

Supporting Information File 2

for

Galactan synthesis in a single step via oligomerization of

monosaccharides

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NMR spectra for all new compounds

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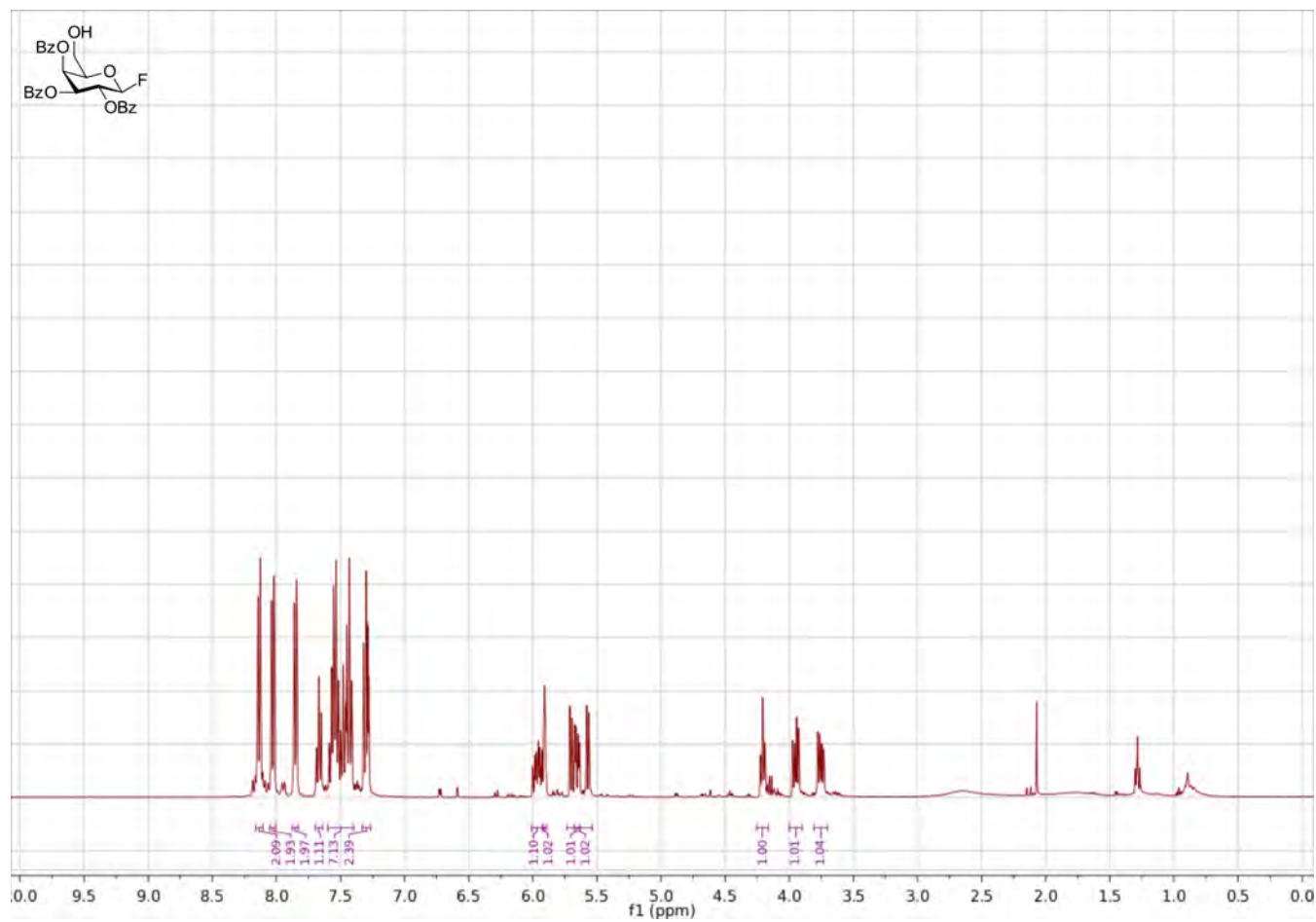
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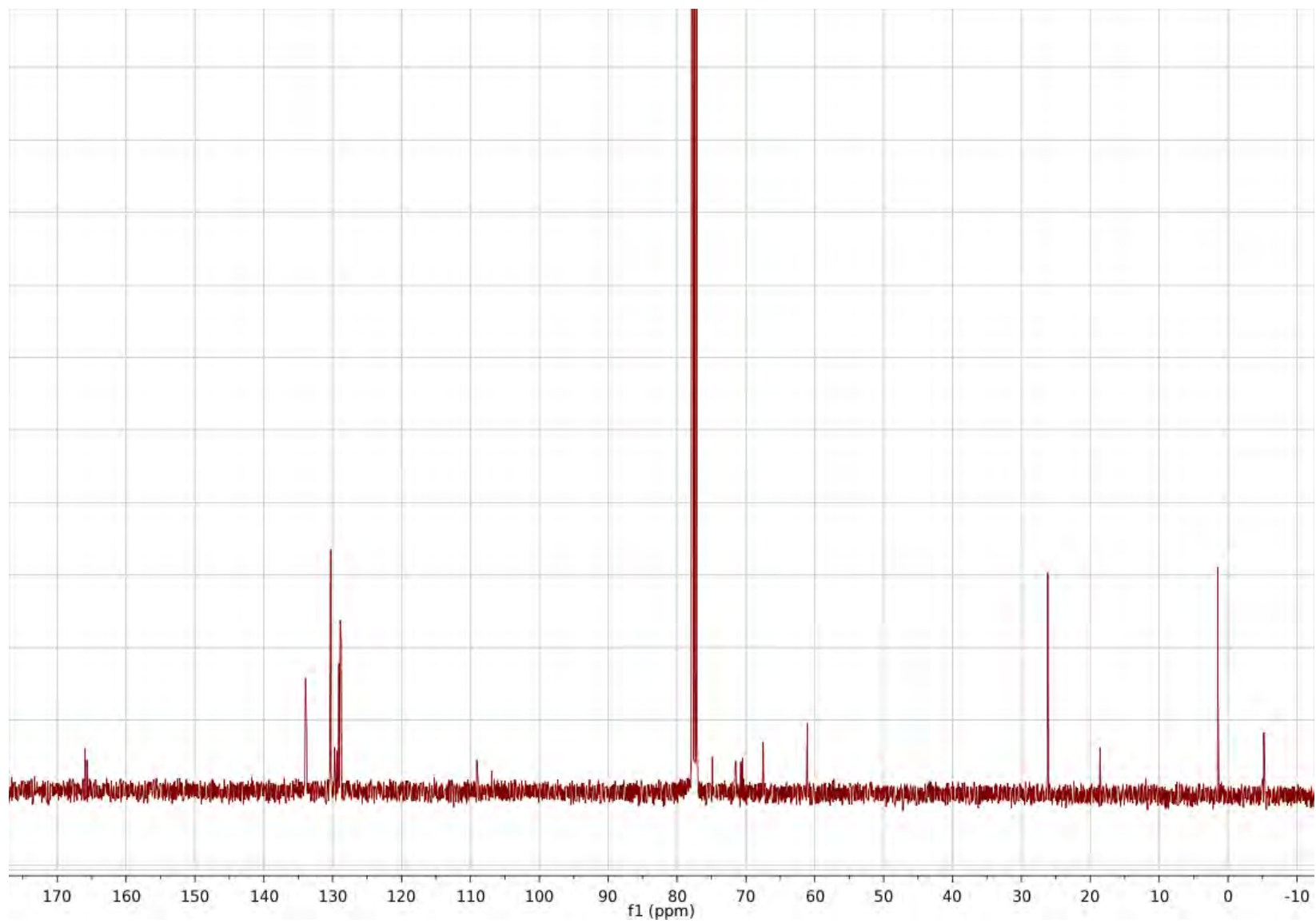
NMR spectra

Compound 1

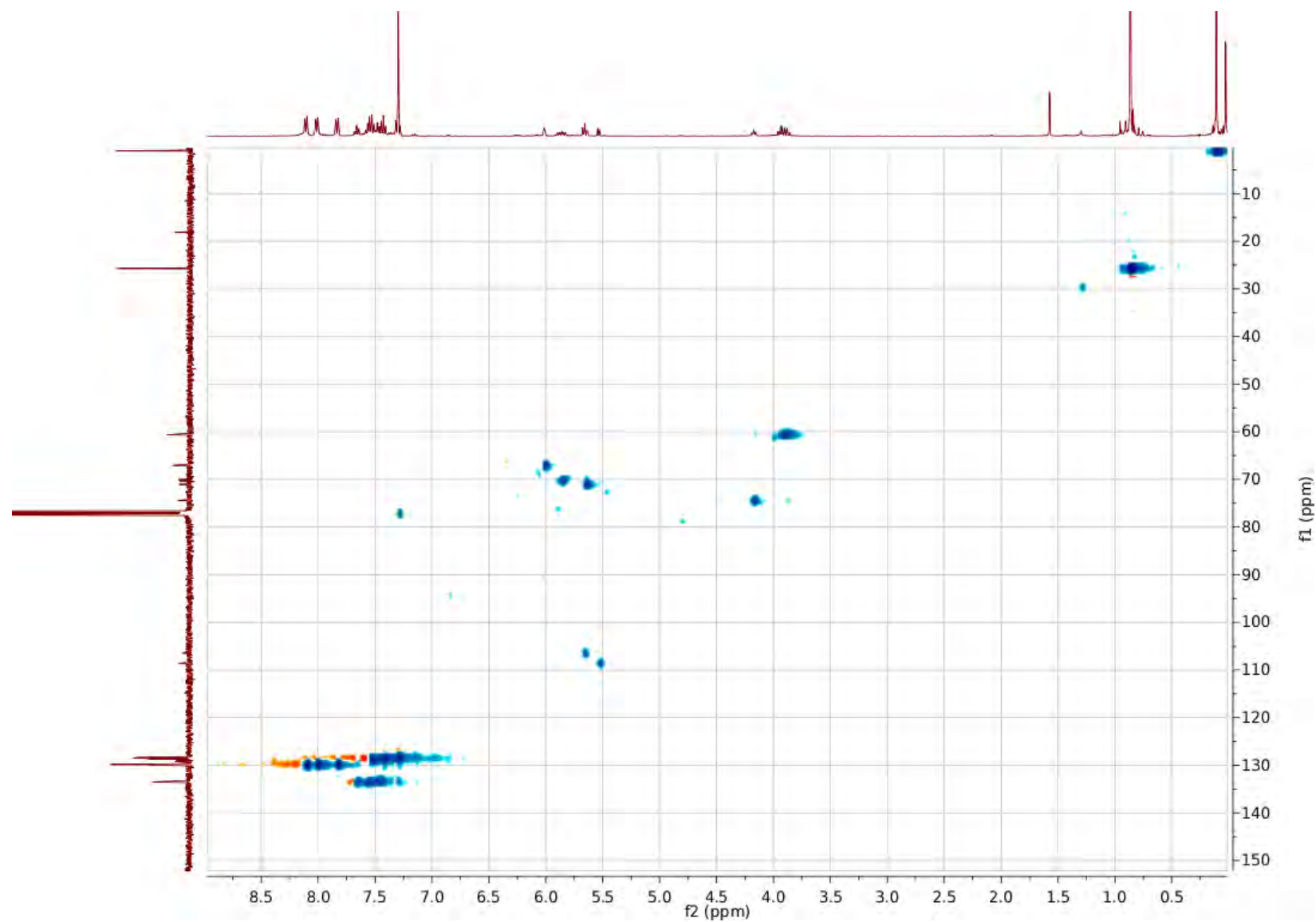
Proton



^{13}C

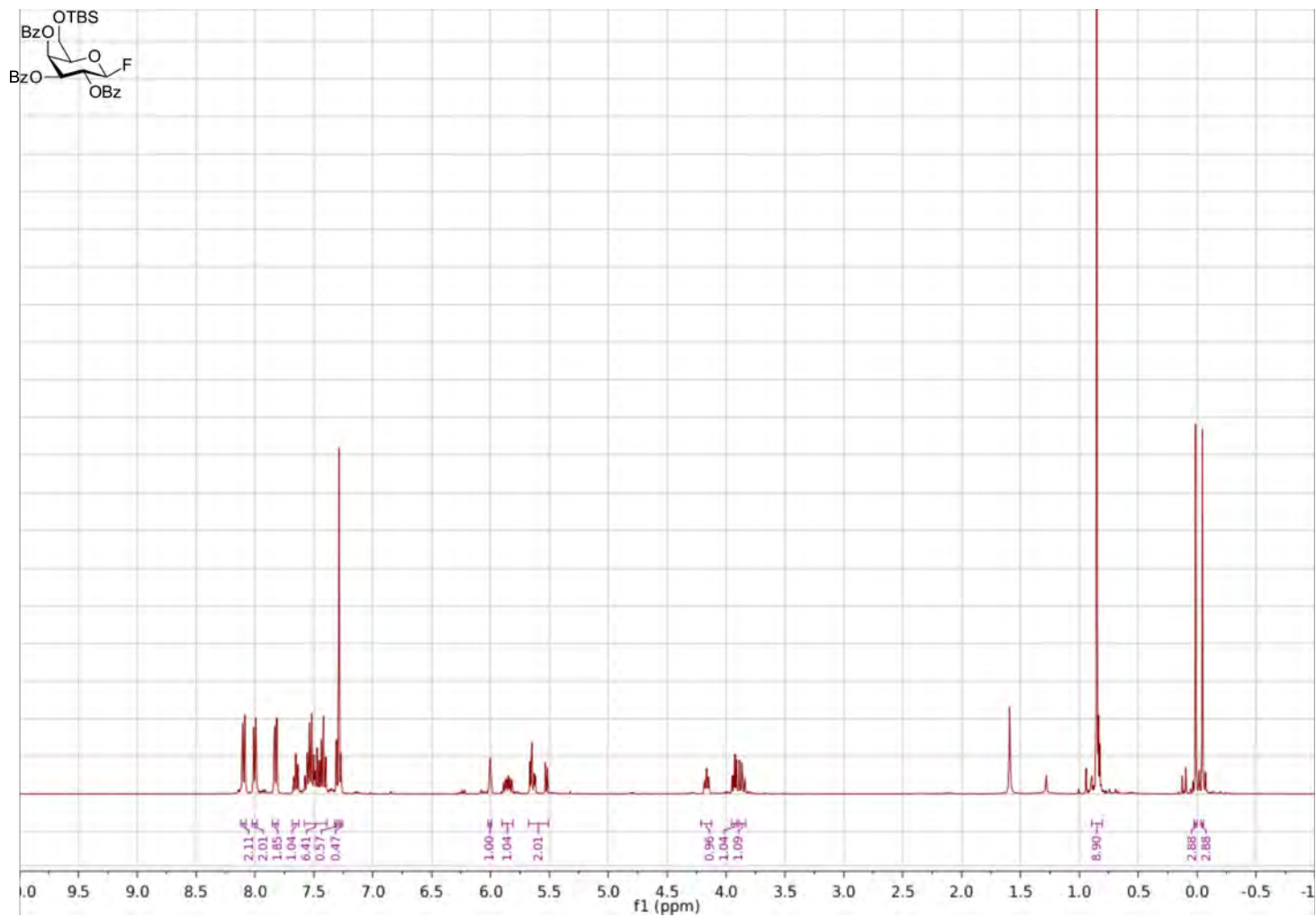


HSQC

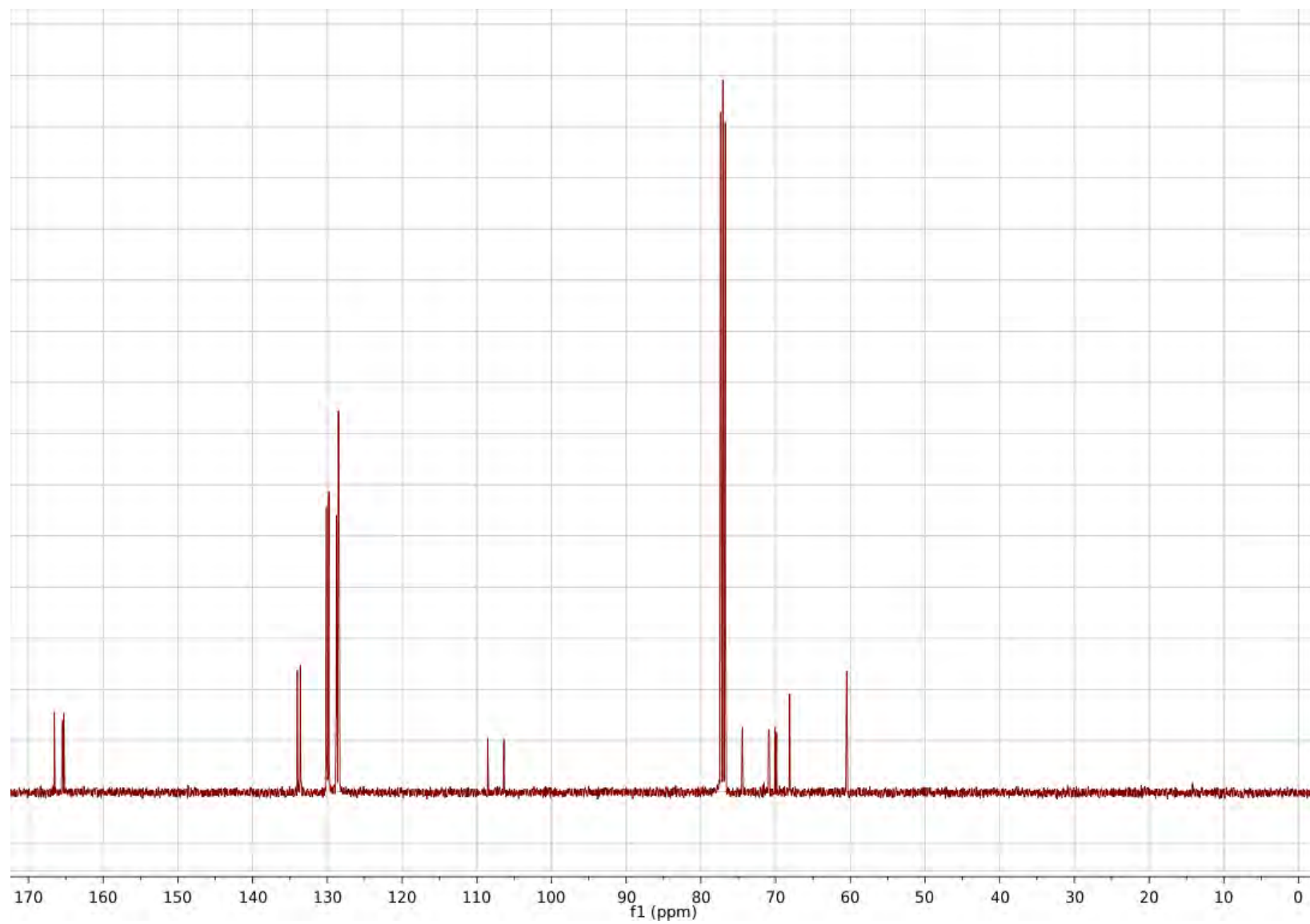


Compound 2

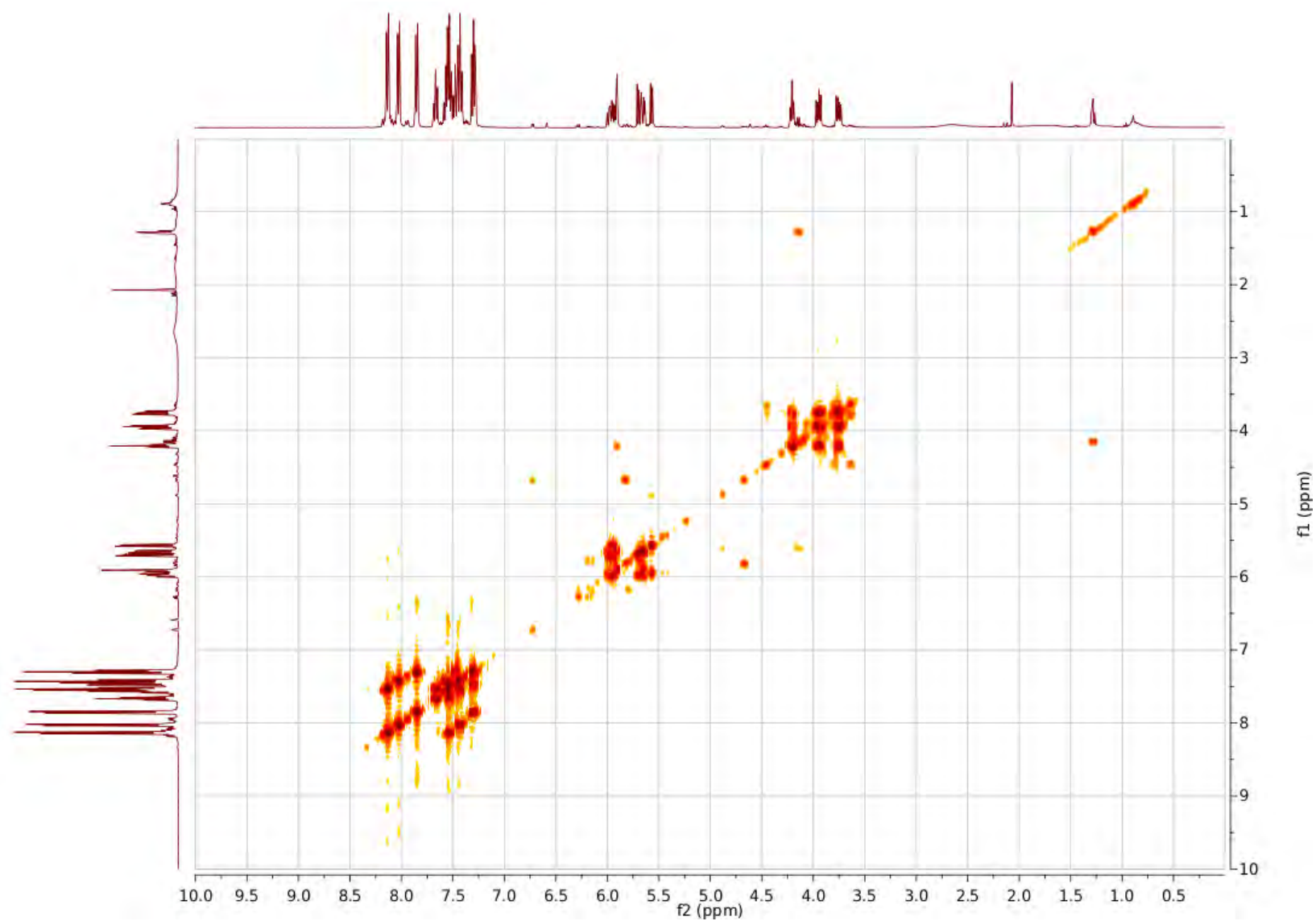
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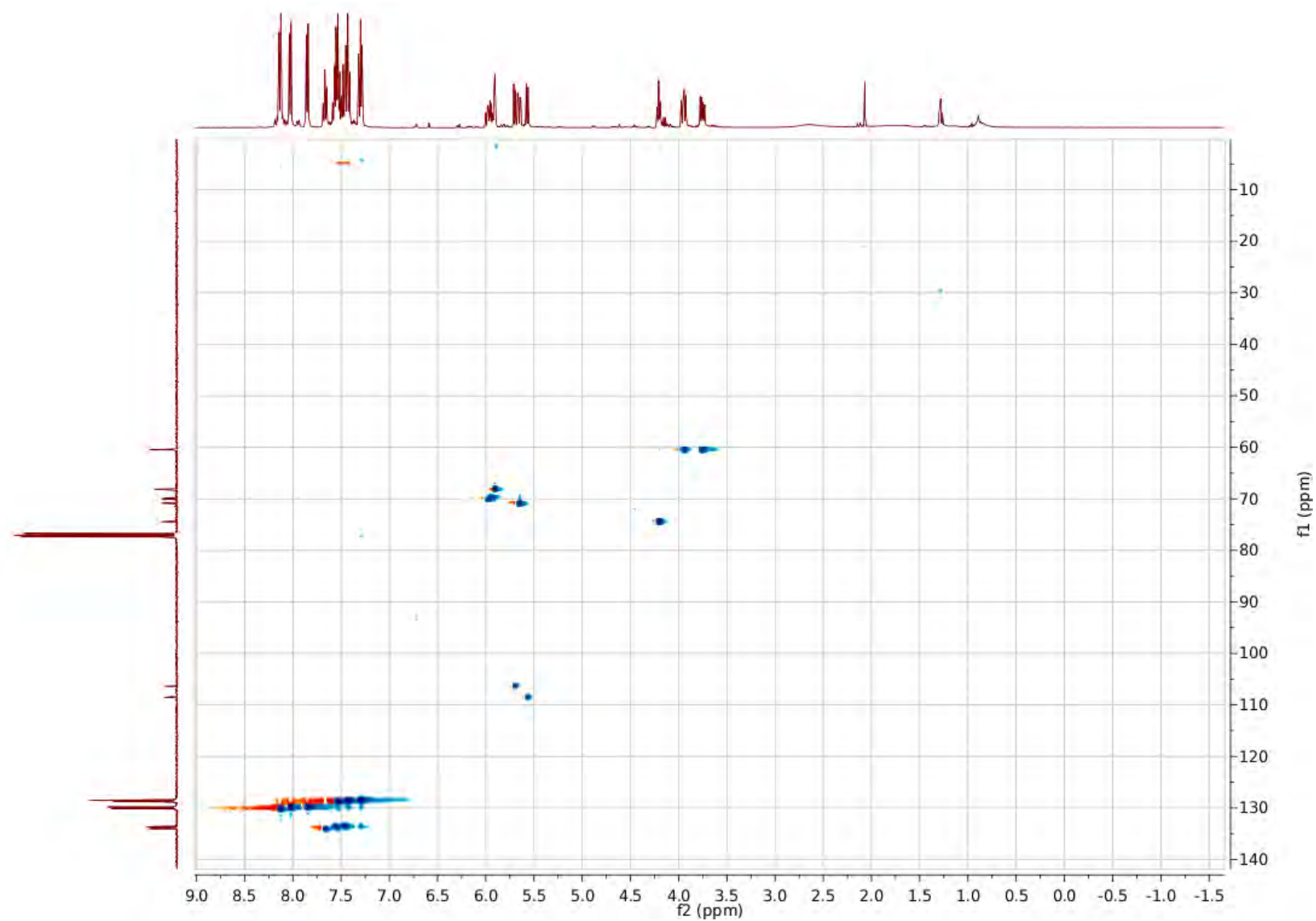
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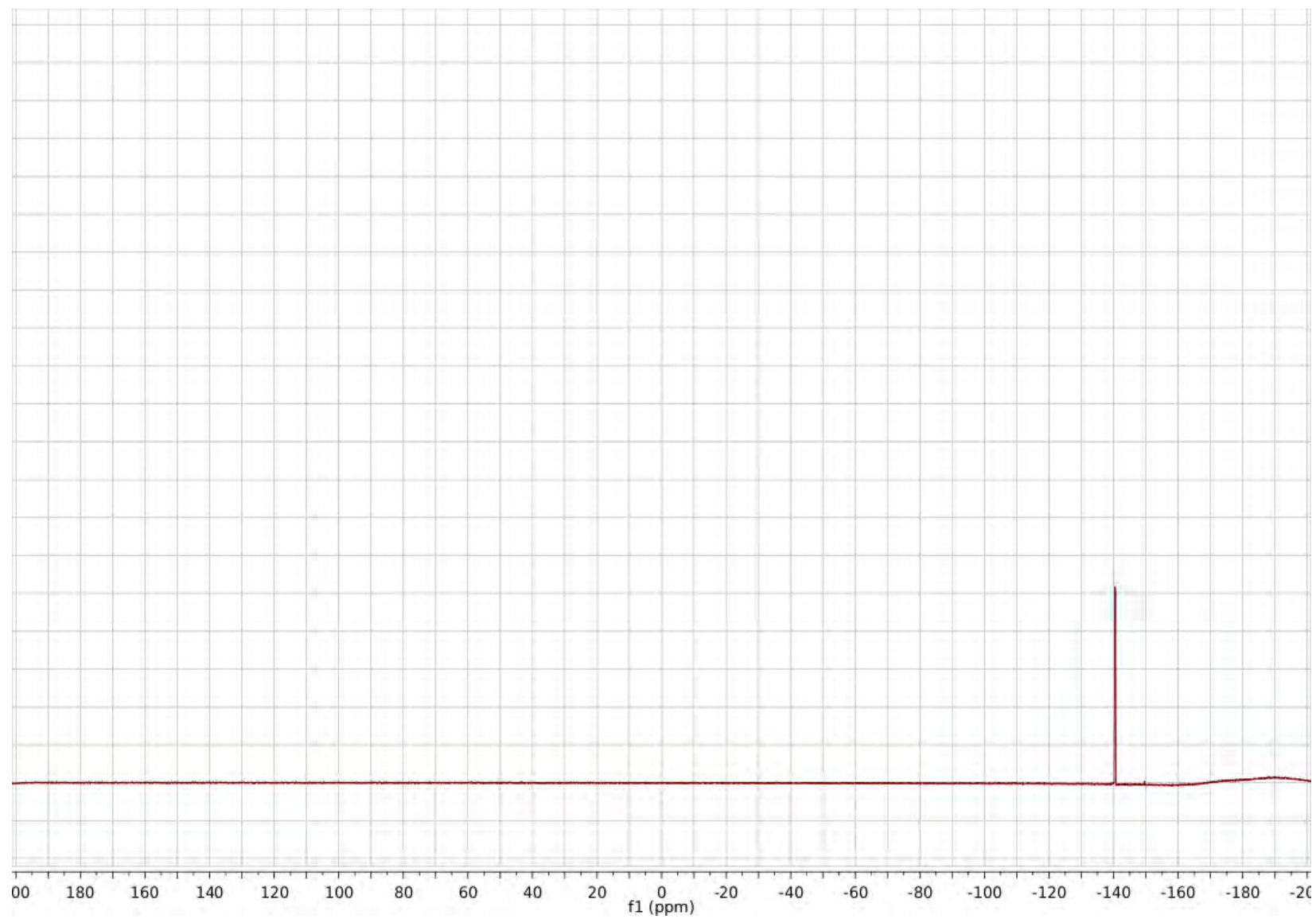
COSY



HSQC



^{19}F

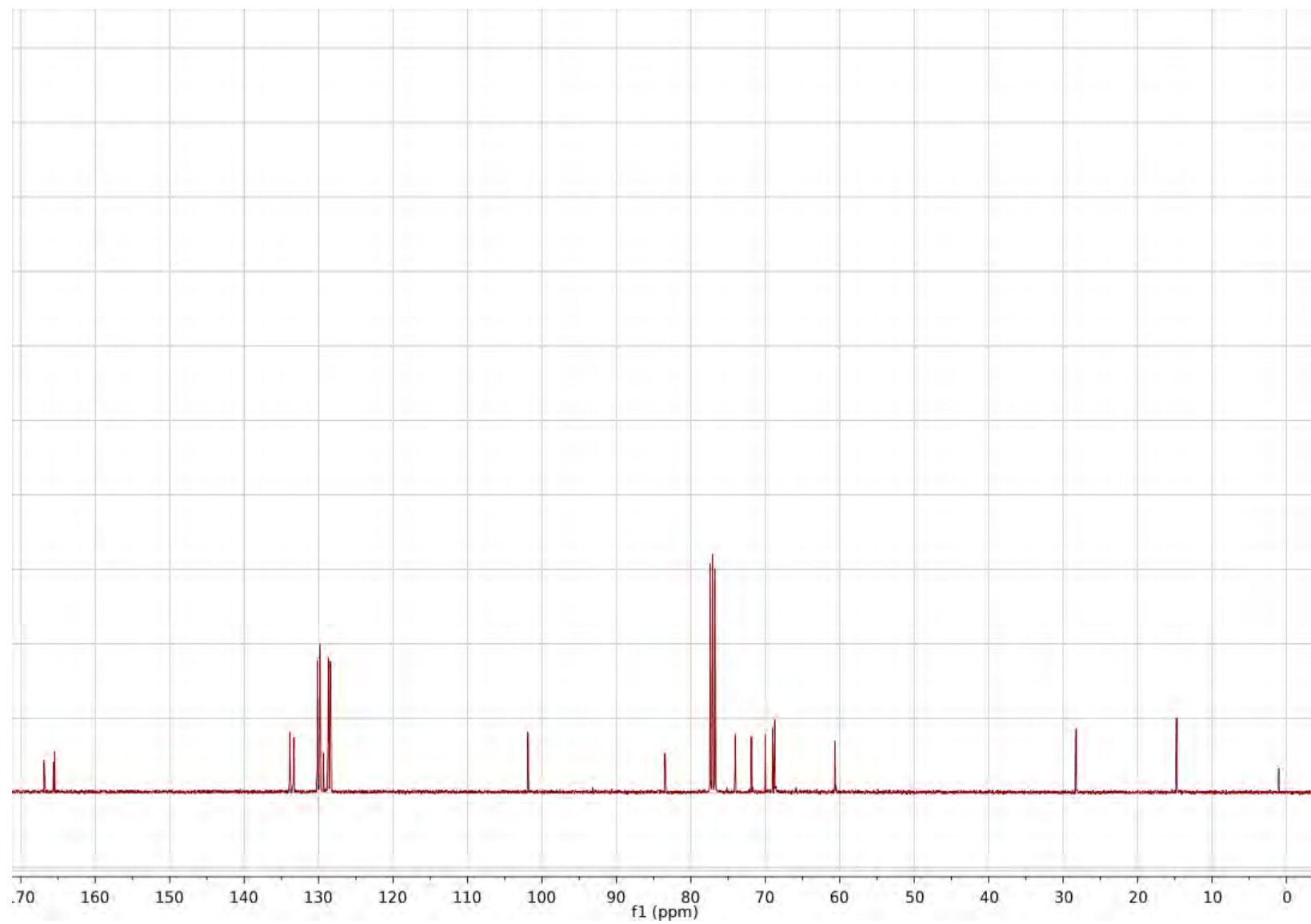


Compound 7

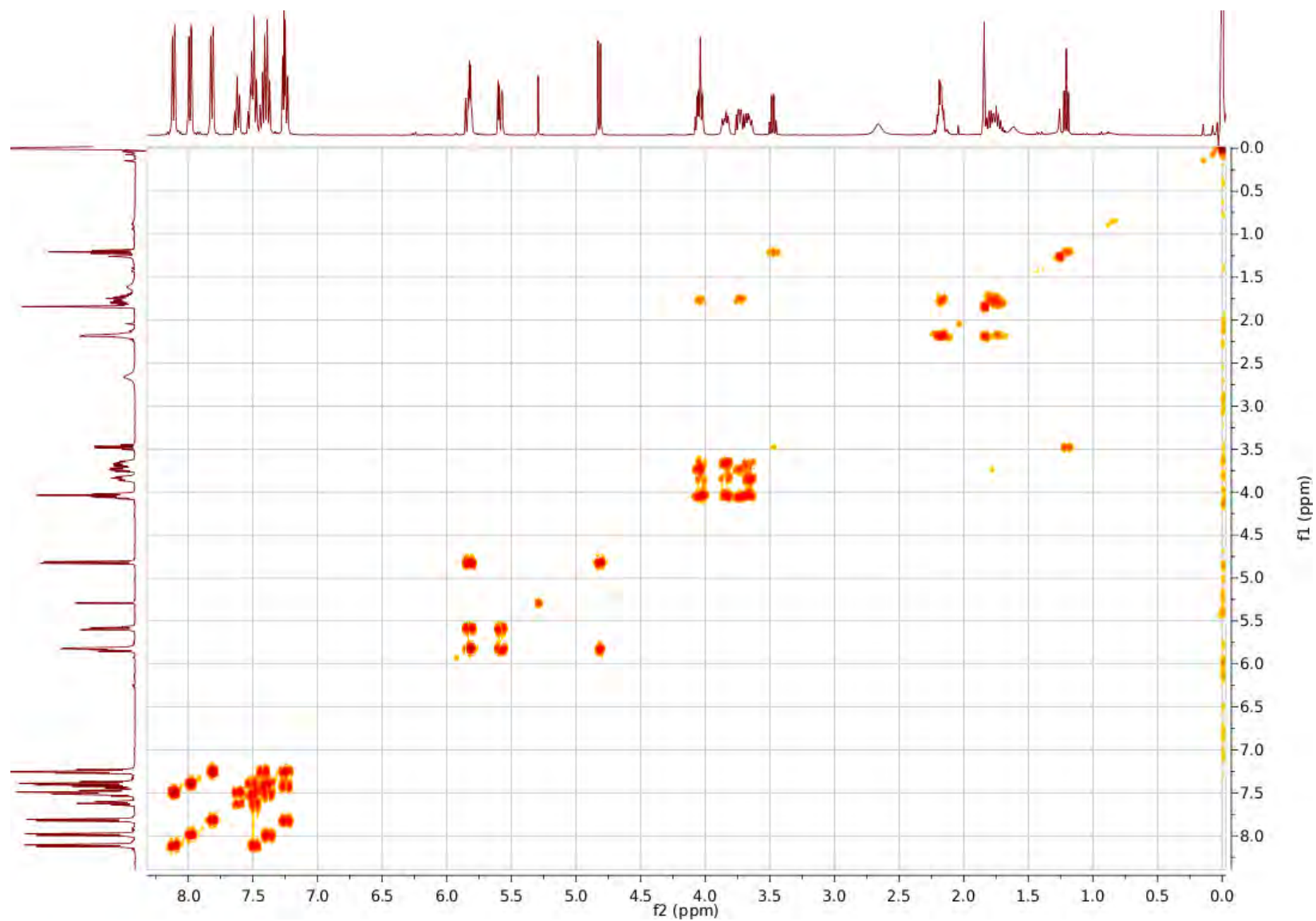
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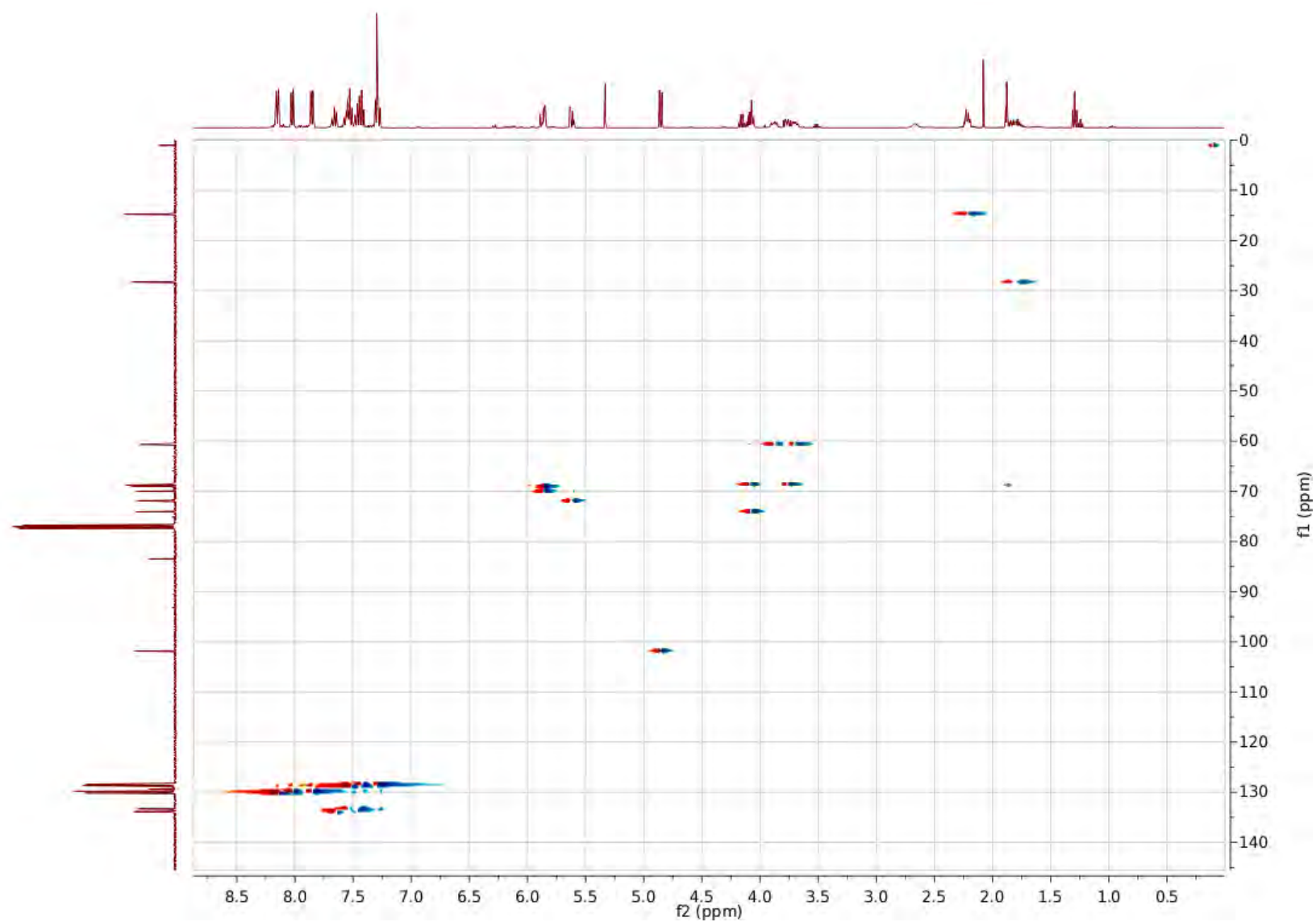
Carbon



COSY

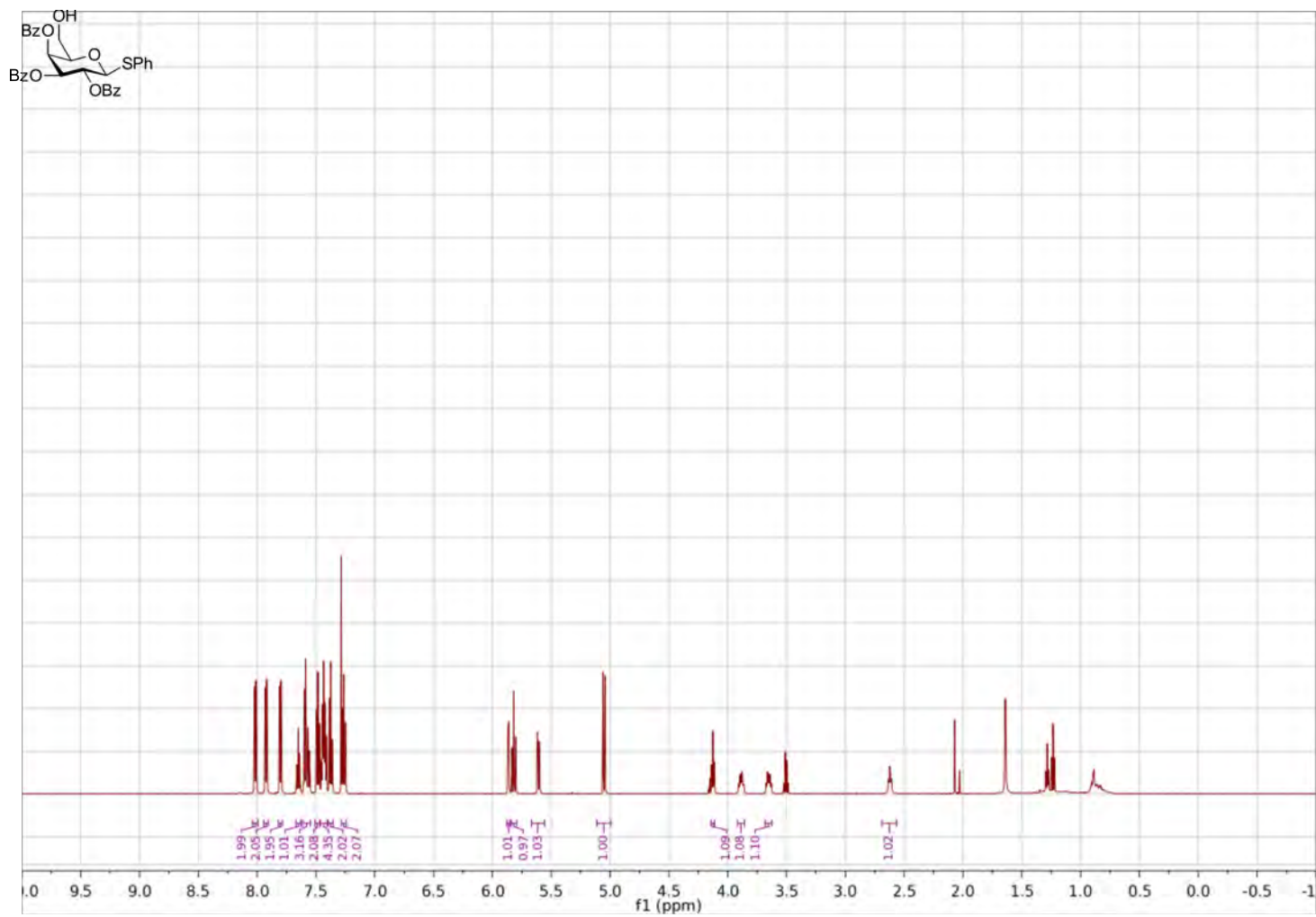


HSQC

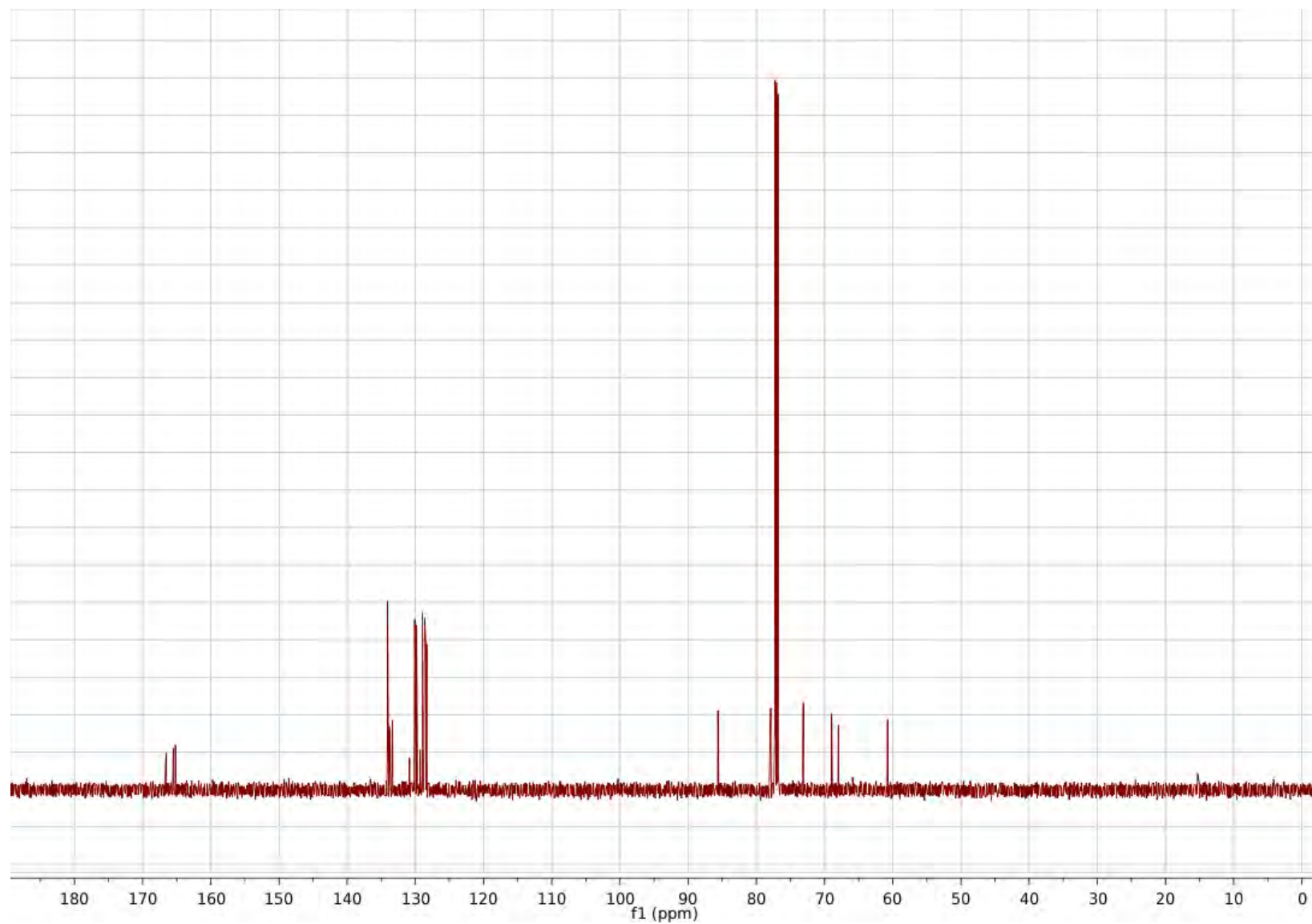


Compound 8

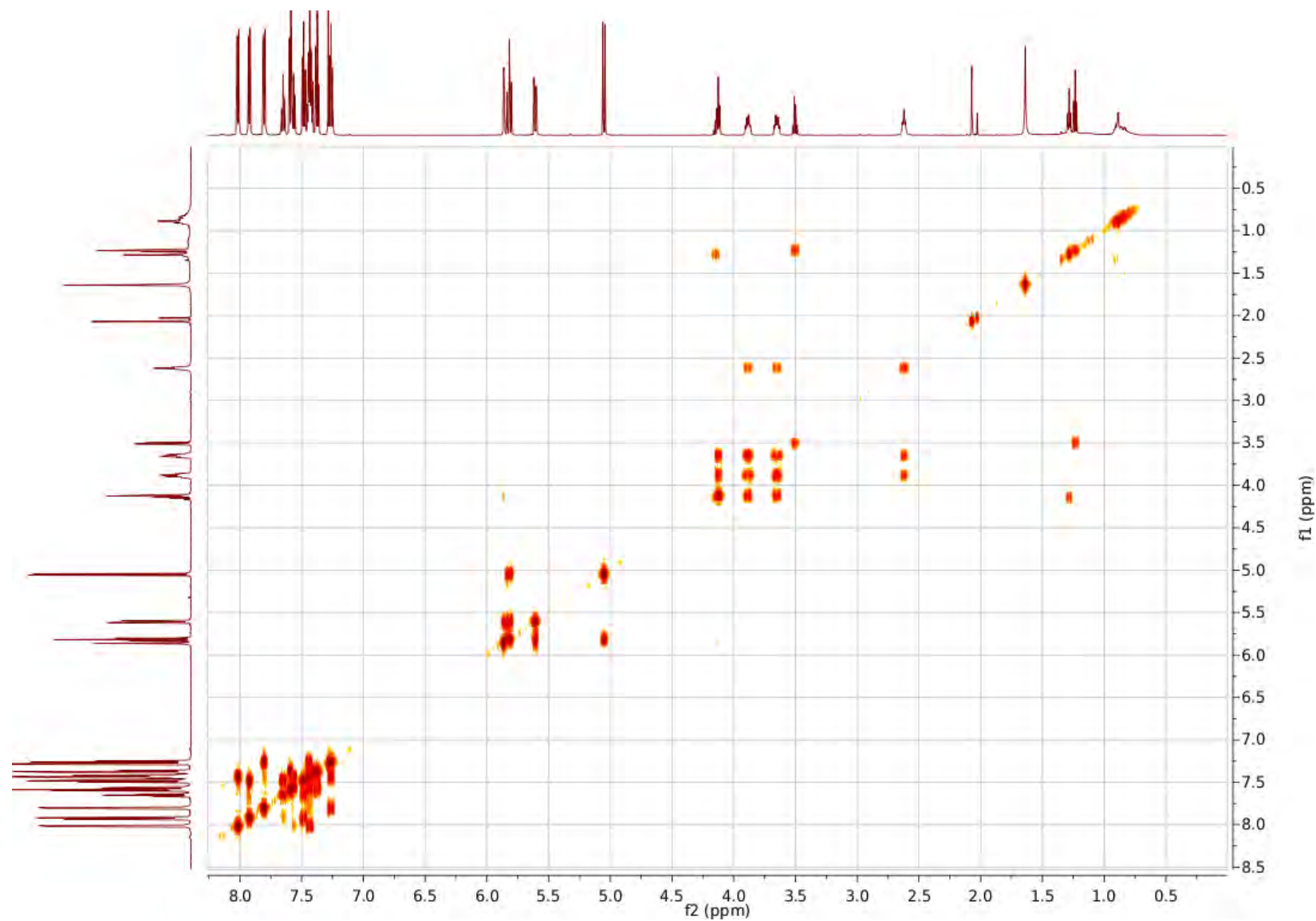
Proton



Carbon

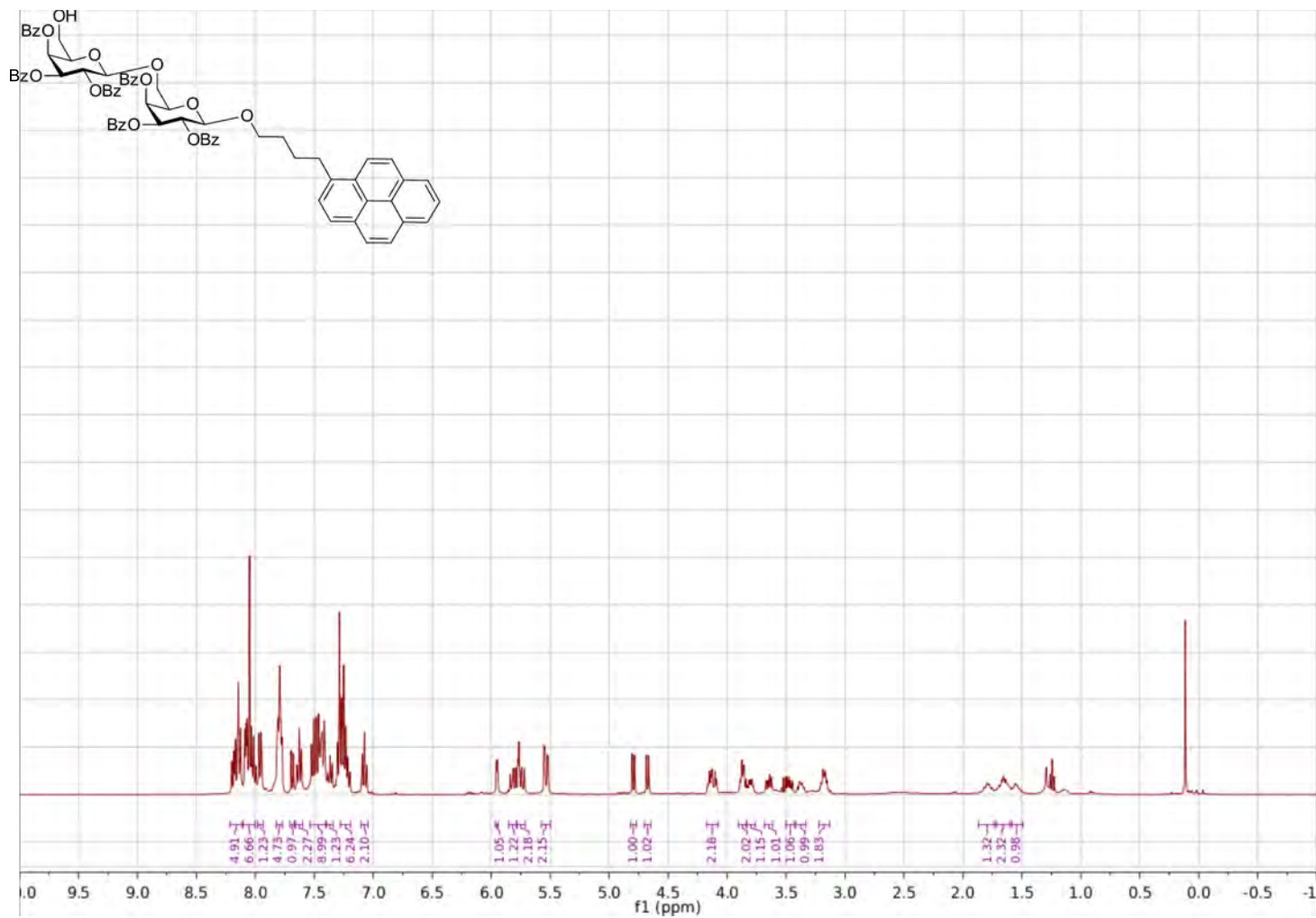


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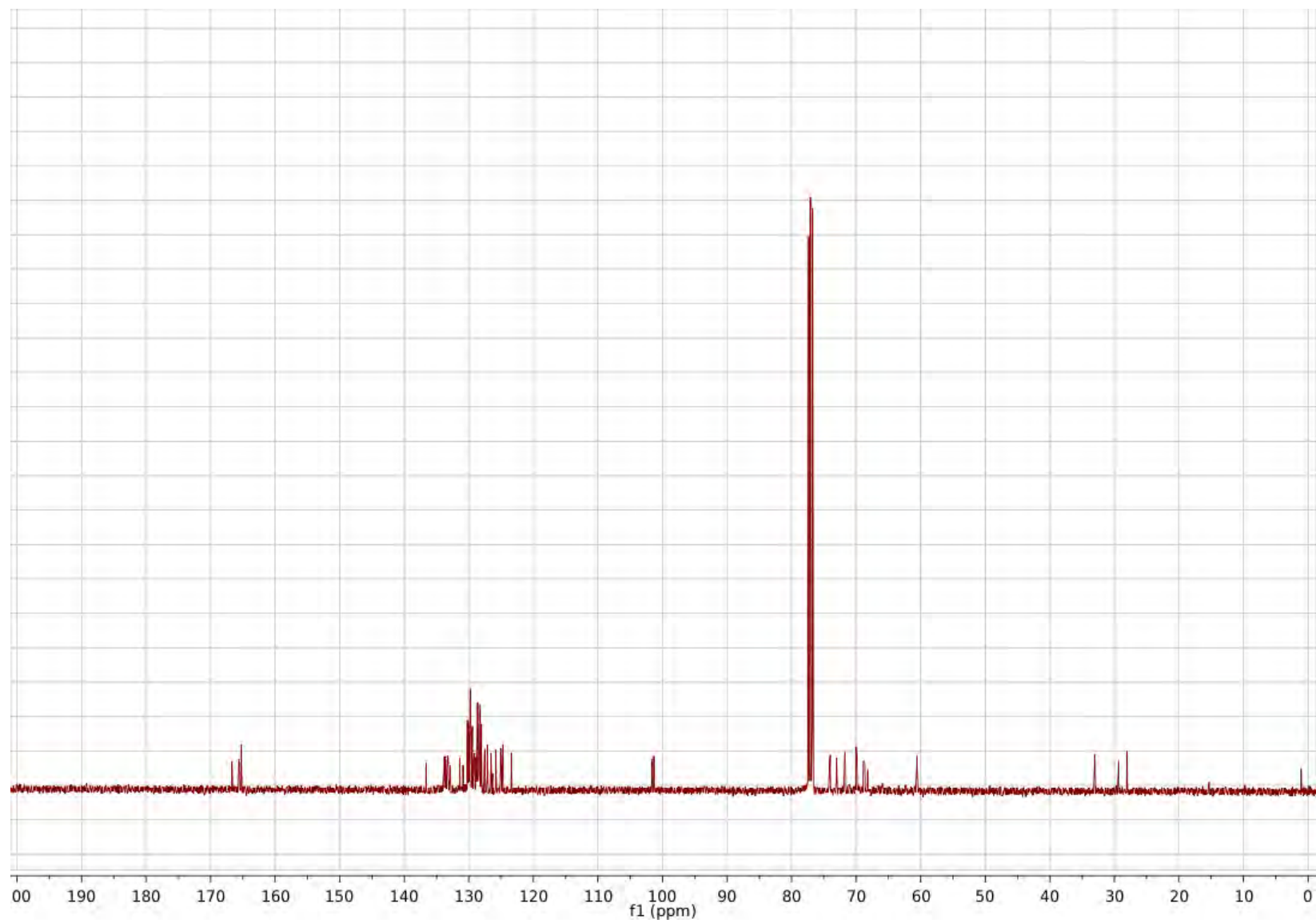


