

## Supplementary Material

### Ring-closing metathesis in flavonoid synthesis, part 3: isoflavenes

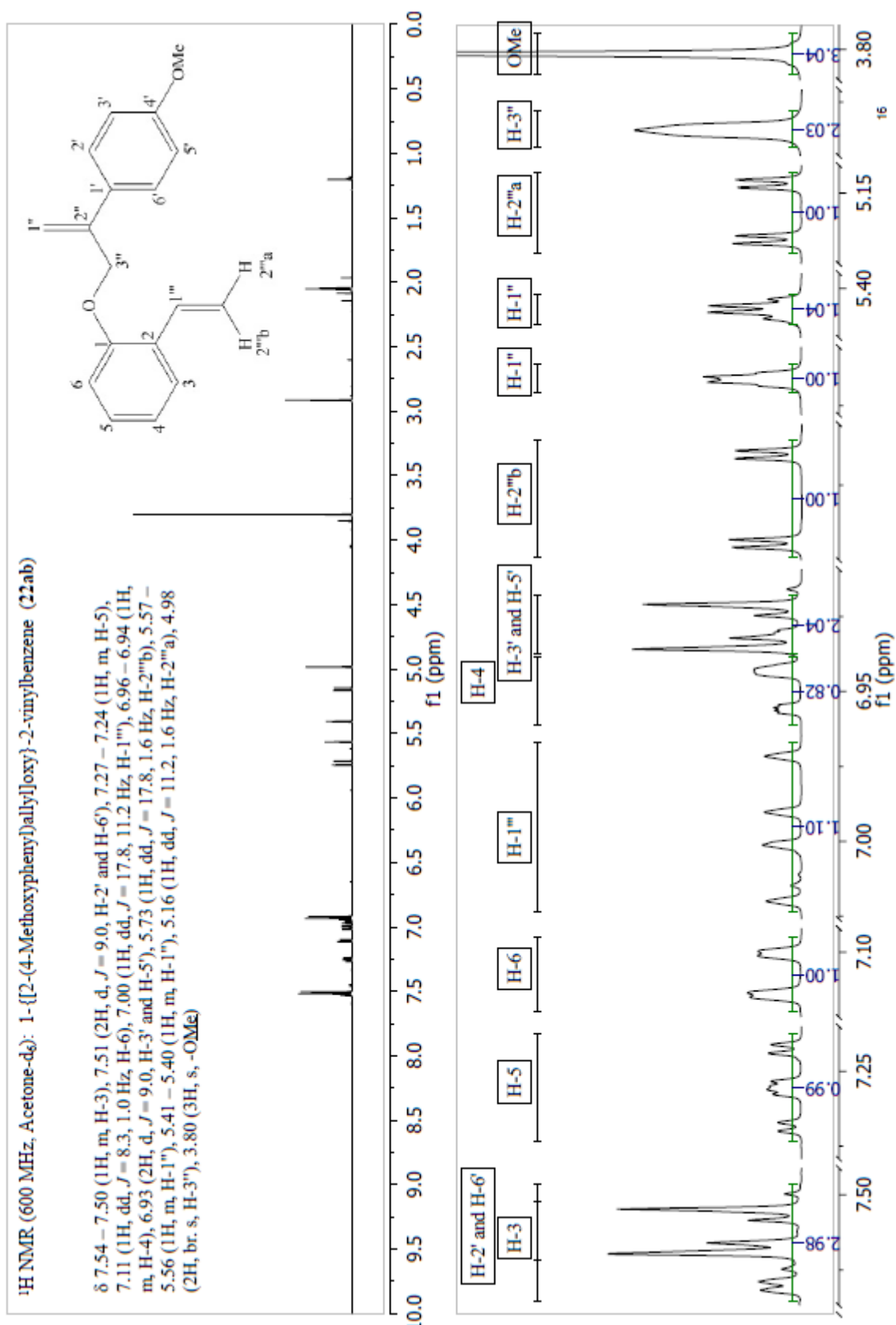
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South Africa*

*Email: [MaraisC@ufs.ac.za](mailto:MaraisC@ufs.ac.za)*

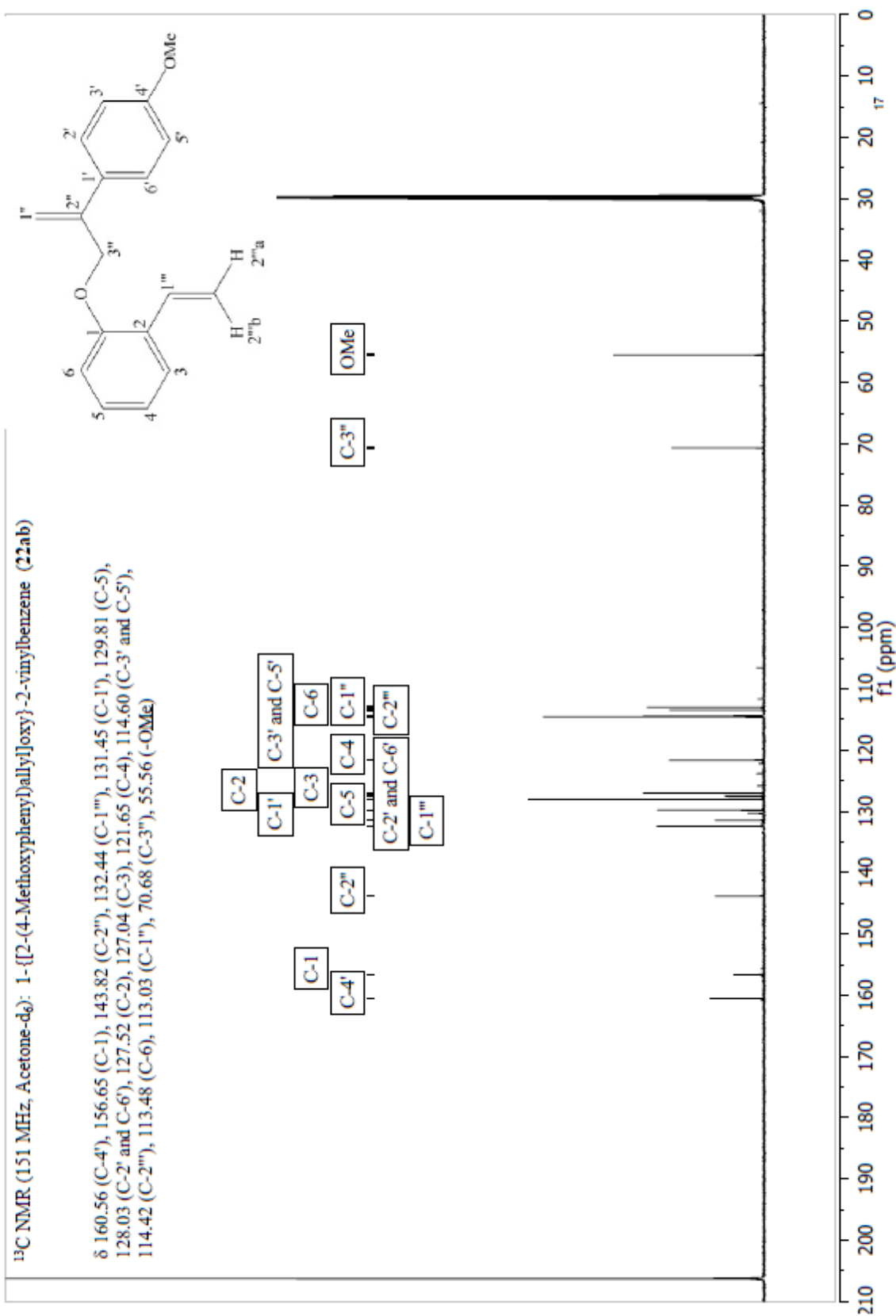
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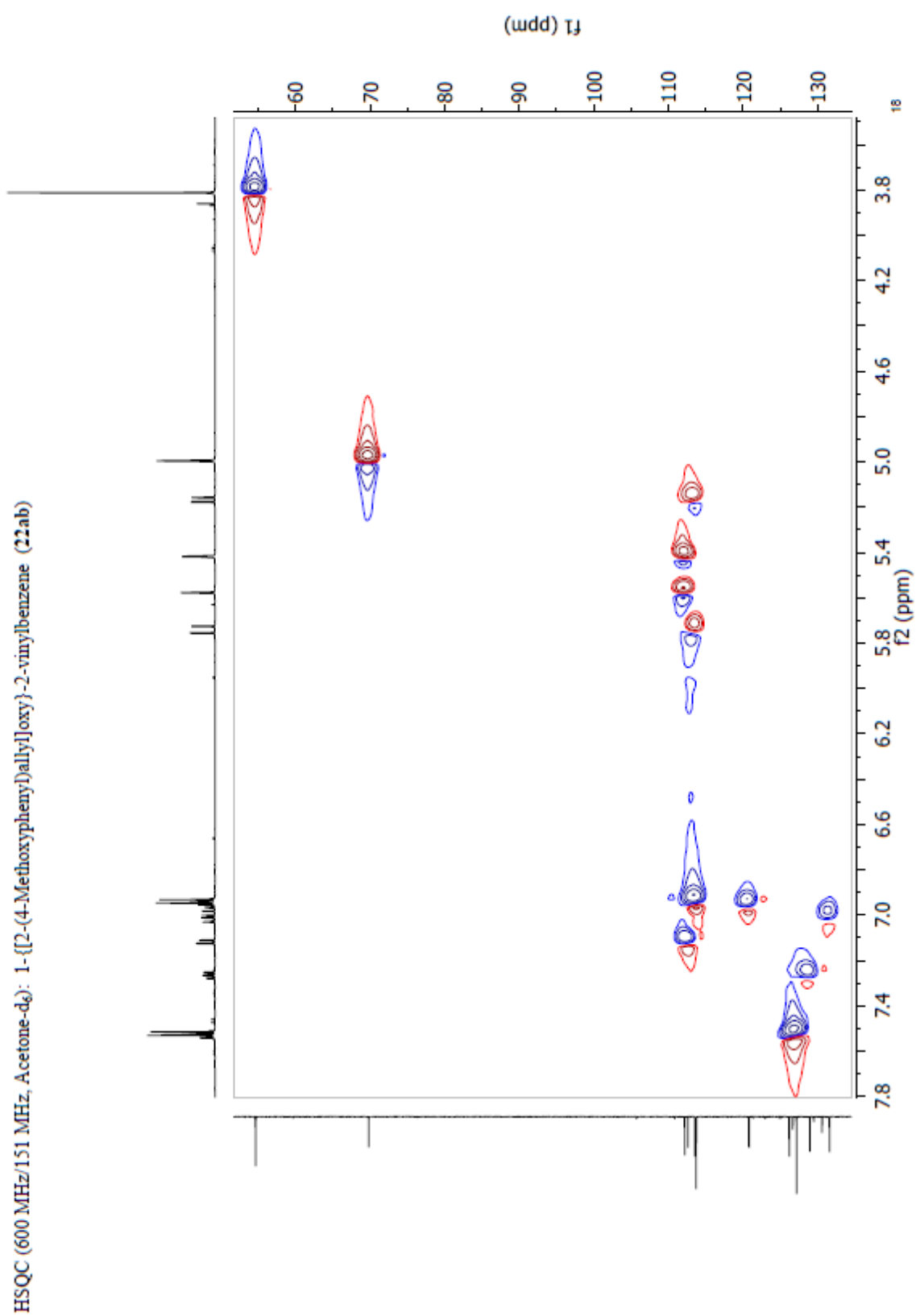
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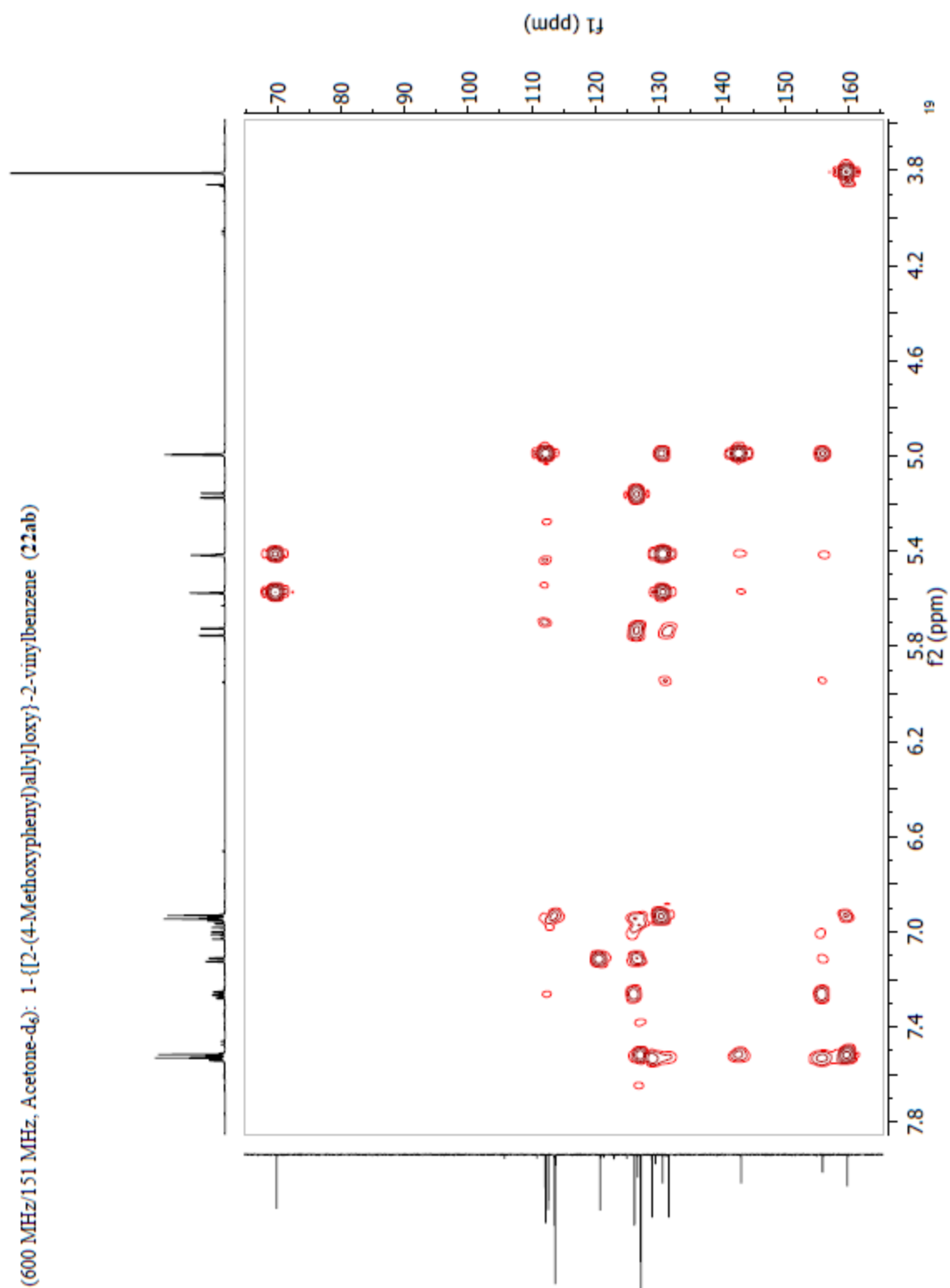
1-[[2-(4-Methoxyphenyl)allyl]oxy]-2-vinylbenzene (**22ab**)

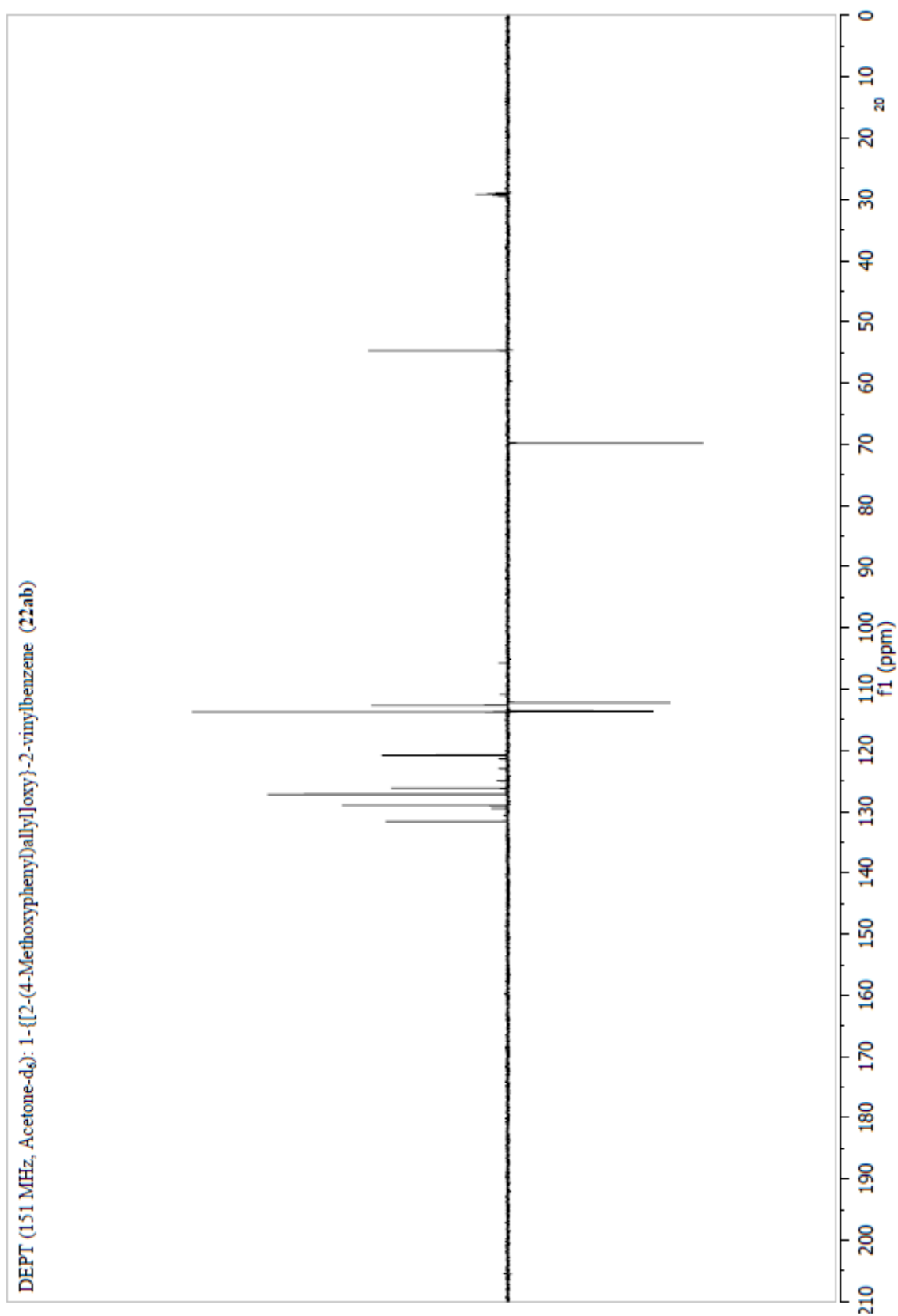
<sup>13</sup>C NMR (151 MHz, Acetone-d<sub>6</sub>): 1-([2-(4-Methoxyphenyl)allyloxy]-2-vinylbenzene (**22ab**)

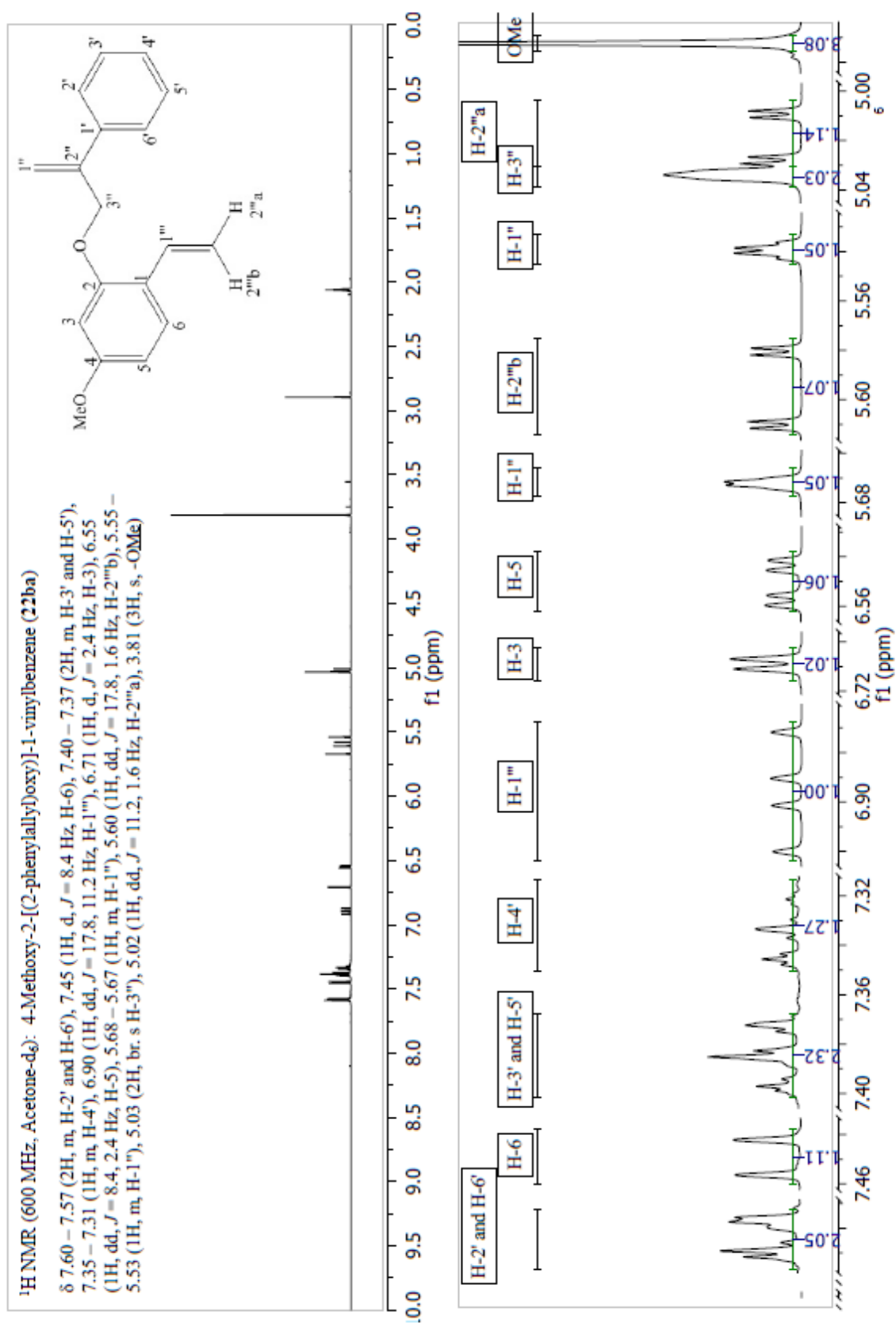
δ 160.56 (C-4'), 156.65 (C-1), 143.82 (C-2''), 132.44 (C-1''), 131.45 (C-1'), 129.81 (C-5), 128.03 (C-2' and C-6'), 127.04 (C-3), 121.65 (C-4), 114.60 (C-3' and C-5'), 114.42 (C-2'''), 113.48 (C-6), 113.03 (C-1''), 70.68 (C-3''), 55.56 (-OMe)

