

Synthesis, *in silico* and kinetics evaluation of *N*-(β -D-glucopyranosyl)-2-arylimidazole-4(5)-carboxamides and *N*-(β -D-glucopyranosyl)-4(5)-arylimidazole-2-carboxamides as glycogen phosphorylase inhibitors

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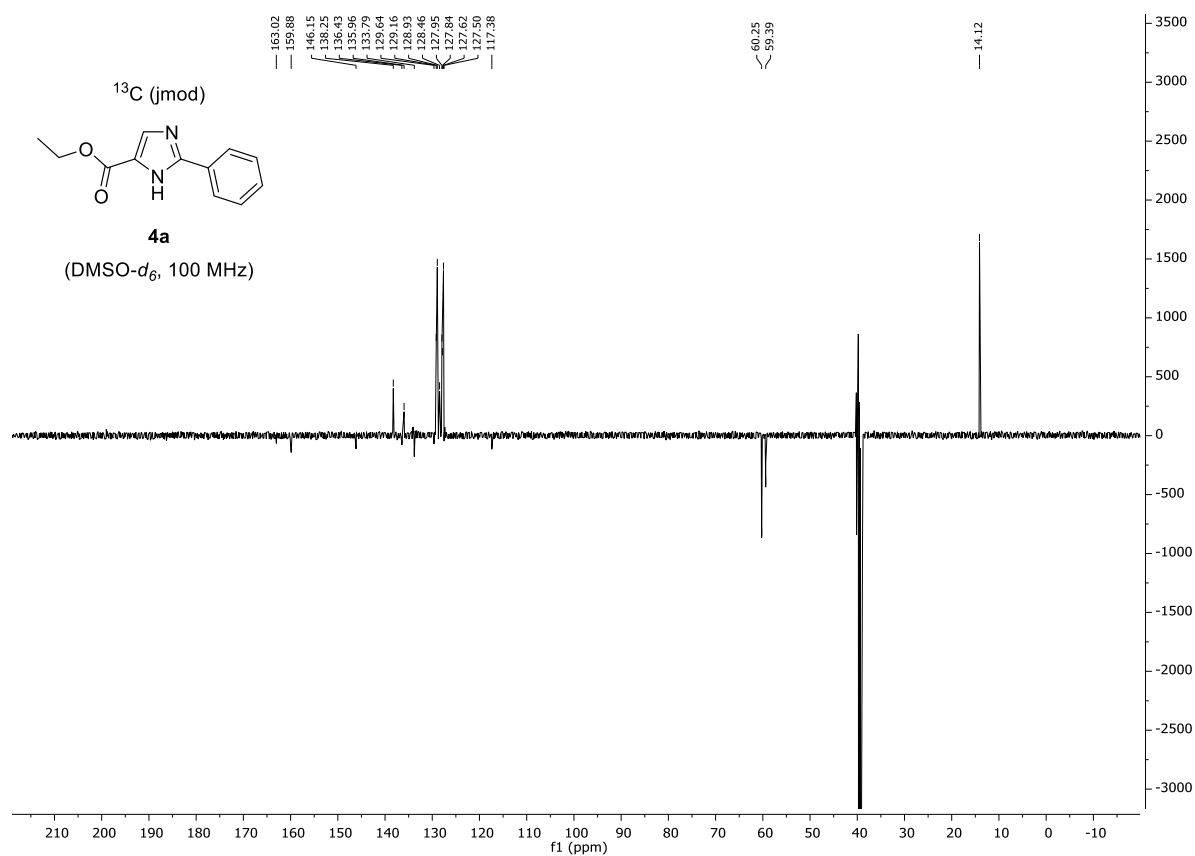
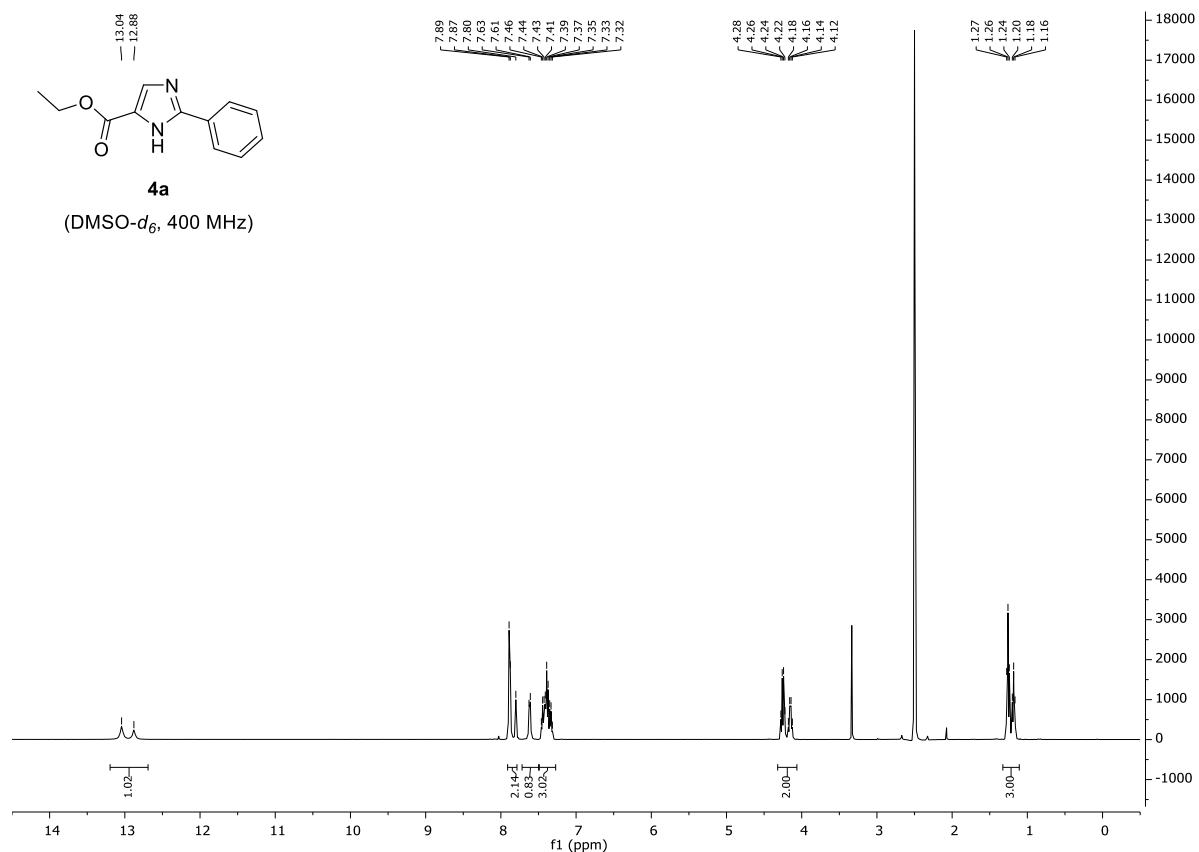
^c Department of Medical Chemistry, University of Debrecen, Faculty of Medicine, University of Debrecen, 4032 Debrecen, Hungary

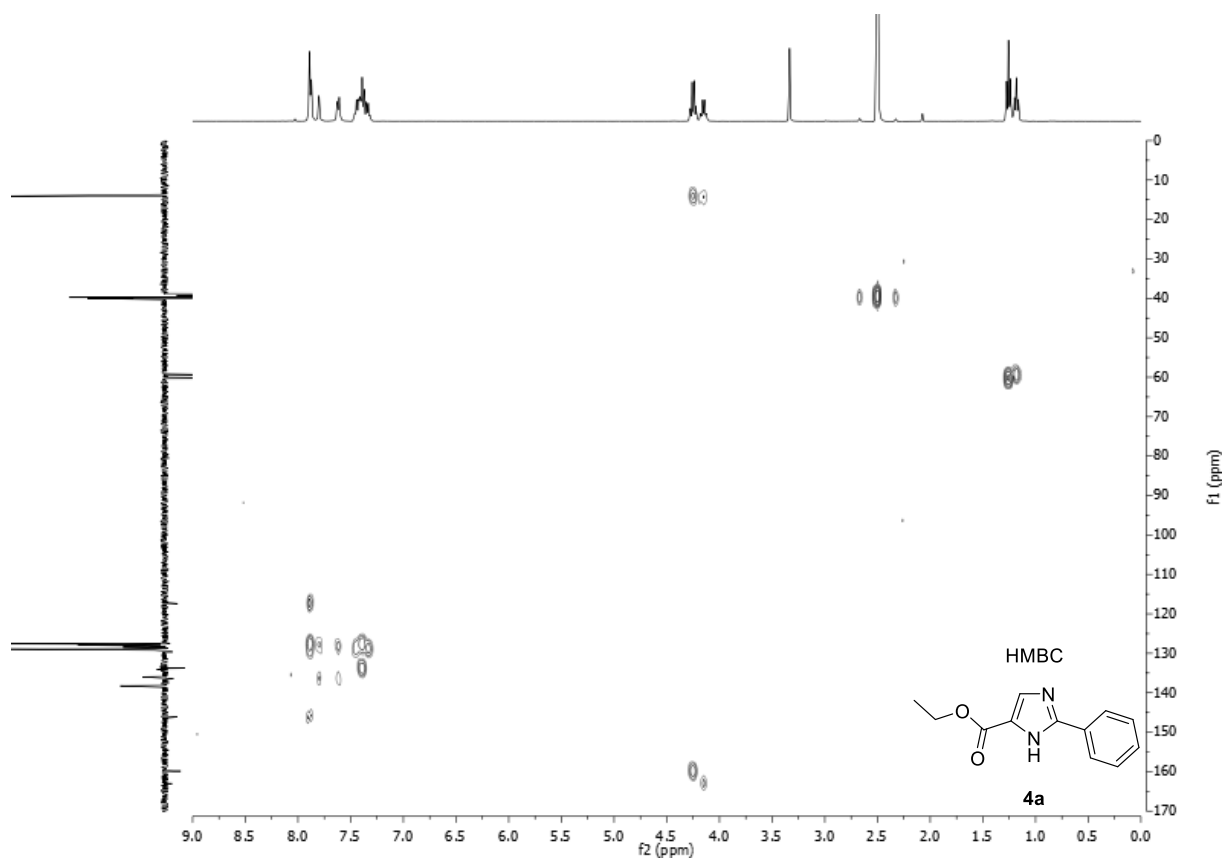
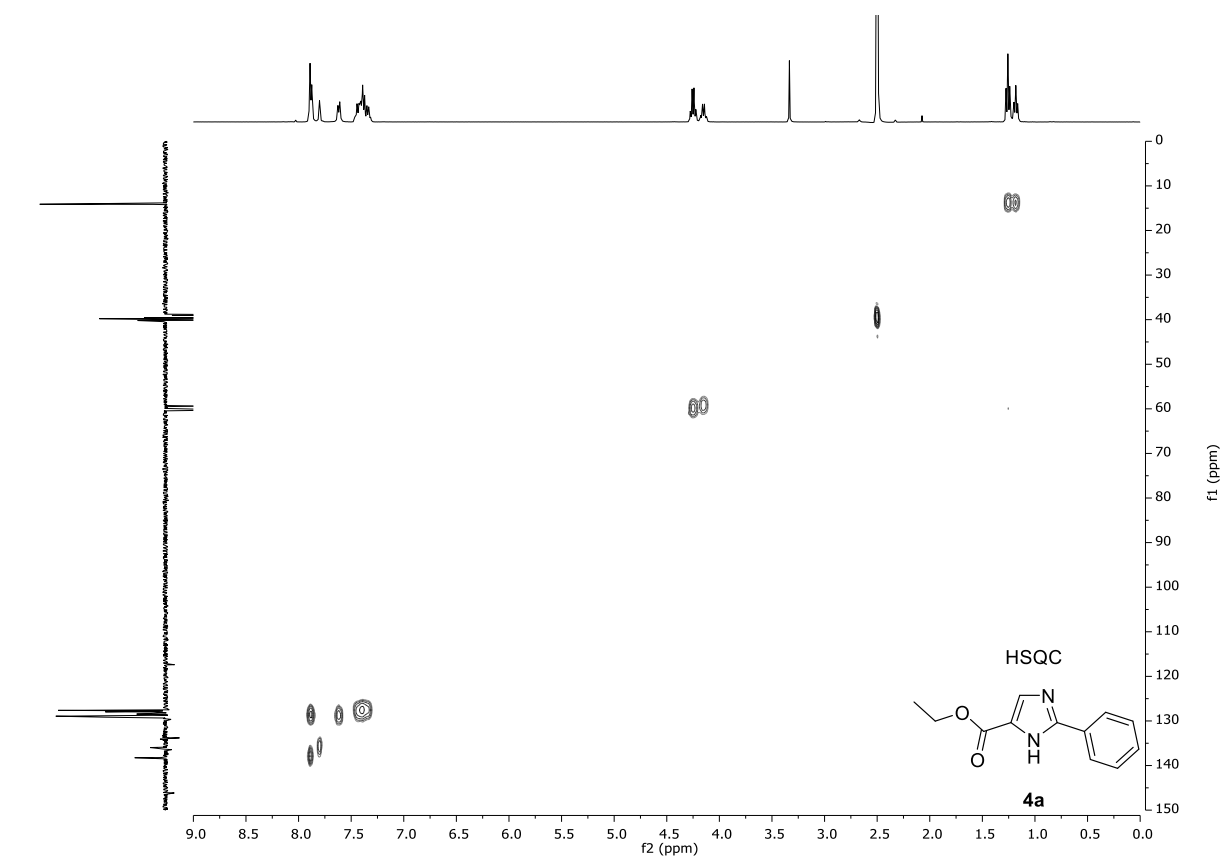
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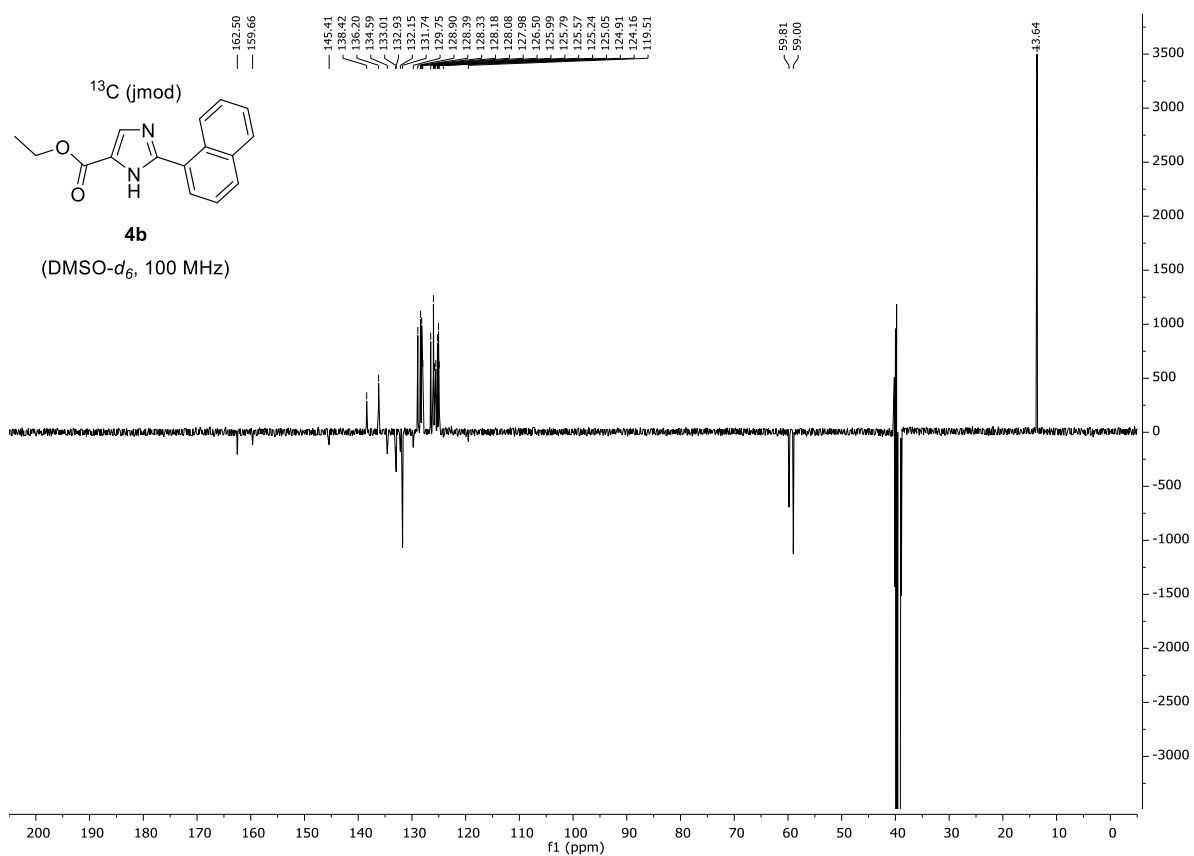
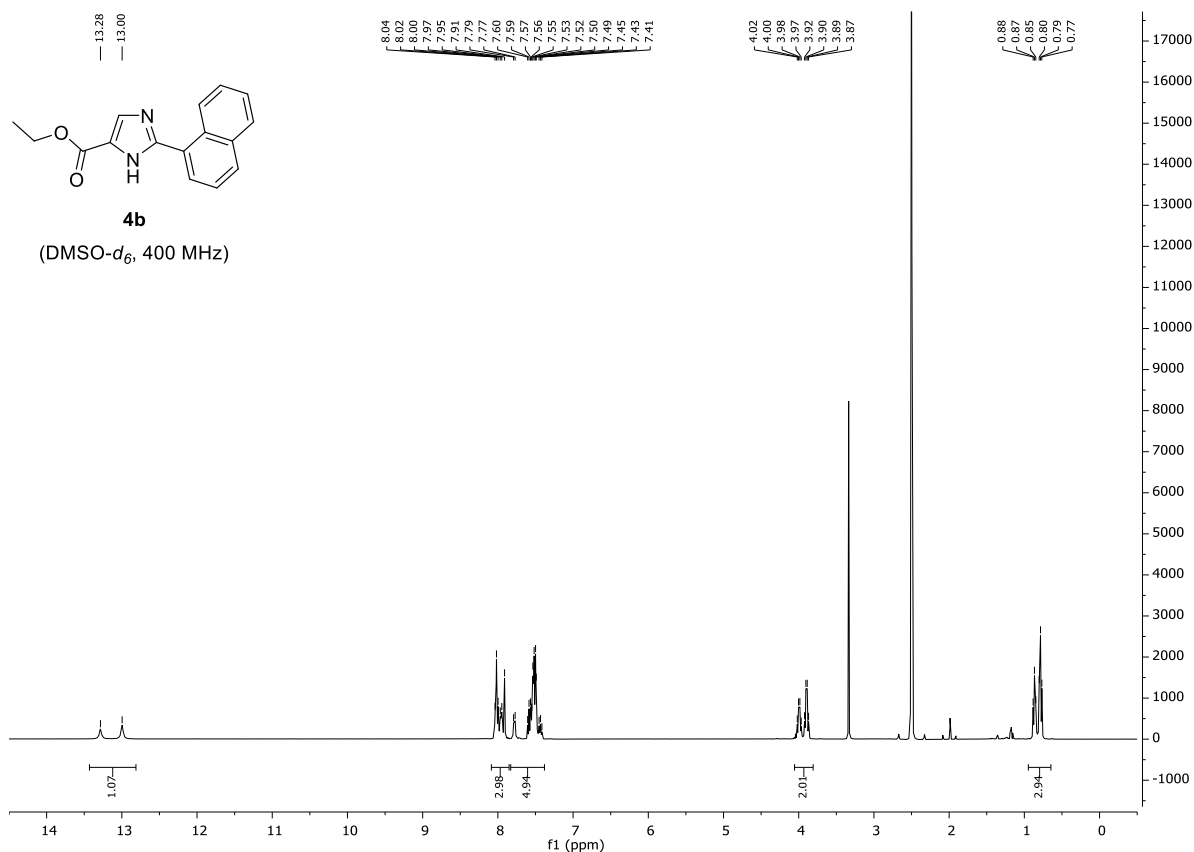
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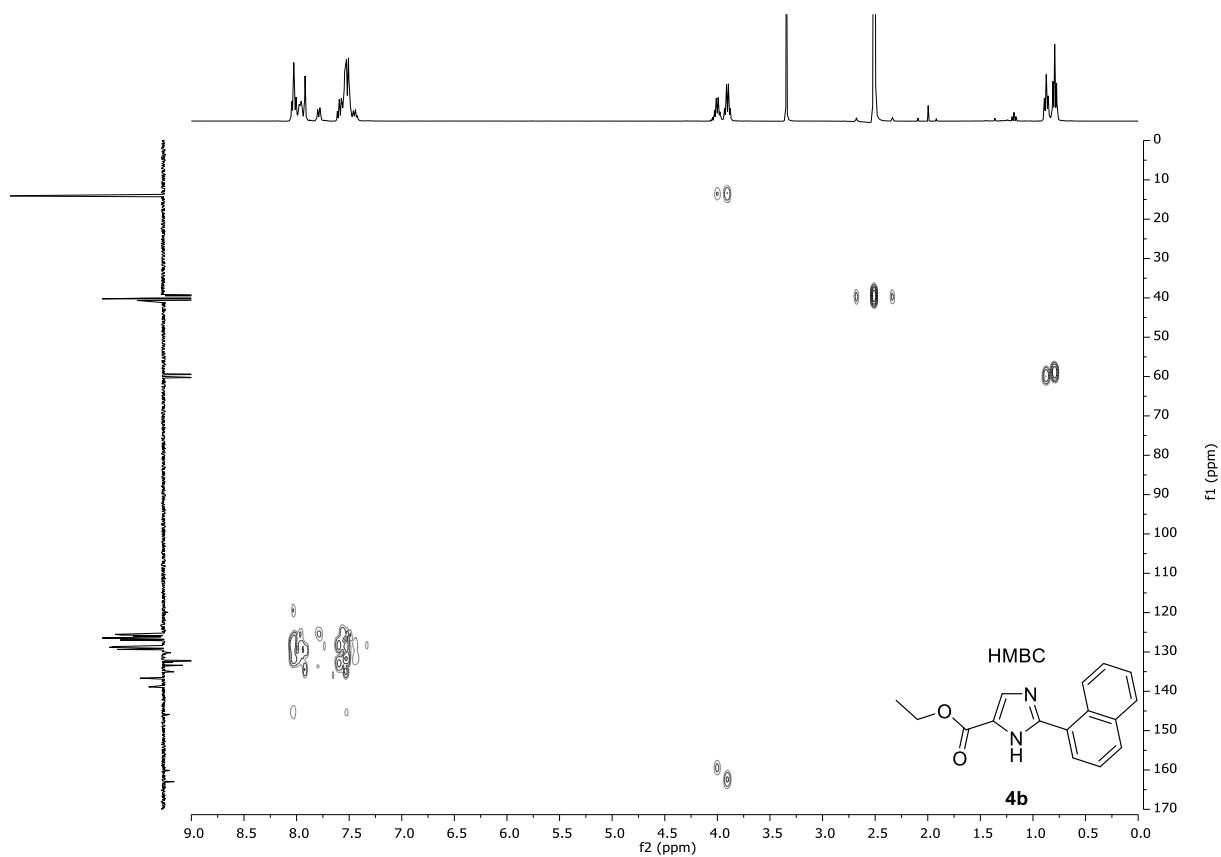
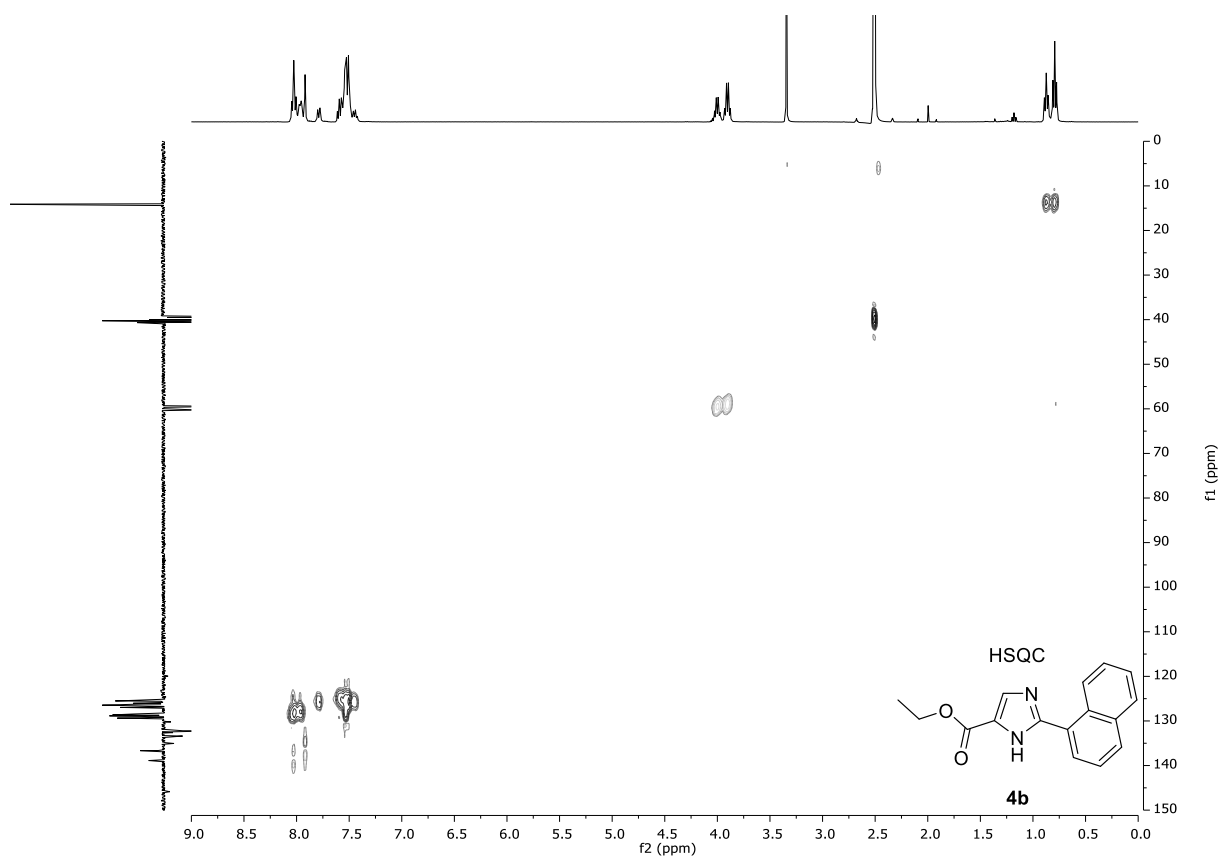
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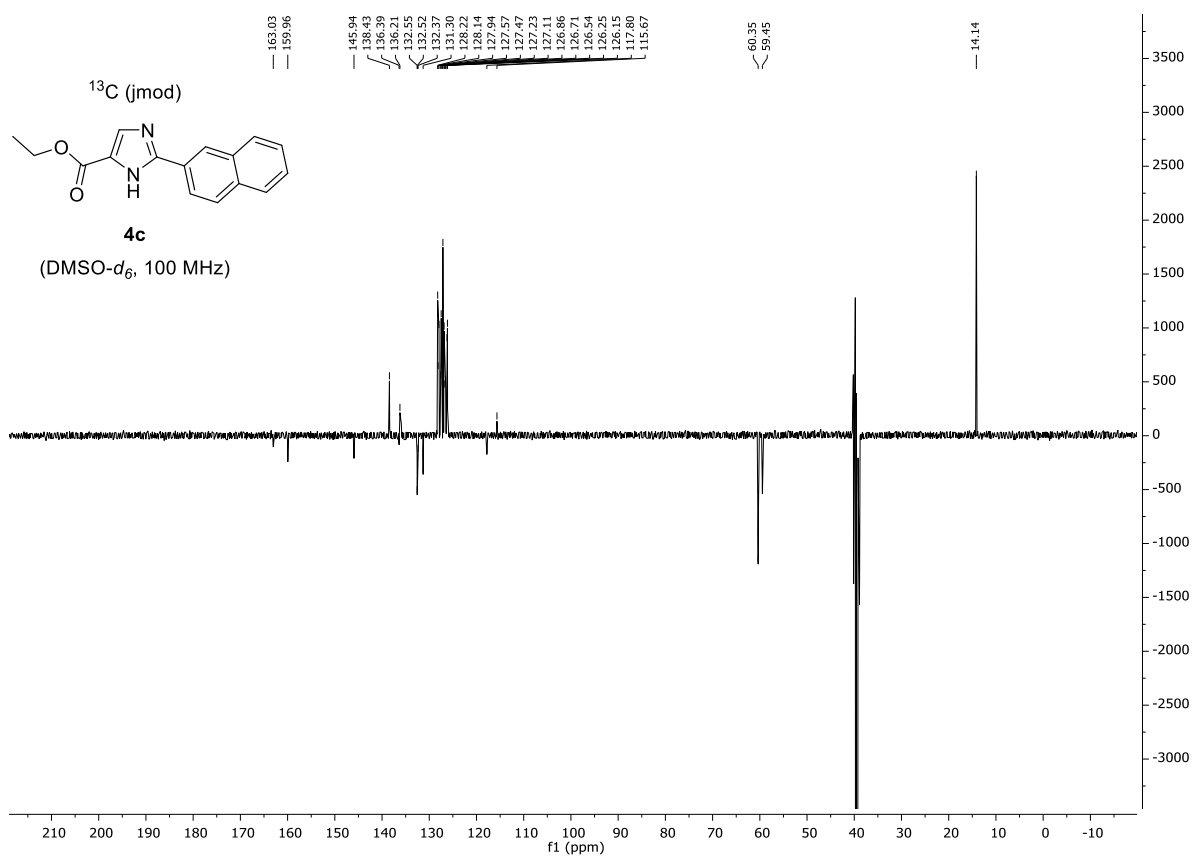
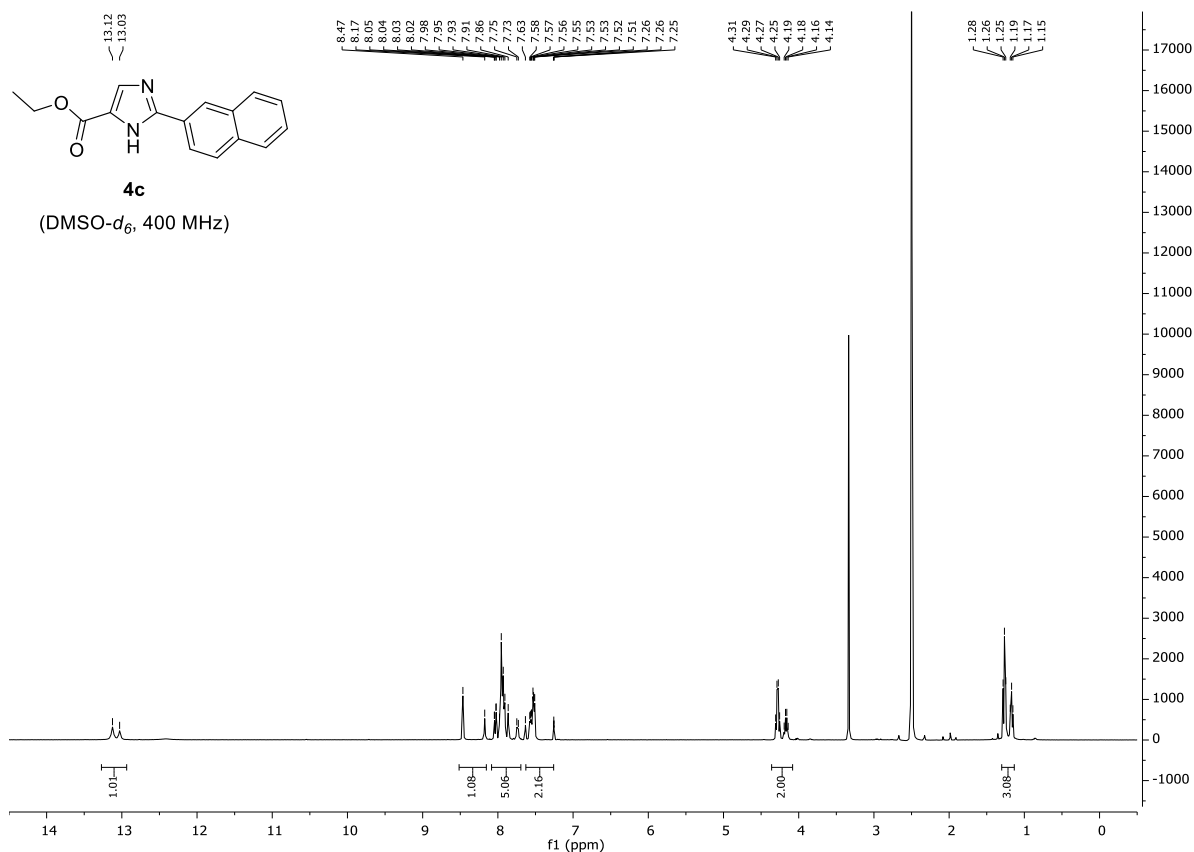