Compound 12

Proton

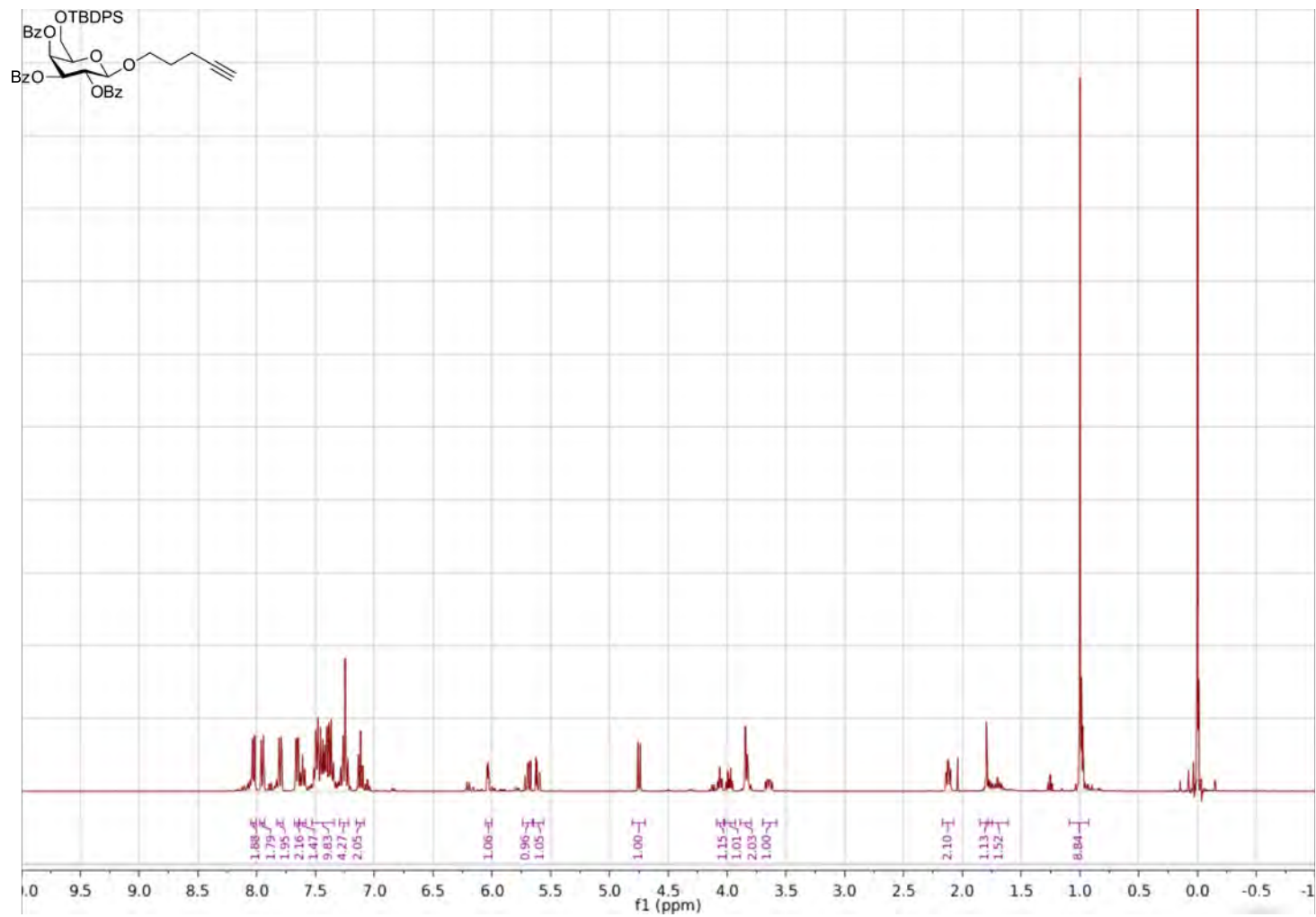


Carbon

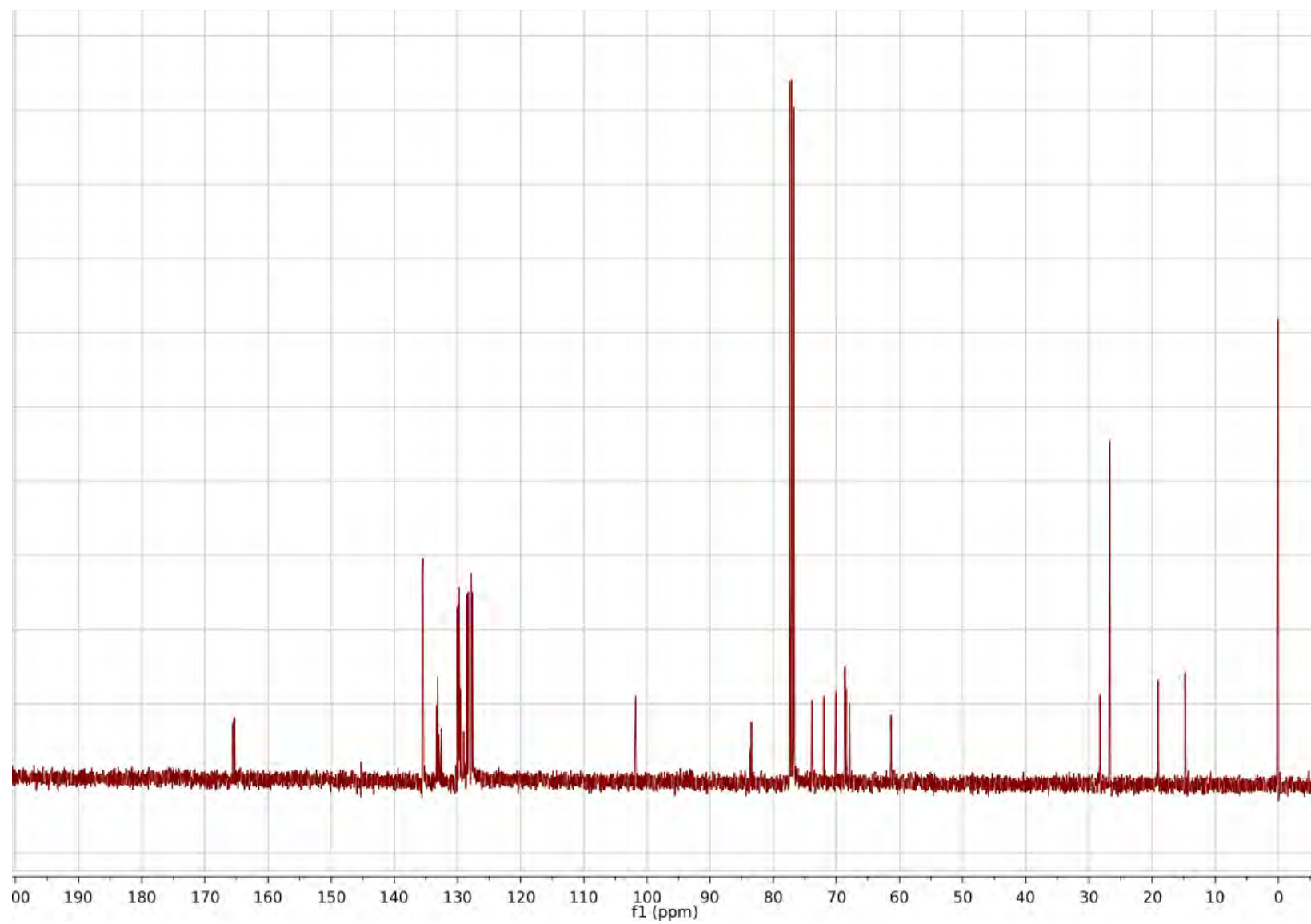


Compound 21

Proton

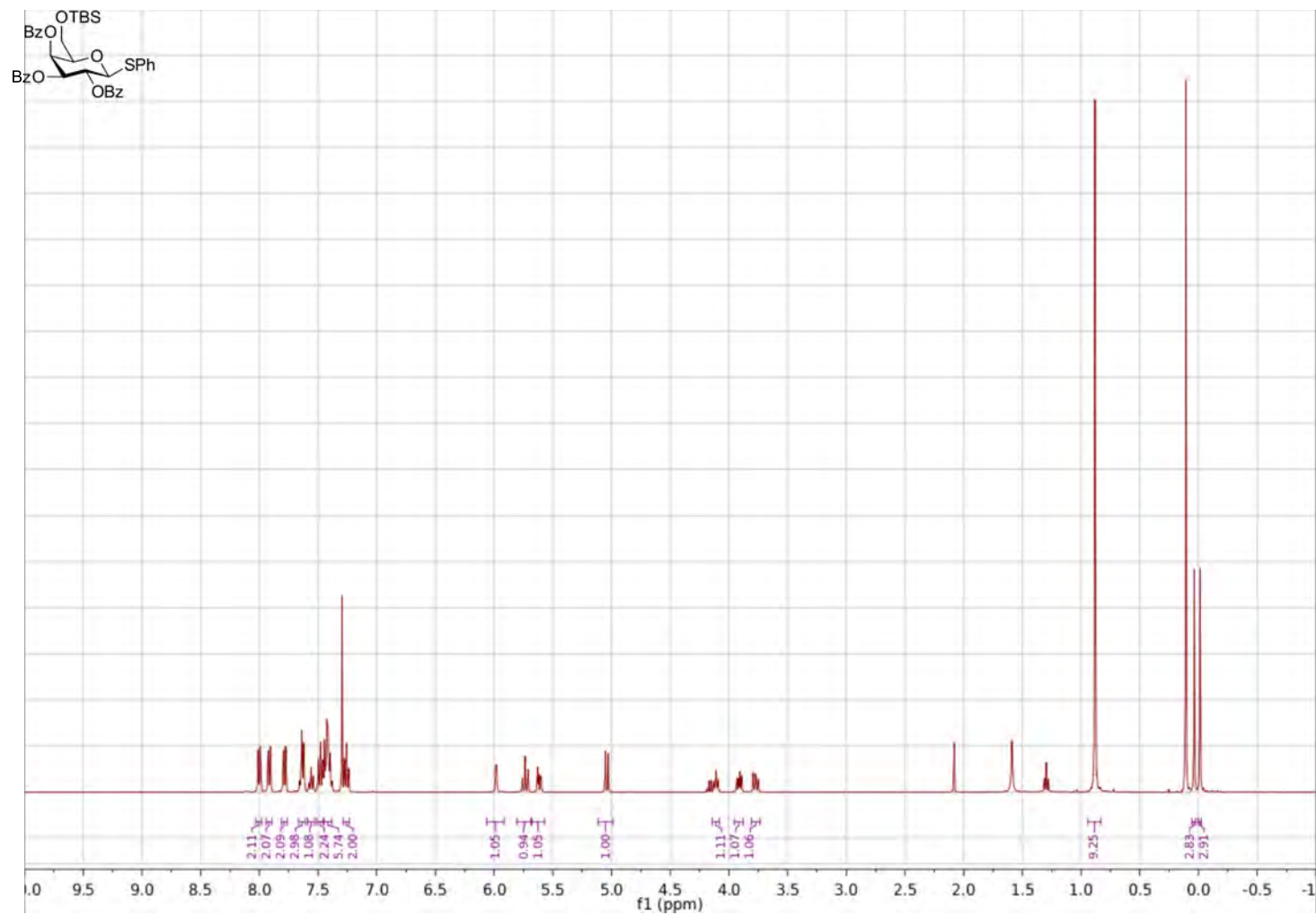


Carbon



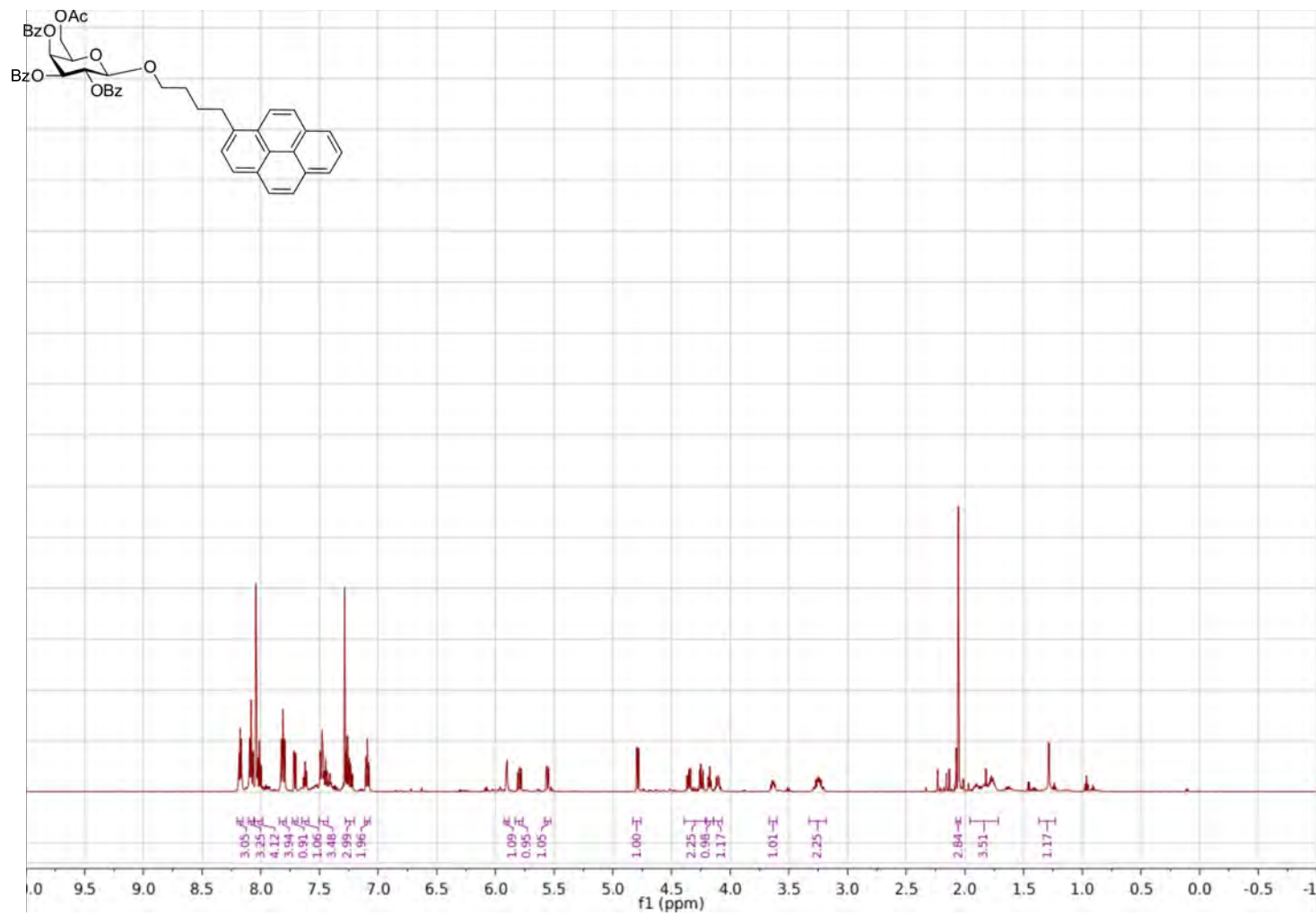
Compound 23

Proton

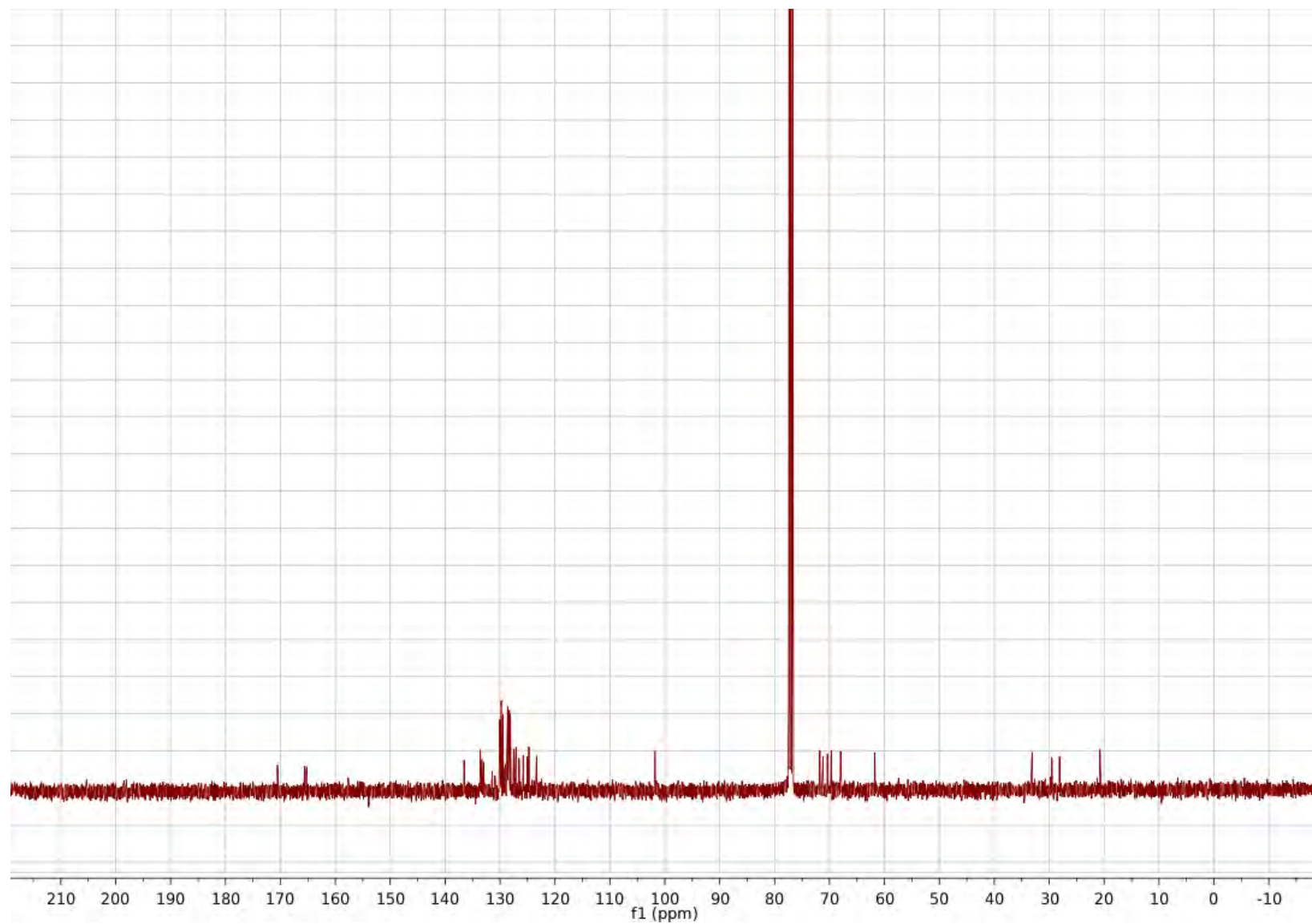


Compound 4_{1a}

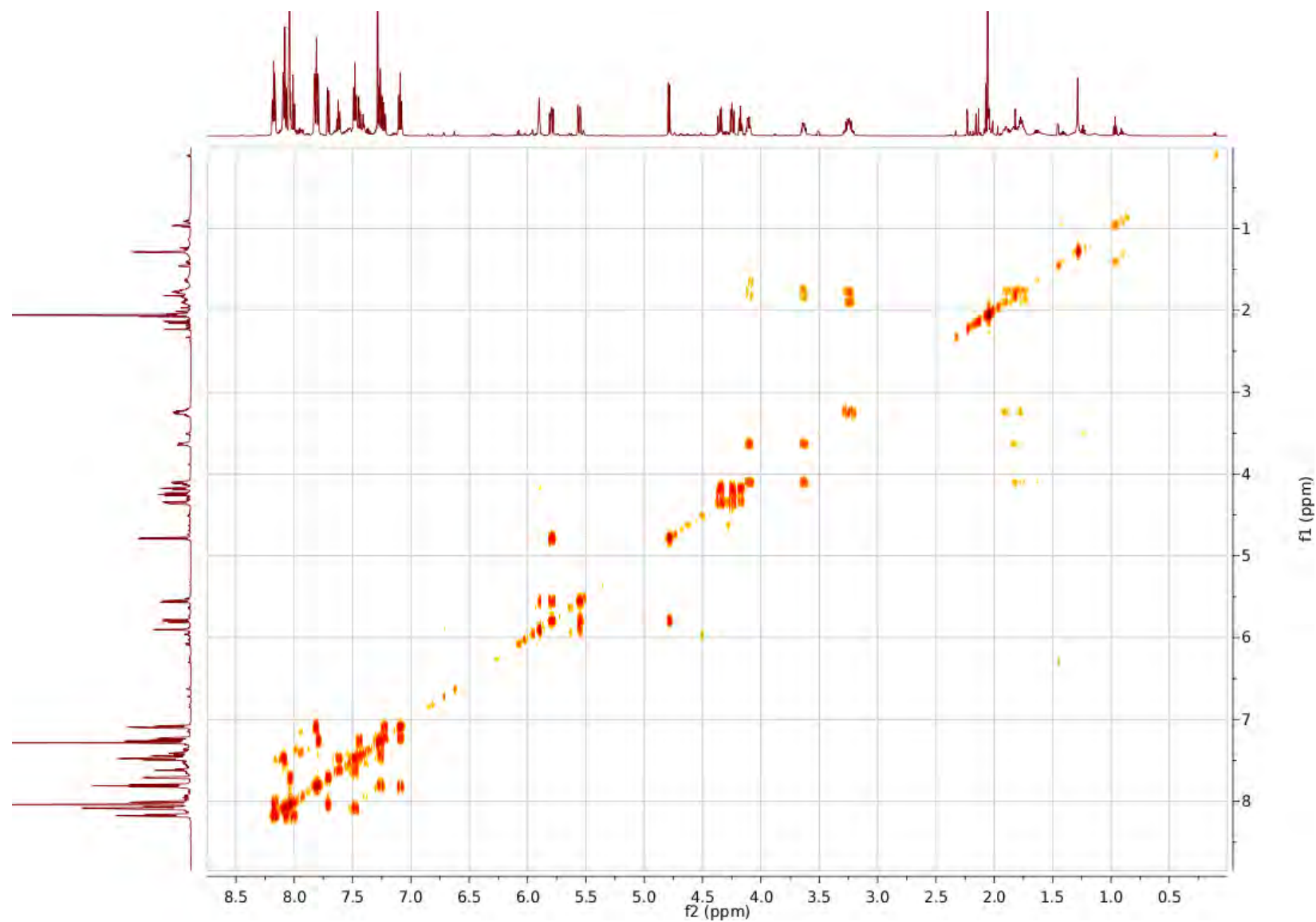
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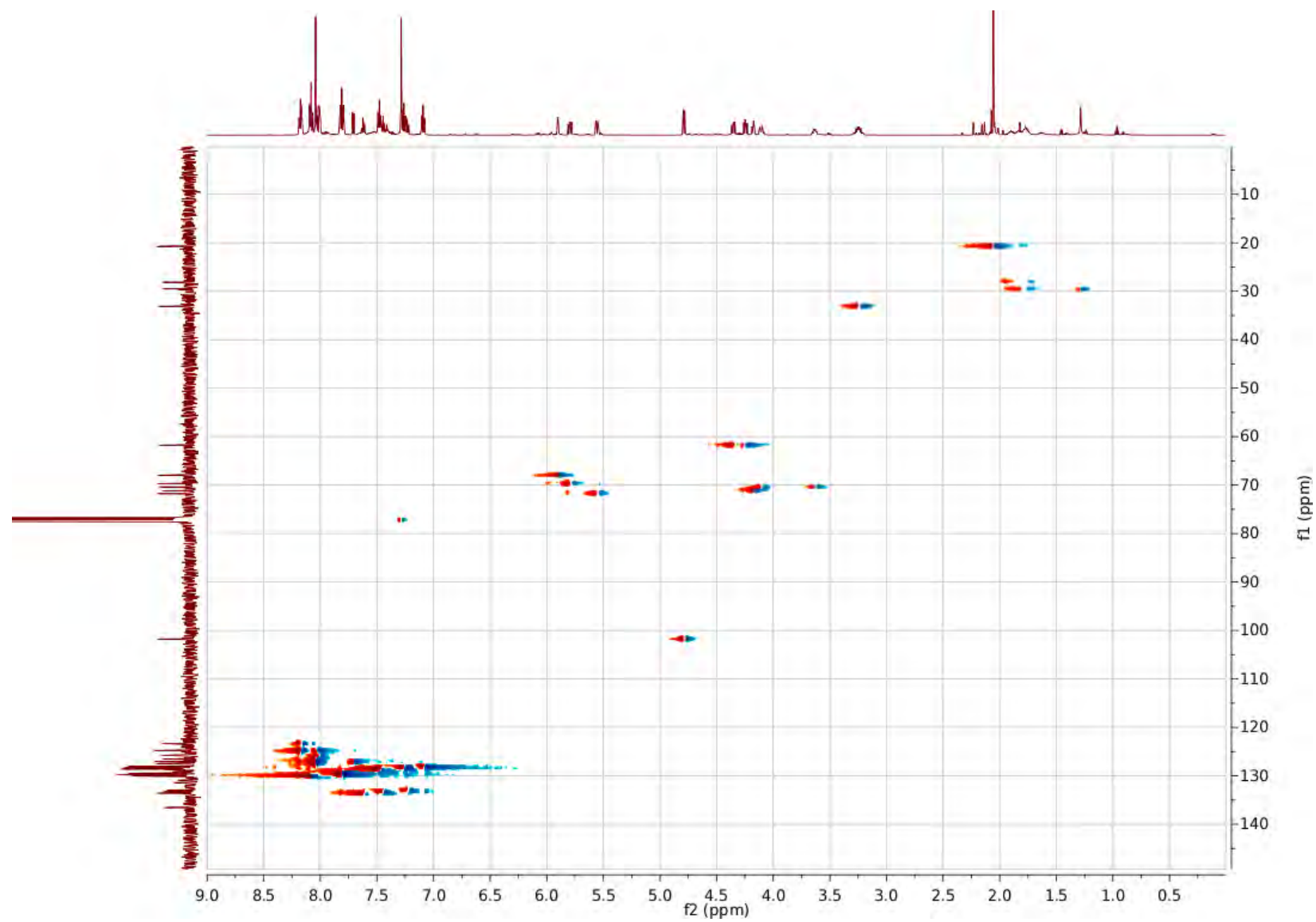
Carbon



COSY

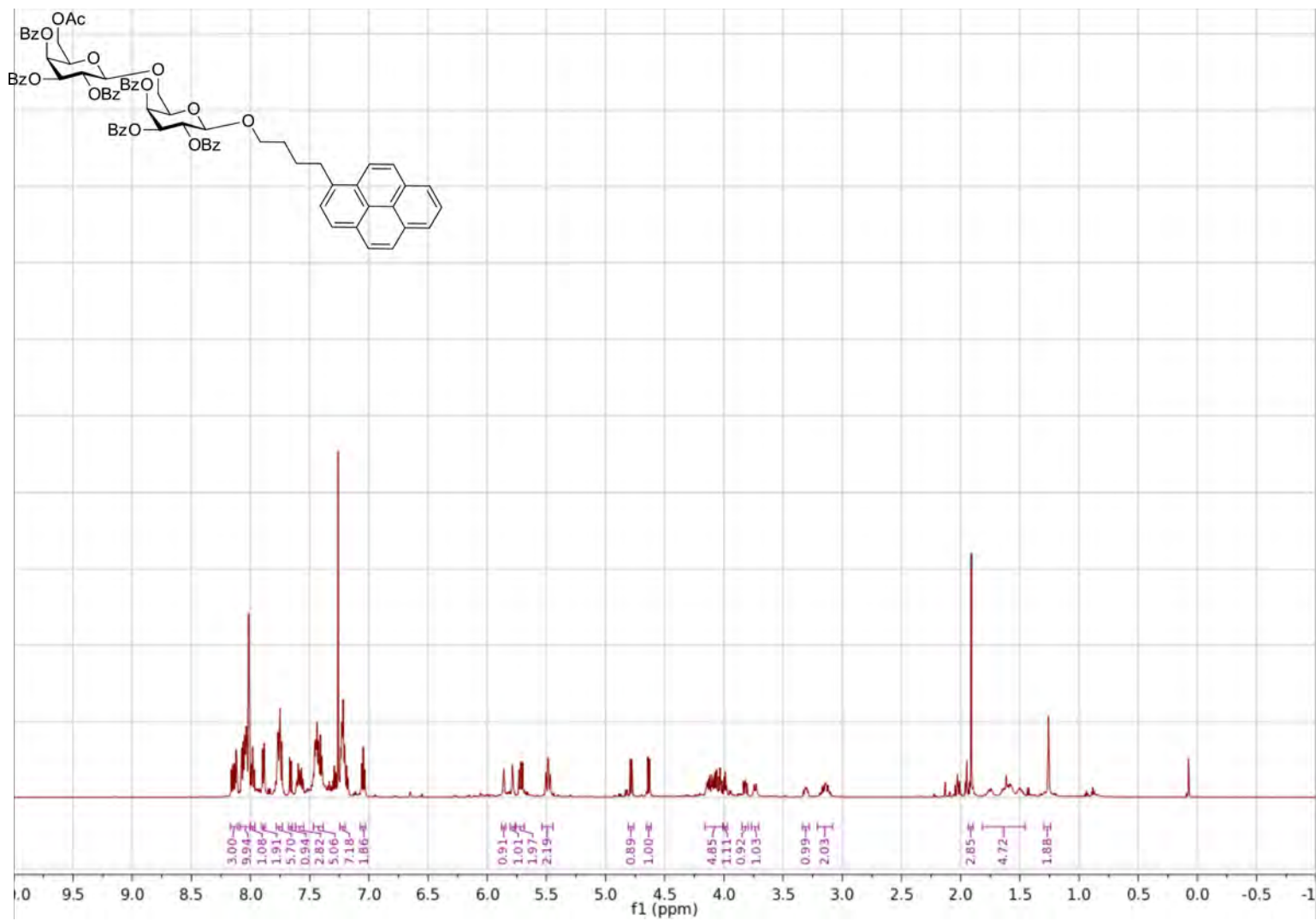


HSQC

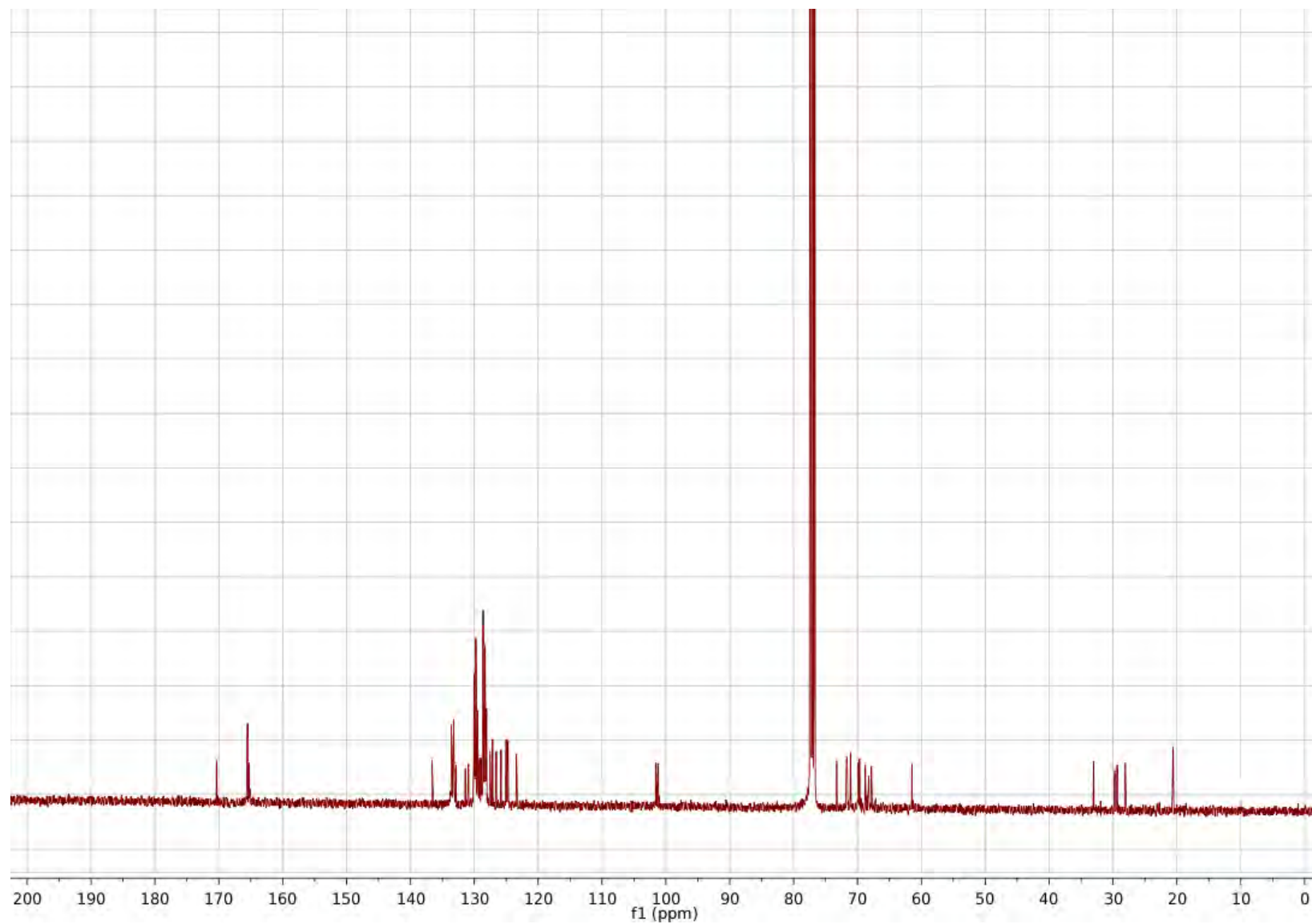


Compound **4_{2a}**

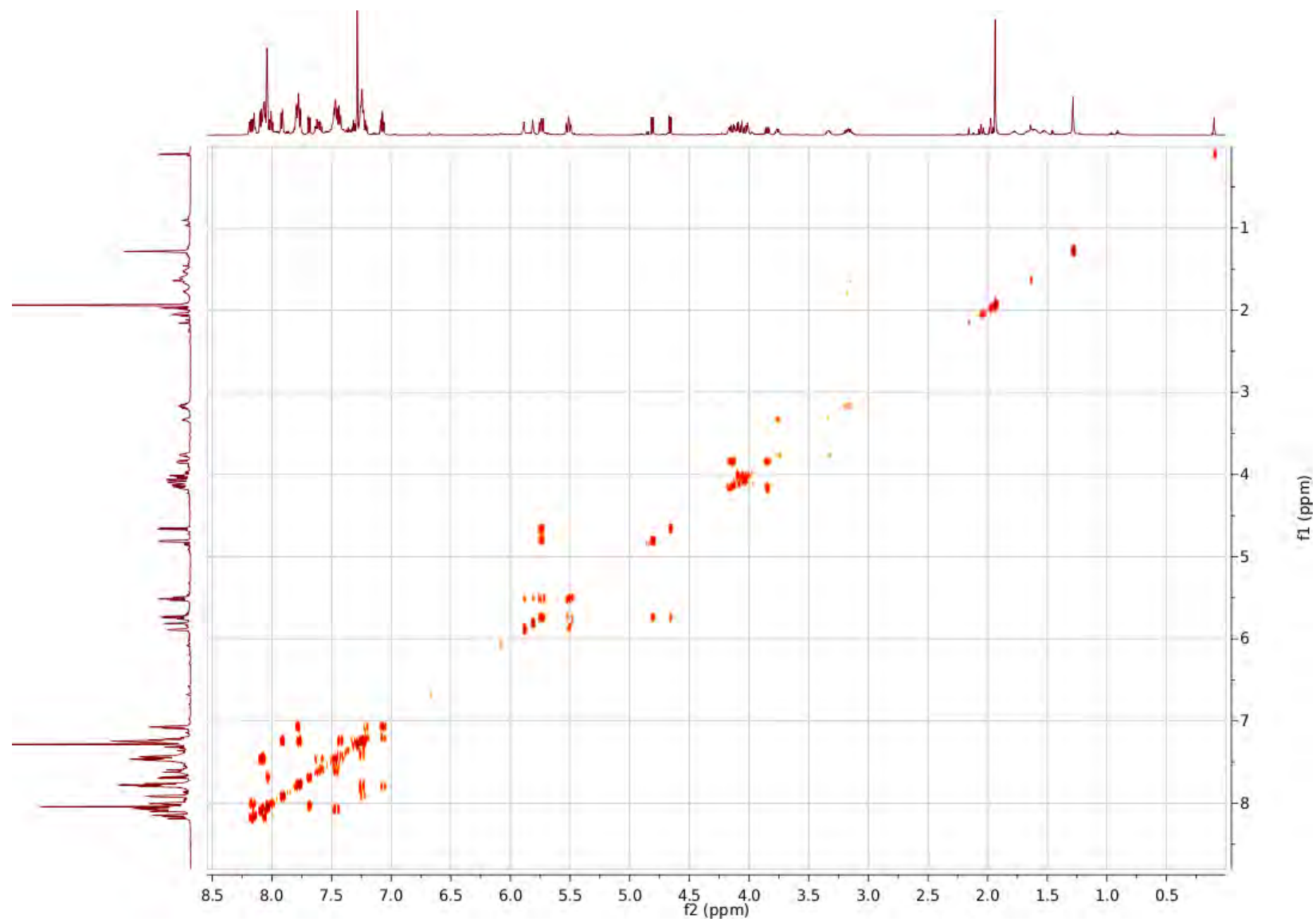
Proton



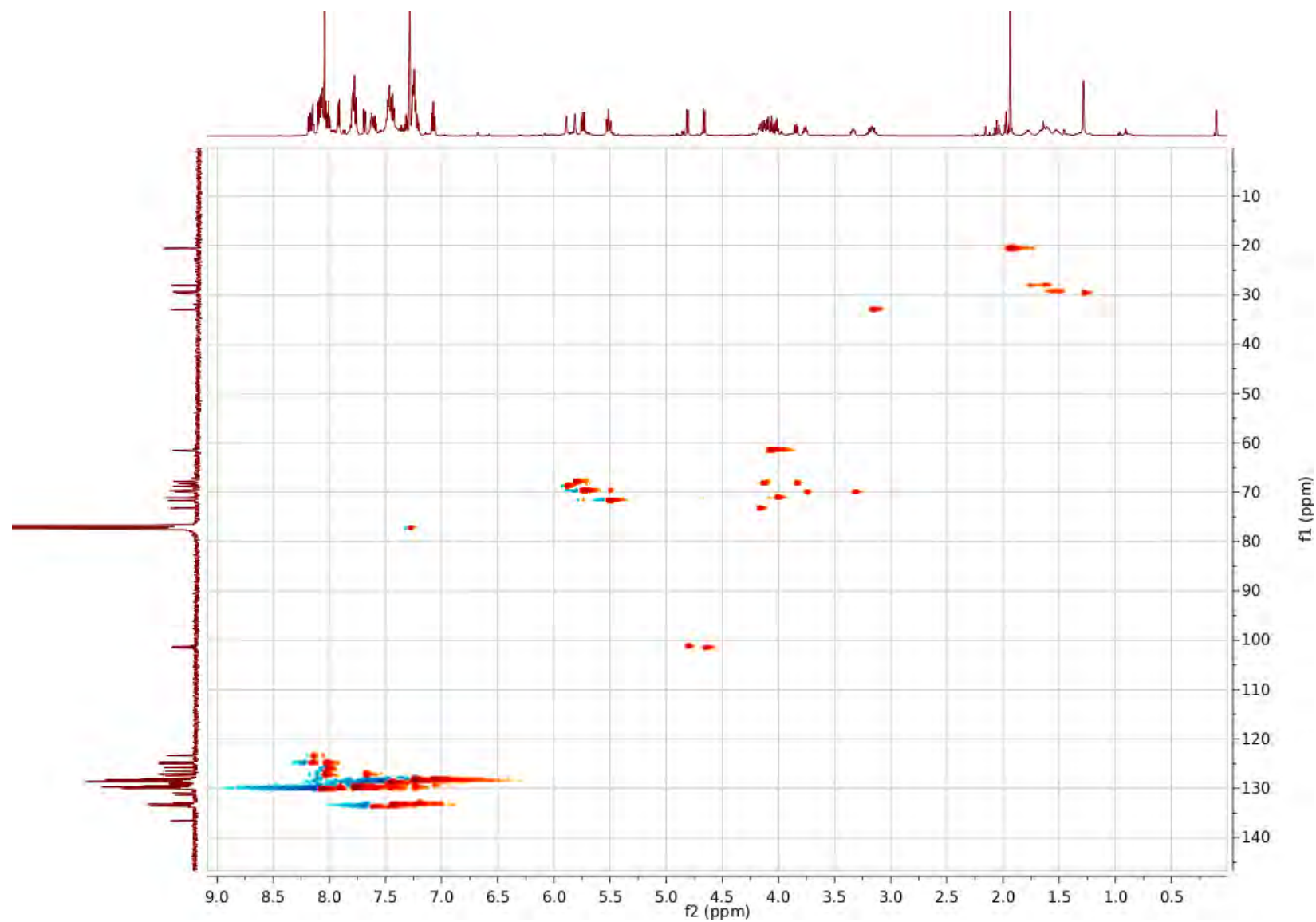
Carbon



COSY

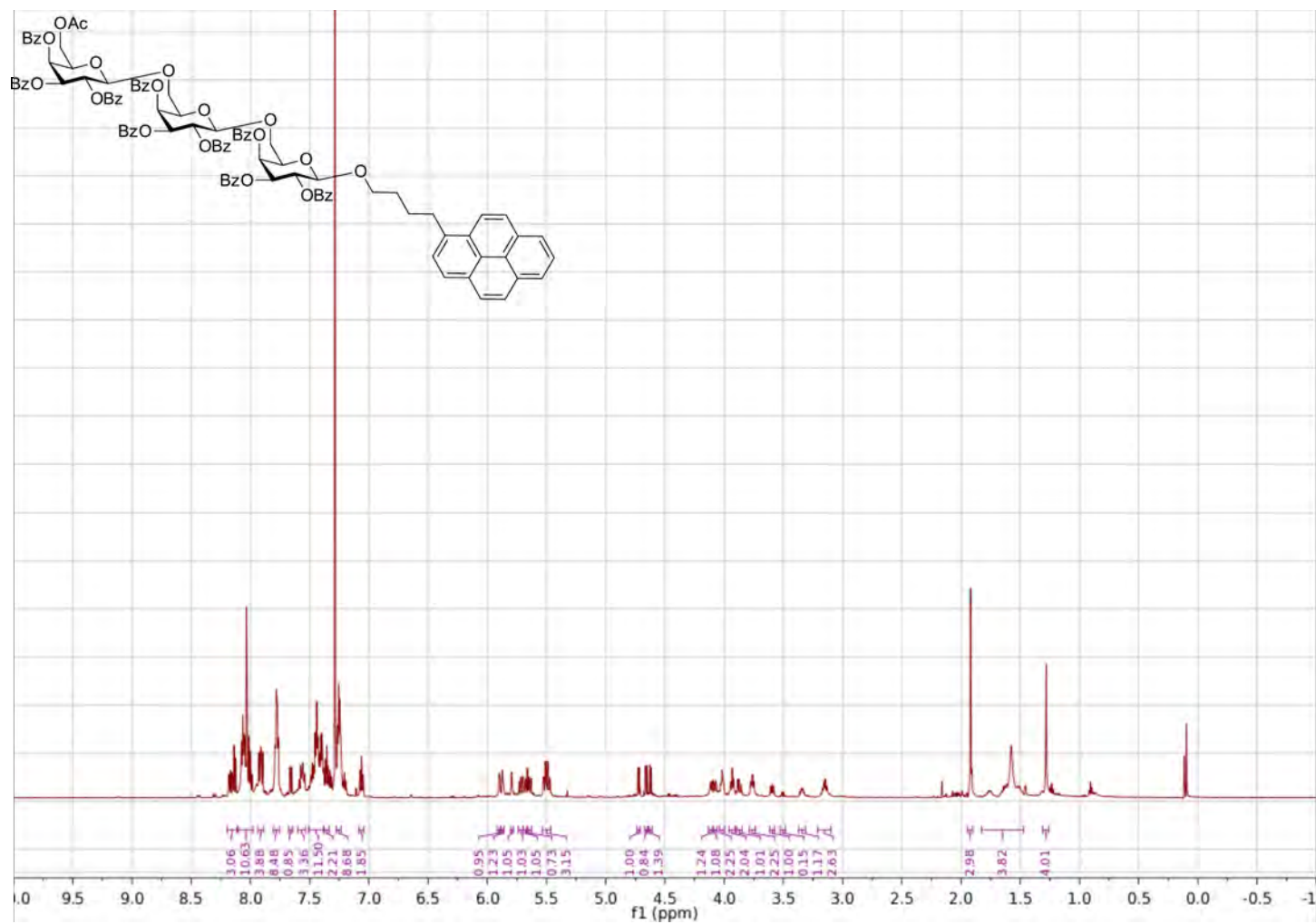


HSQC

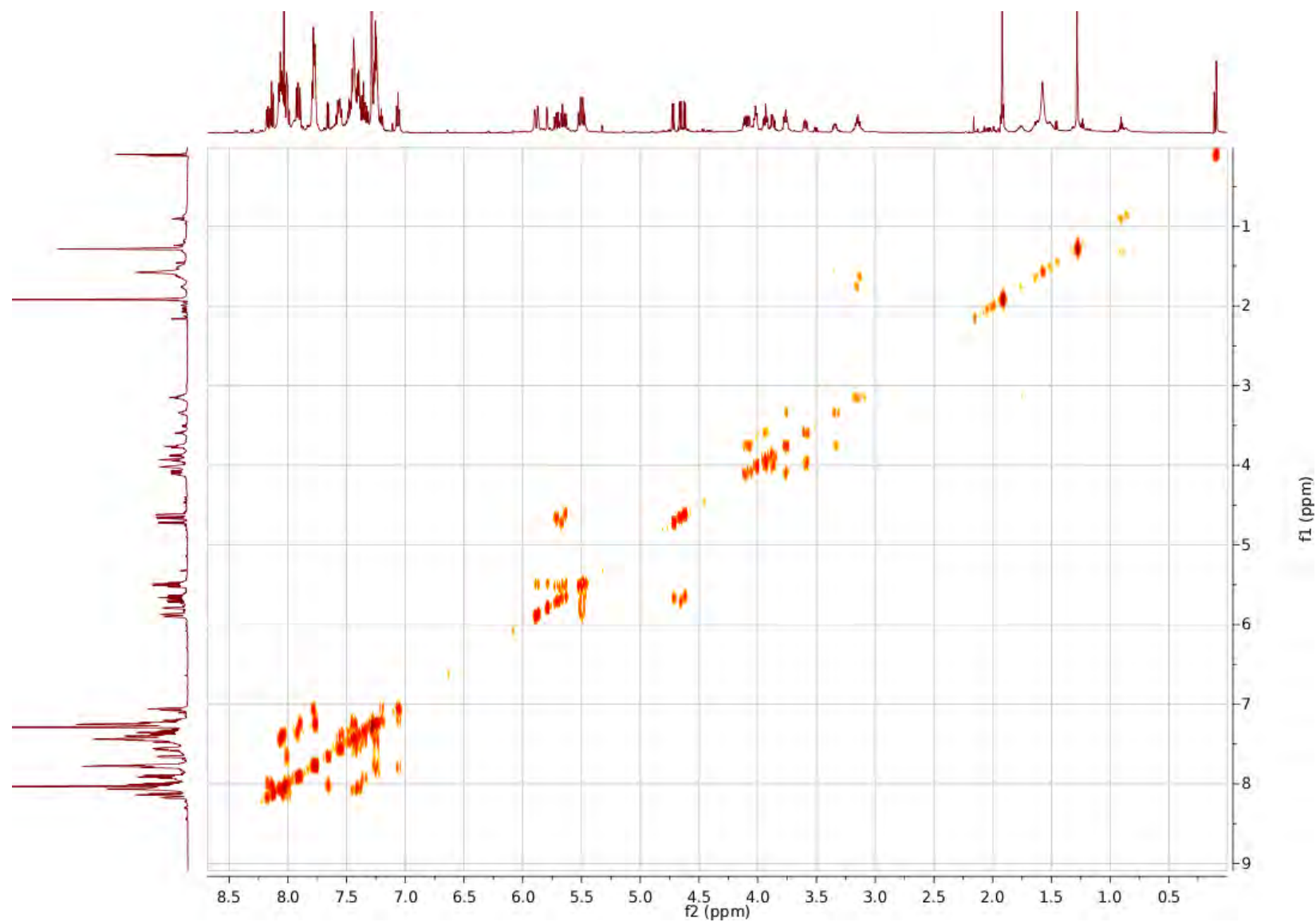


Compound **4_{3a}**

Proton

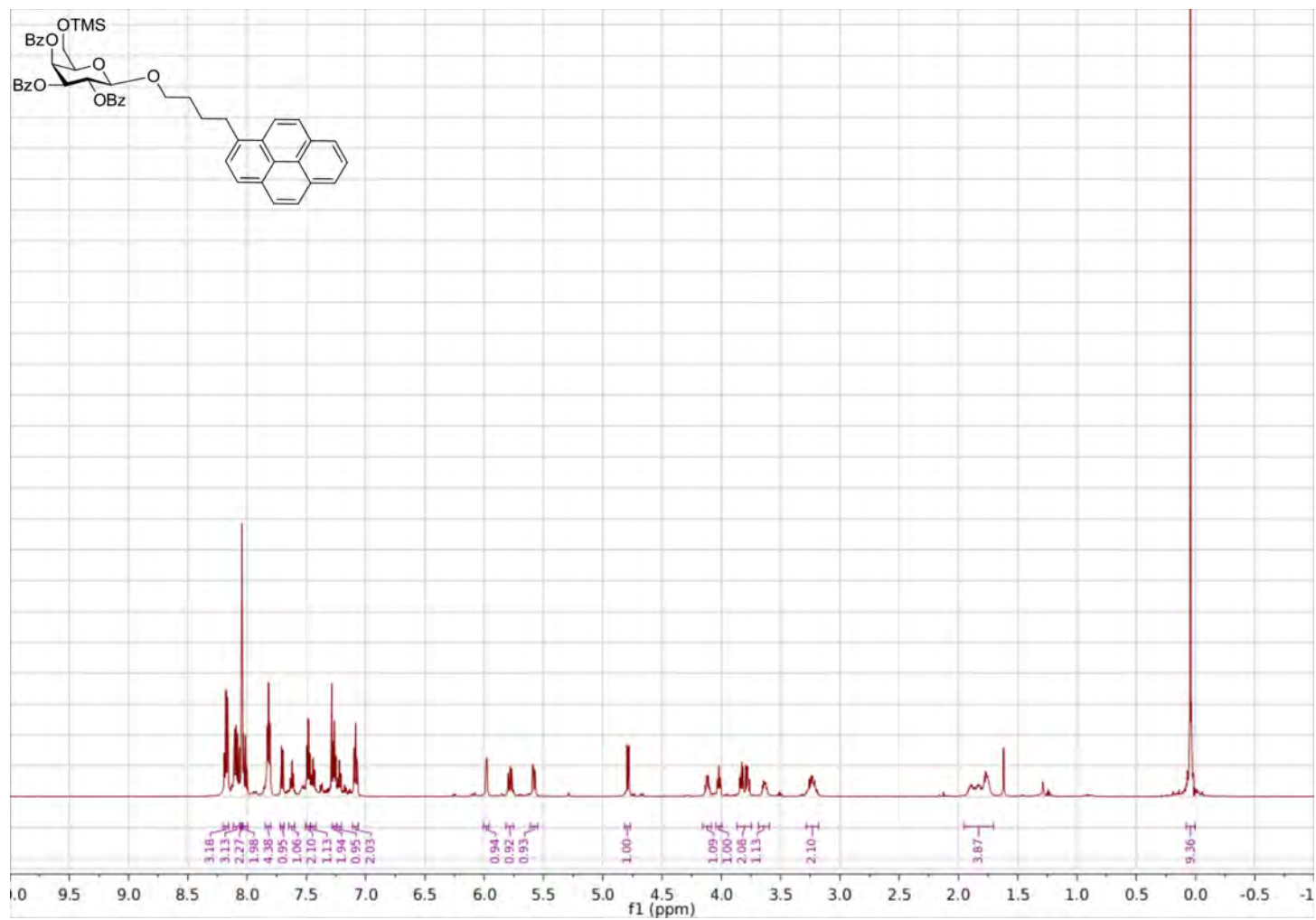


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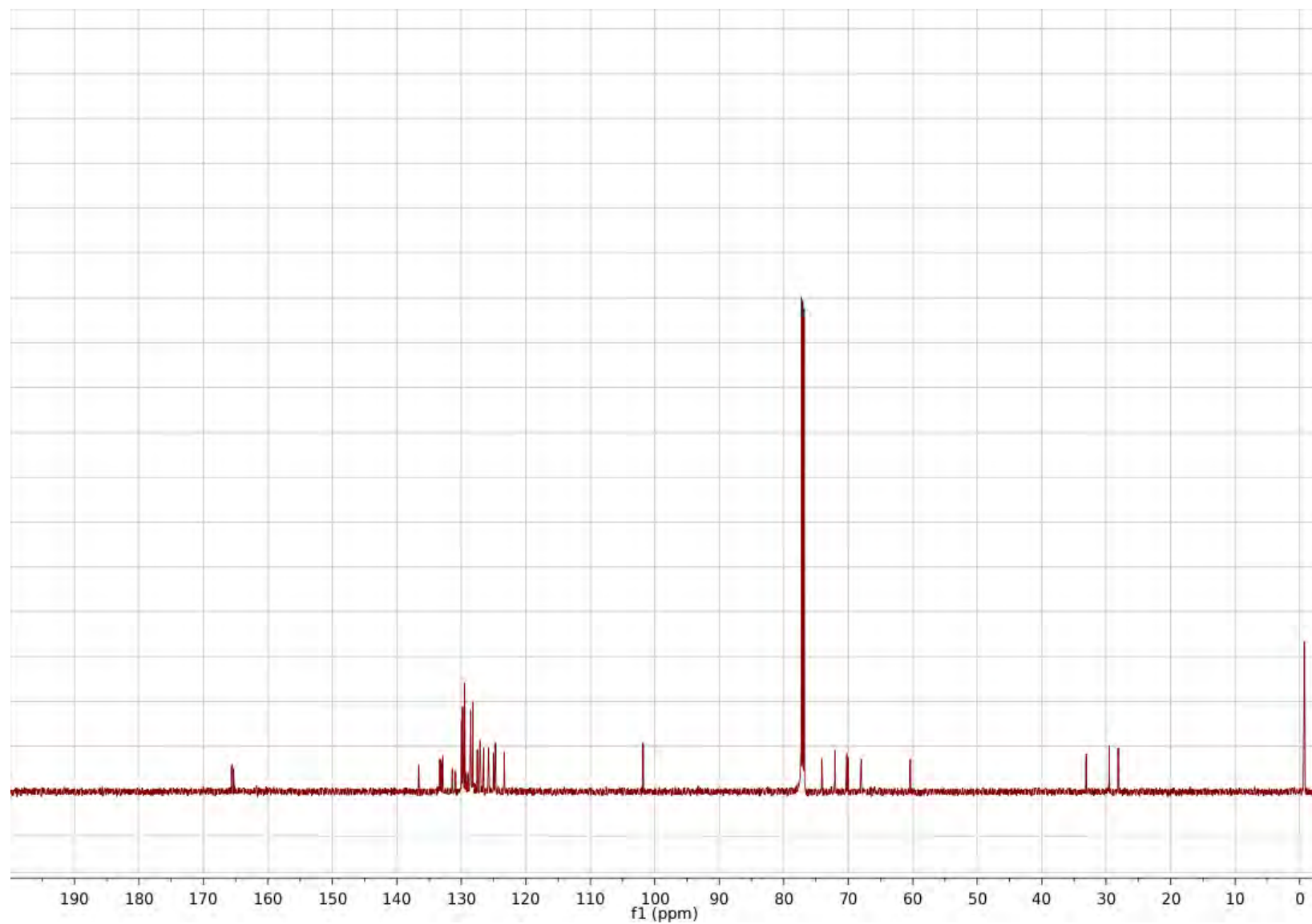