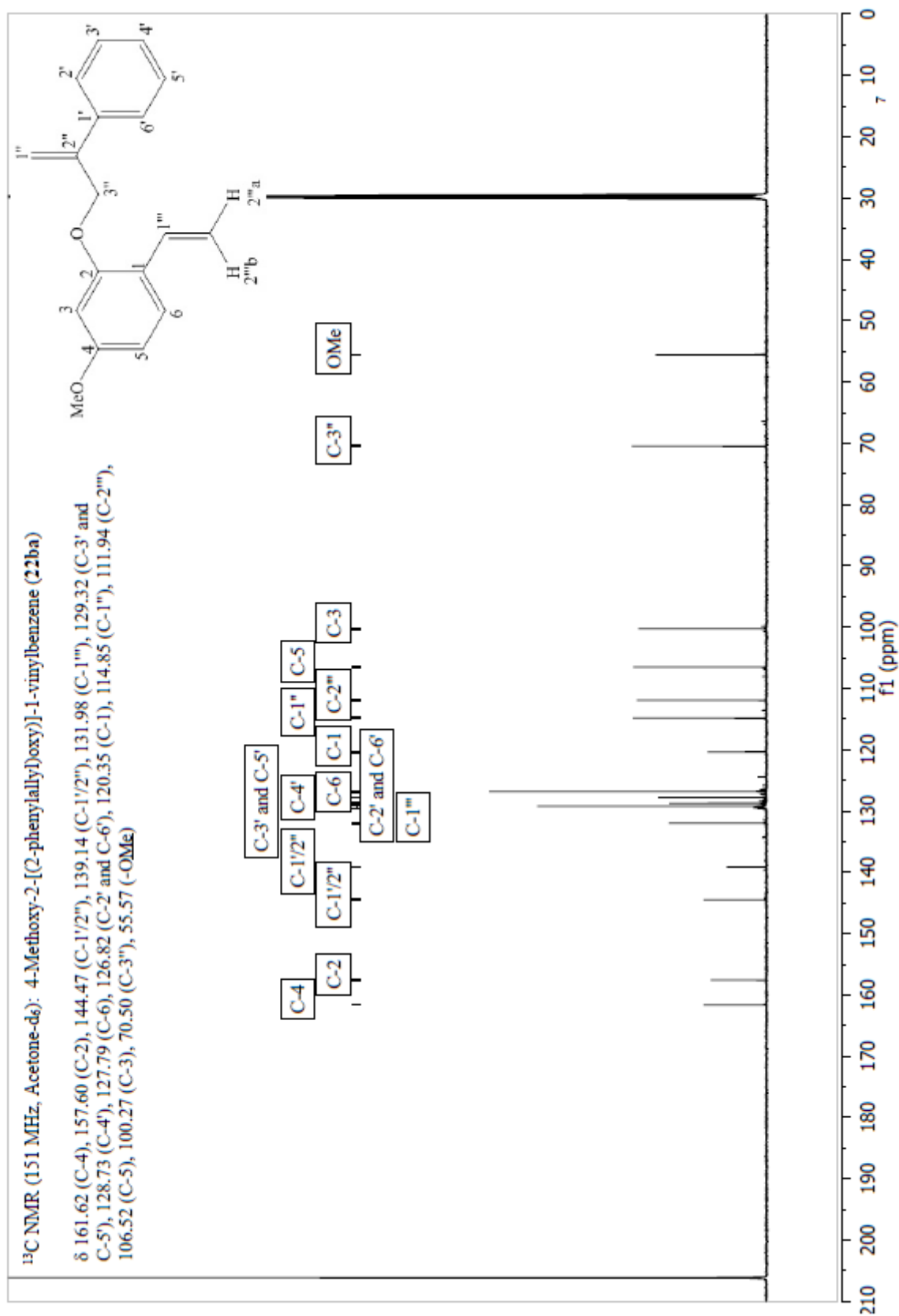


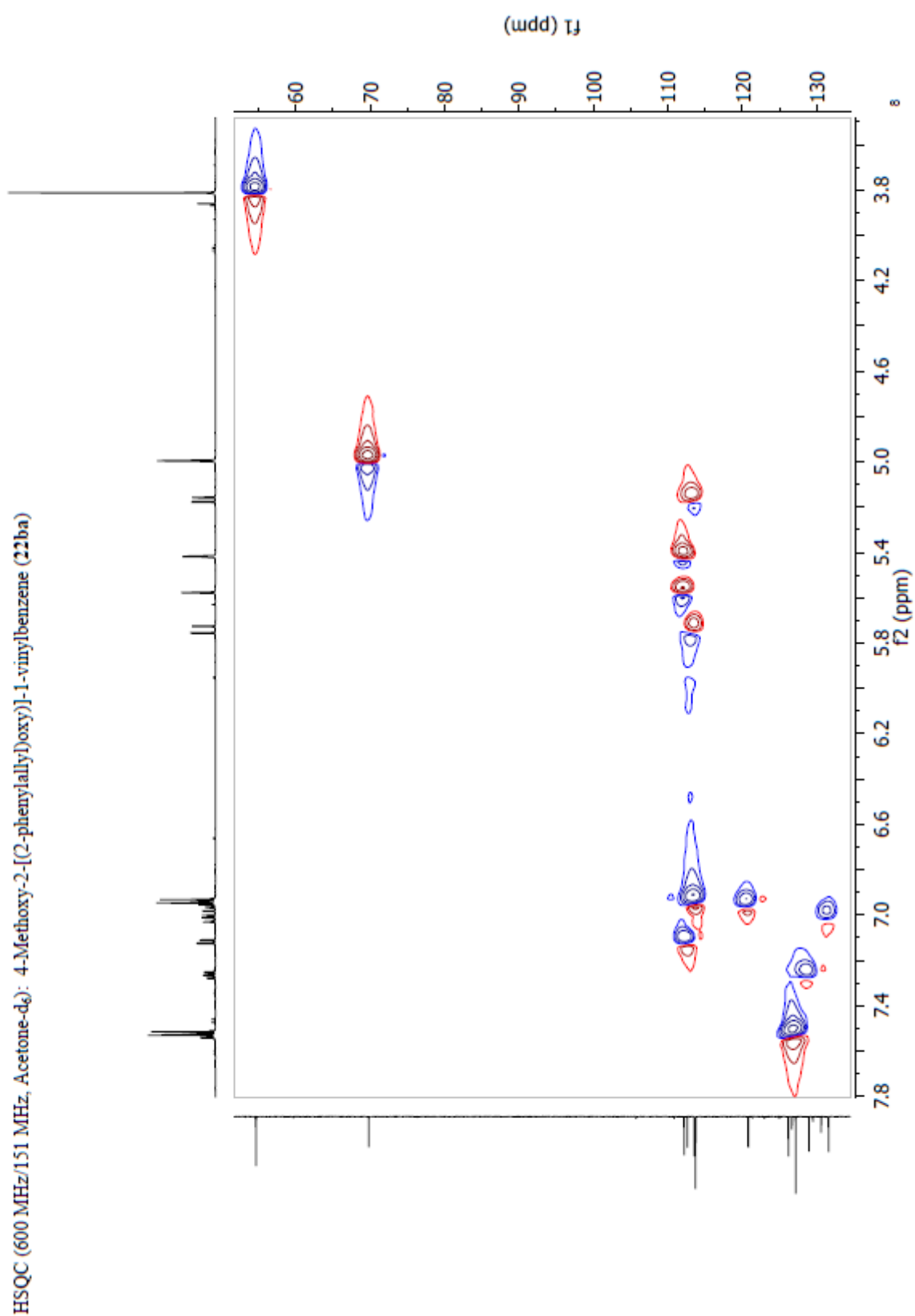


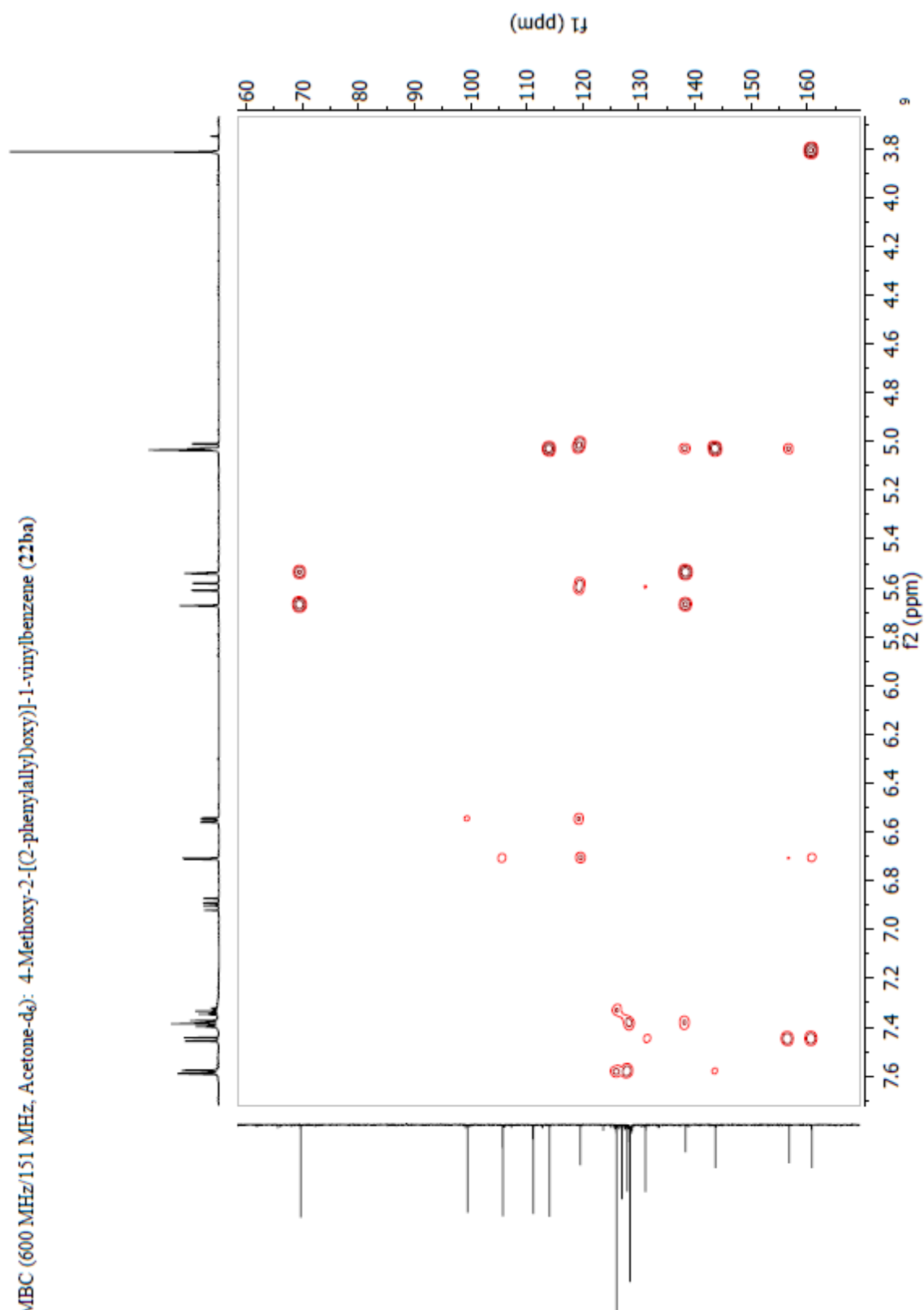
HMBC (600 MHz/151 MHz, Acetone- $d_6$ ): 1-([2-(4-Methoxyphenyl)allyl]oxy)-2-vinylbenzene (**22ab**)

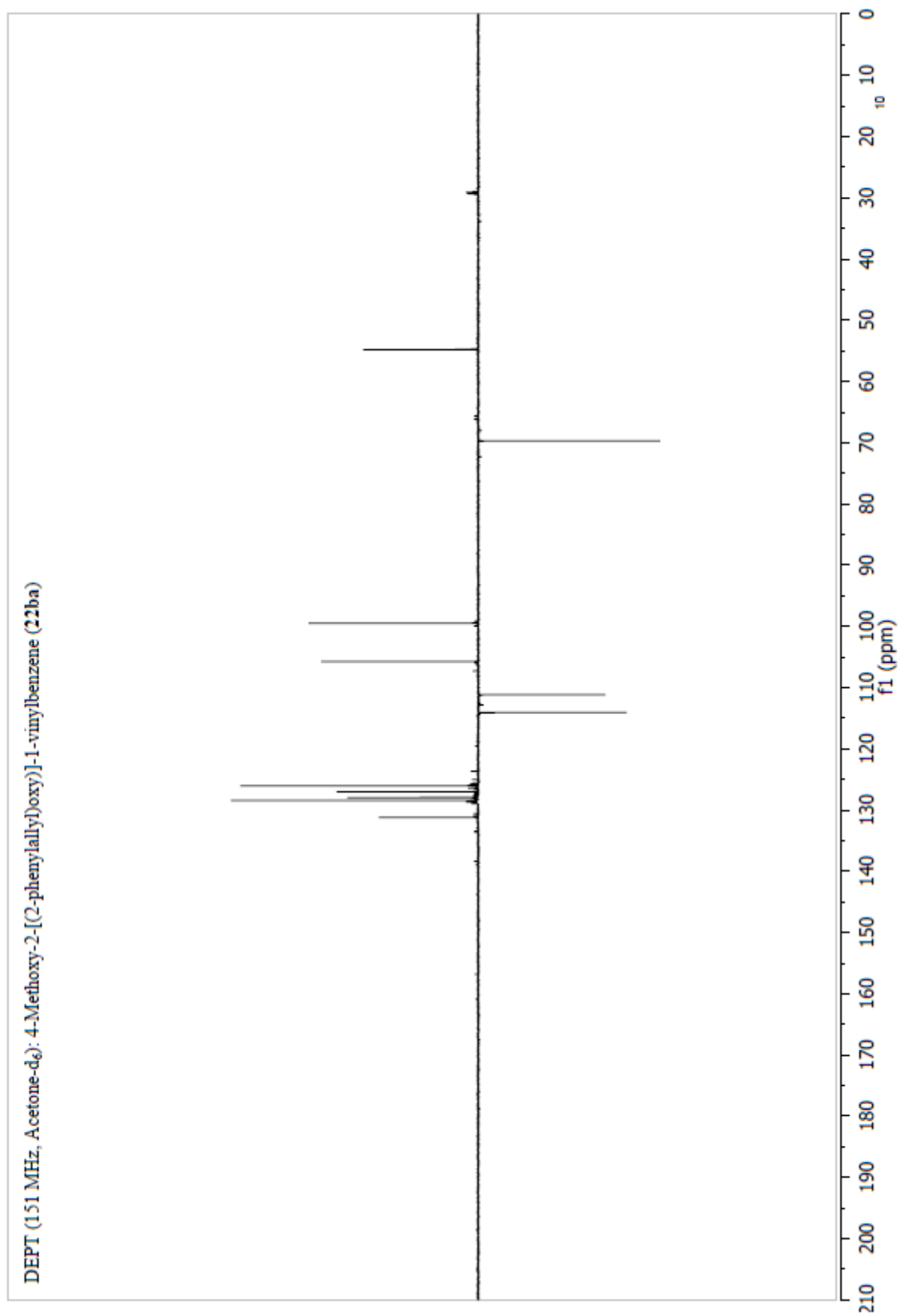


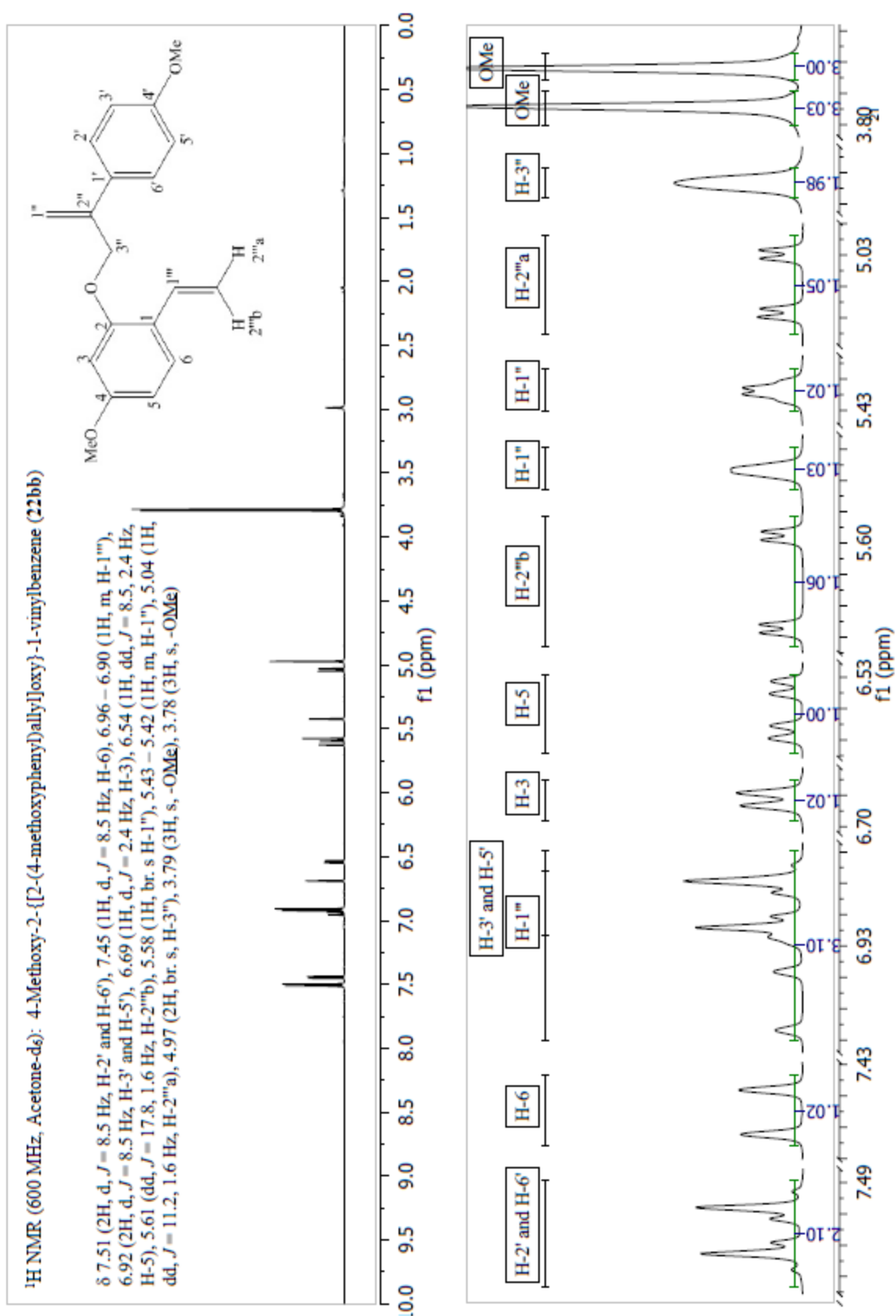
4-Methoxy-2-[(2-phenylallyl)oxy]-1-vinylbenzene (**22ba**)