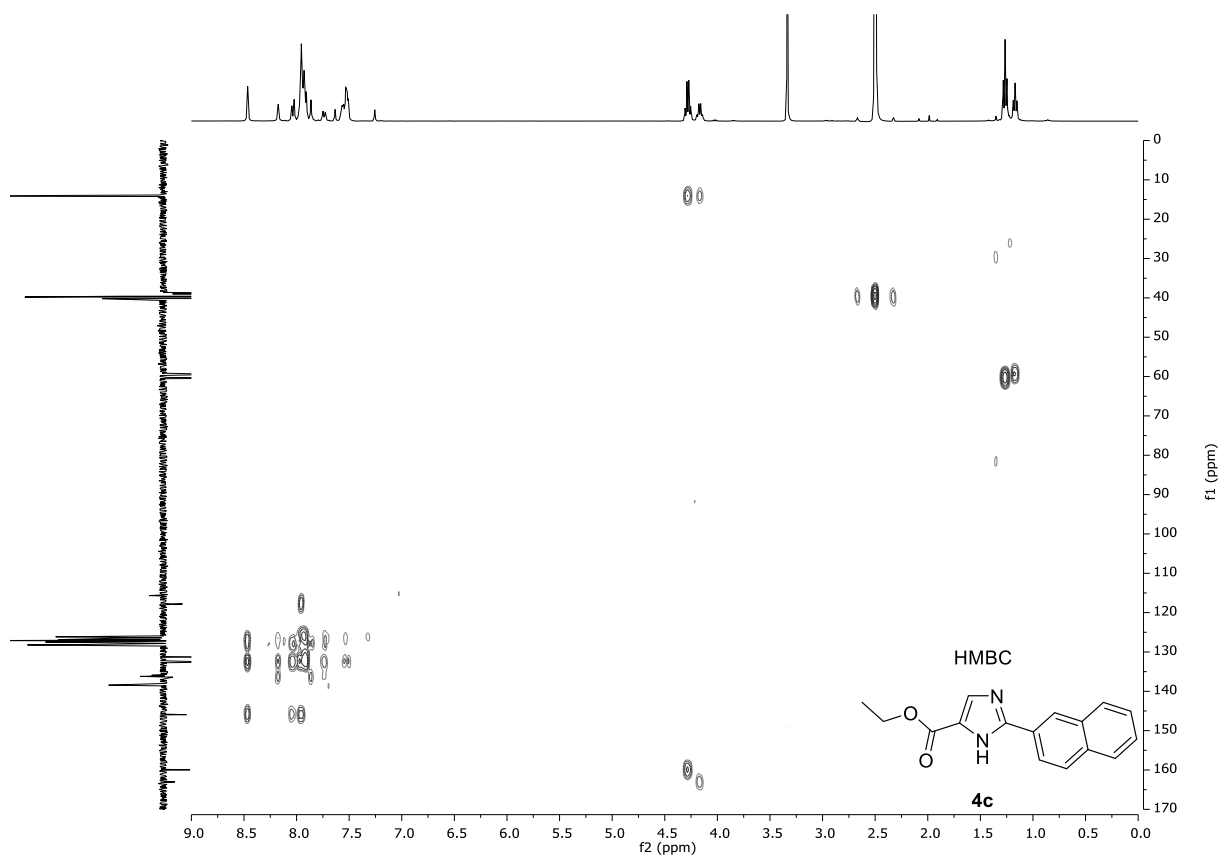
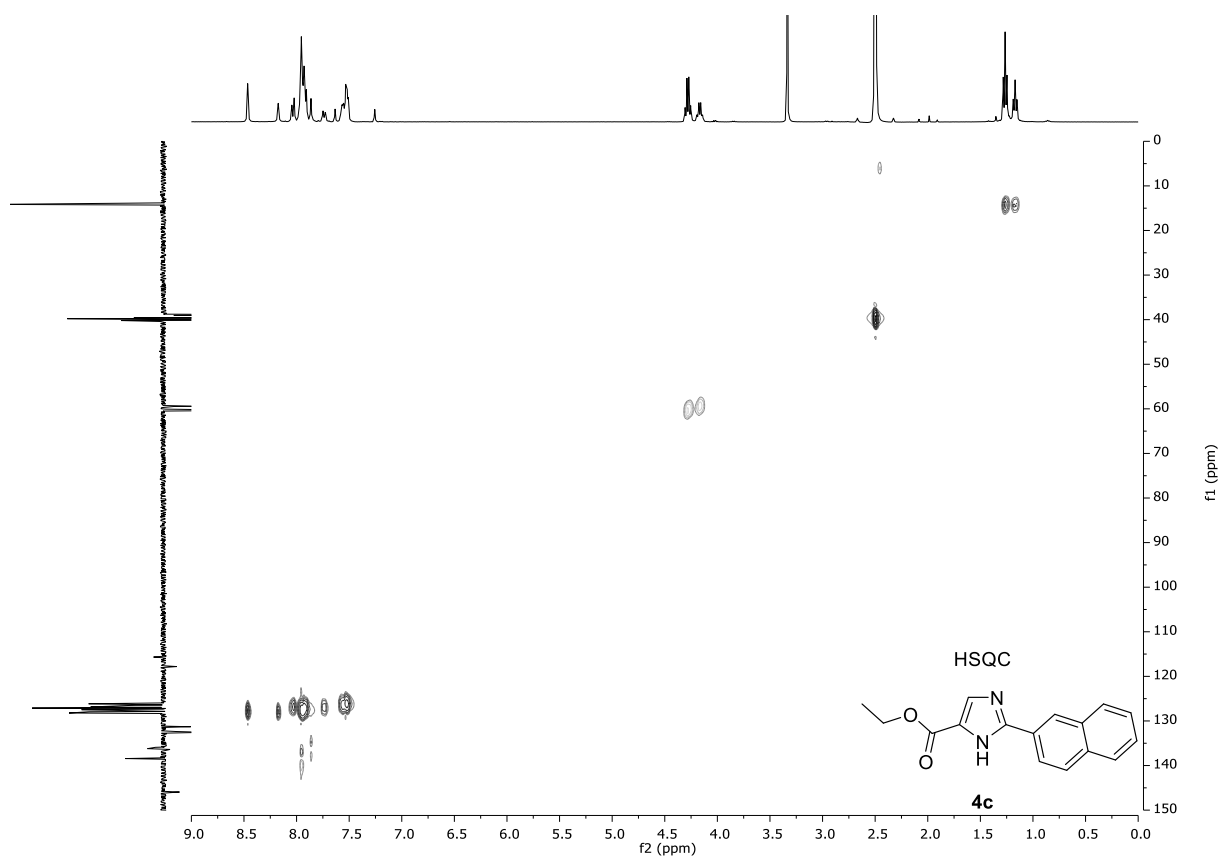
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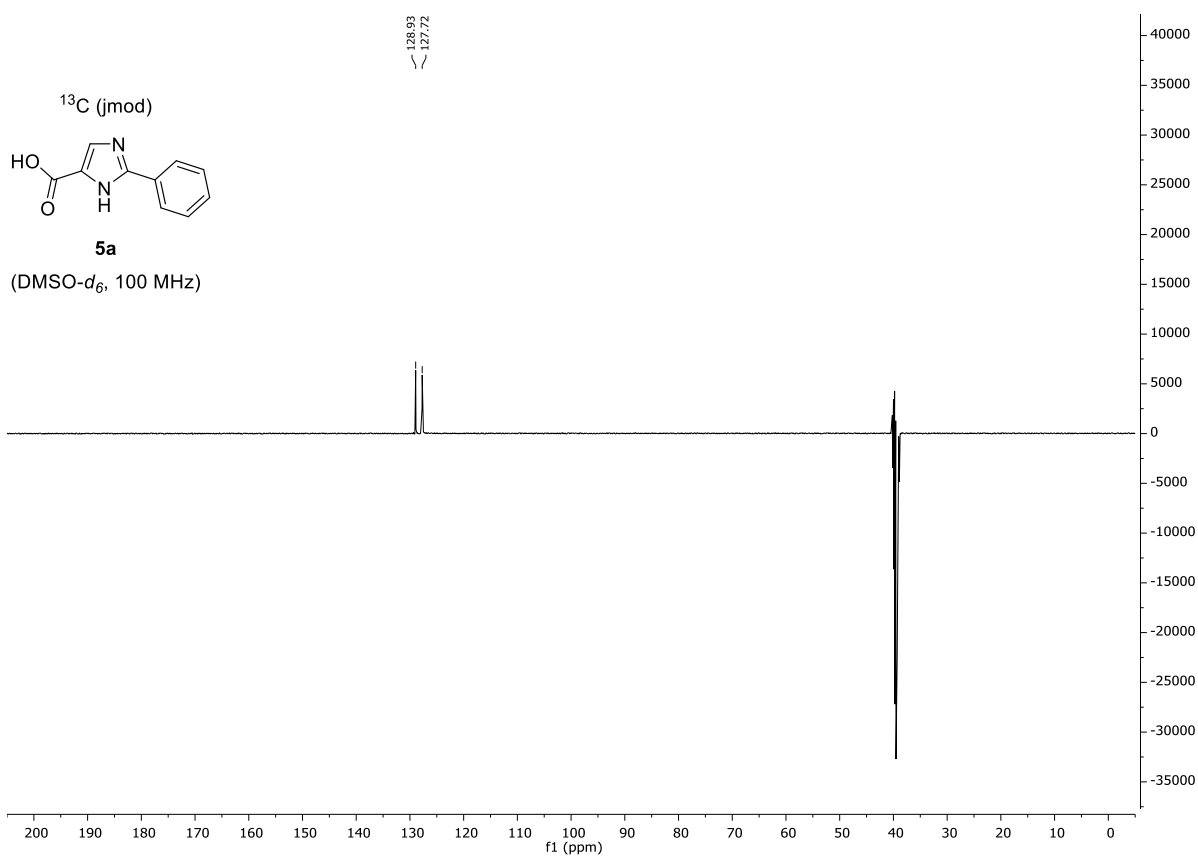
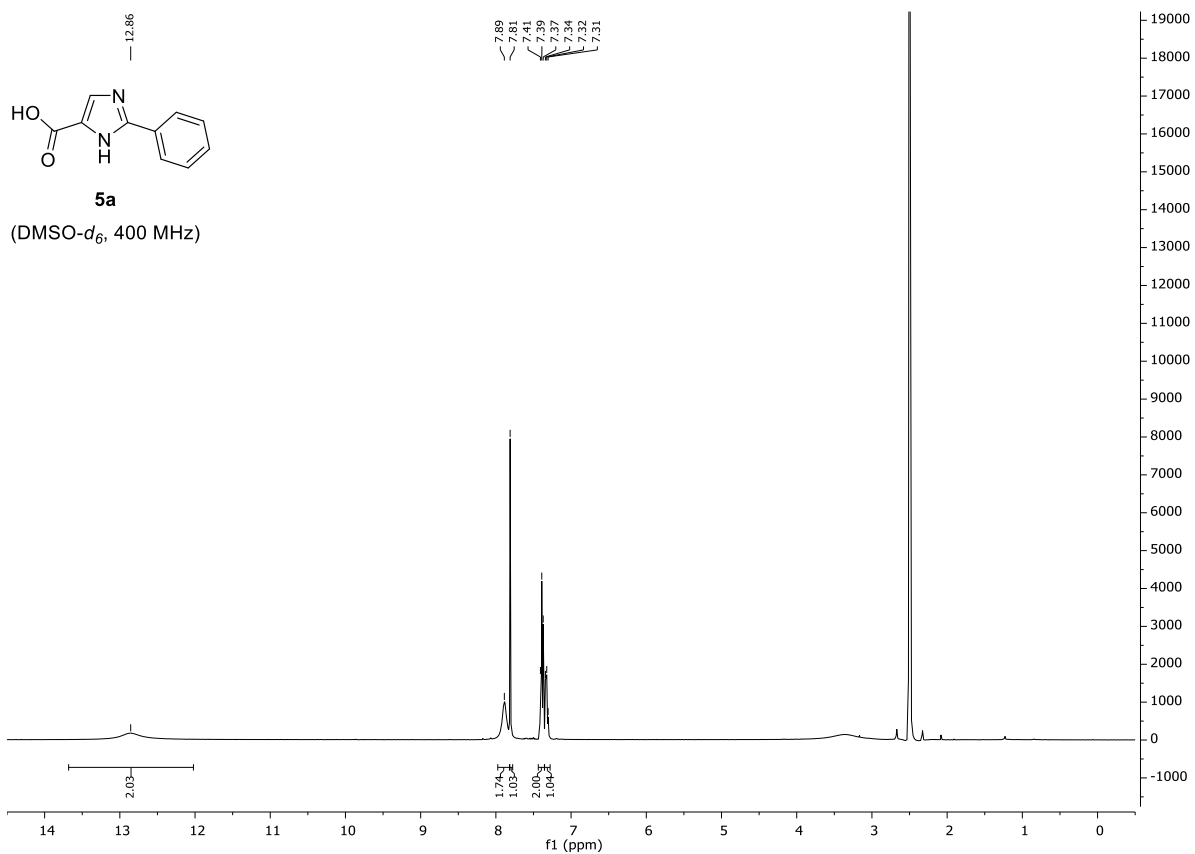


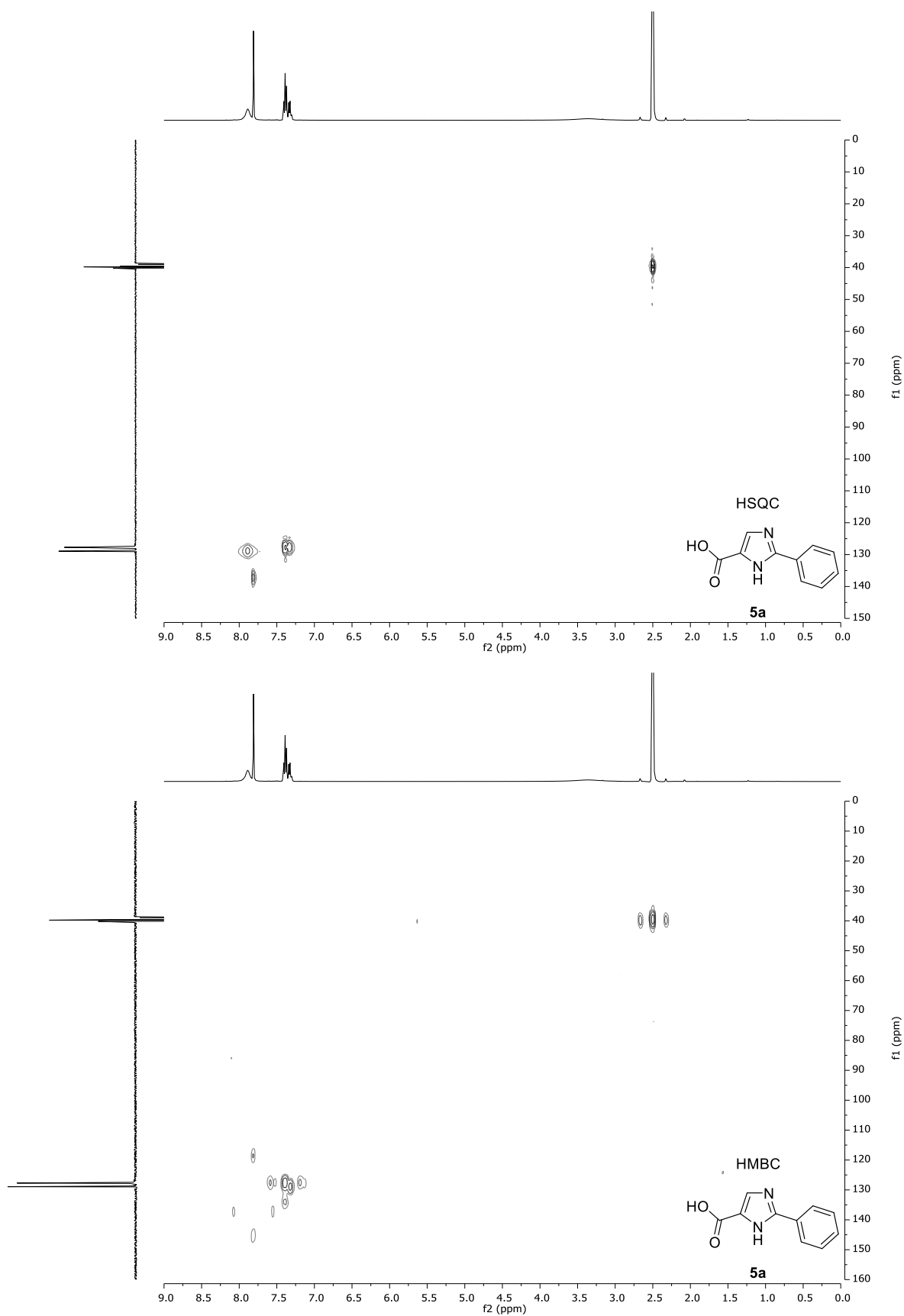
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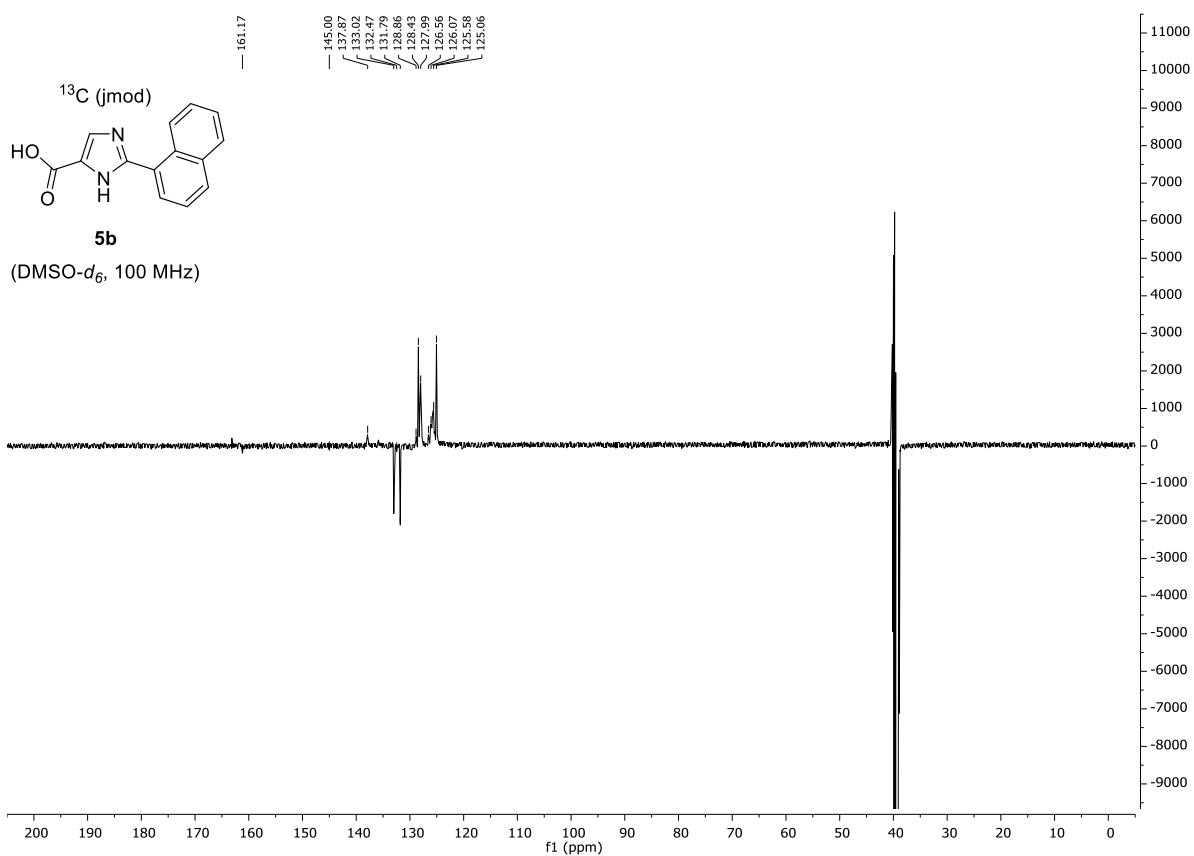
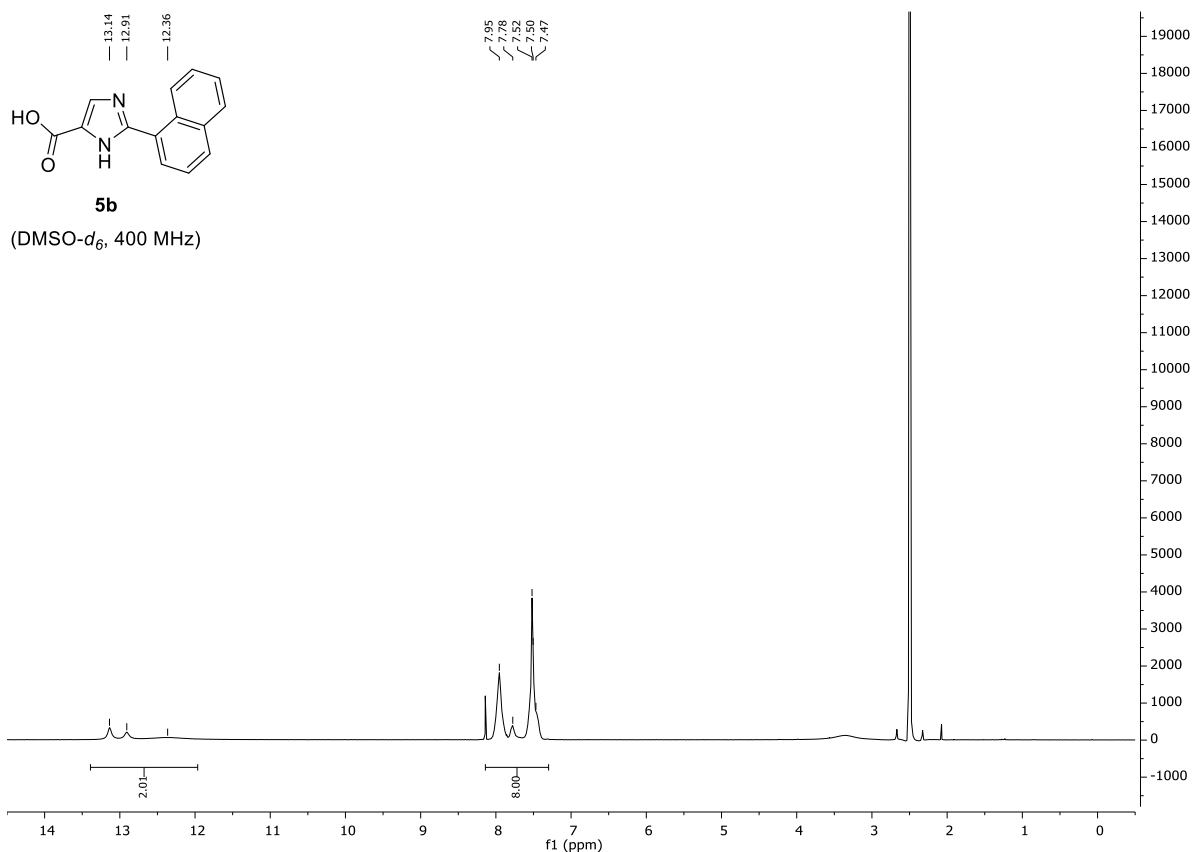