Compound **4_{1b}**

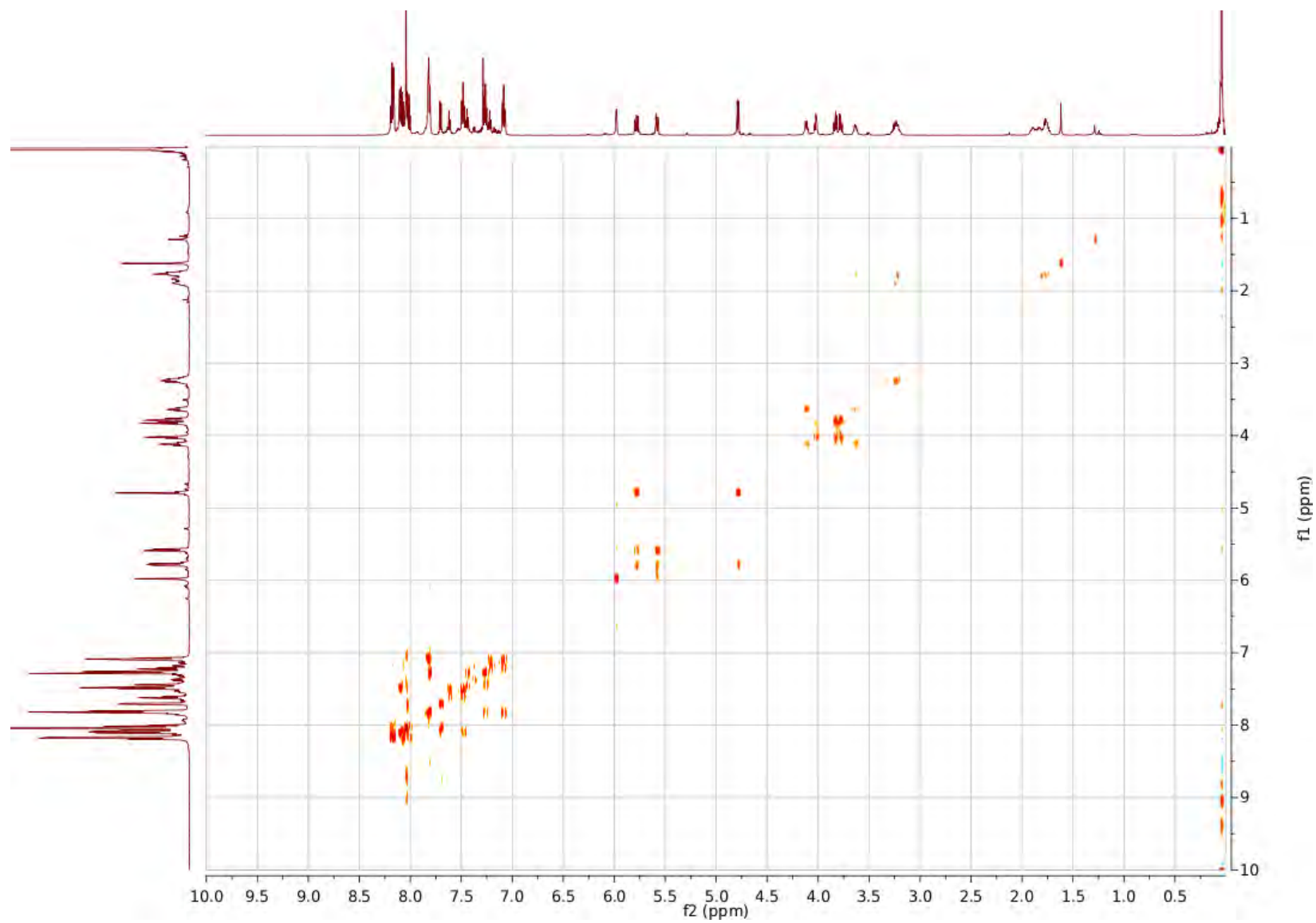
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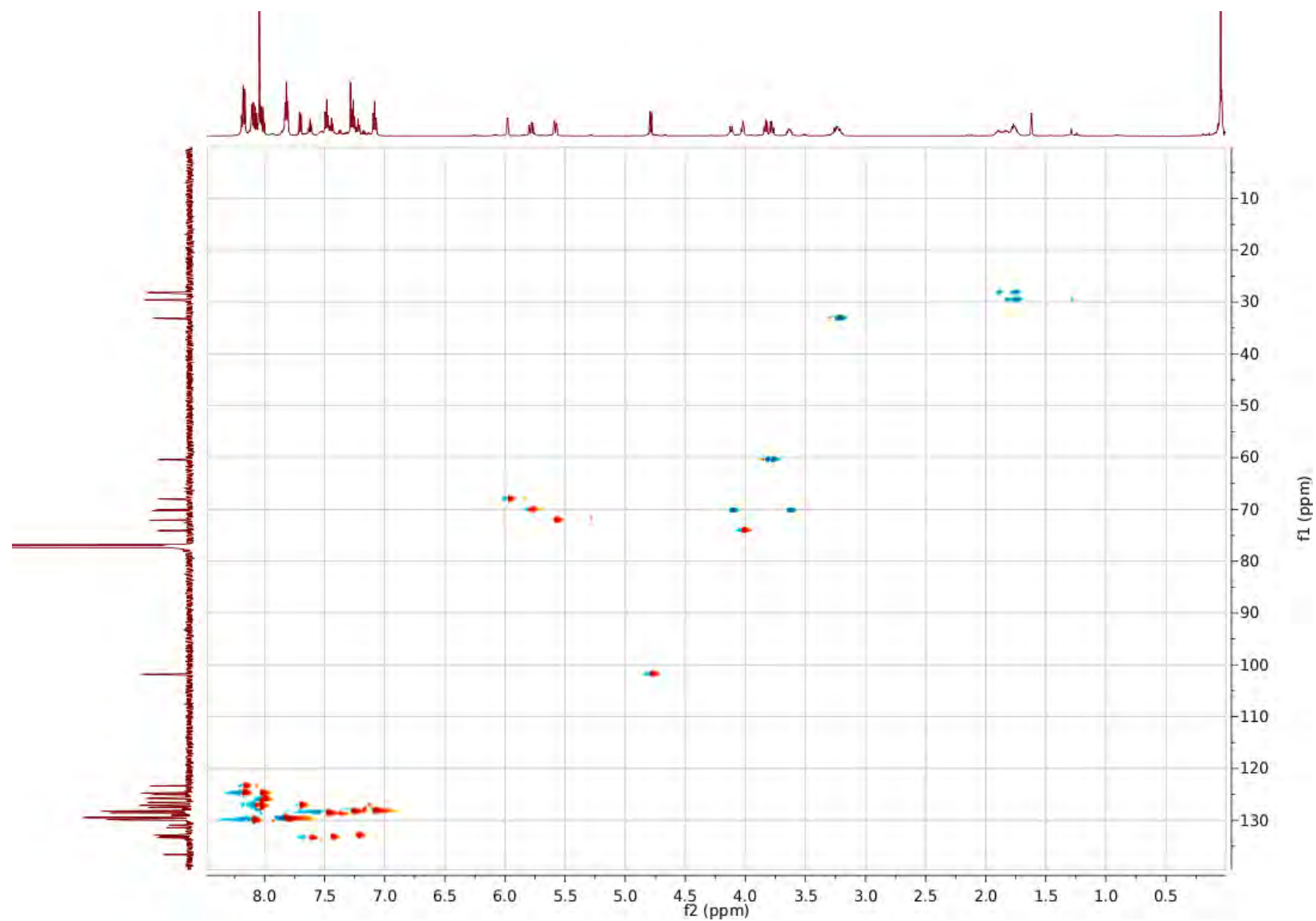
Carbon



COSY

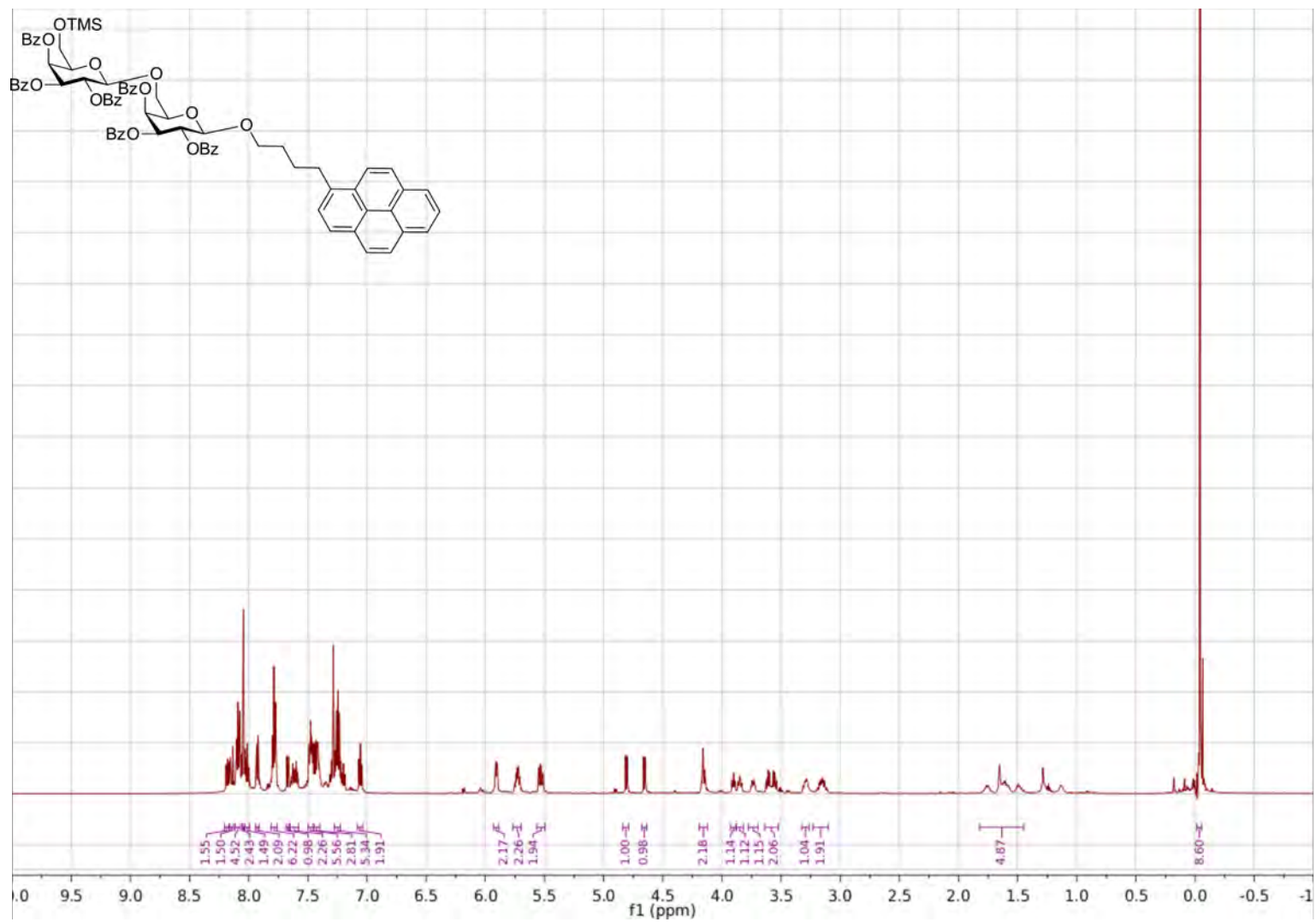


HSQC

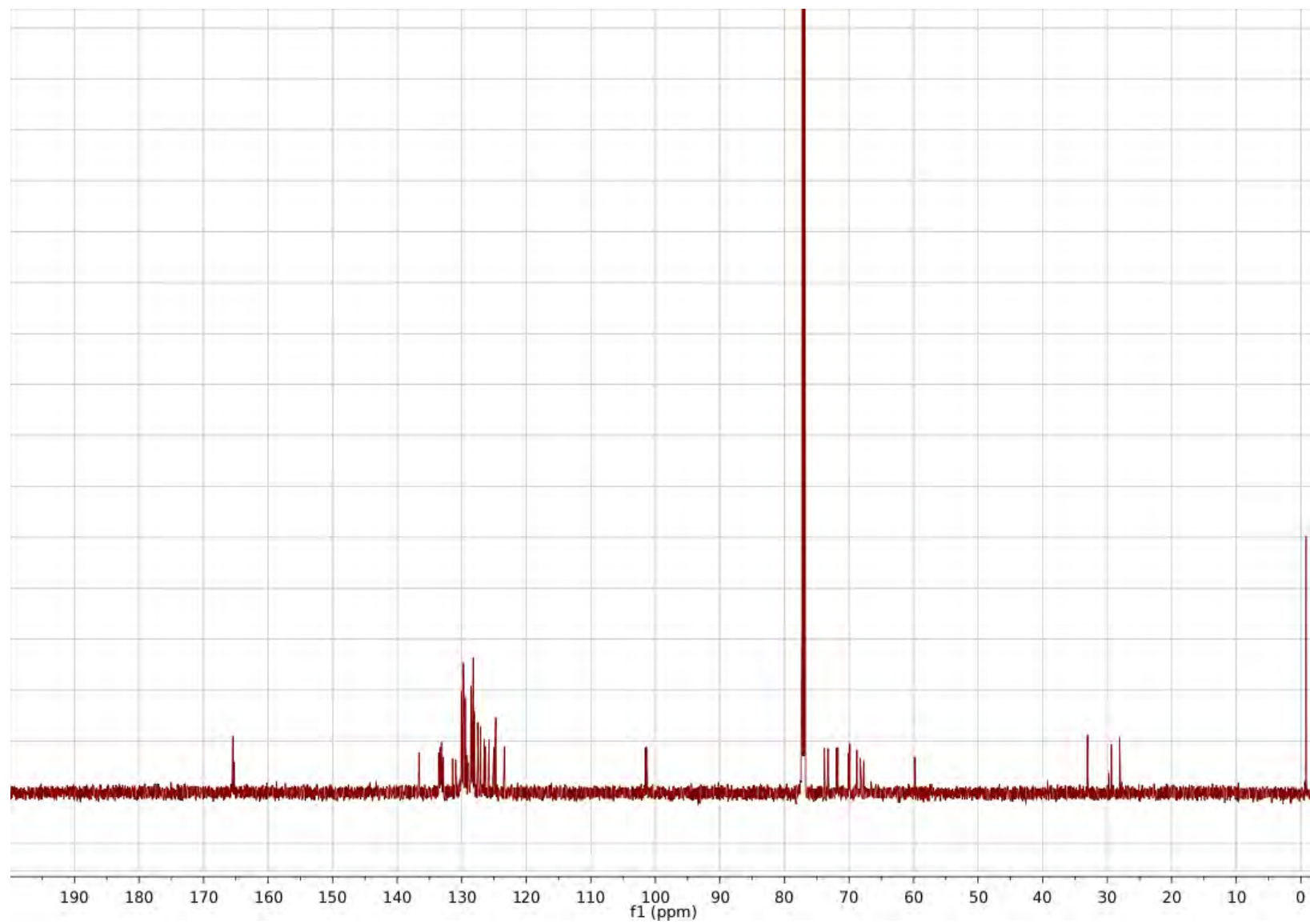


Compound **4₂b**

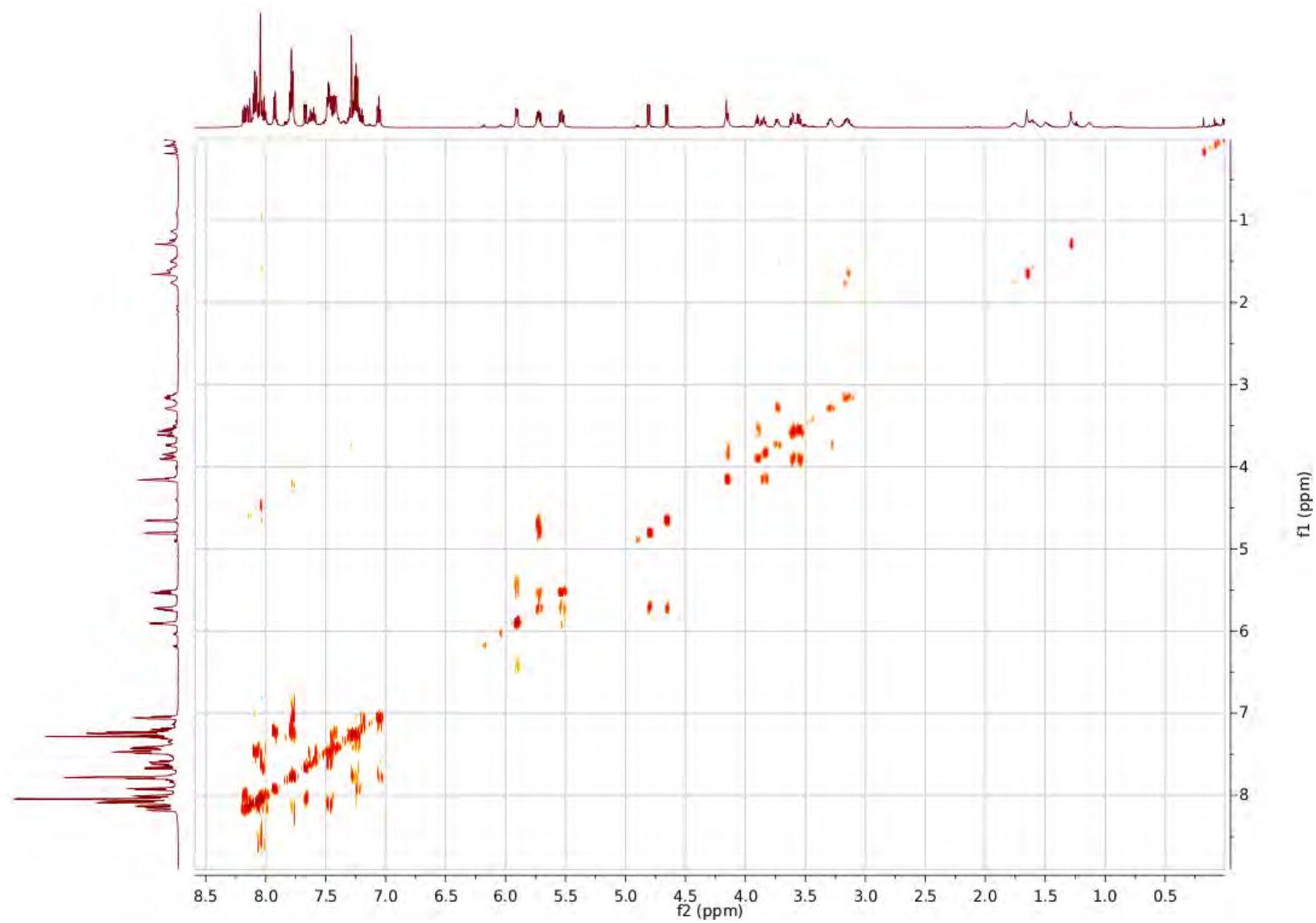
Proton



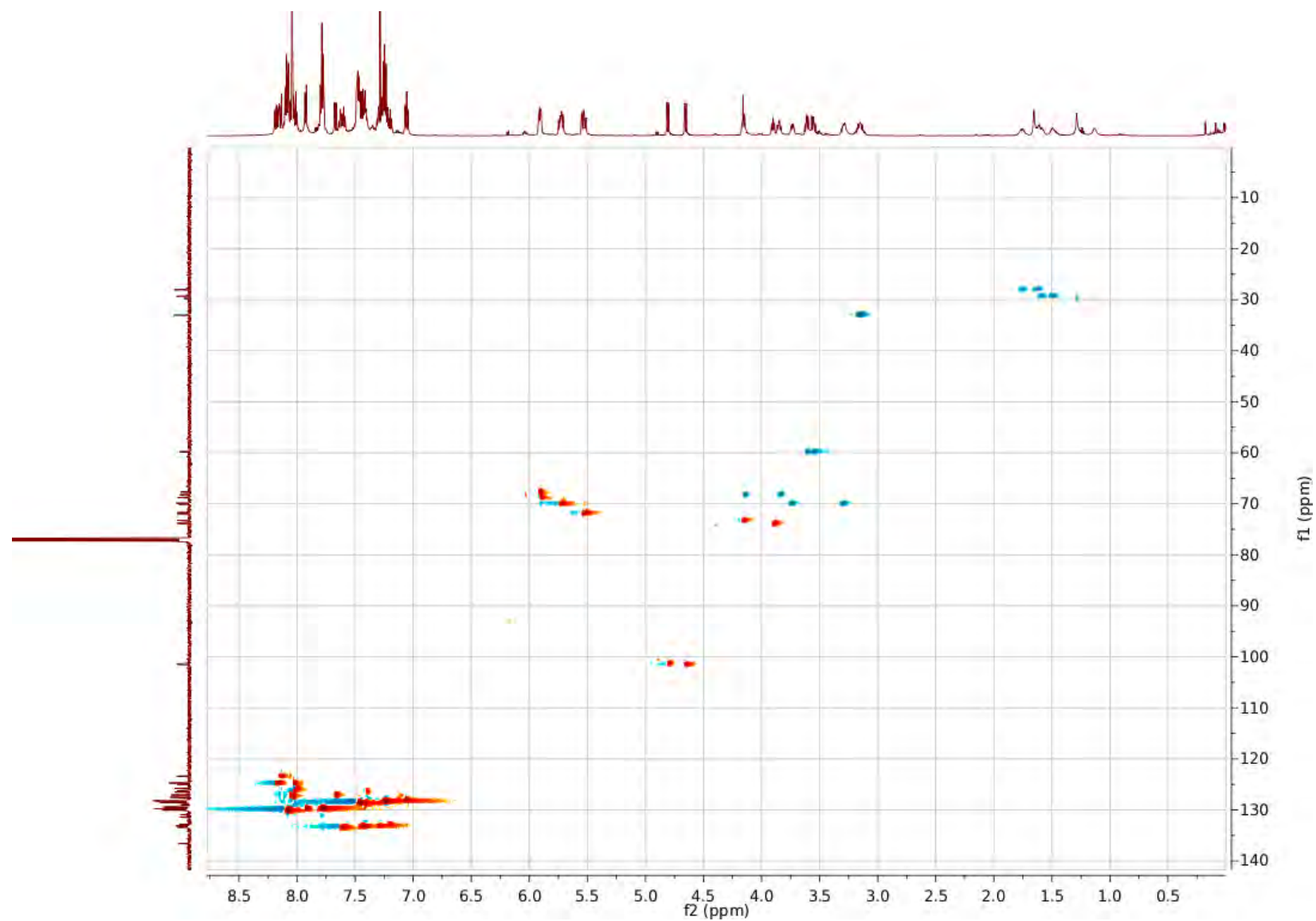
Carbon



COSY

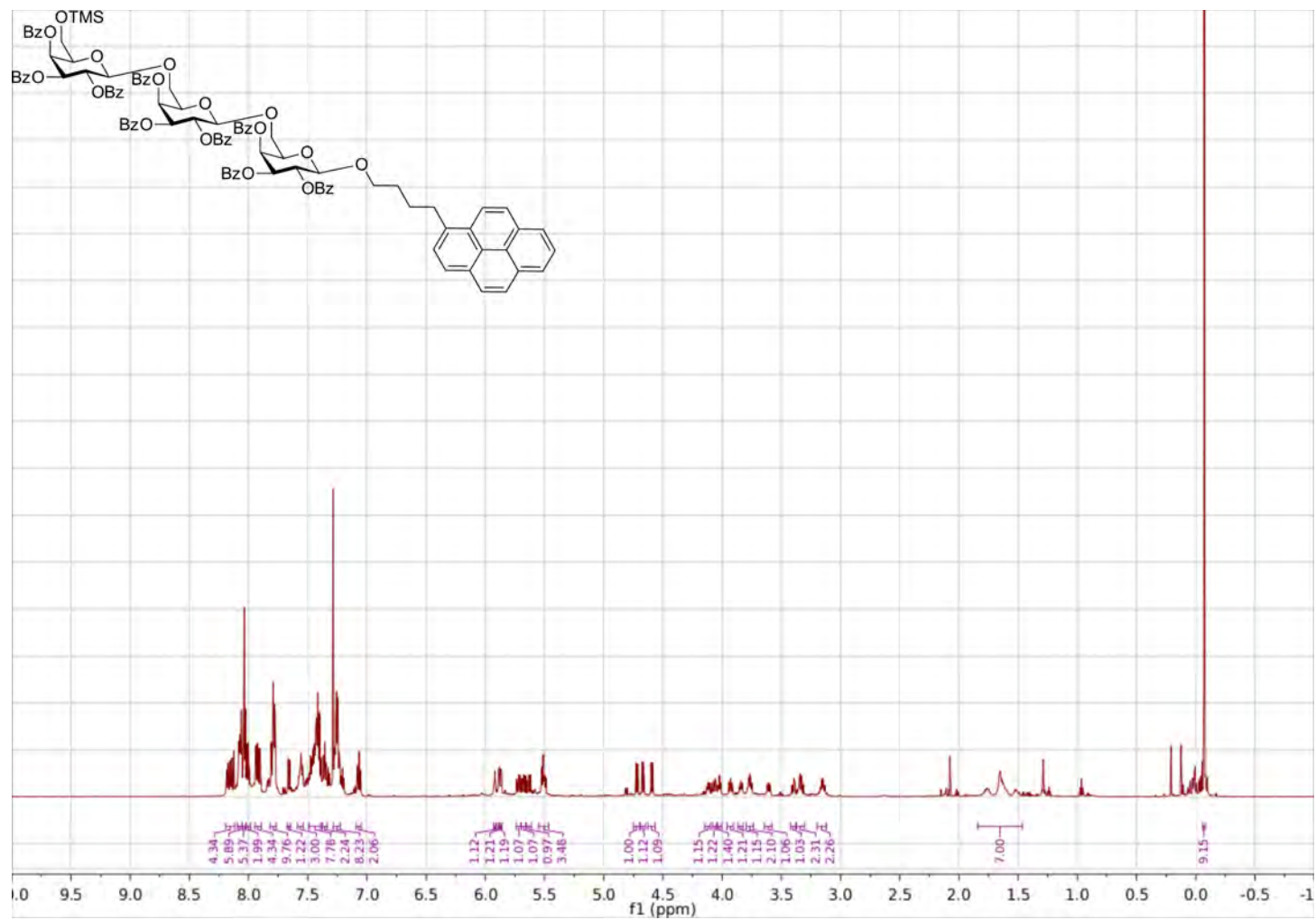


HSQC

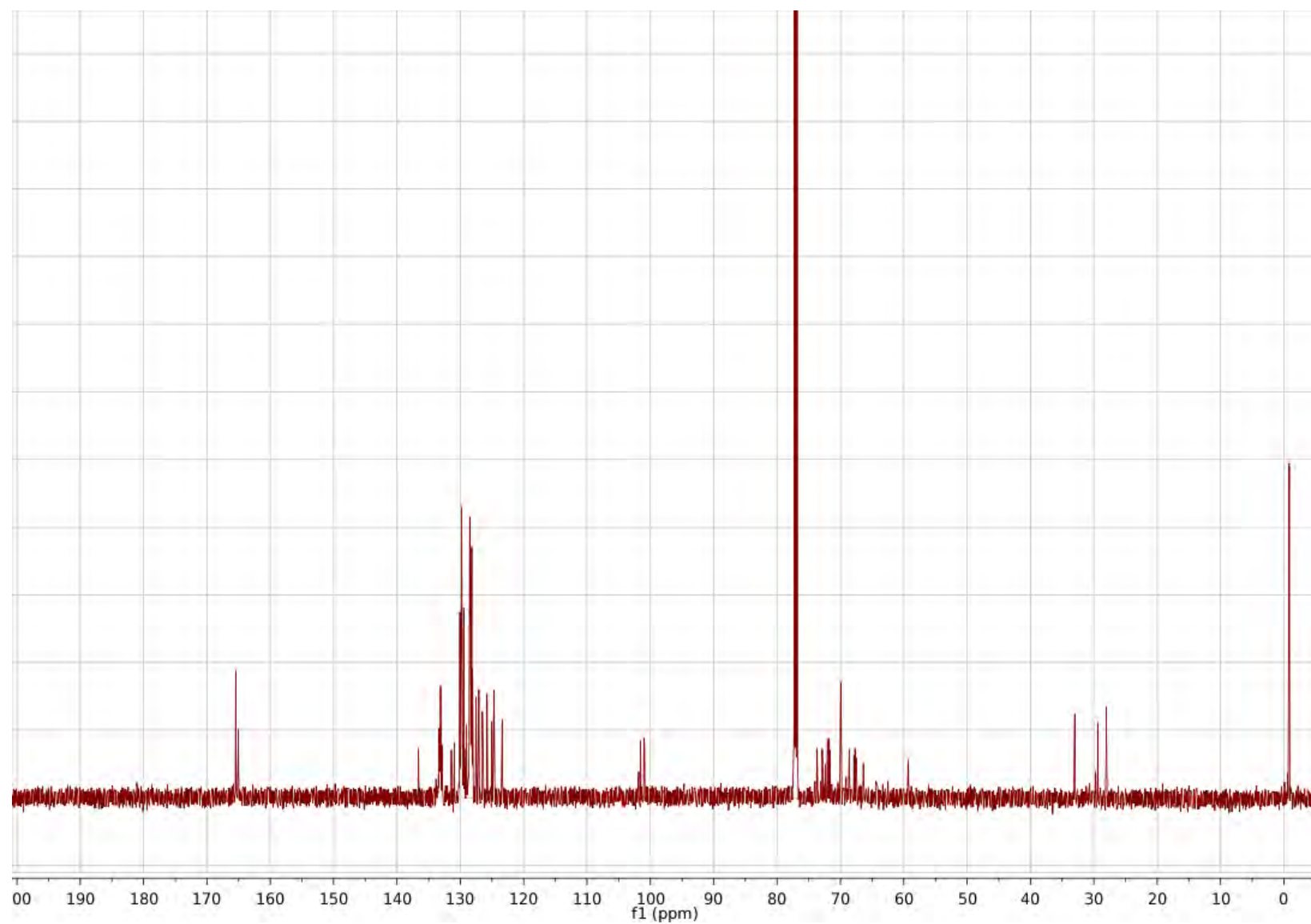


Compound **4₃b**

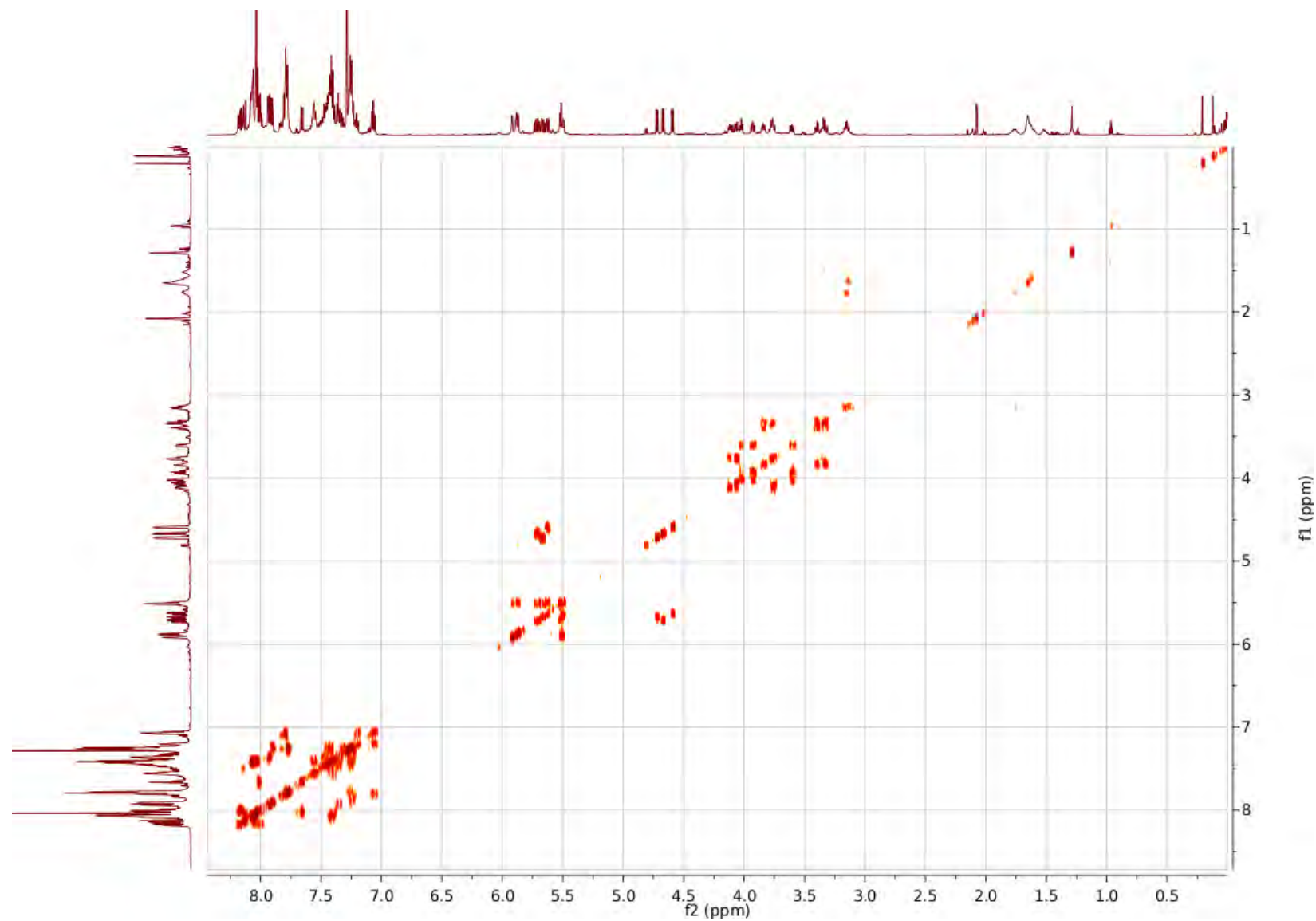
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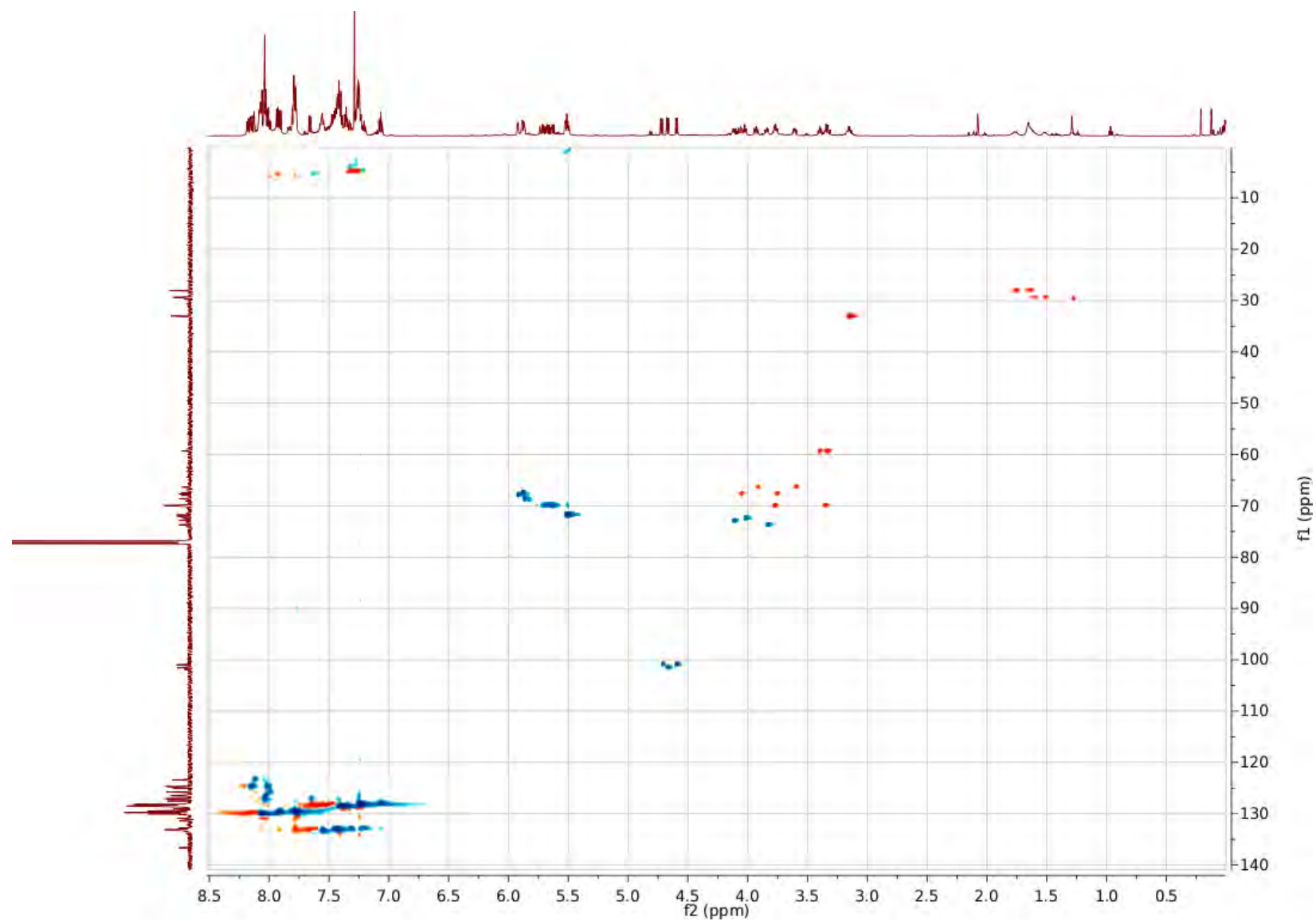
Carbon



COSY

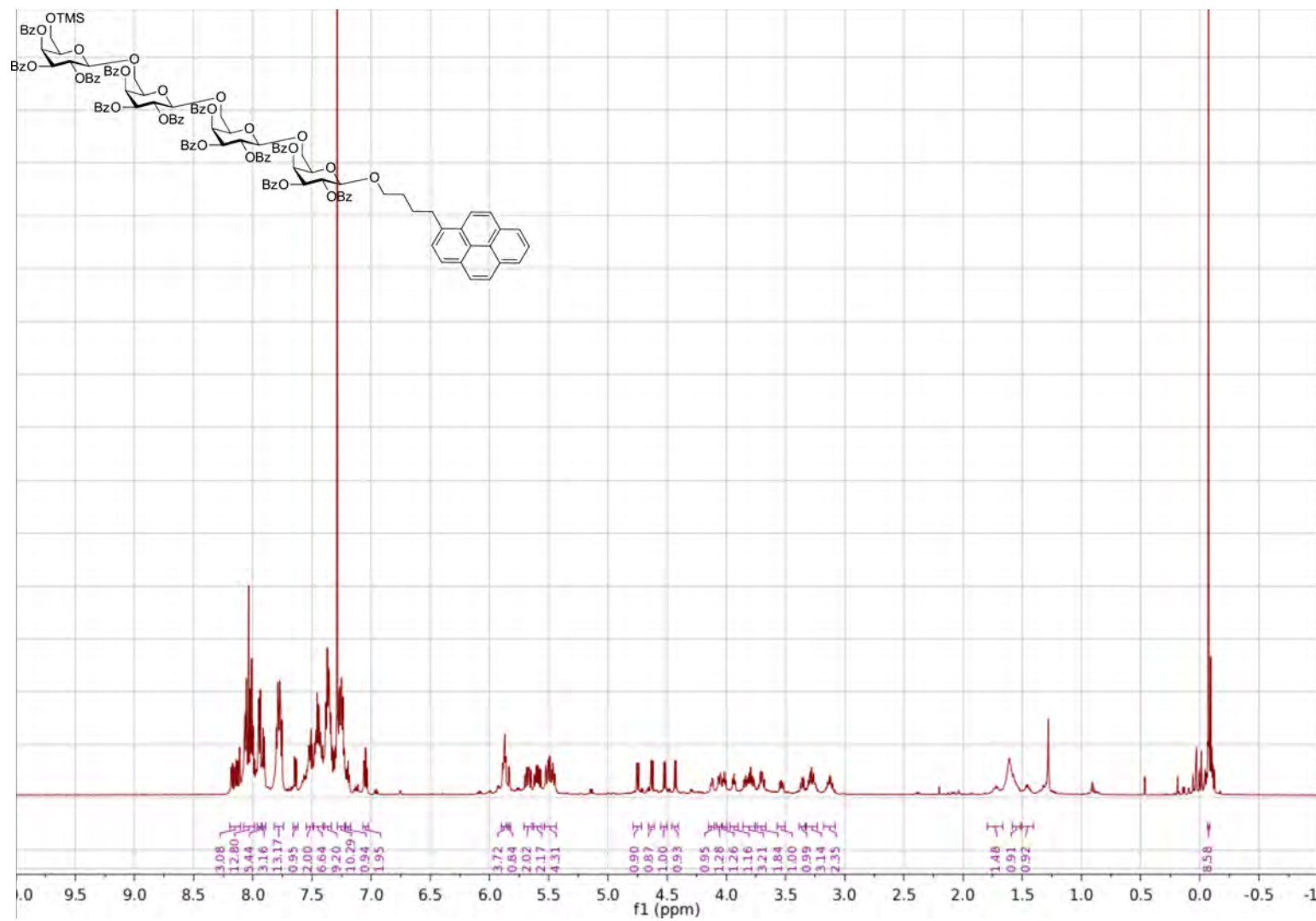


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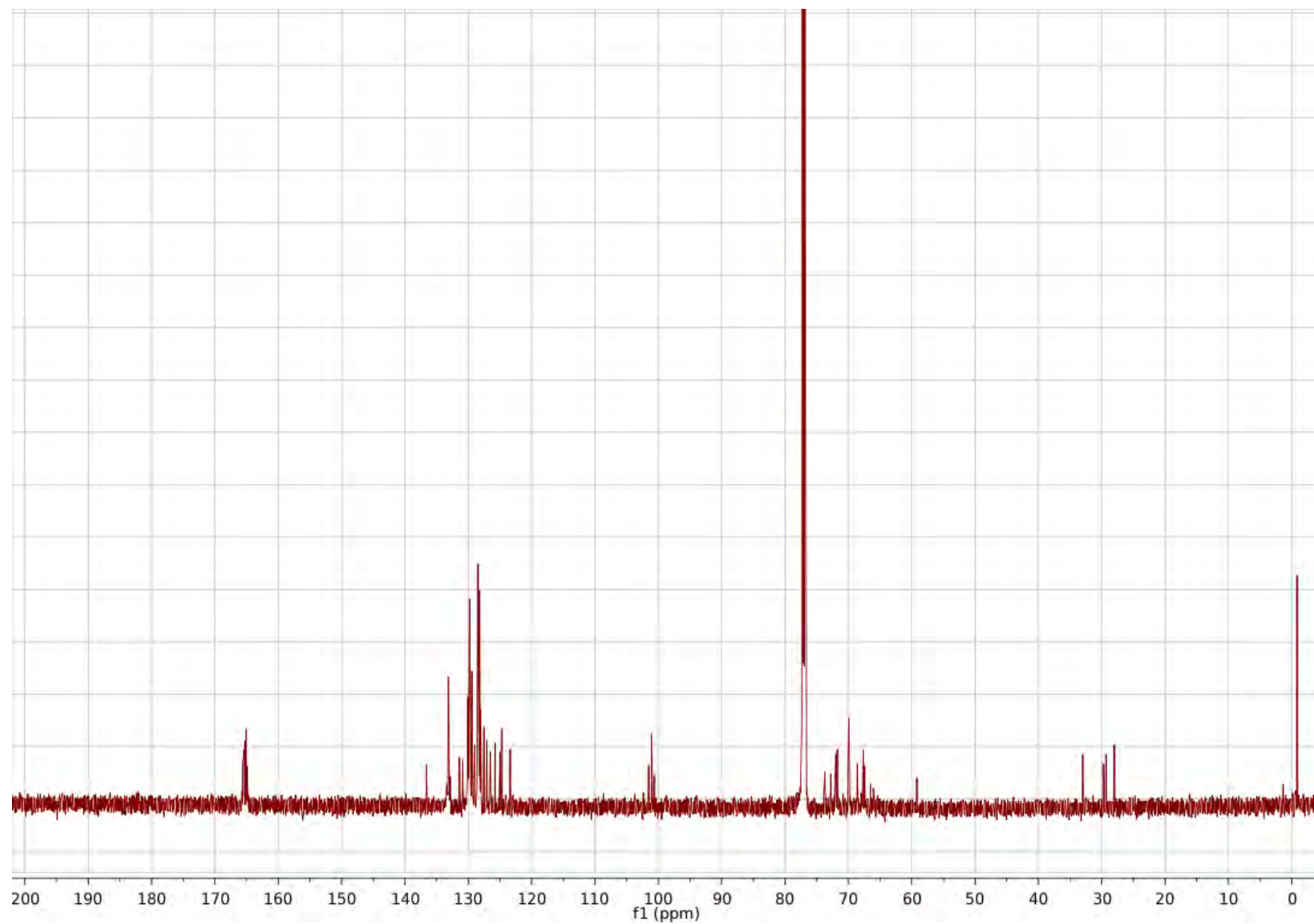


Compound **4b**

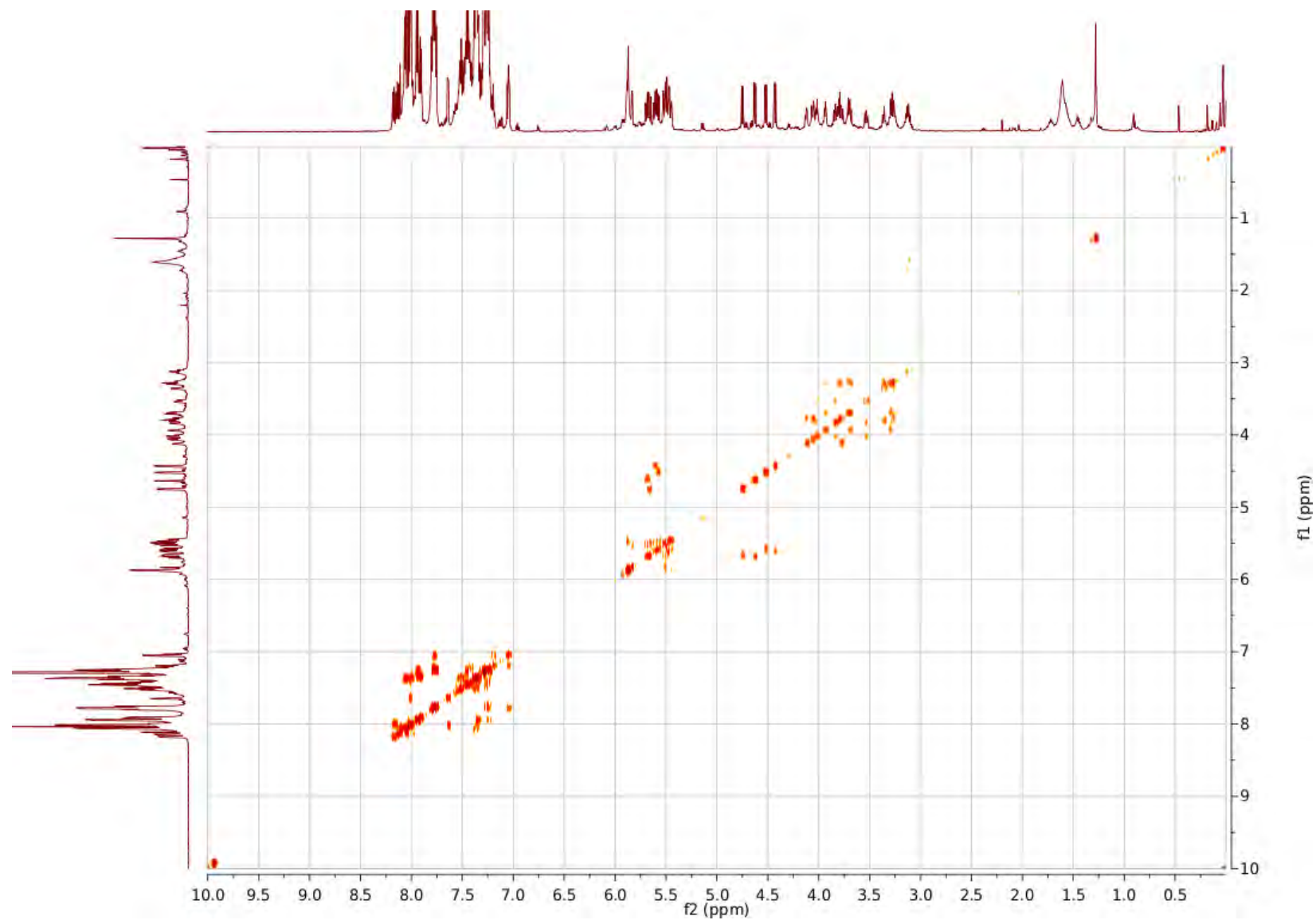
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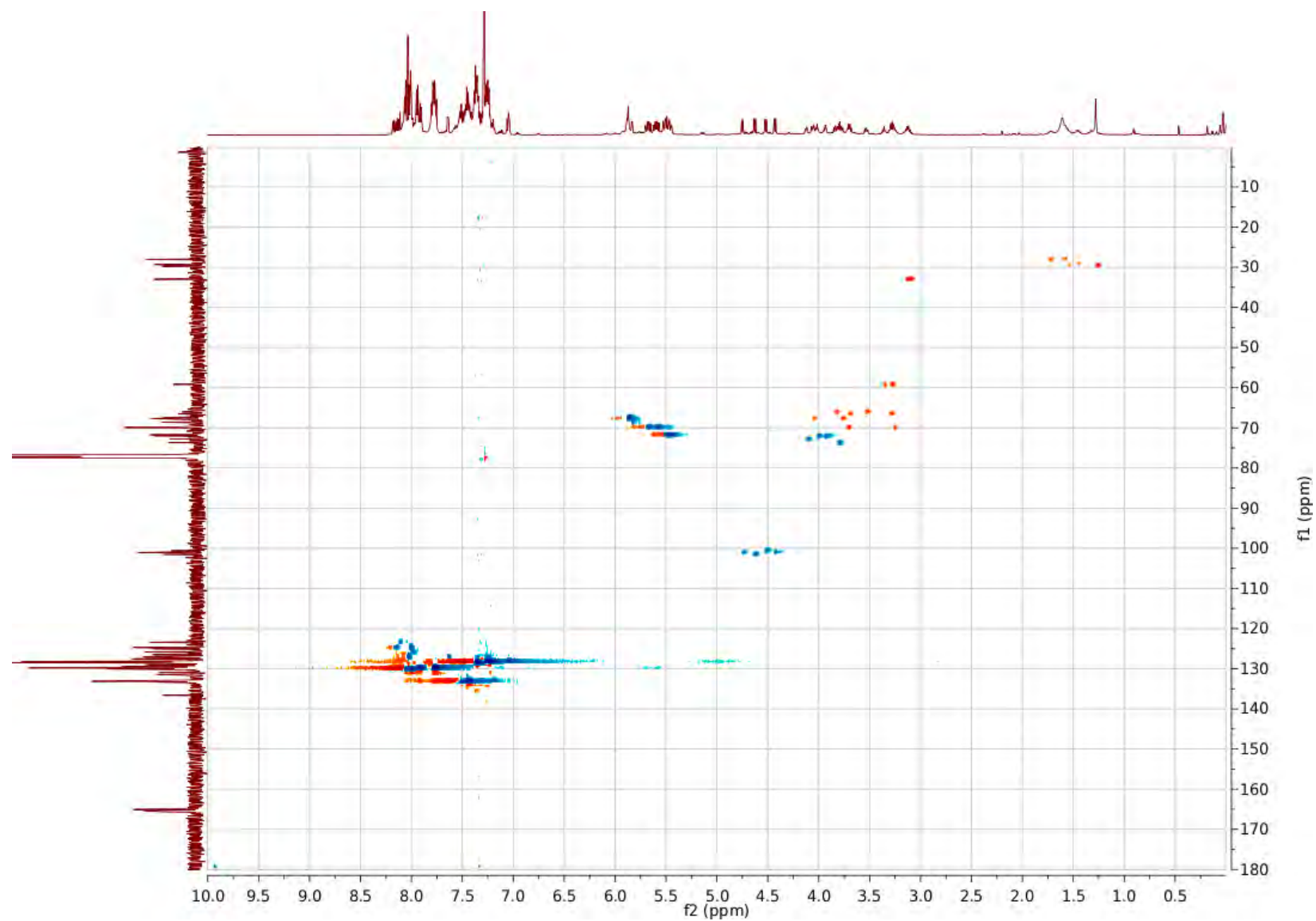
Carbon