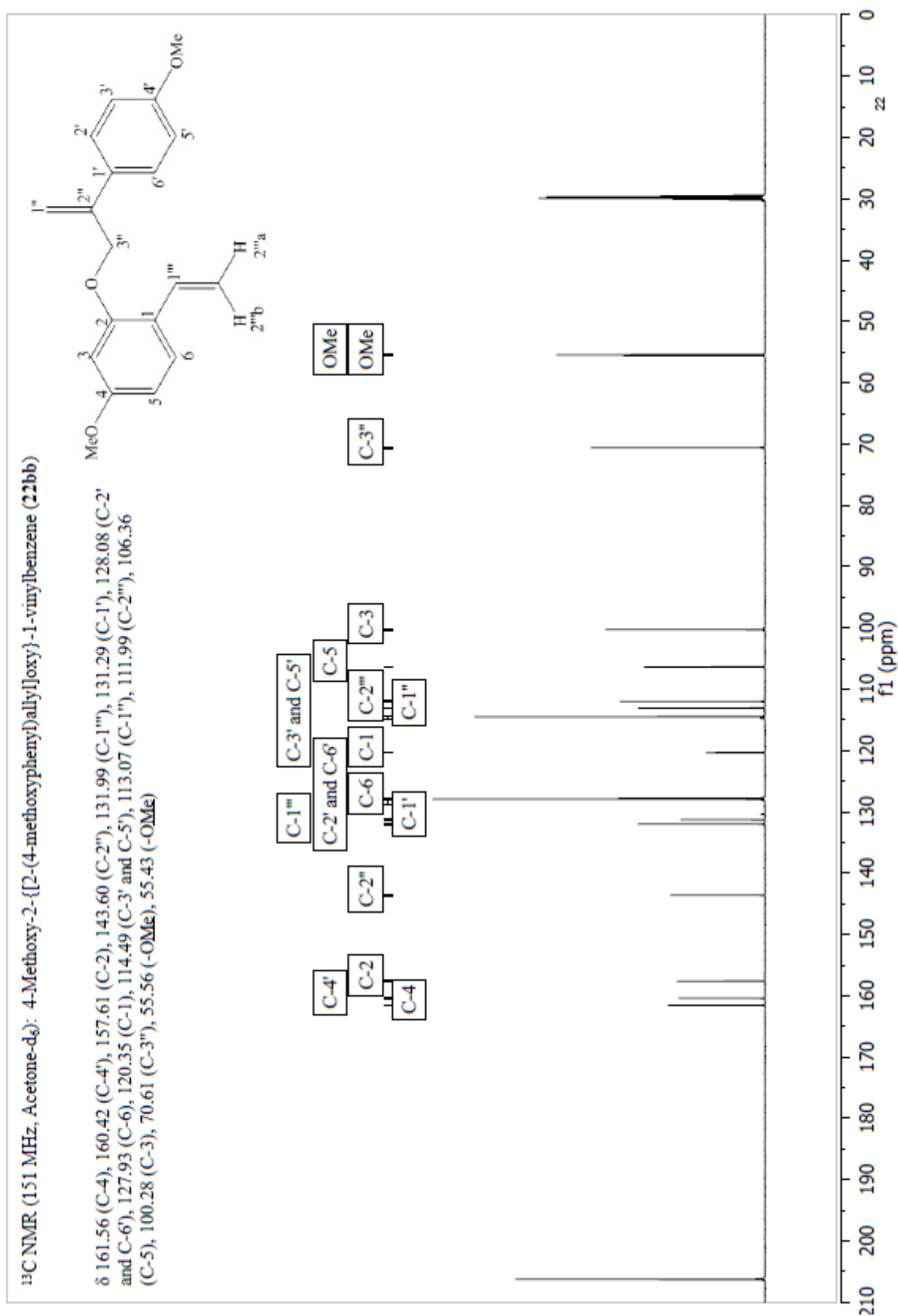


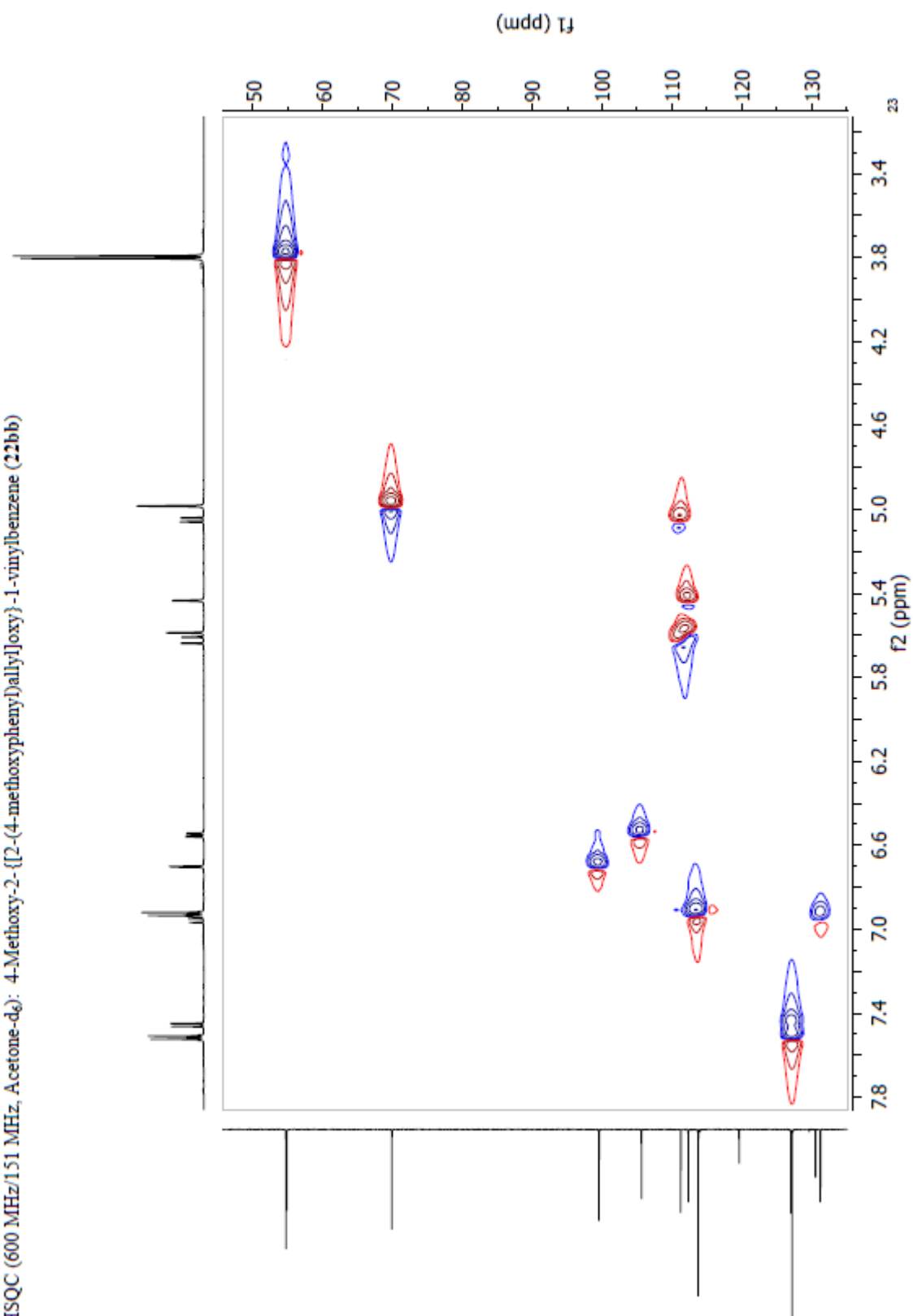


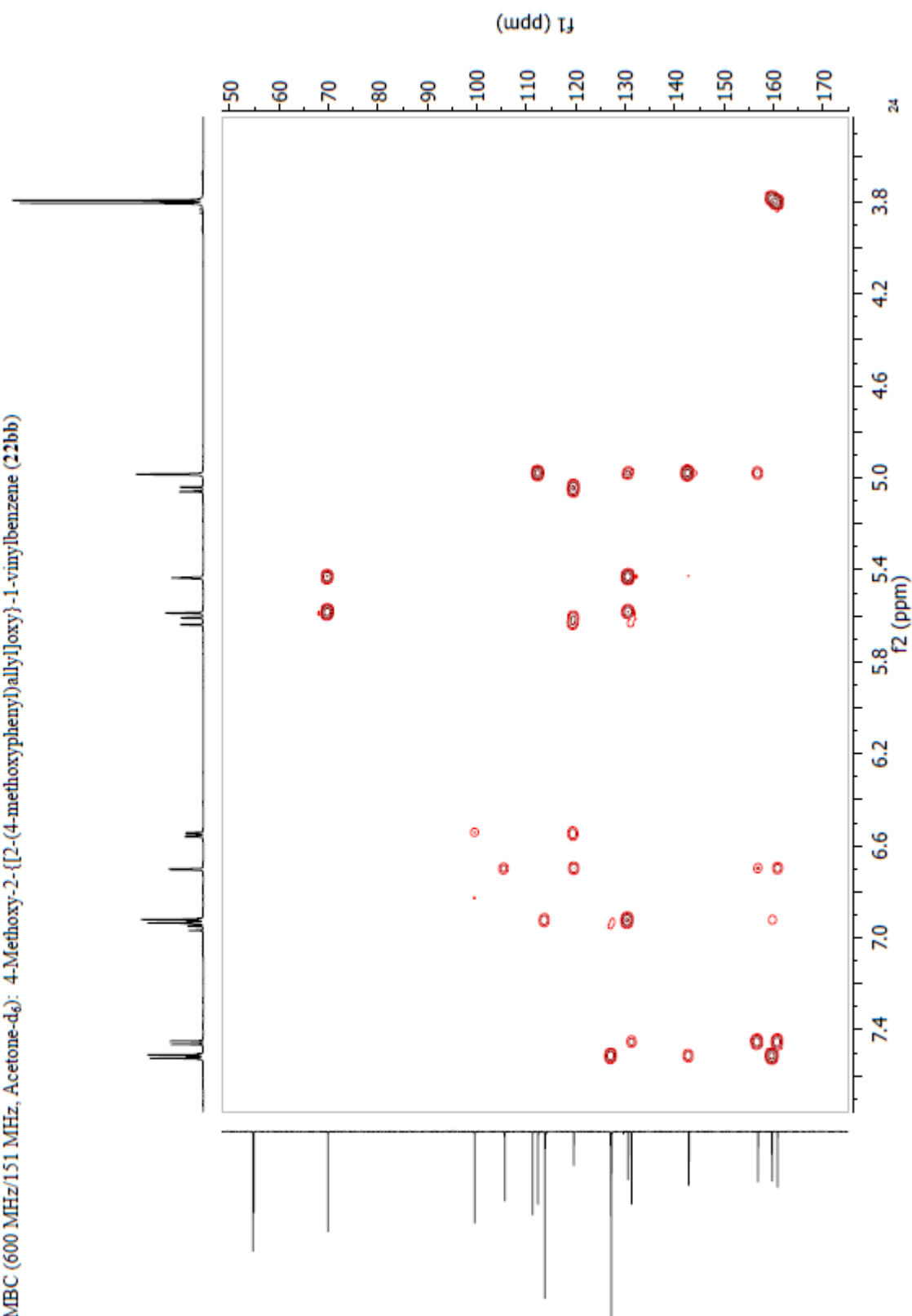
HMBC (600 MHz/151 MHz, Acetone- $d_6$ ): 4-Methoxy-2-[(2-phenylallyl)oxy]-1-vinylbenzene (**22ba**)

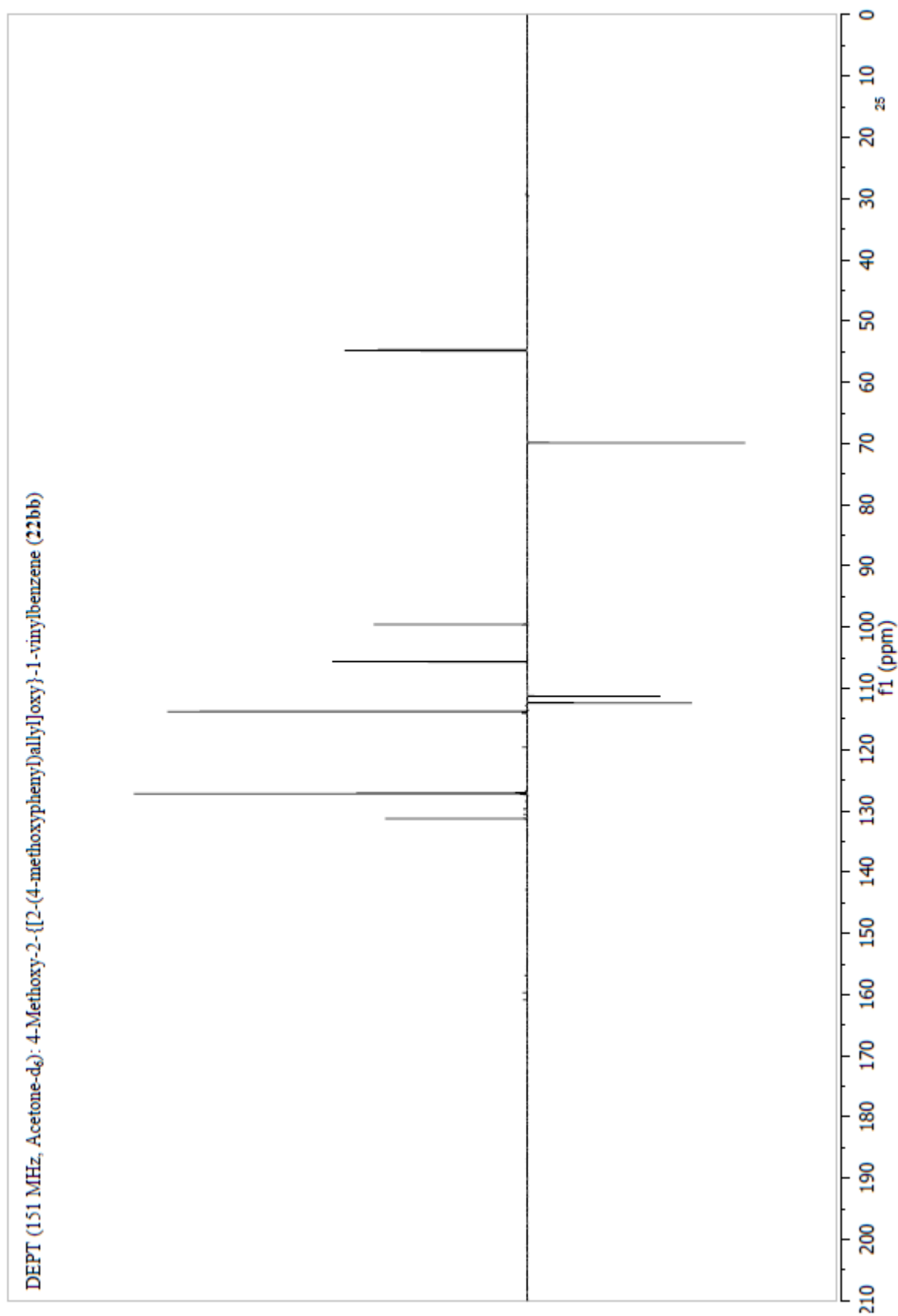


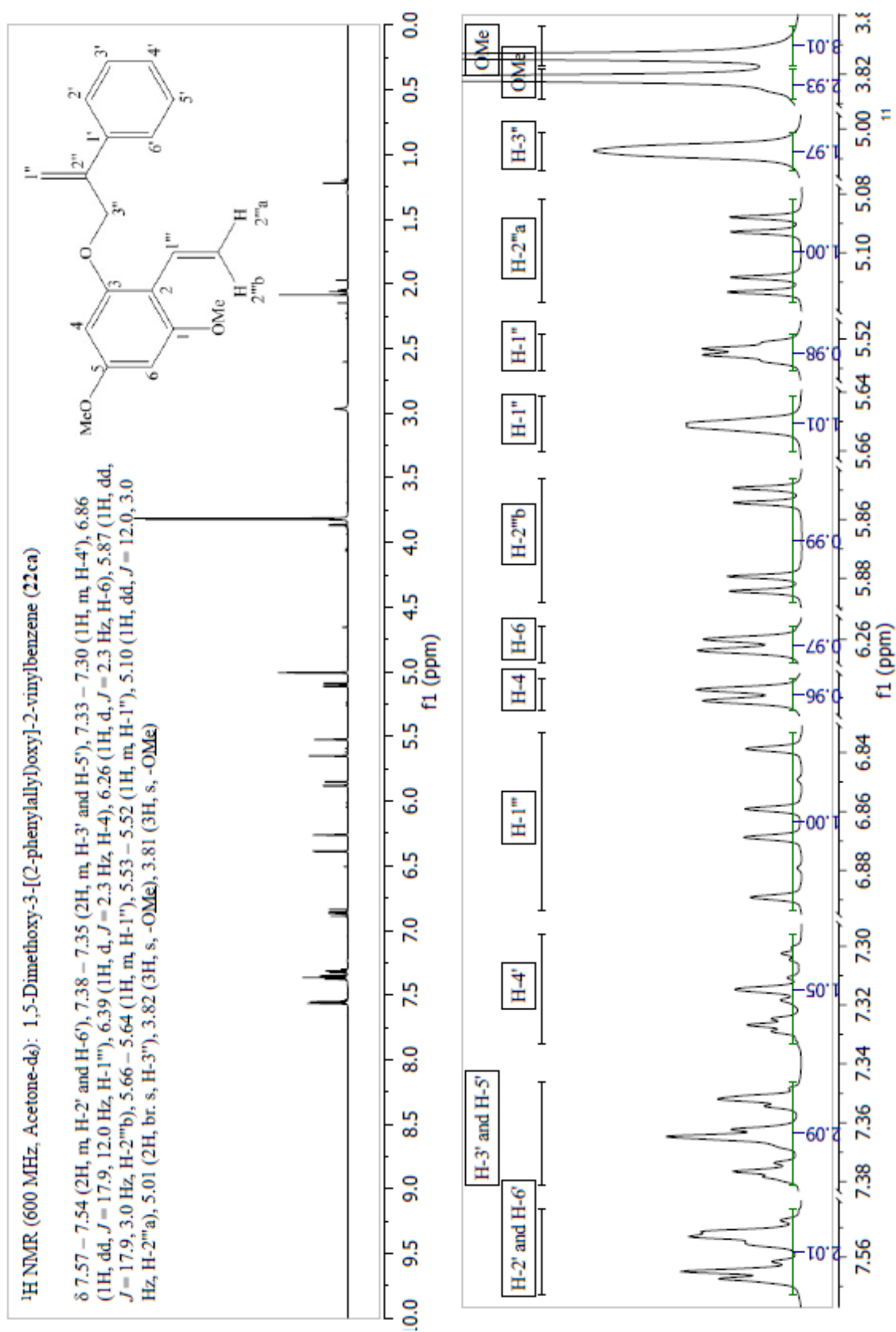
4-Methoxy-2-{[2-(4-methoxyphenyl)allyl]oxy}-1-vinylbenzene (**22bb**)

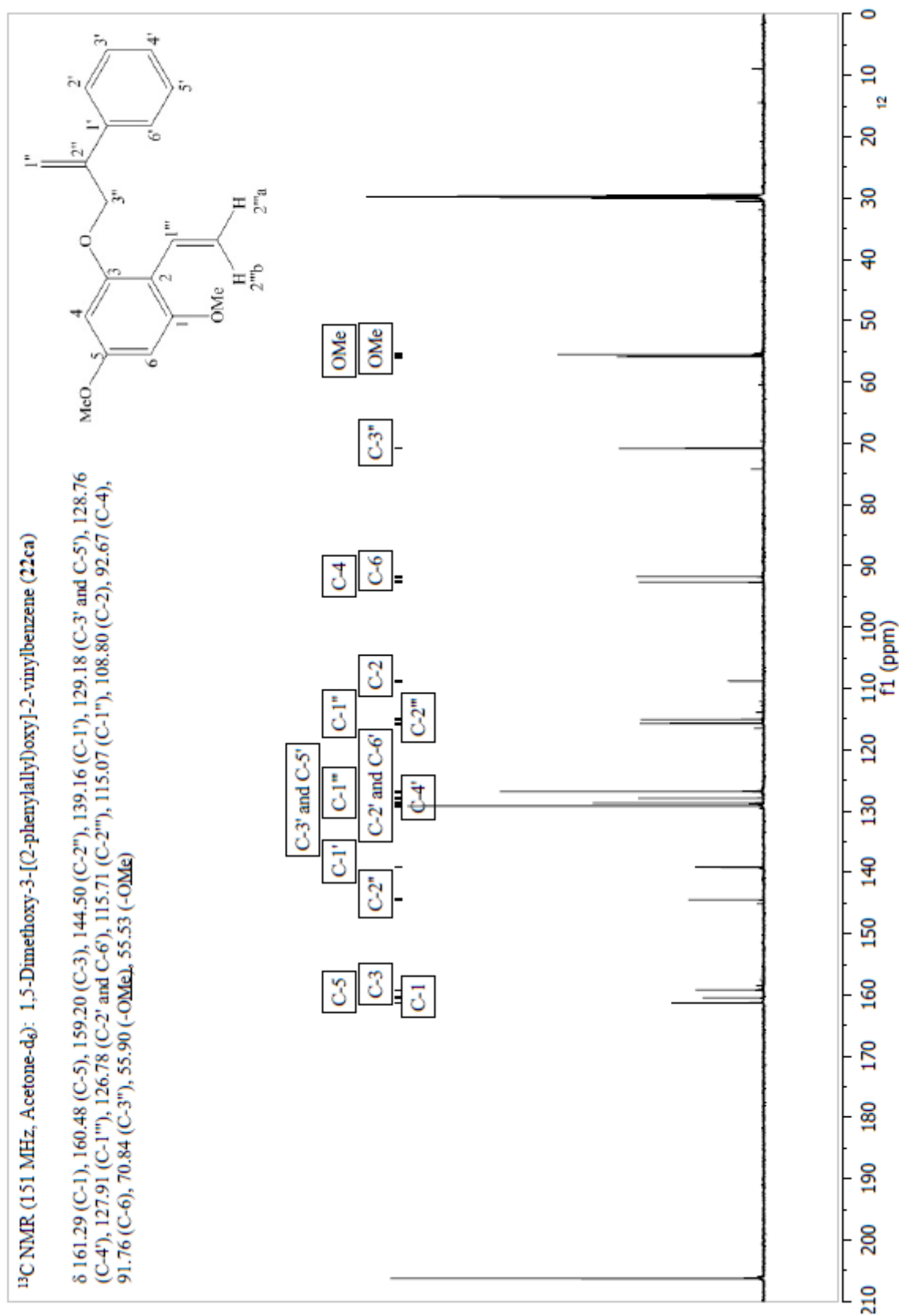


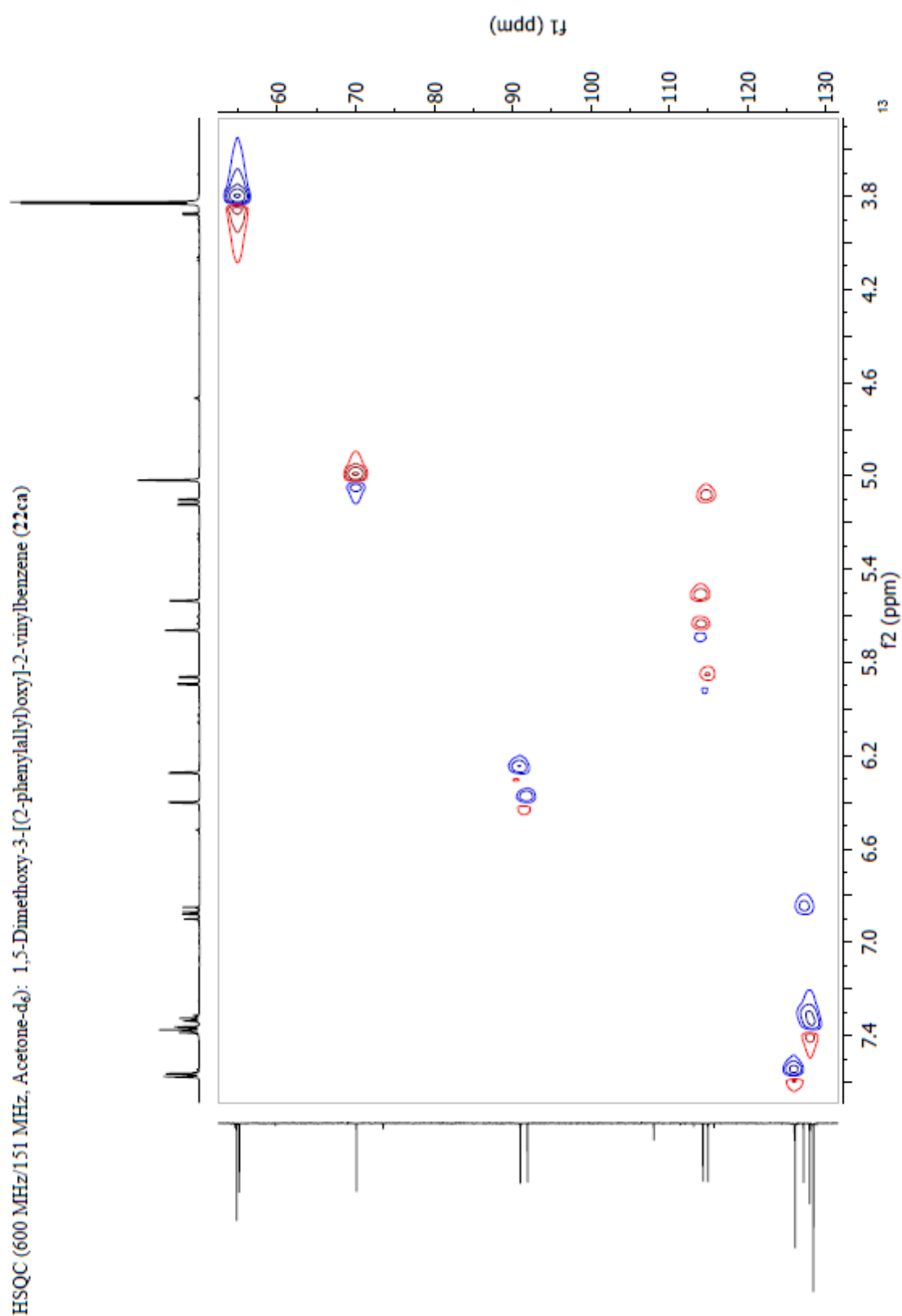
HSQC (600 MHz/151 MHz, Acetone- $d_6$ ): 4-Methoxy-2-({[2-(4-methoxyphenyl)allyl]oxy}-1-vinylbenzene (**22bb**)