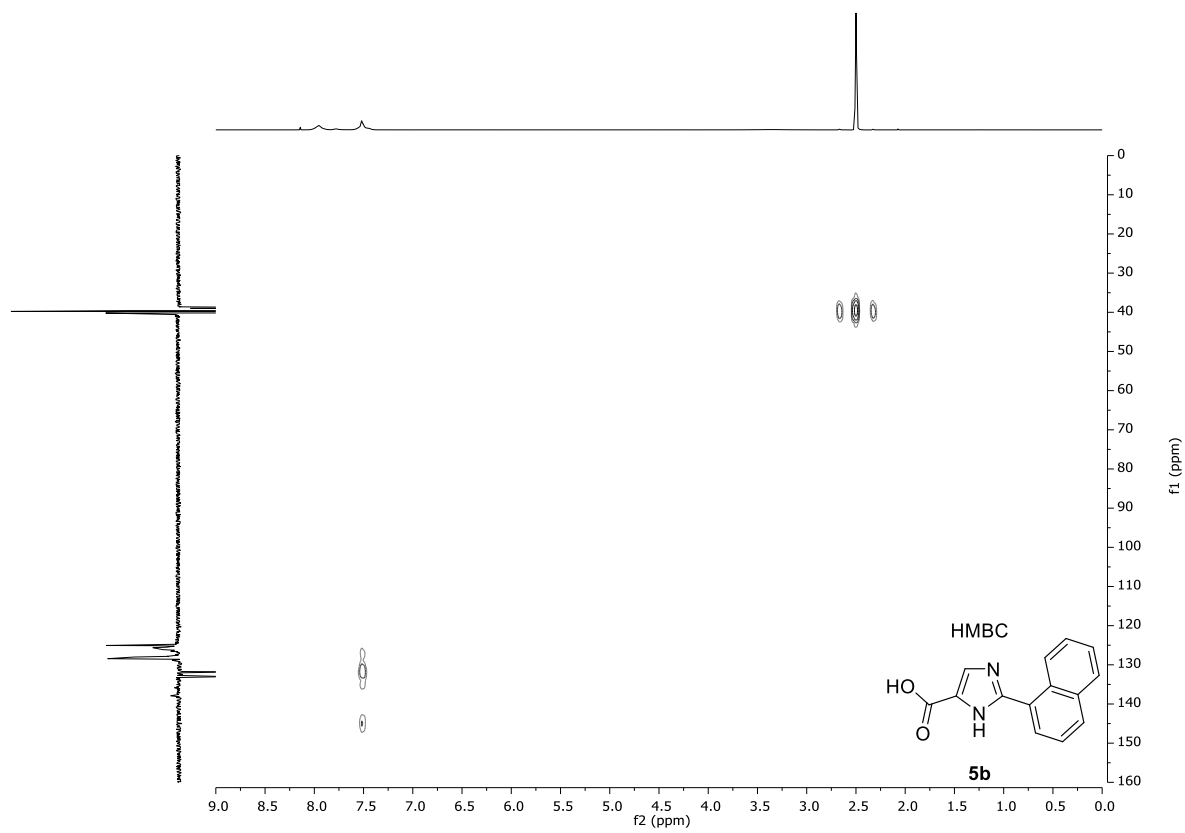
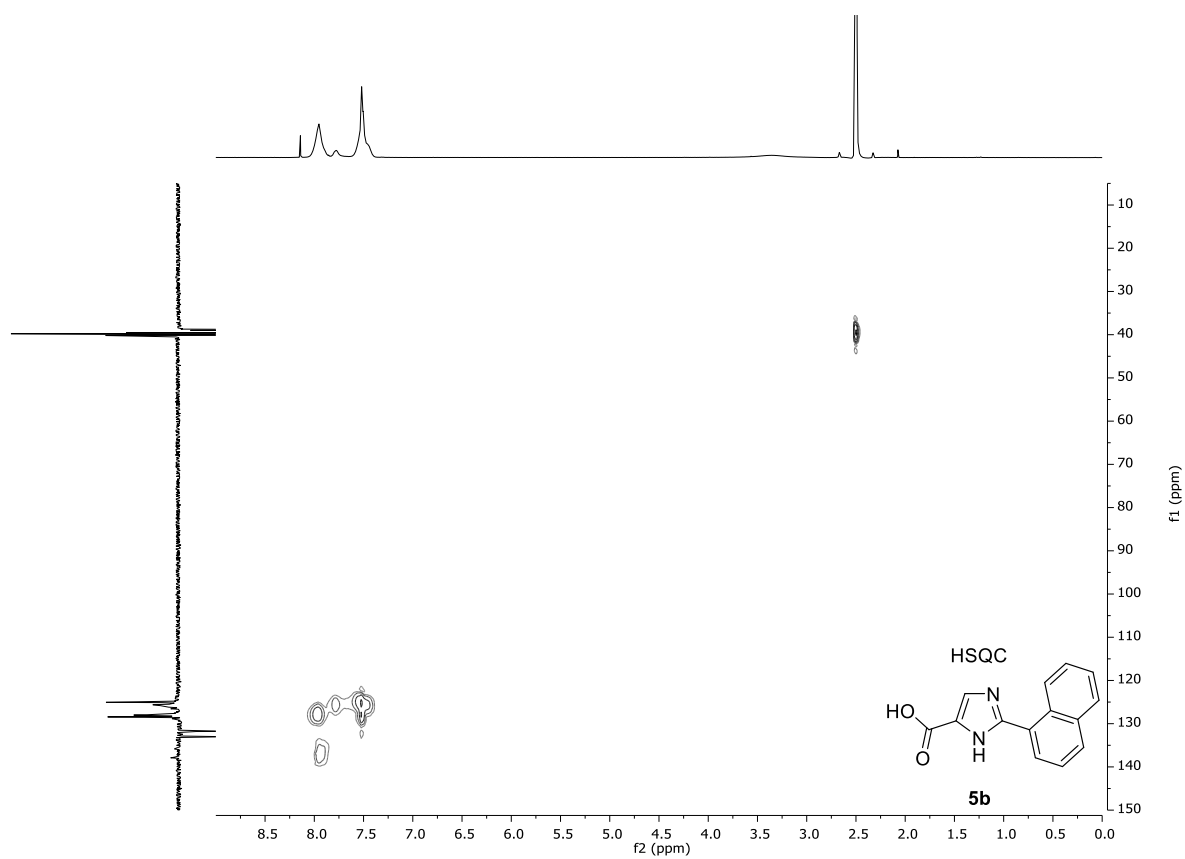
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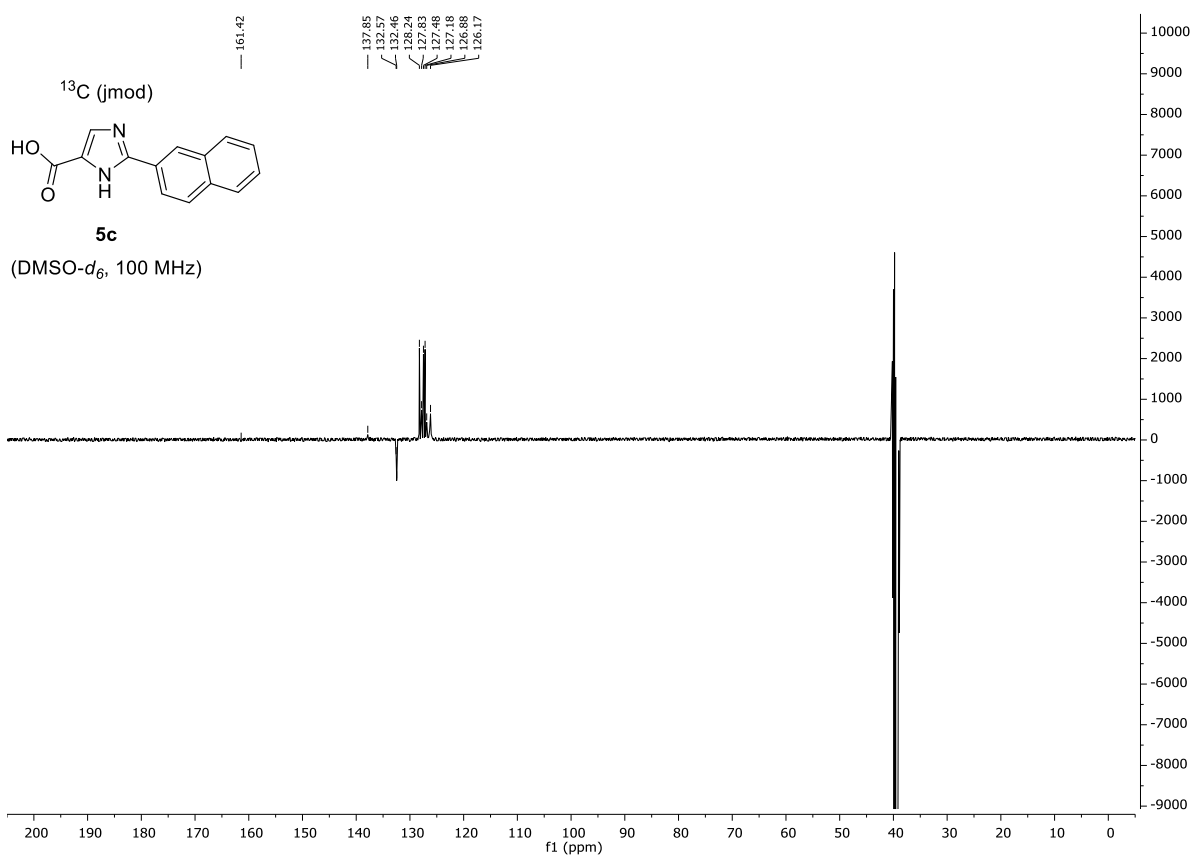
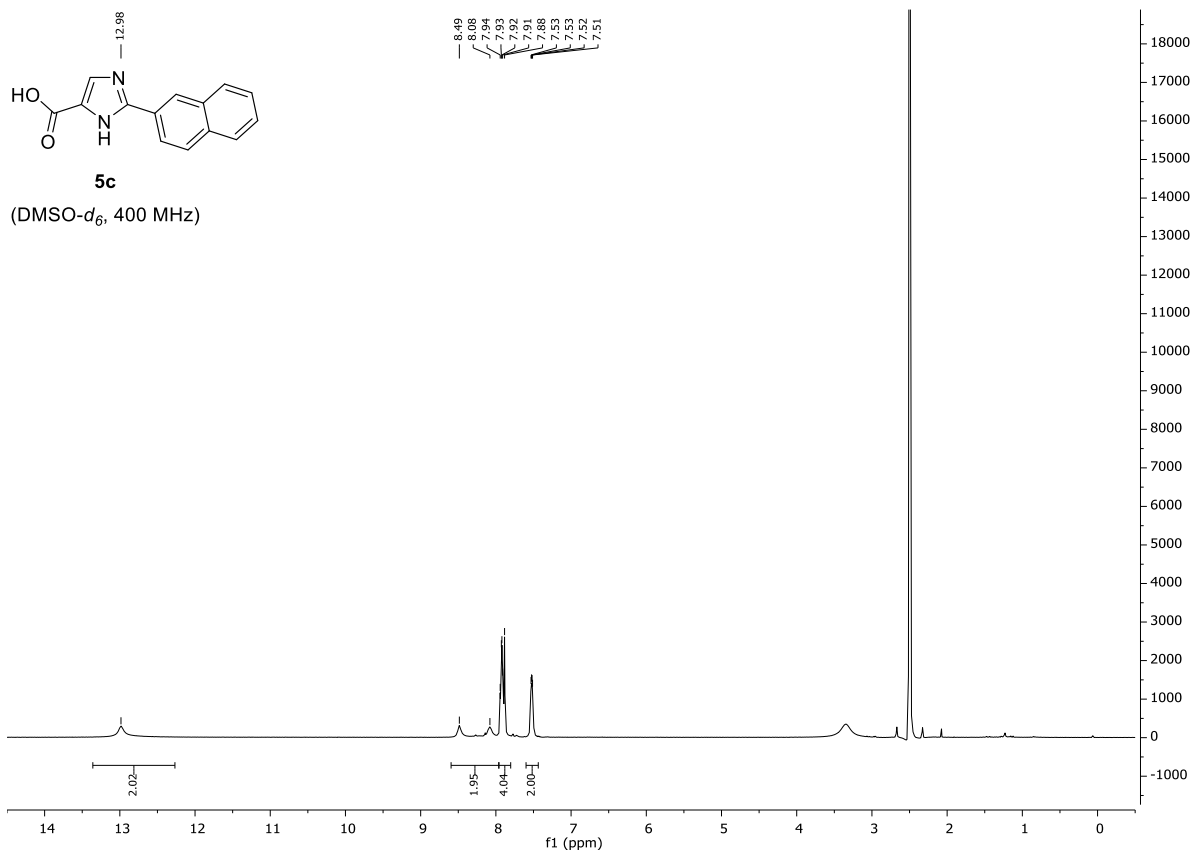


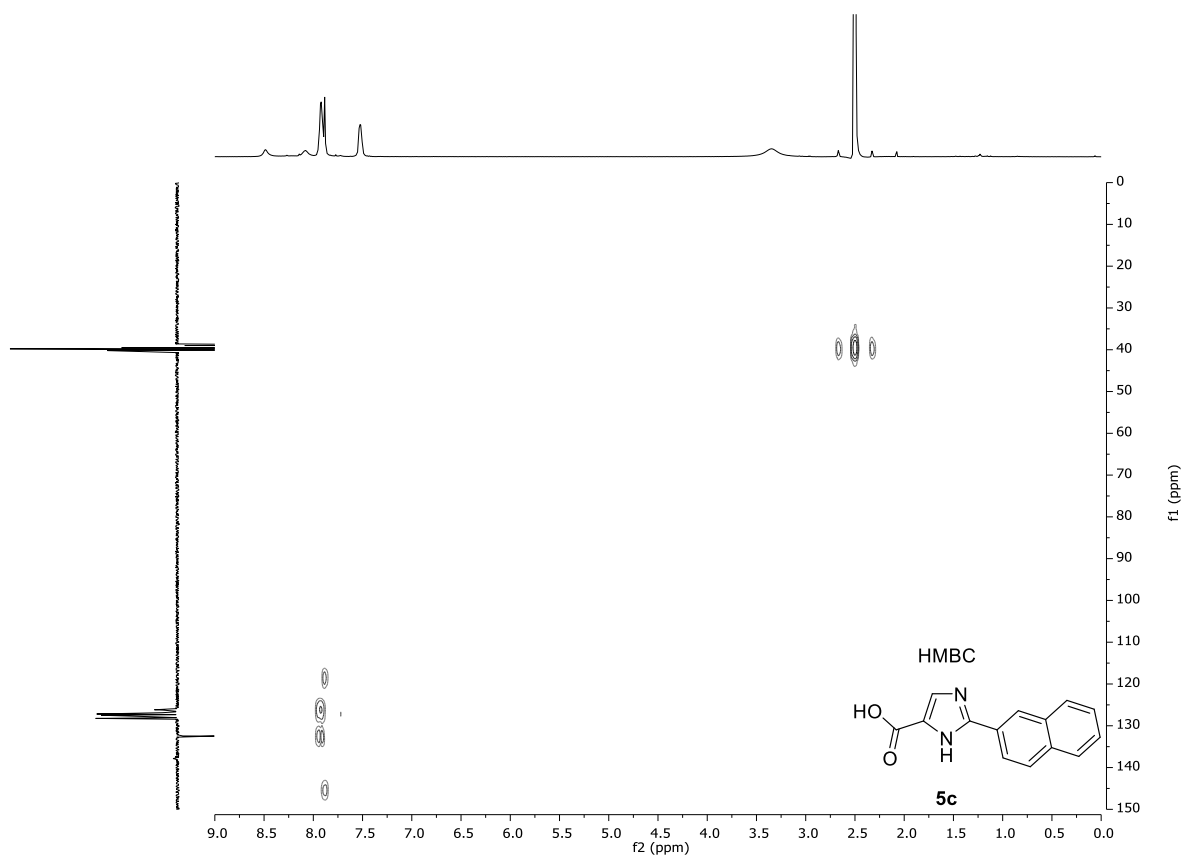
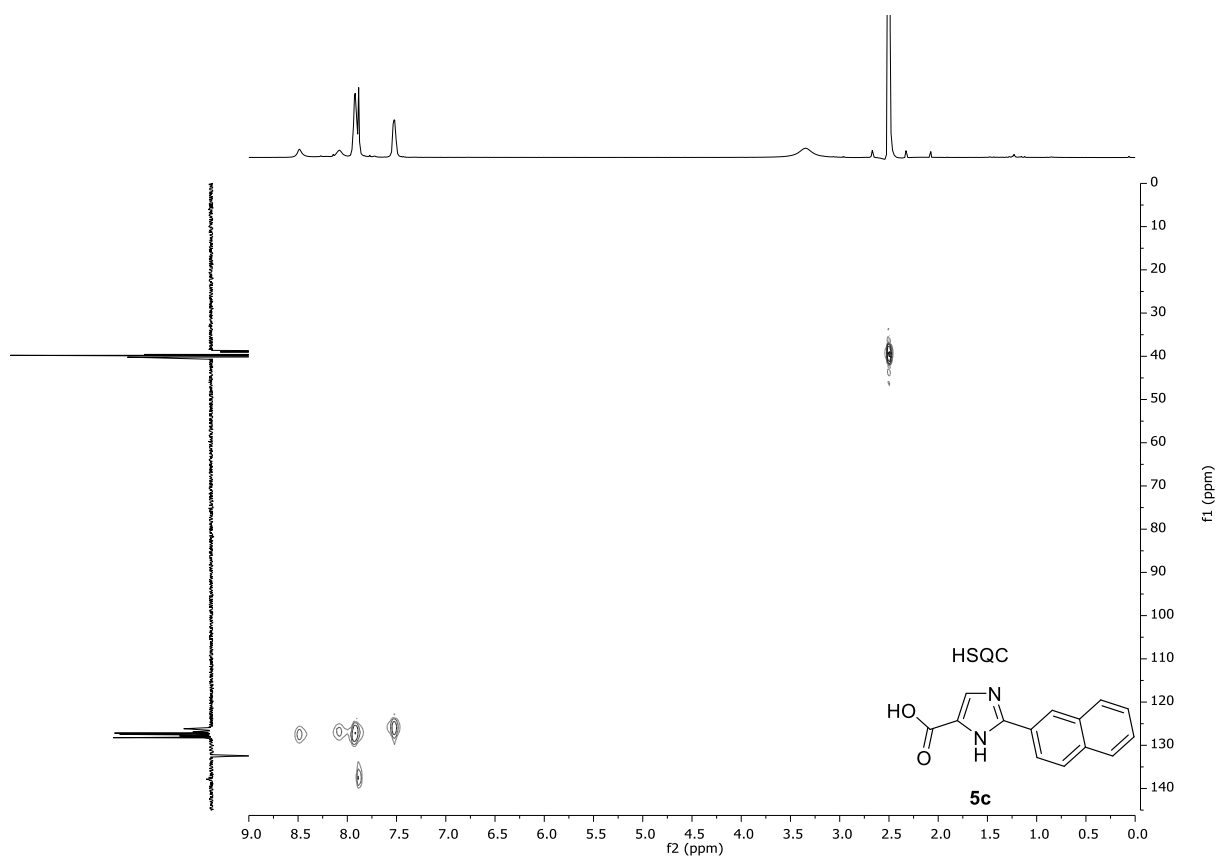
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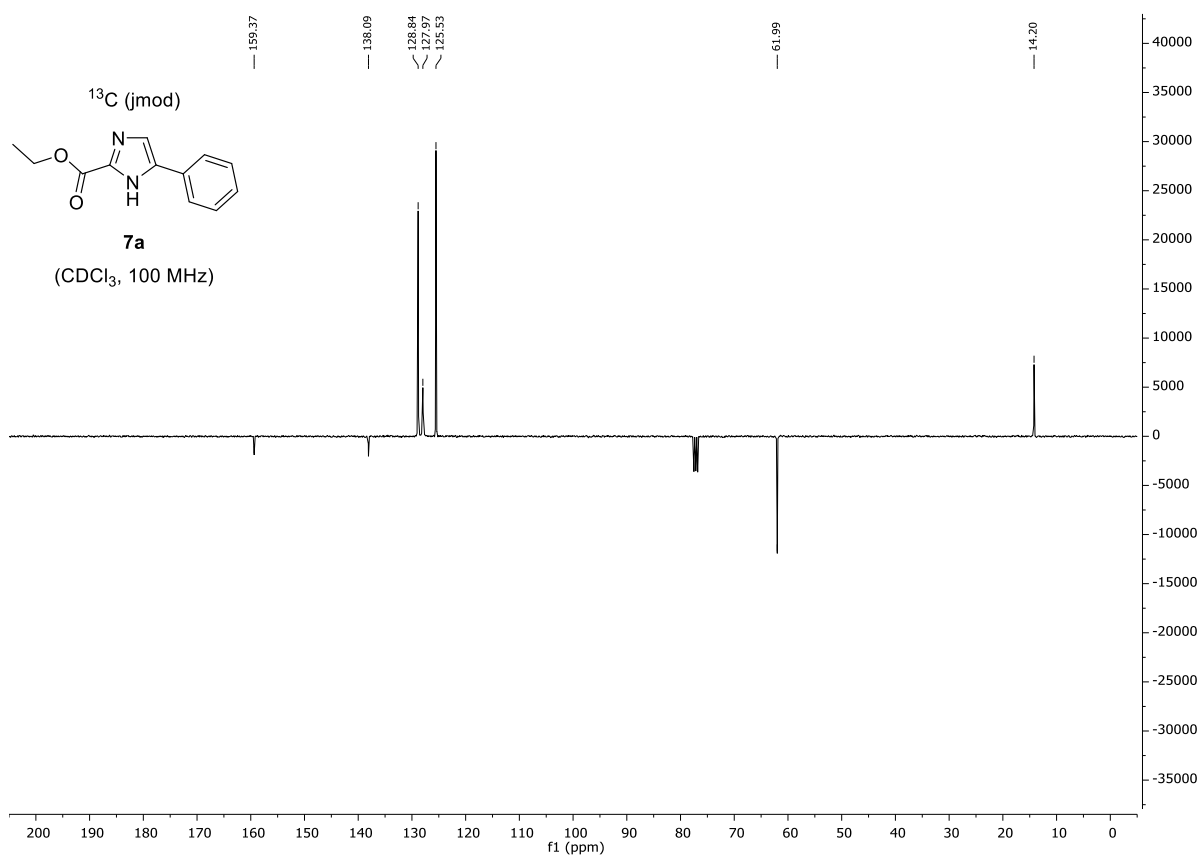
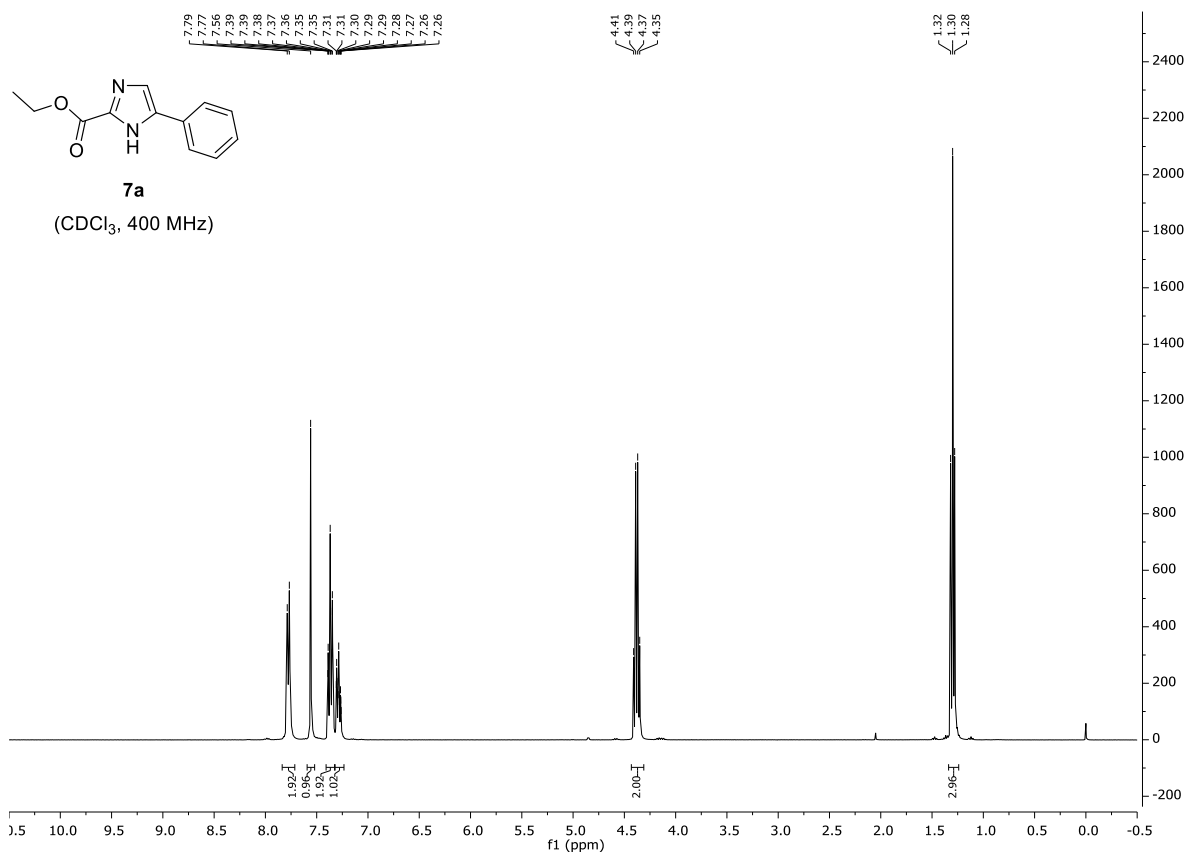