COSY

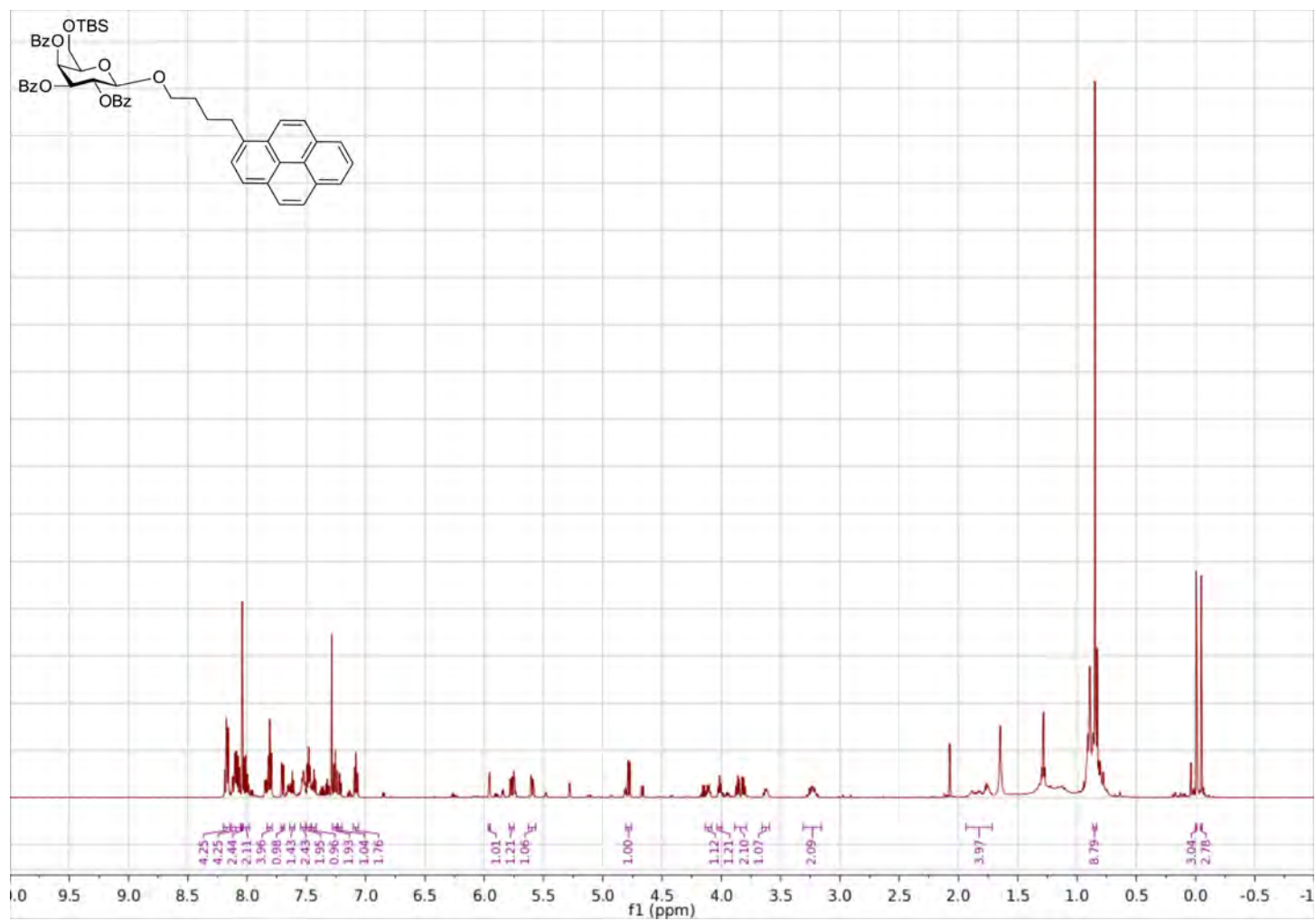


HSQC

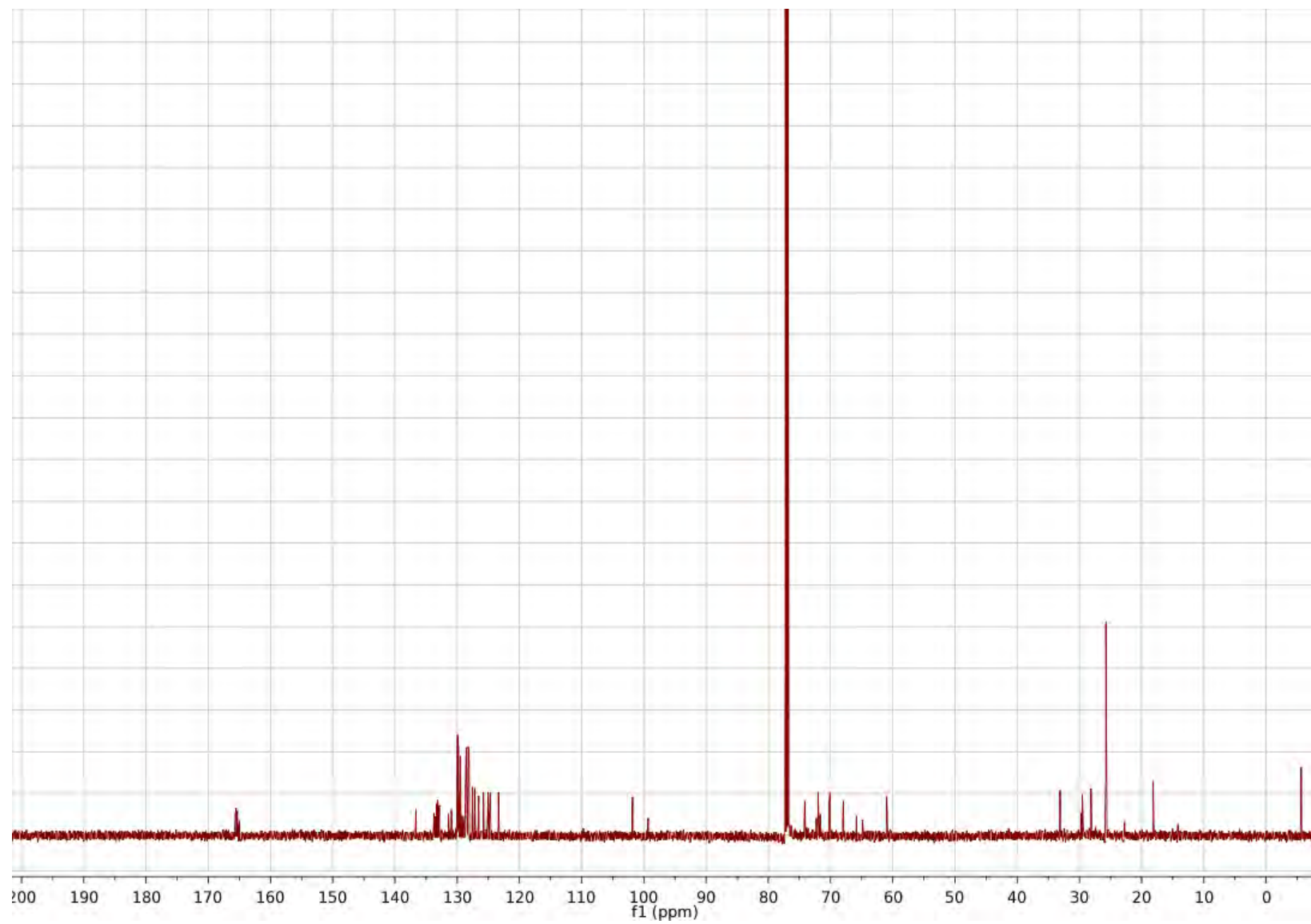


Compound **4_c**

Proton

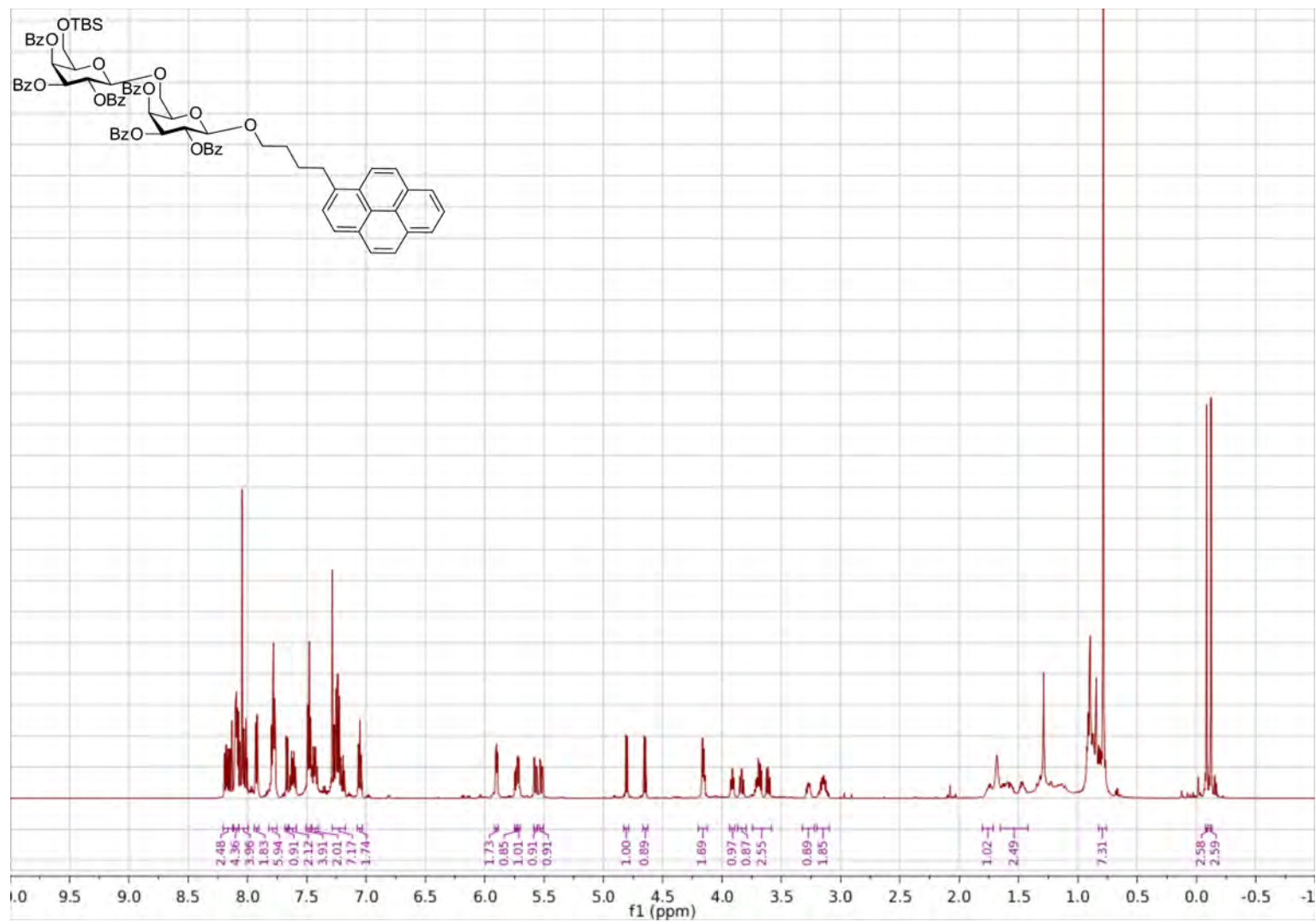


Carbon

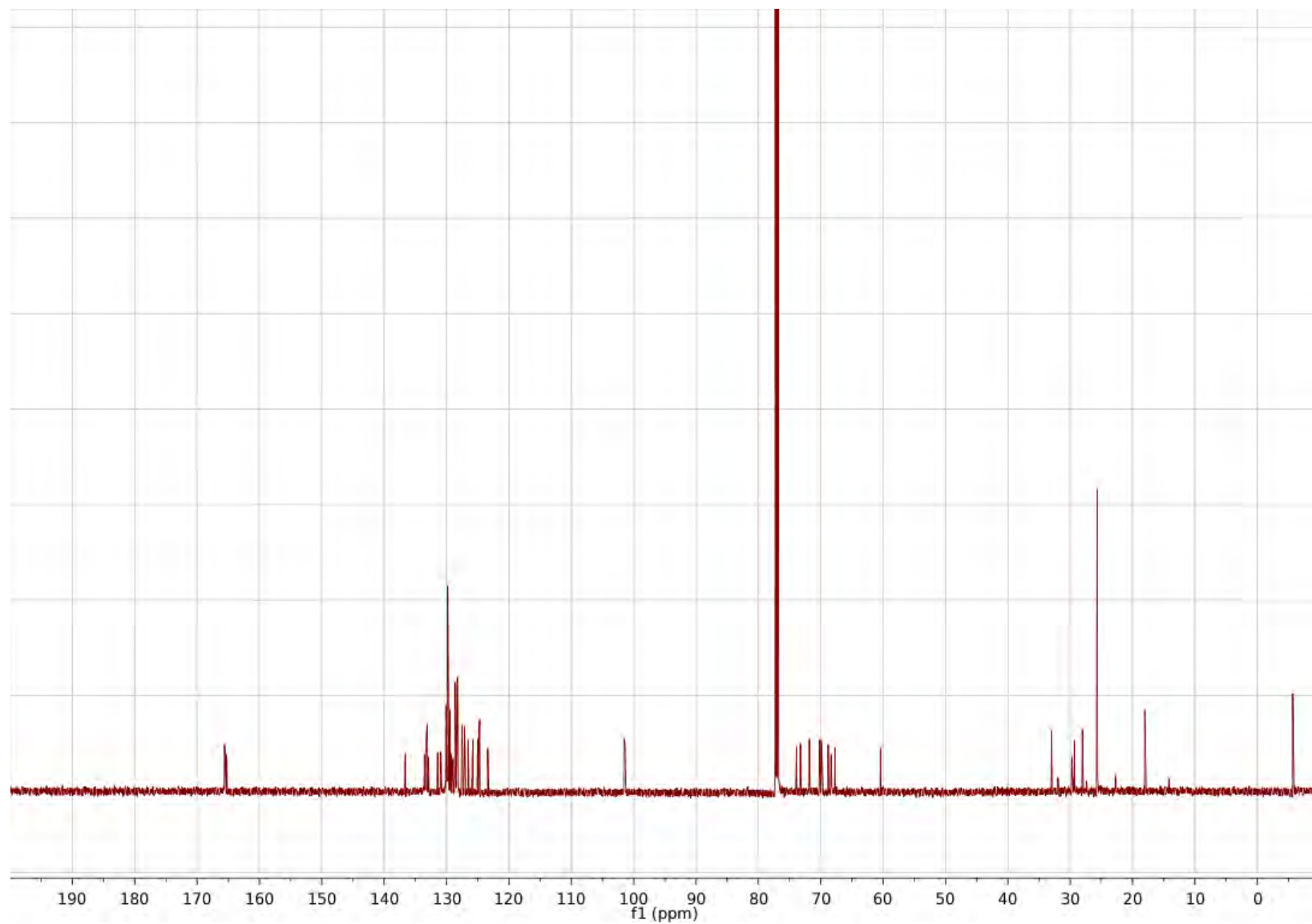


Compound **4₂c**

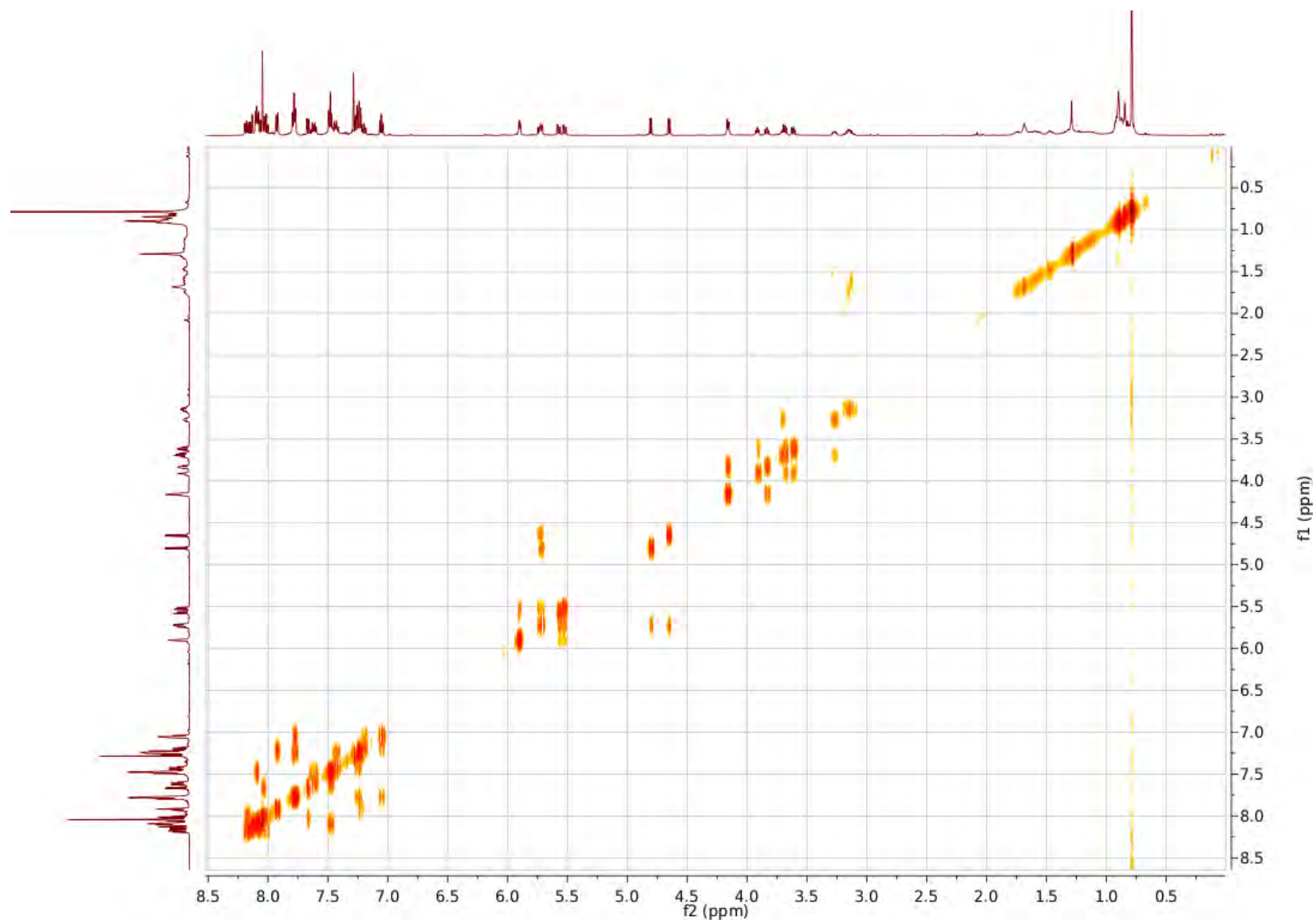
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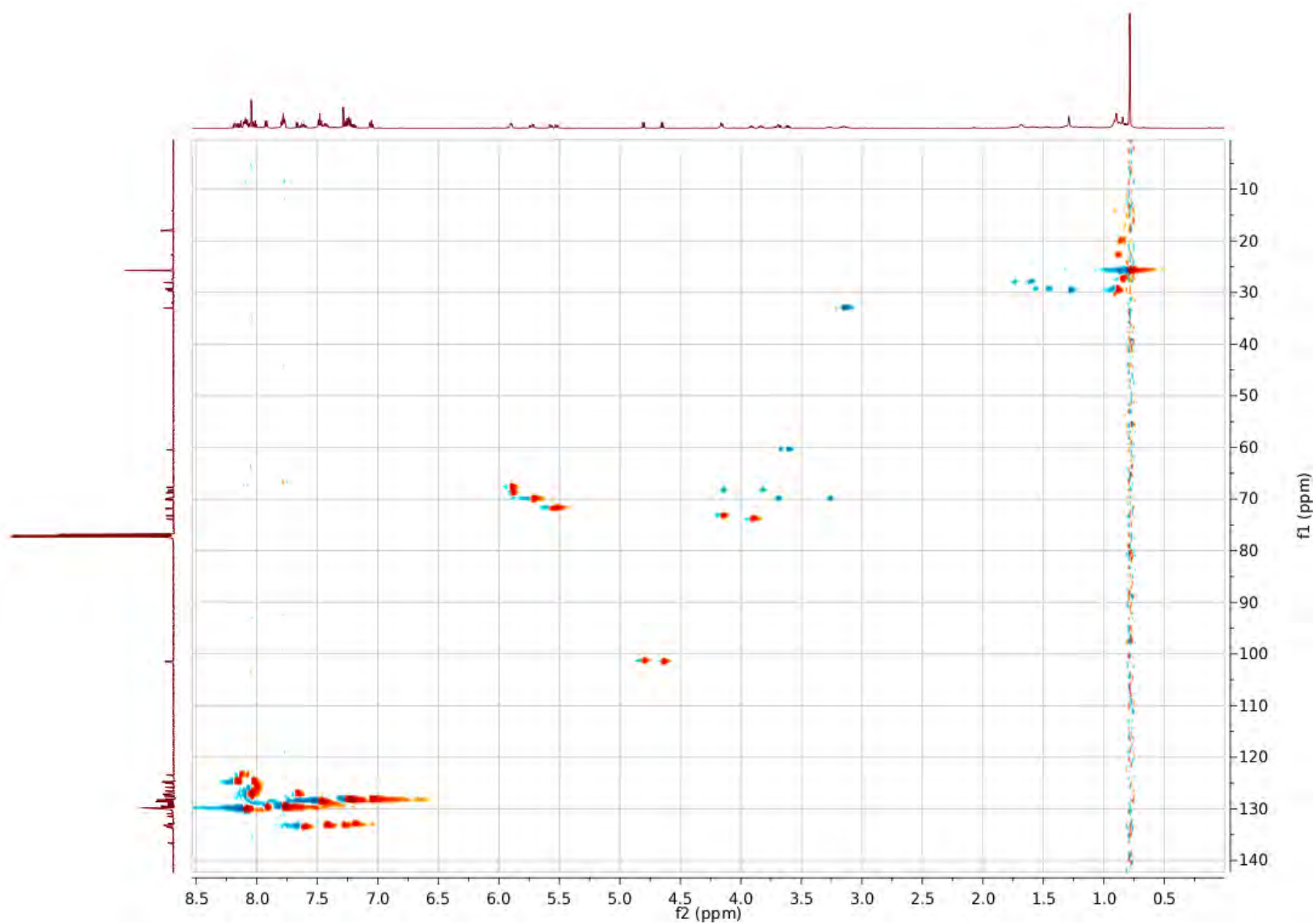
Carbon