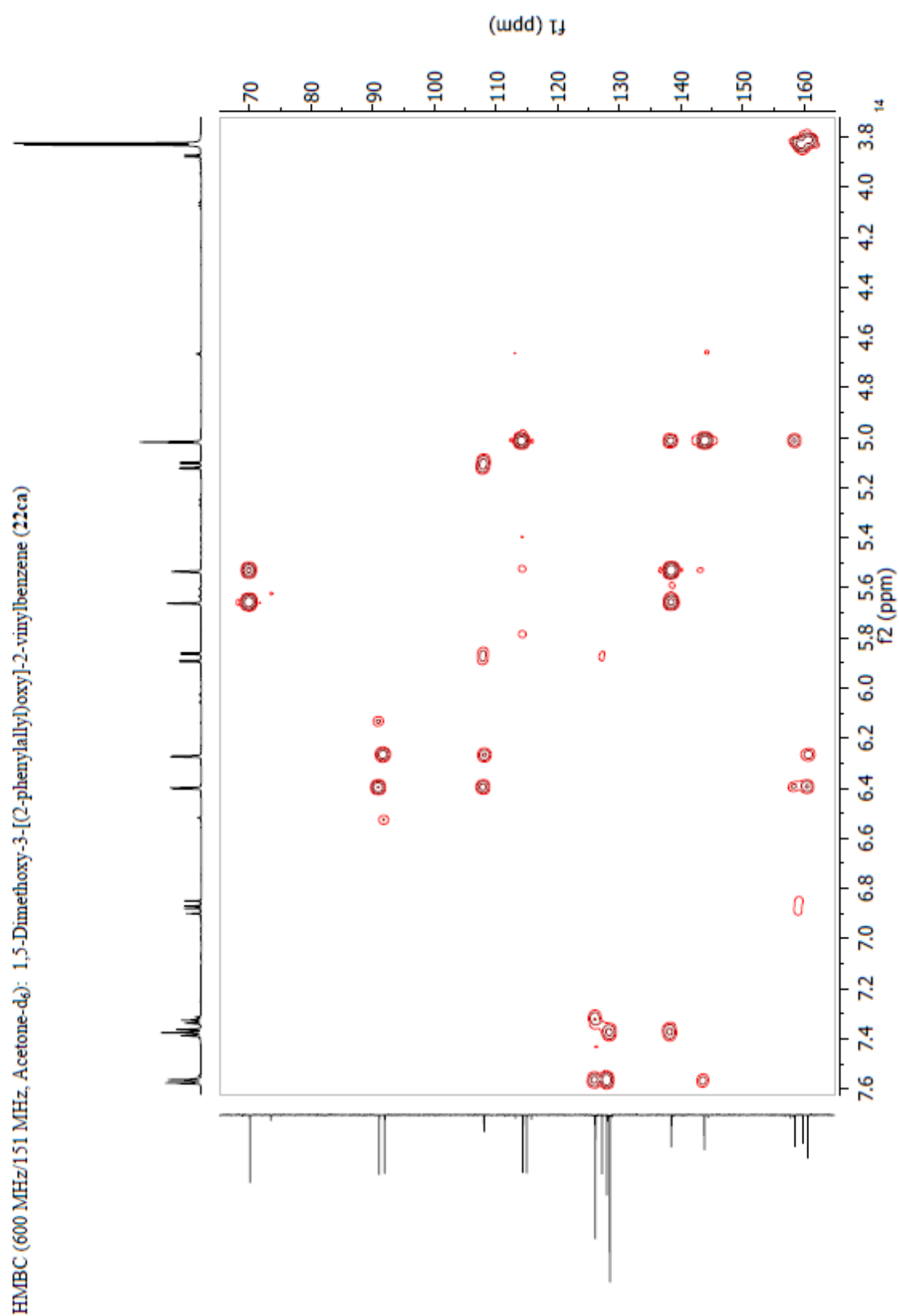
HMBC (600 MHz/151 MHz, Acetone- $d_6$ ): 4-Methoxy-2-([2-(4-methoxyphenyl)allyl]oxy)-1-vinylbenzene (**22bb**)

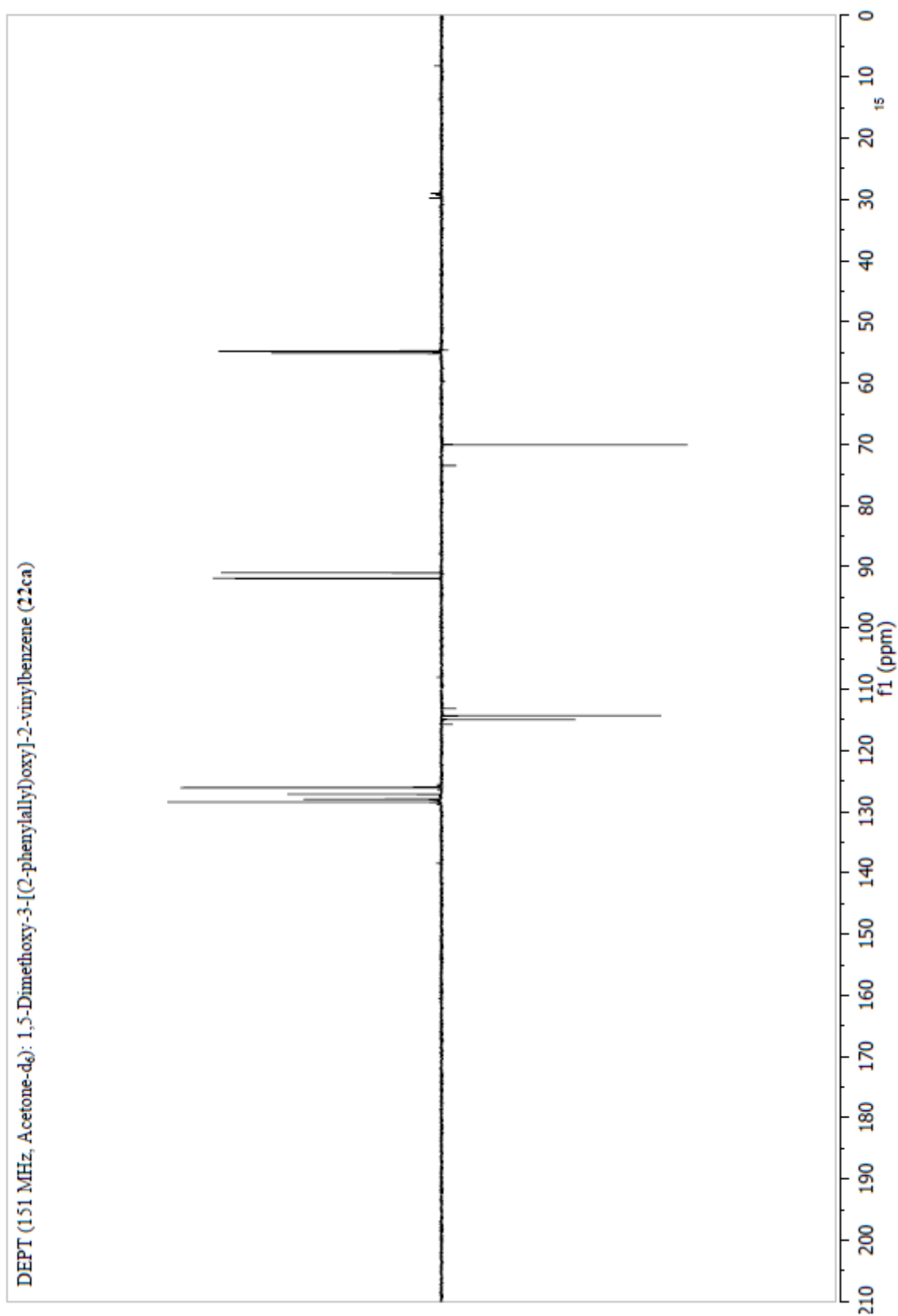


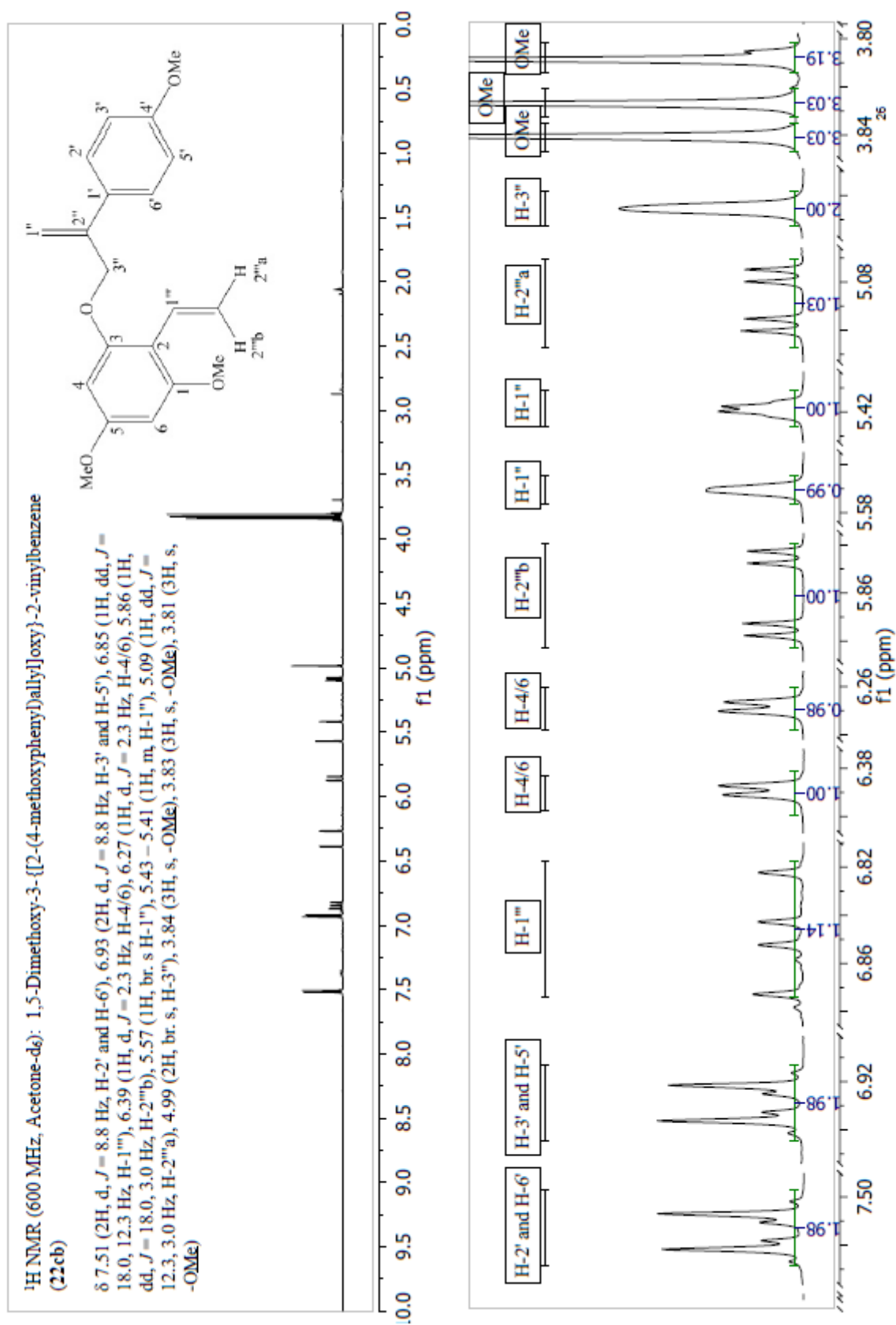
1,5-Dimethoxy-3-[(2-phenylallyl)oxy]-2-vinylbenzene (**22ca**)