2-(2-Naphthyl)-1*H*-imidazole-4(5*H*)-carboxylic acid (**5c**)

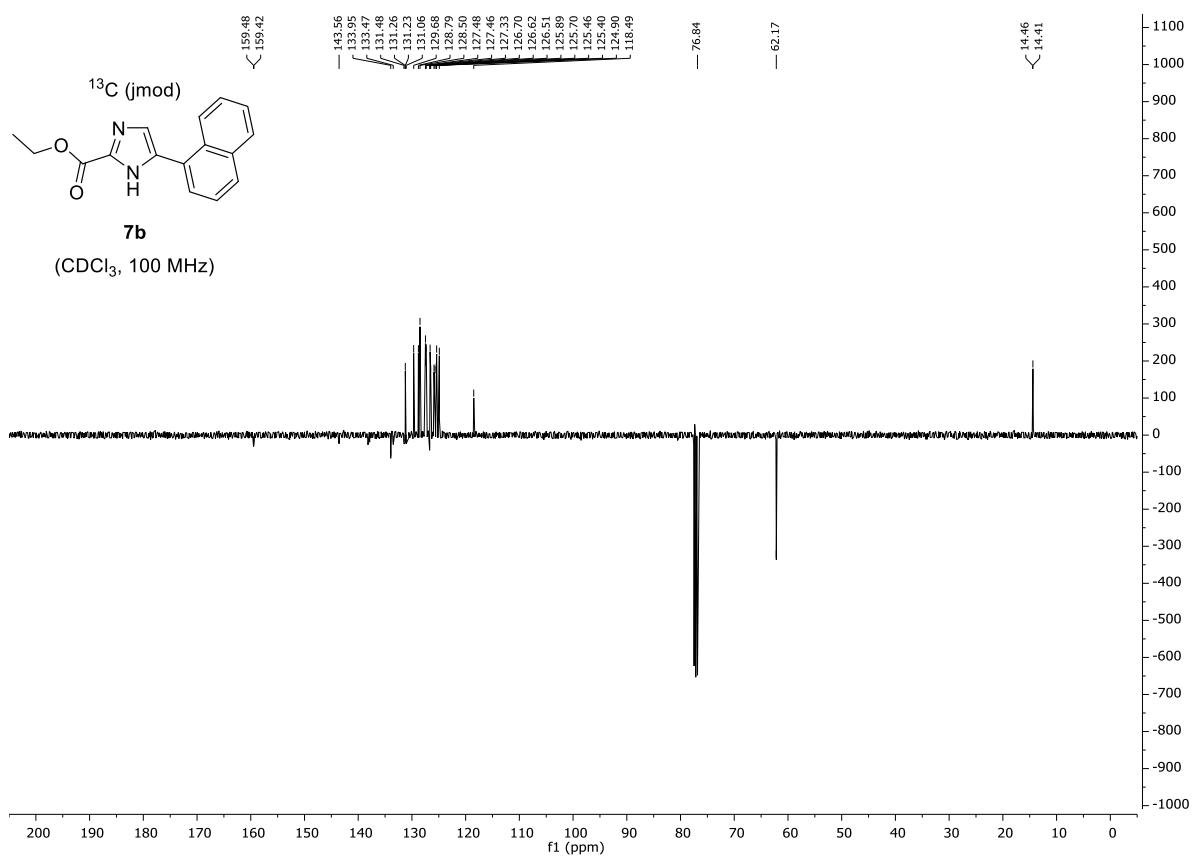
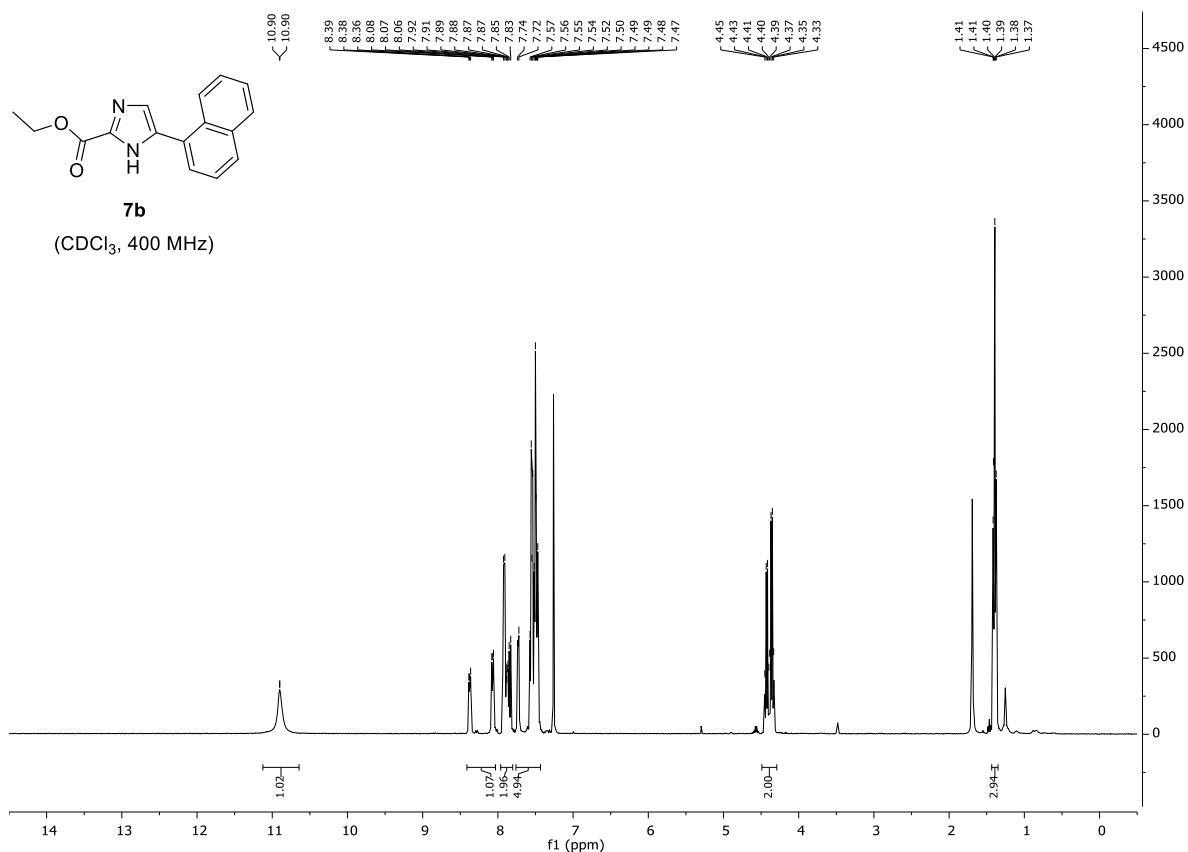


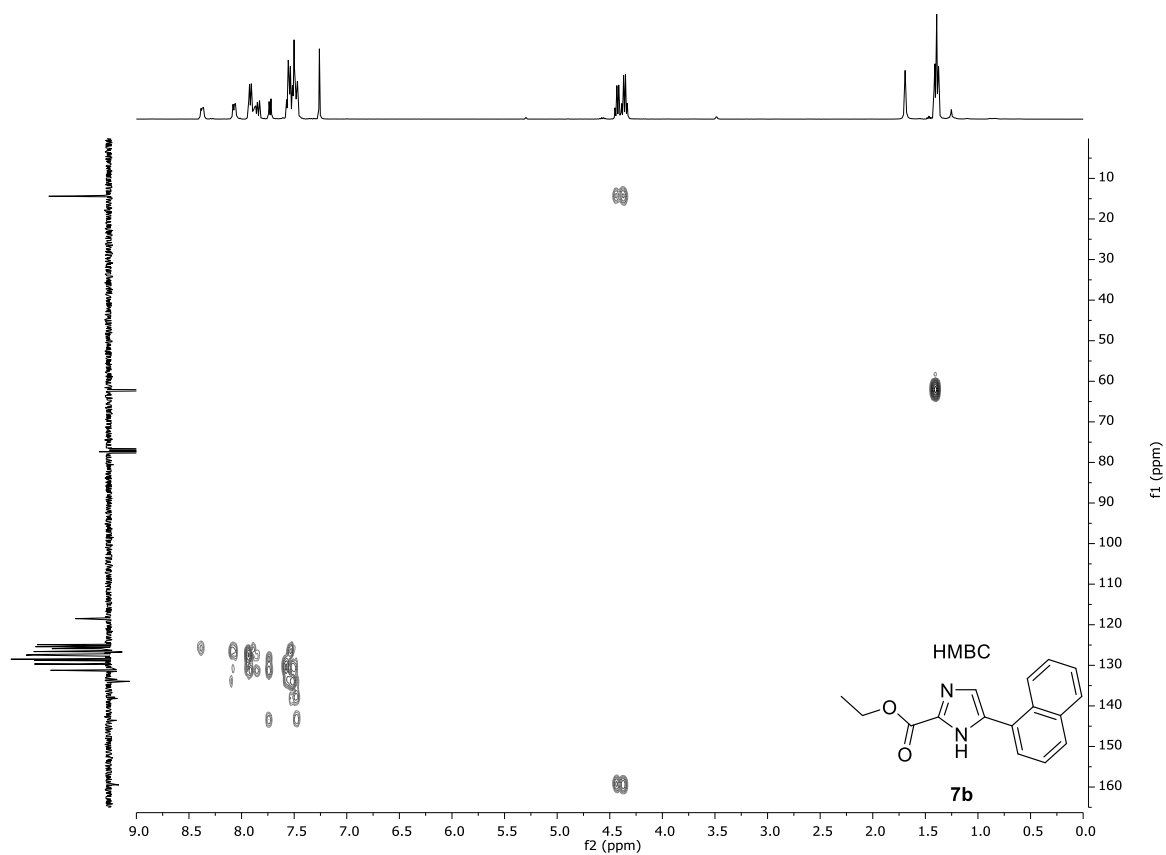
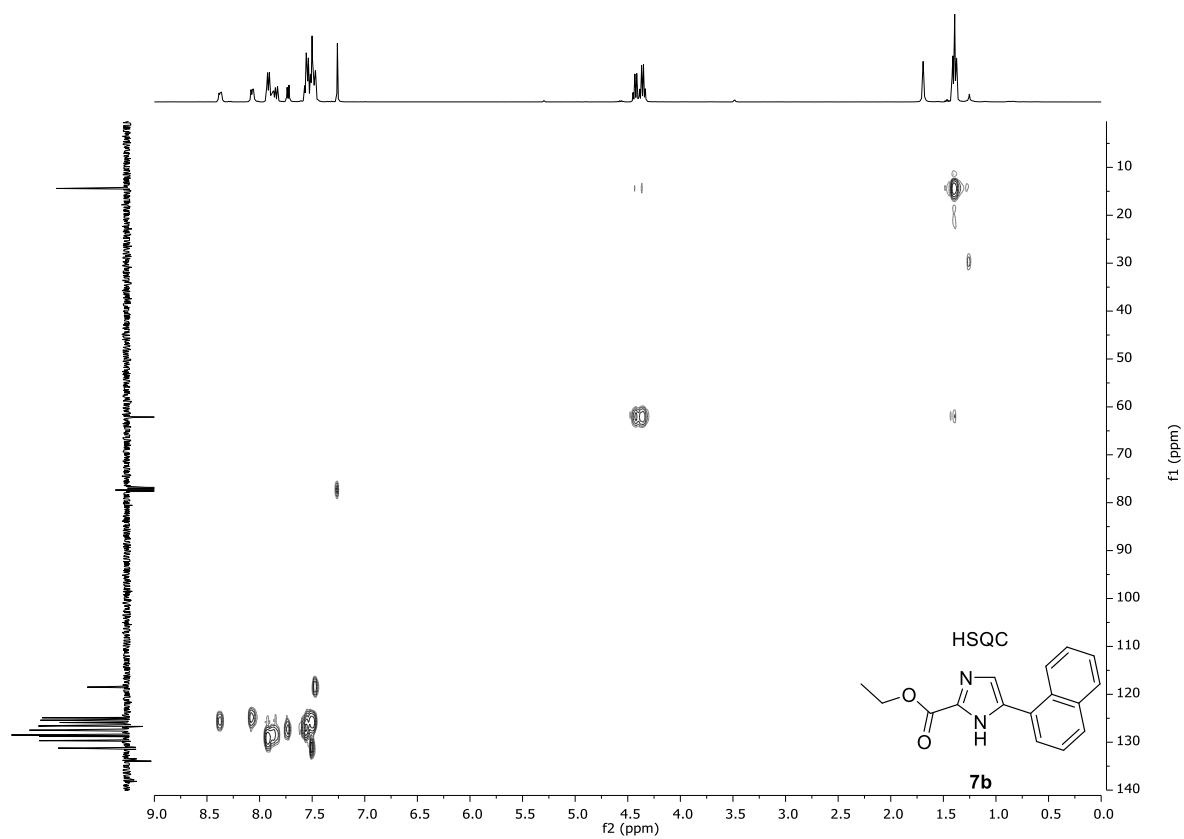


Ethyl 4(5)-phenyl-1*H*-imidazole-2-carboxylate (7a)

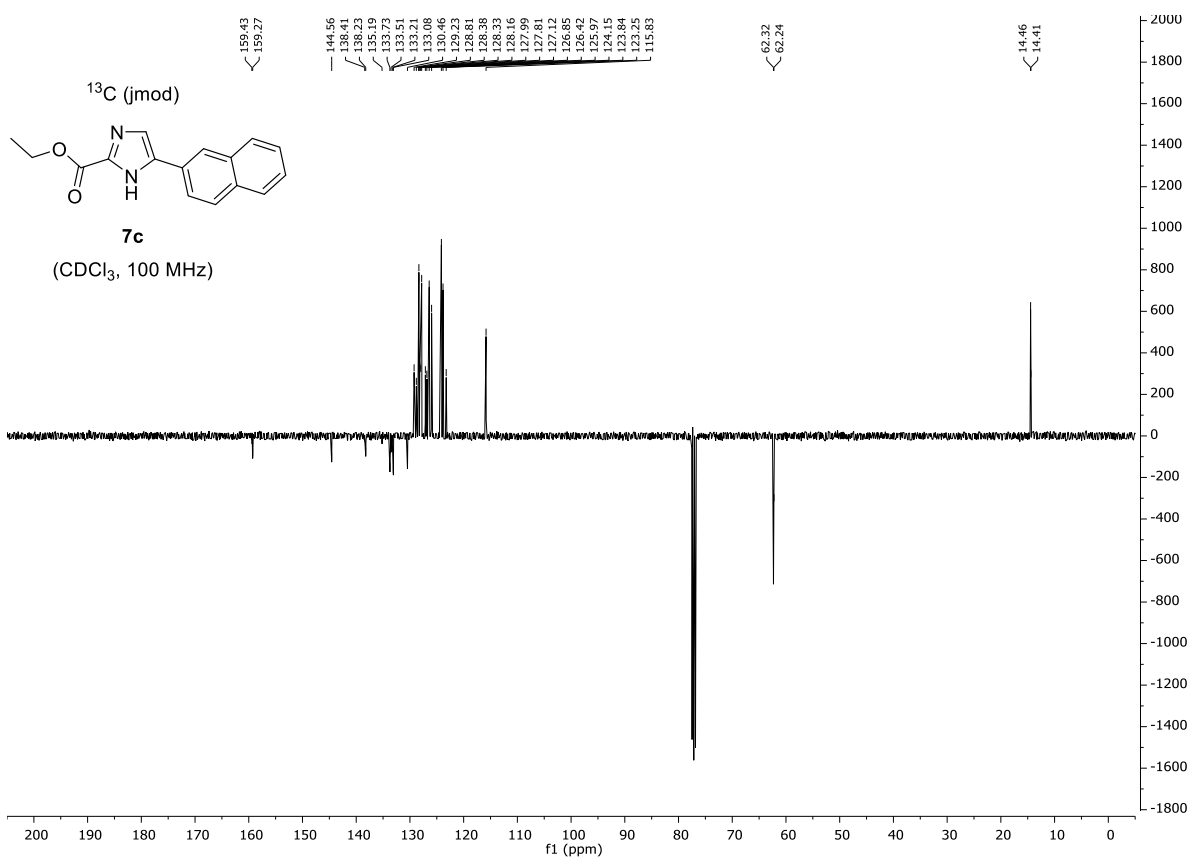
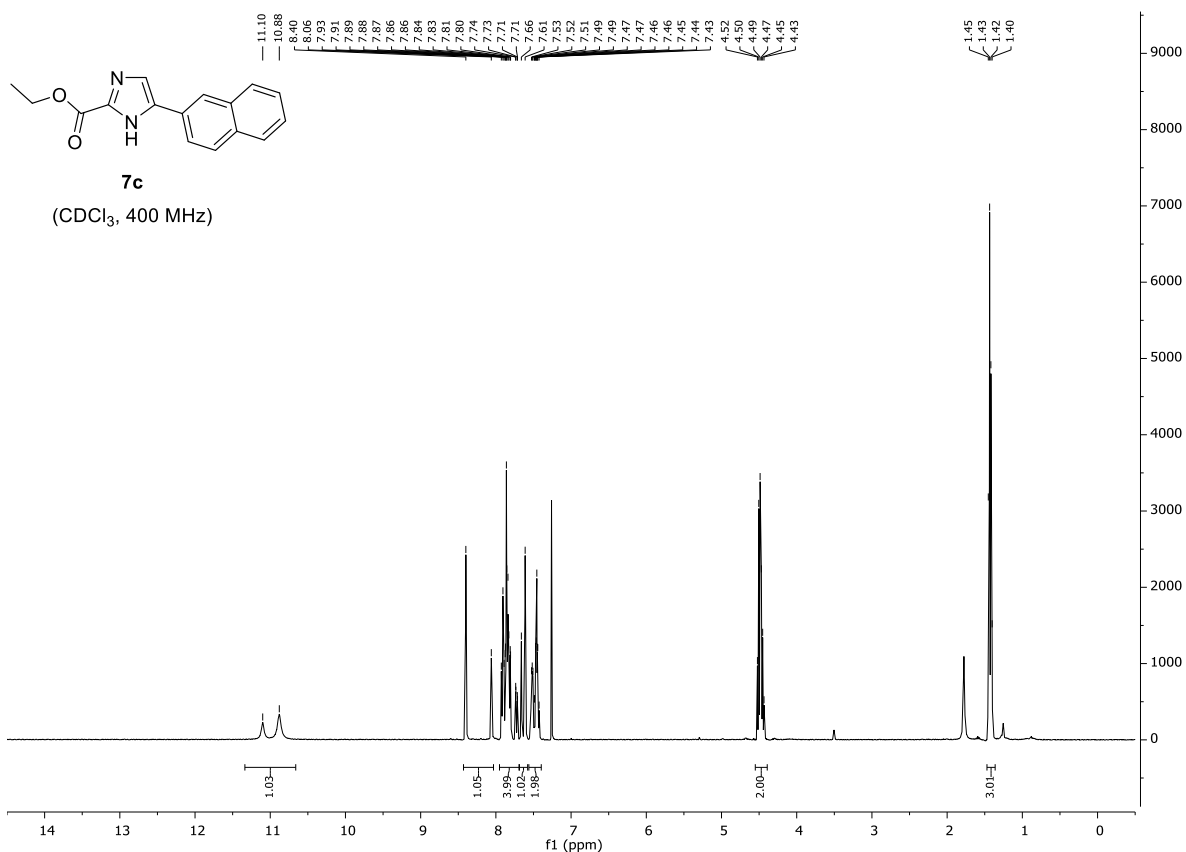