COSY

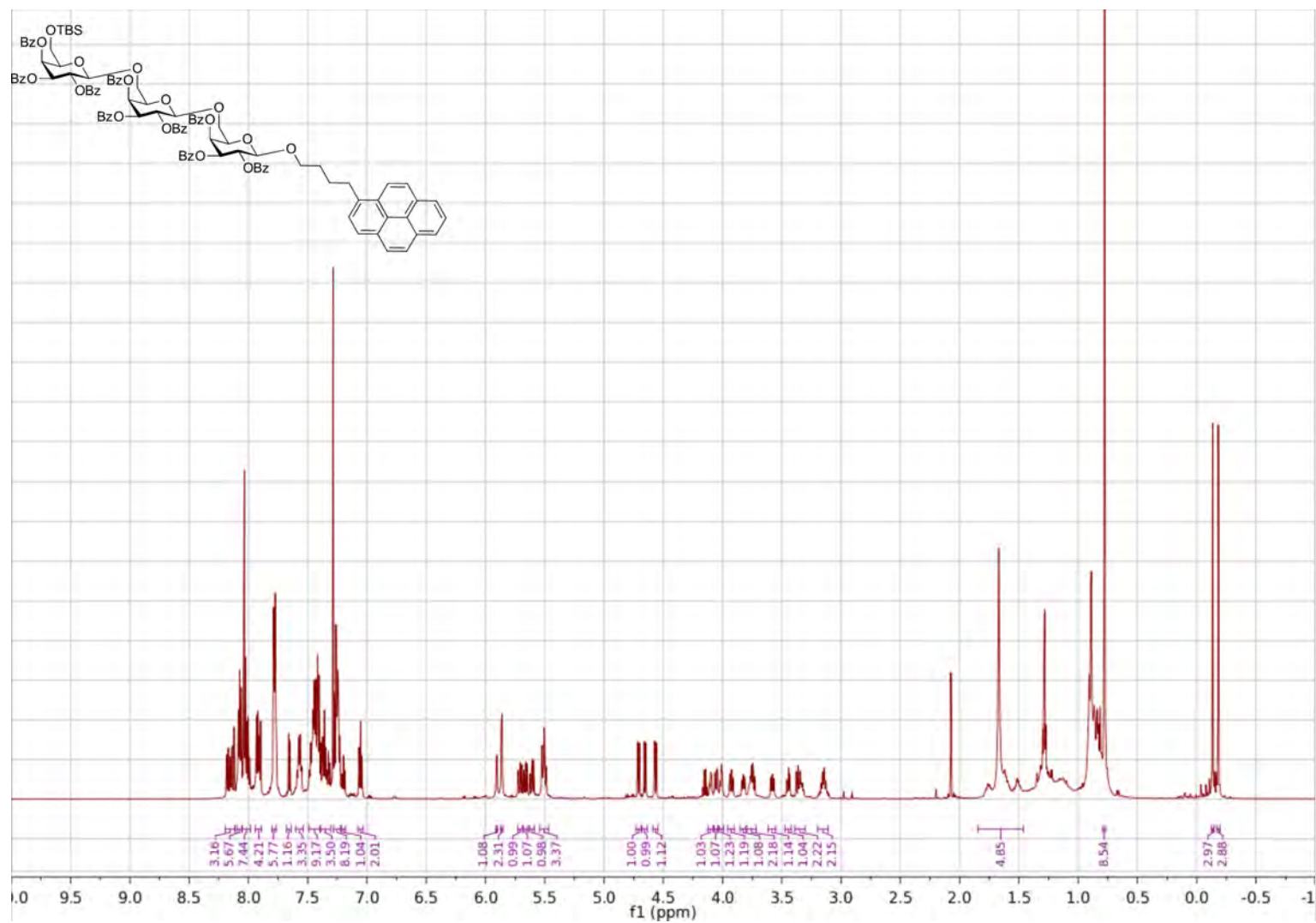


HSQC

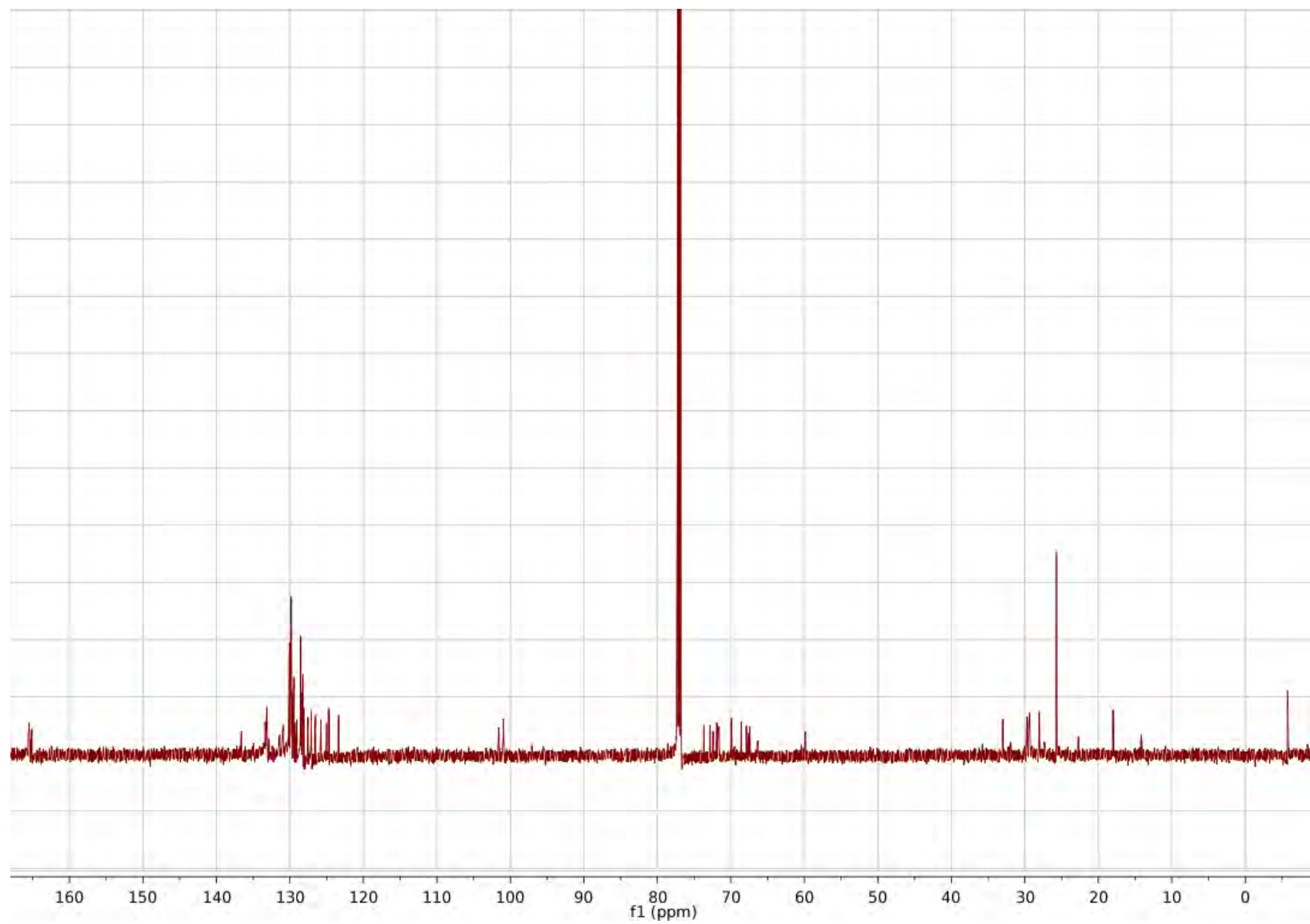


Compound **4₃c**

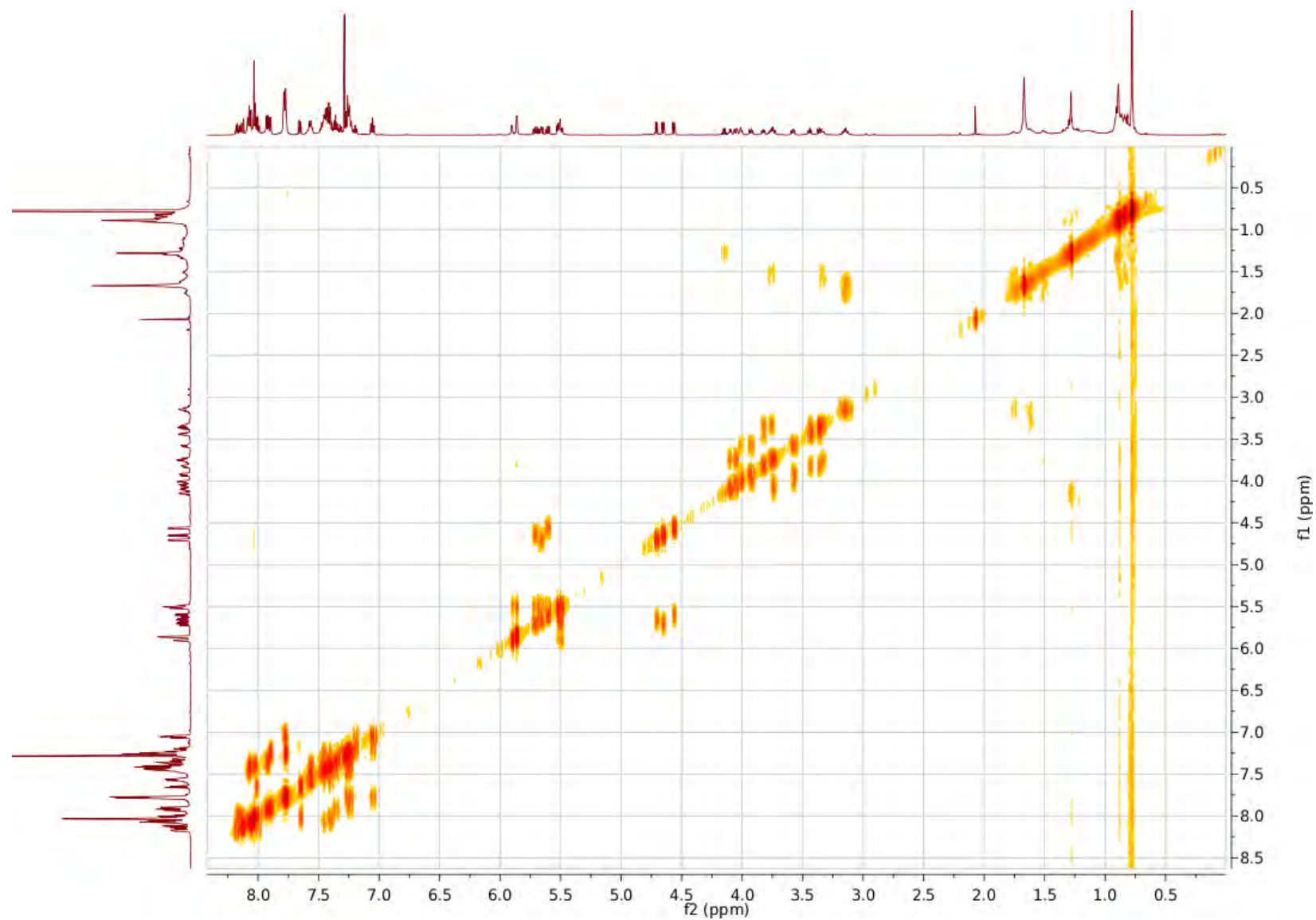
Proton



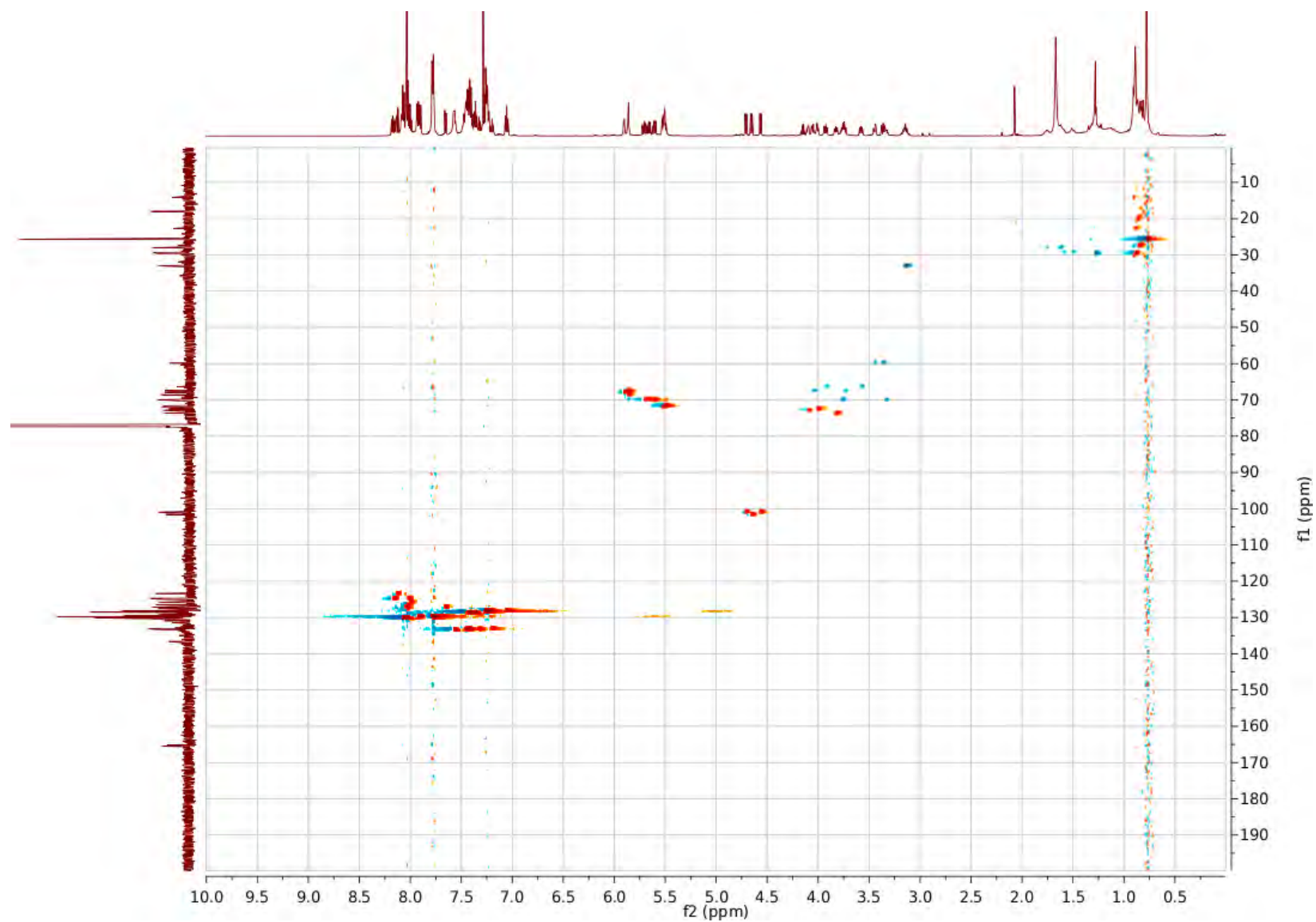
Carbon



COSY

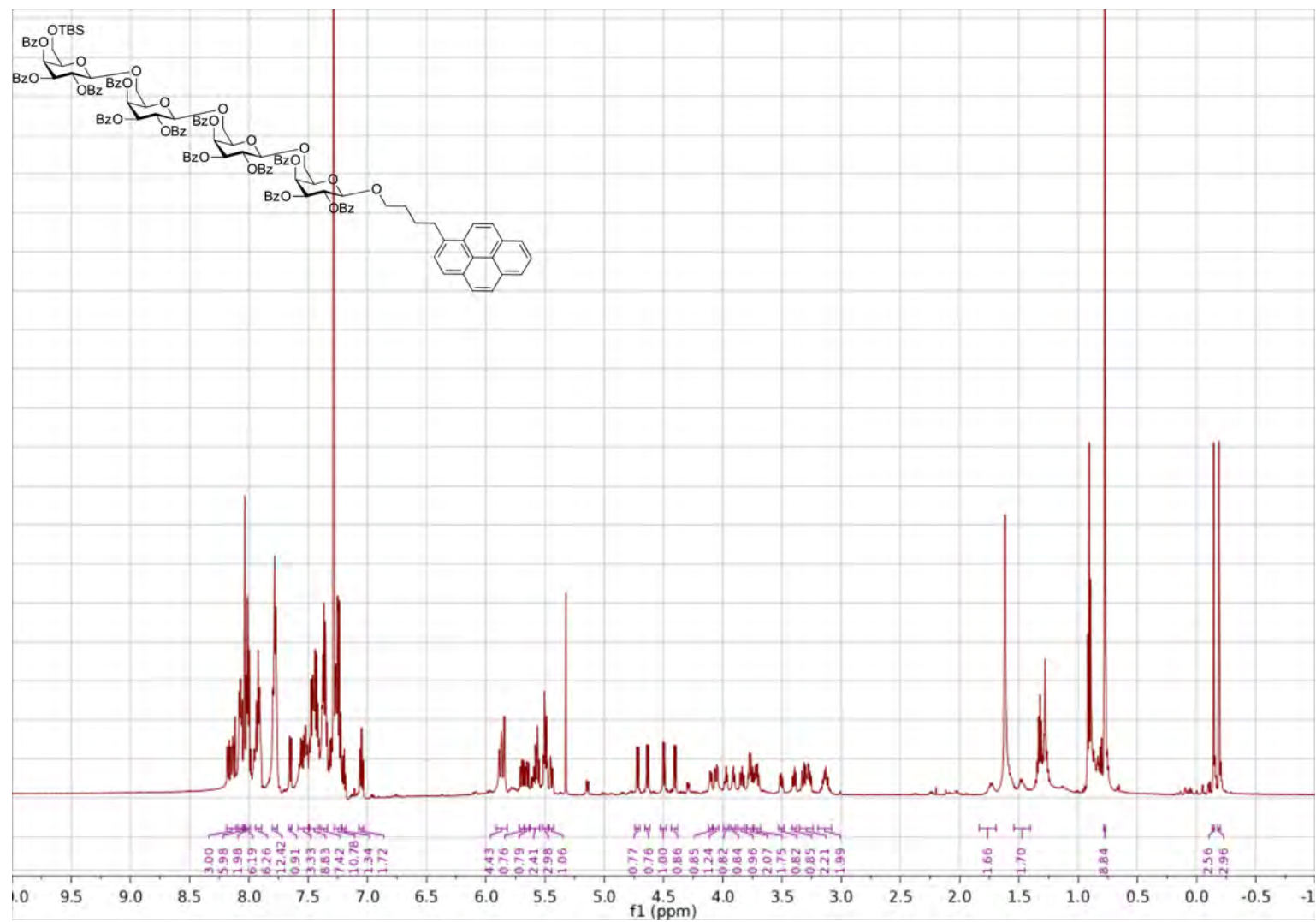


HSQC

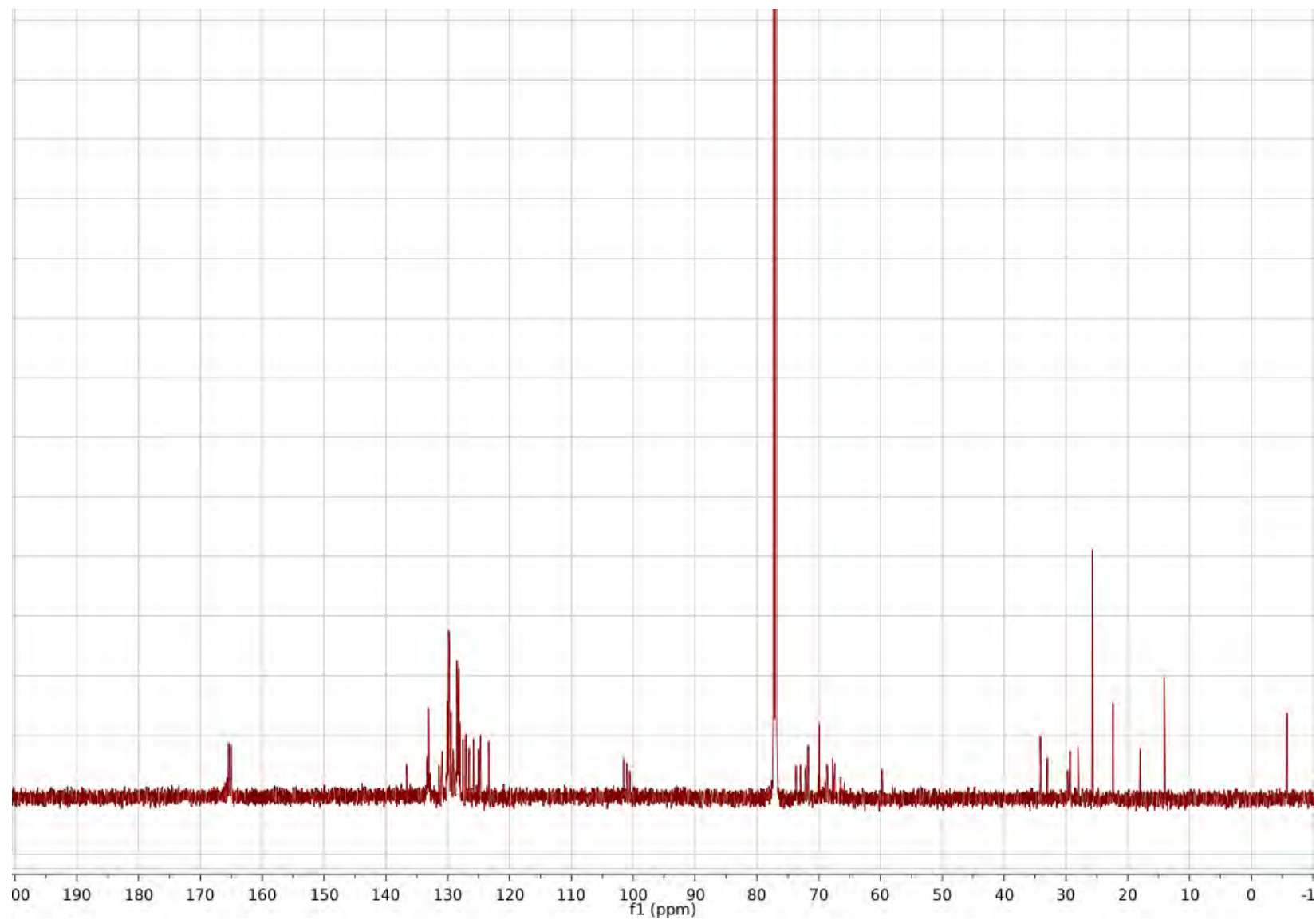


Compound **4c**

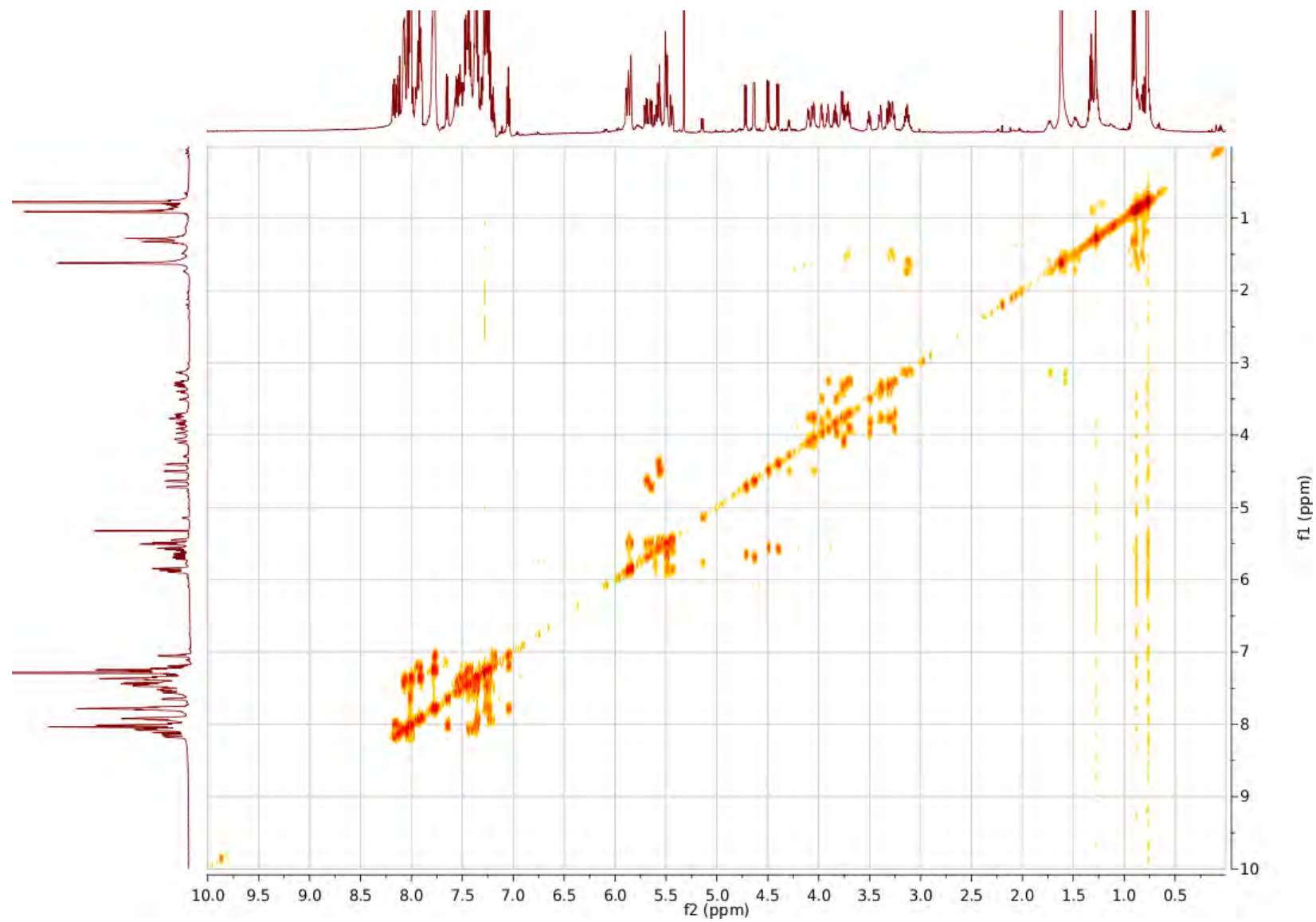
Proton



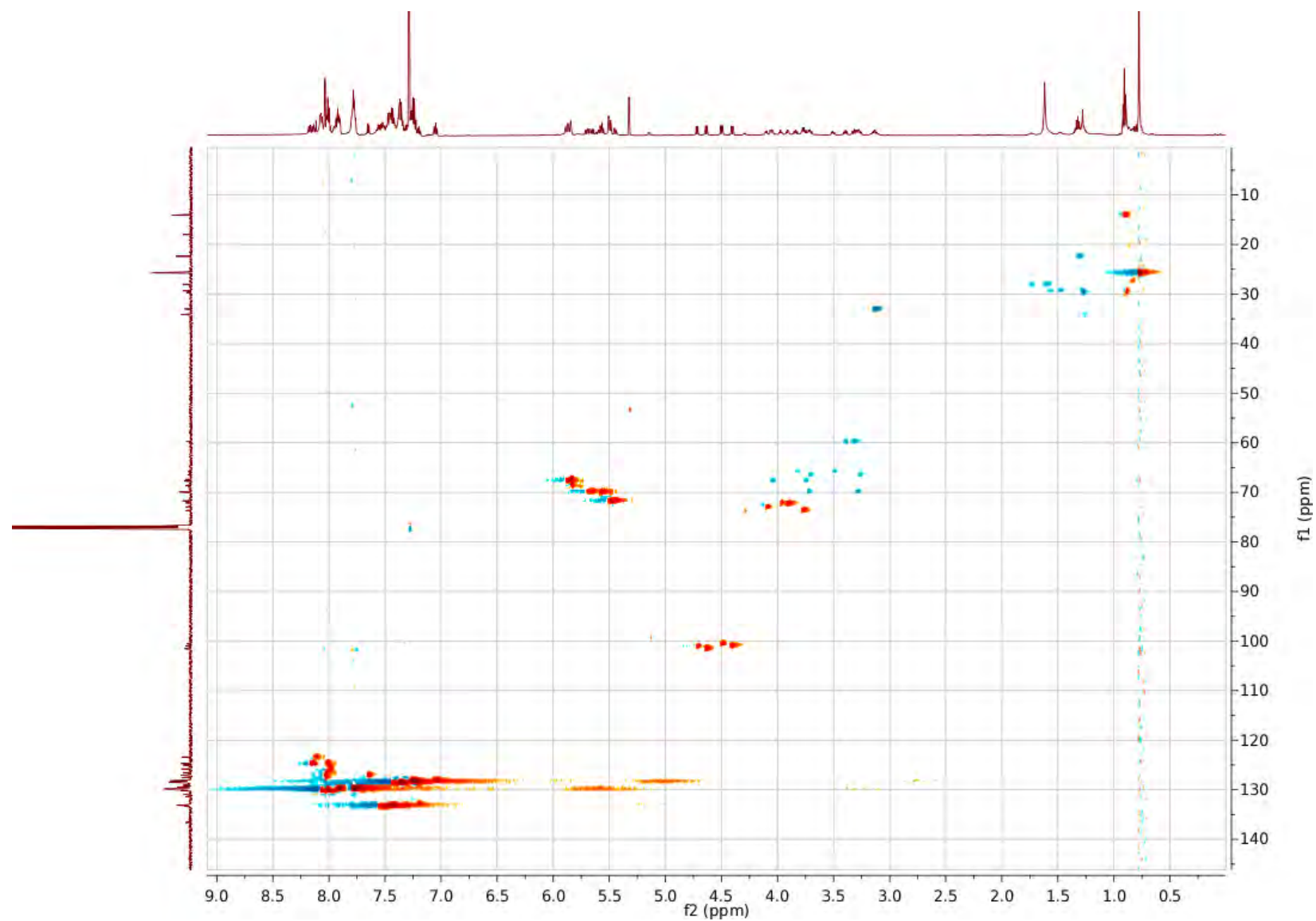
Carbon



COSY

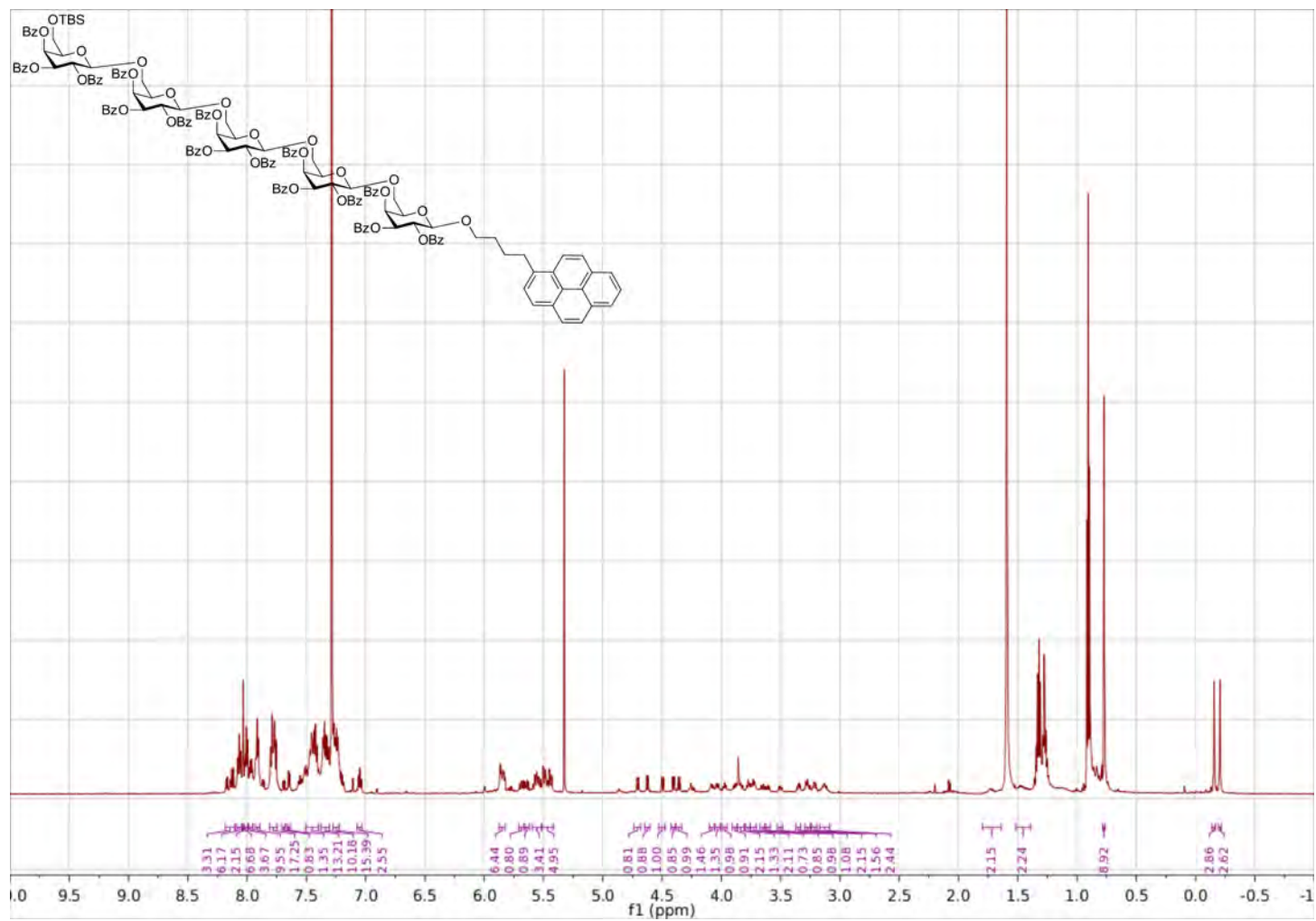


HSQC



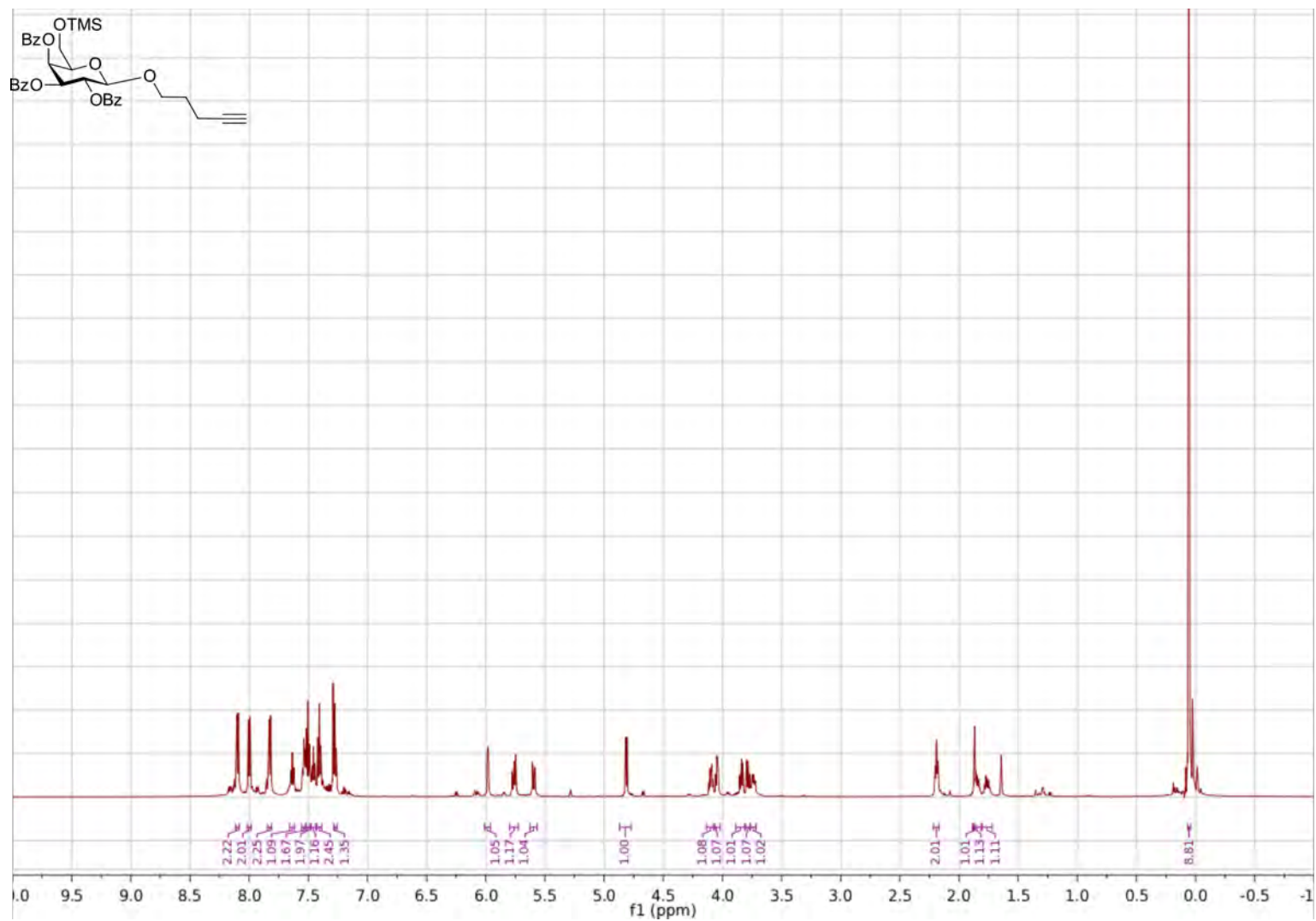
Compound **4_{5c}**

Proton

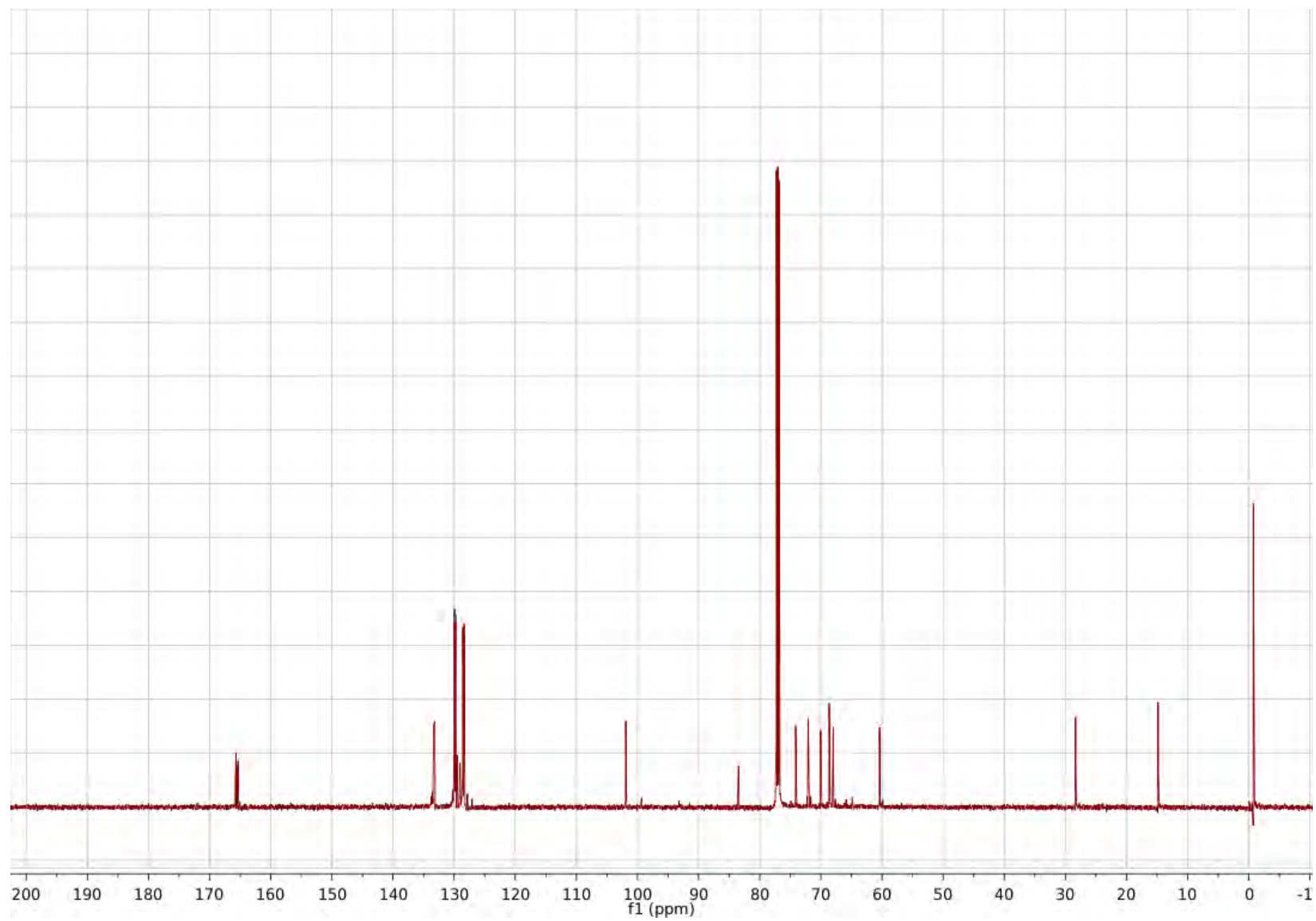


Compound **13,b**

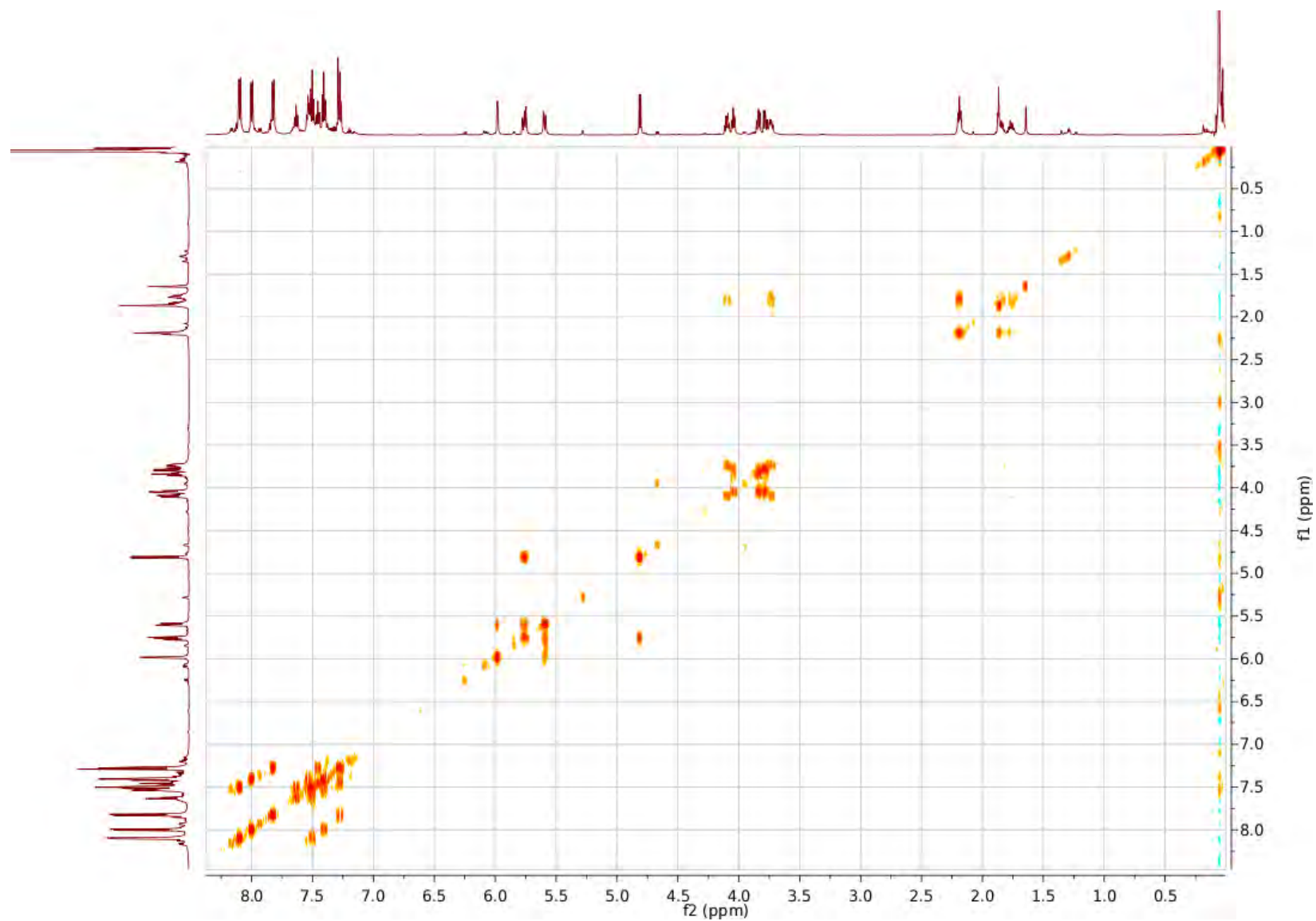
Proton



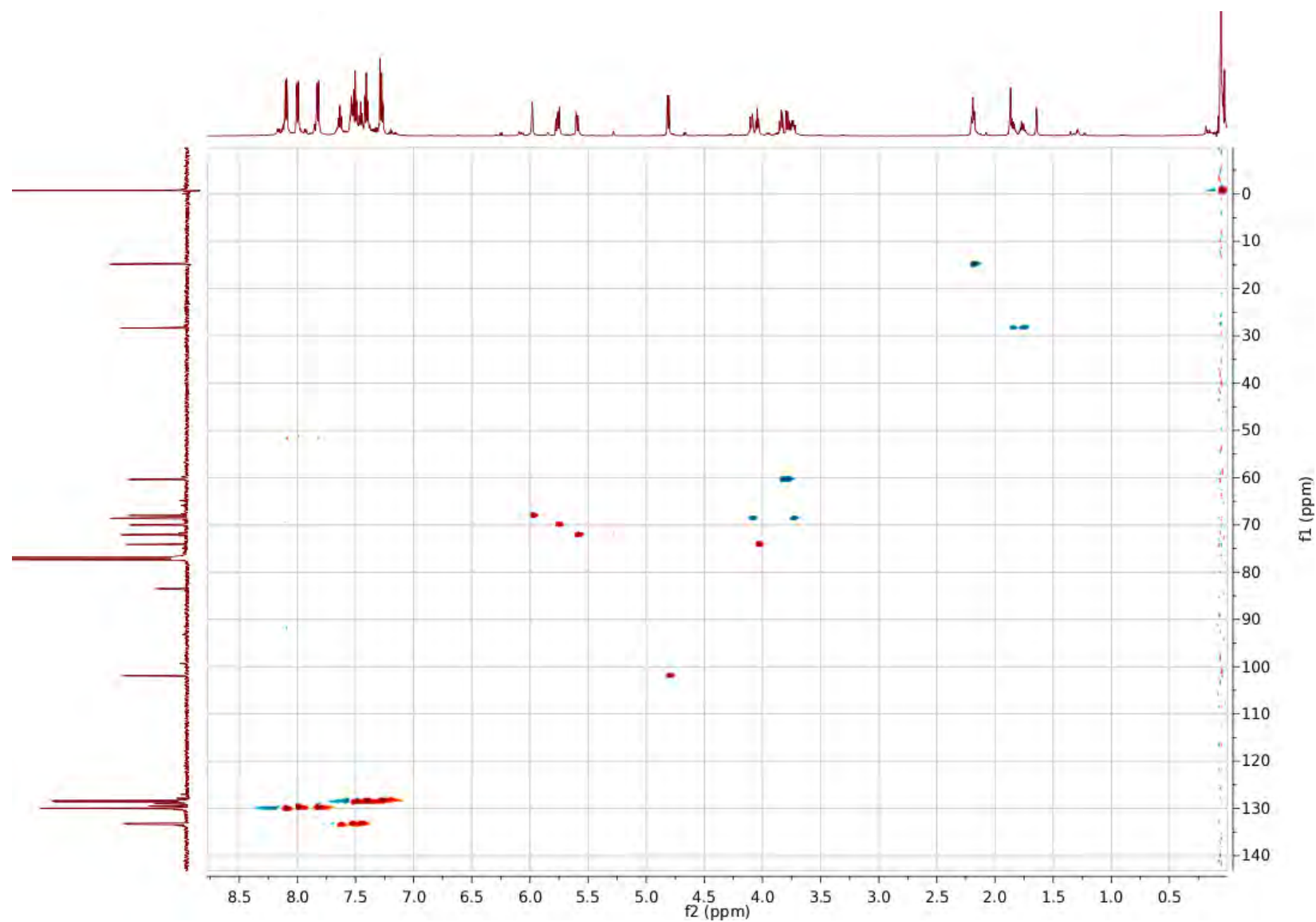
Carbon



COSY

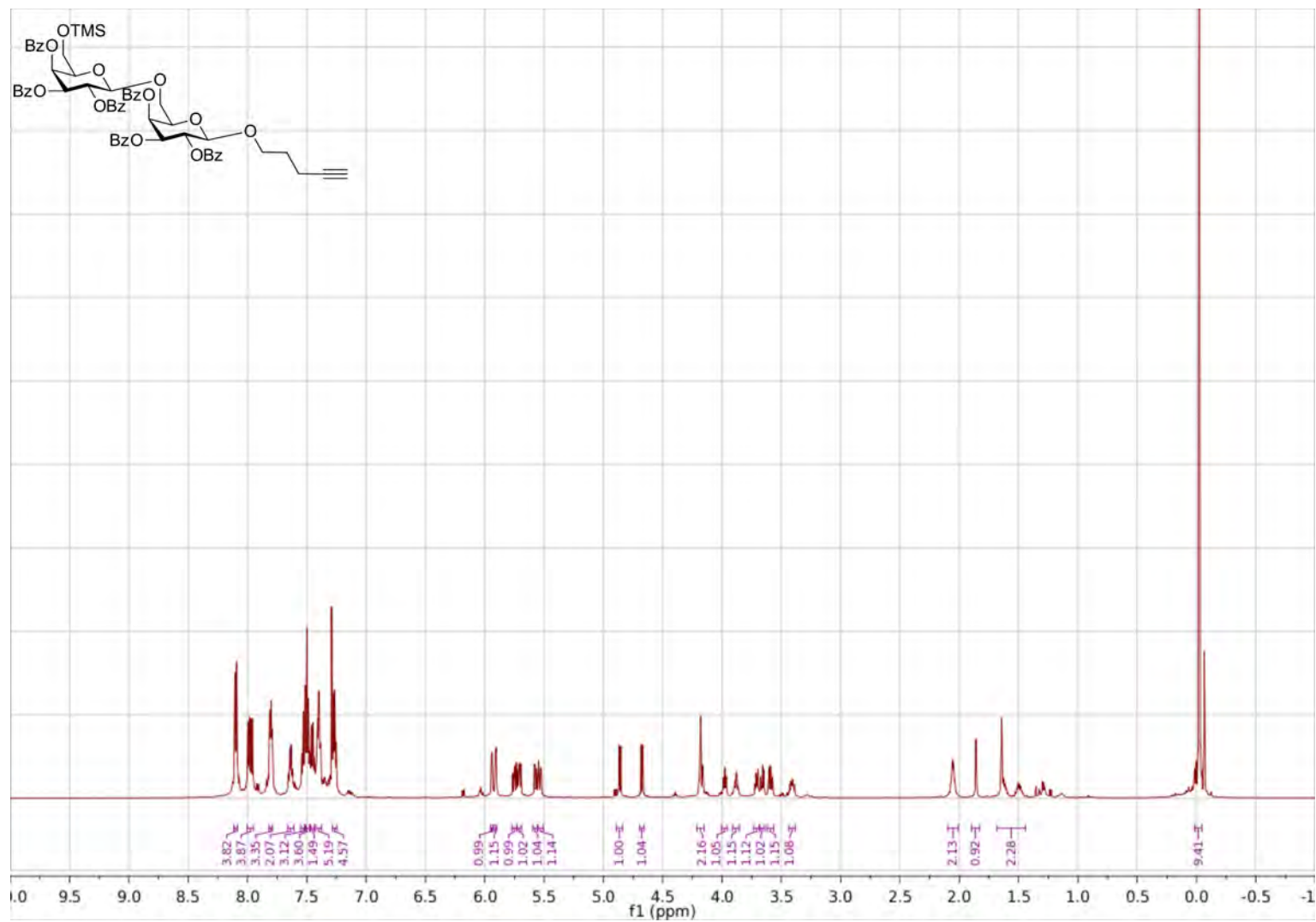


HSQC

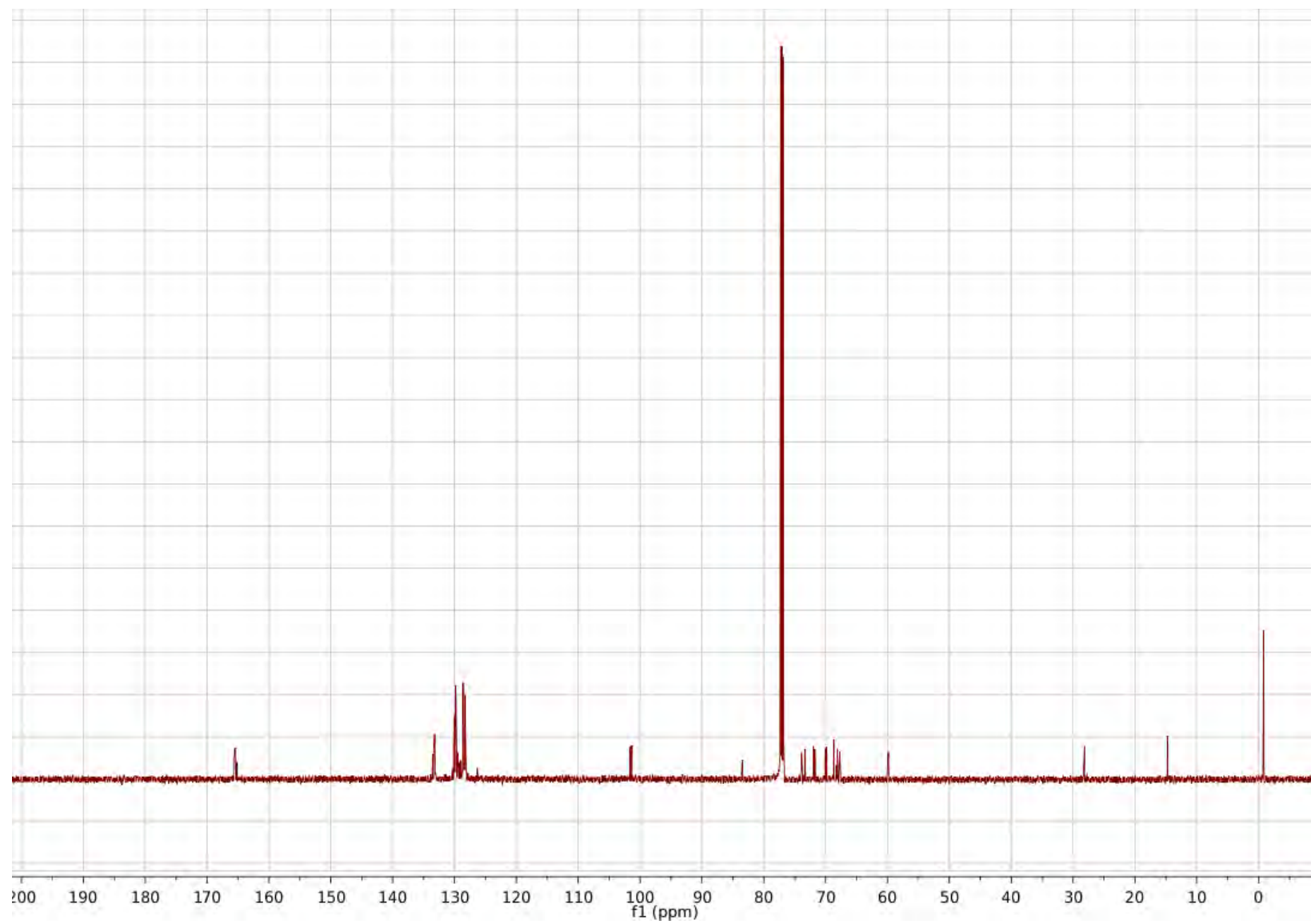


Compound **13₂b**

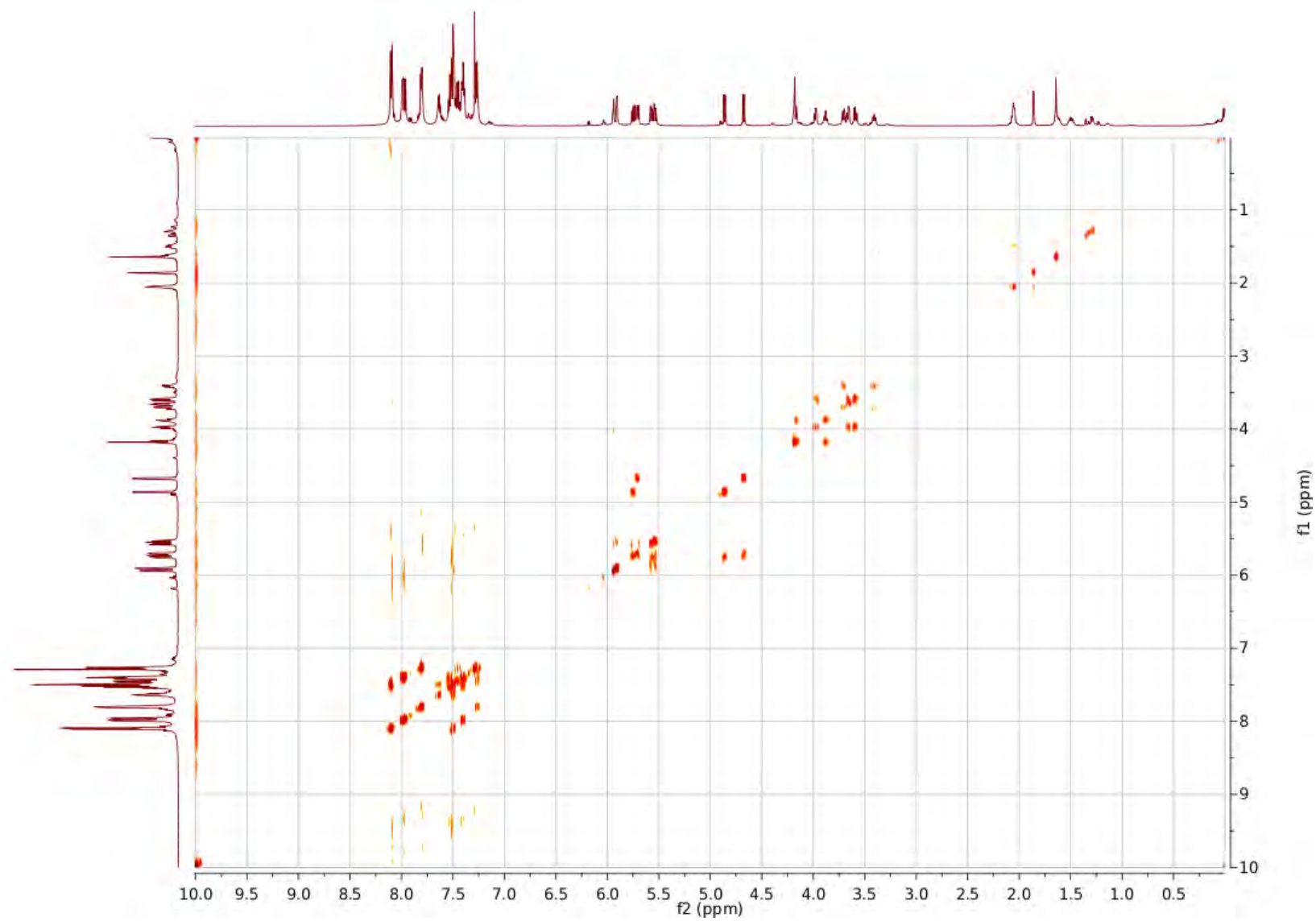
Proton



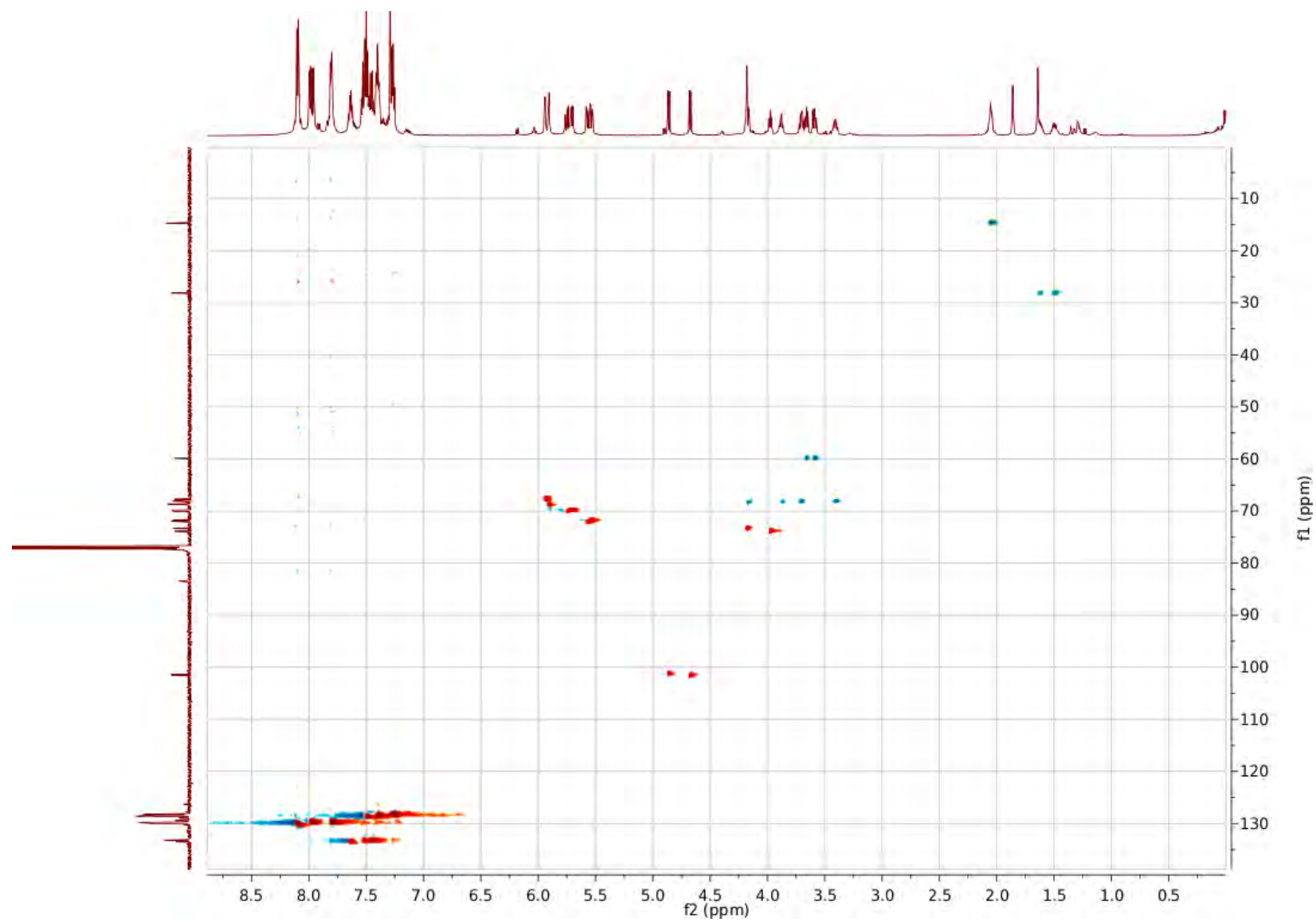
Carbon



COSY

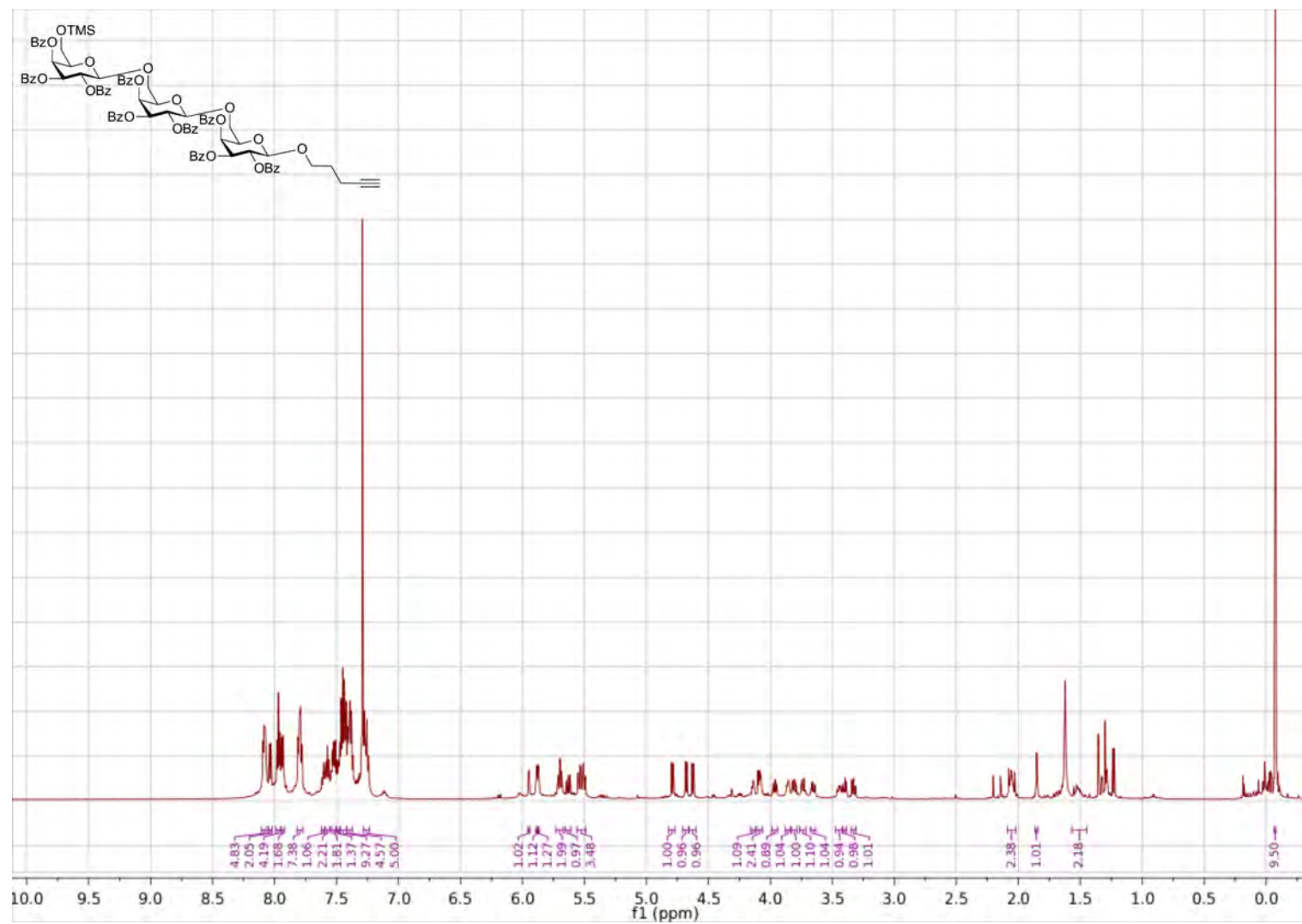


HSQC

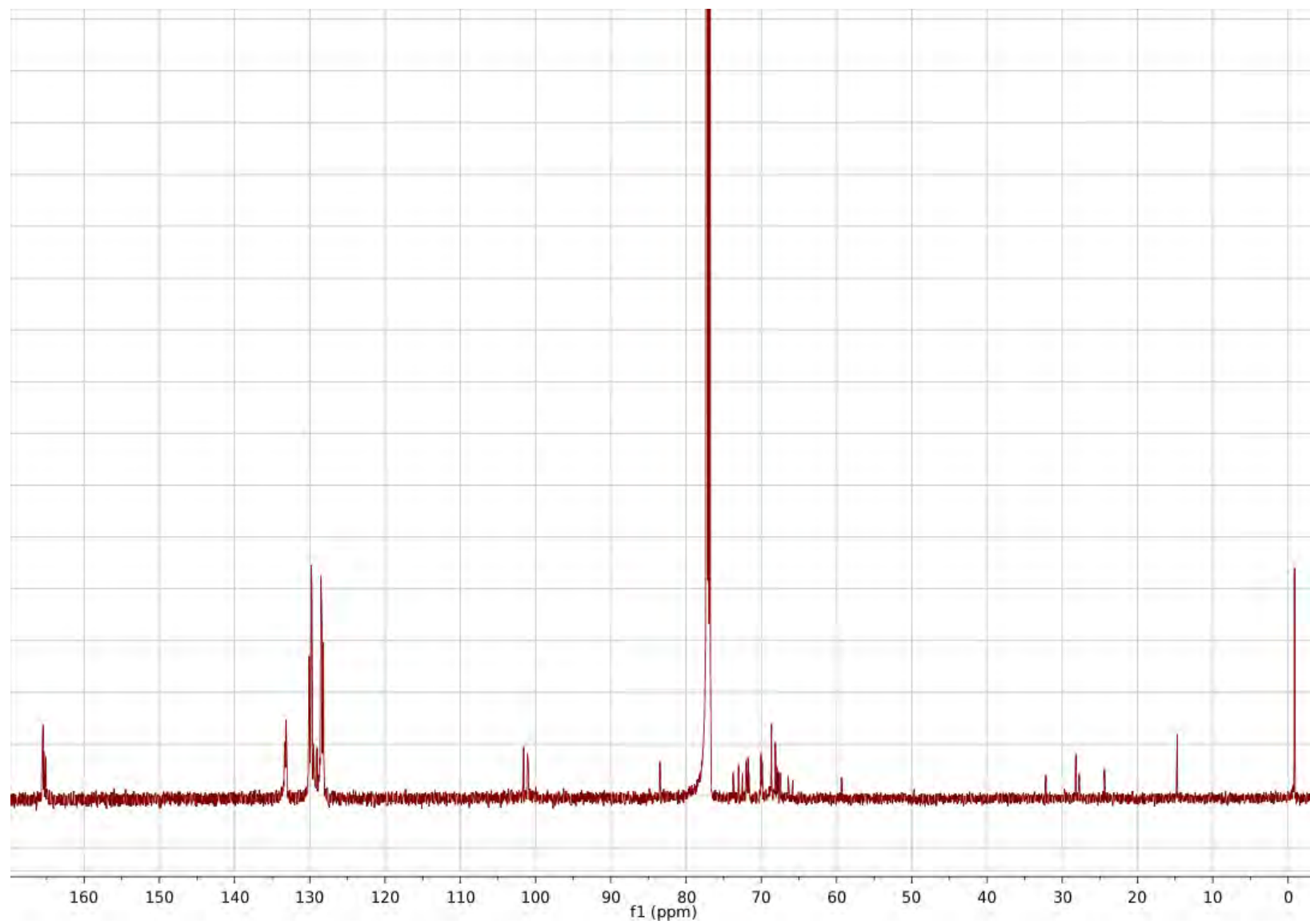


Compound **13_b**