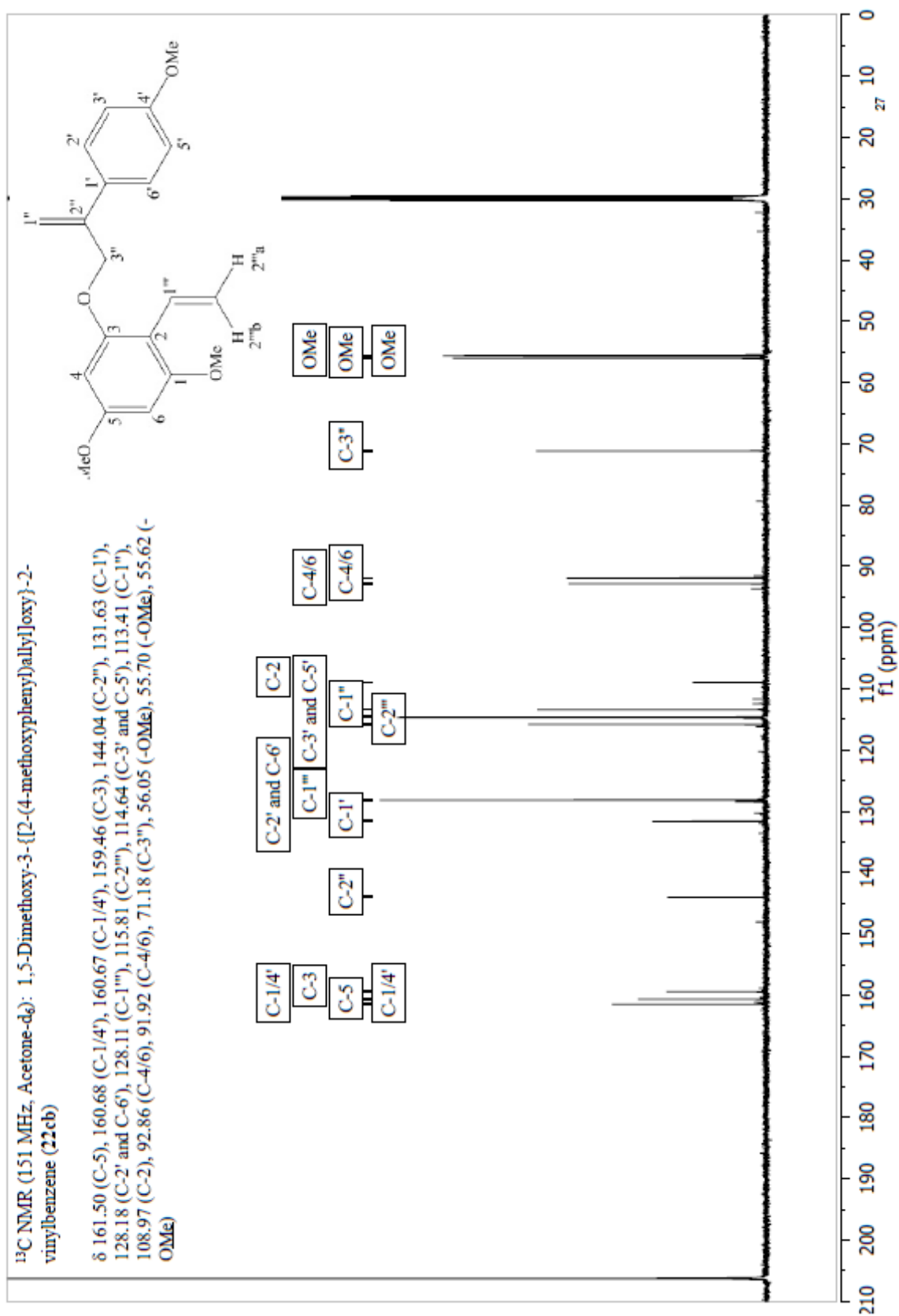


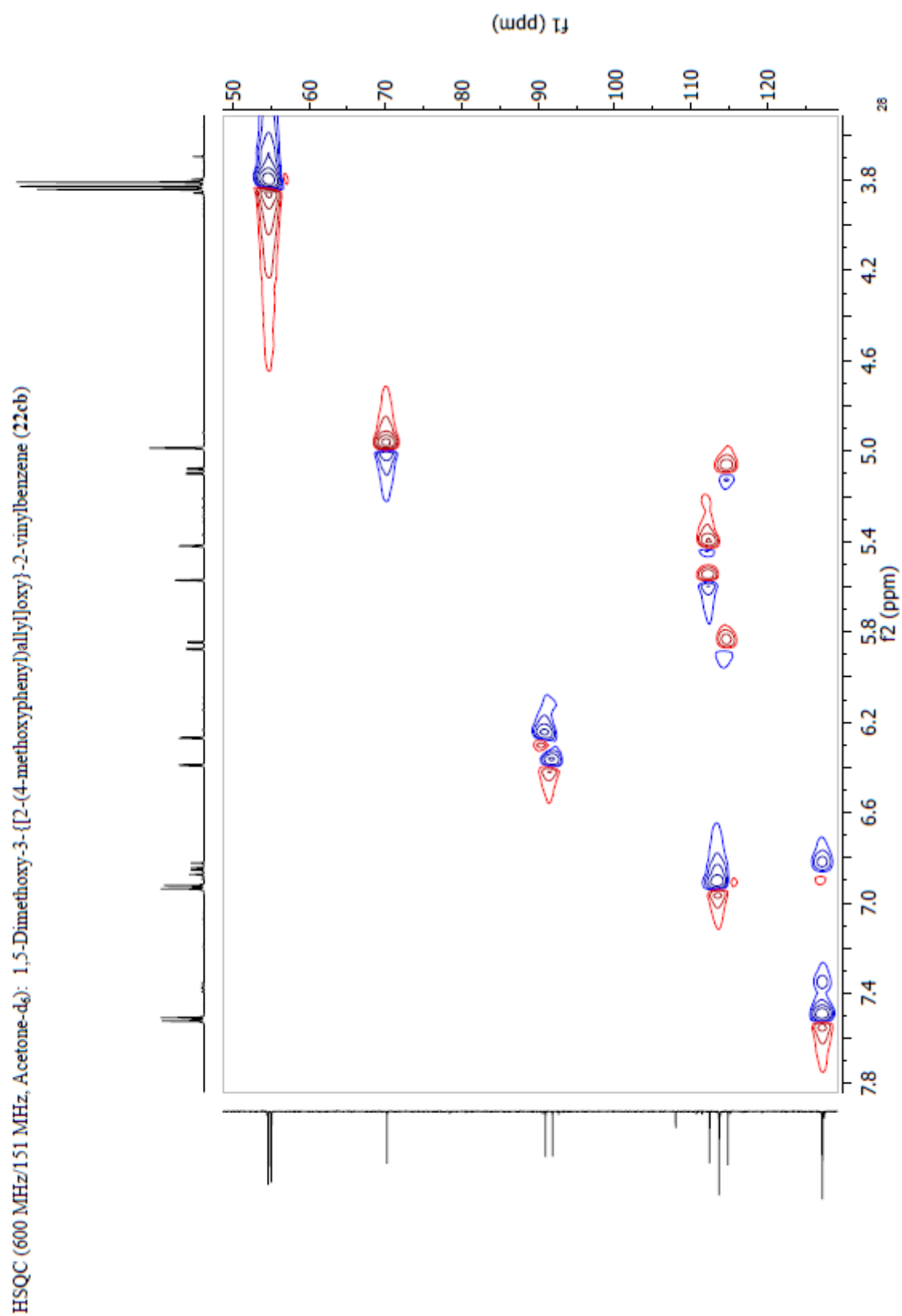


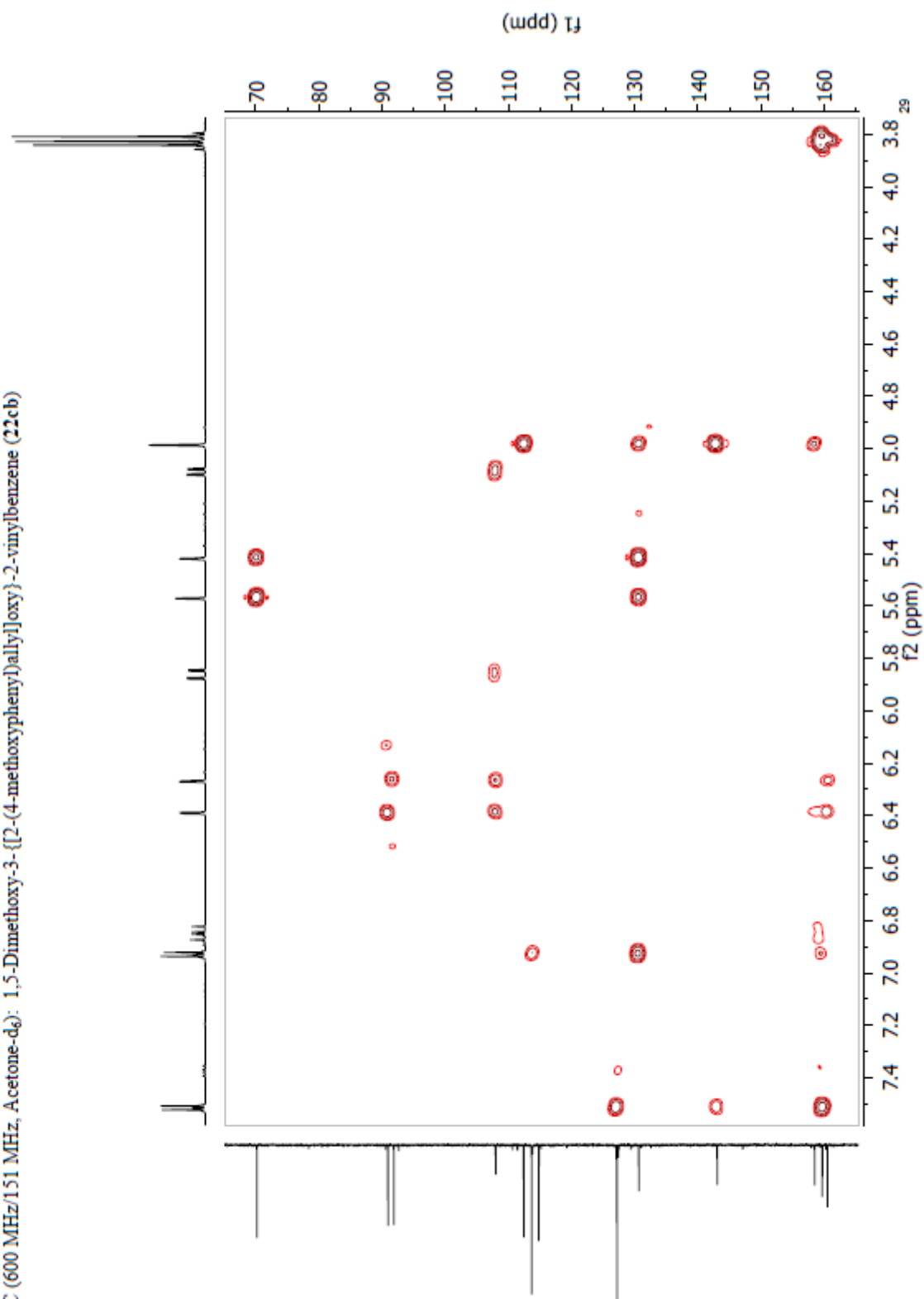


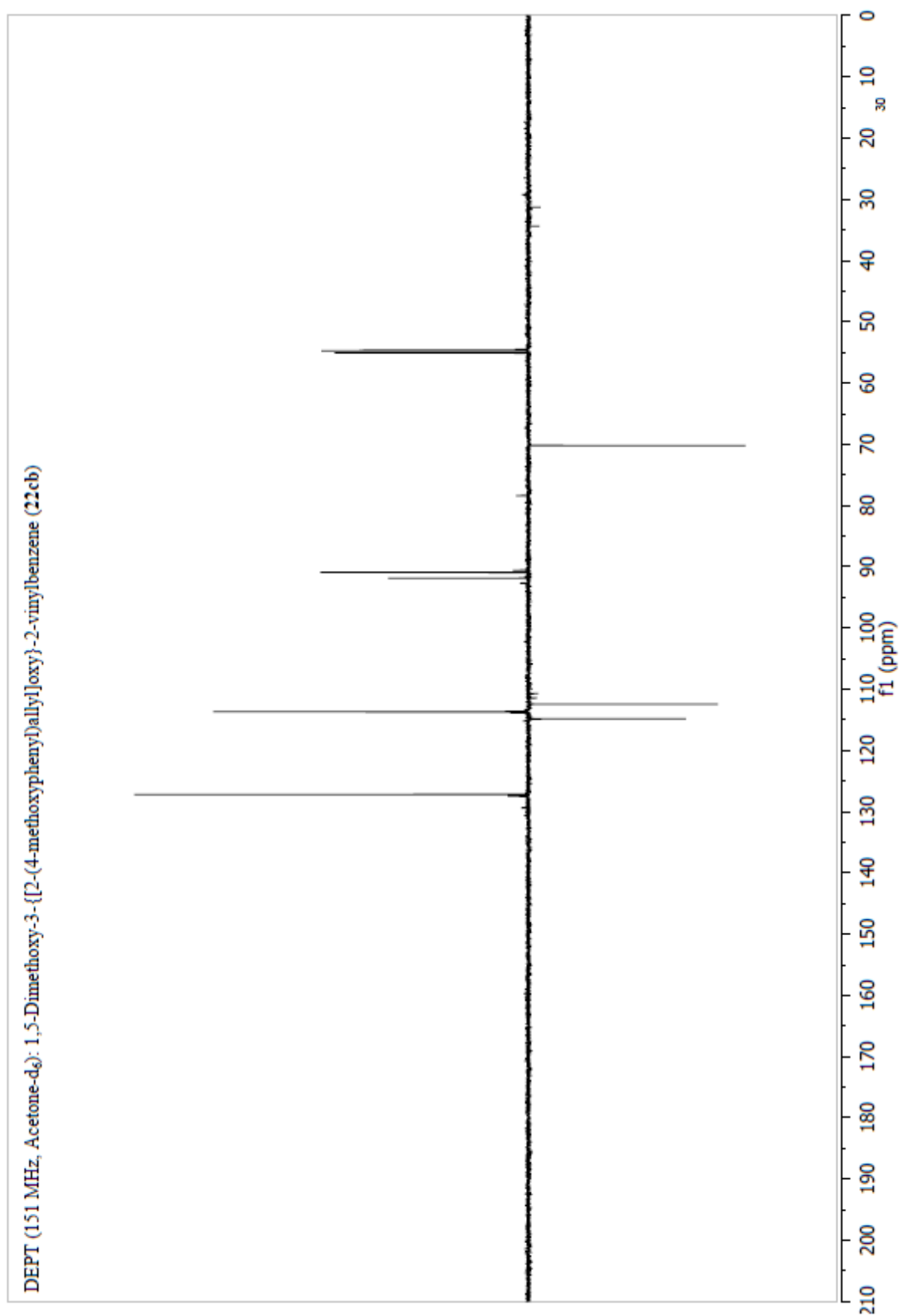


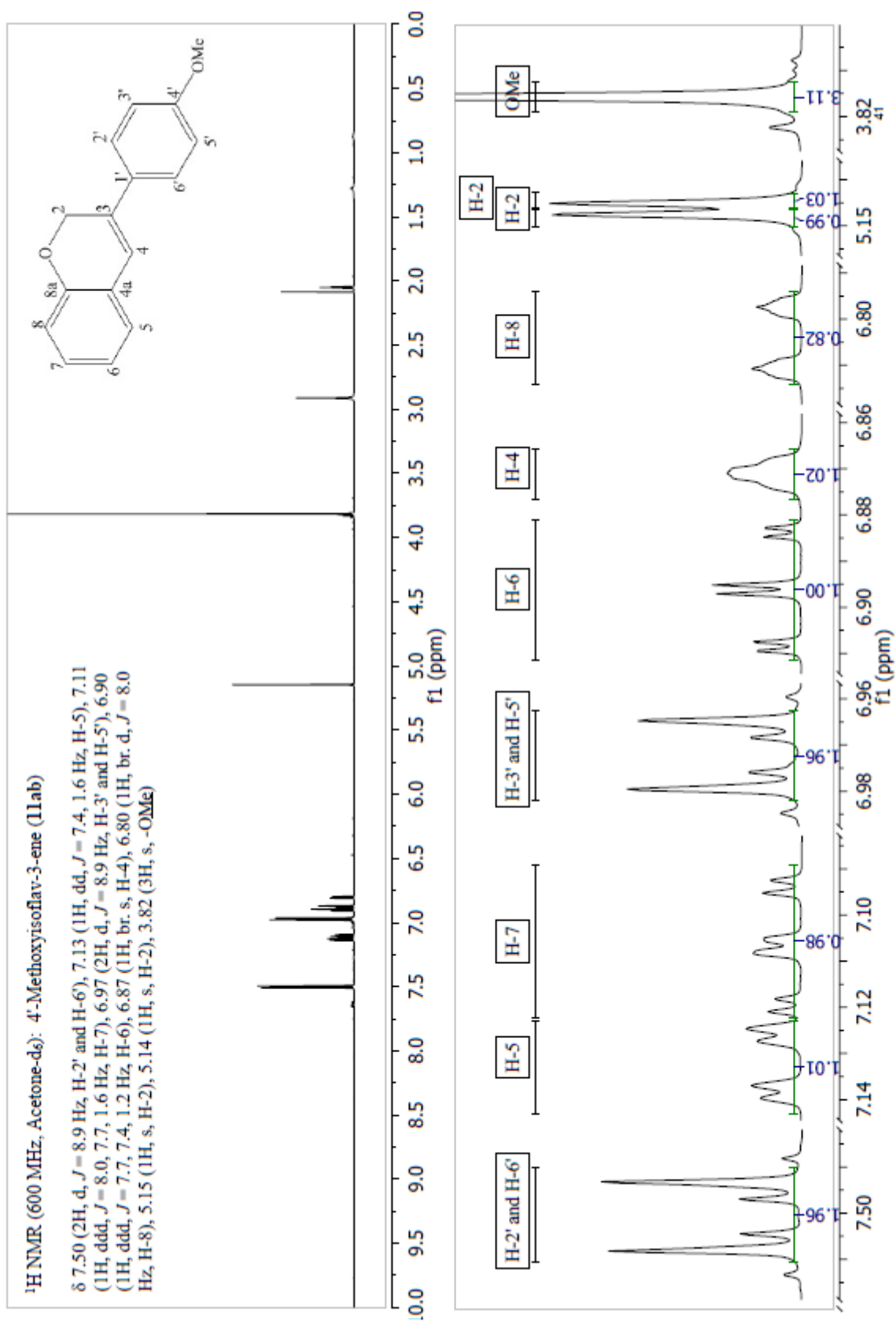
1,5-Dimethoxy-3-[[2-(4-methoxyphenyl)allyl]oxy]-2-vinylbenzene (**22cb**)

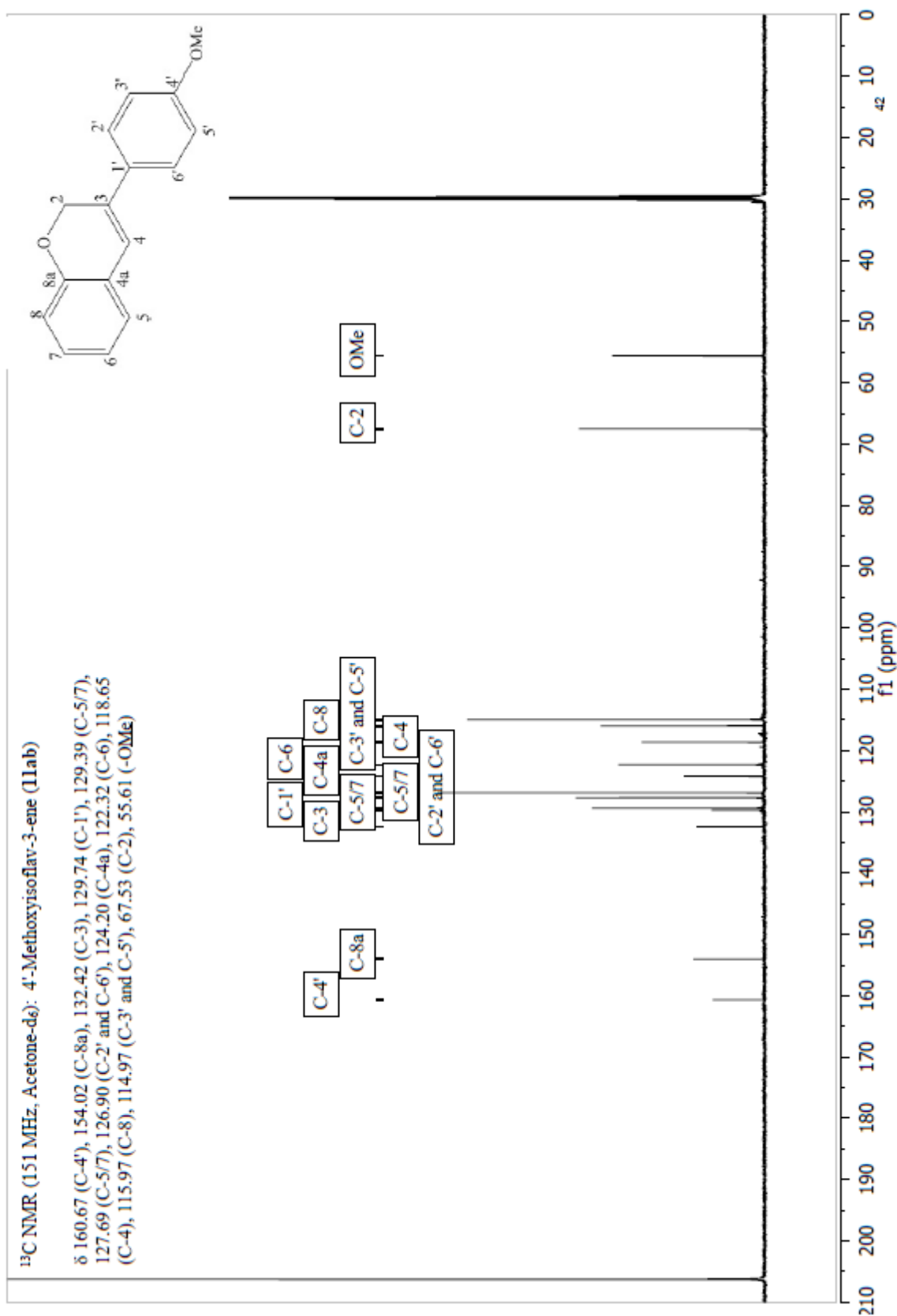


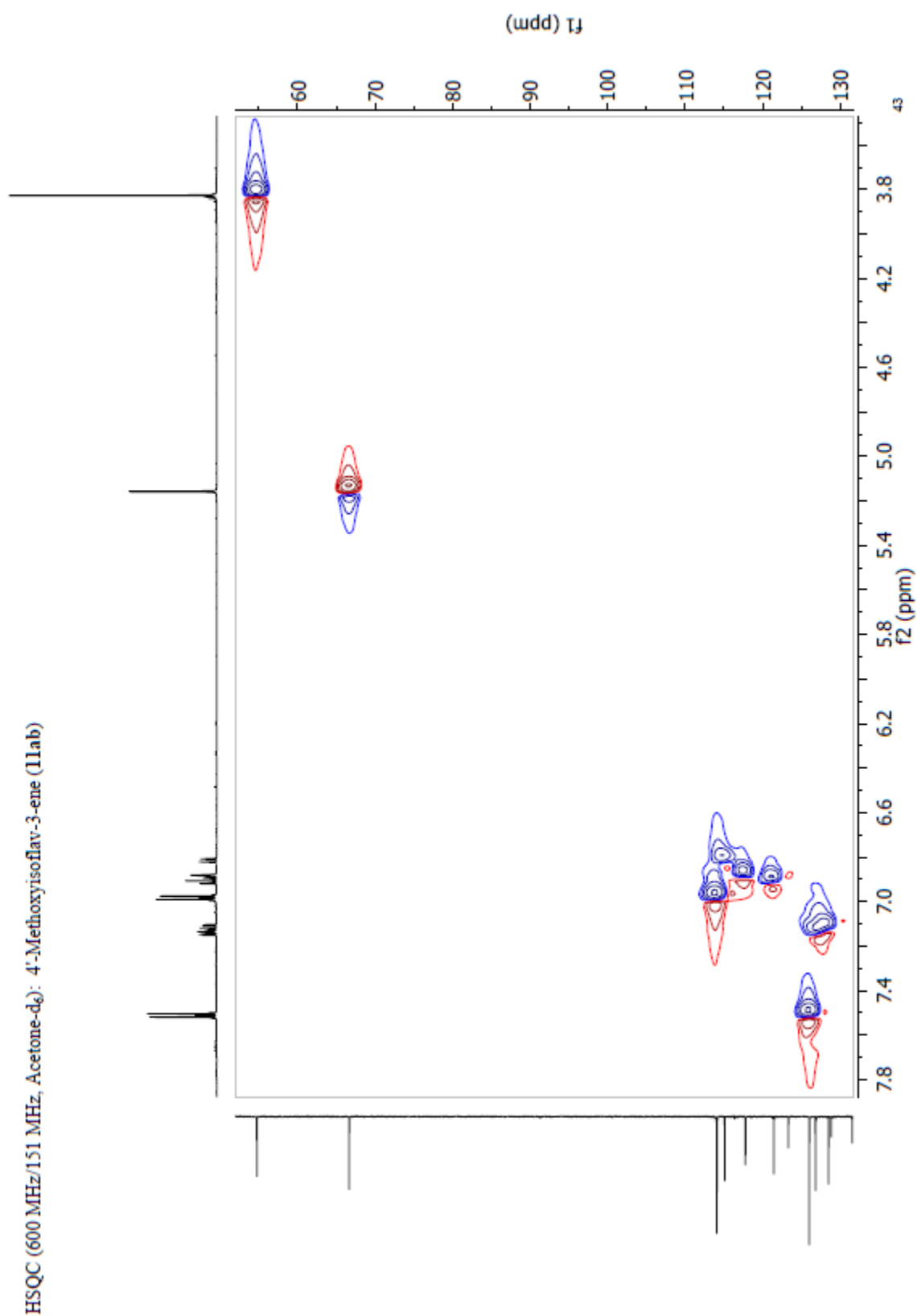


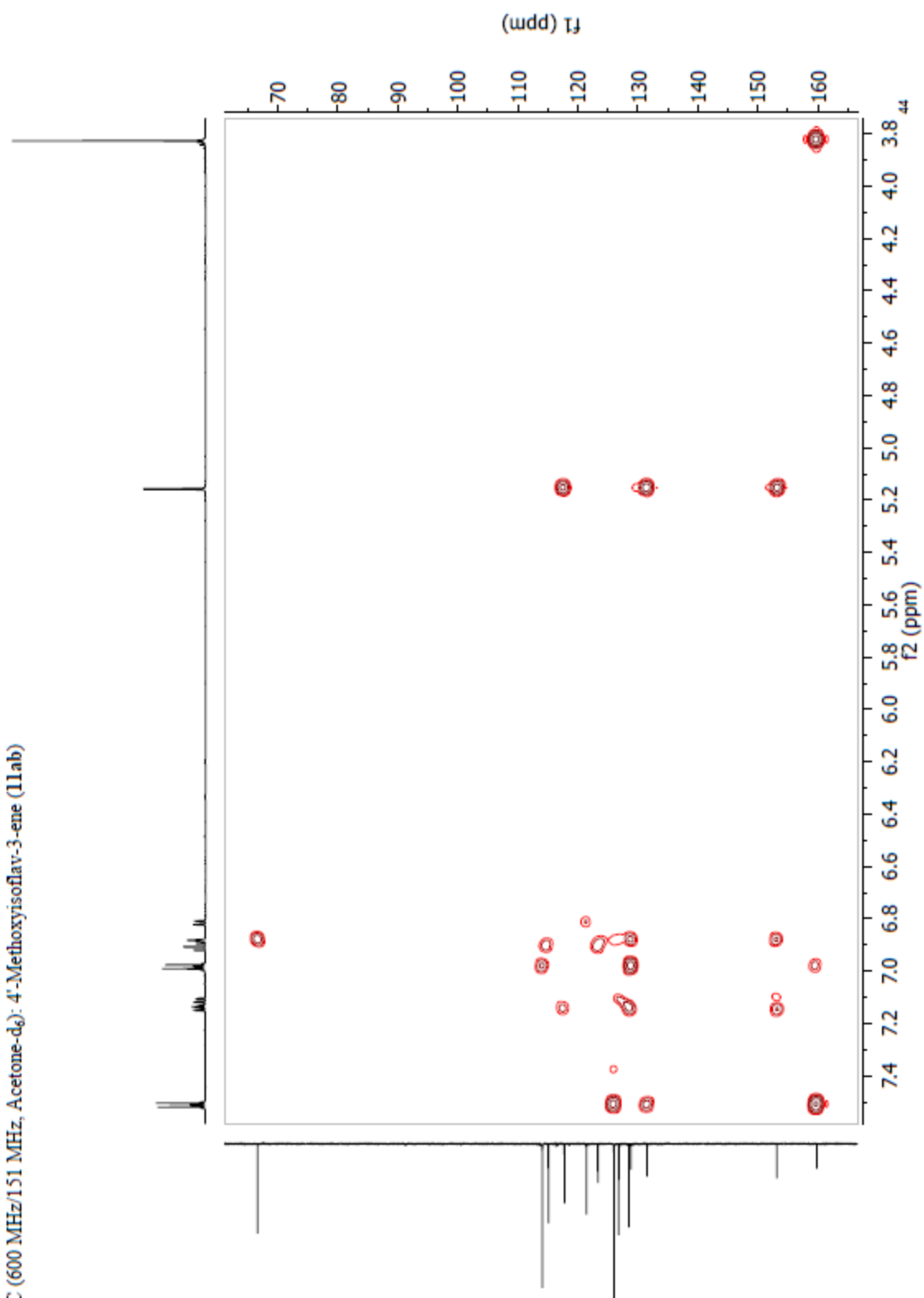
HMBC (600 MHz/151 MHz, Acetone- $d_6$ ): 1,5-Dimethoxy-3-([2-(4-methoxyphenyl)allyl]oxy)-2-vinylbenzene (**22cb**)