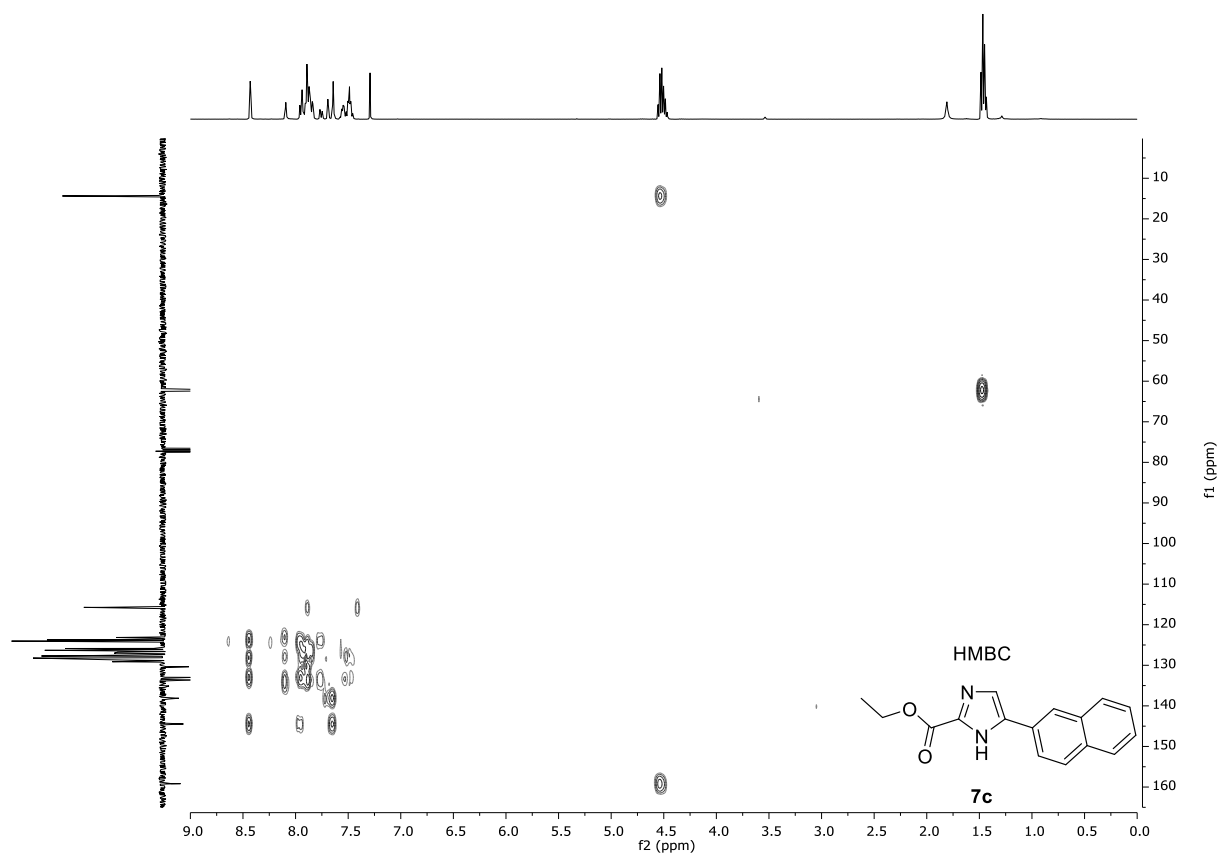
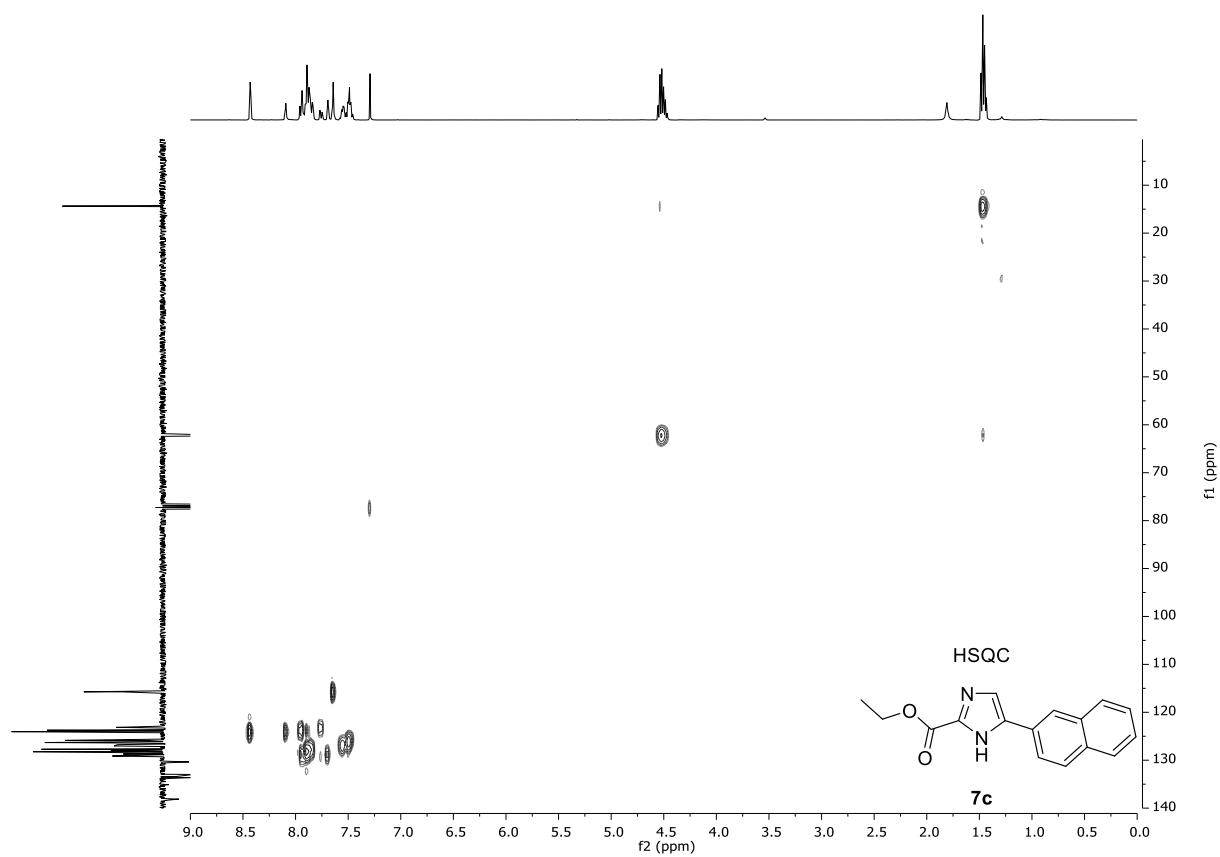
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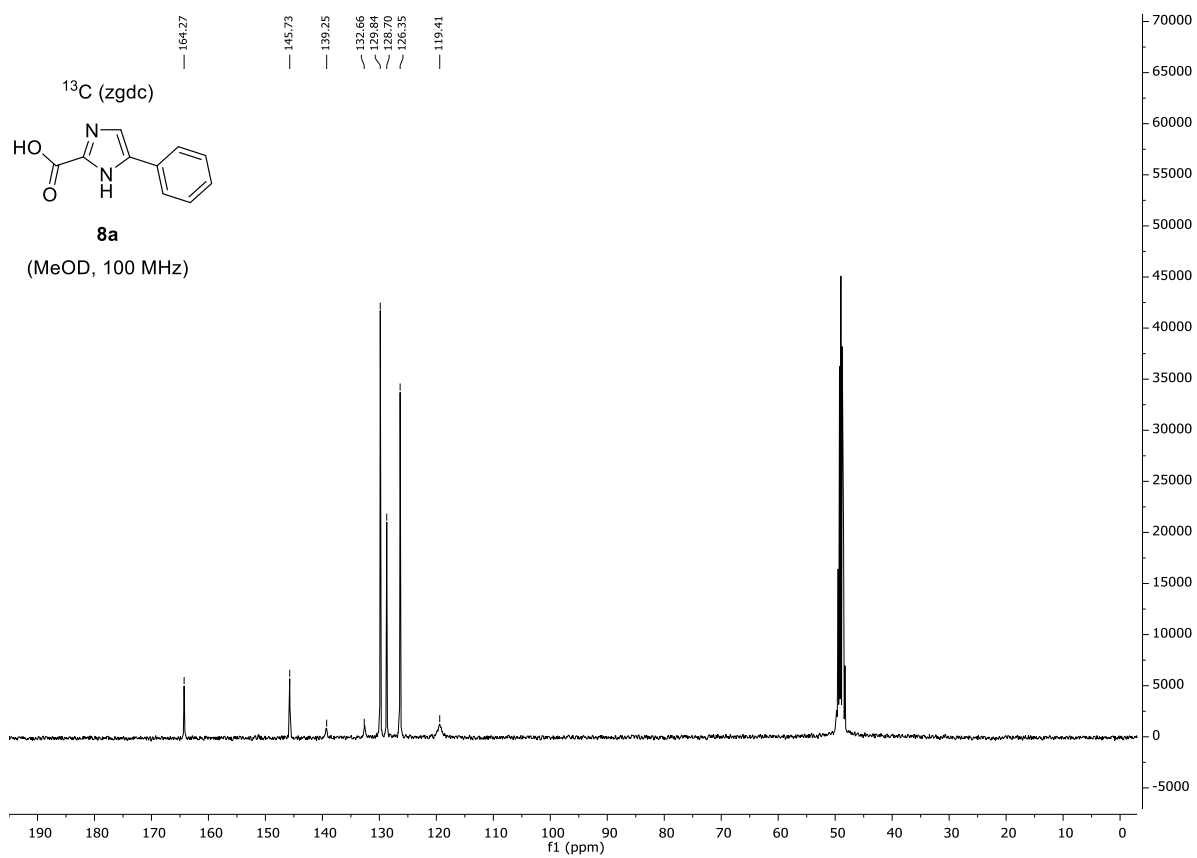
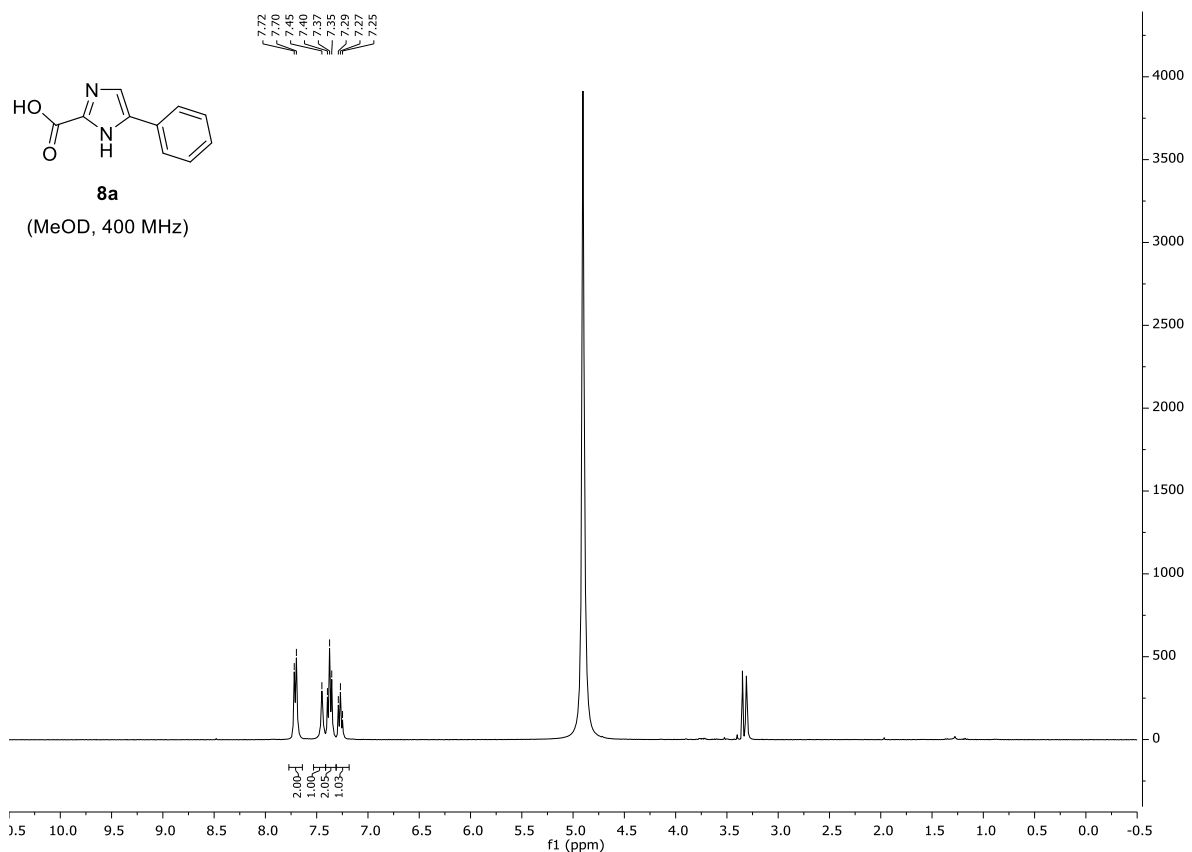


Ethyl 4(5)-(2-naphthyl)-1*H*-imidazole-2-carboxylate (7c)

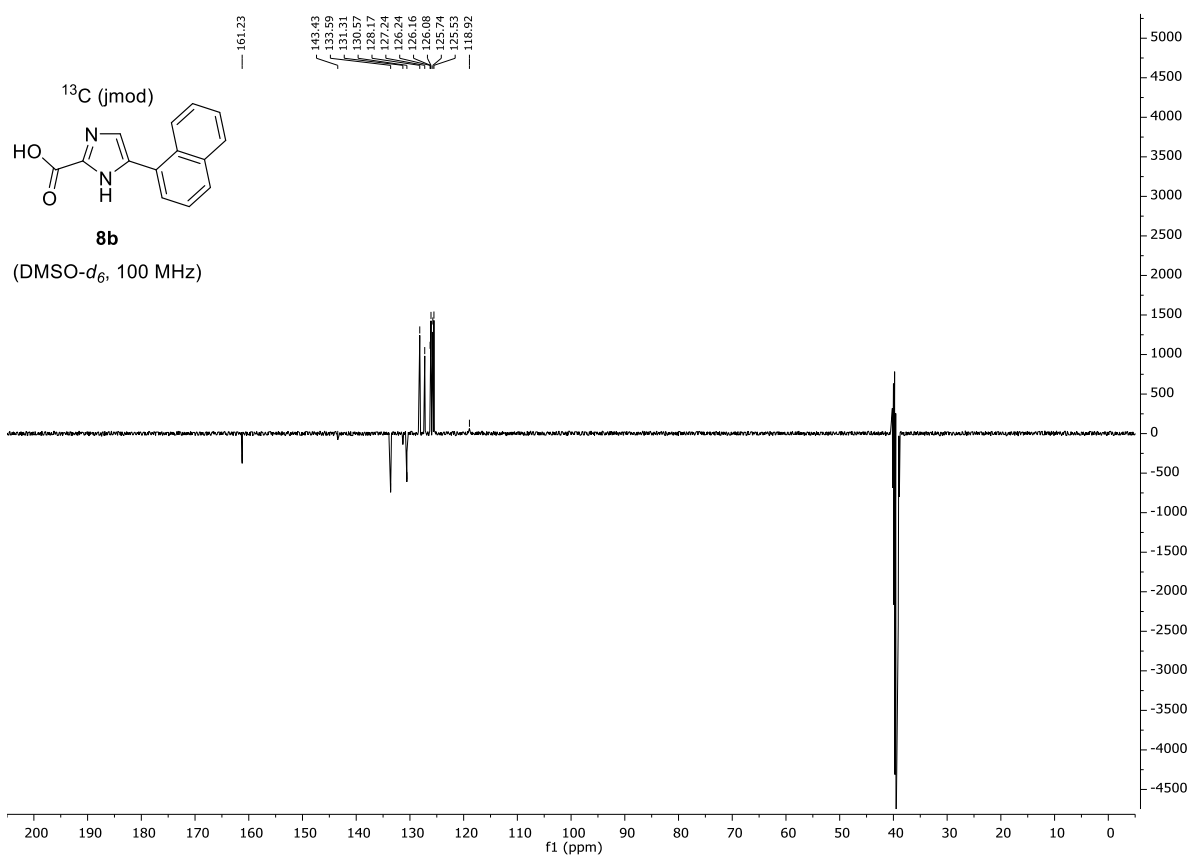
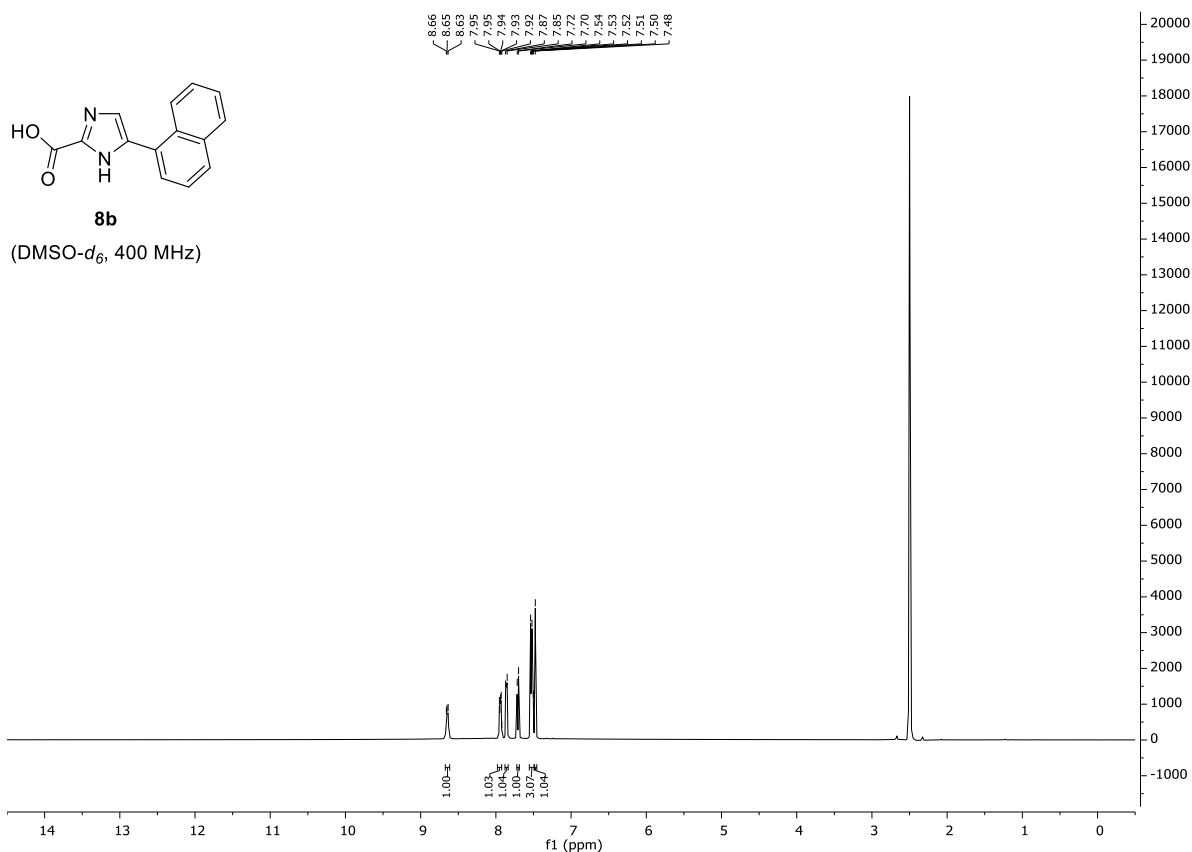


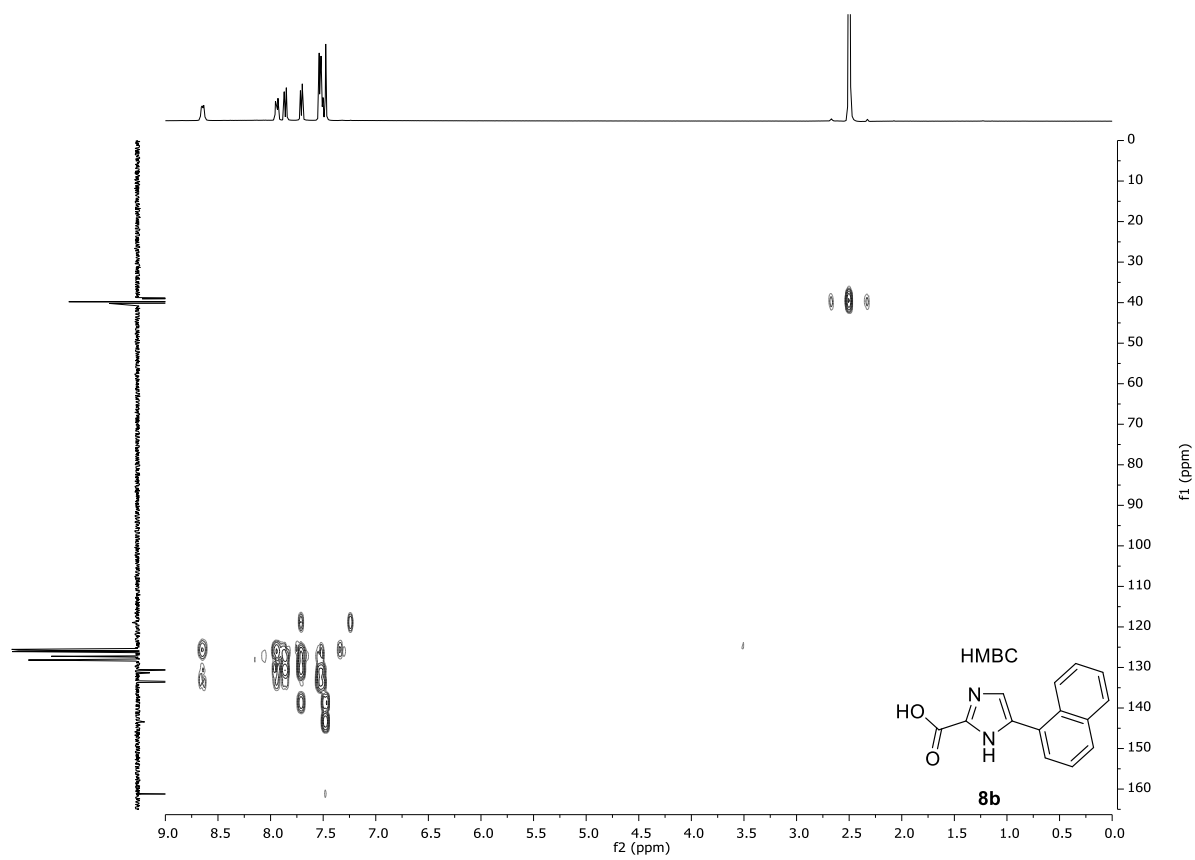
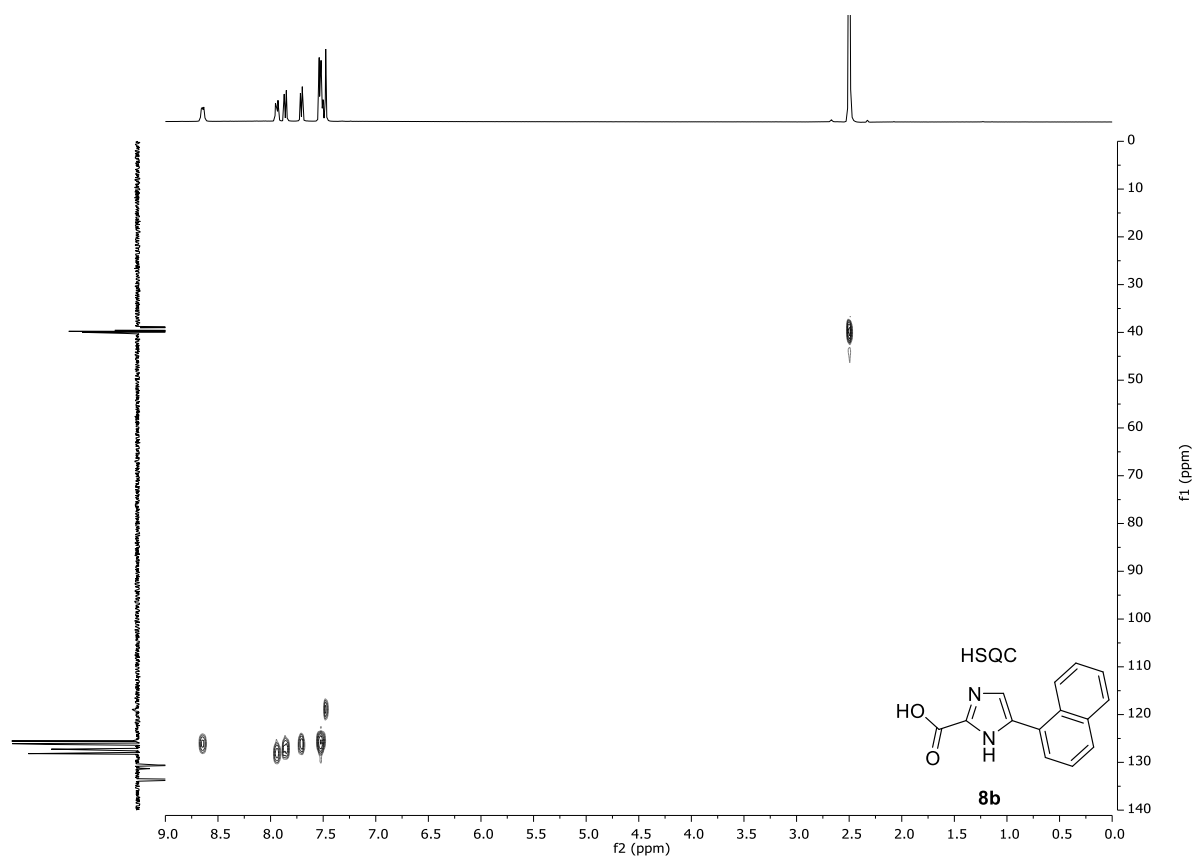


4(5)-Phenyl-1*H*-imidazole-2-carboxylic acid (8a)

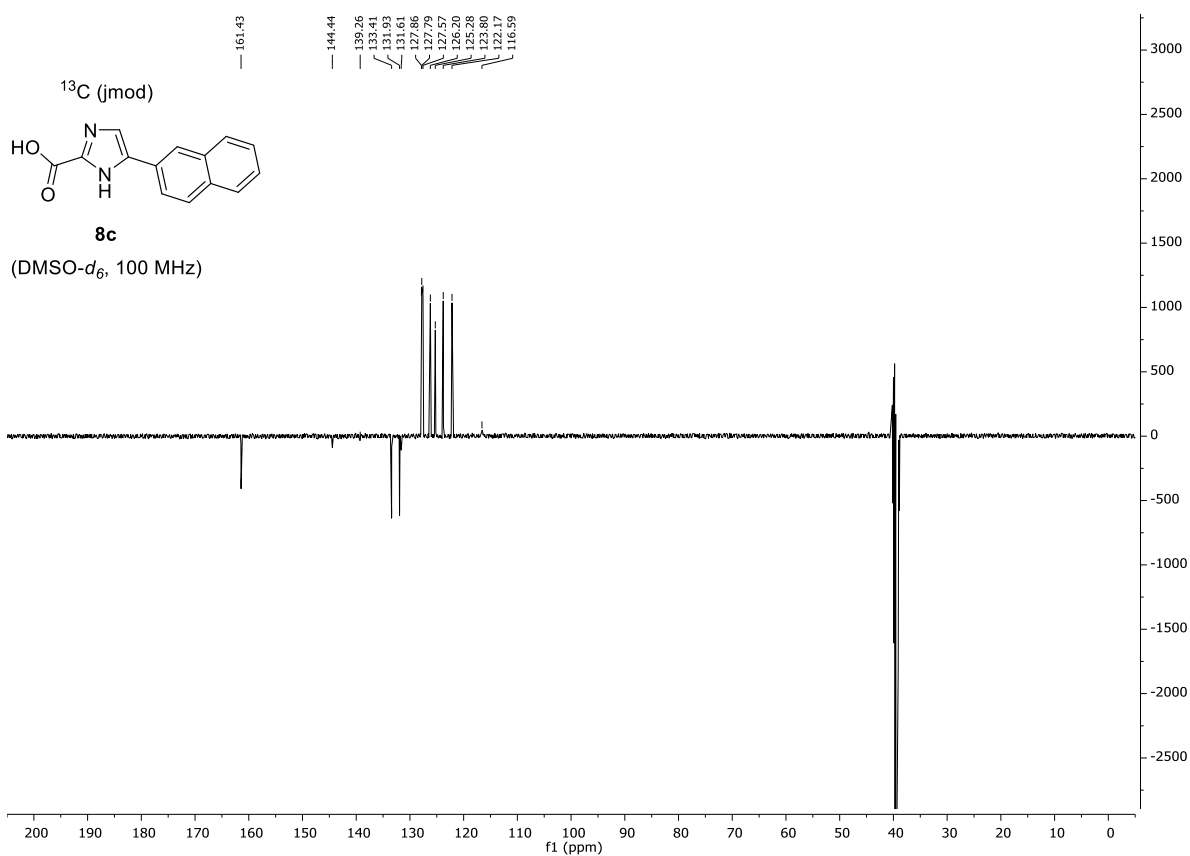
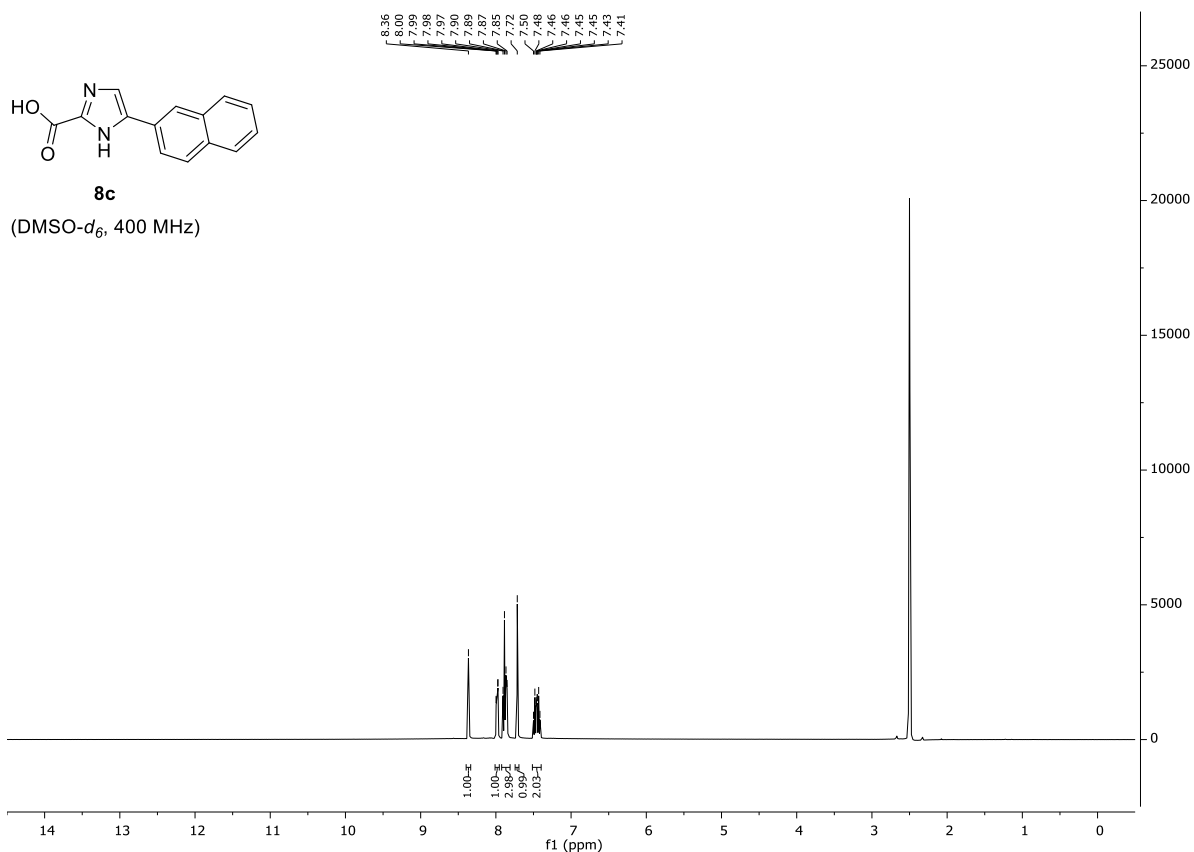