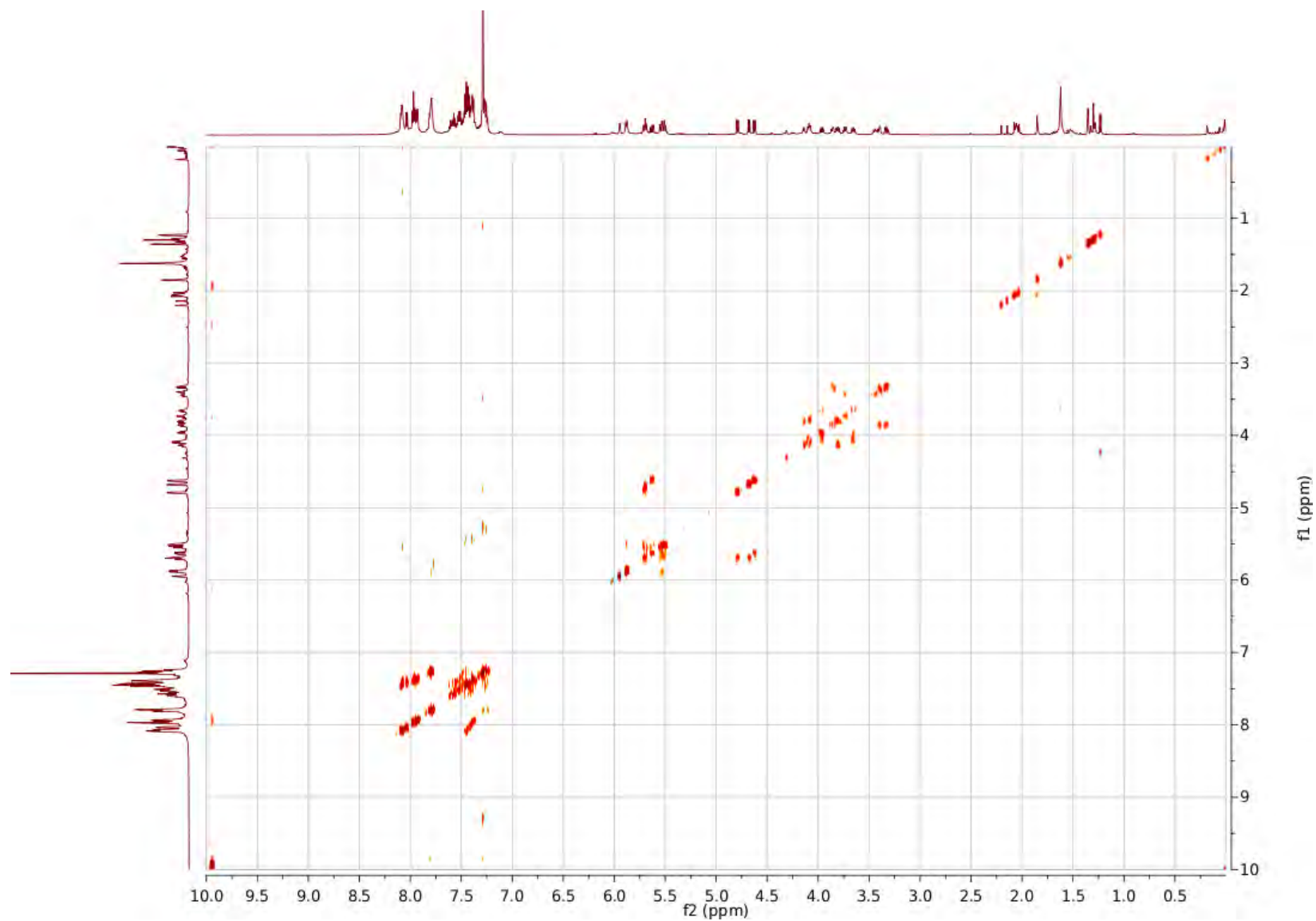
Proton



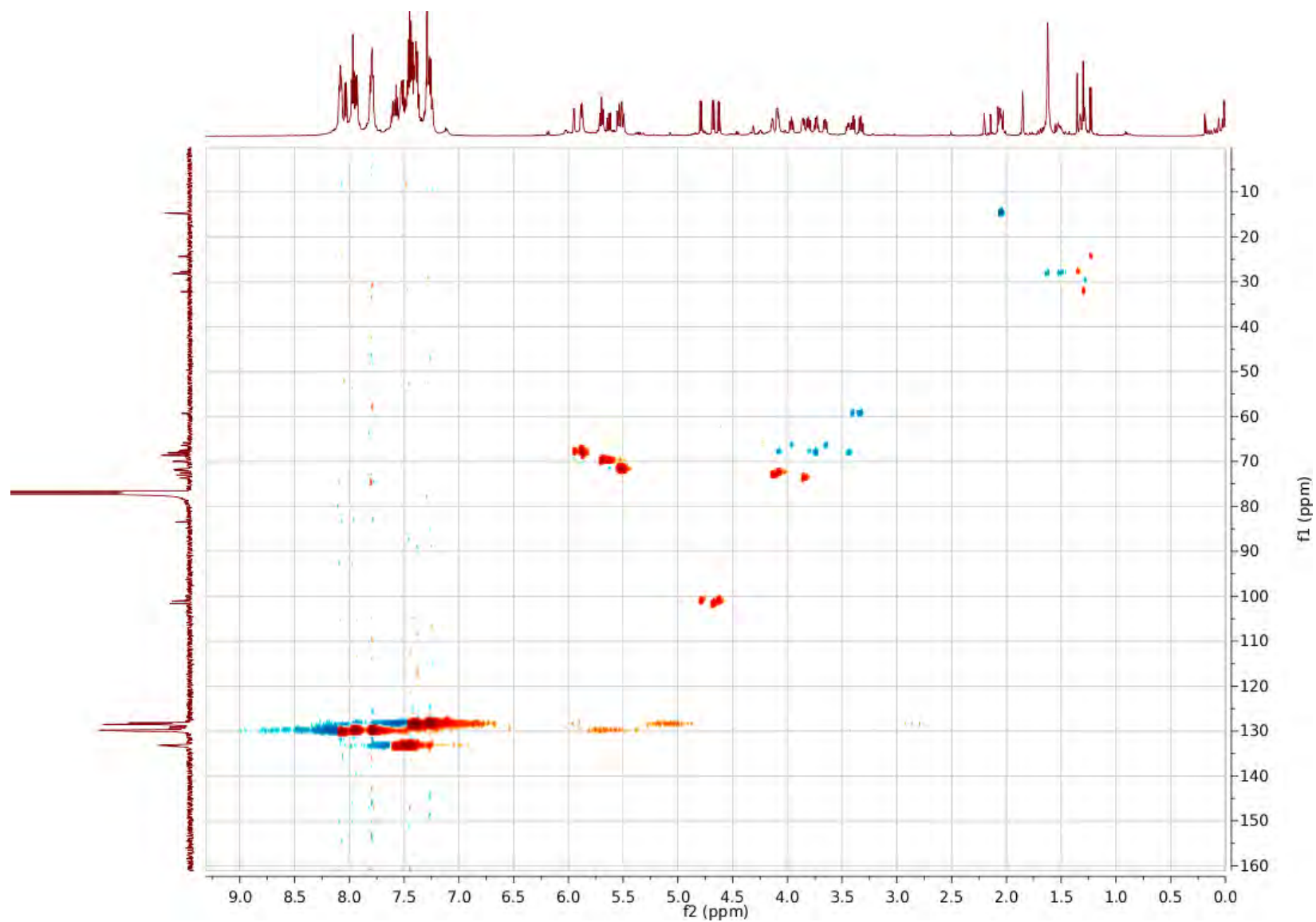
Carbon



COSY

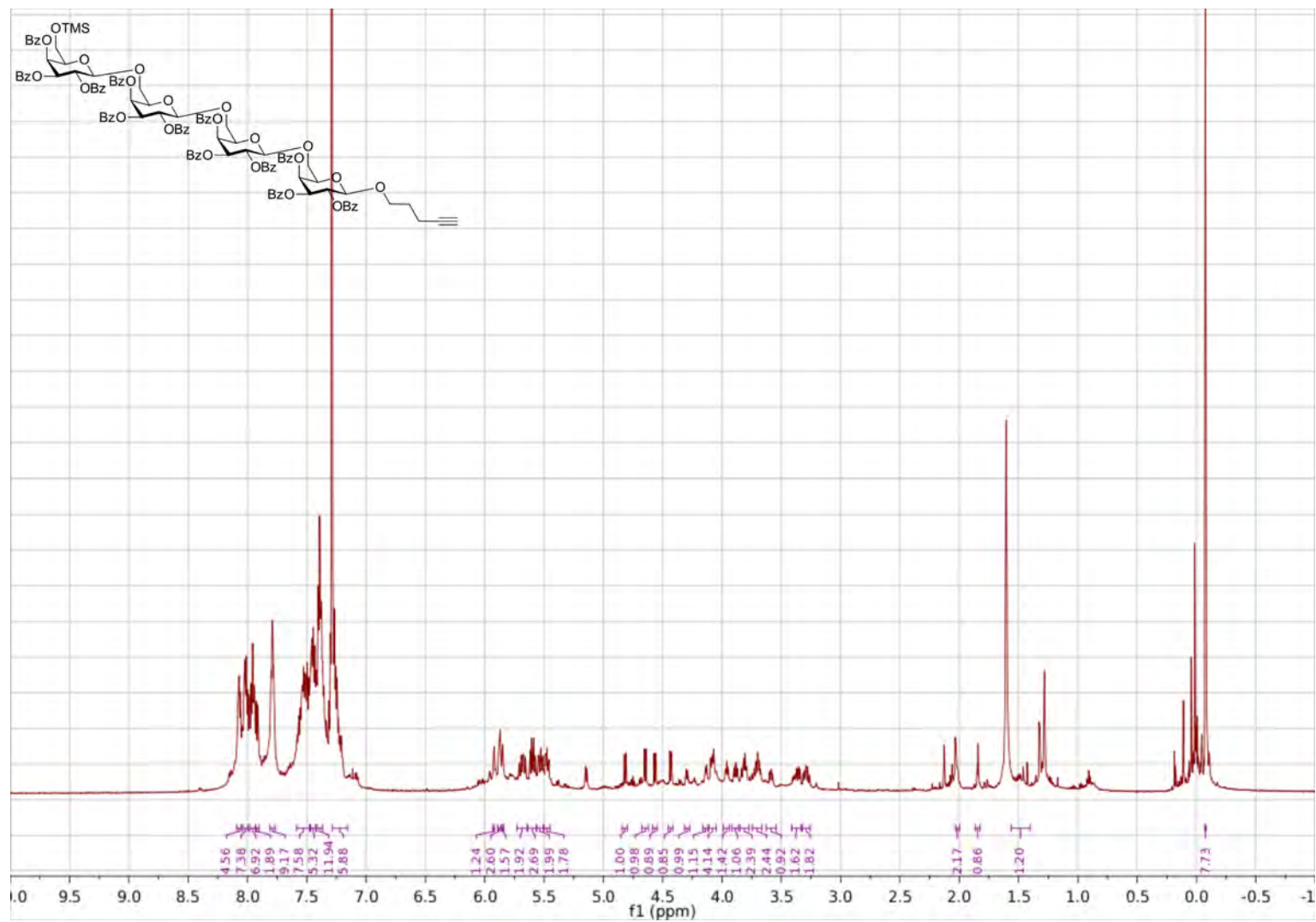


HSQC



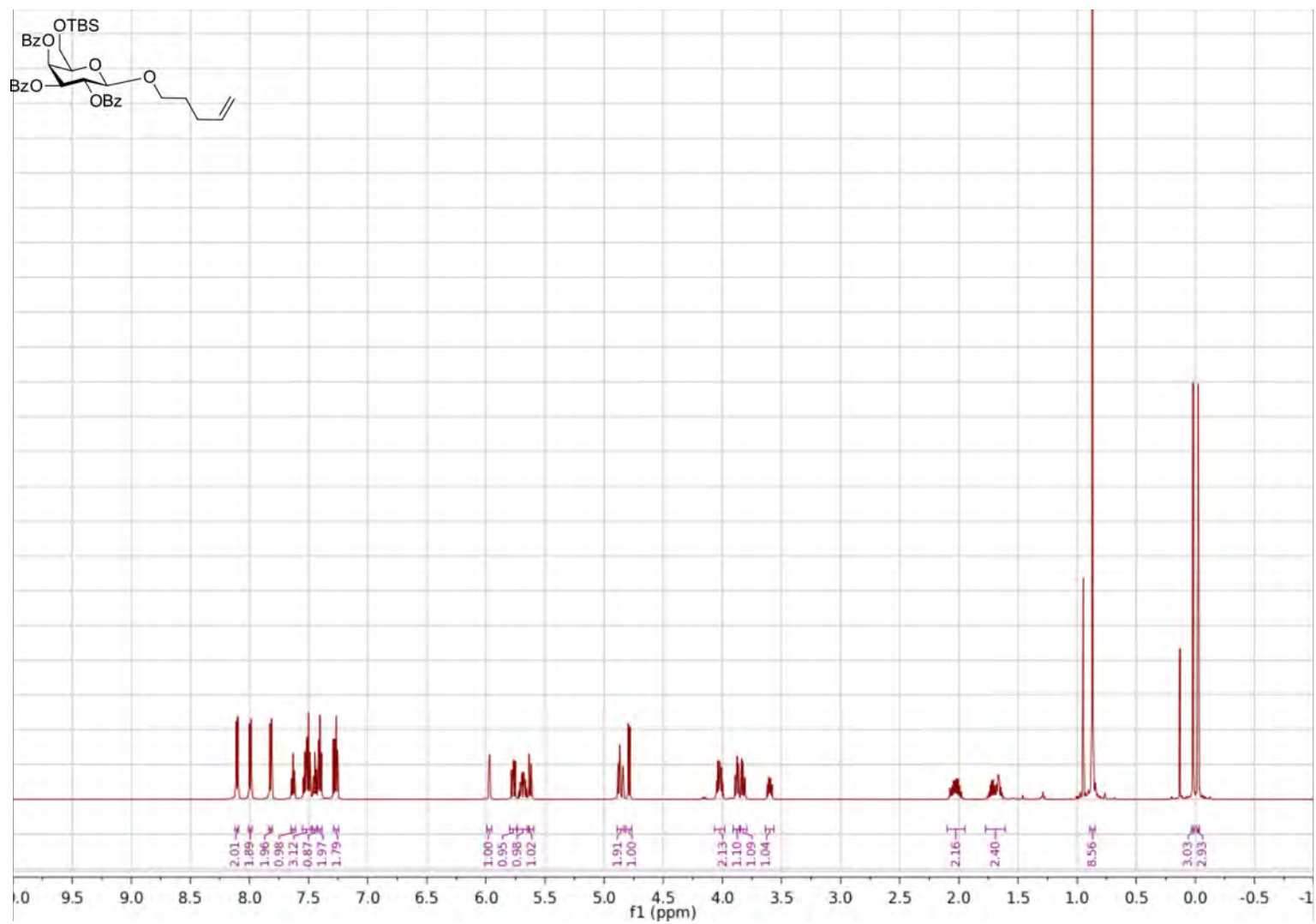
Compound **13_{4b}**

Proton

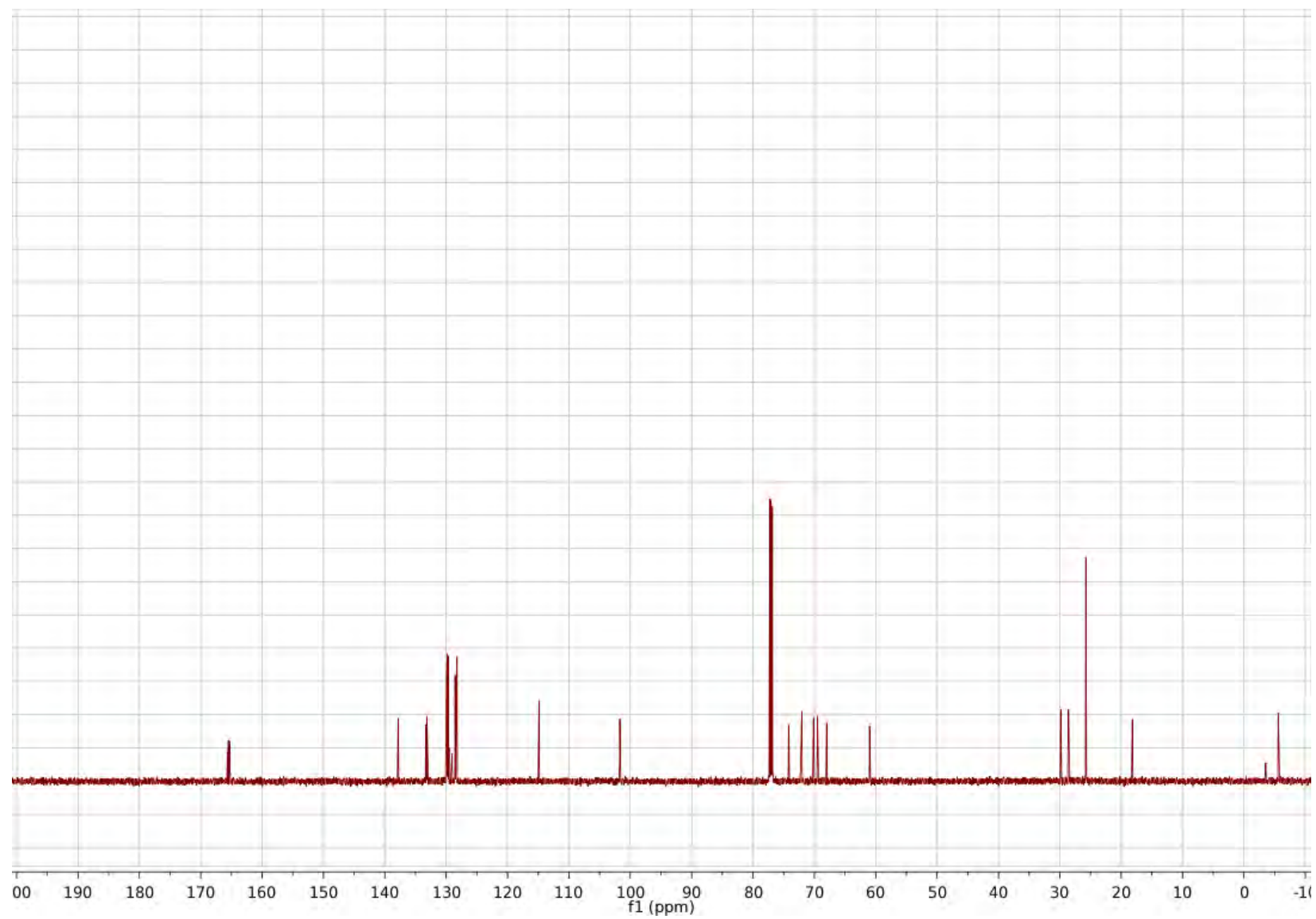


Compound **14_c**

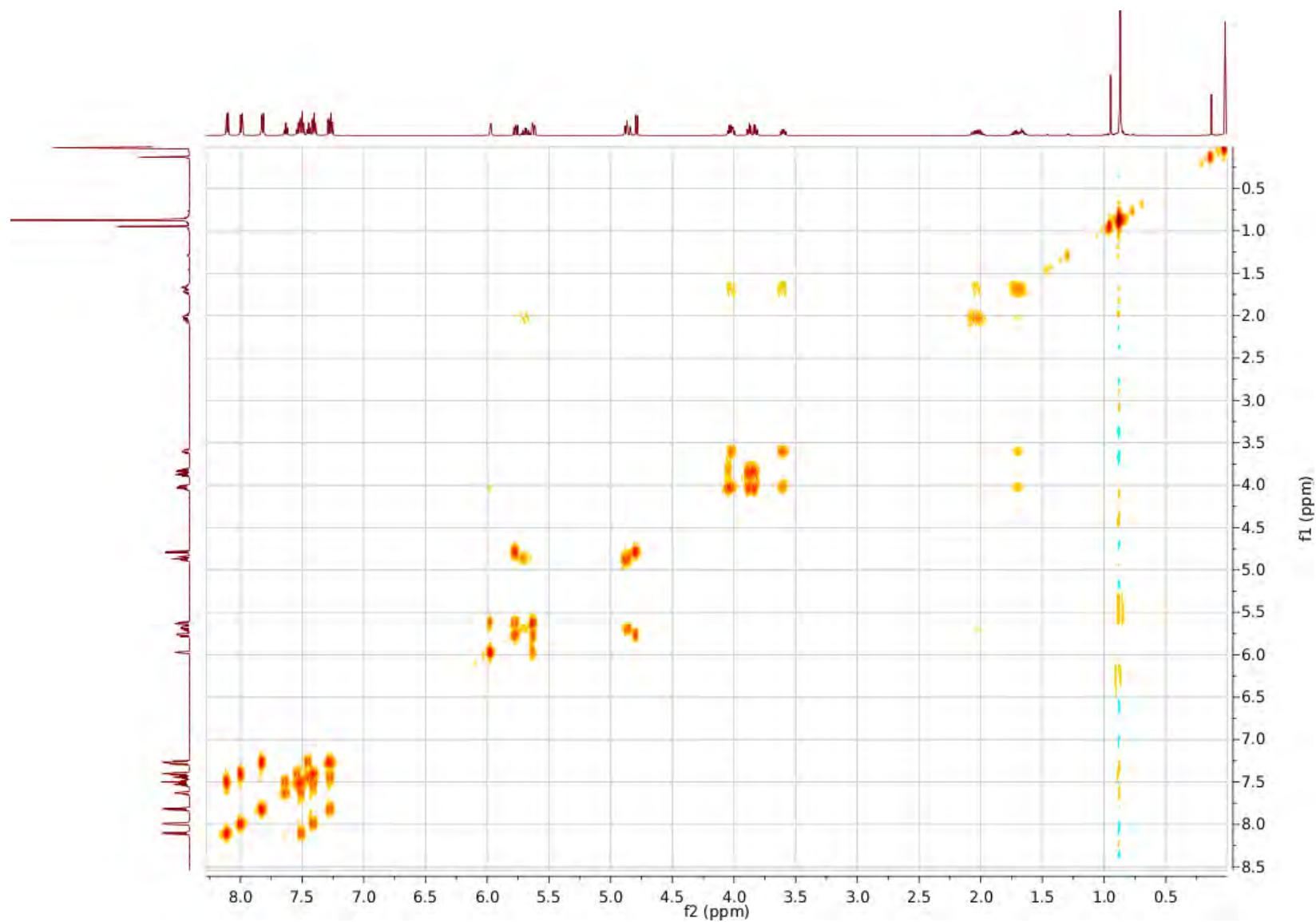
Proton



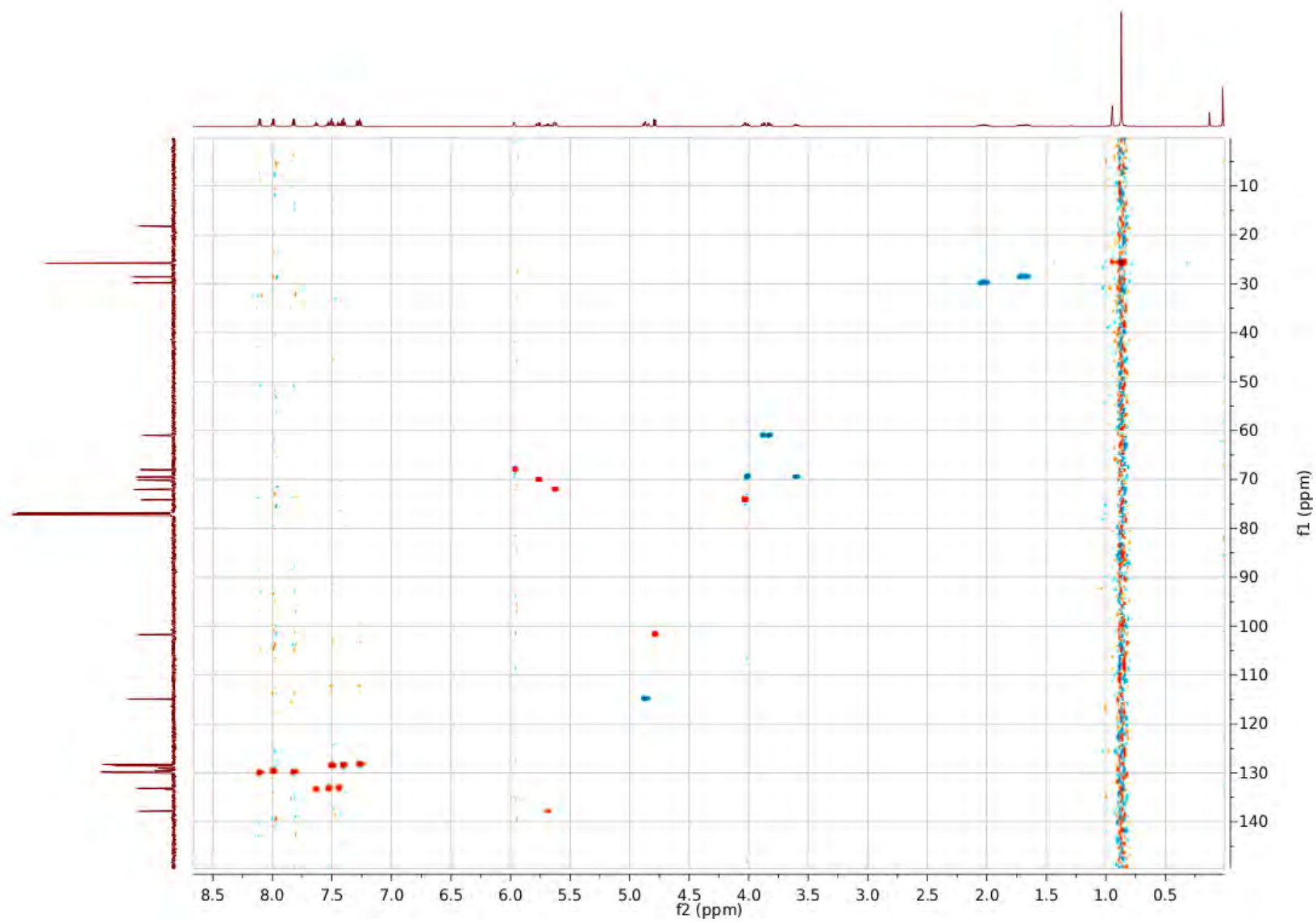
Carbon



COSY

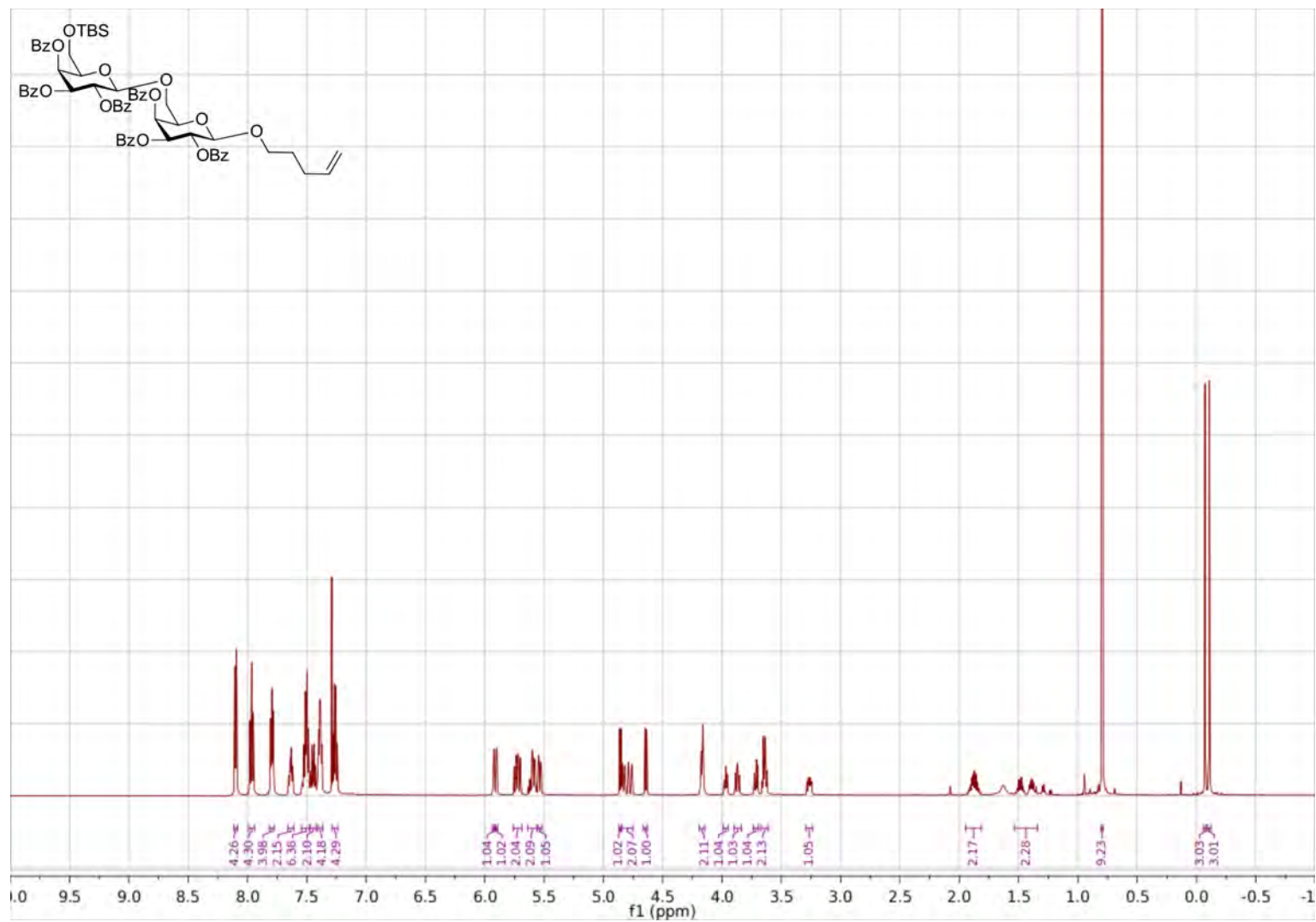


HSQC

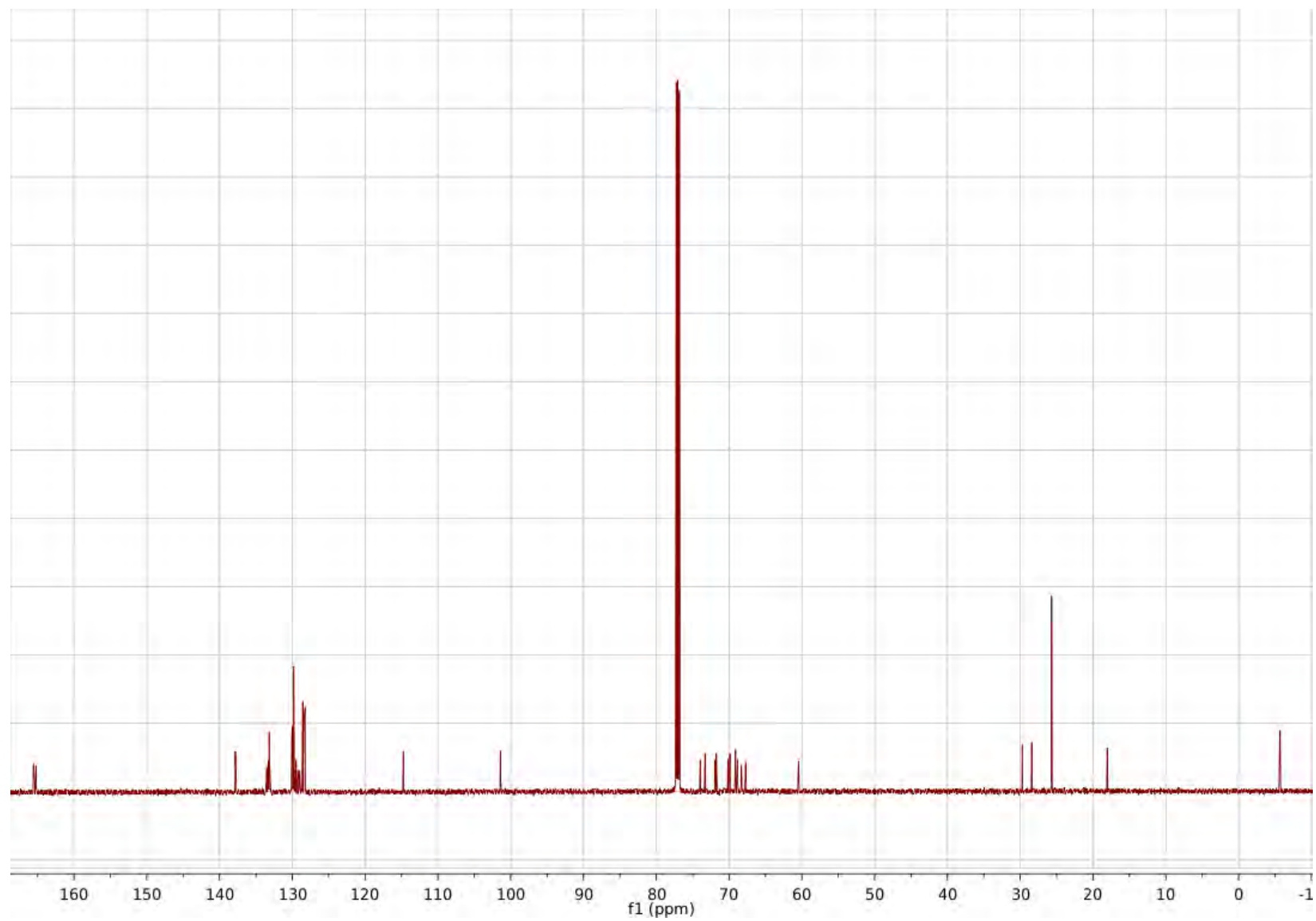


Compound **14_{2c}**

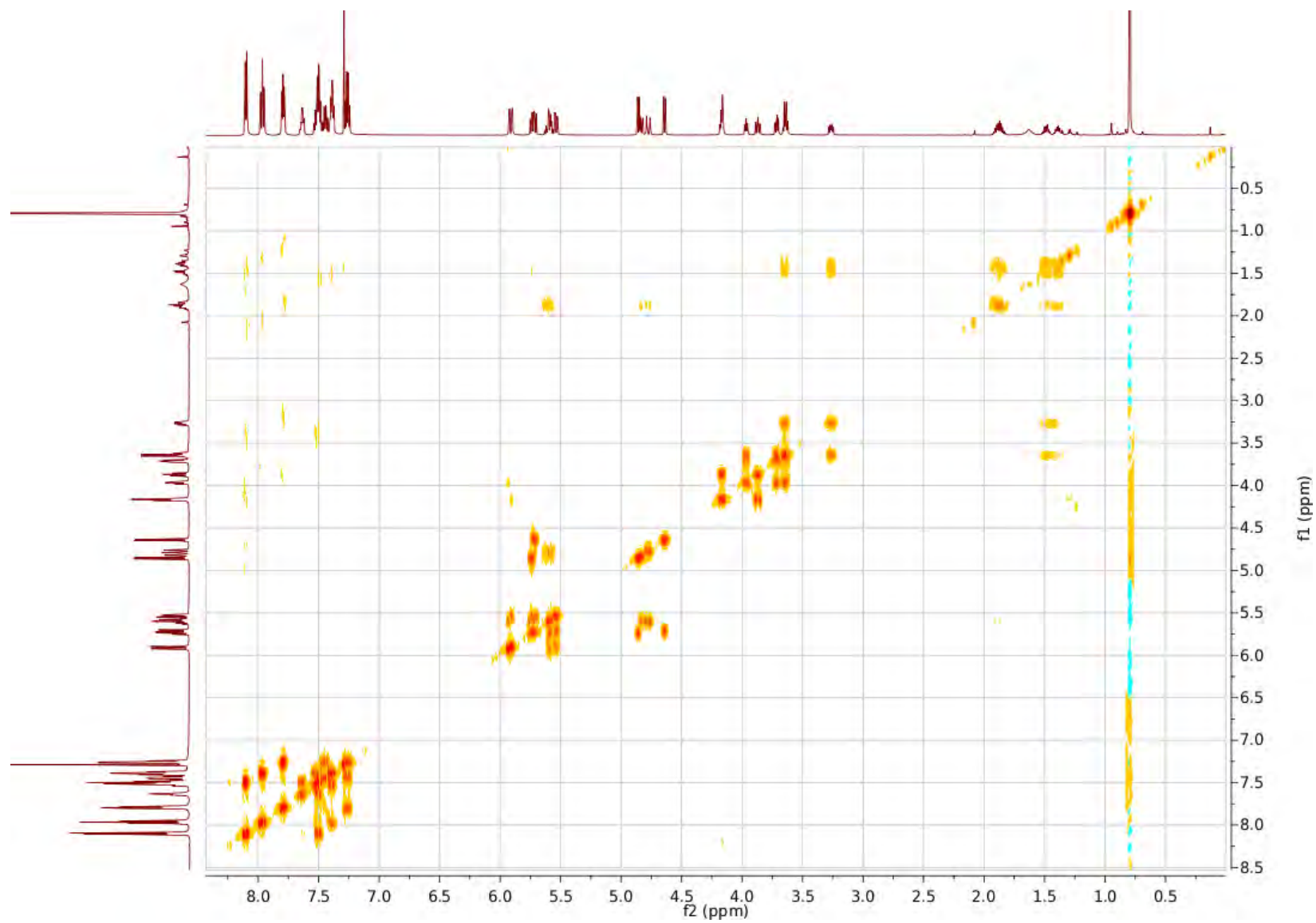
Proton



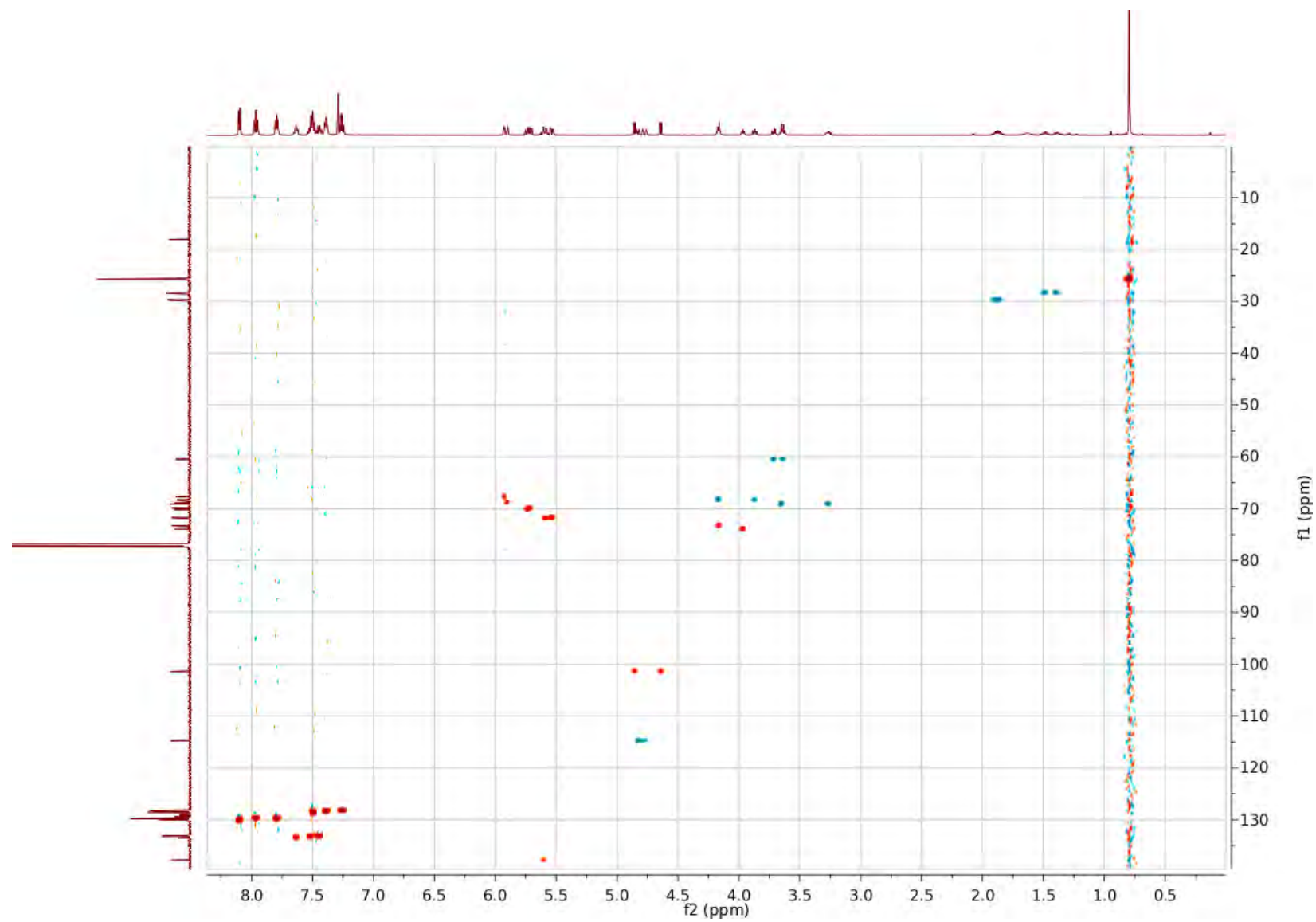
Carbon



COSY

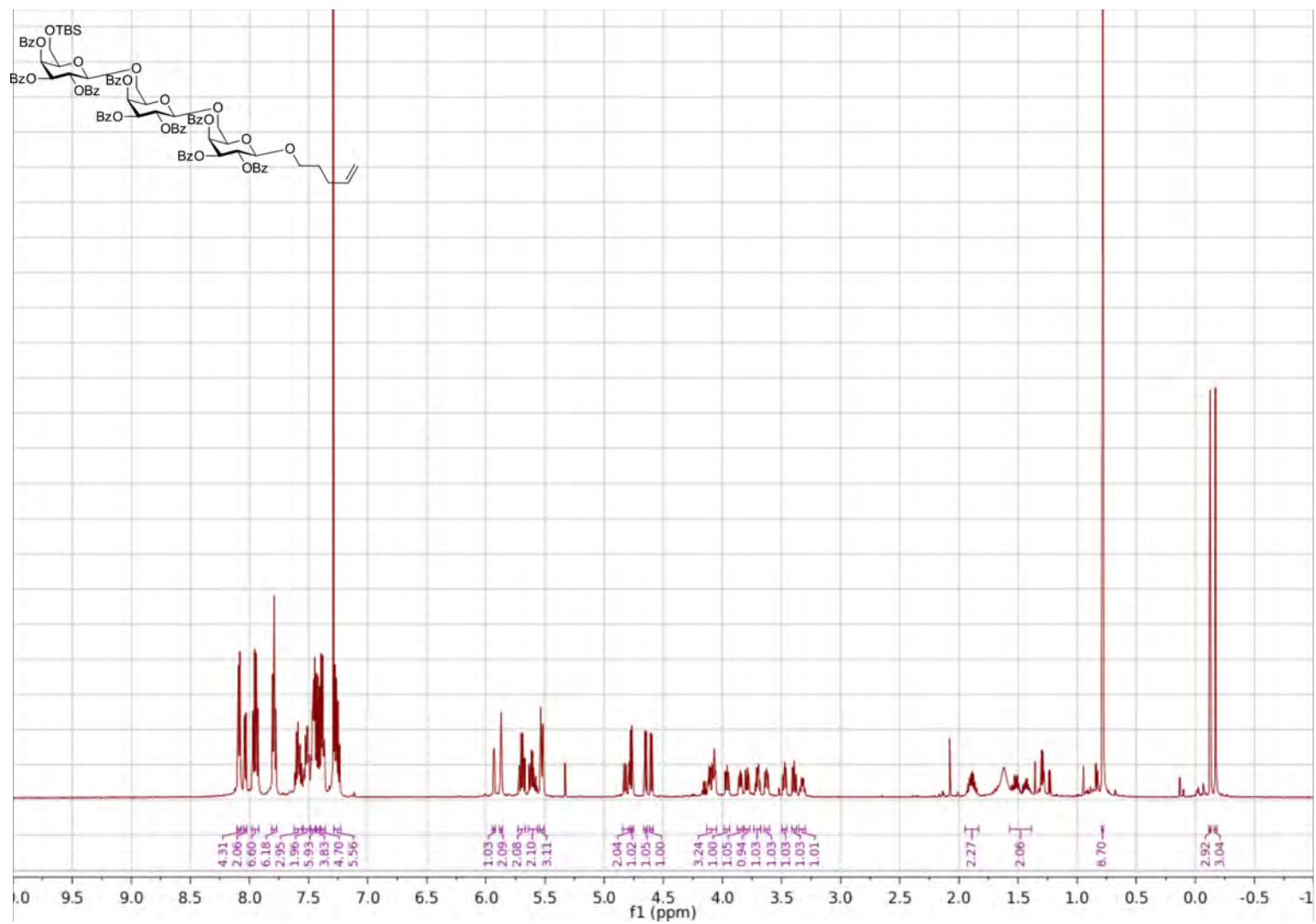


HSQC

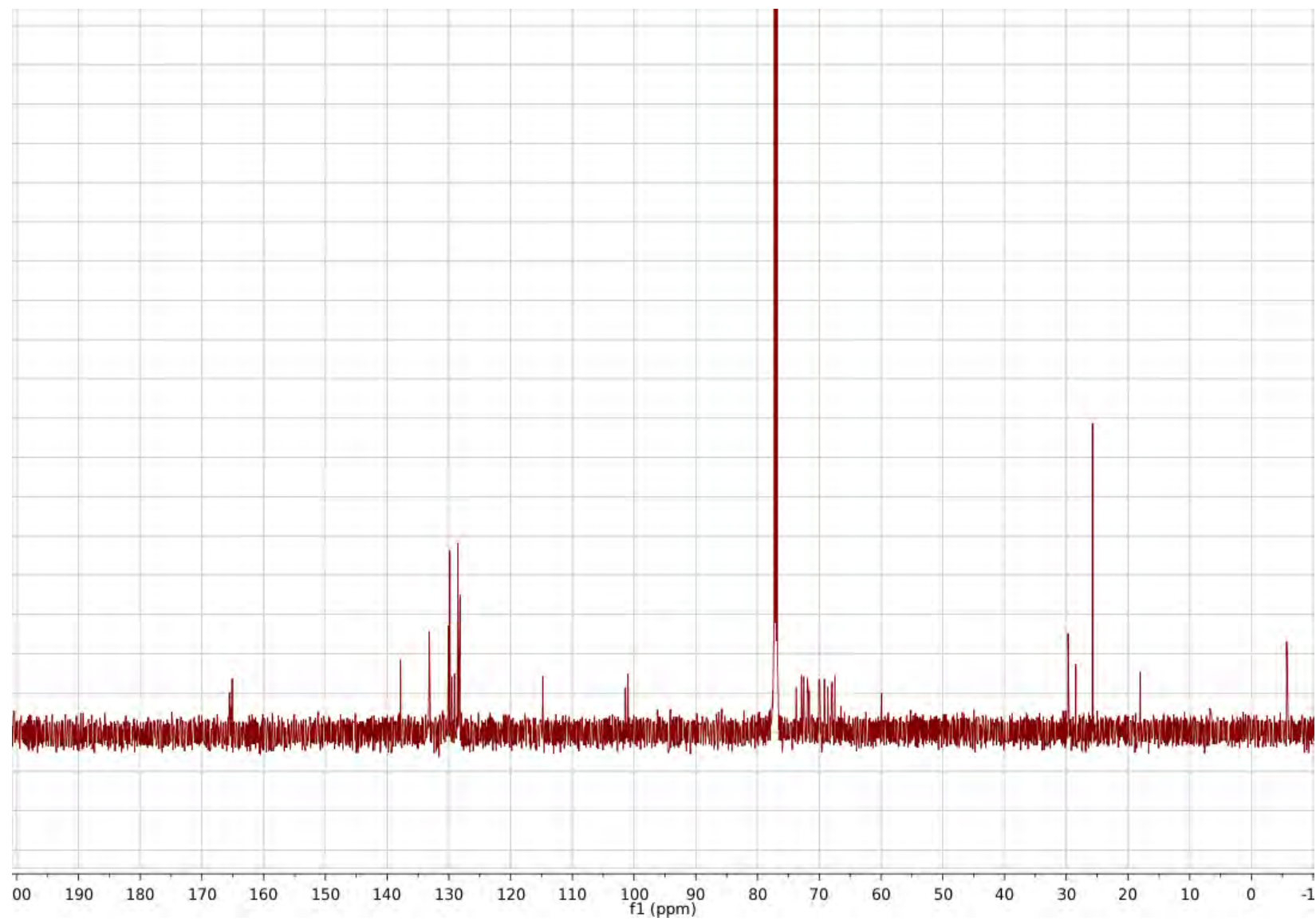


Compound **14_{3c}**

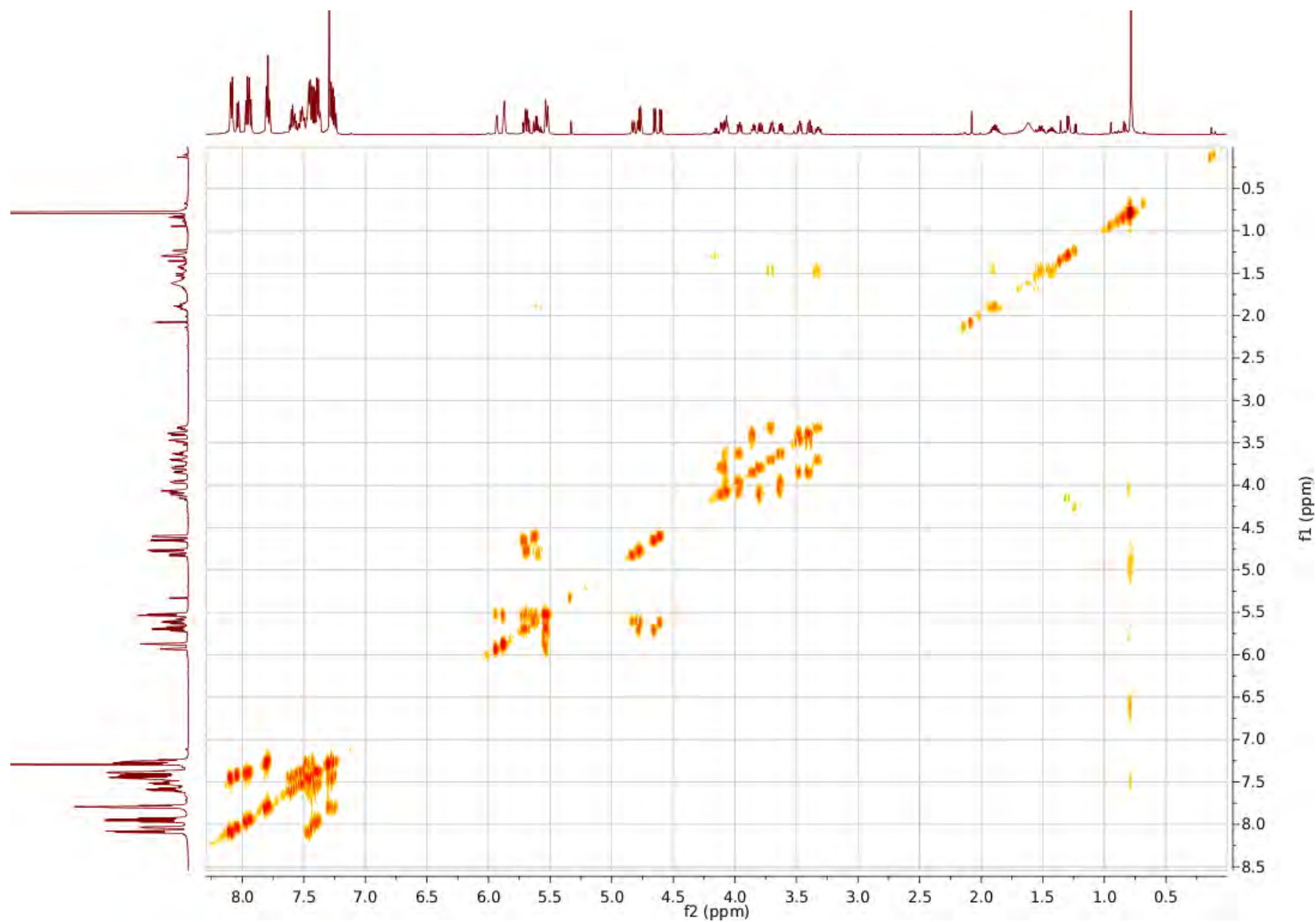
Proton



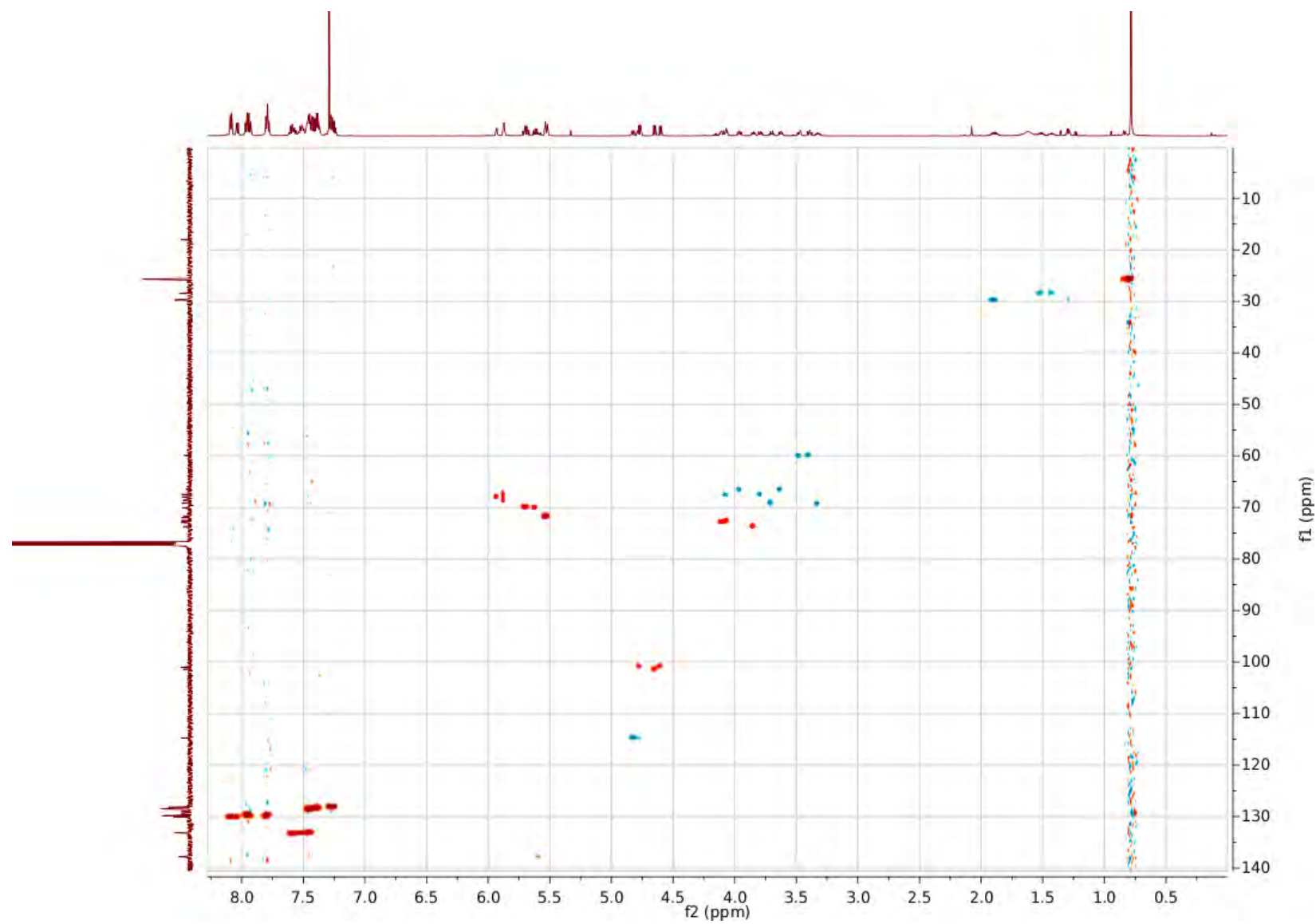
Carbon



COSY

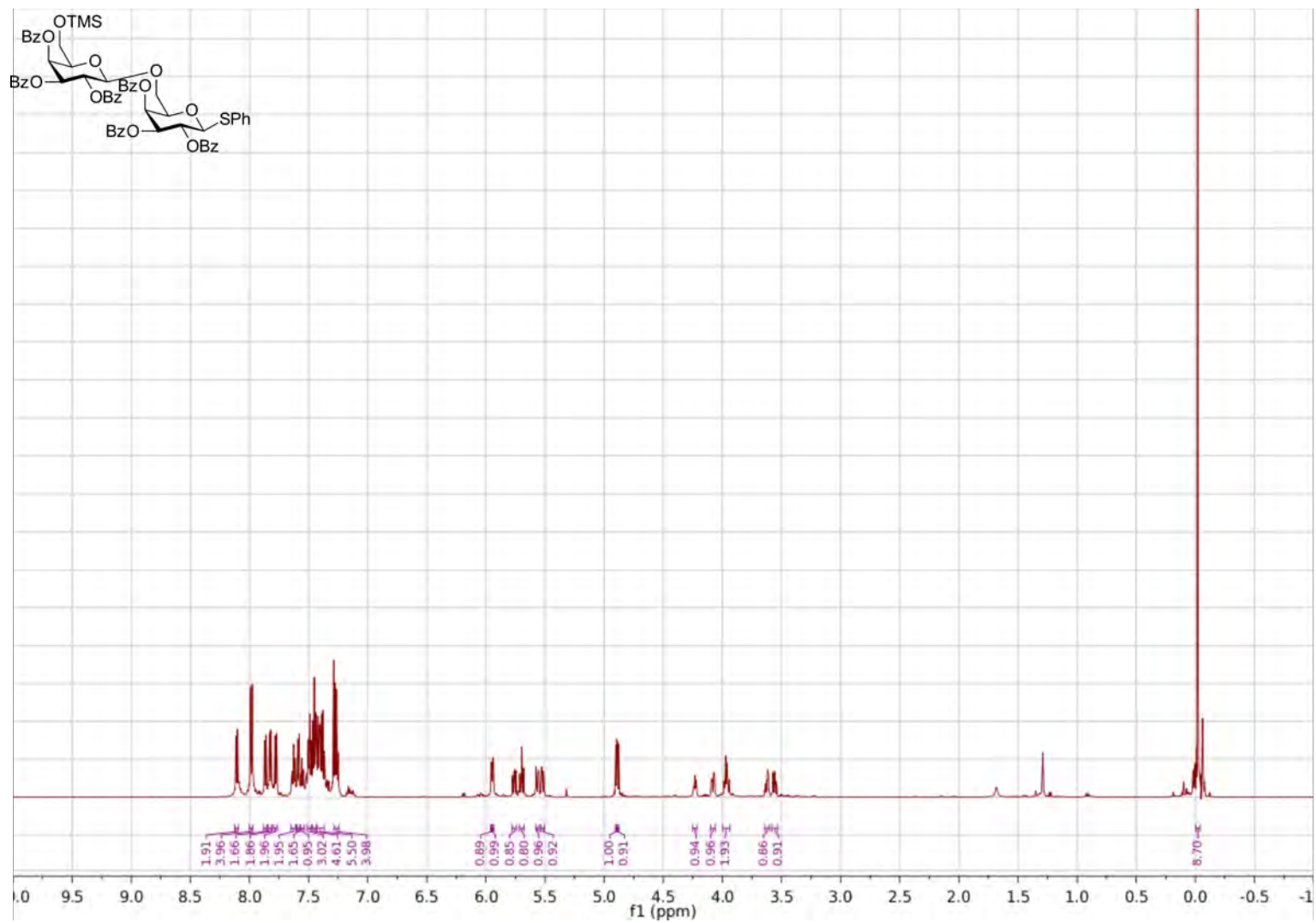


HSQC

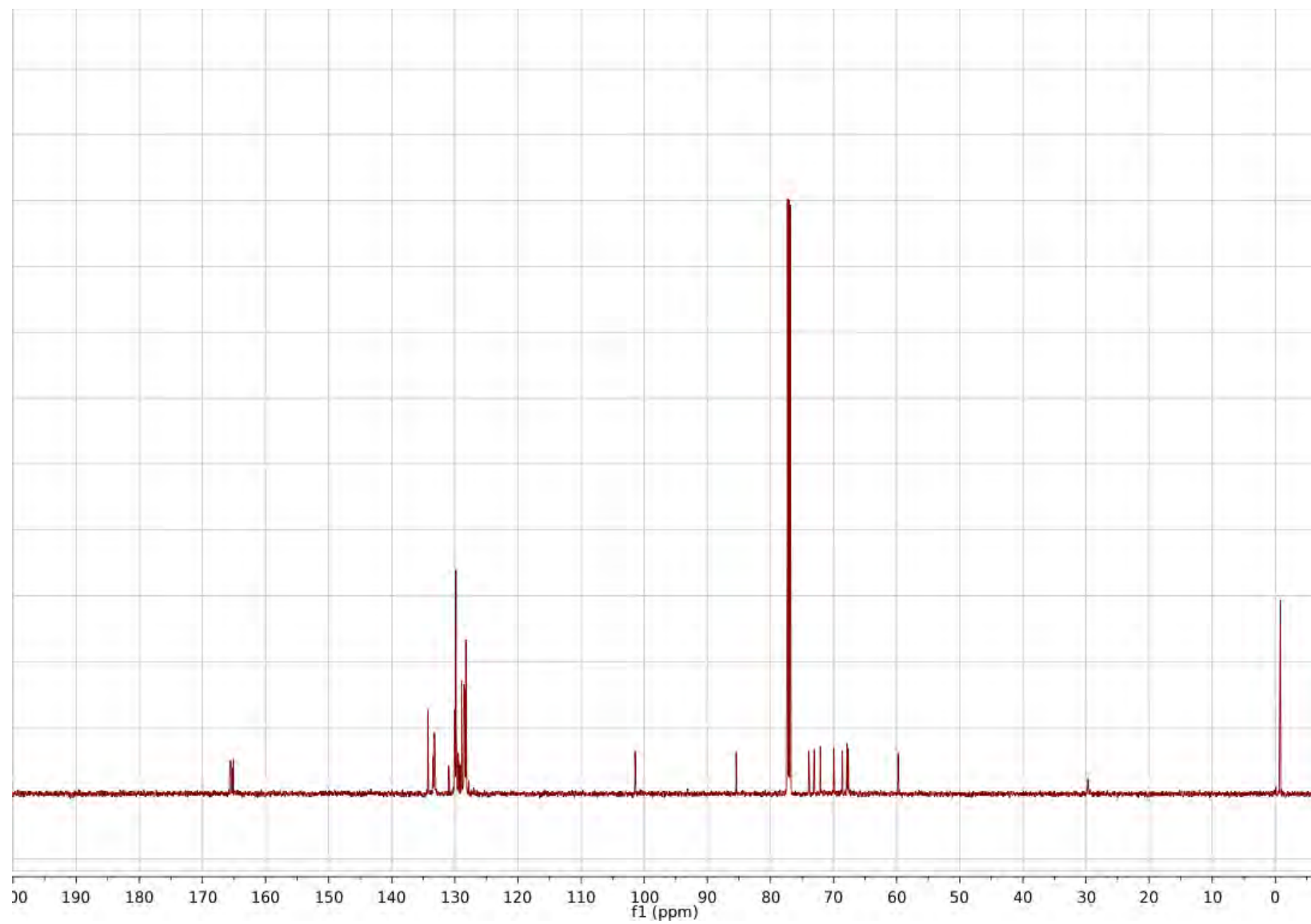


Compound **15₂b**

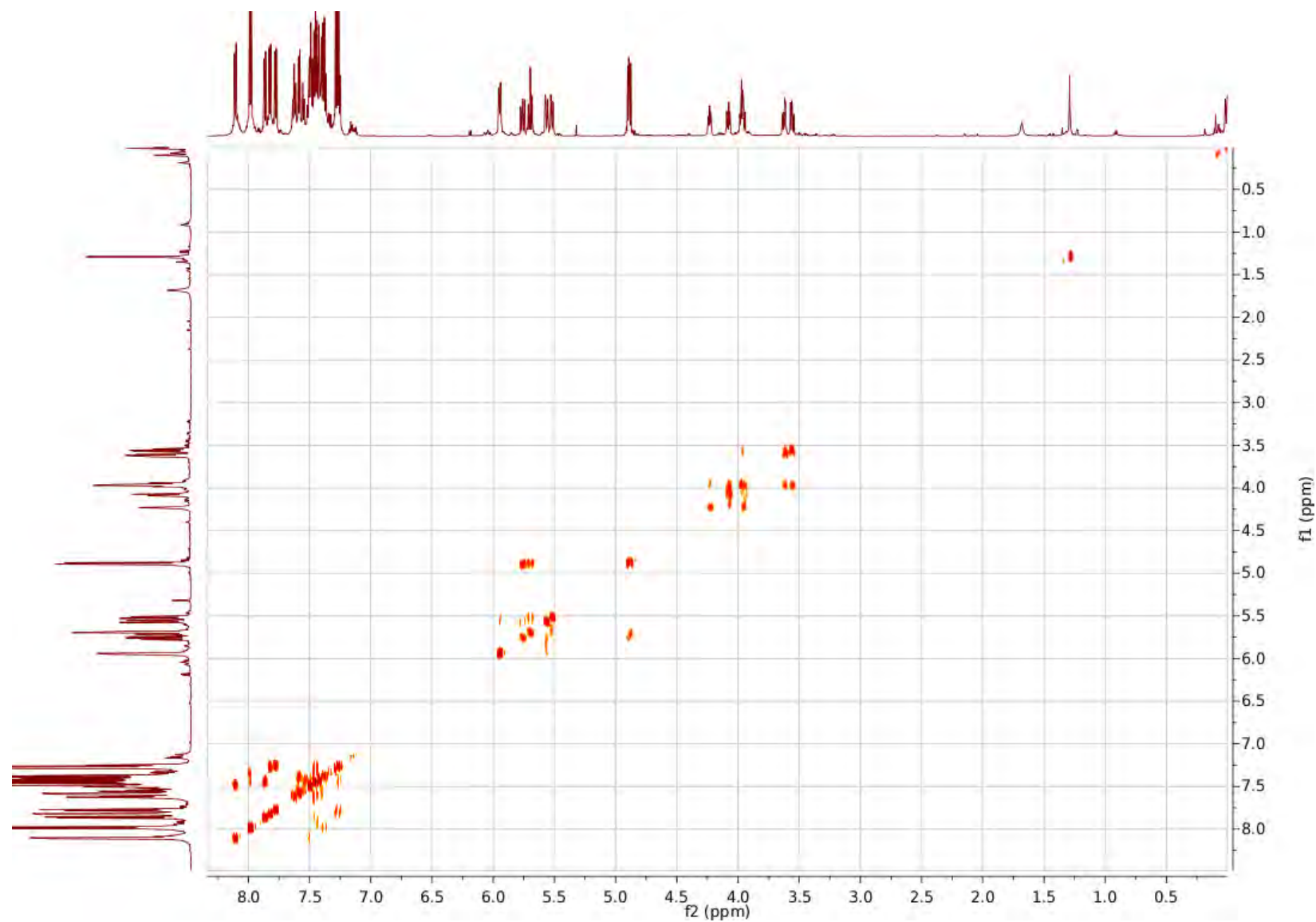
Proton



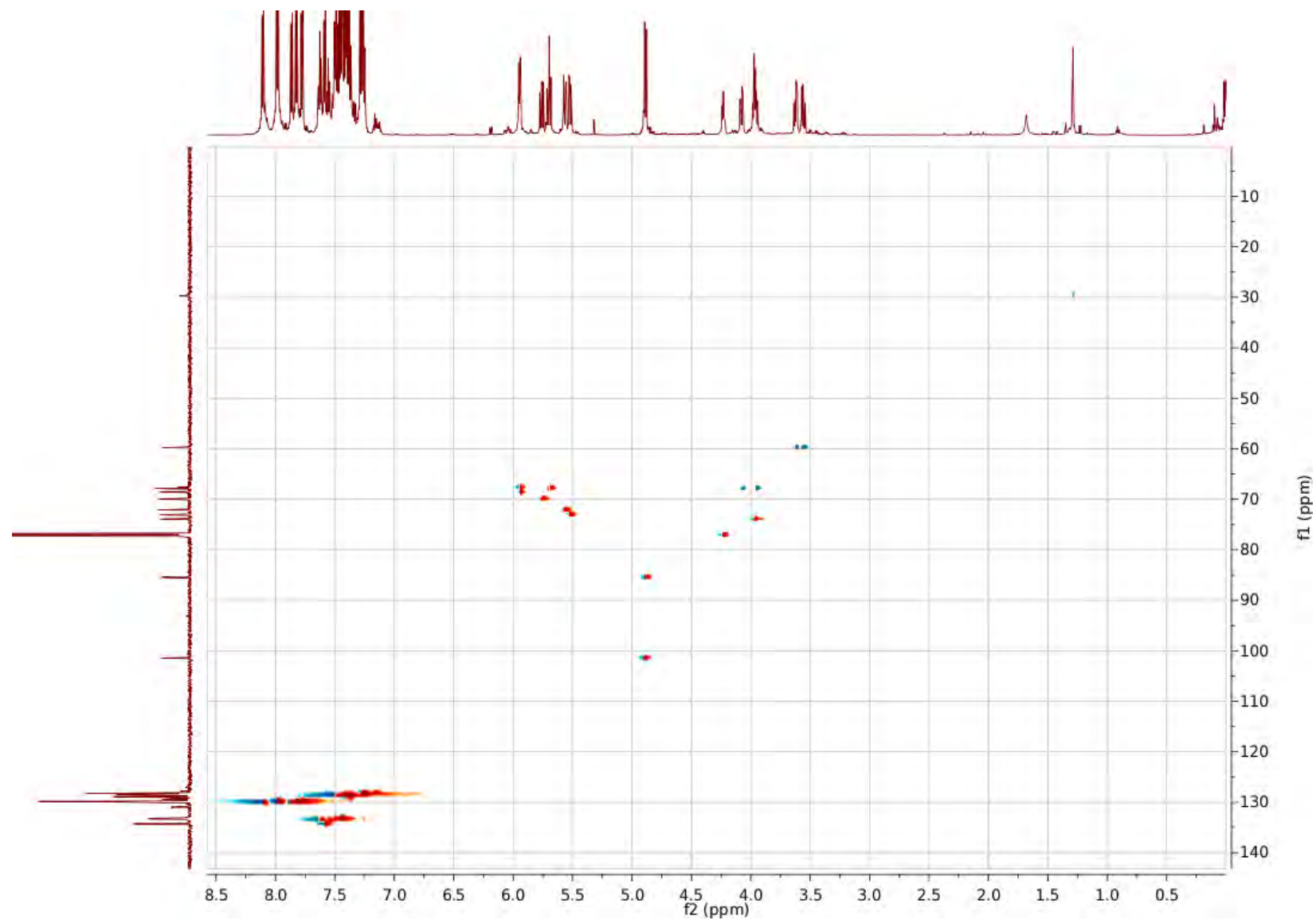
Carbon



COSY

