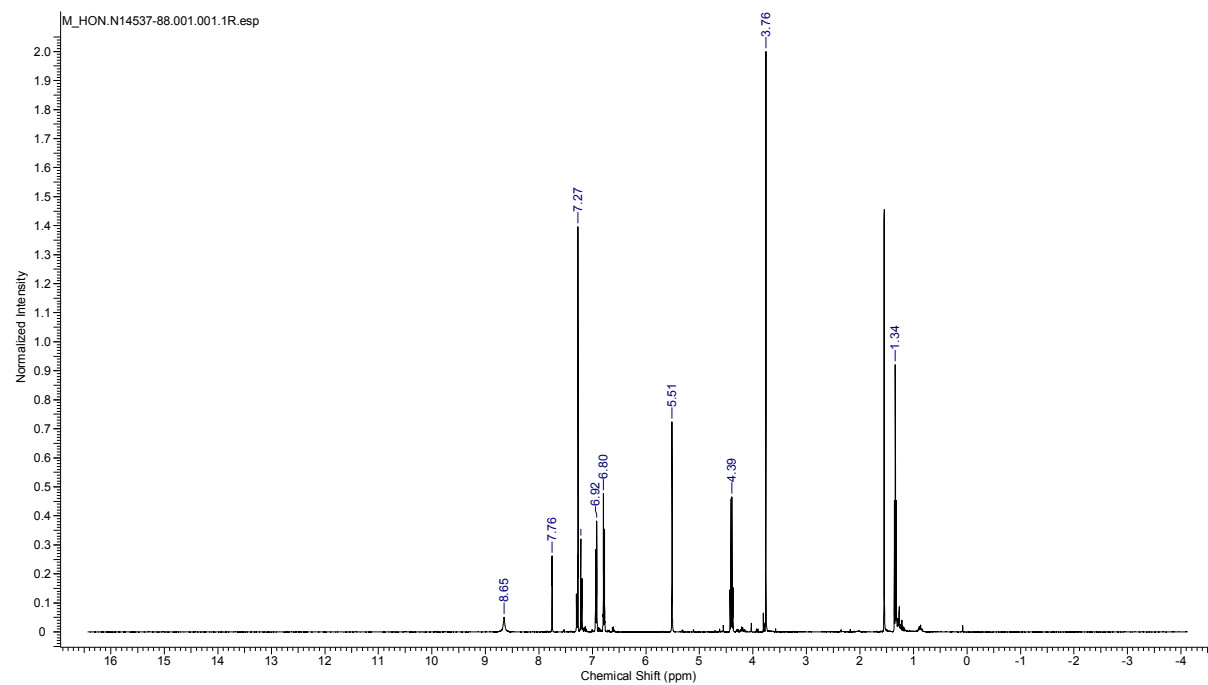
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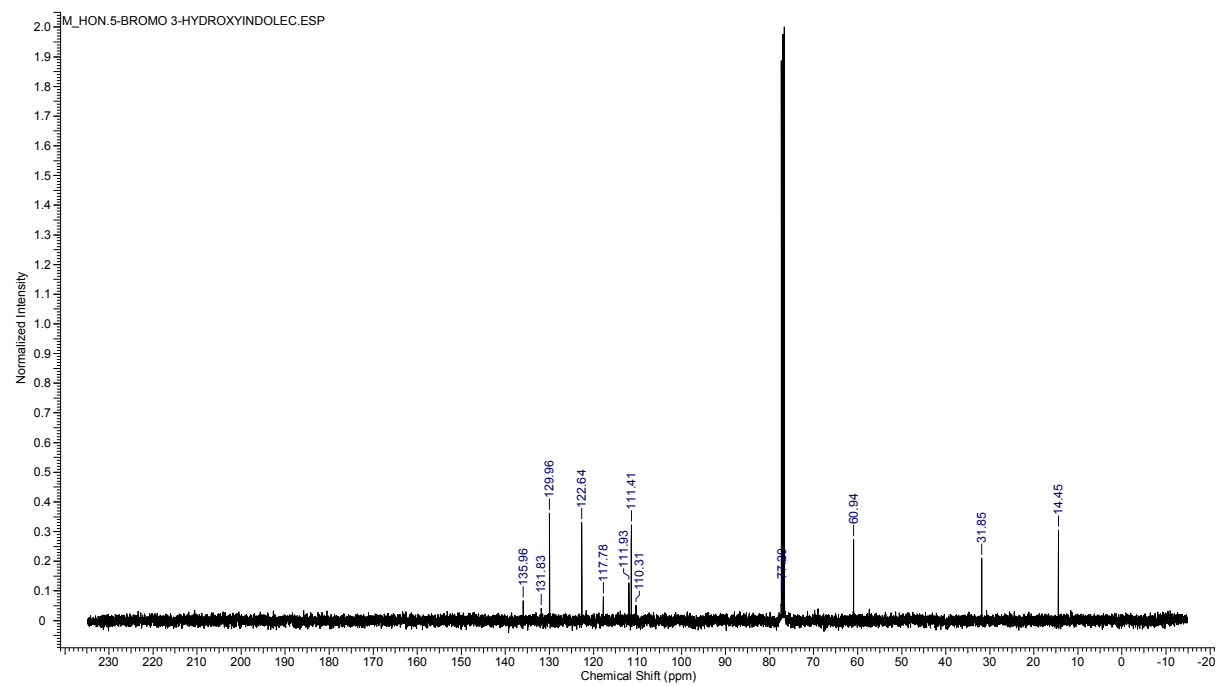
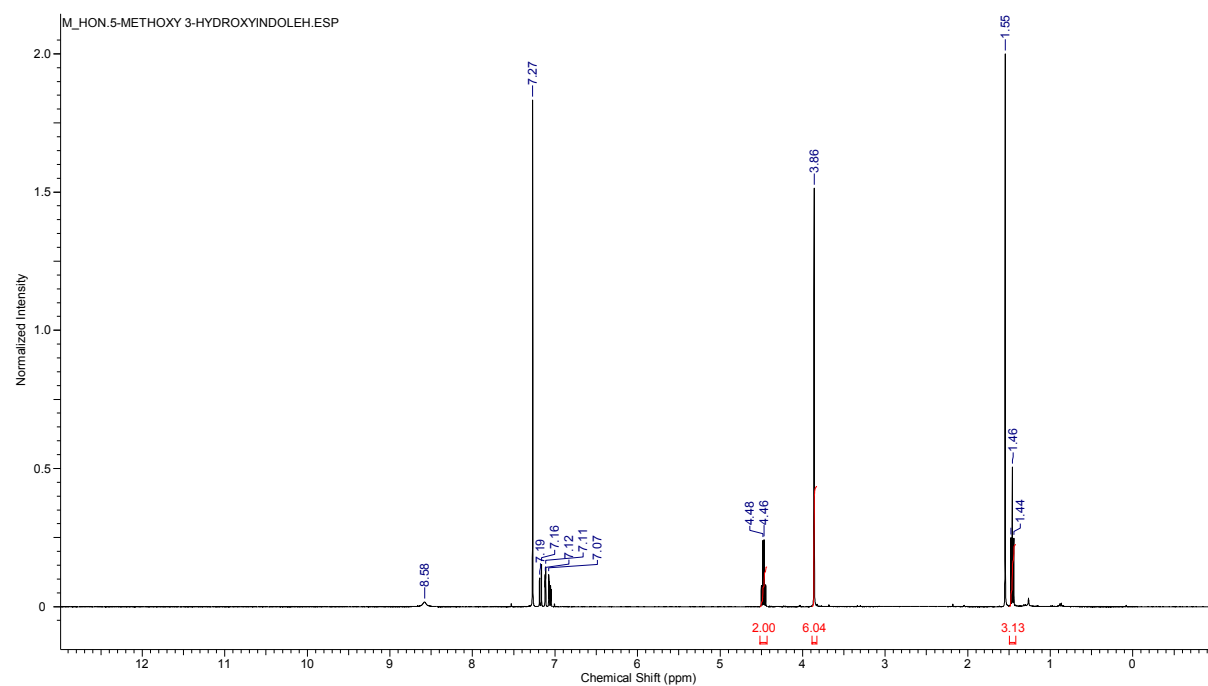


Ethyl 5-bromo-3-hydroxy-1-methyl-1*H*-indole-2-carboxylate **3b**

Ethyl 5-chloro-3-hydroxy-1-methyl-1*H*-indole-2-carboxylate **3c**



Ethyl 5-chloro-3-hydroxy-1-(4-methoxybenzyl)-1H-indole-2-carboxylate **3d**

Ethyl 3-hydroxy-5-methoxy-1-methyl-1*H*-indole-2-carboxylate **3e**

2-Ethyl 5-methyl 3-hydroxy-1-methyl-1*H*-indole-2,5-dicarboxylate **3f**