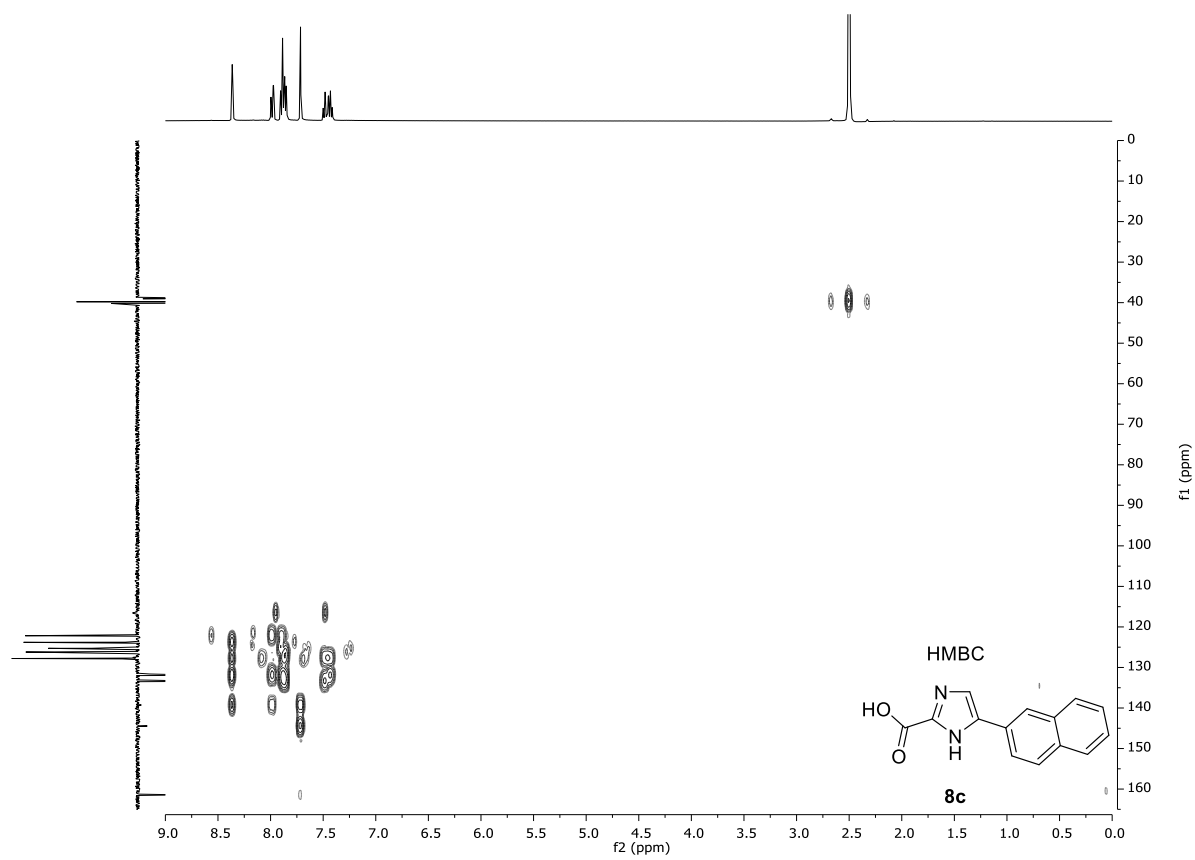
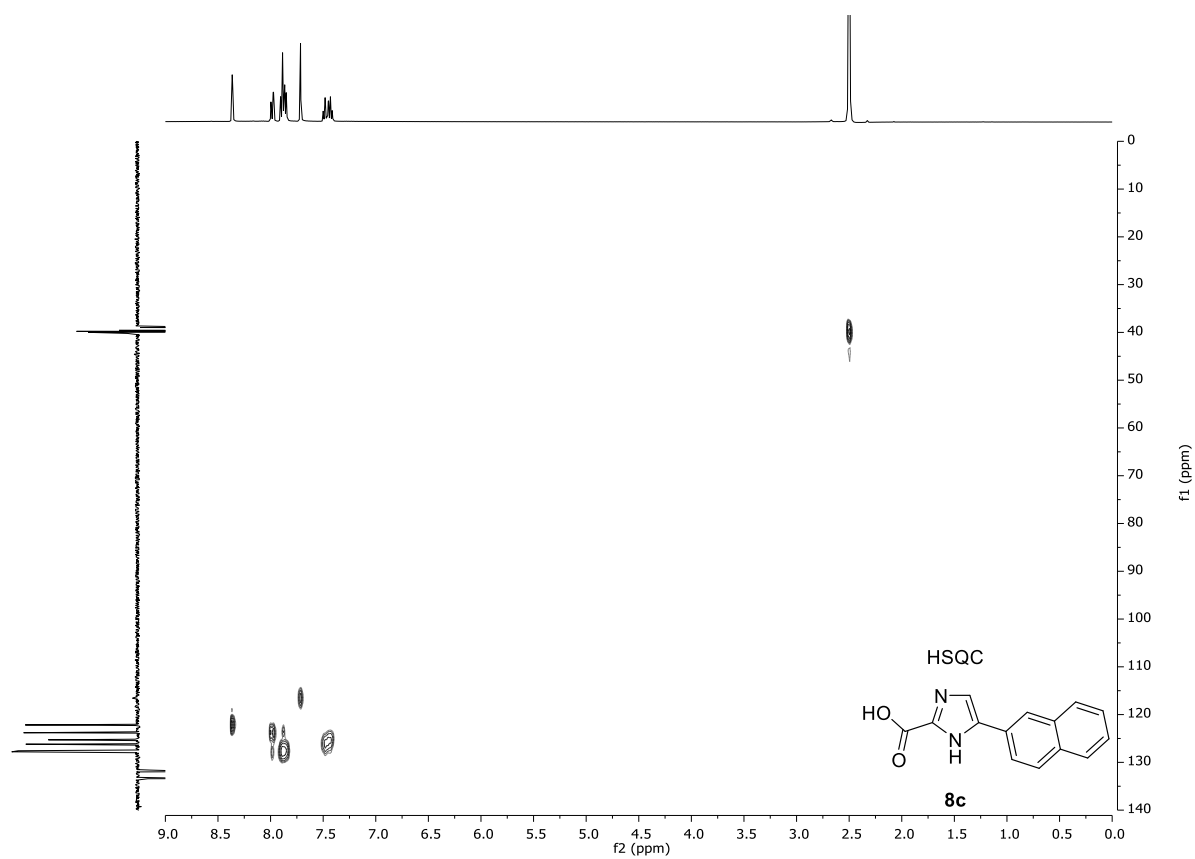
4(5)-(1-Naphthyl)-1H-imidazole-2-carboxylic acid (8b)



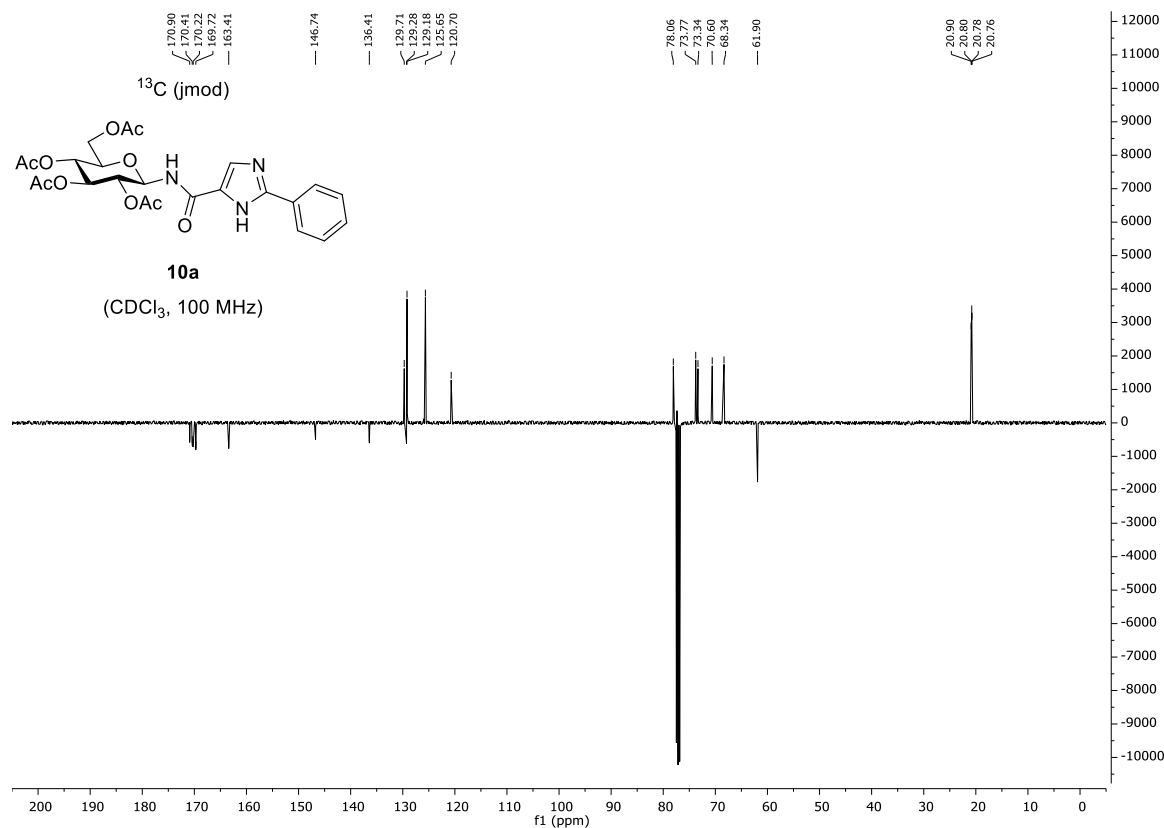
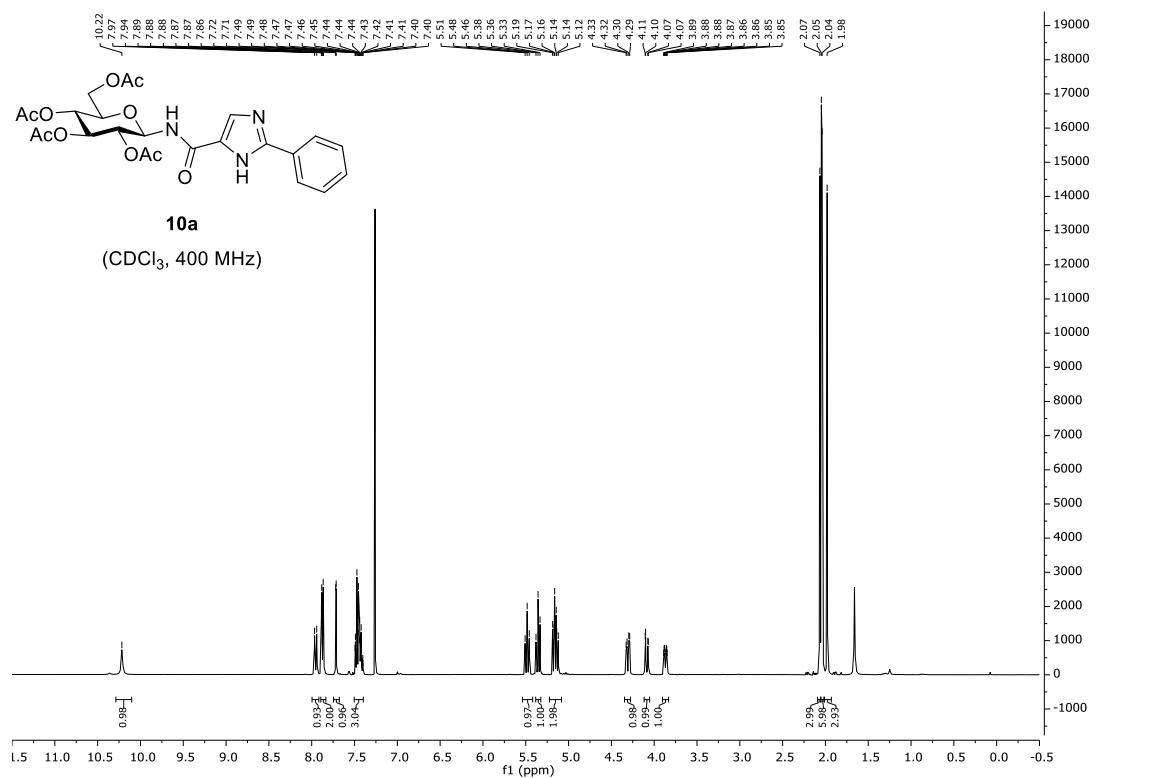


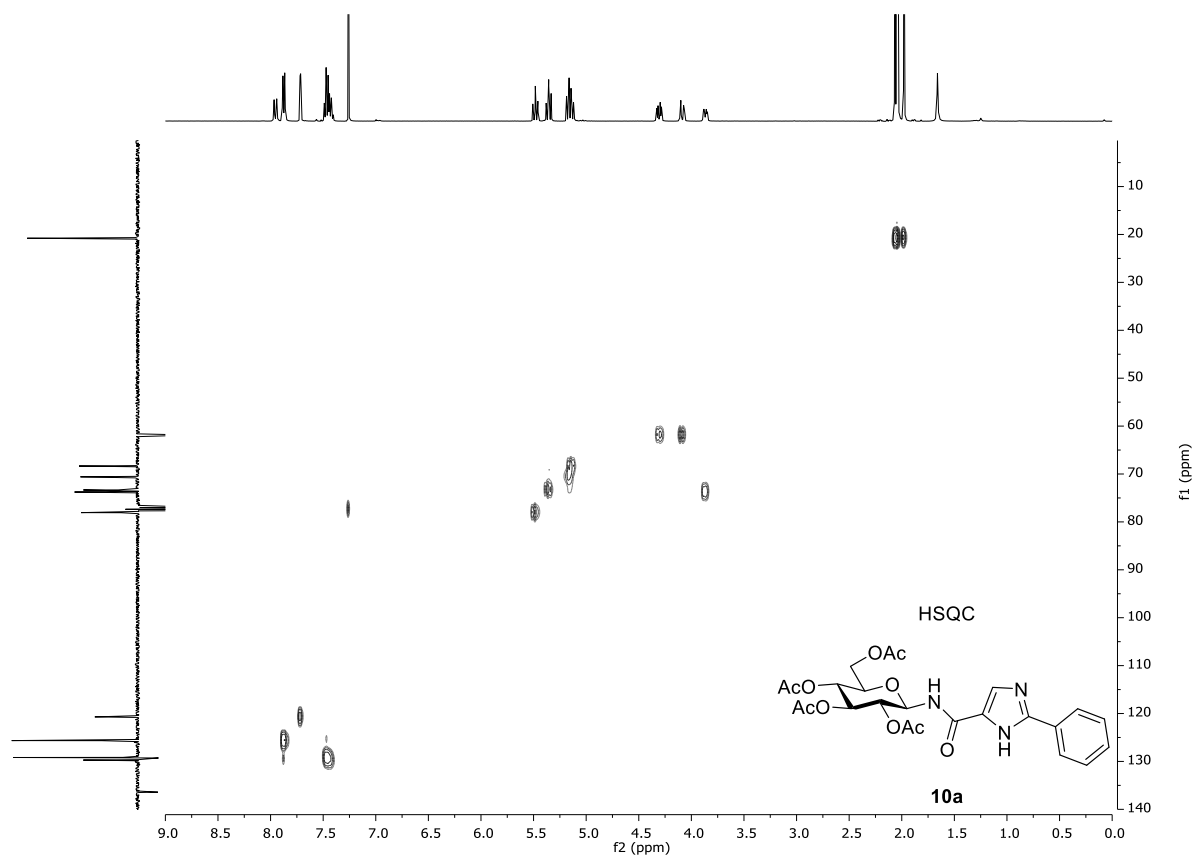
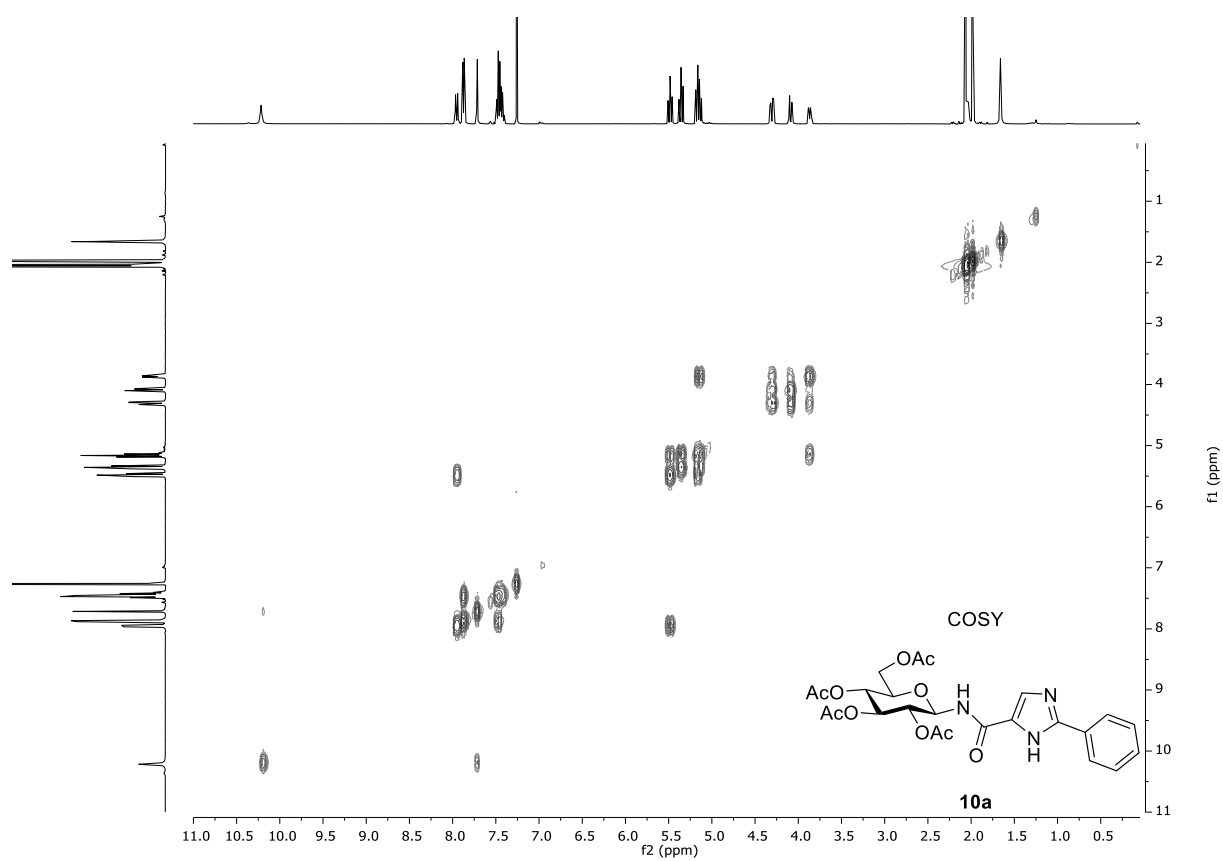
4(5)-(2-Naphthyl)-1*H*-imidazole-2-carboxylic acid (**8c**)