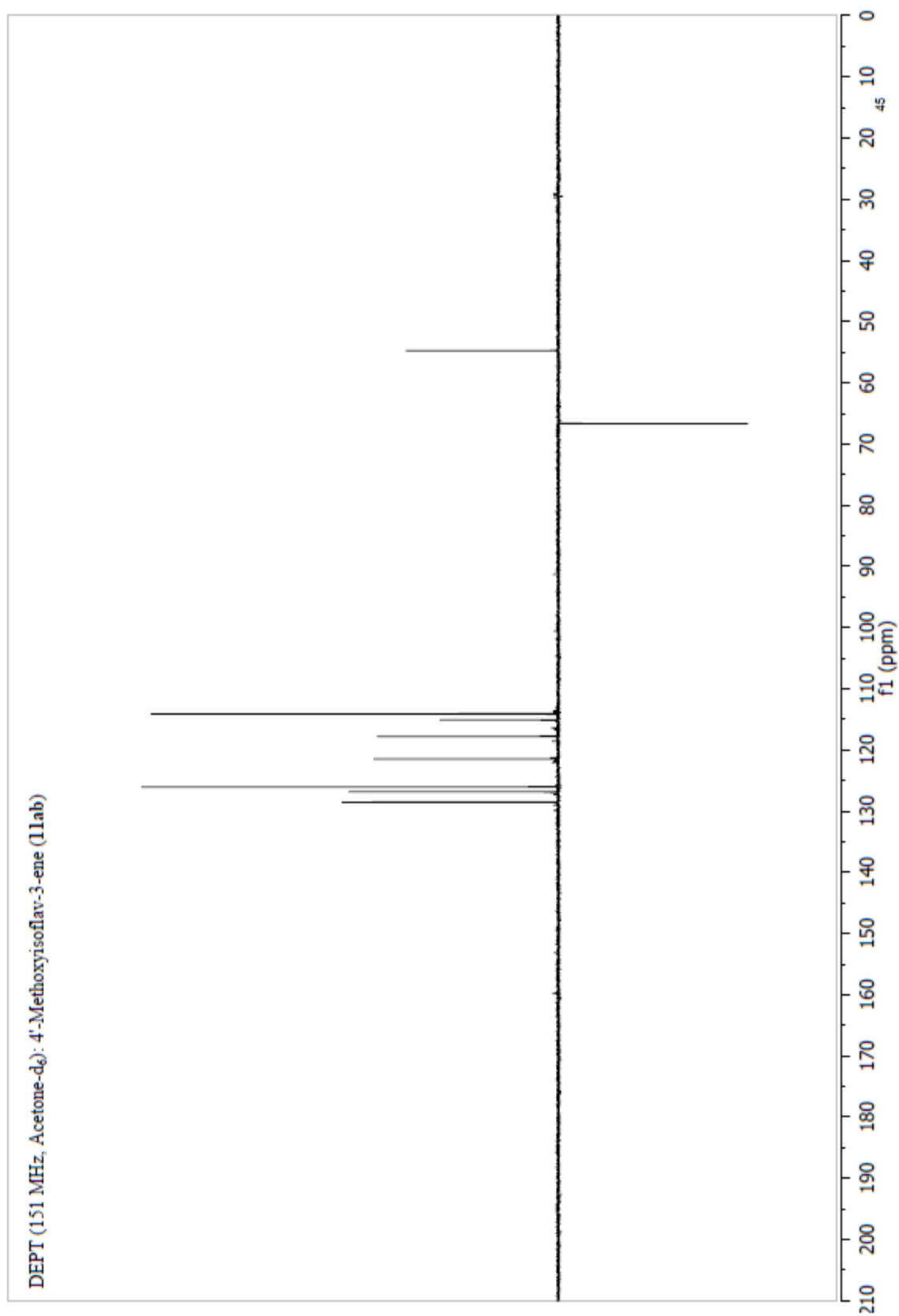


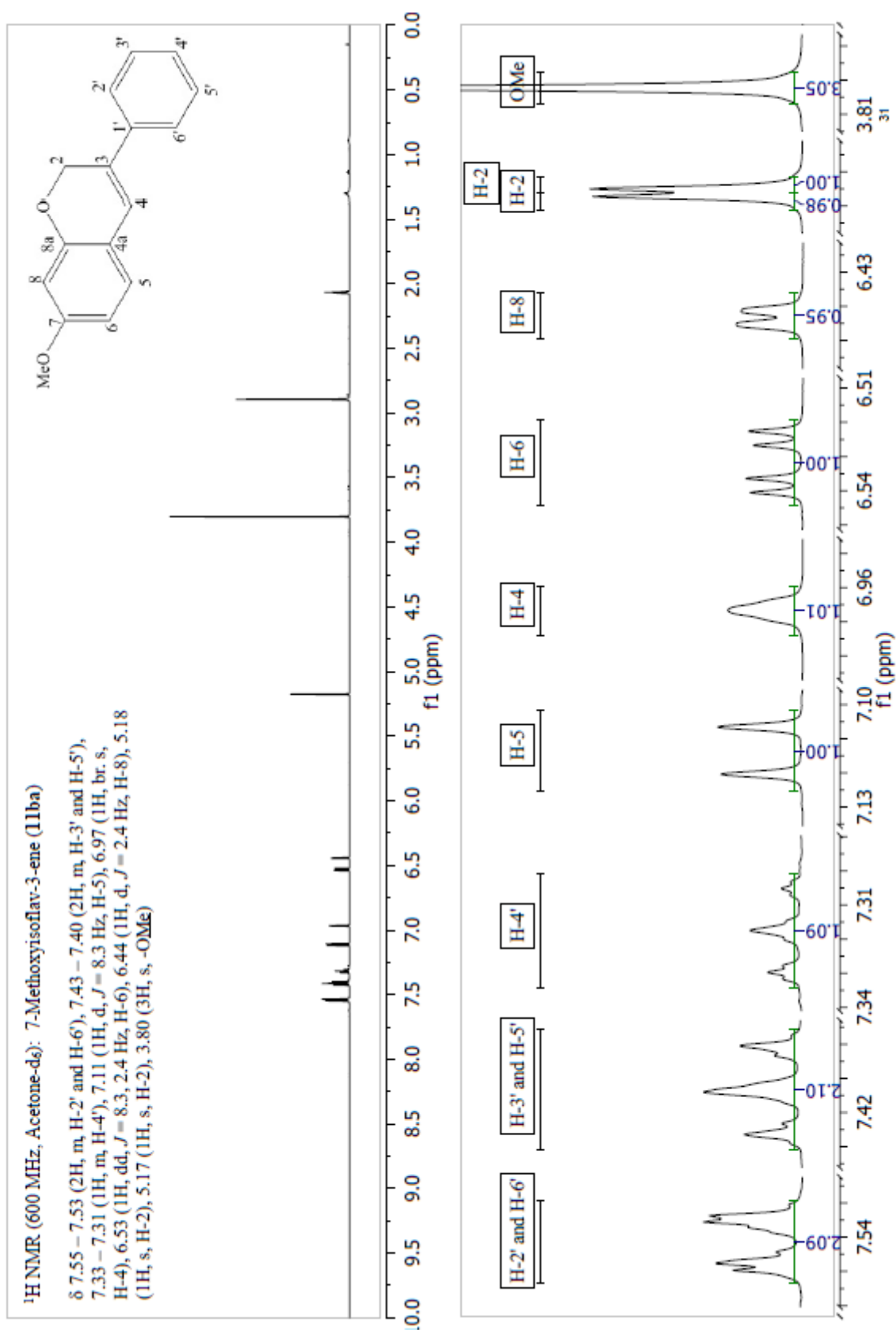
4'-Methoxyisoflav-3-ene (**11ab**)

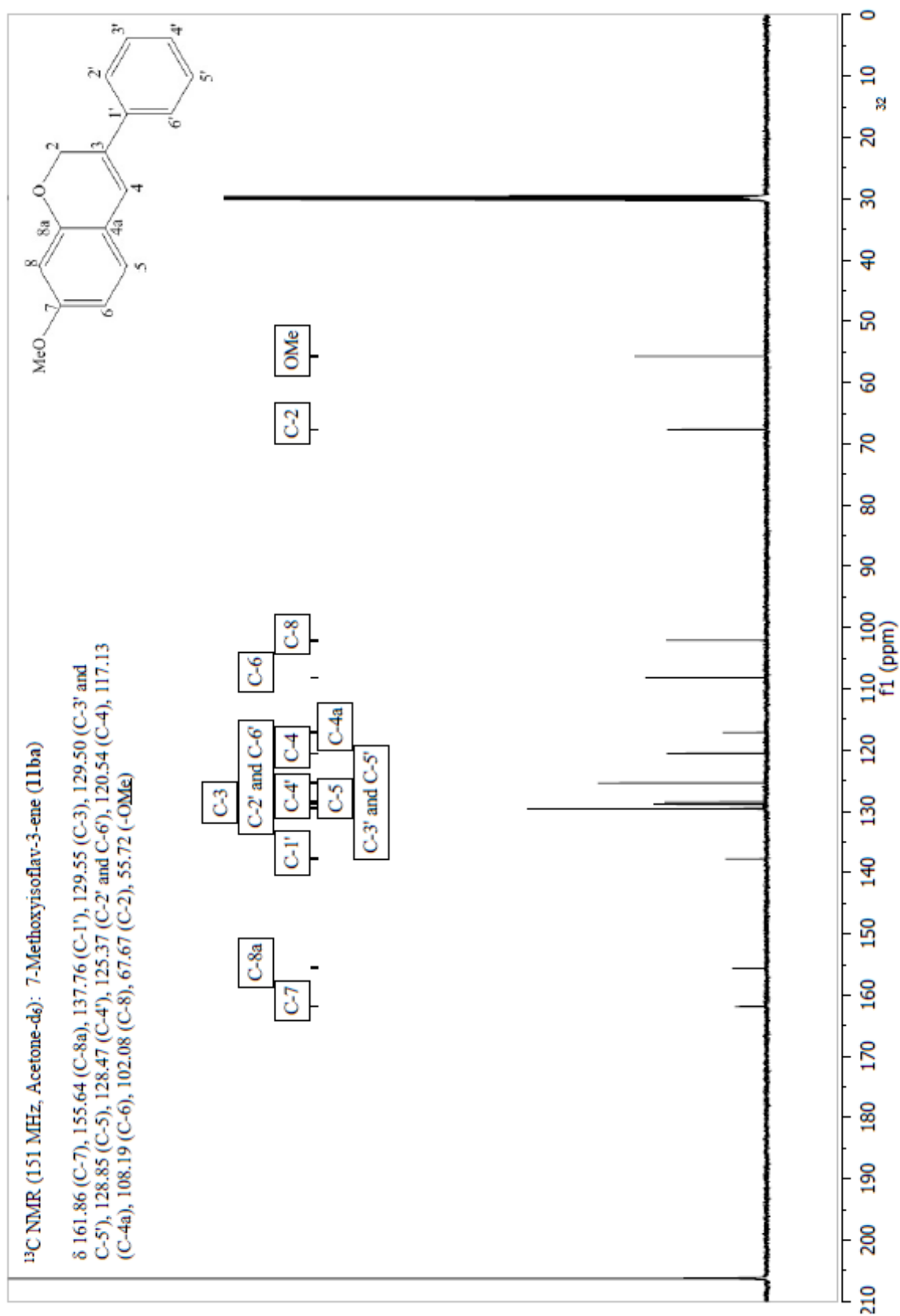


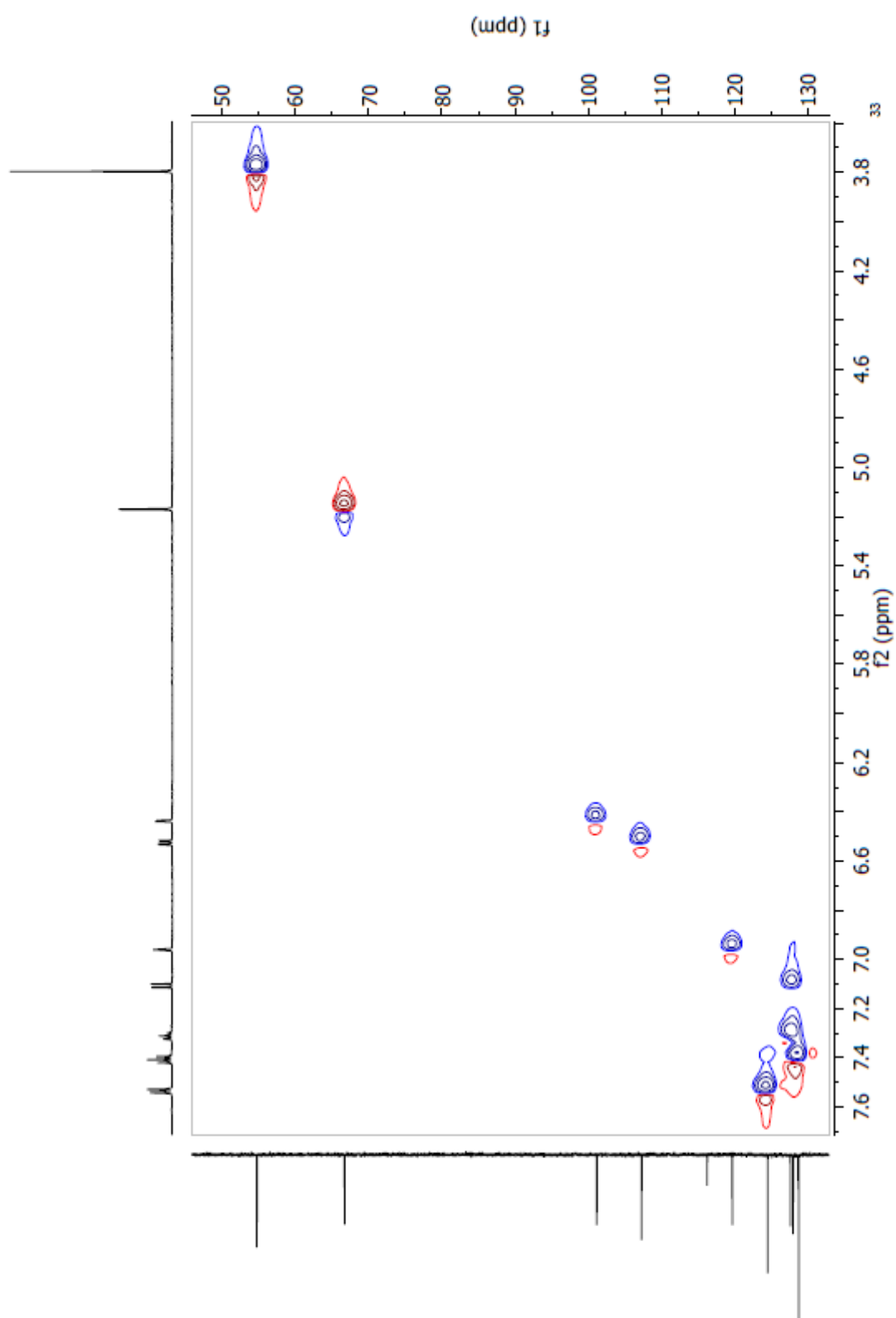


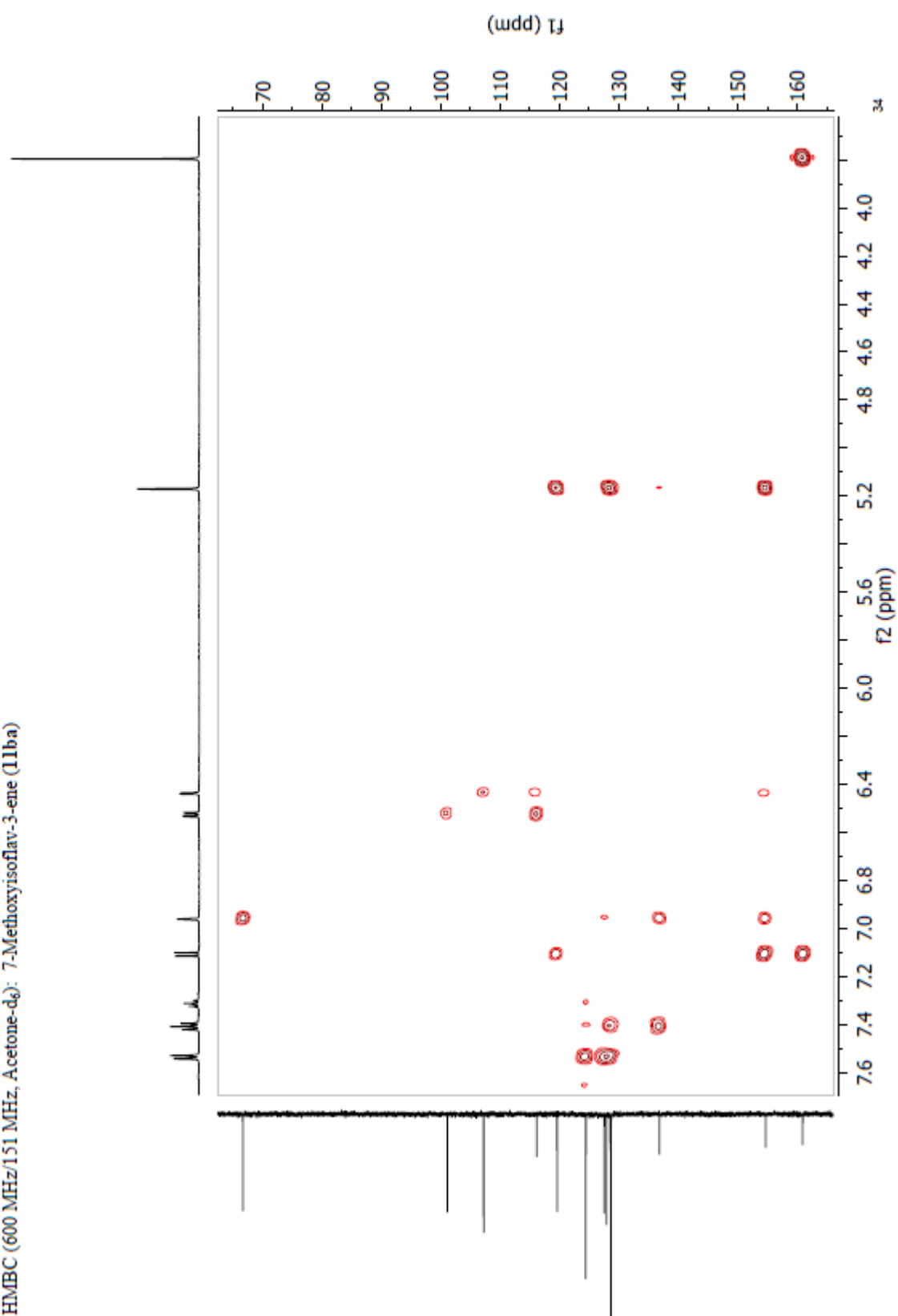
HMBC (600 MHz/151 MHz, Acetone- $d_6$ ): 4'-Methoxyisoflav-3-ene (11ab)

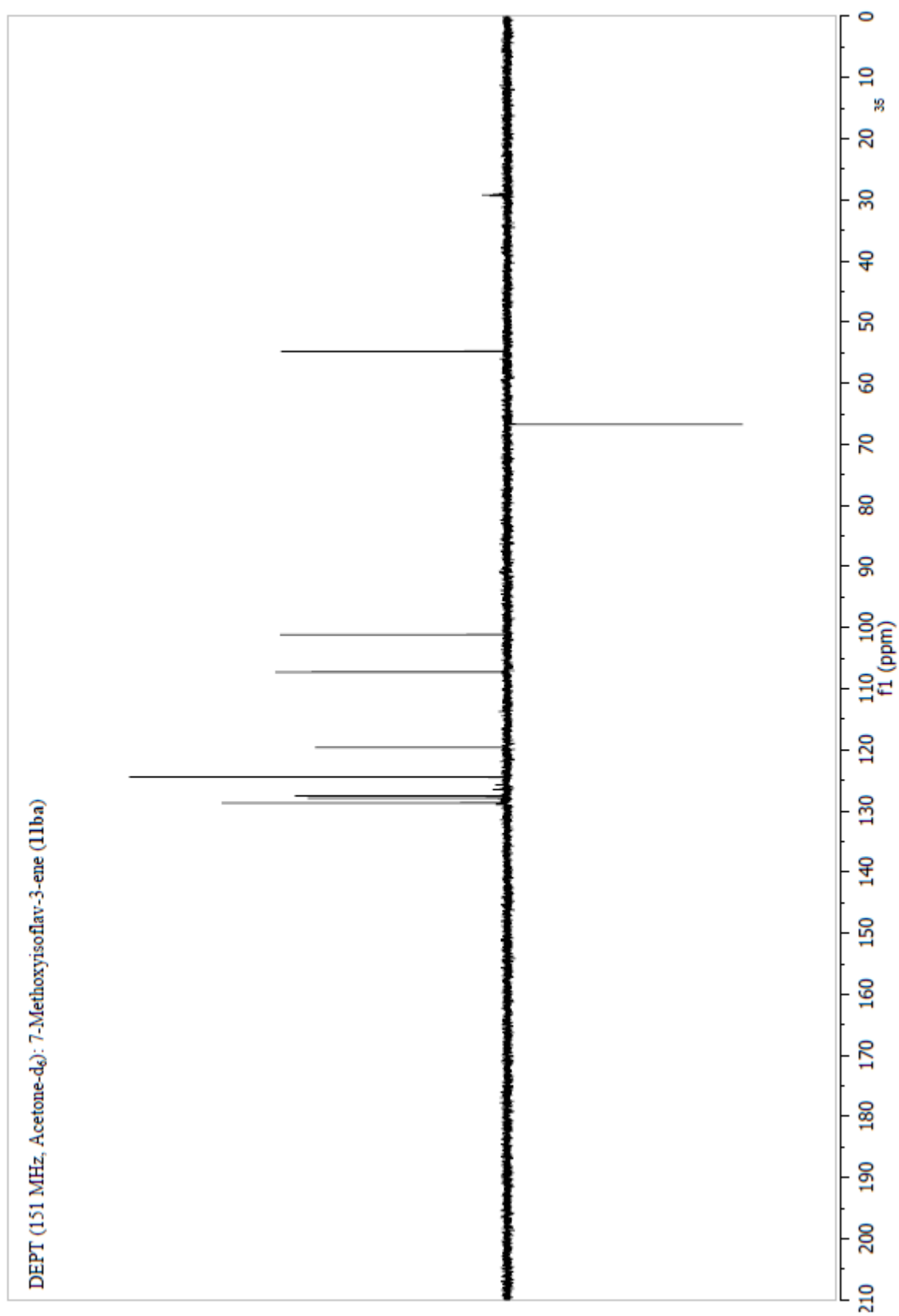


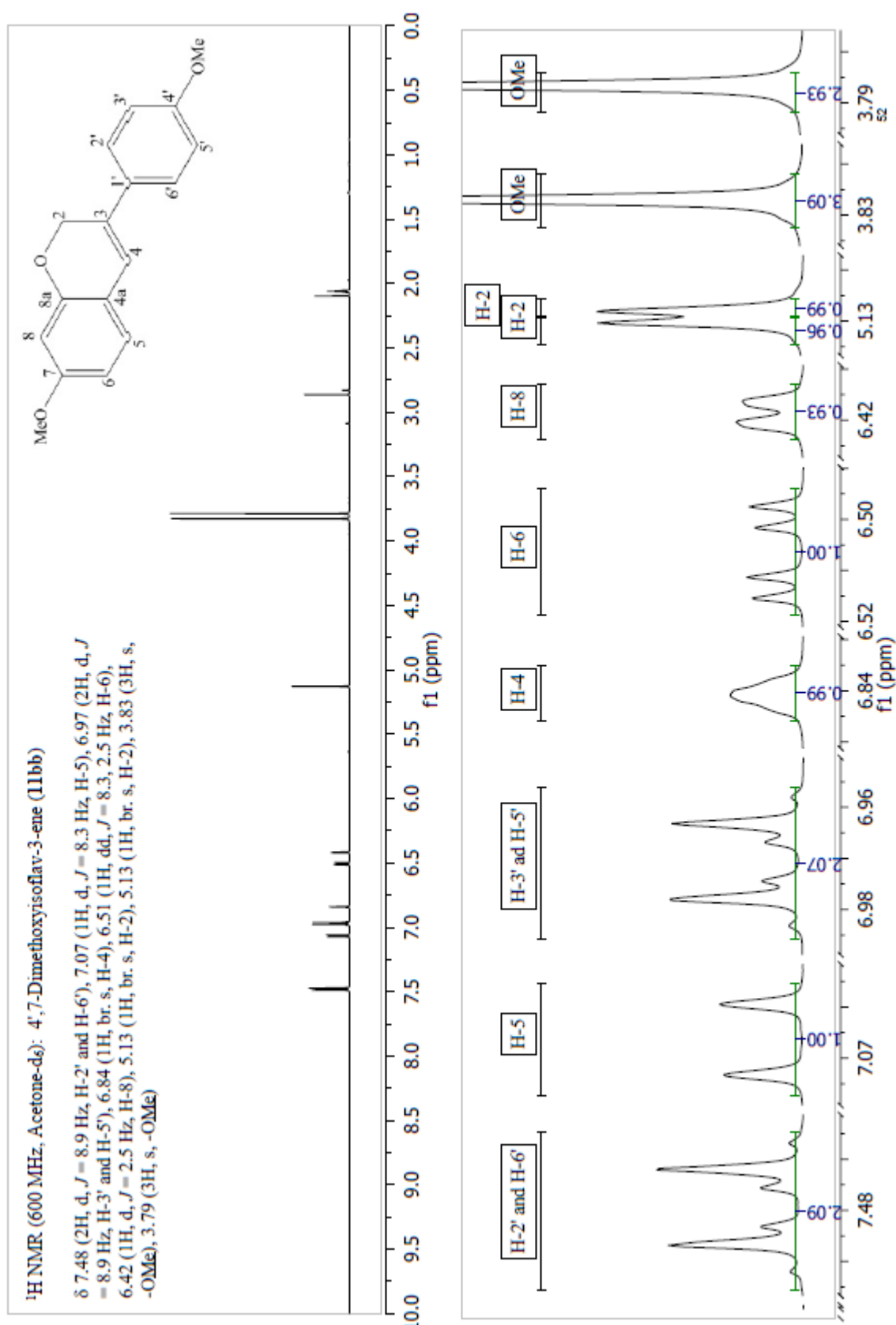
7-Methoxyisoflav-3-ene (**11ba**)