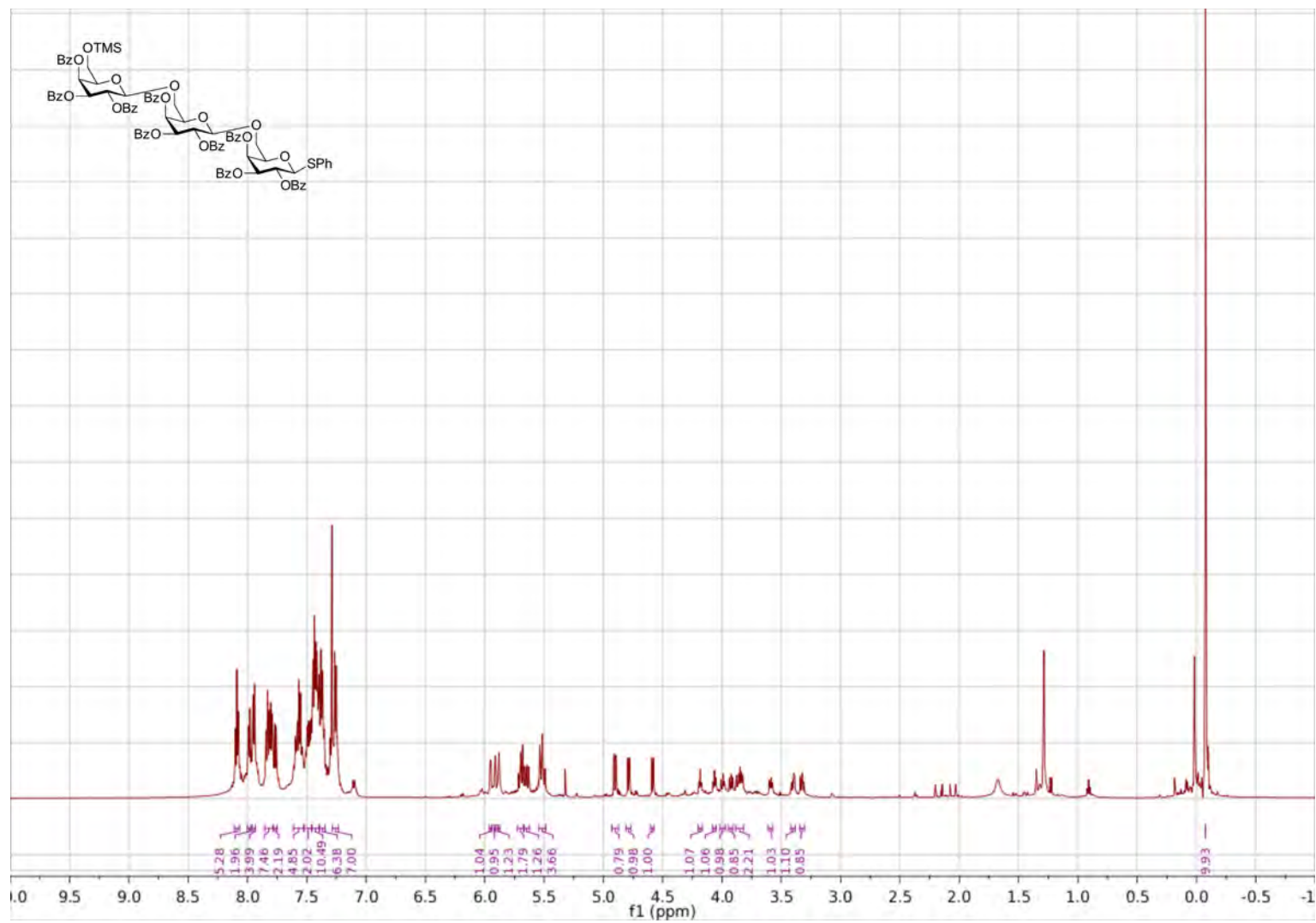


HSQC

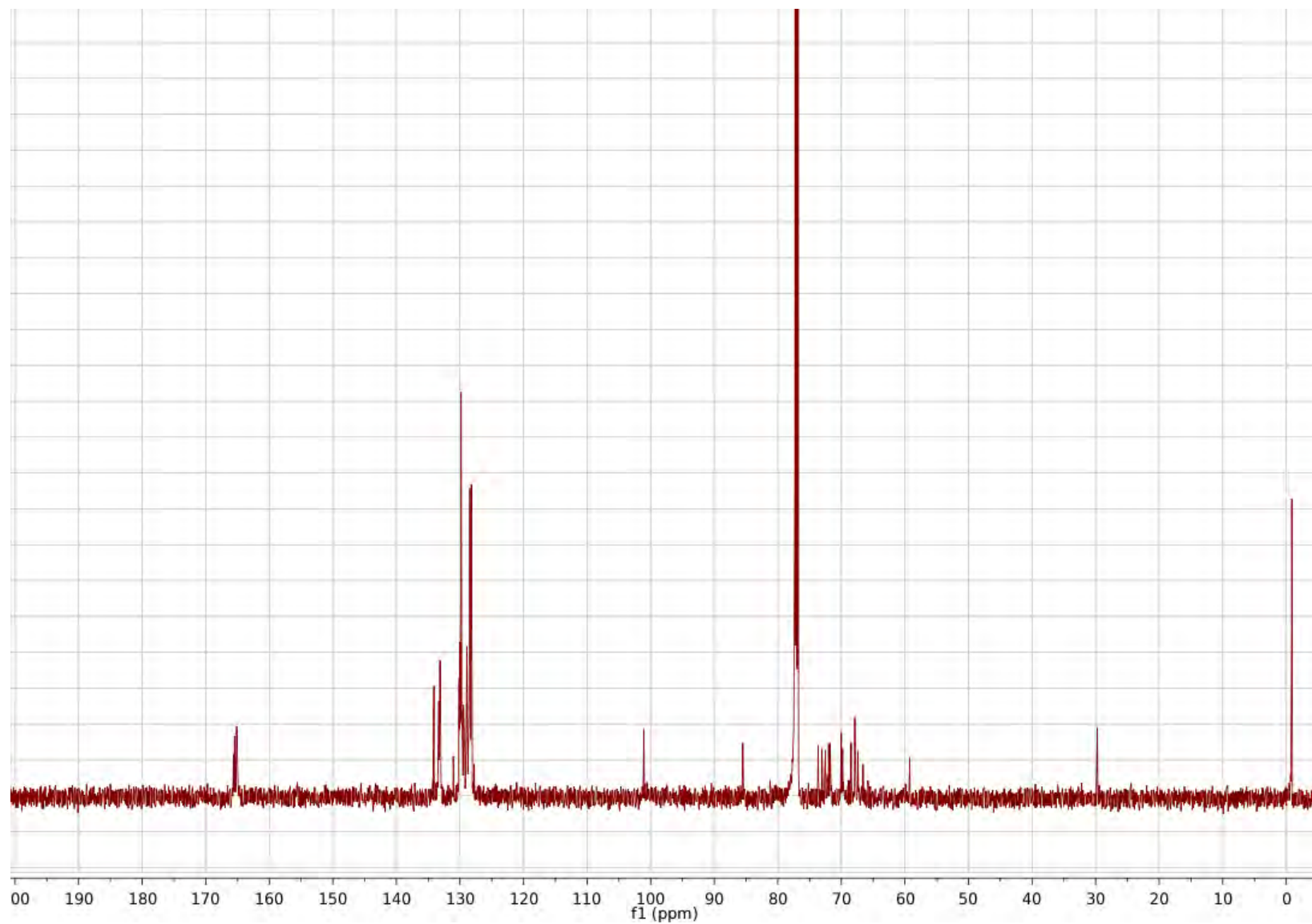


Compound **15_{3b}**

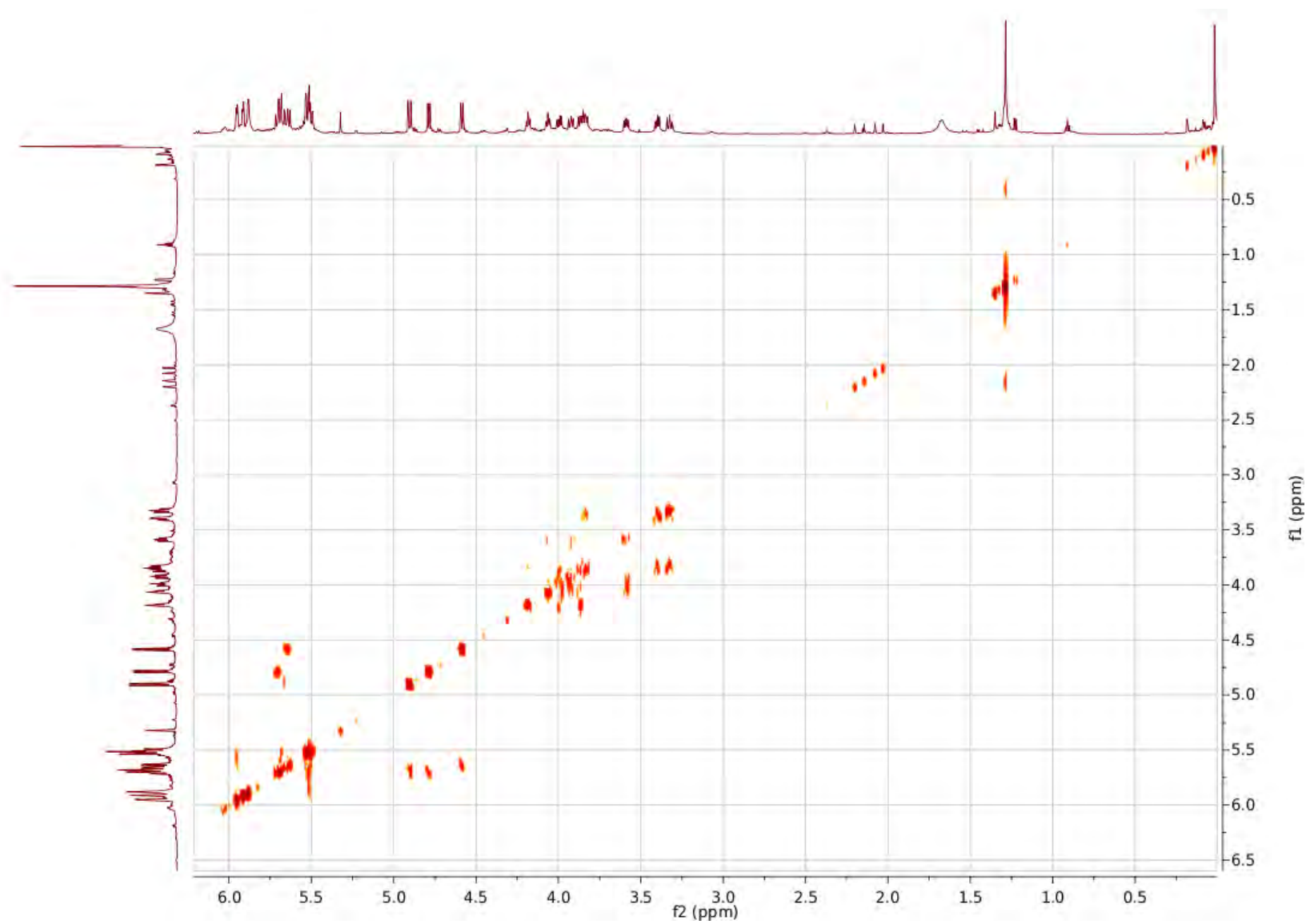
Proton



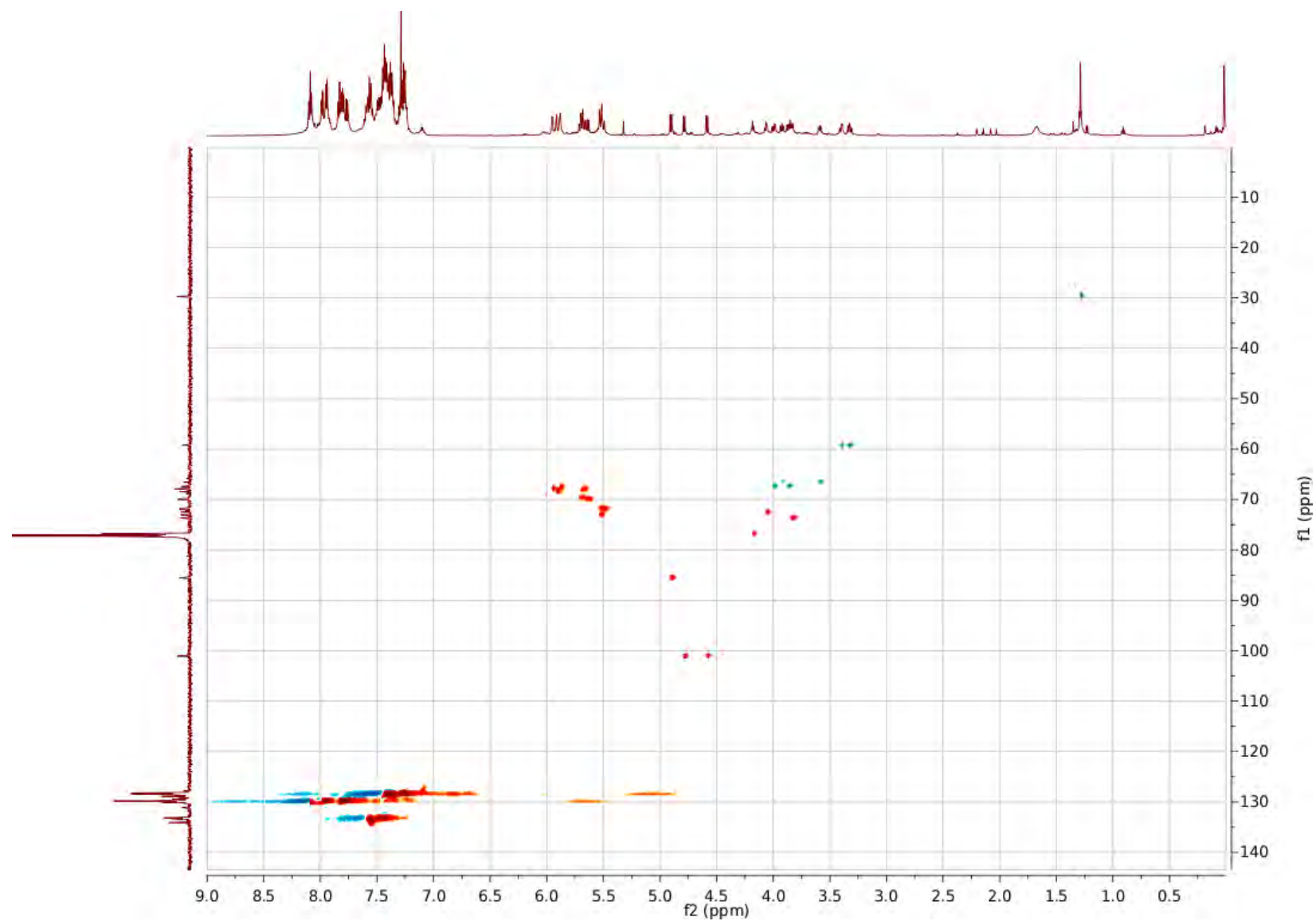
Carbon



COSY

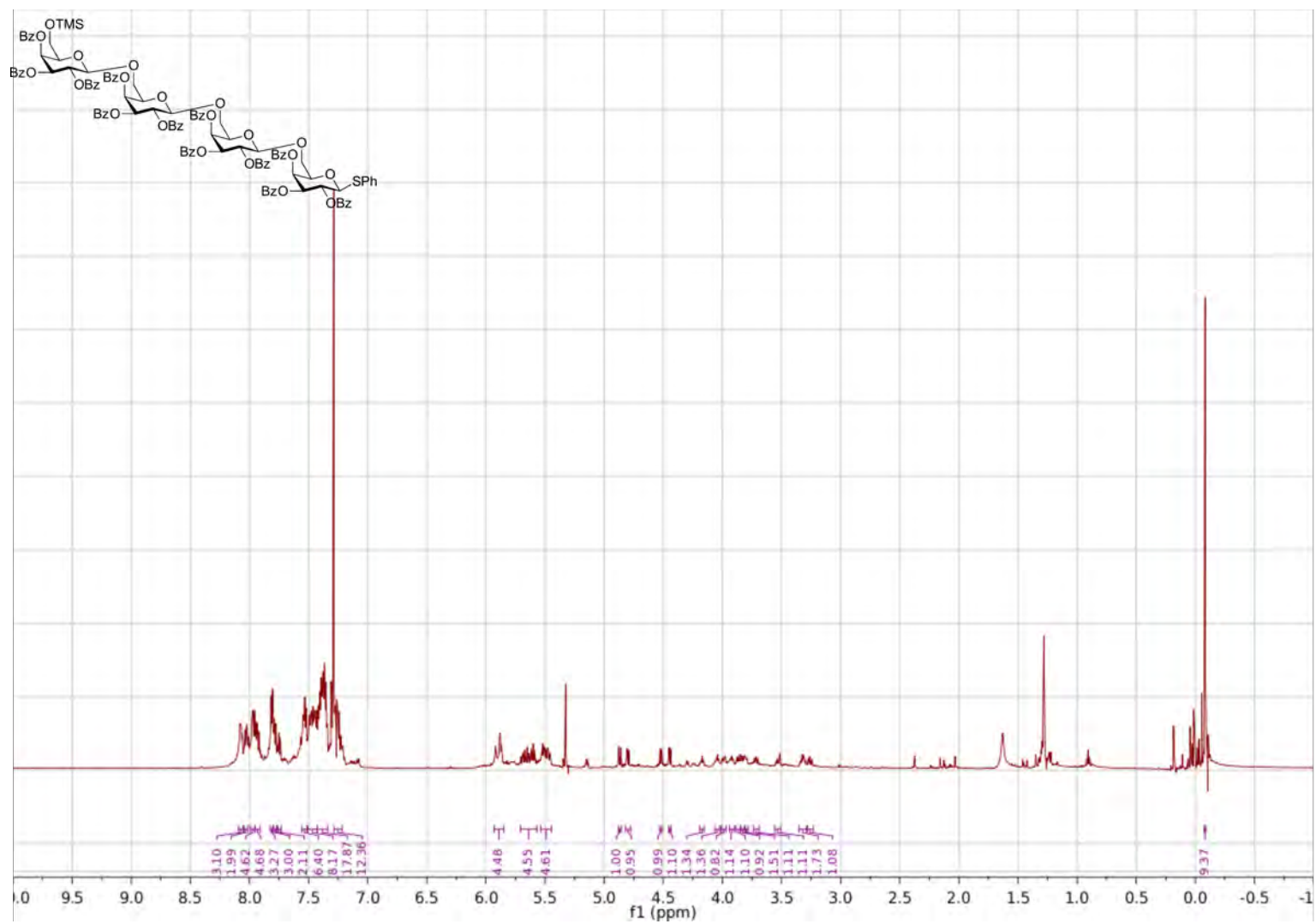


HSQC

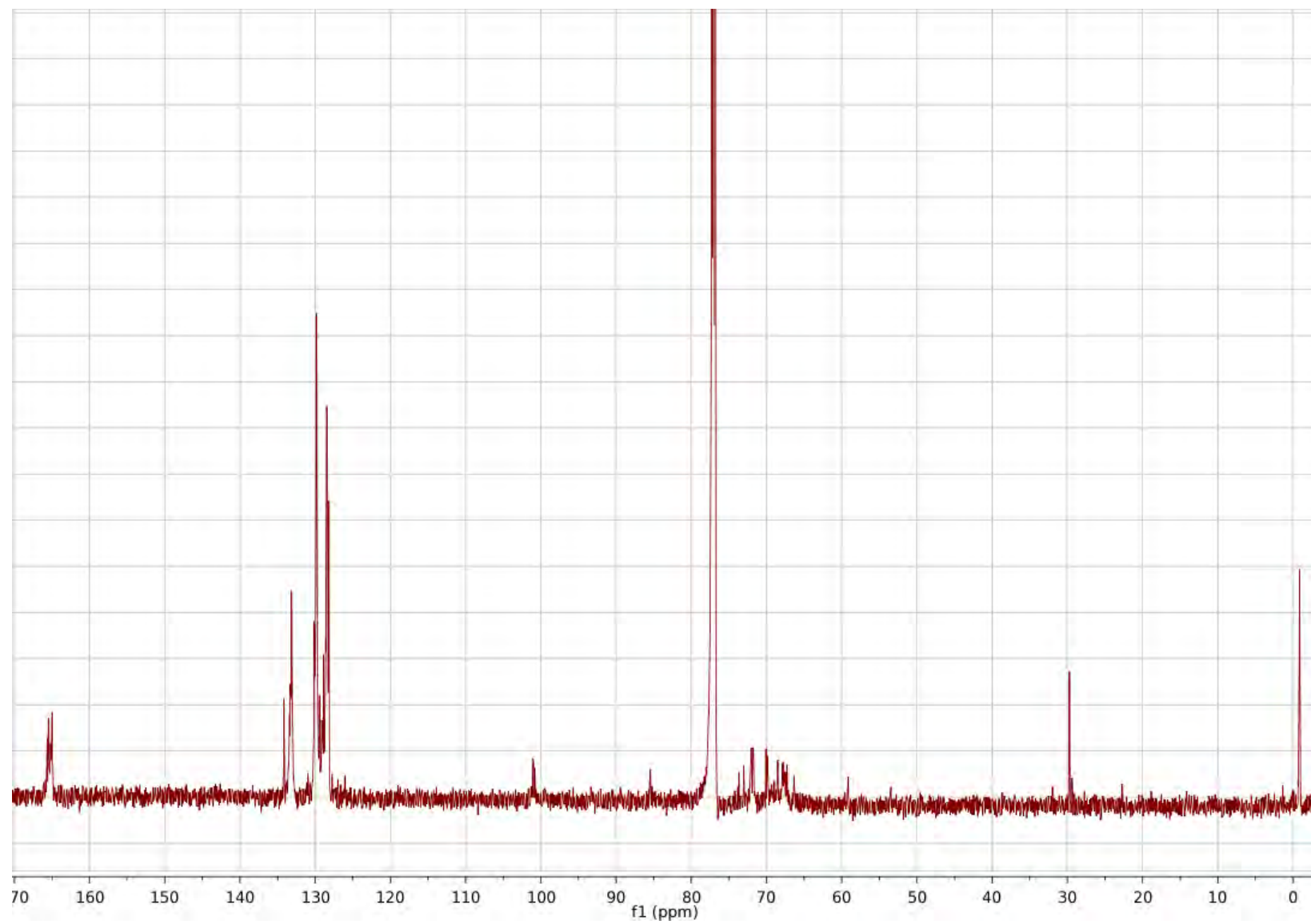


Compound **15₄b**

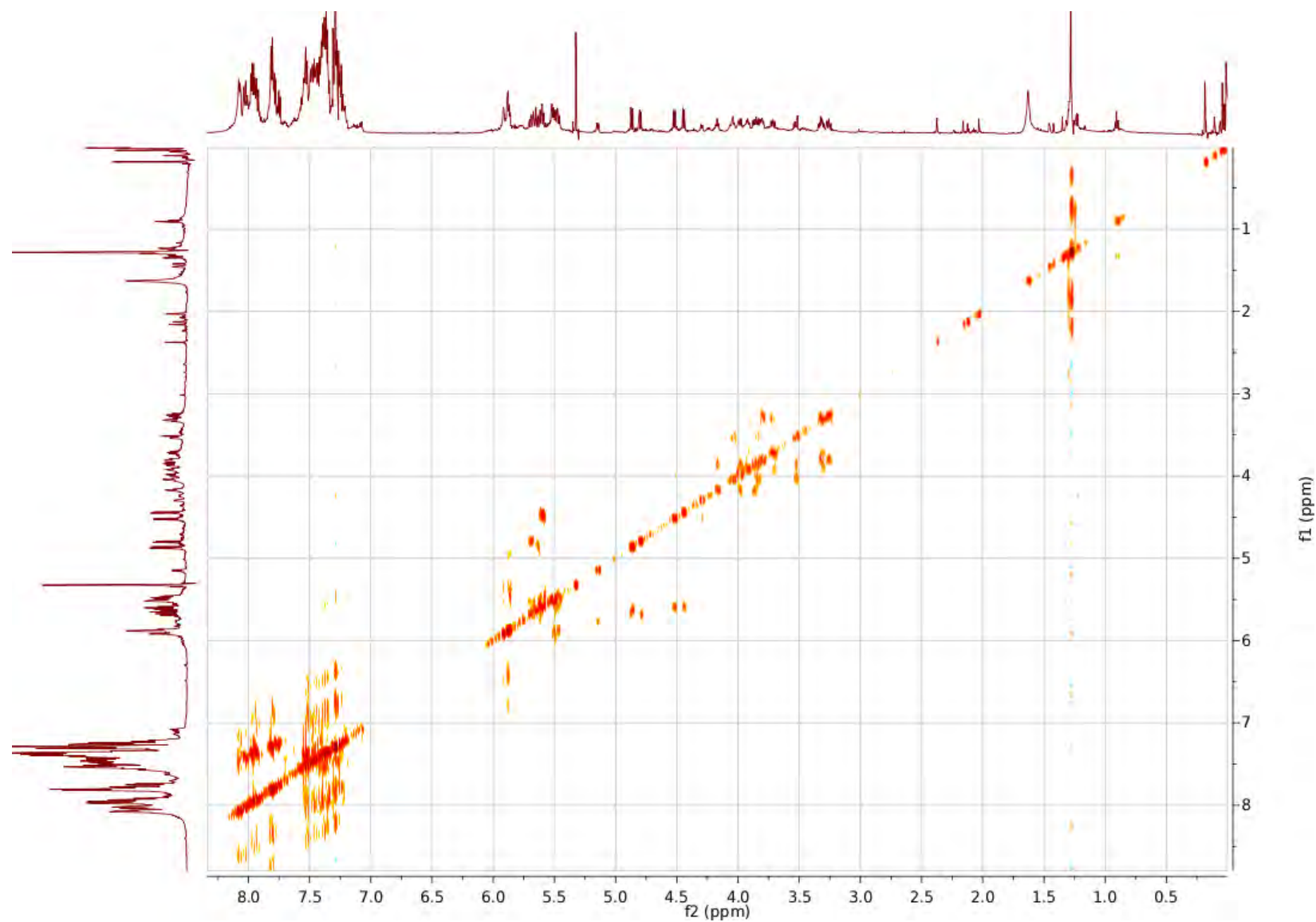
Proton



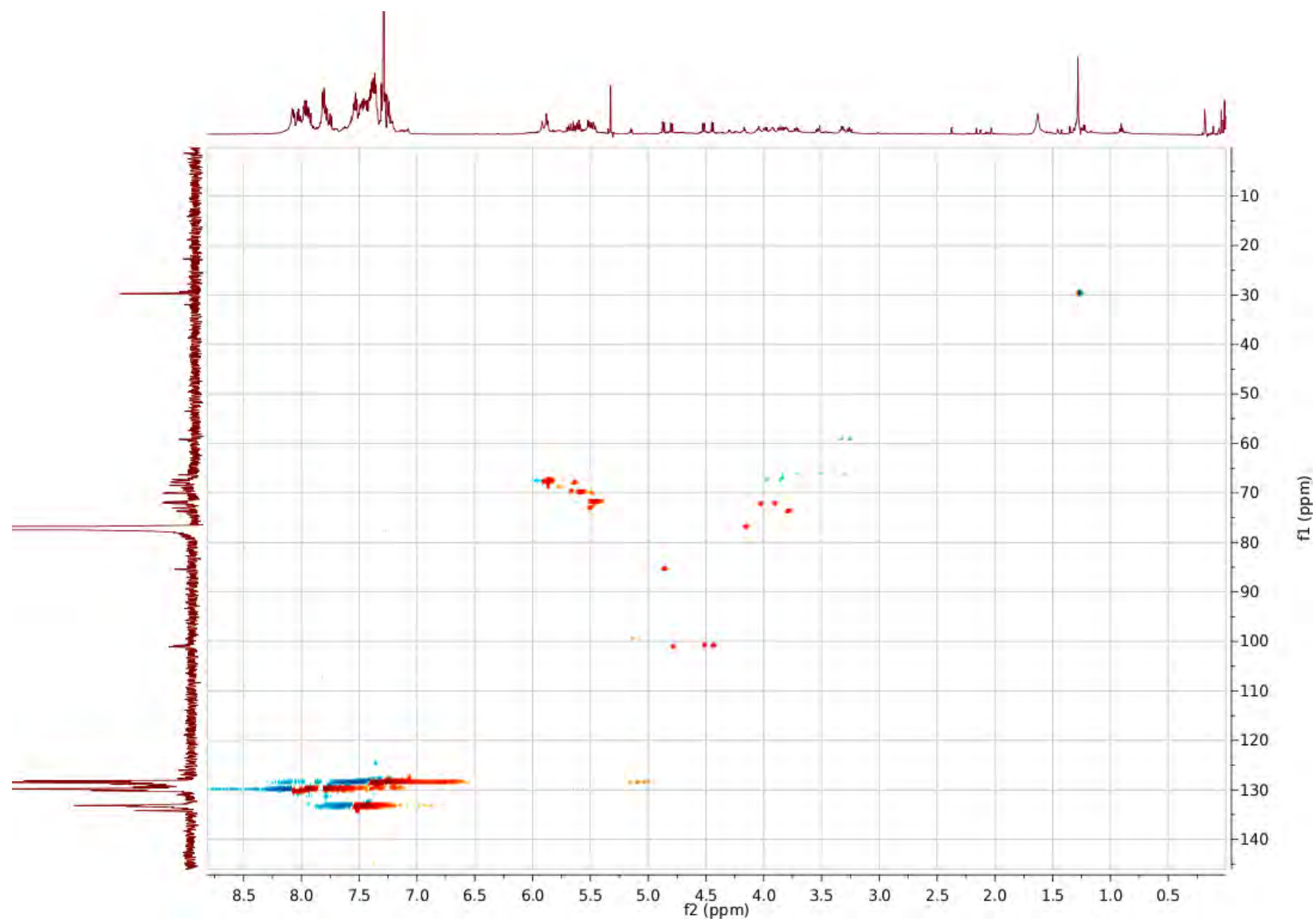
Carbon



COSY



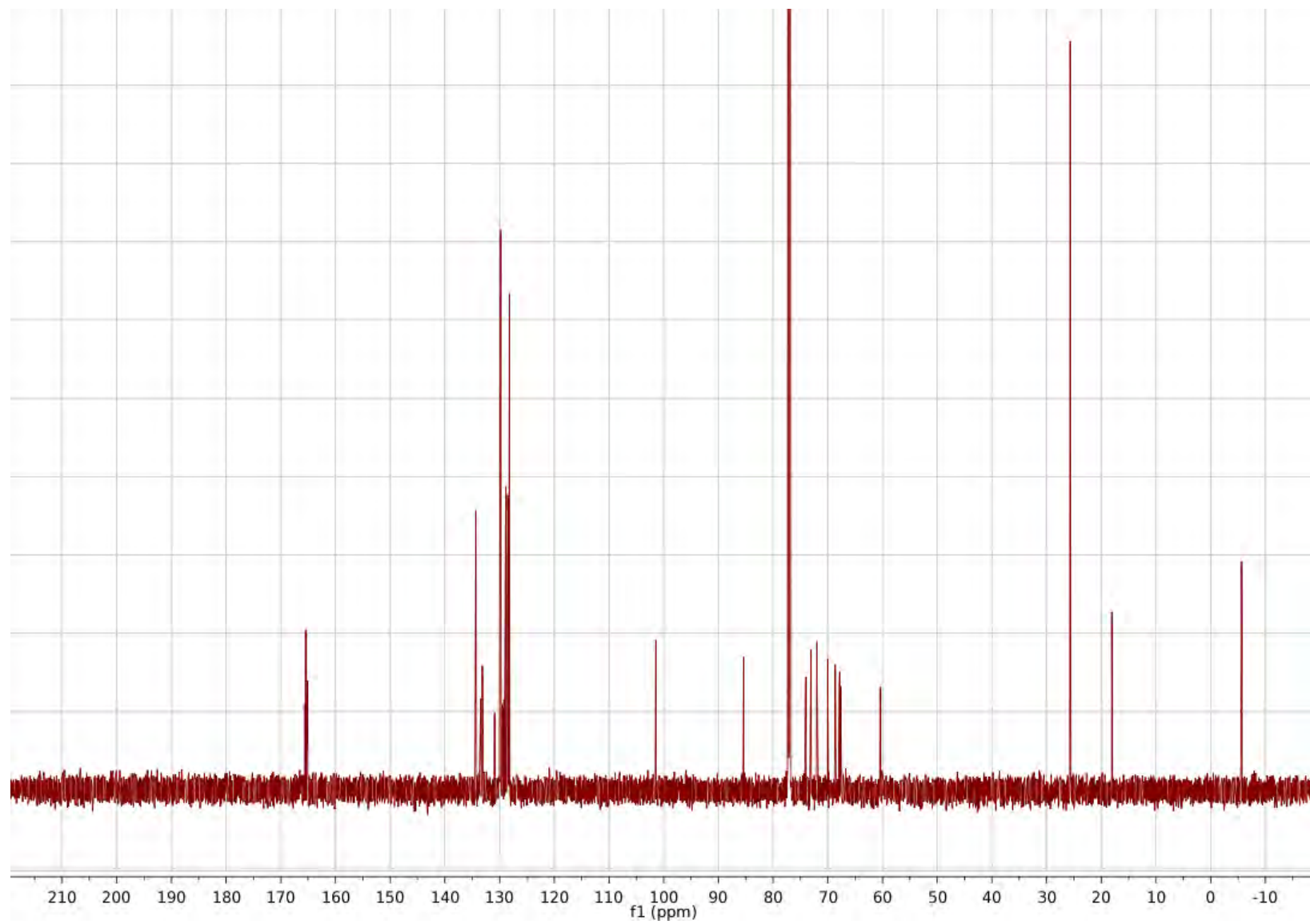
HSQC



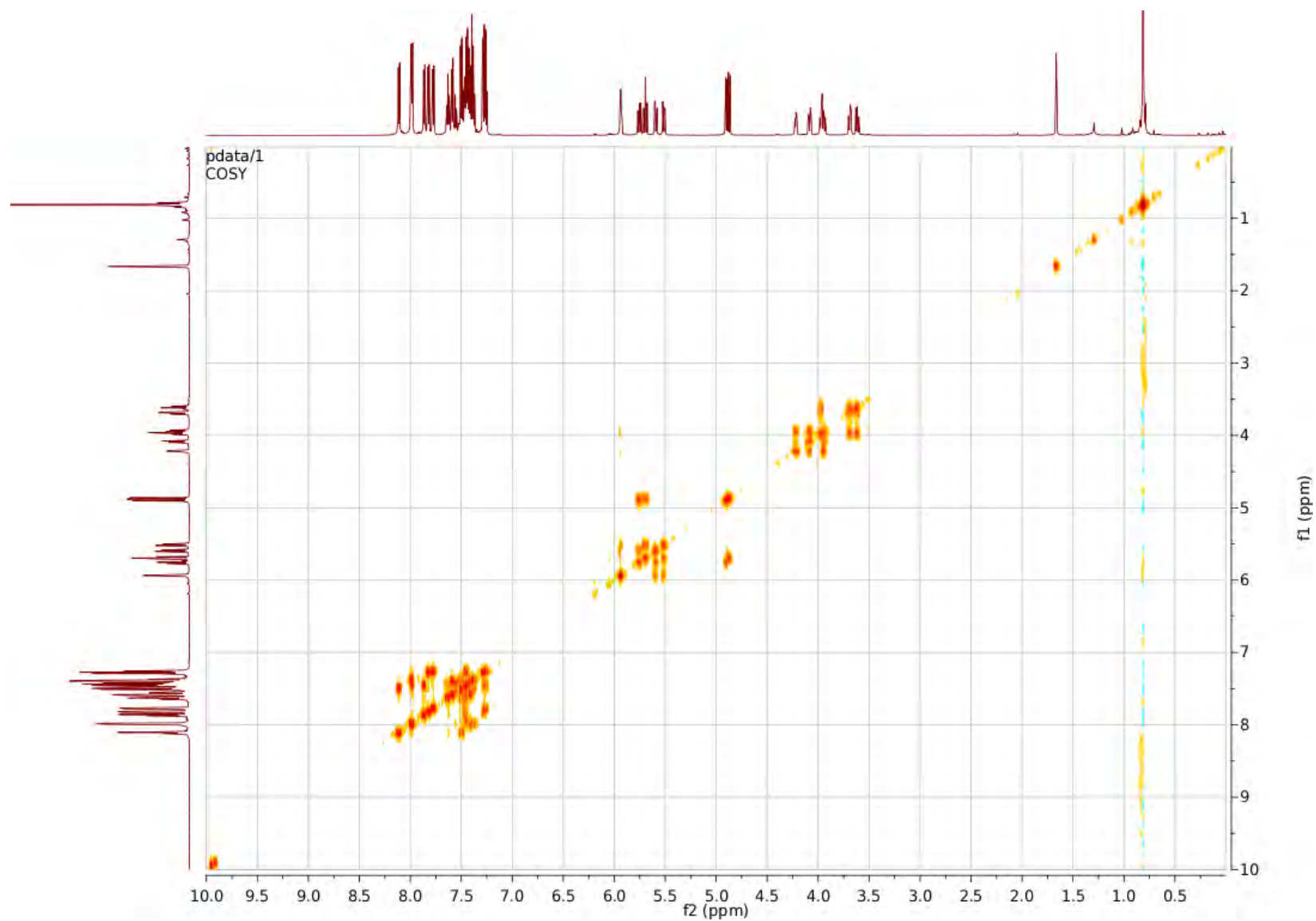
Proton



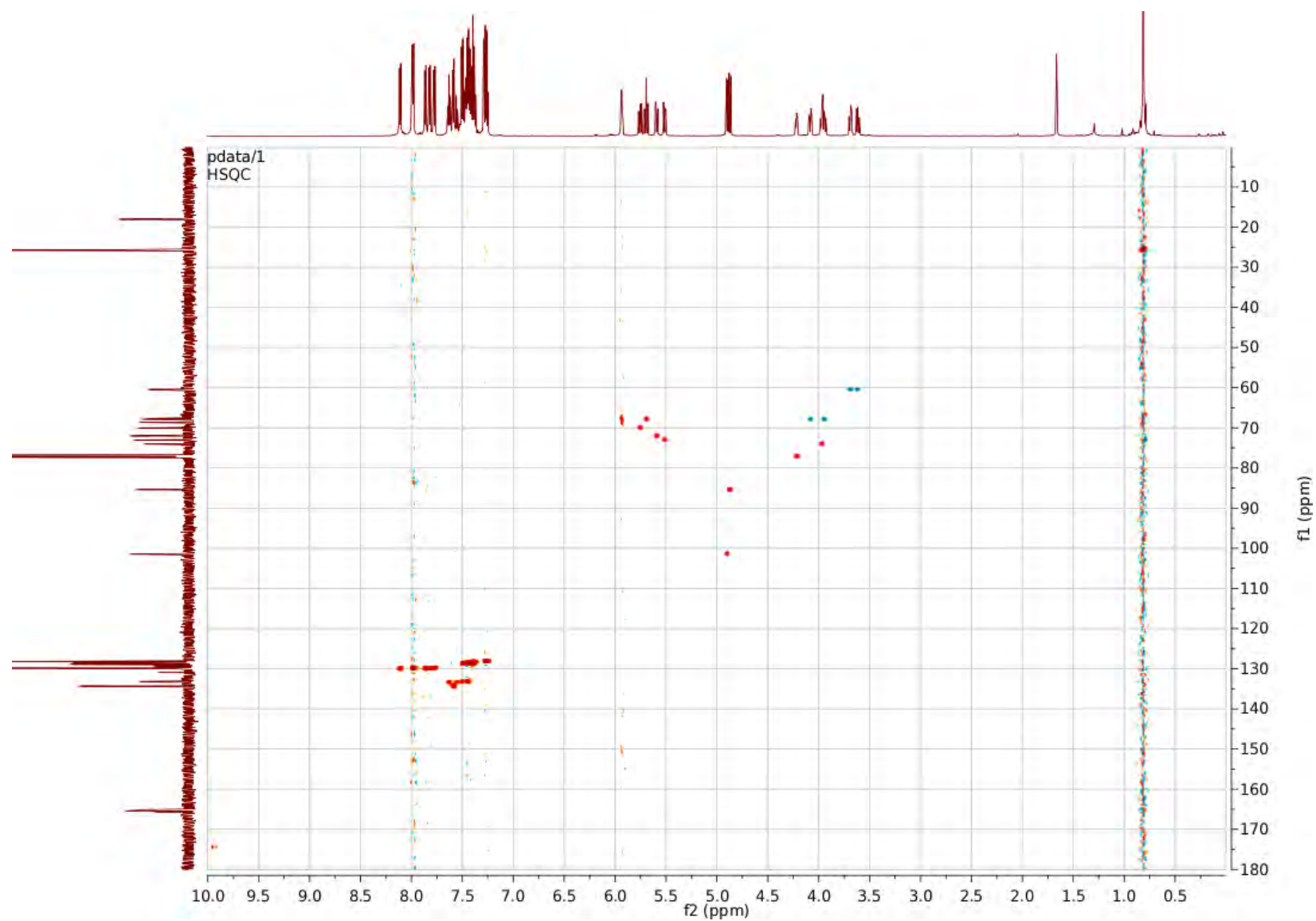
Carbon



COSY

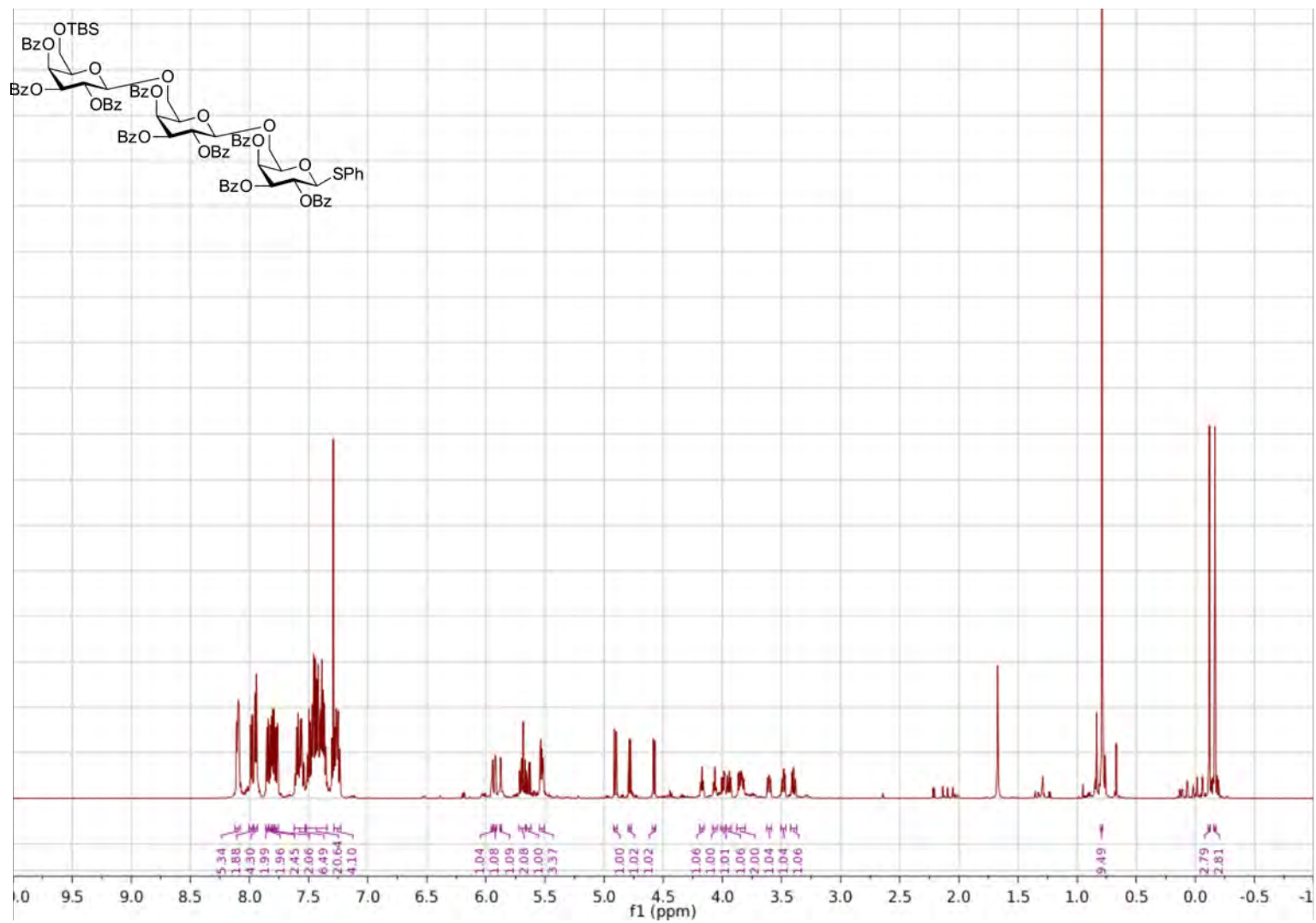


HSQC

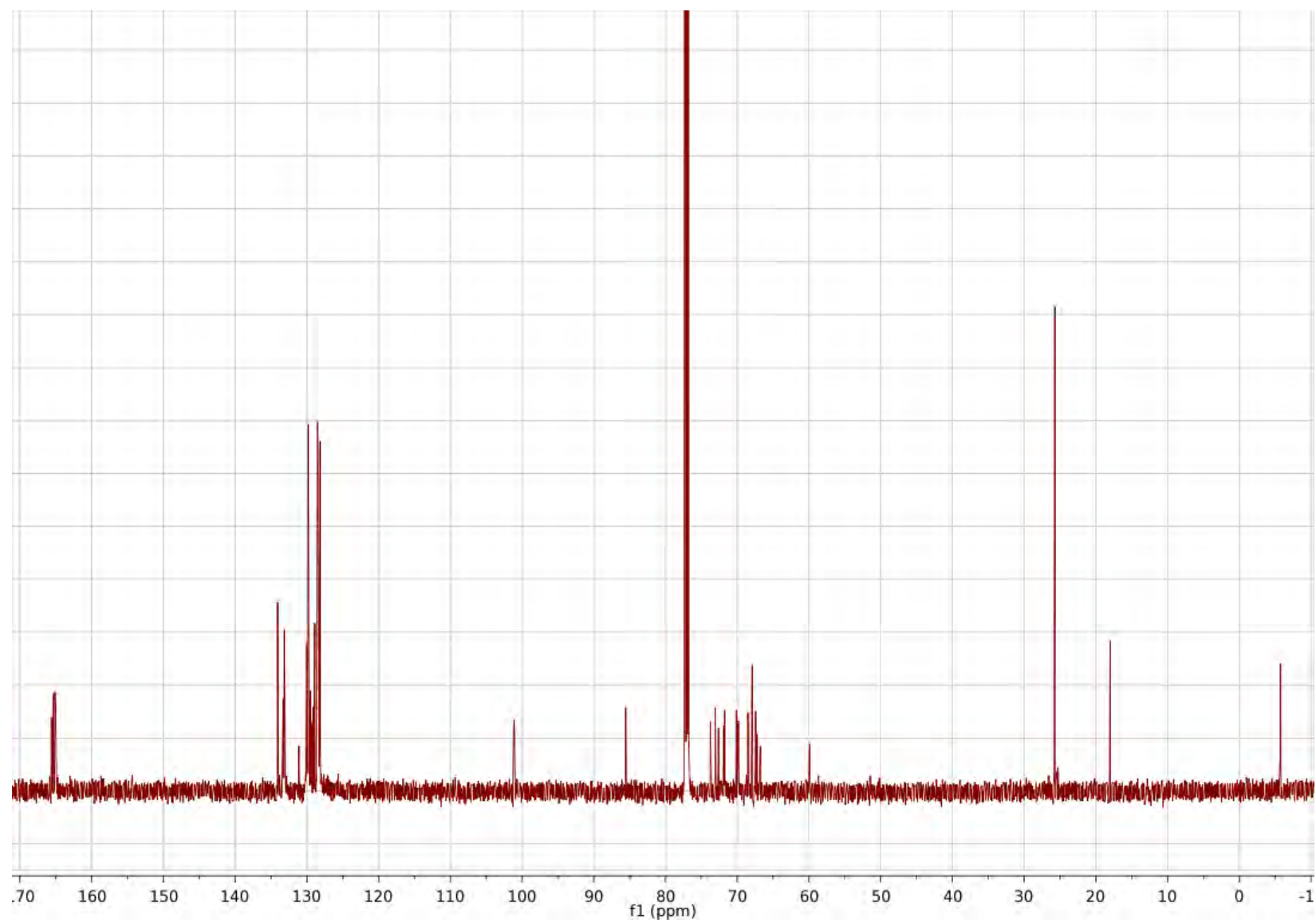


Compound **15_{3c}**

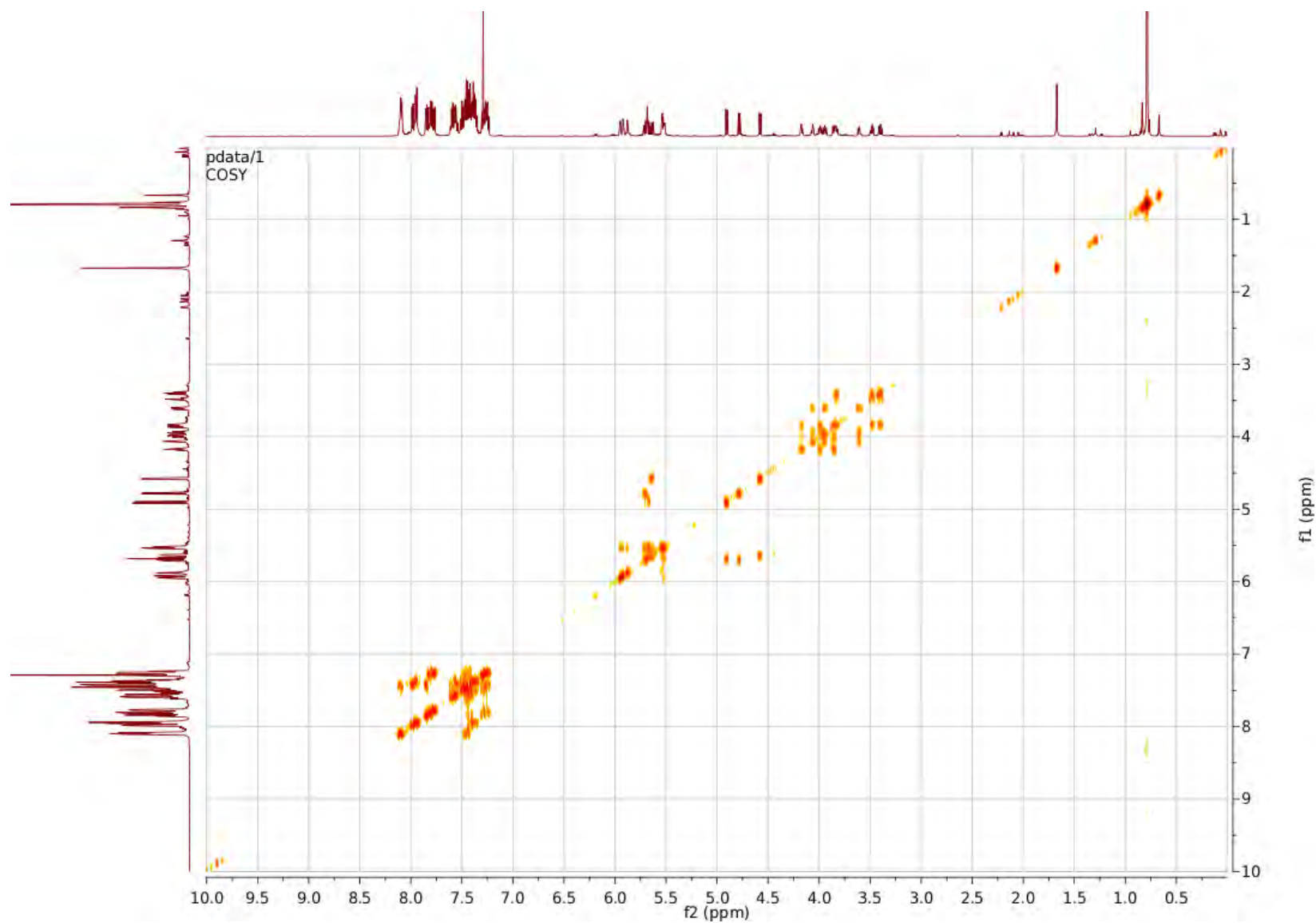
Proton



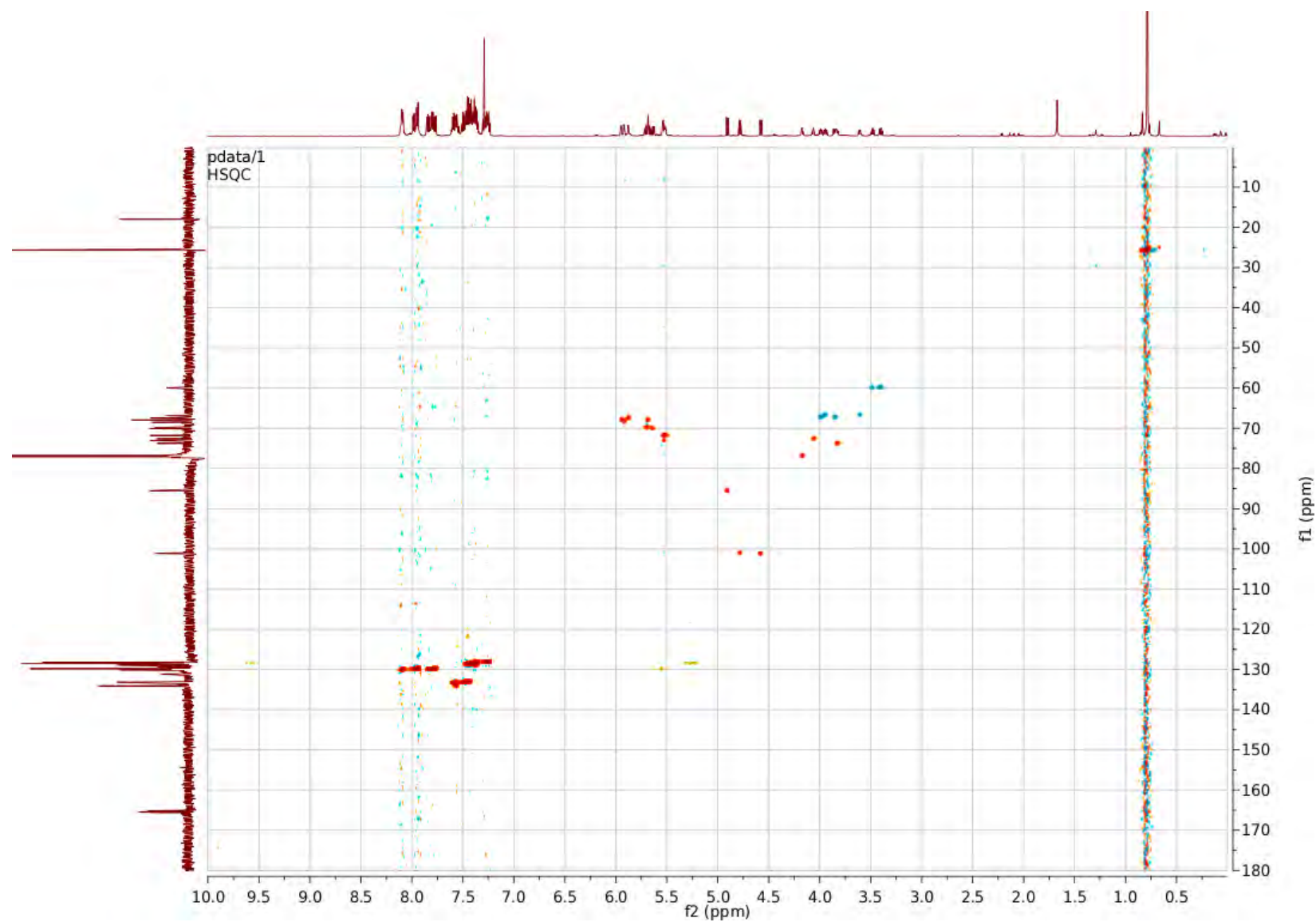
Carbon



COSY

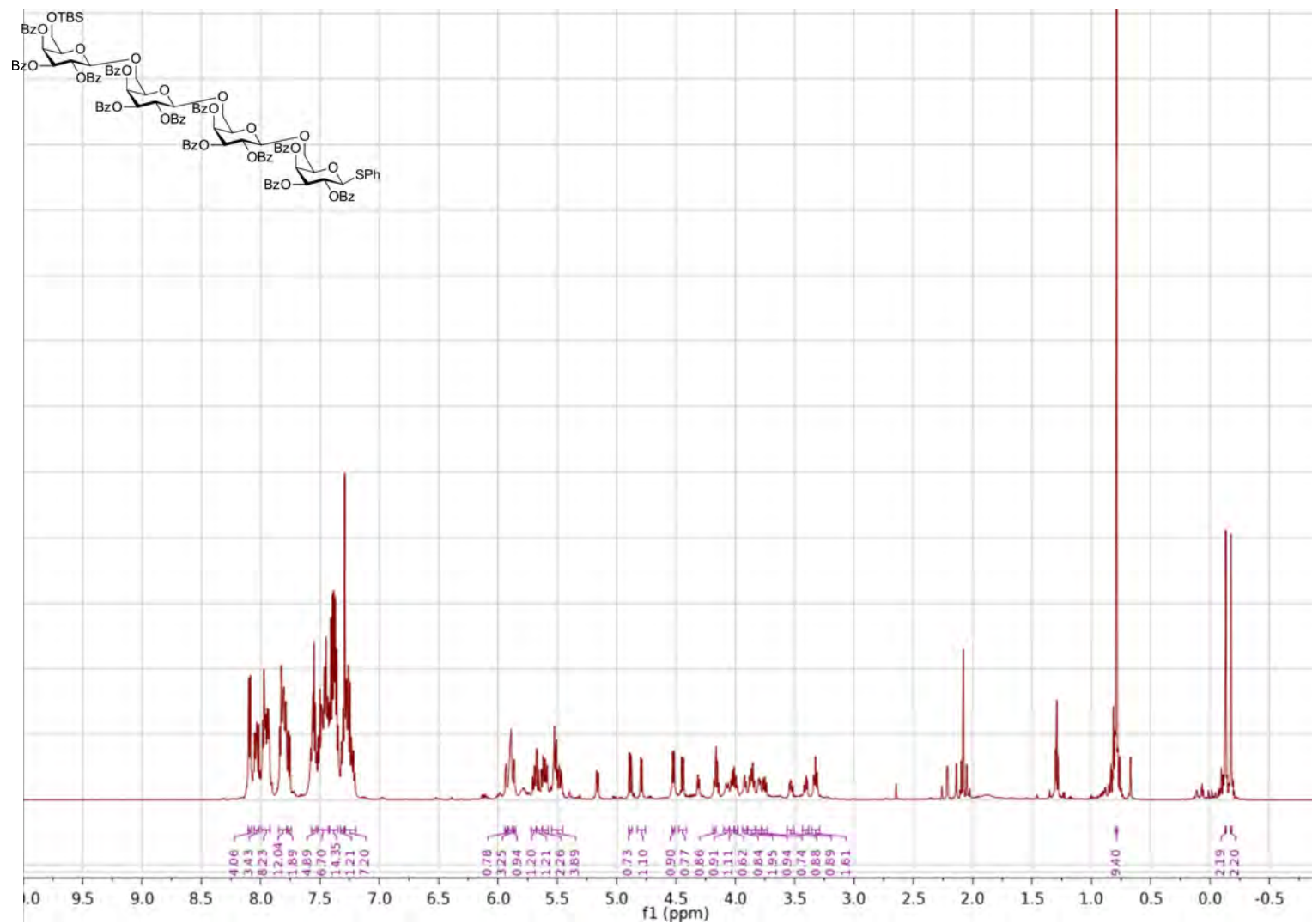


HSQC

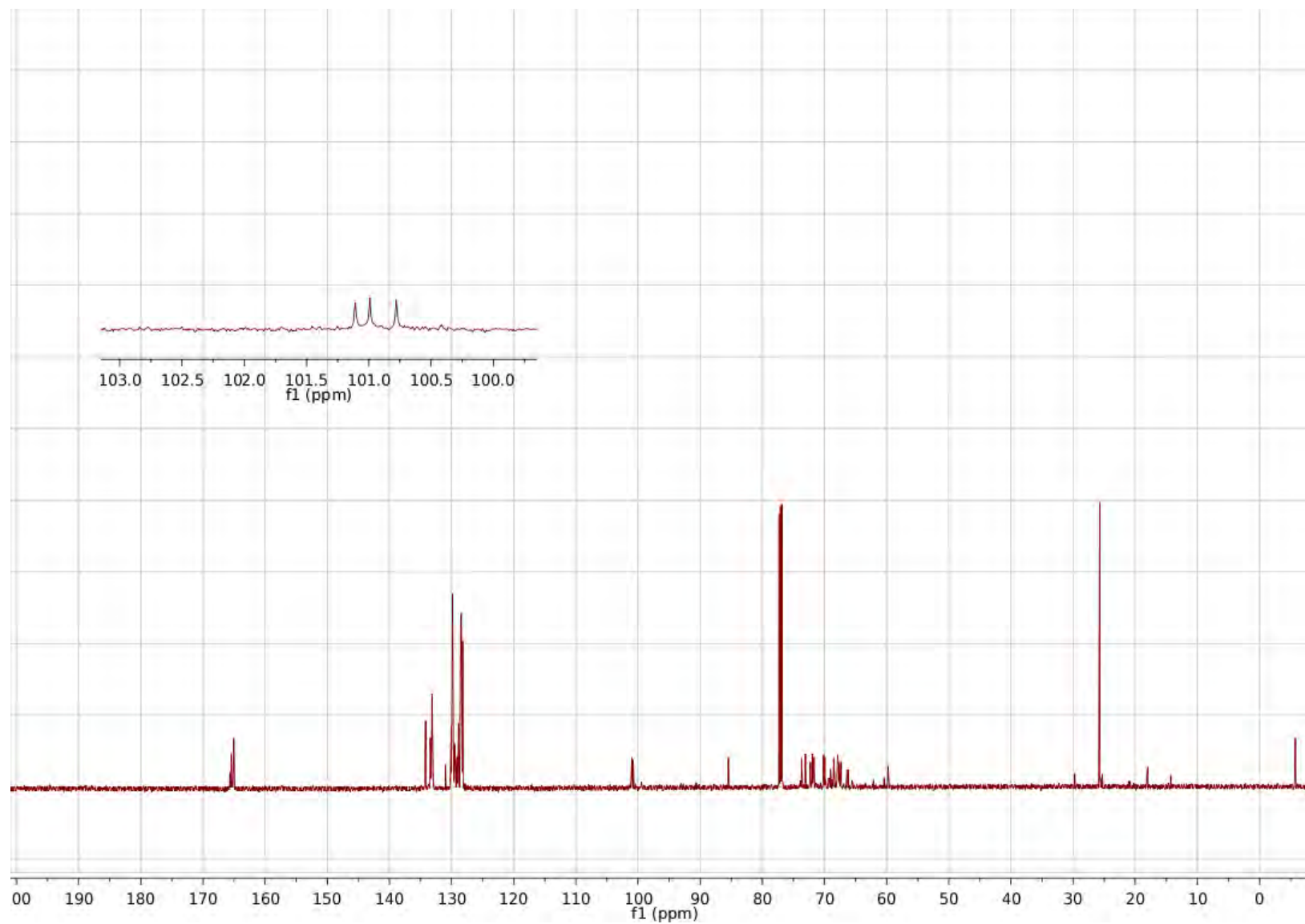


Compound **15_c**

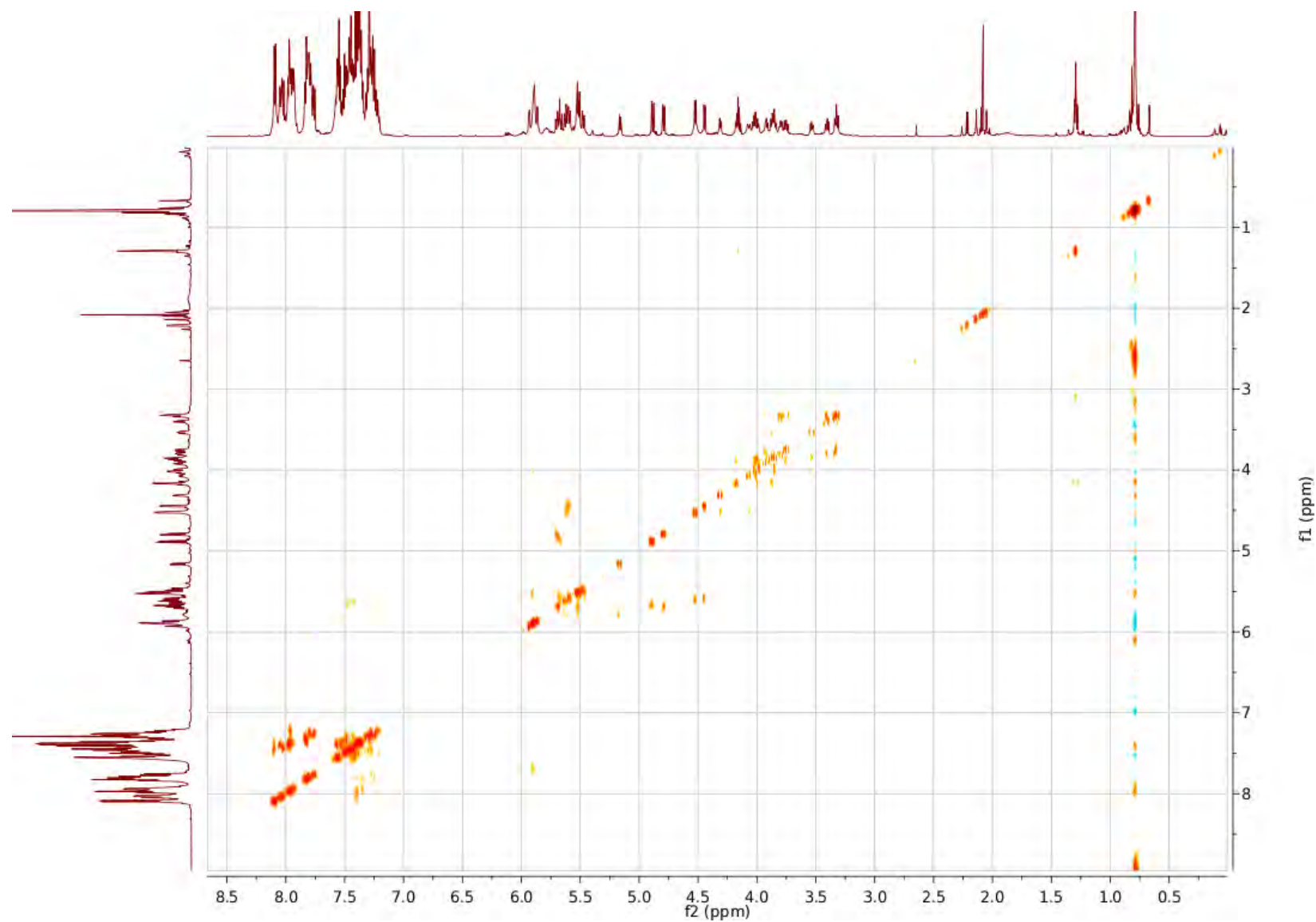
Proton



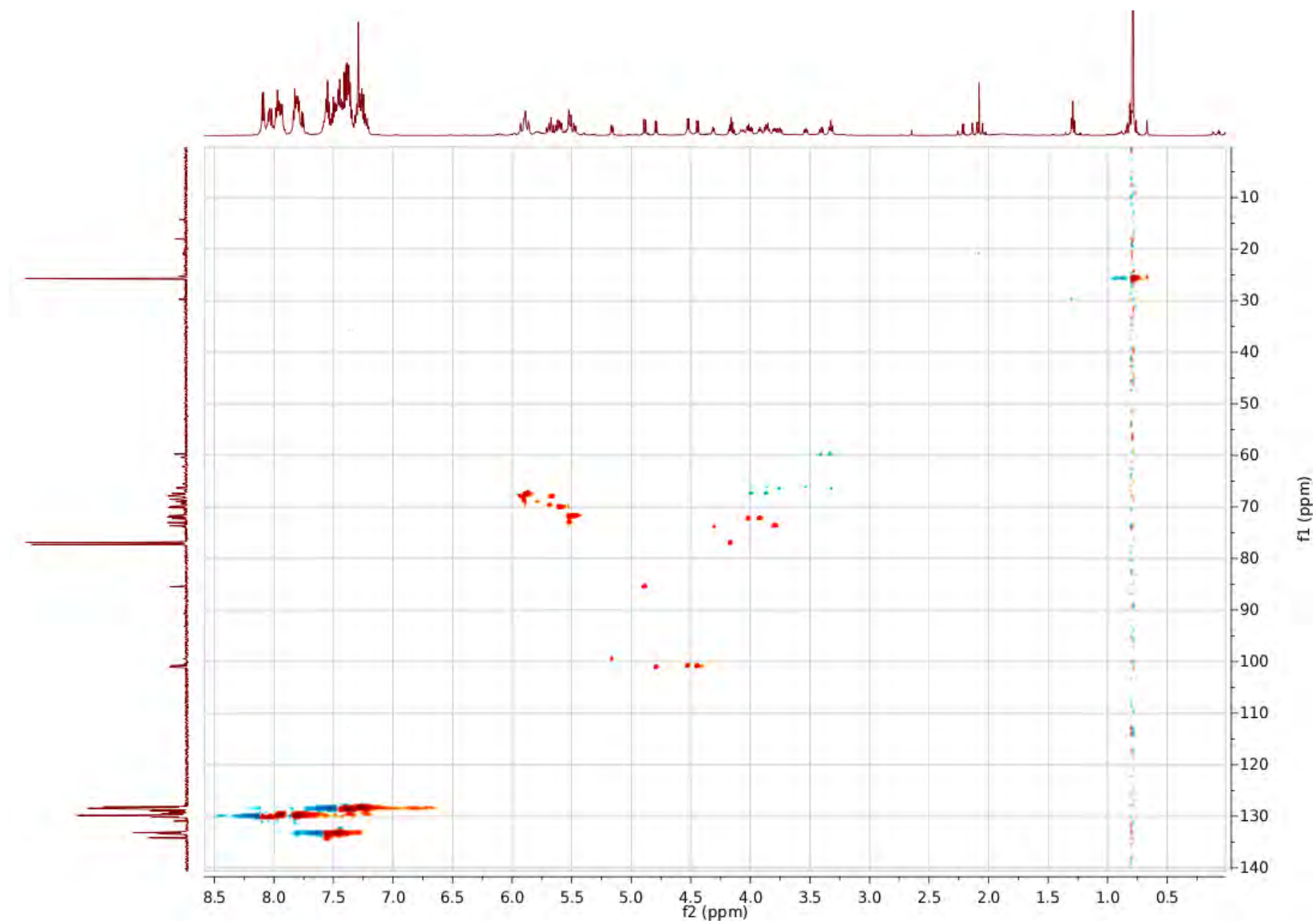
Carbon



COSY

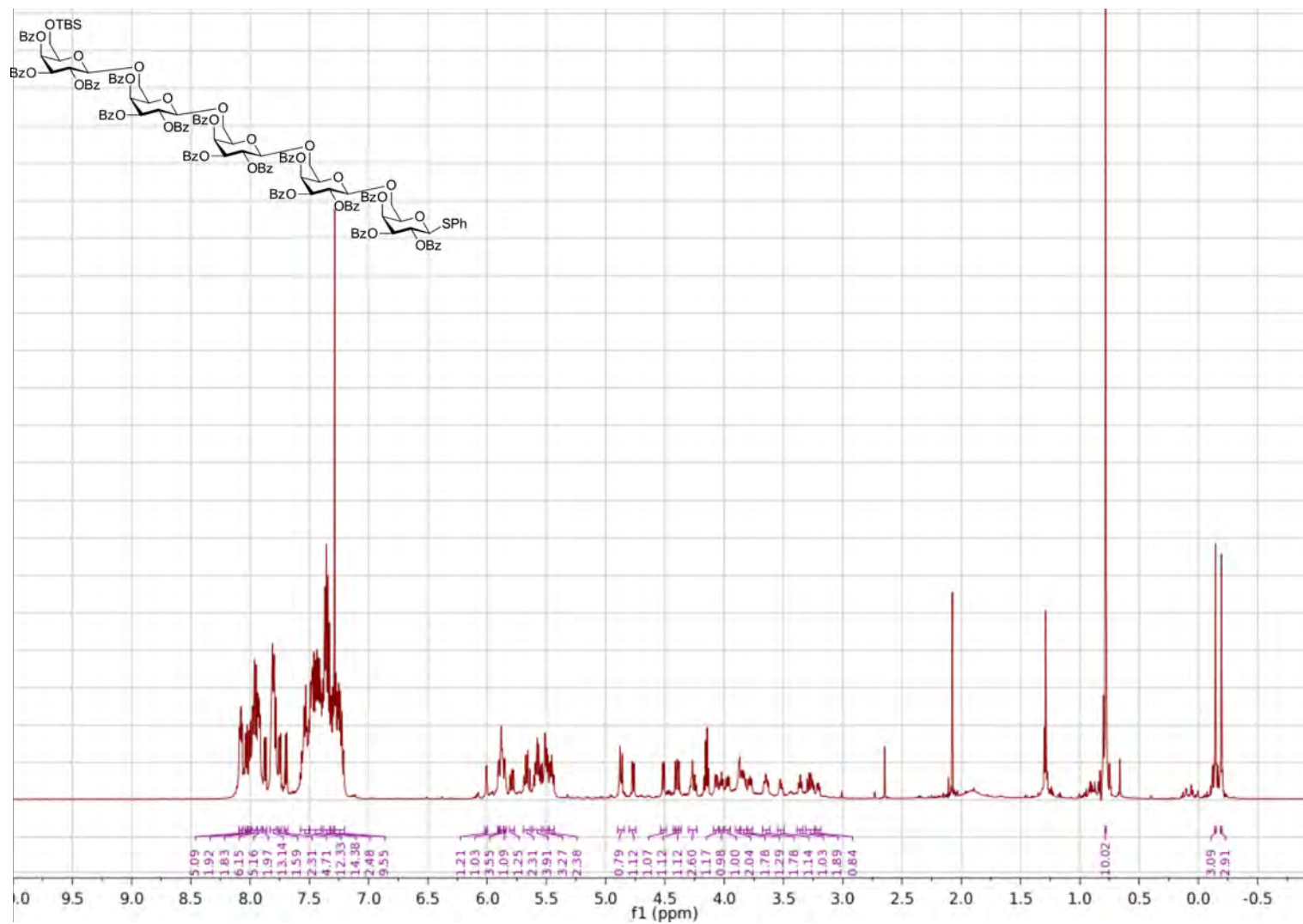