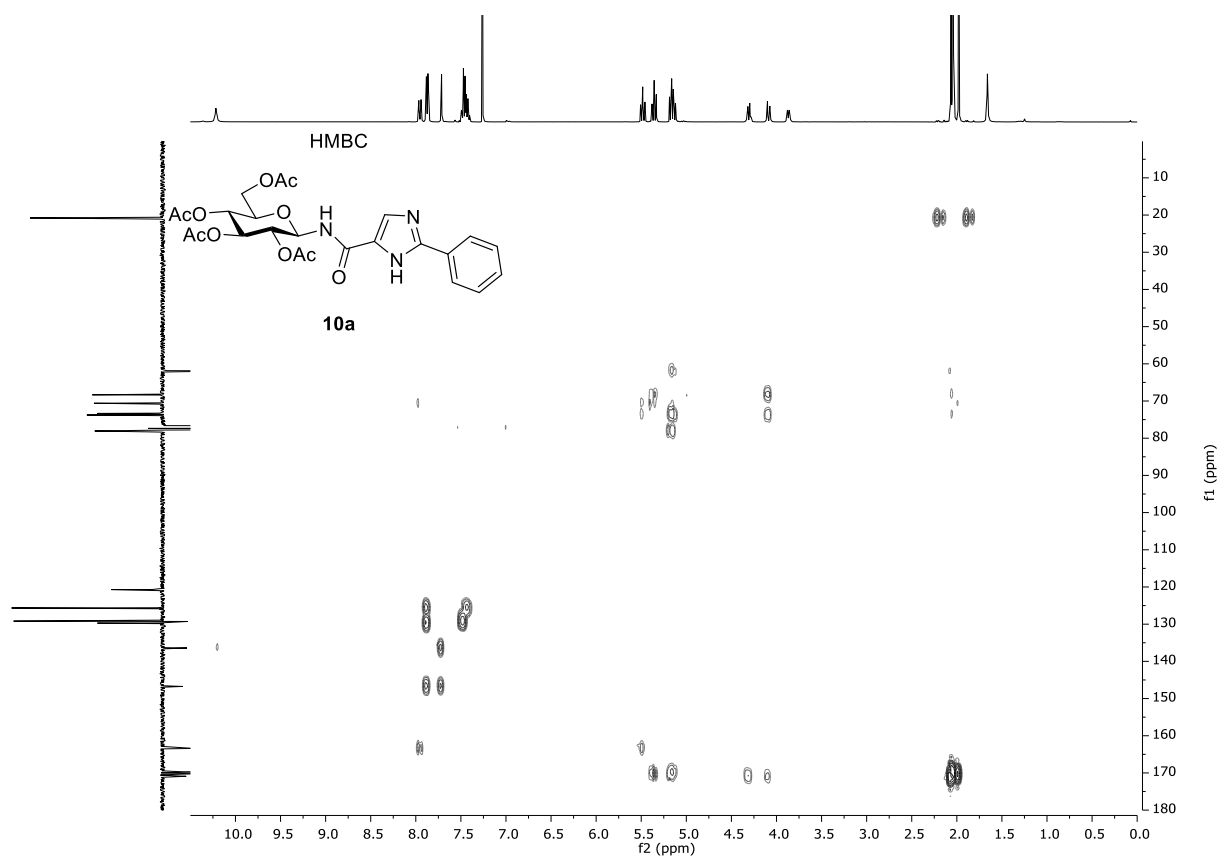




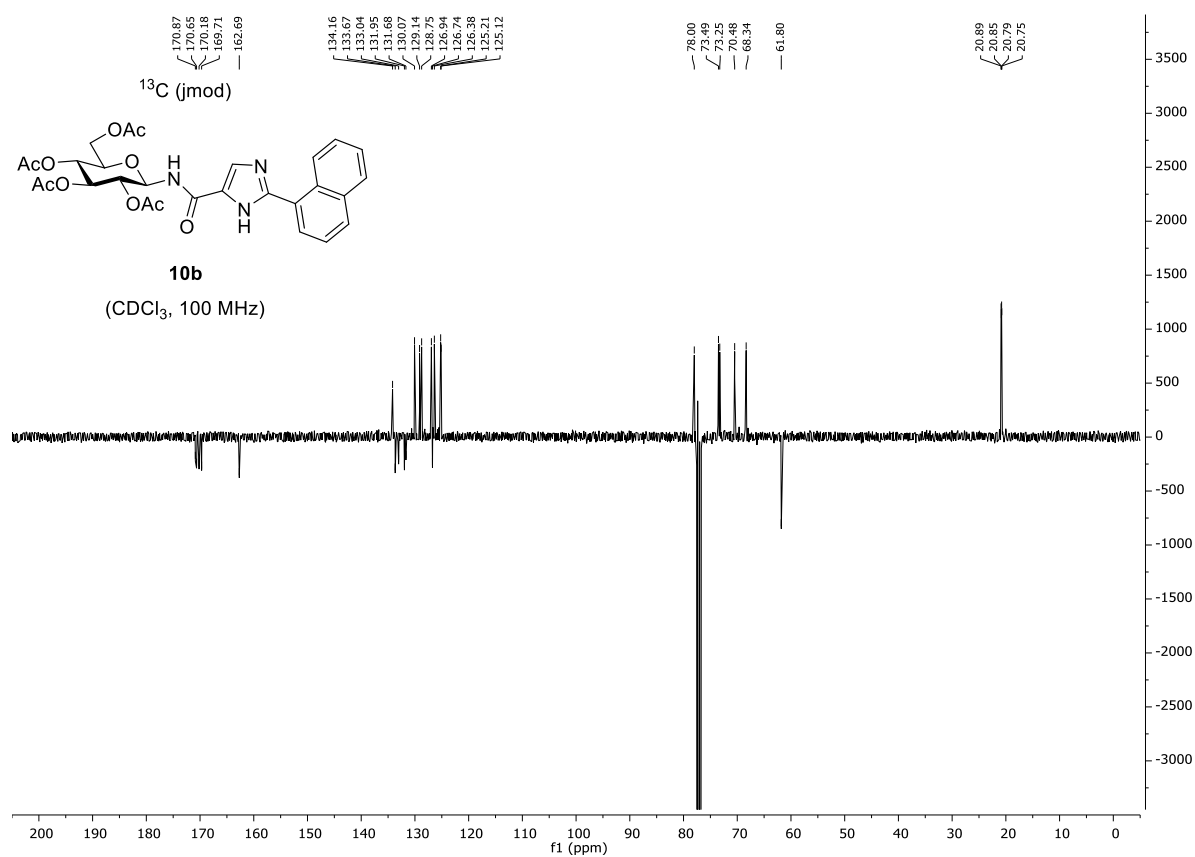
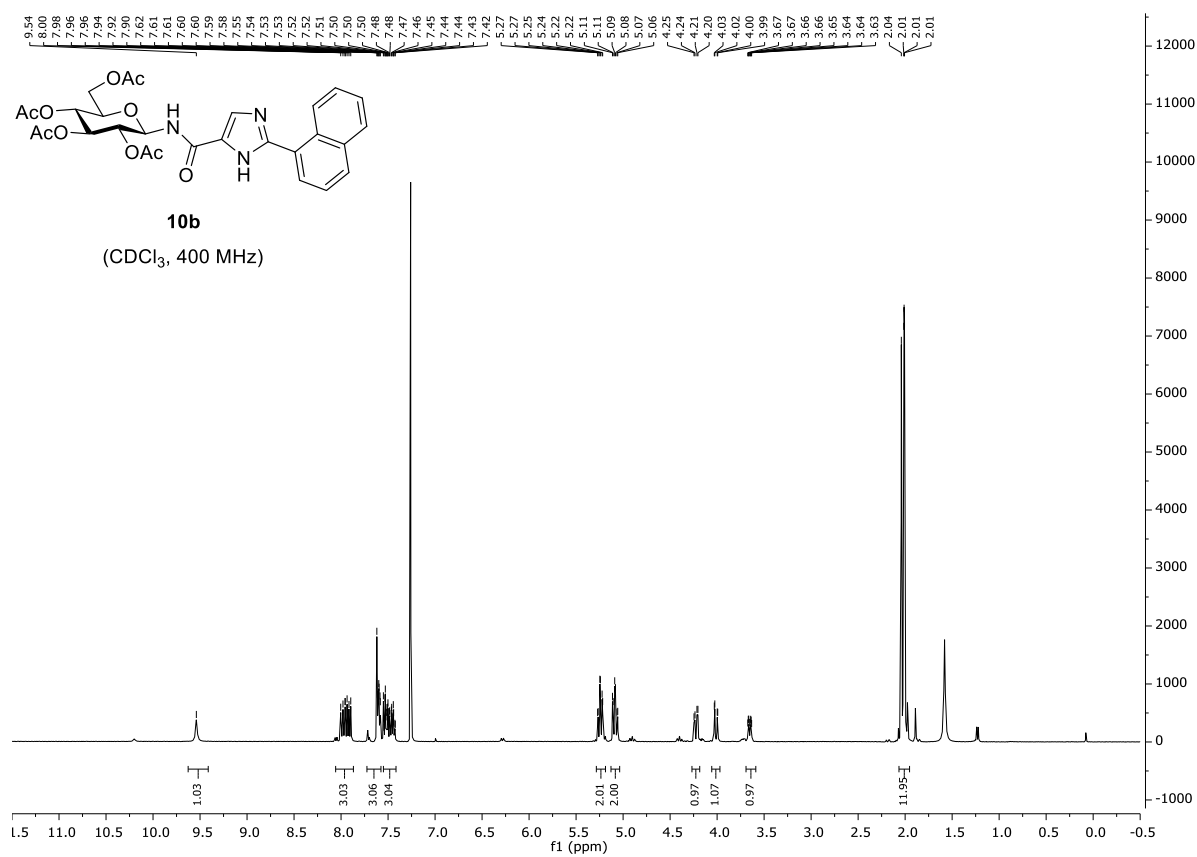
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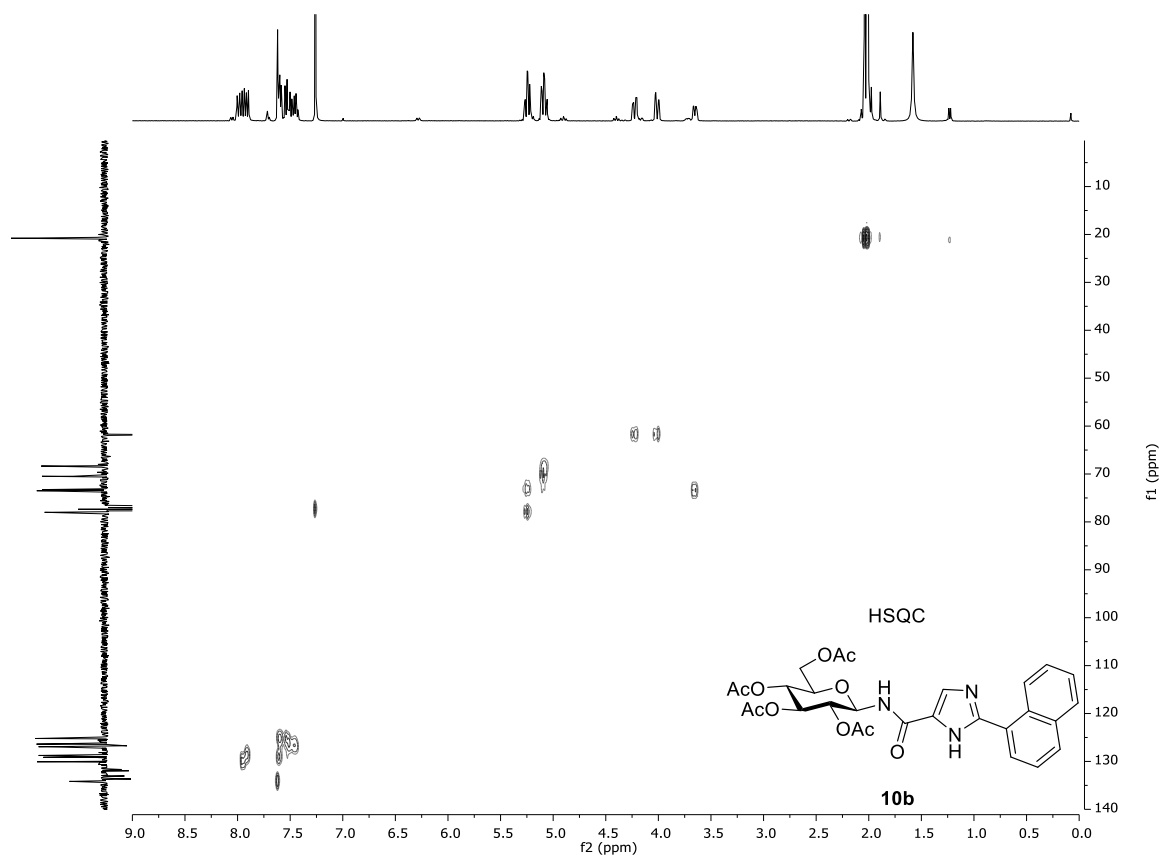
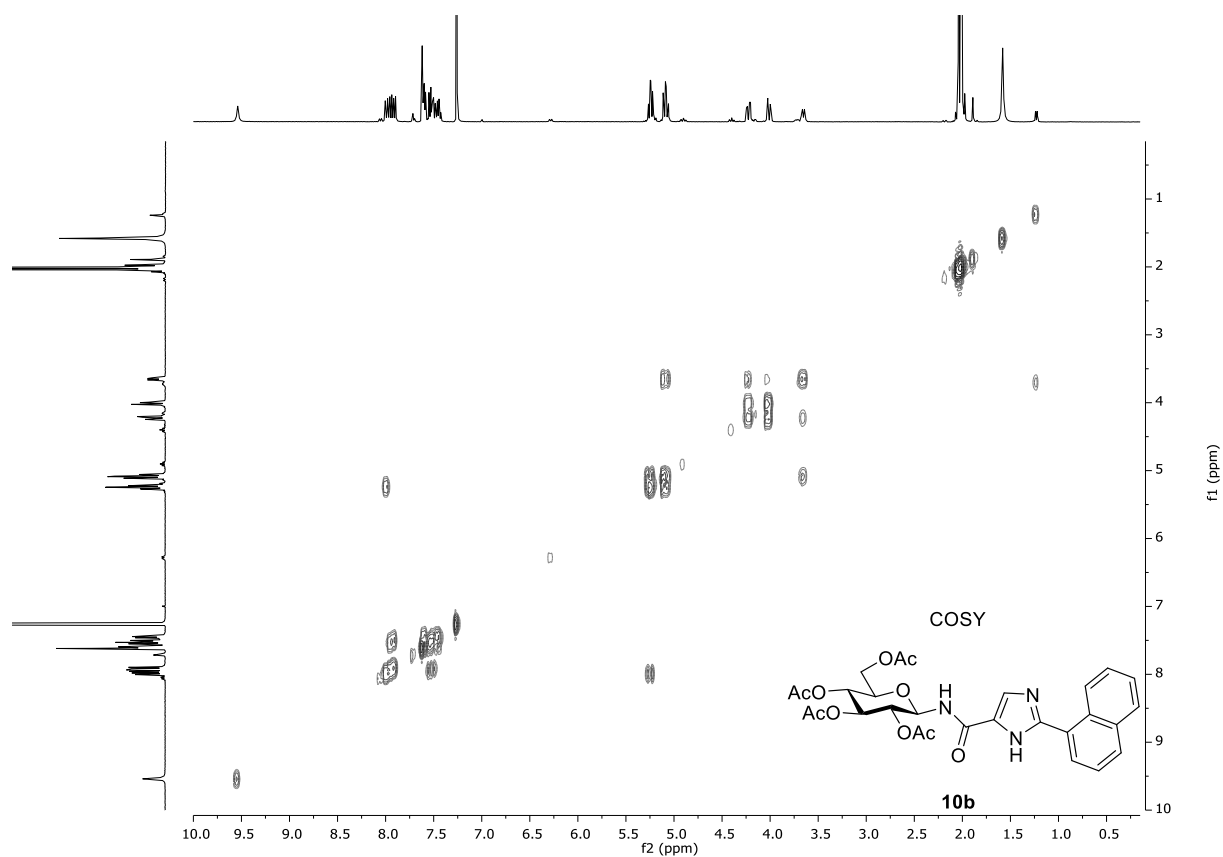


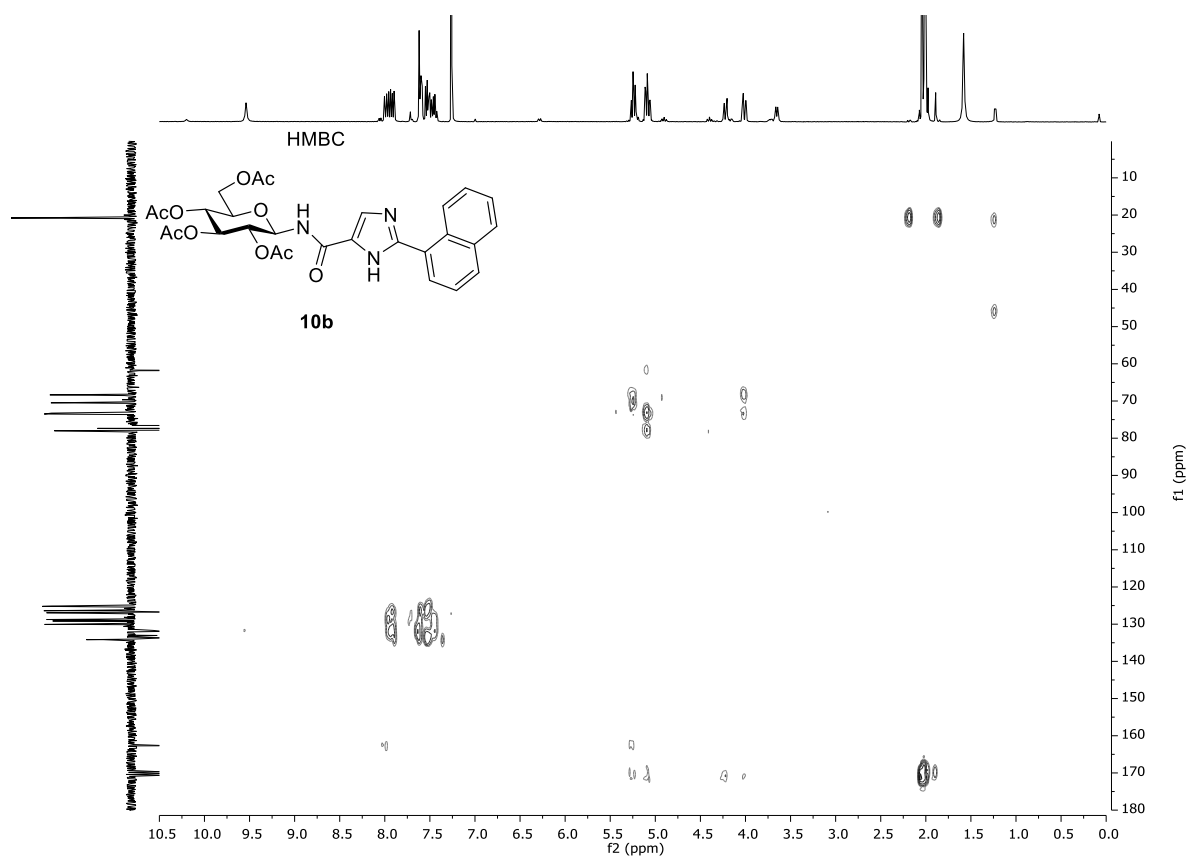




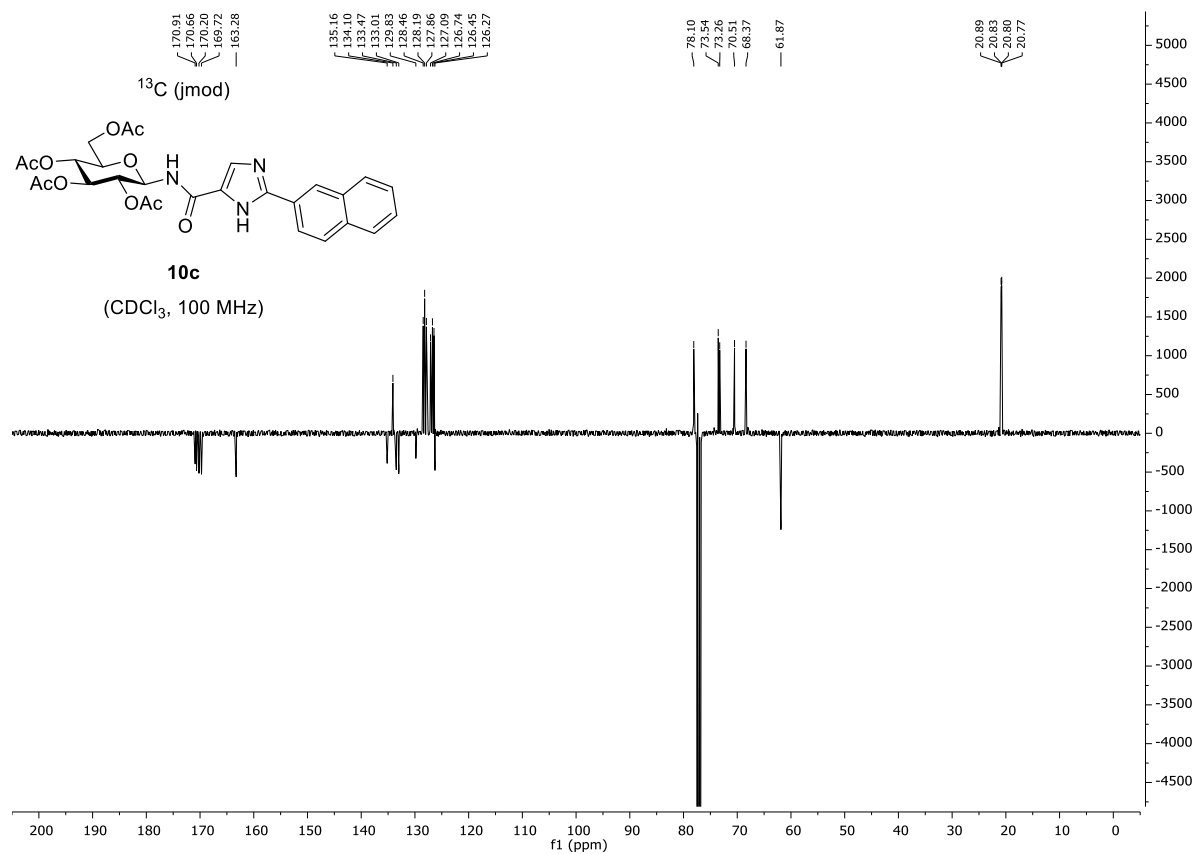
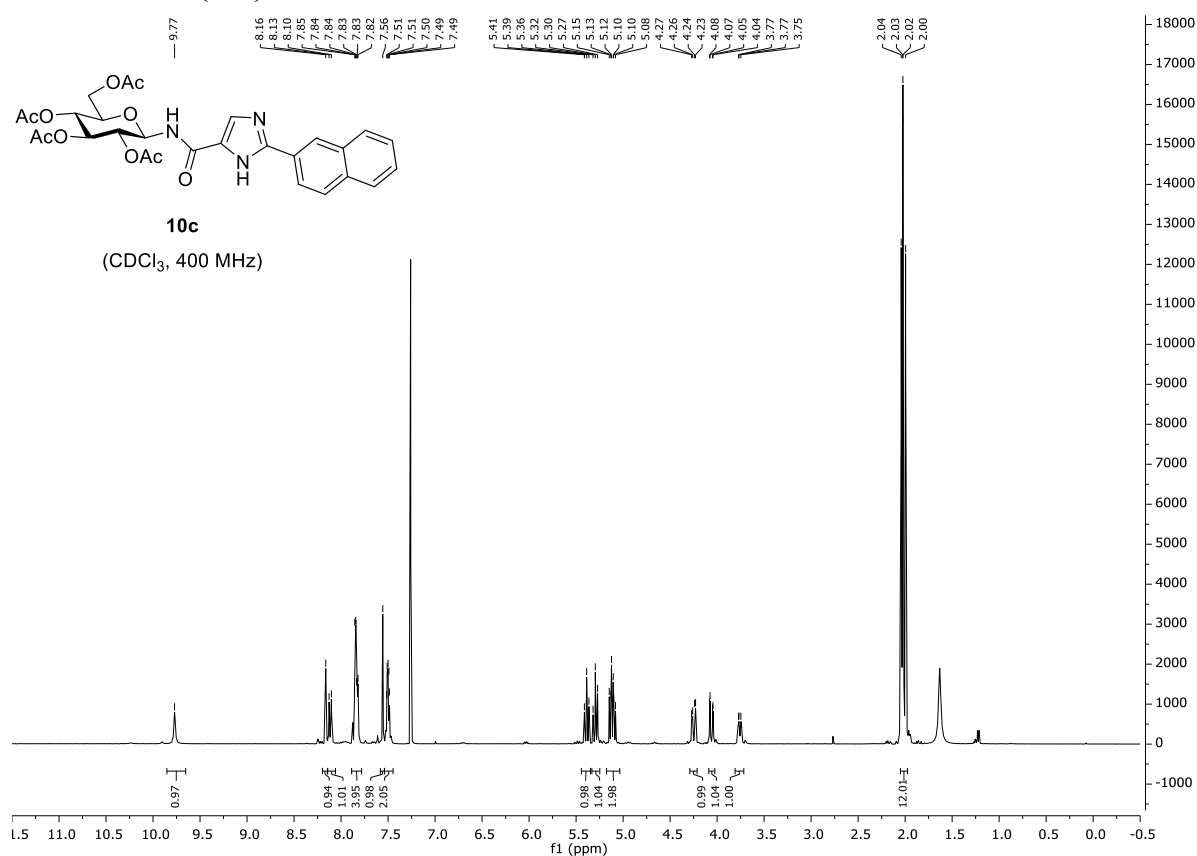
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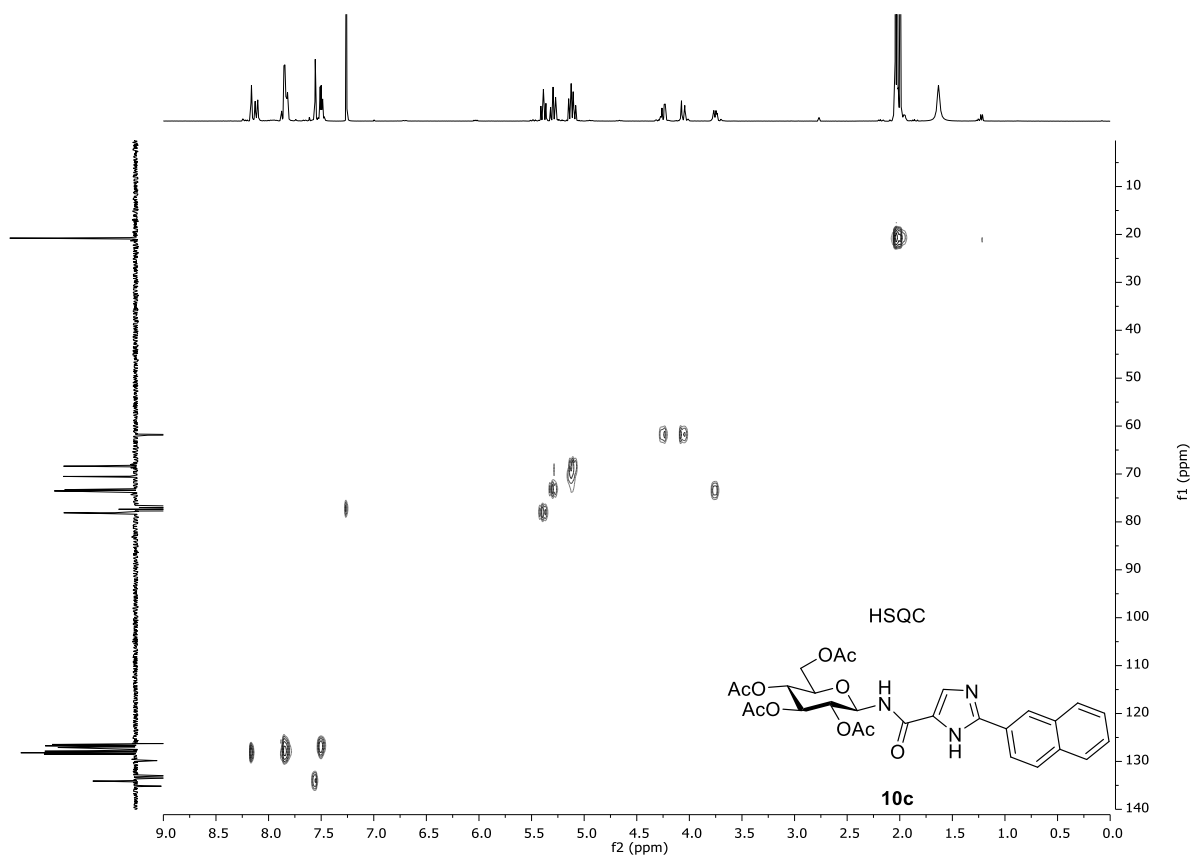
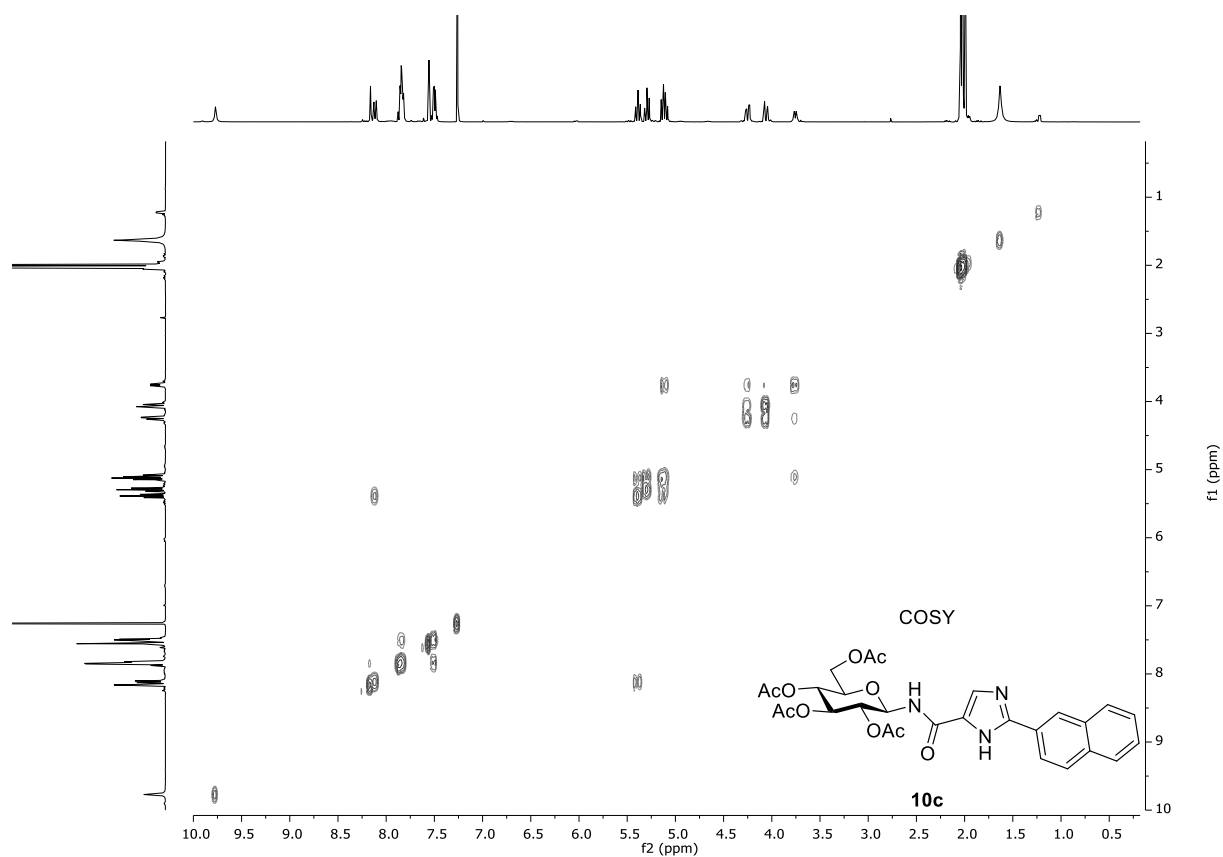