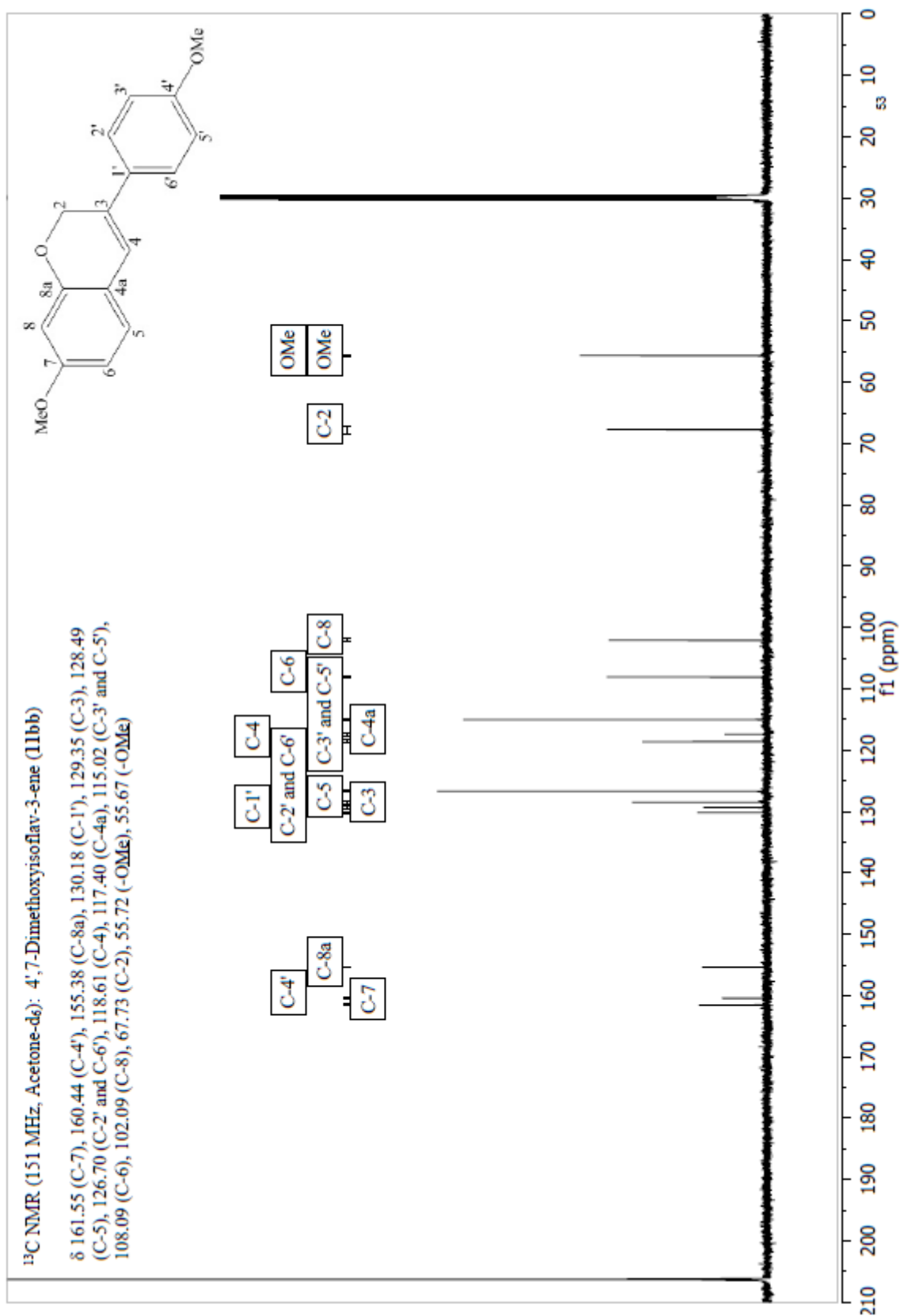


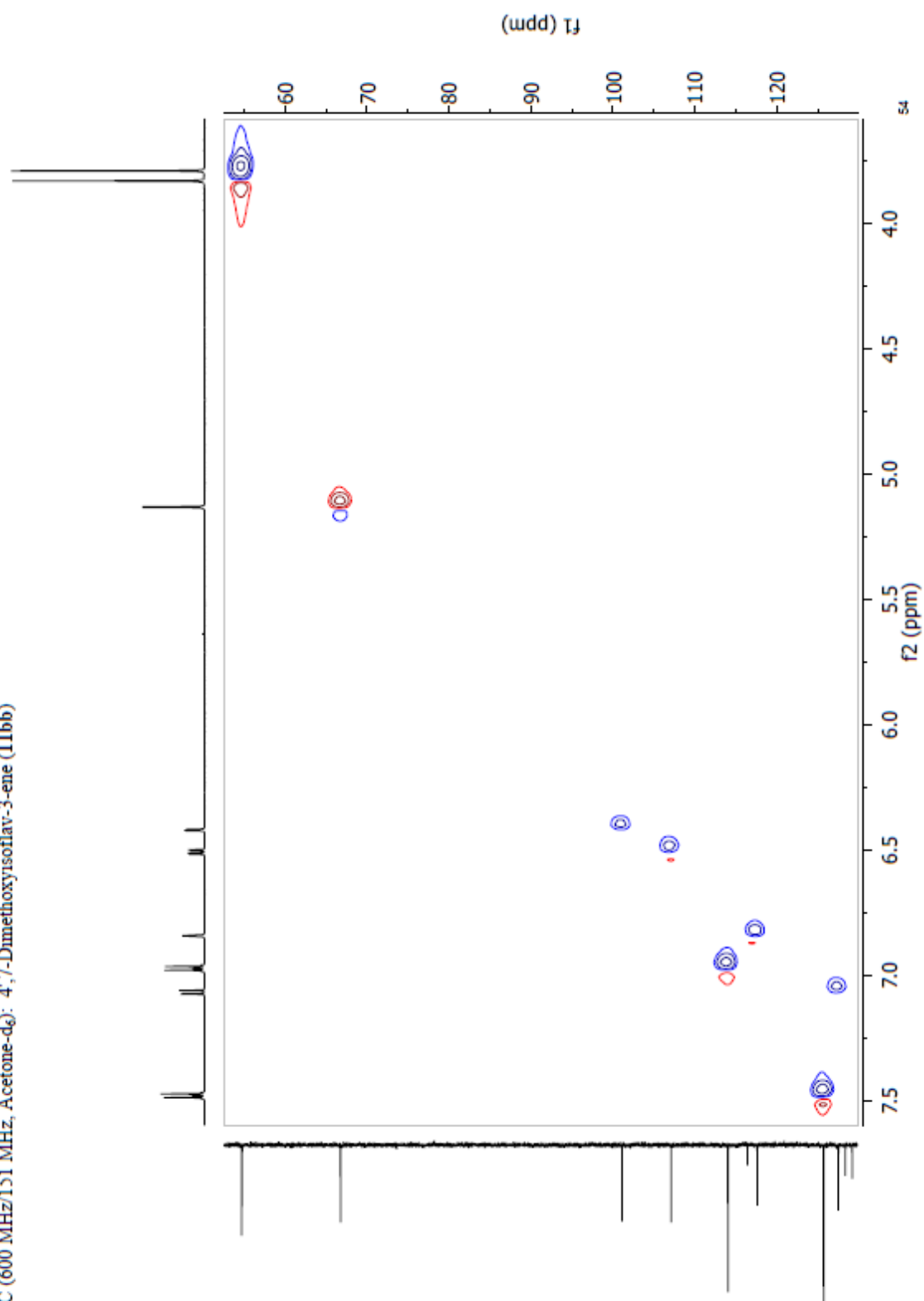
HSQC (600 MHz/151 MHz, Acetone- $d_6$ ): 7-Methoxyisoflav-3-ene (11ba)

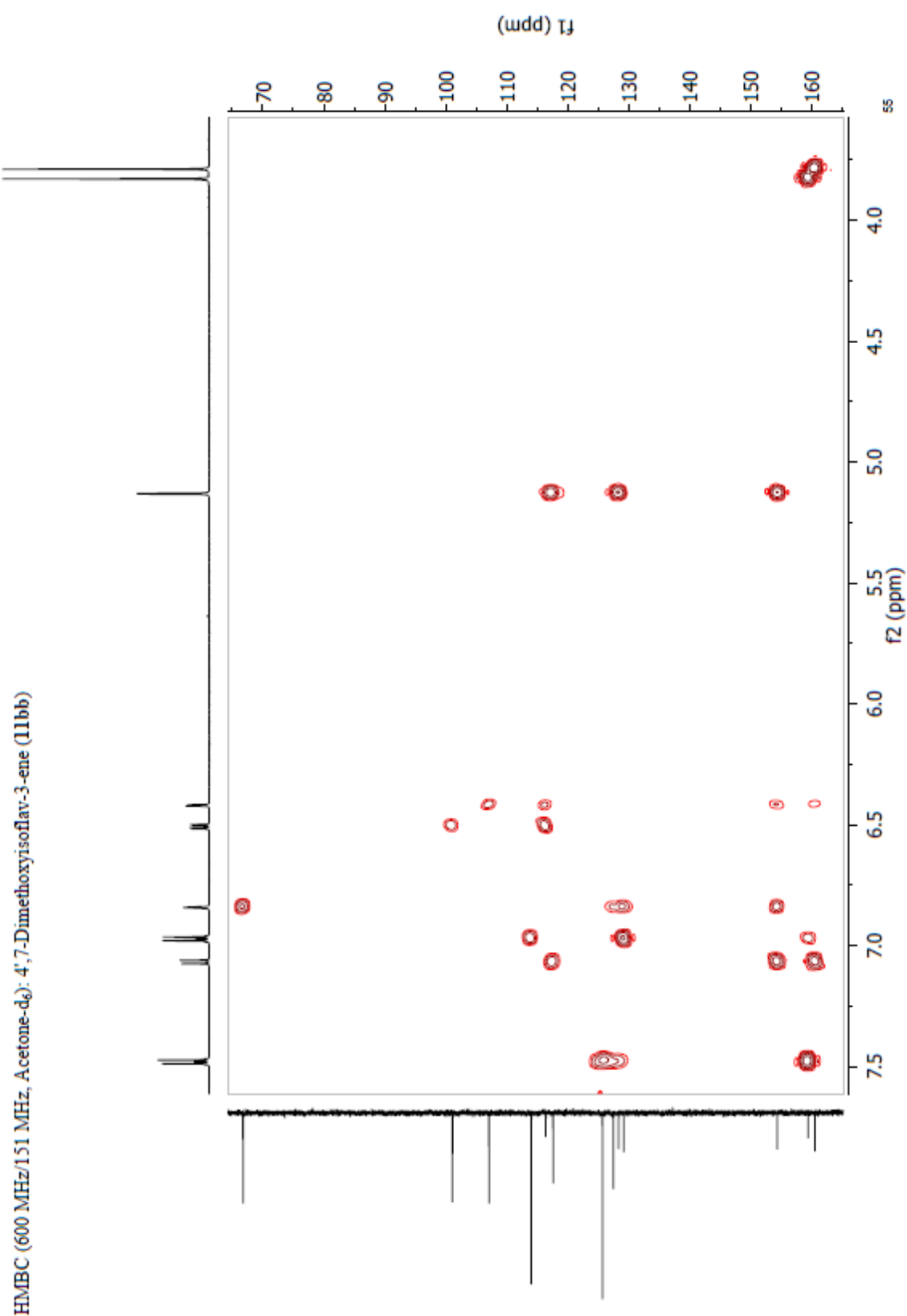
HMBC (600 MHz/151 MHz, Acetone- $d_6$ ): 7-Methoxyisoflav-3-ene (11ba)

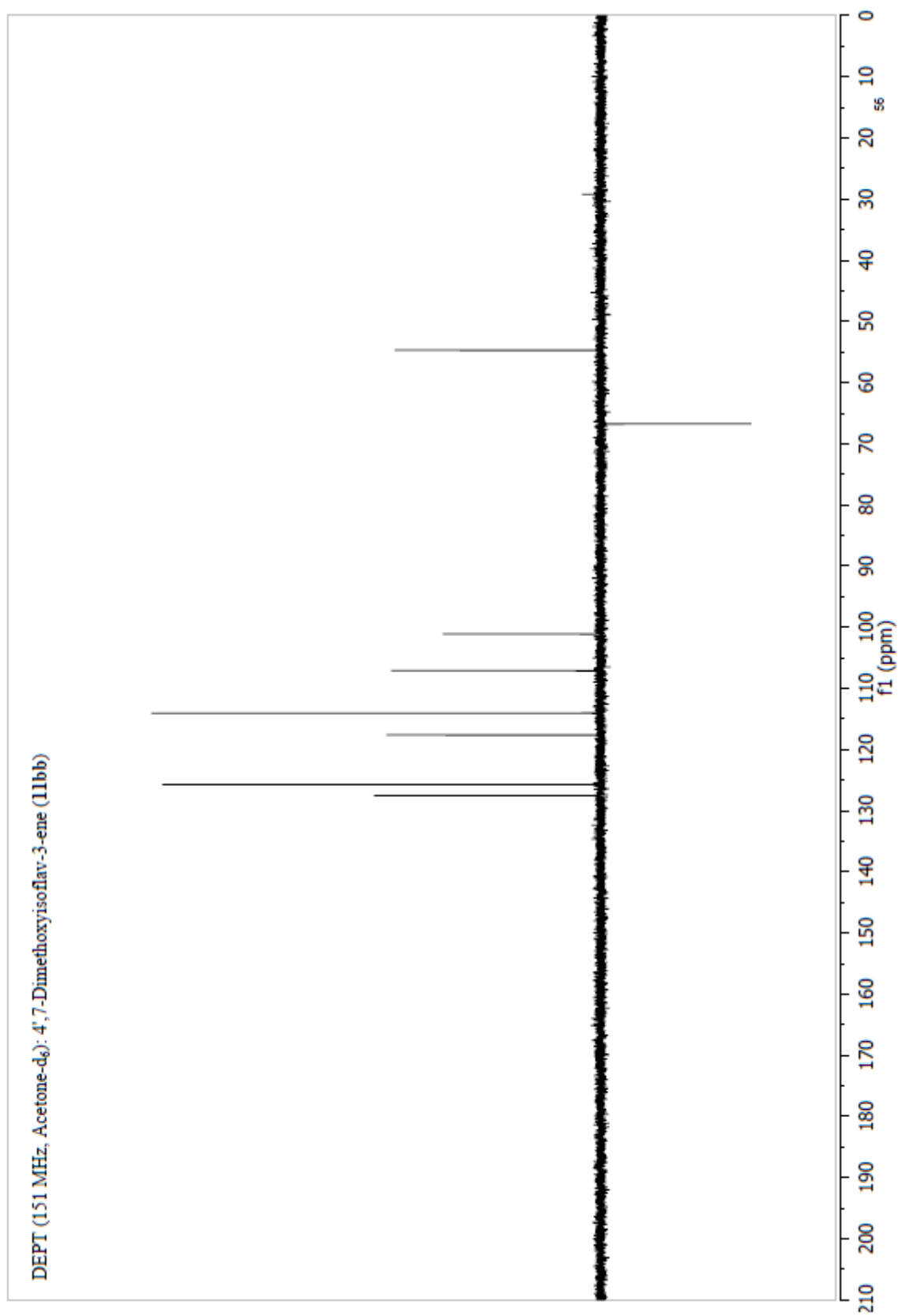


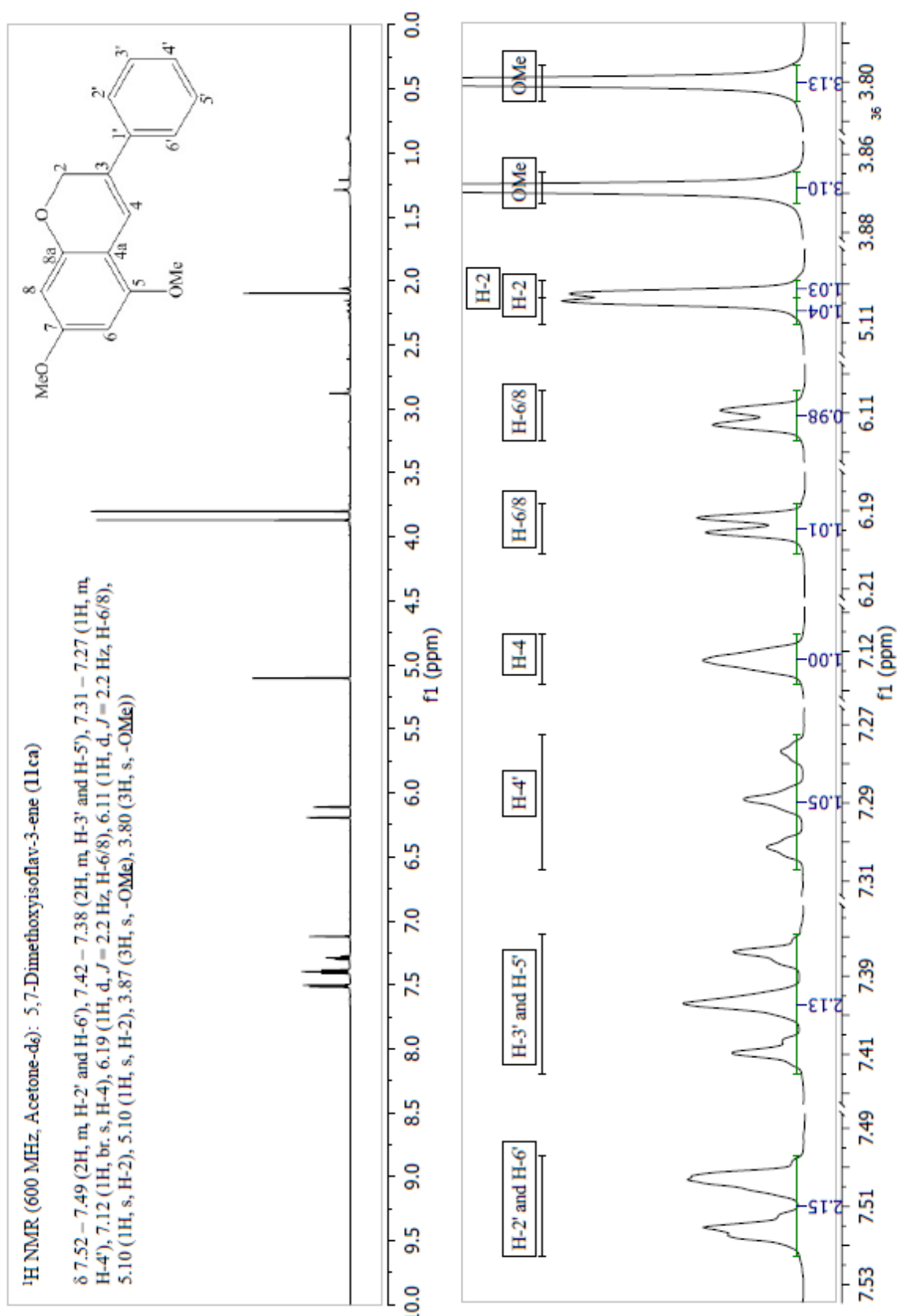
4',7-Dimethoxyisoflav-3-ene (**11bb**)

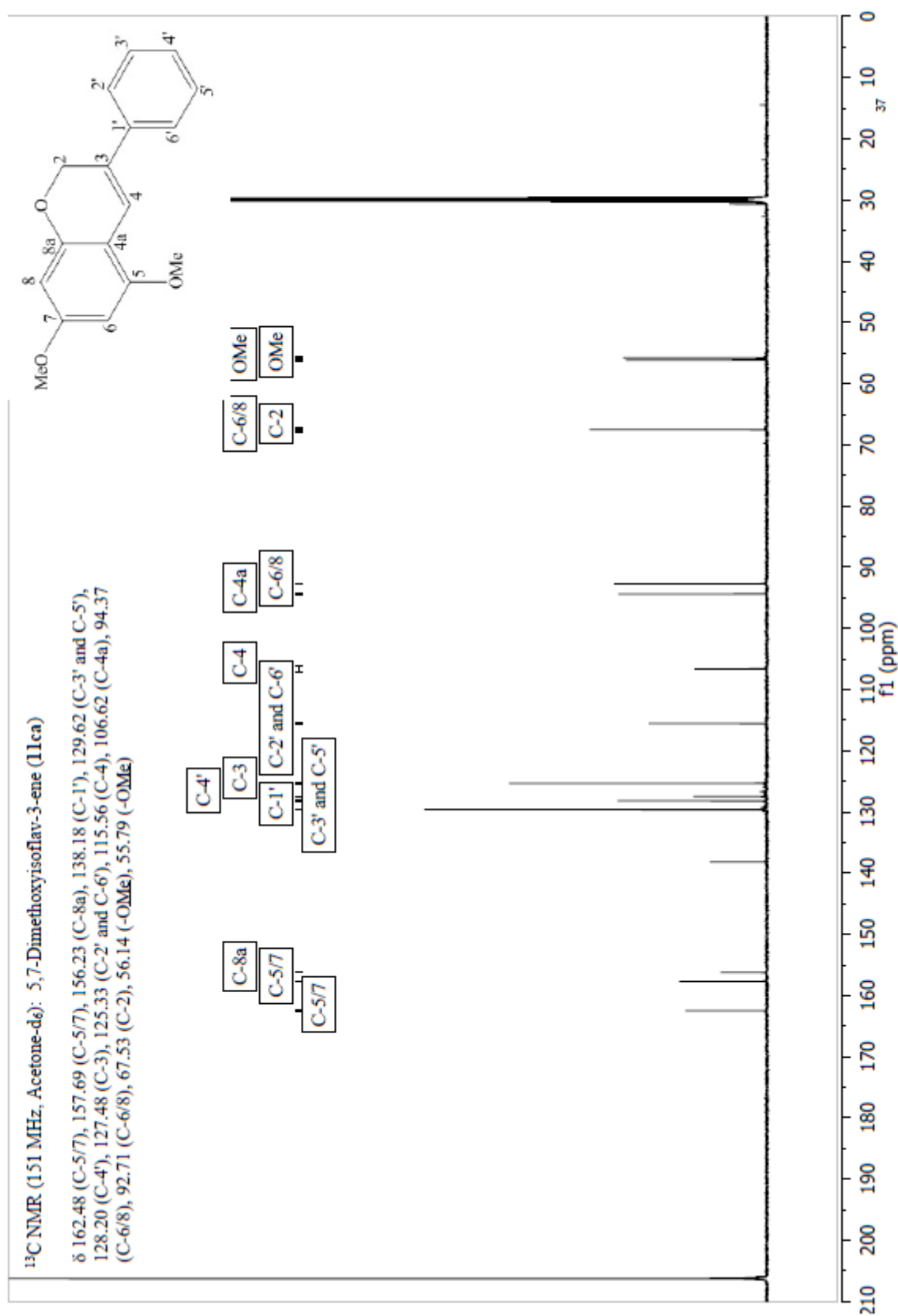


HSQC (600 MHz/151 MHz, Acetone- $d_6$ ): 4',7-Dimethoxyisoflav-3-ene (11bb)