HSQC

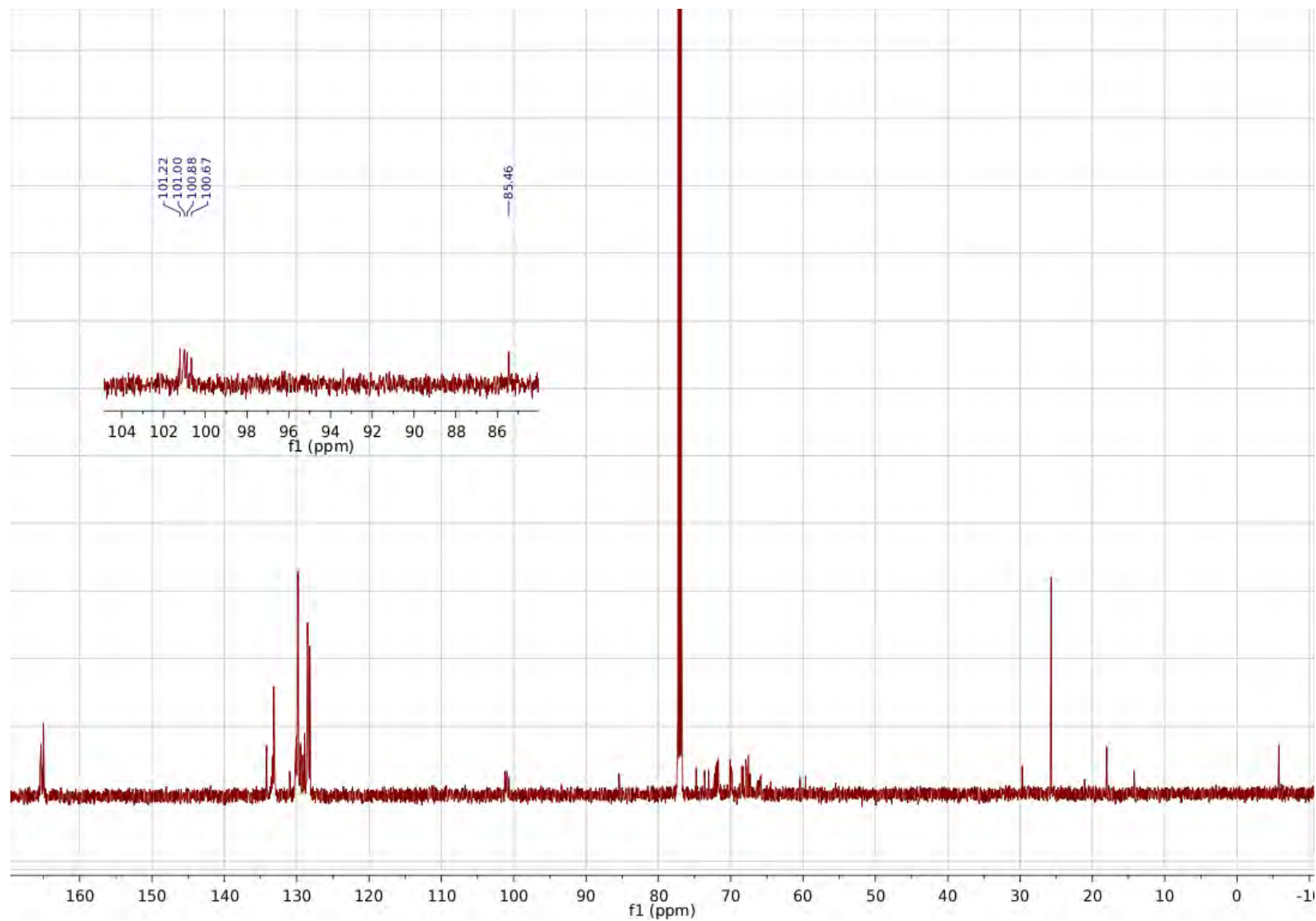


Compound **15_c**

Proton

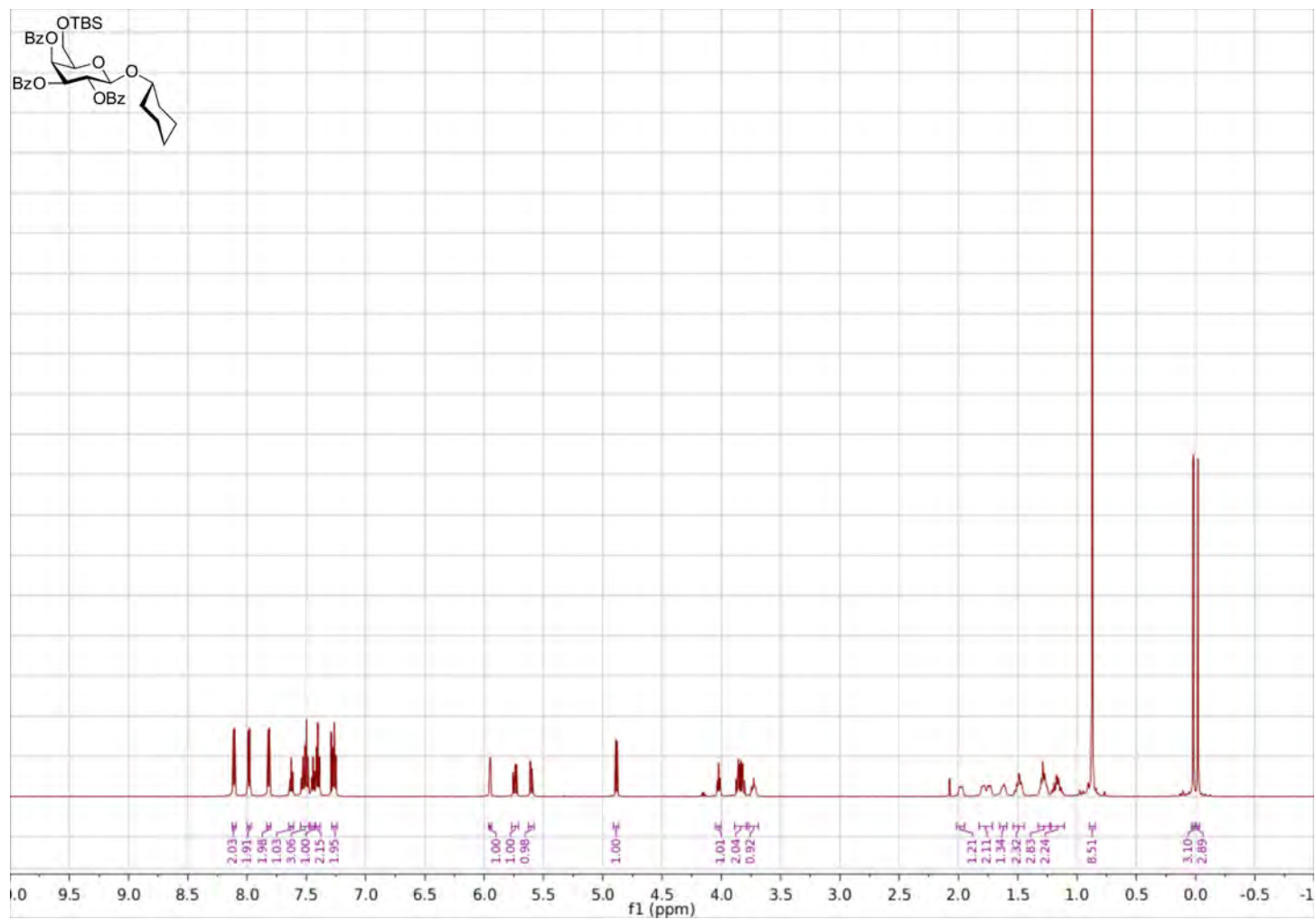


Carbon

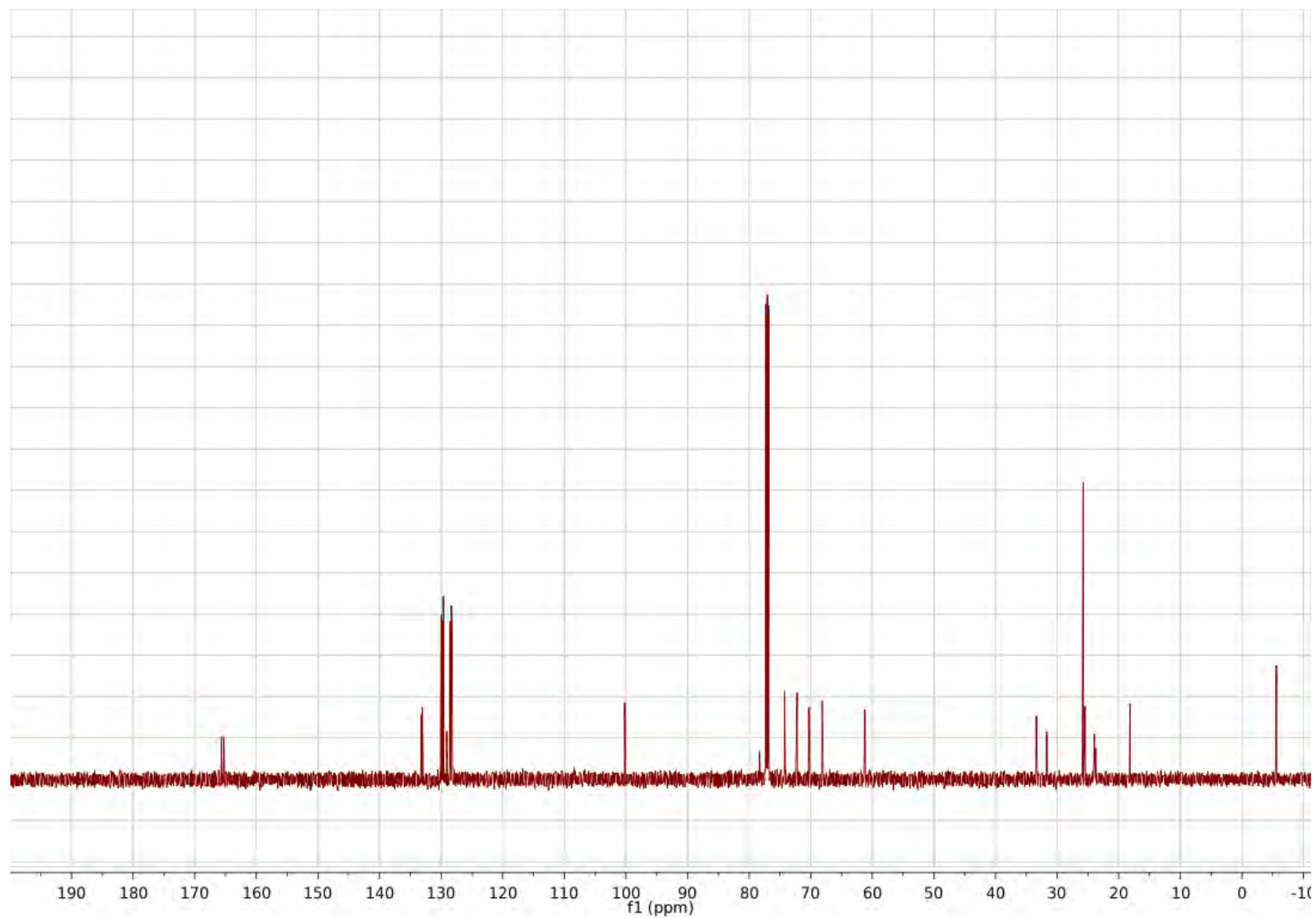


Compound **16,c**

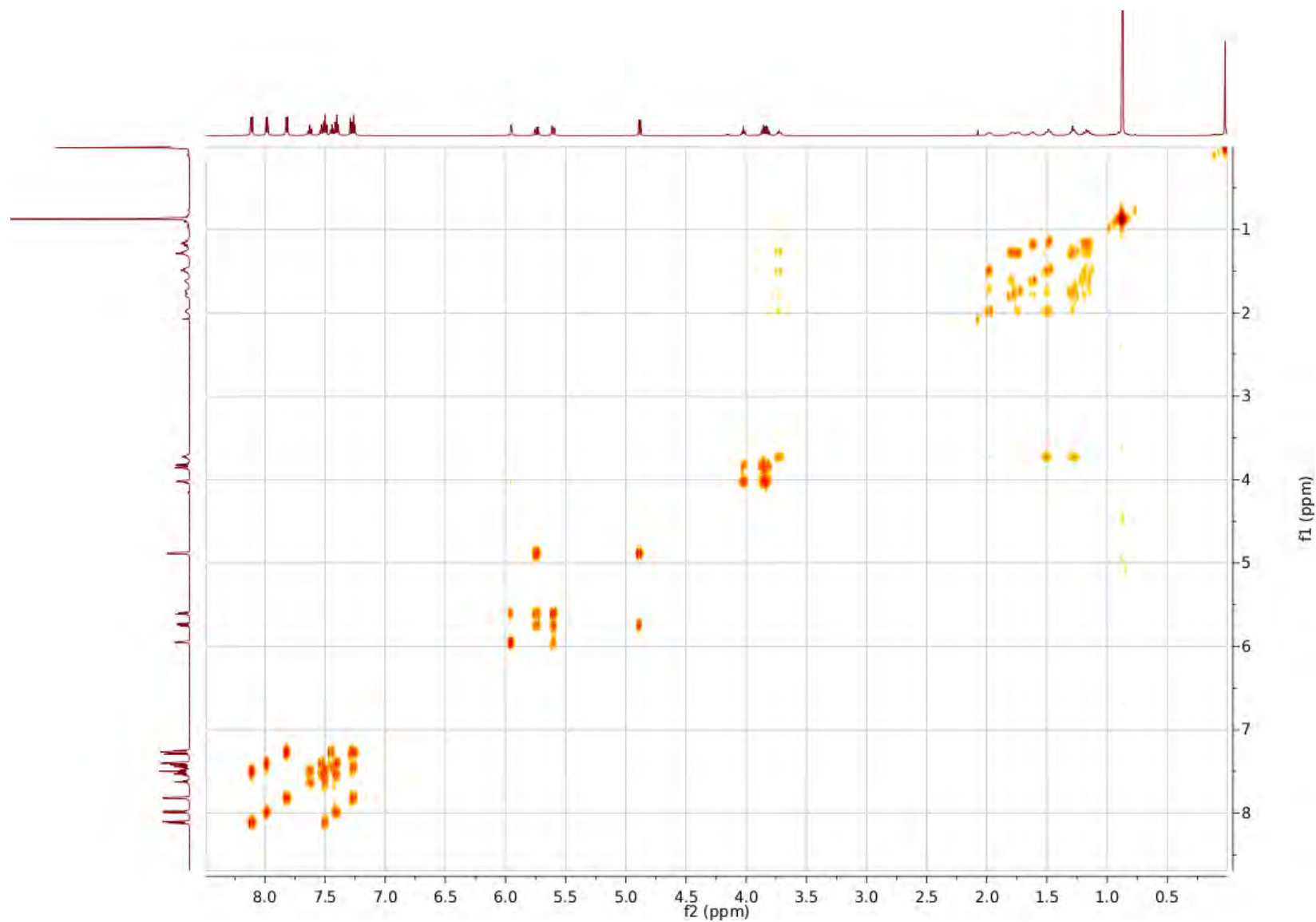
Proton



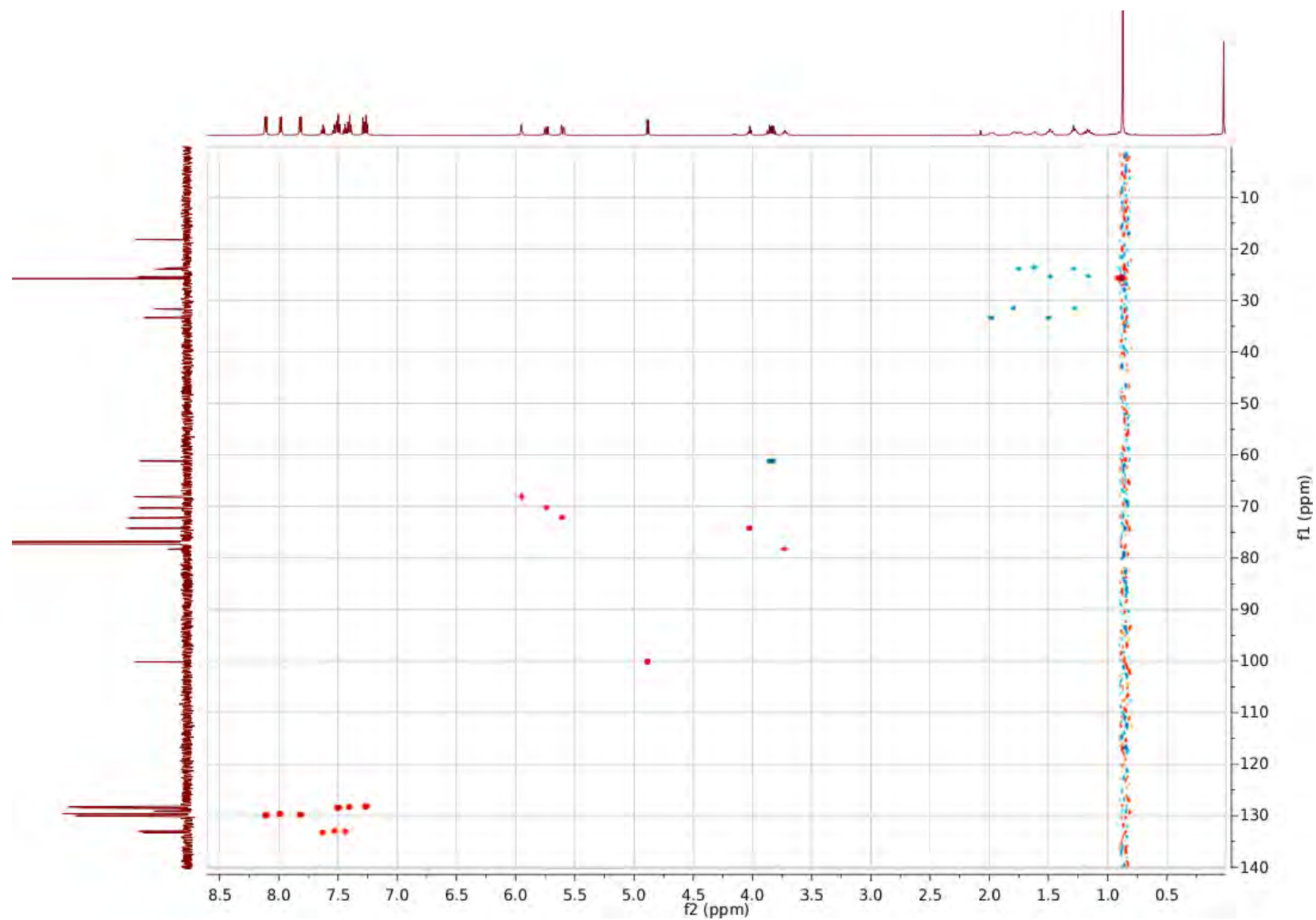
Carbon



COSY

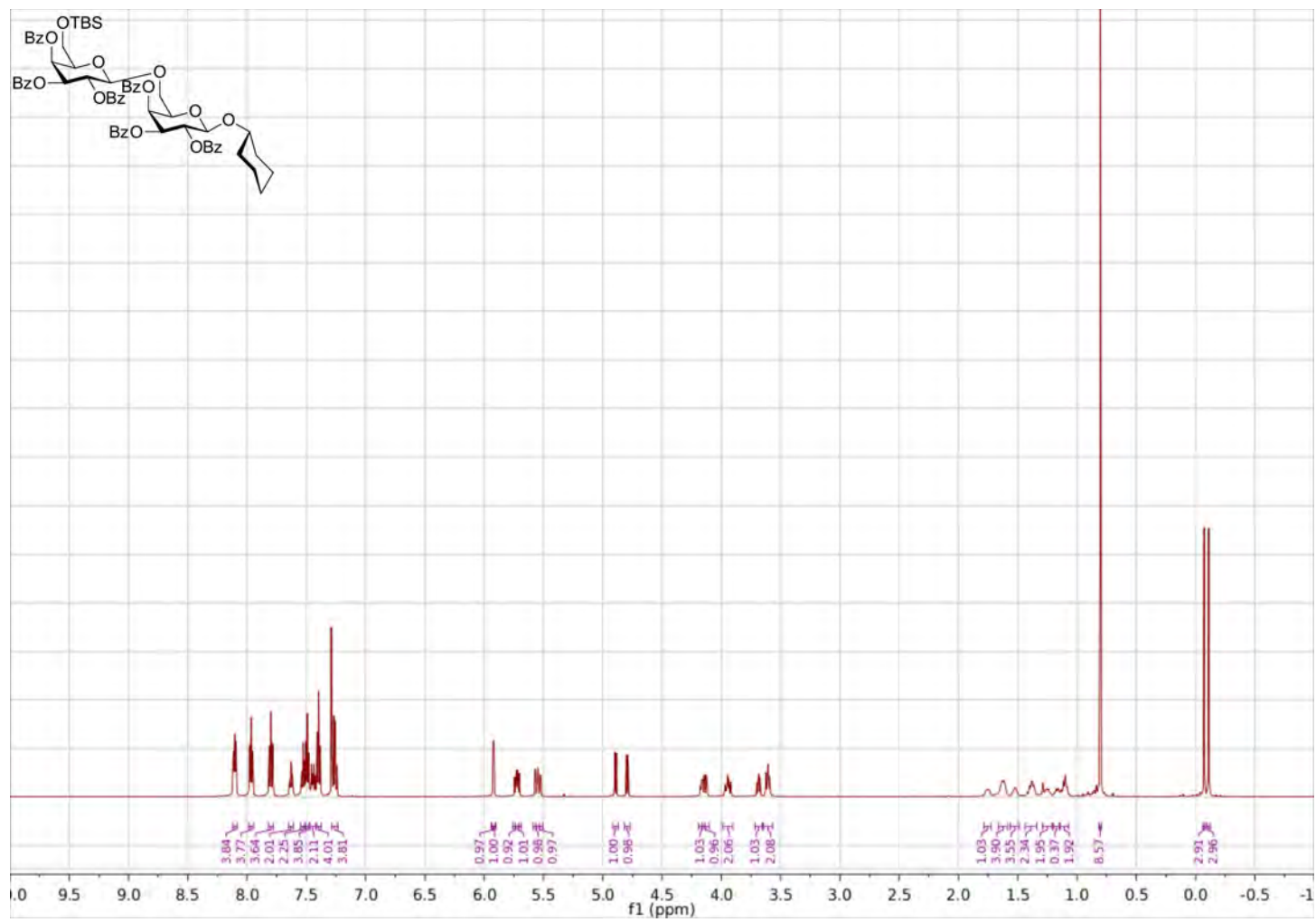


HSQC

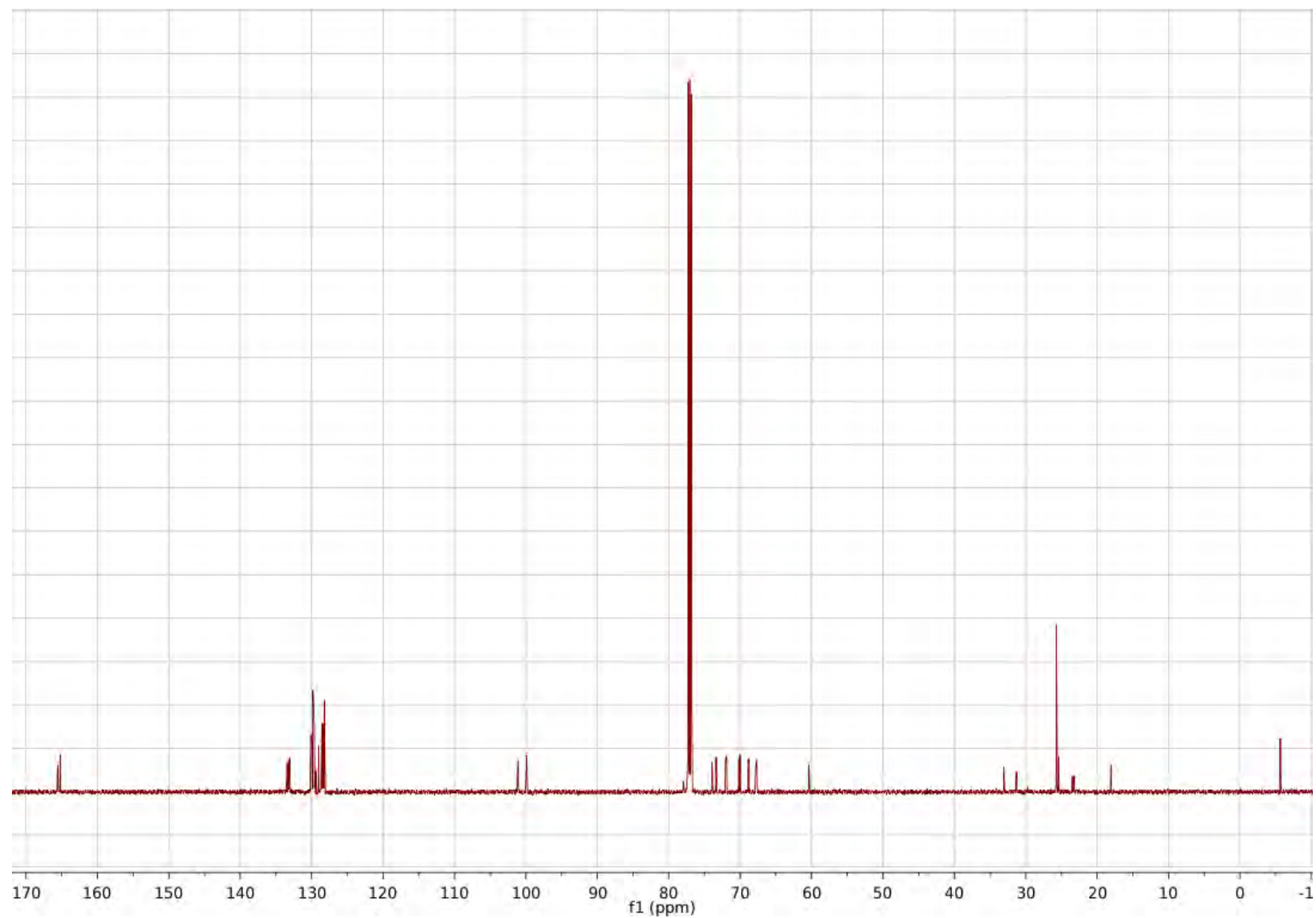


Compound **16₂c**

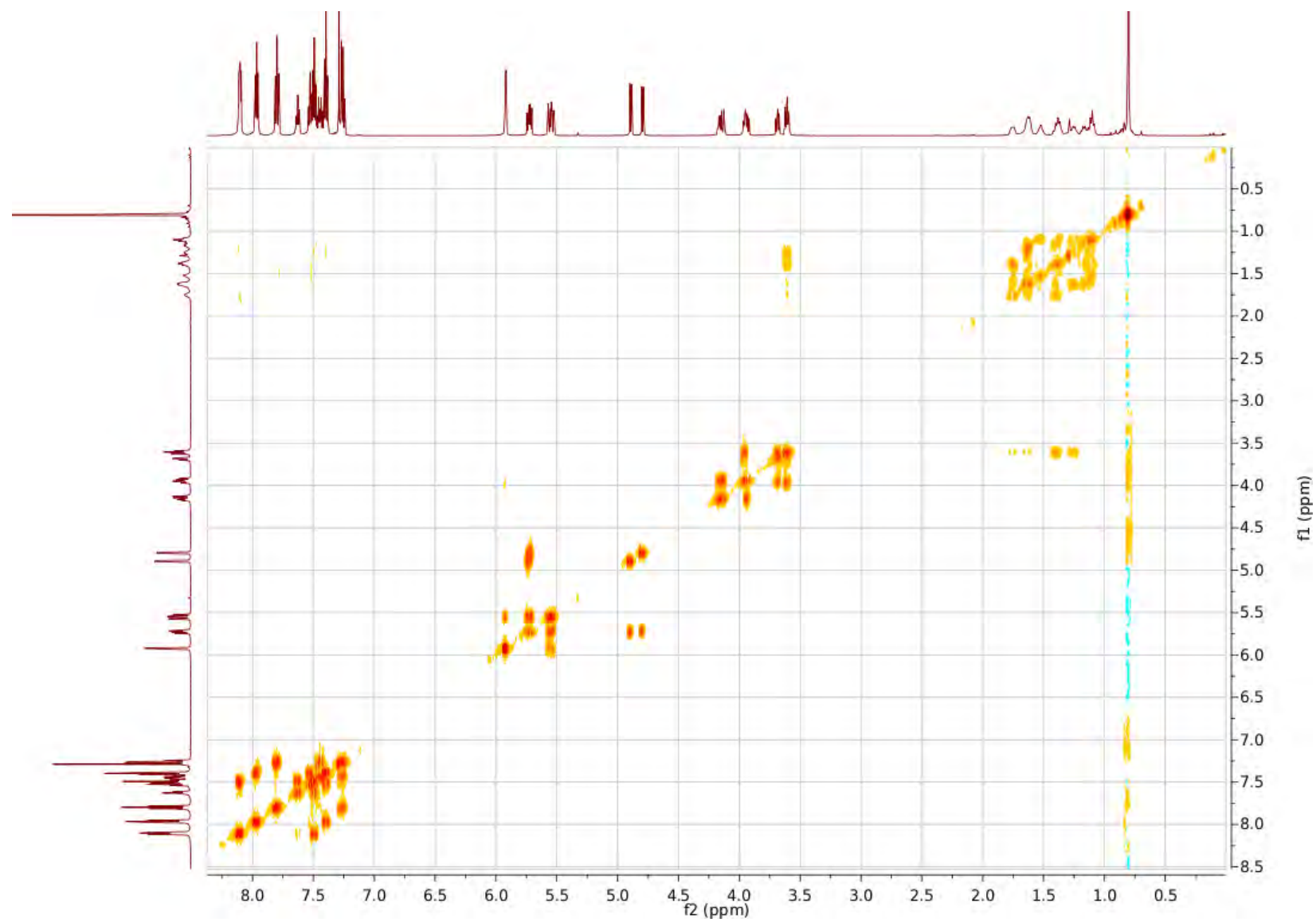
Proton



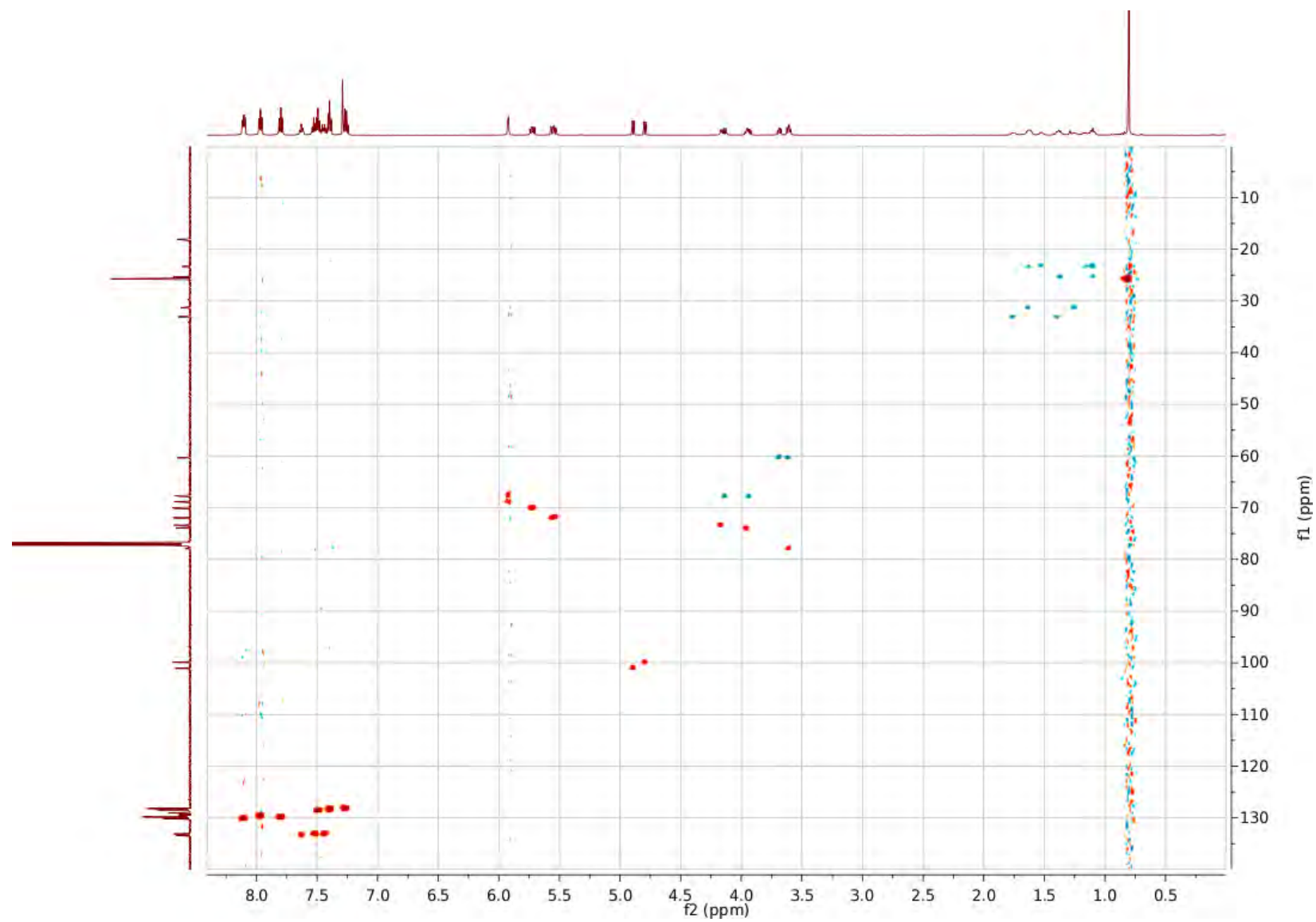
Carbon



COSY

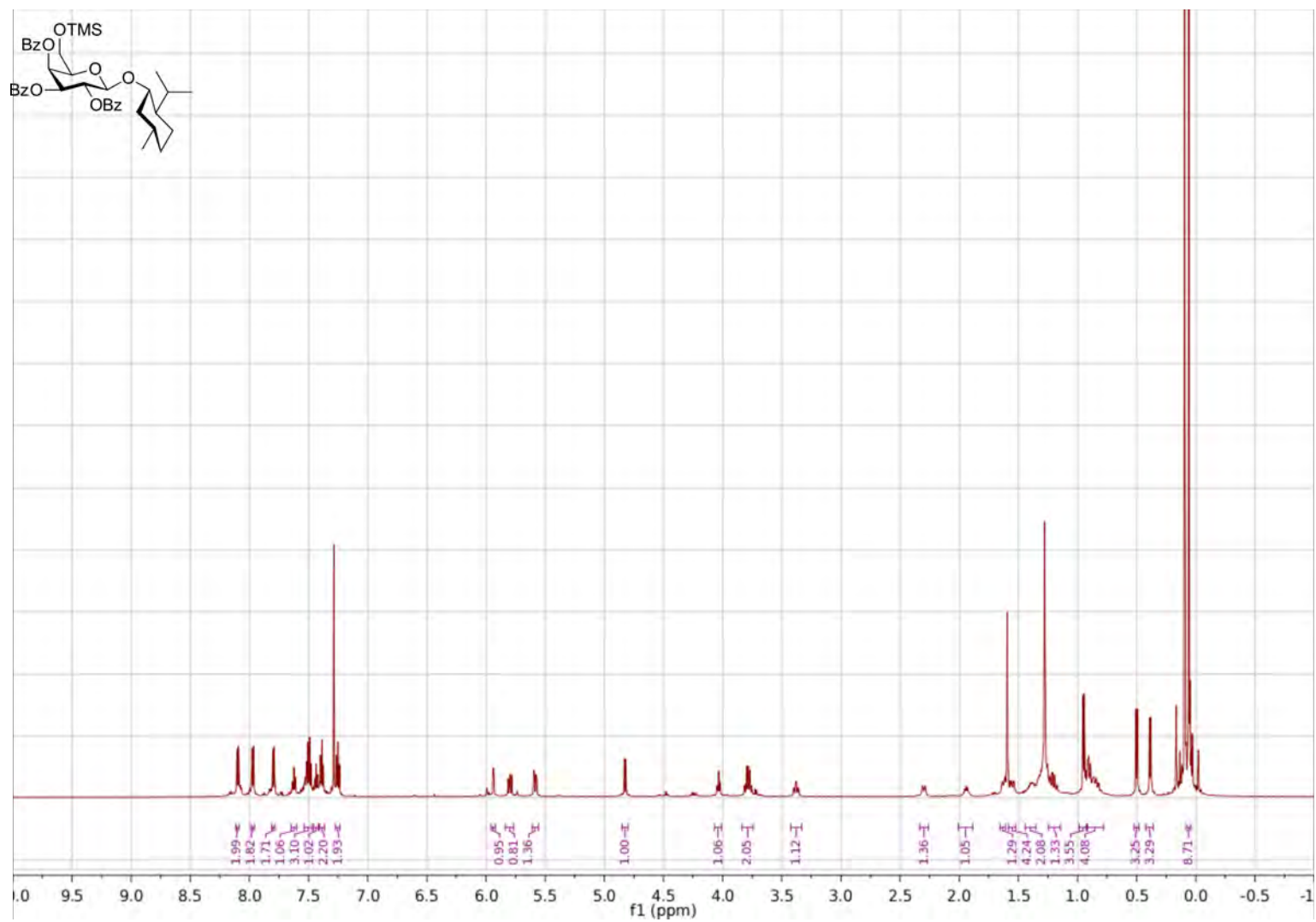


HSQC

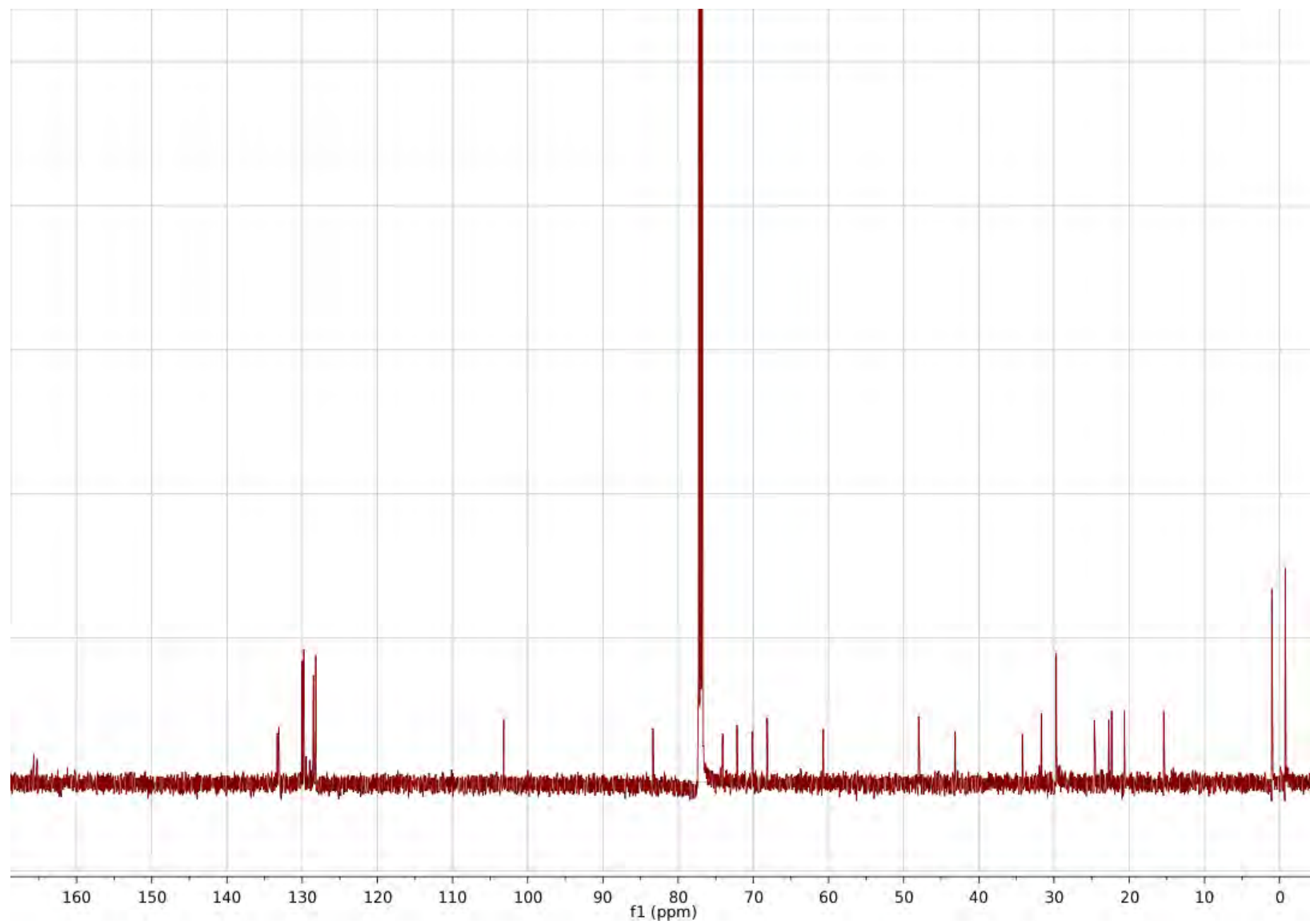


Compound 17,b

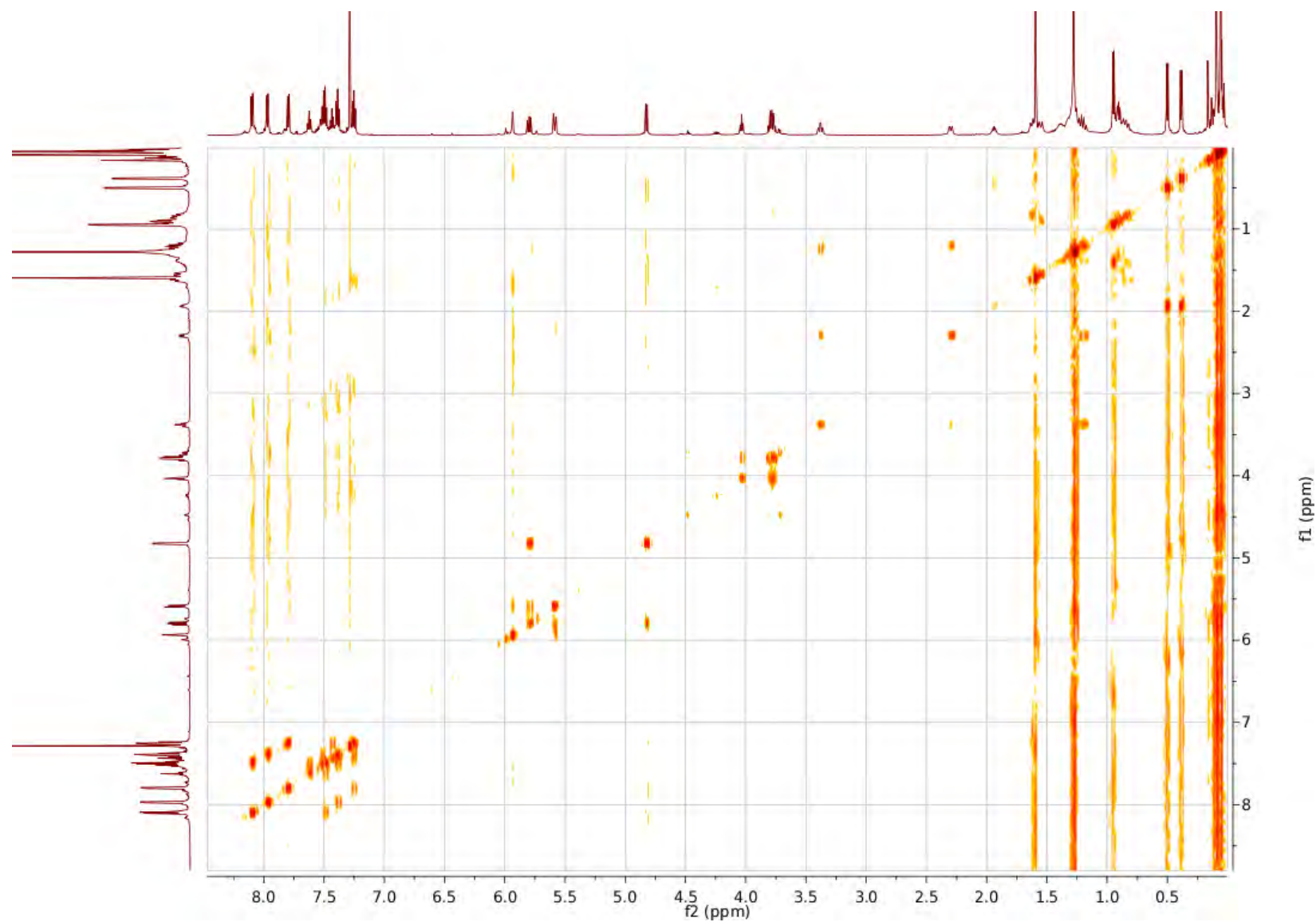
Proton



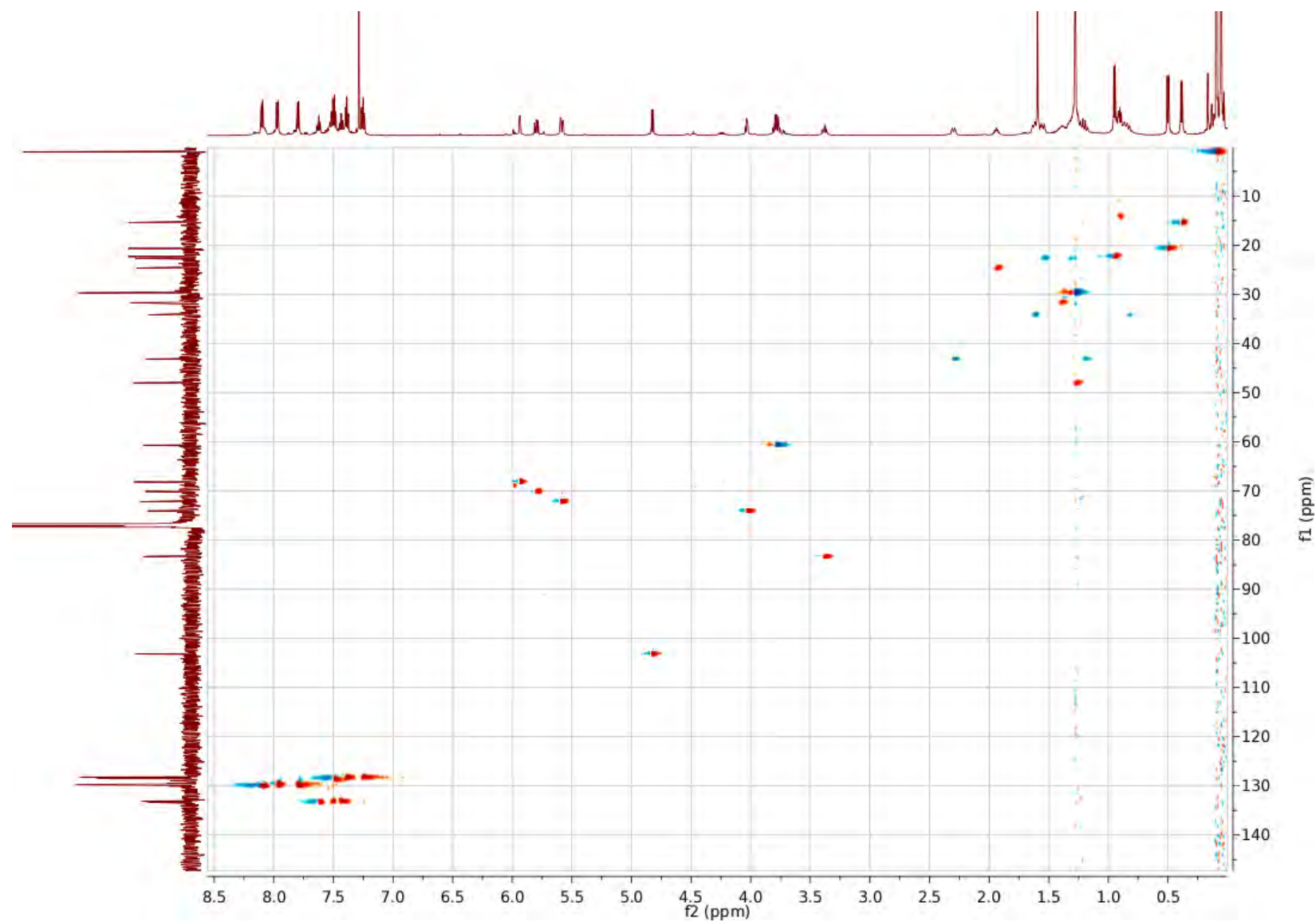
Carbon



COSY

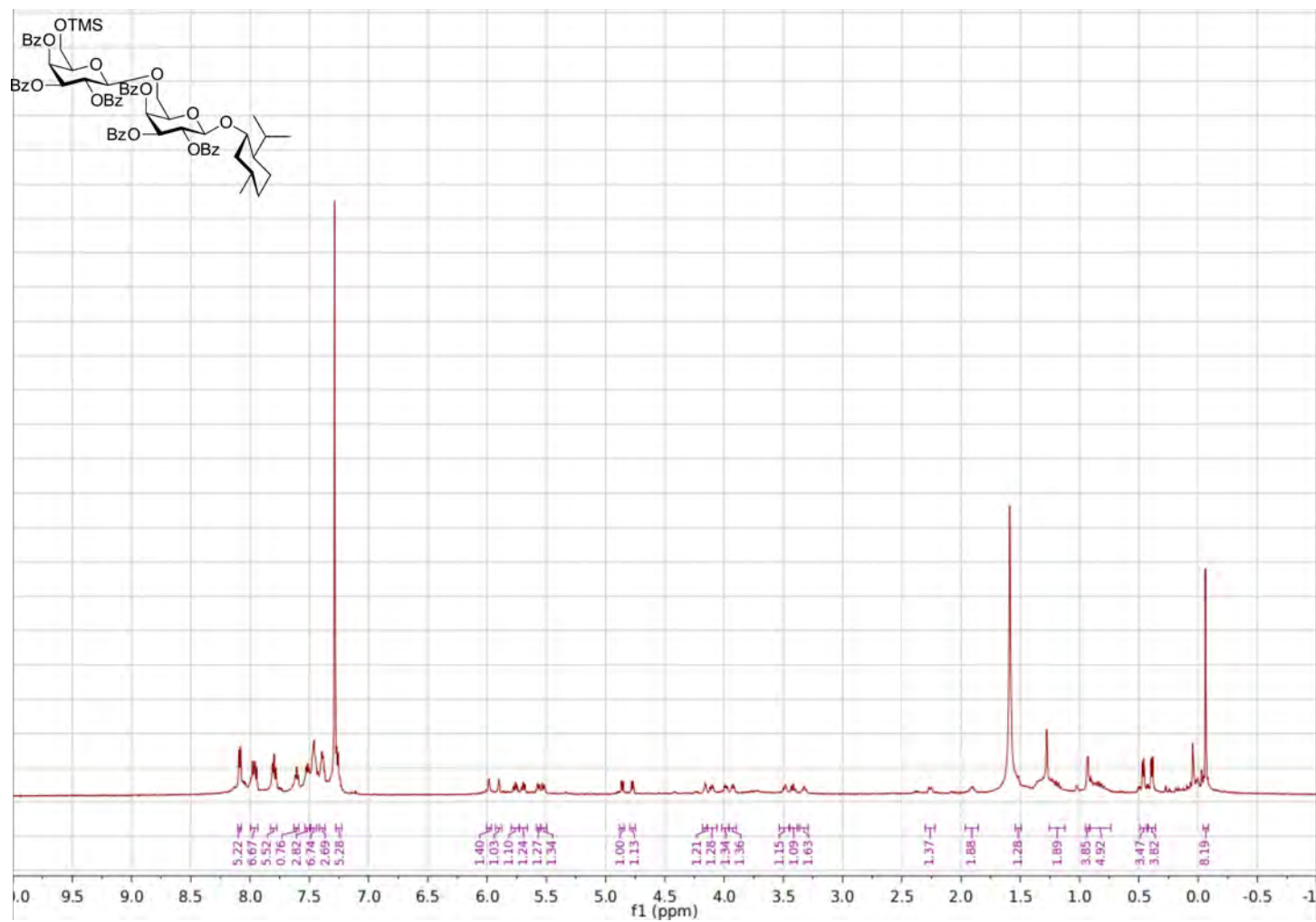


HSQC

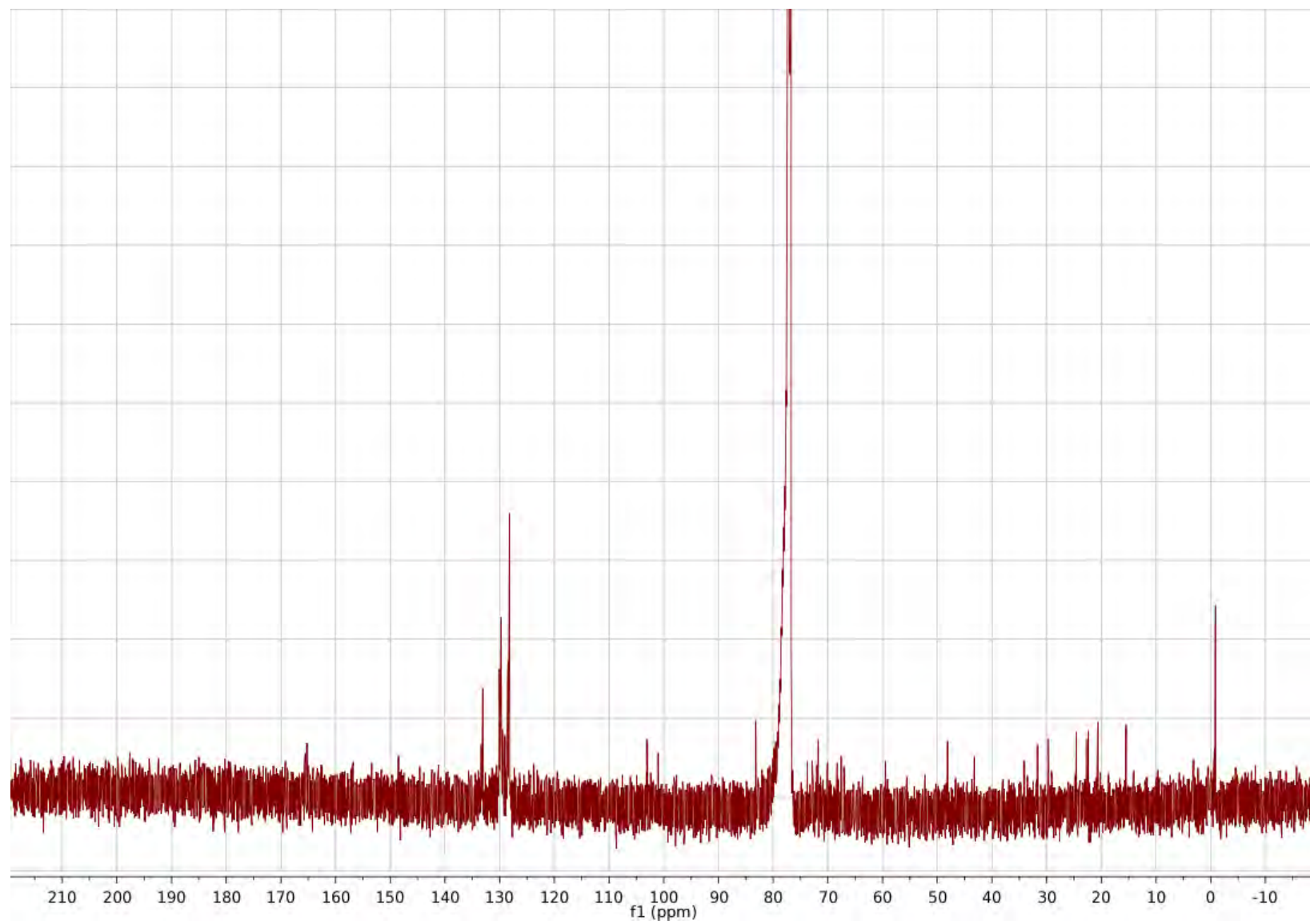


Compound **17₂b**

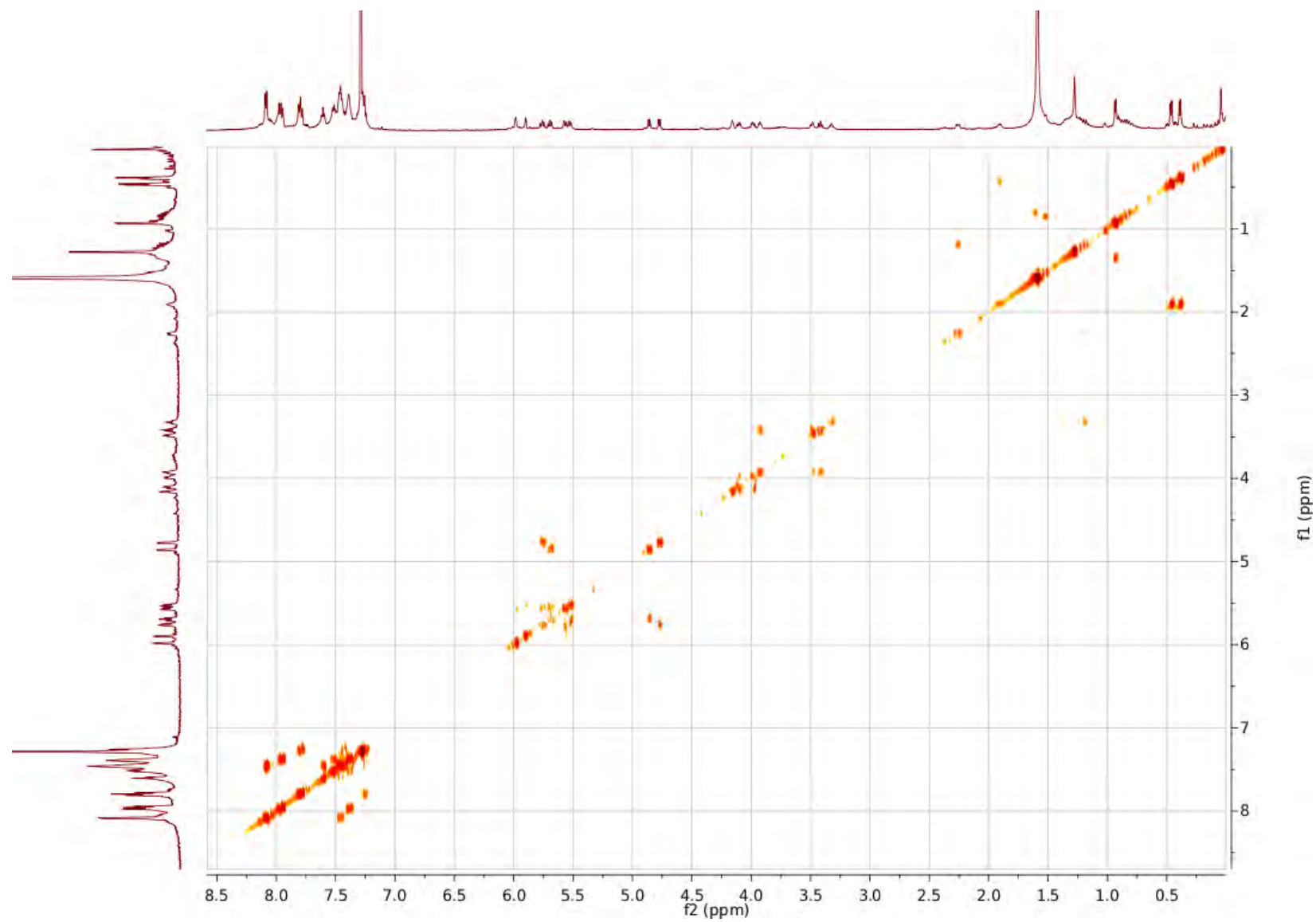
Proton



Carbon

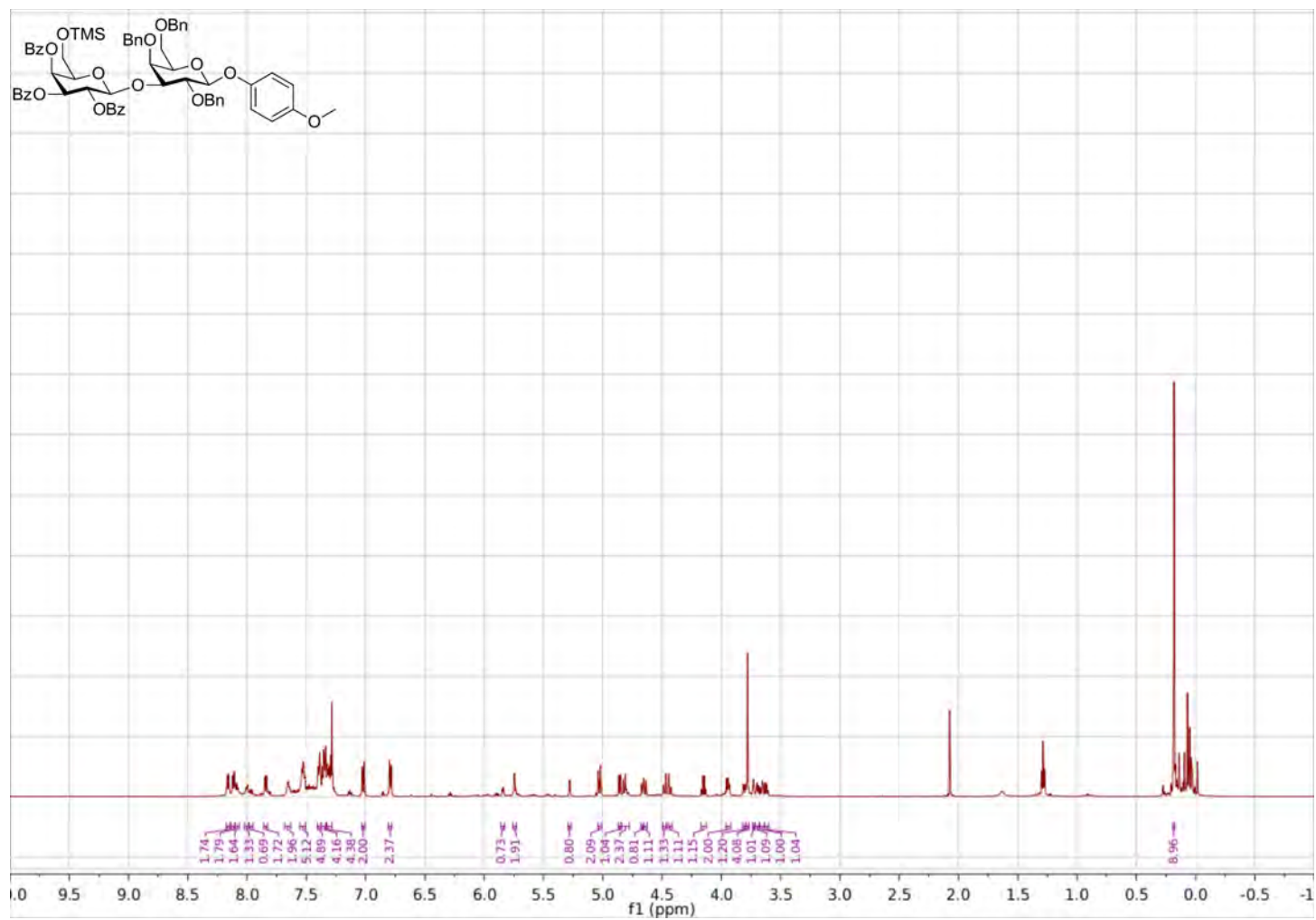


COSY

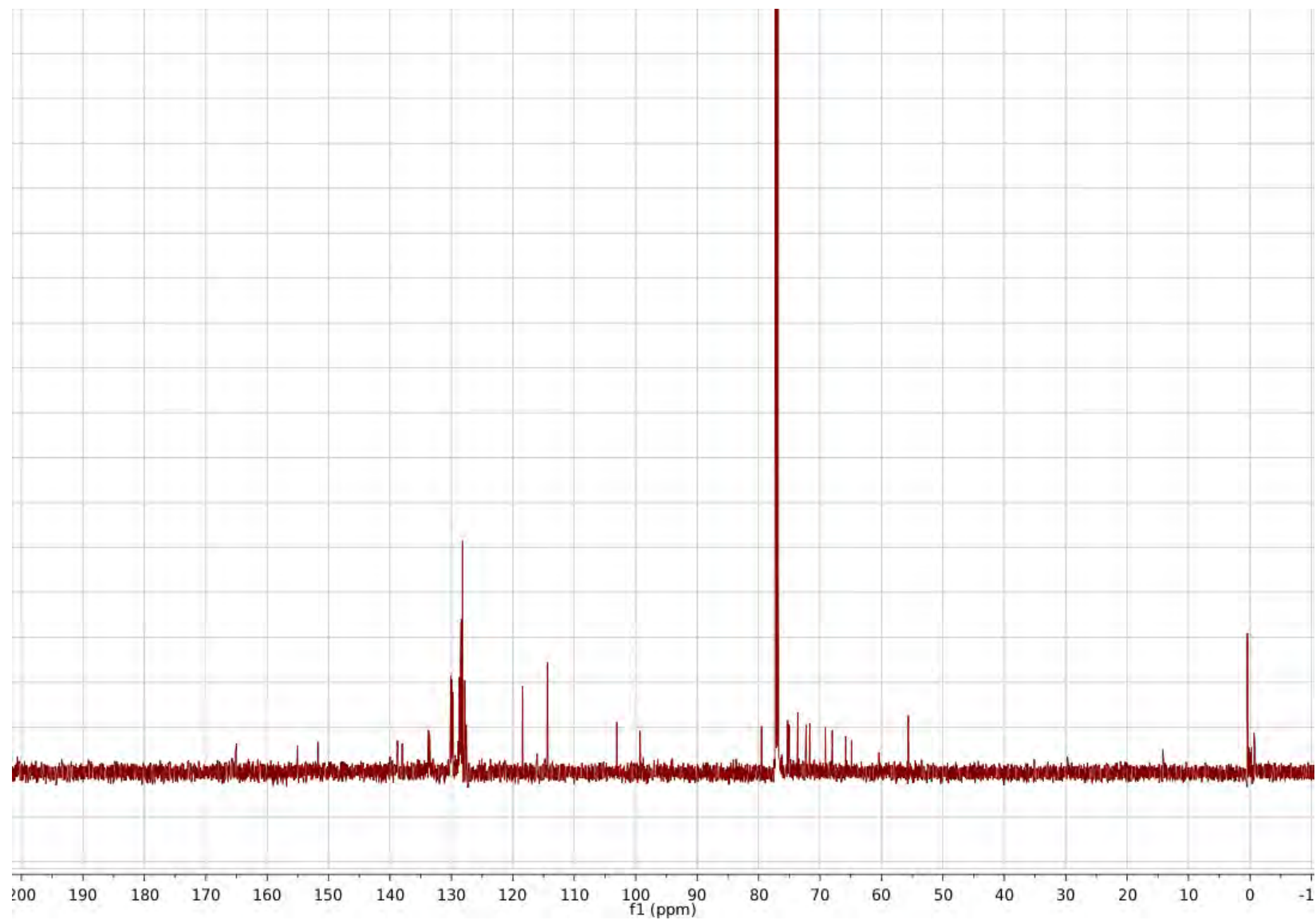


Compound **18_b**

Proton



Carbon



Compound **4_b**

Proton