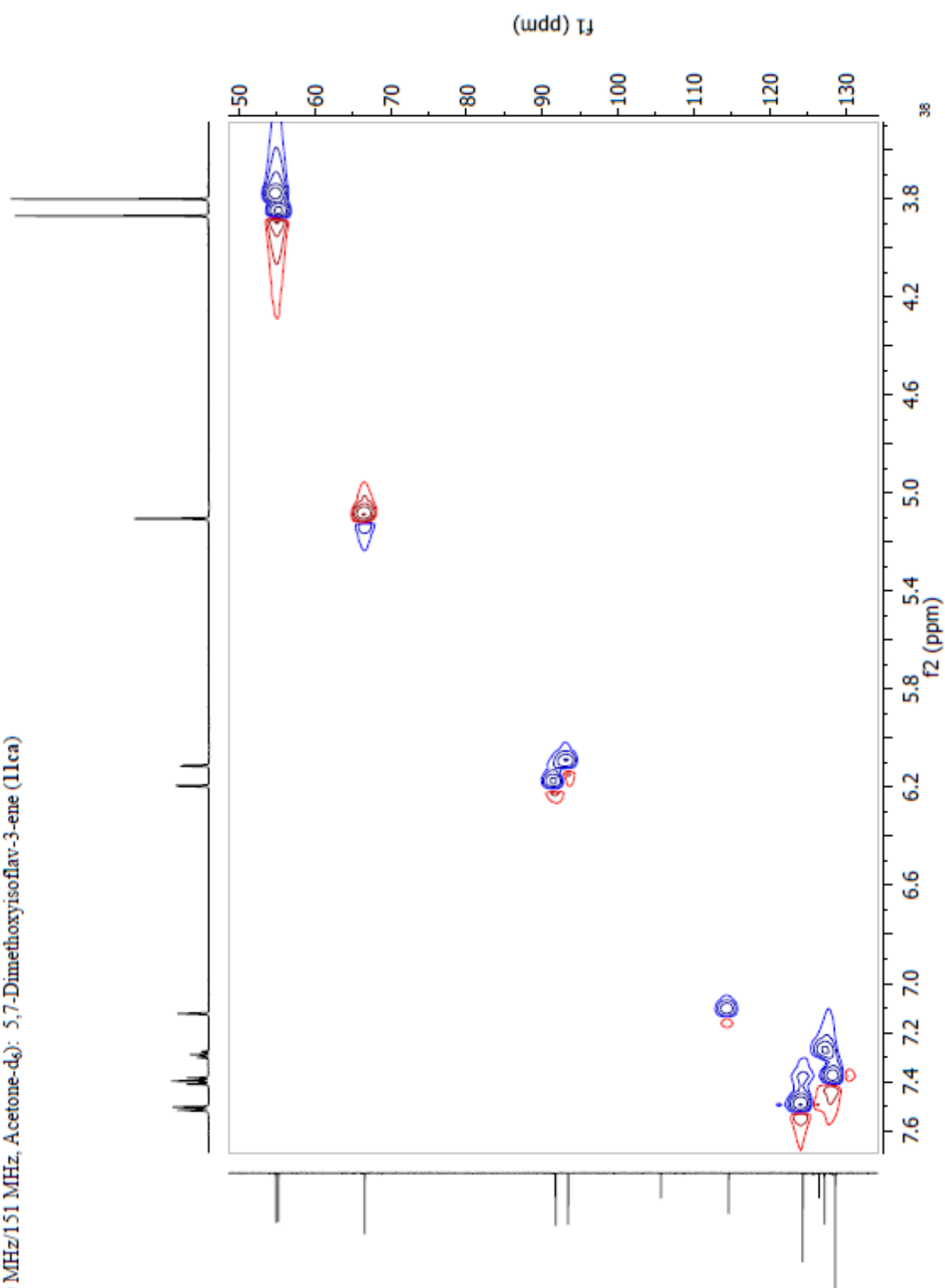


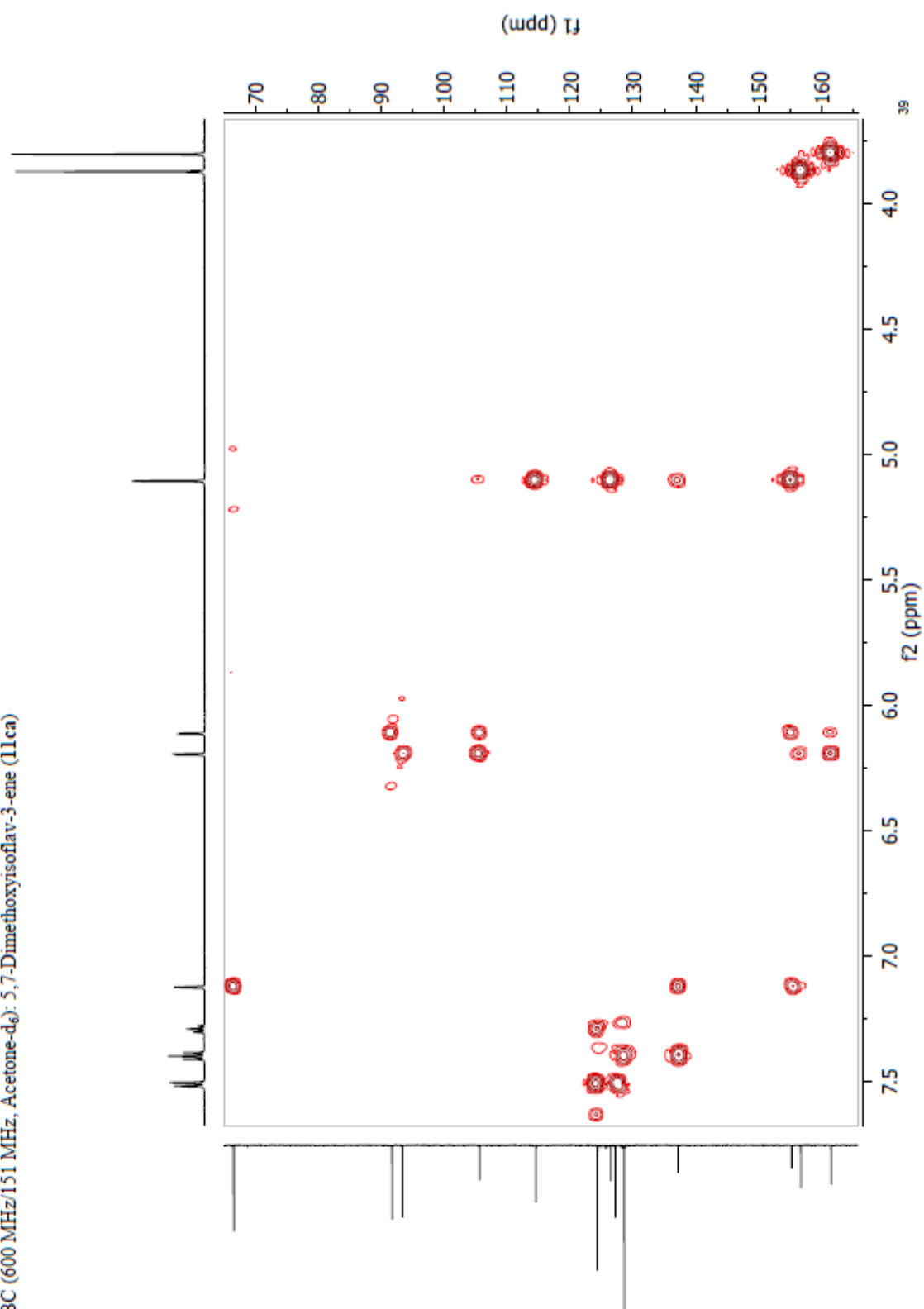


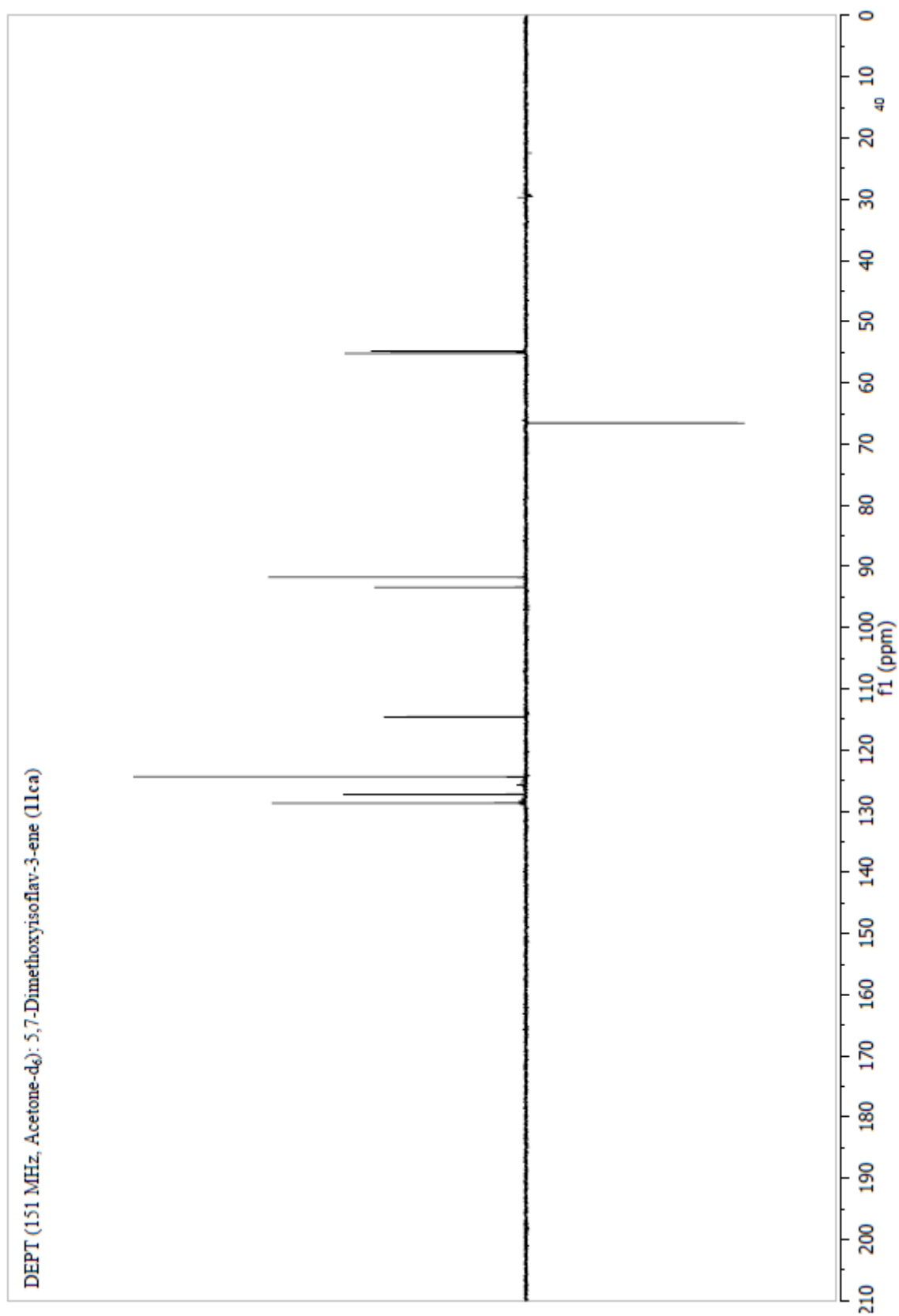
5,7-Dimethoxyisoflav-3-ene (**11ca**)

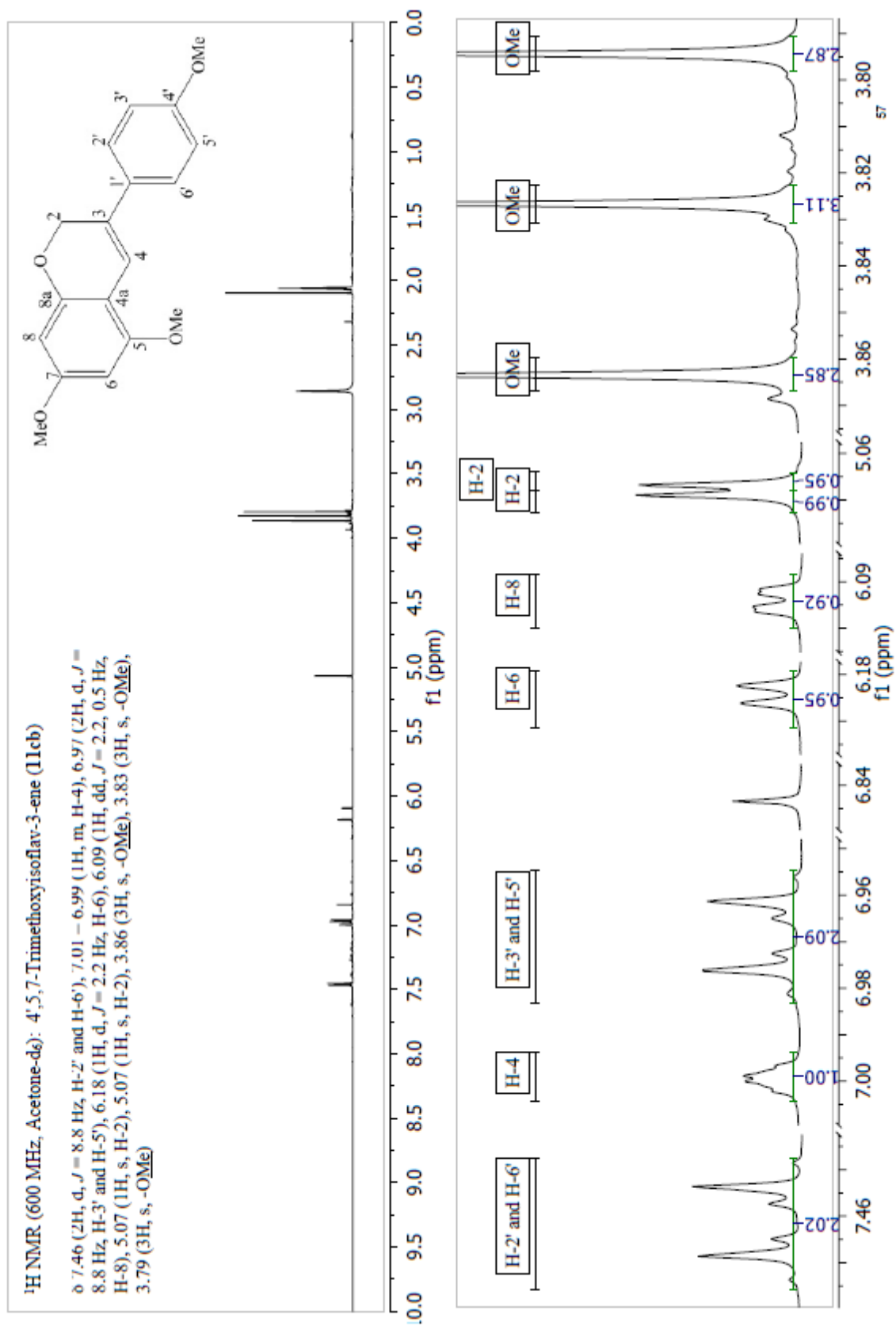


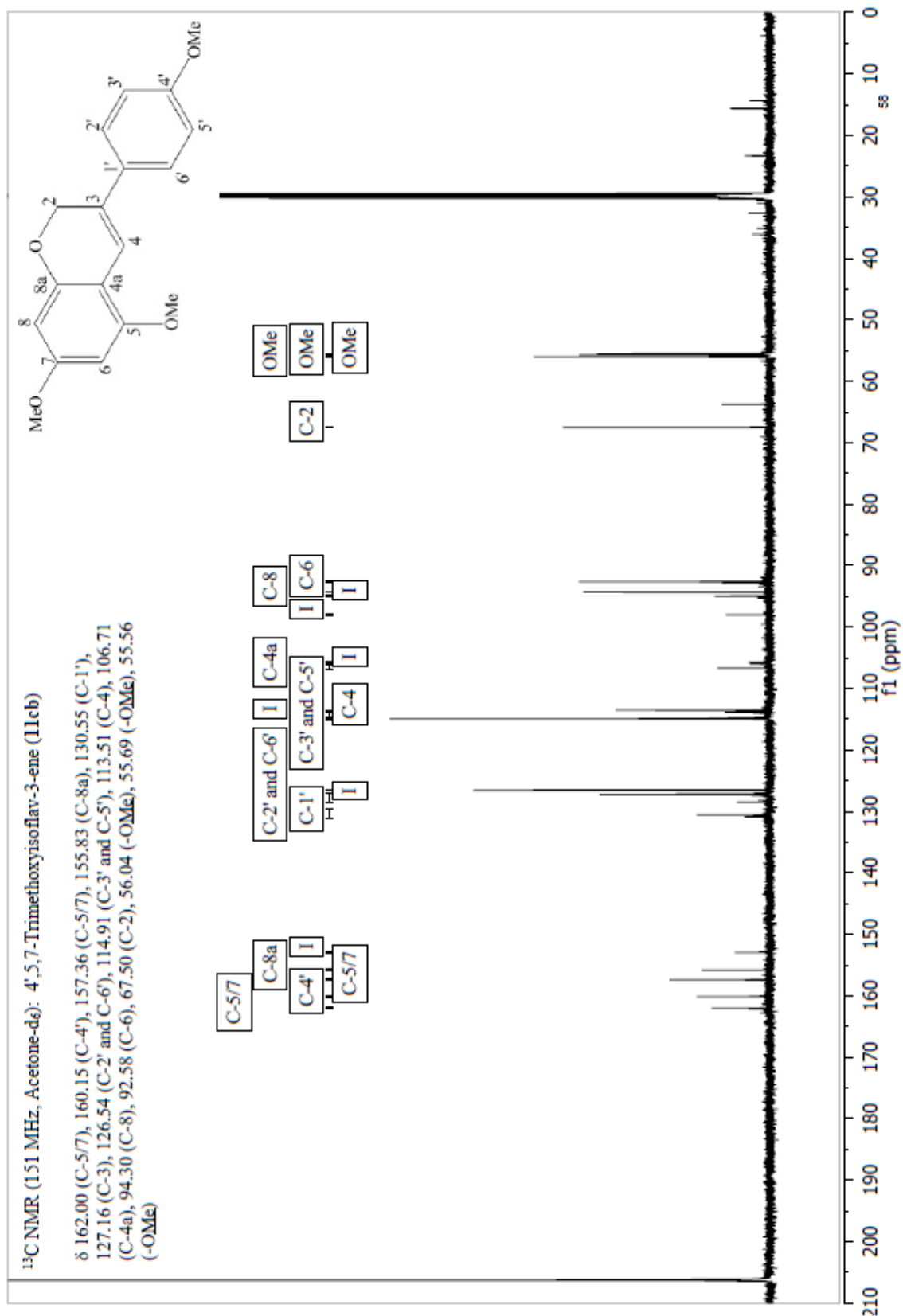
HSQC (600 MHz/151 MHz, Acetone- $d_6$ ): 5,7-Dimethoxyisoflav-3-ene (11ca)

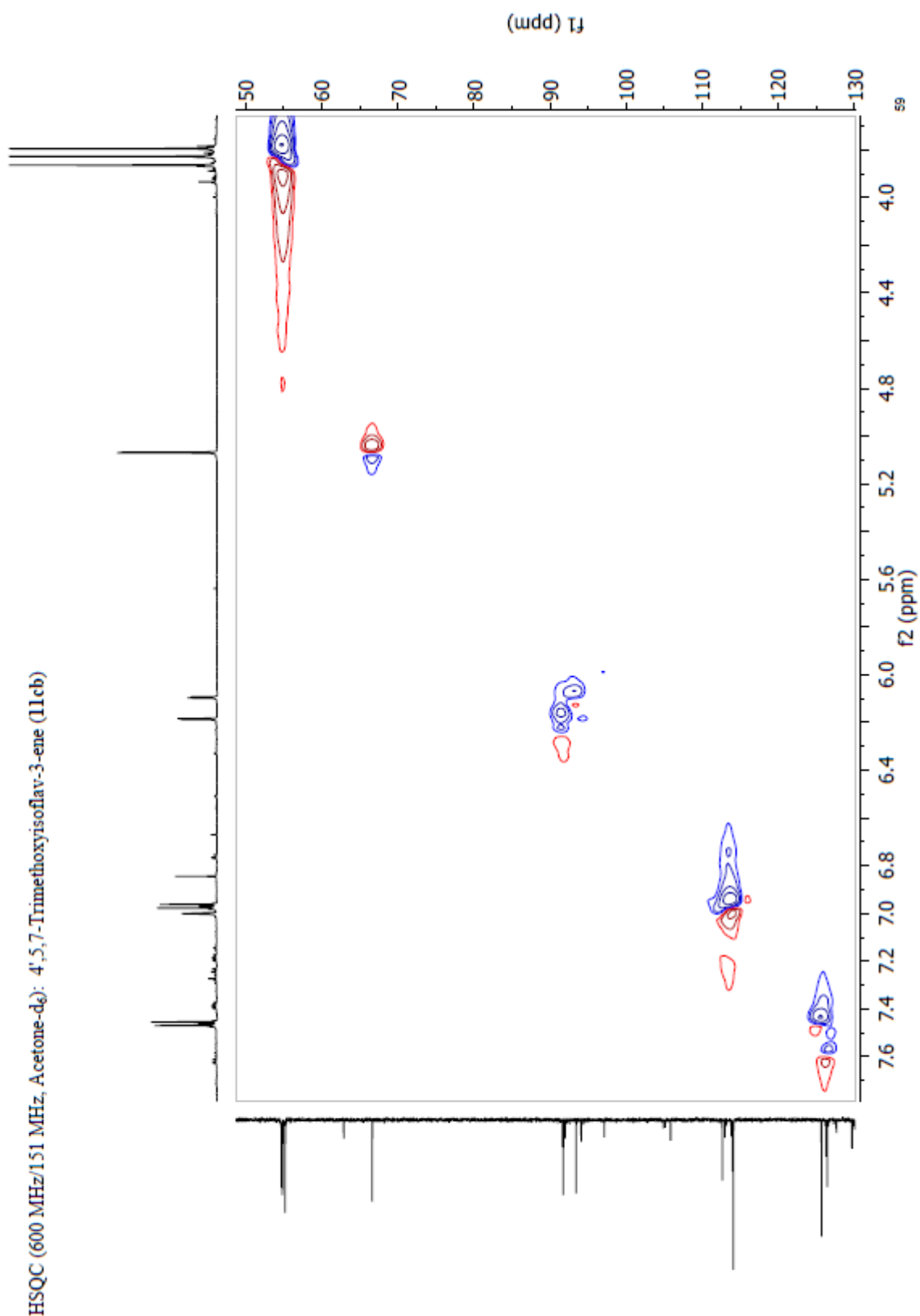


HMBC (600 MHz/151 MHz, Acetone- $d_6$ ): 5,7-Dimethoxyisoflav-3-ene (11ca)



4',5,7-Trimethoxyisoflav-3-ene (**11cb**)





HMBC (600 MHz/151 MHz, Acetone- $d_6$ ): 4',5,7-Trimethoxyisoflav-3-ene (11cb)