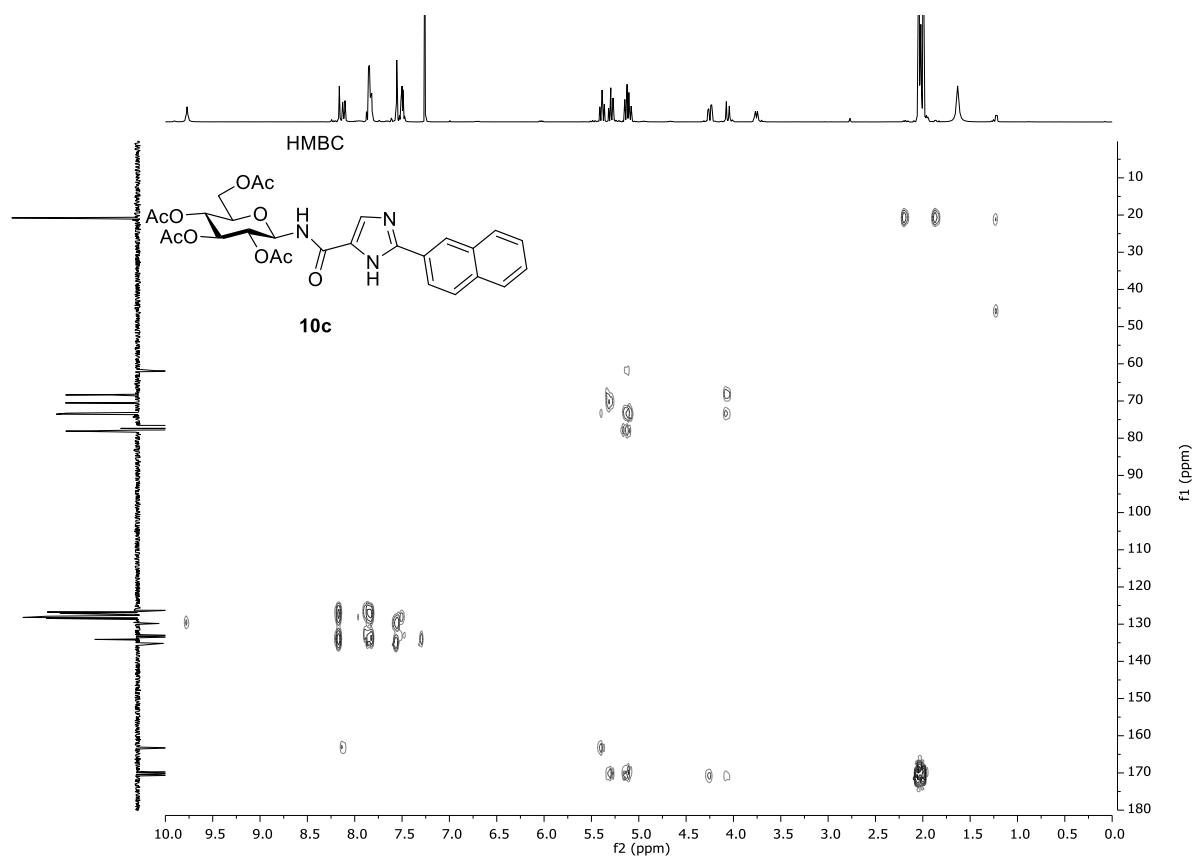




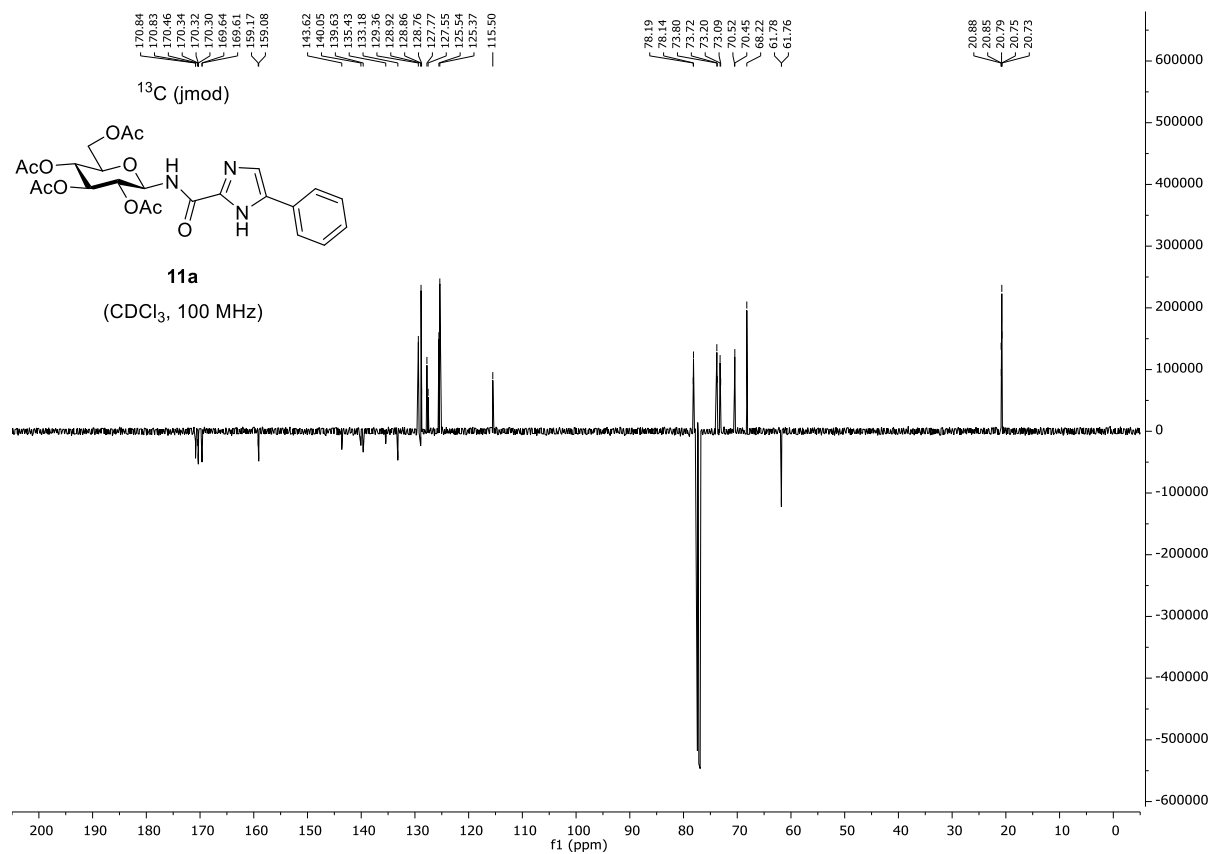
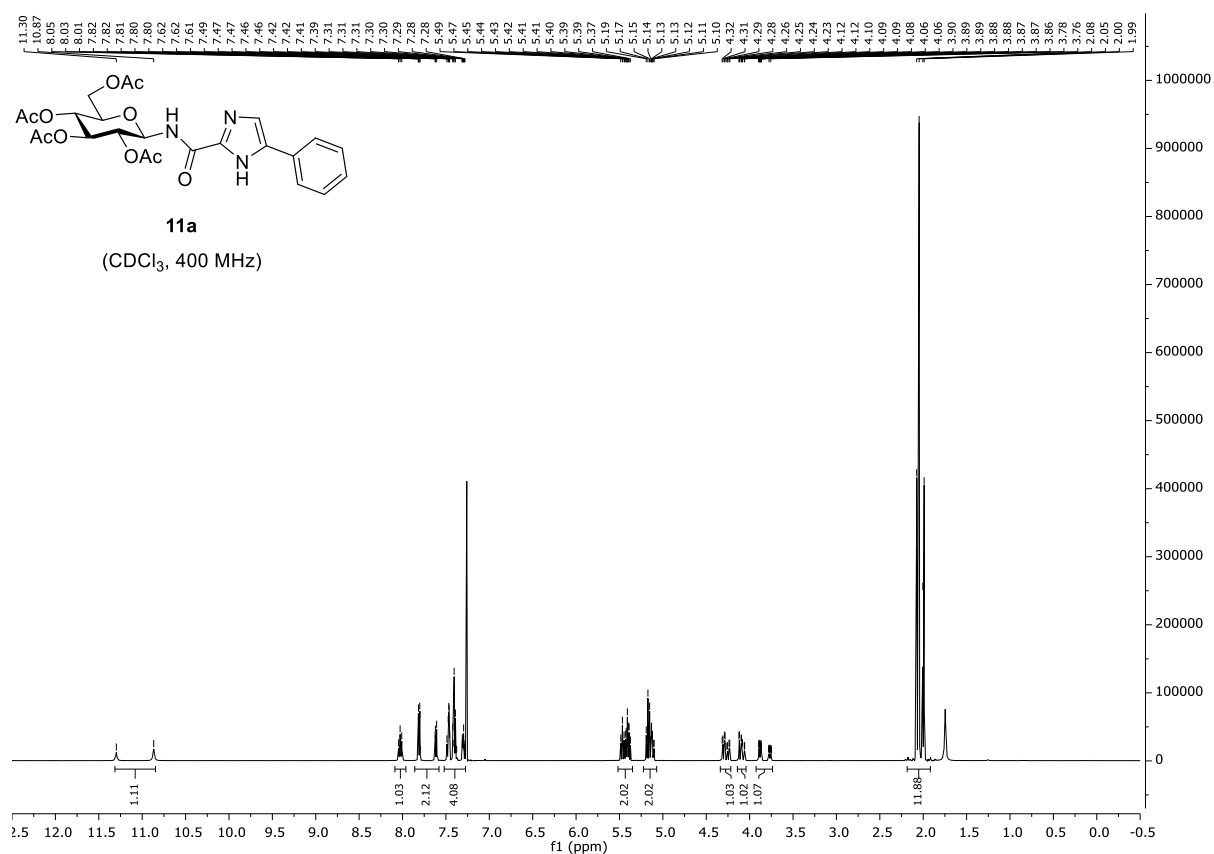
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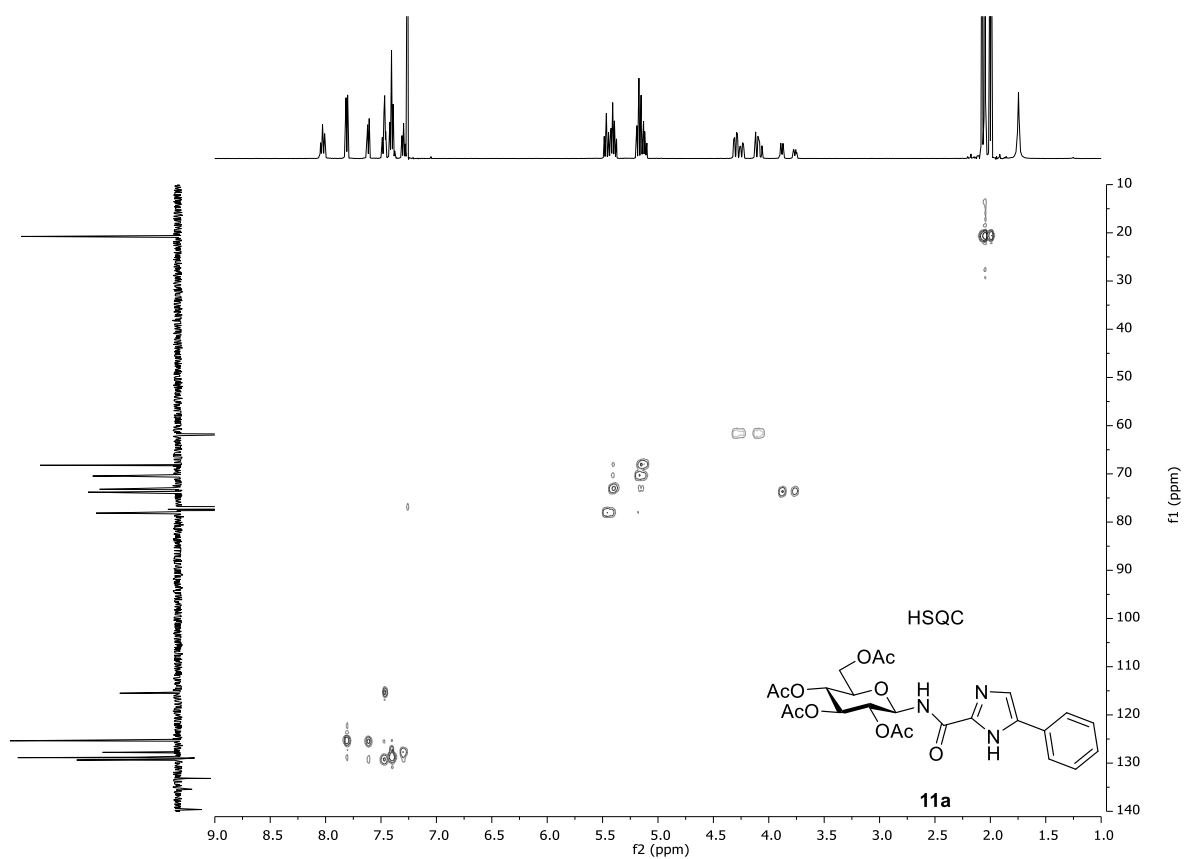
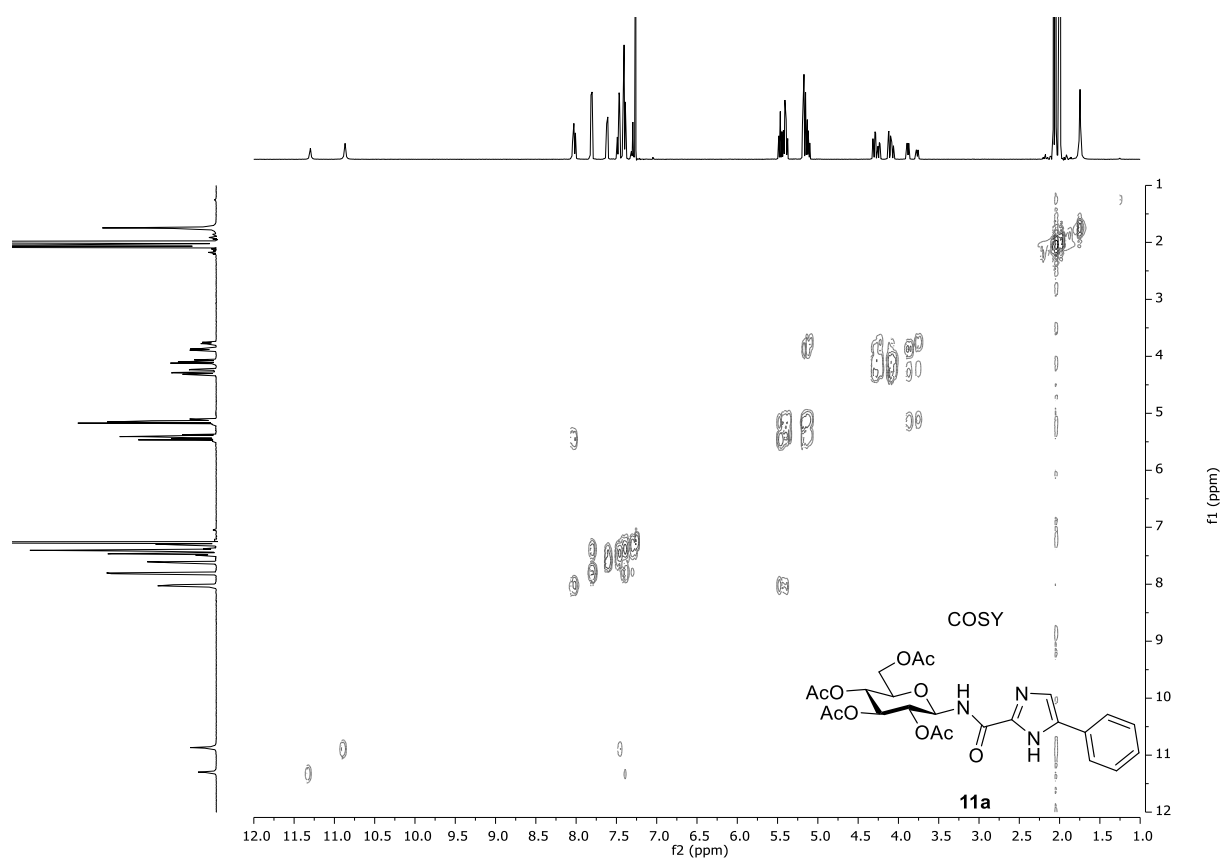


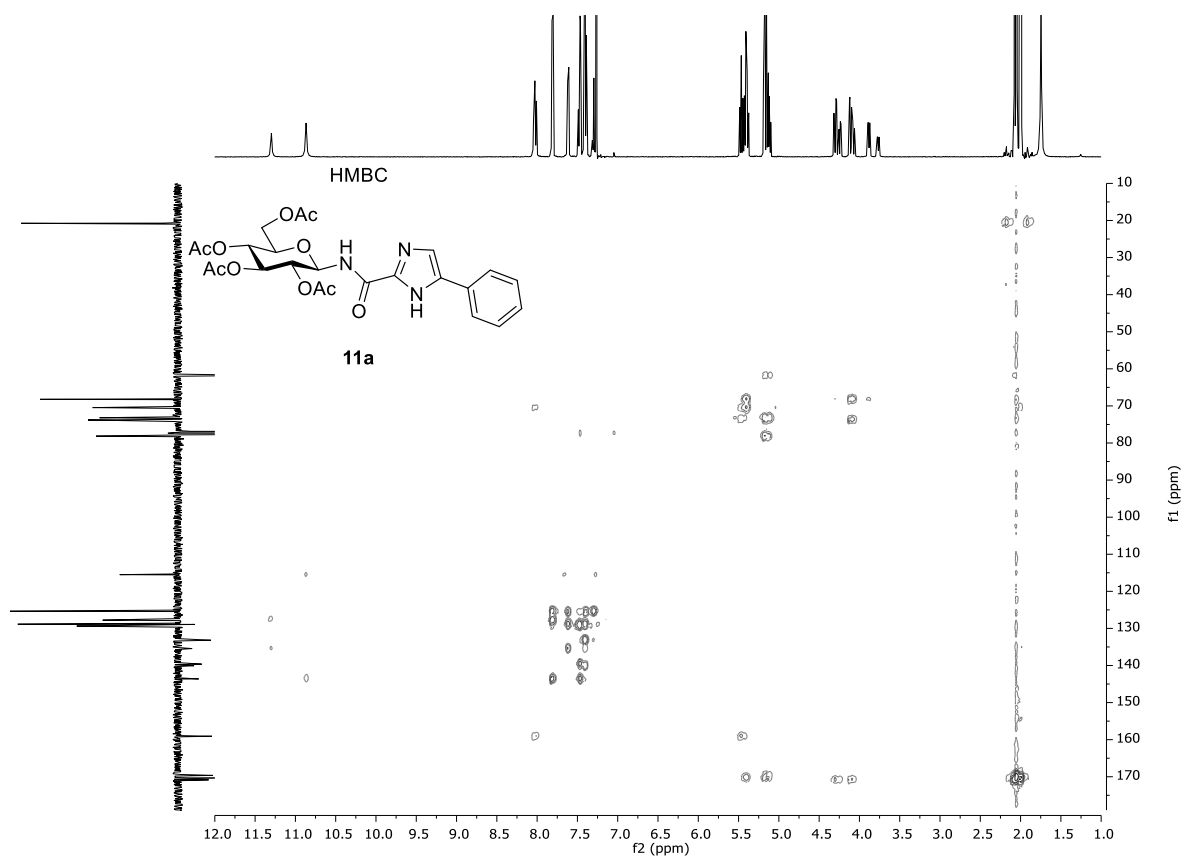




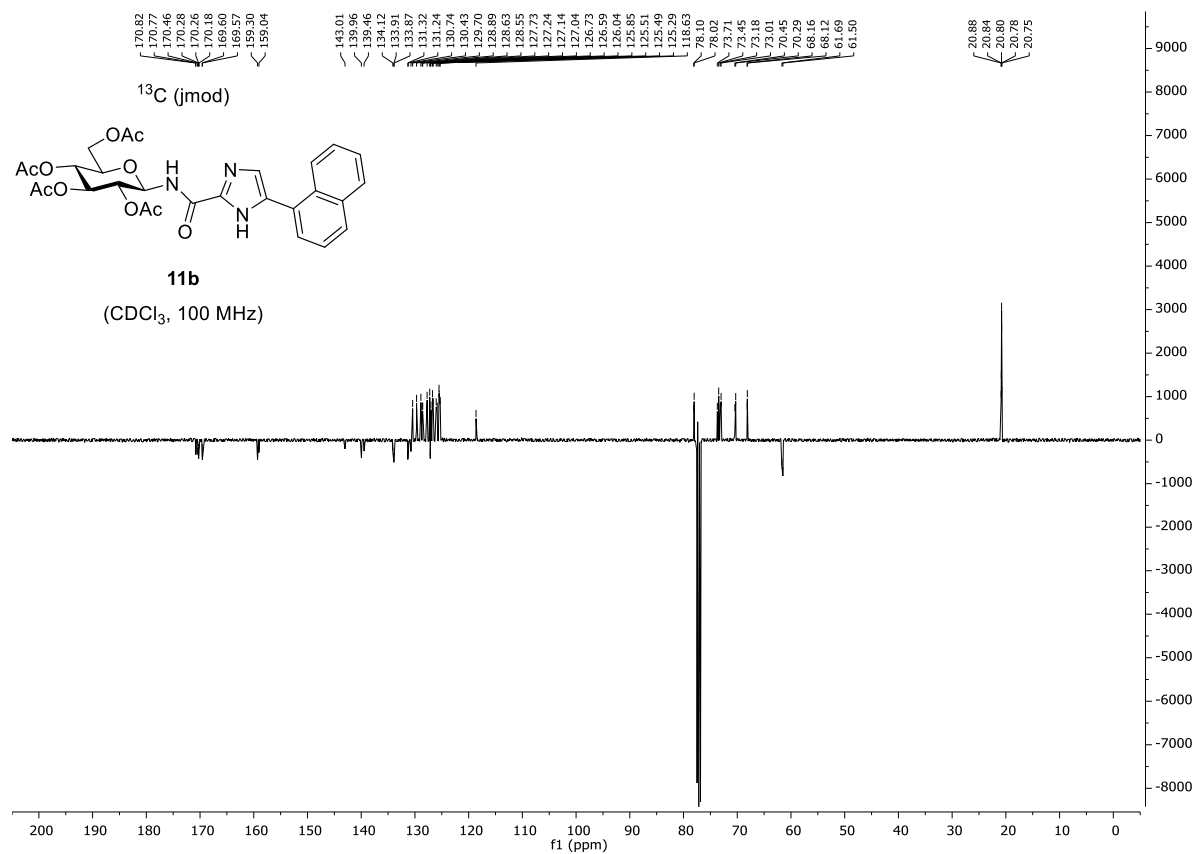
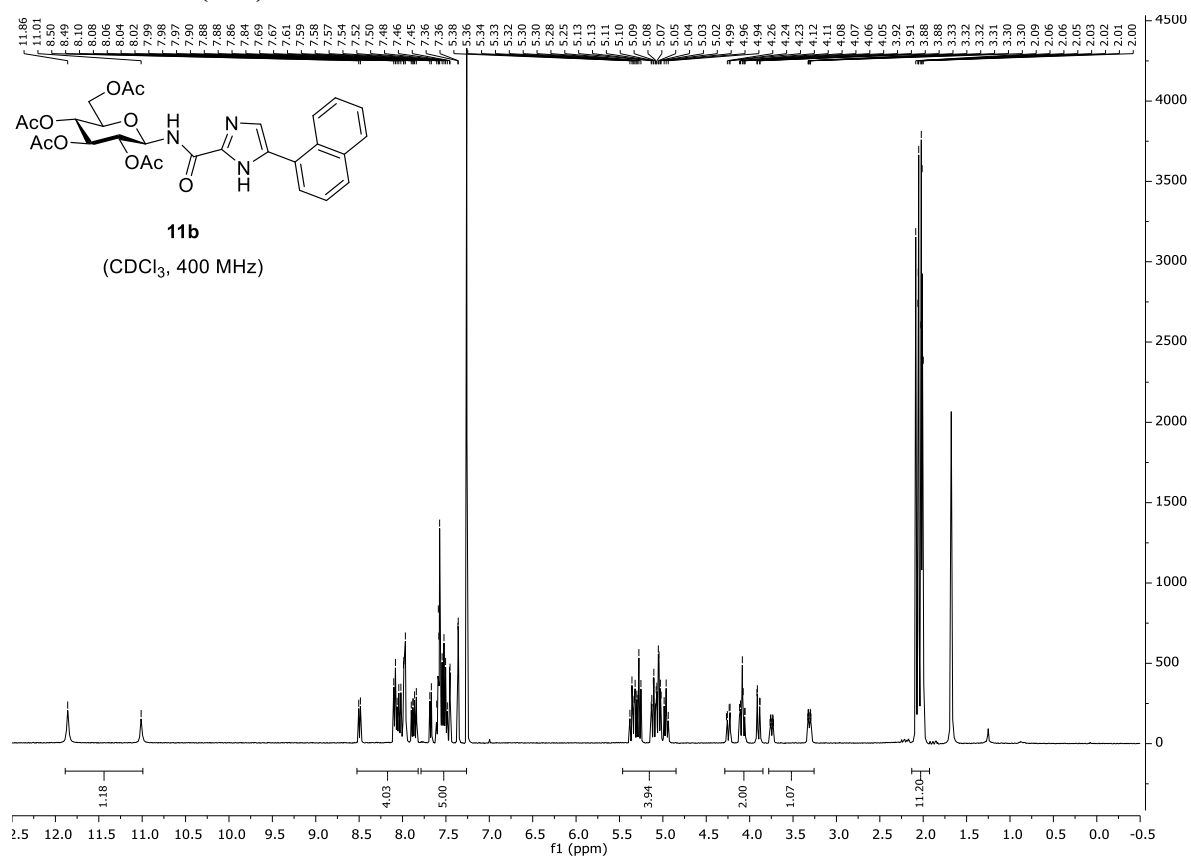
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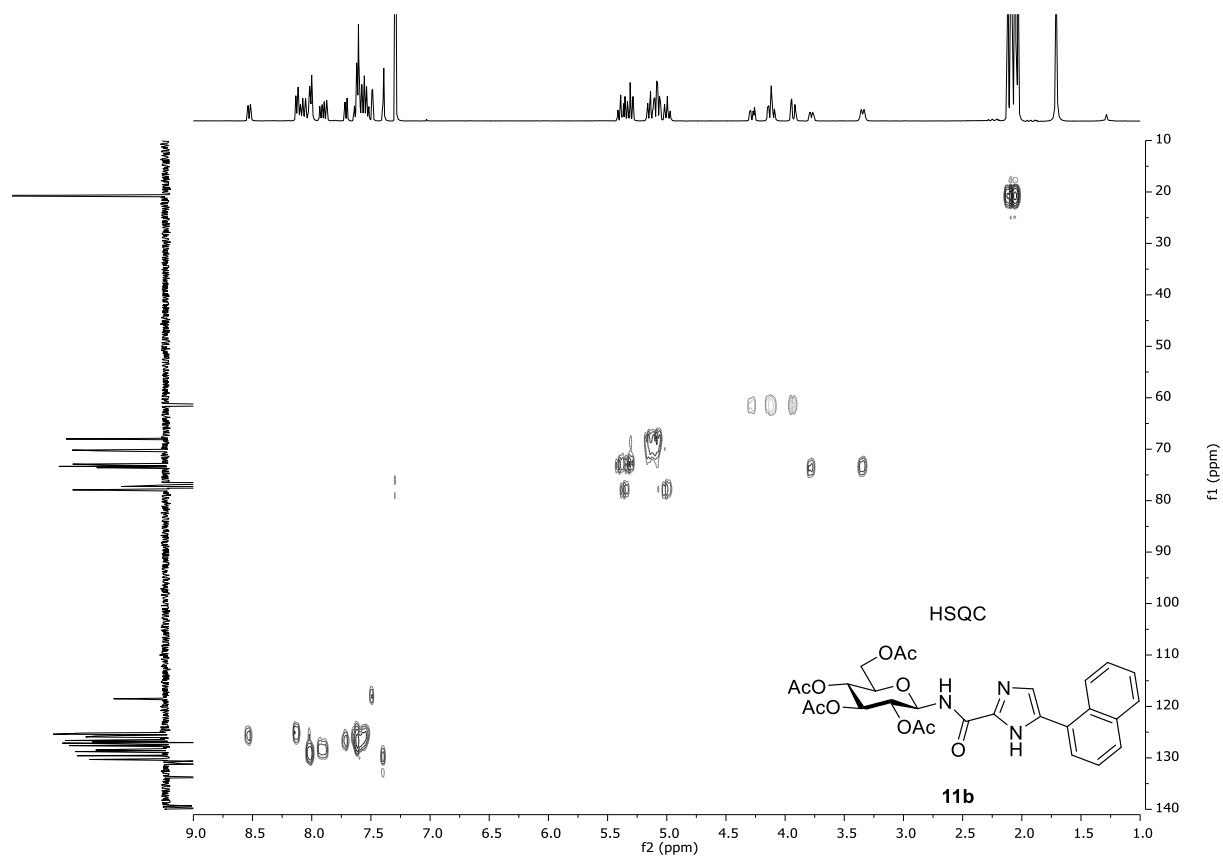
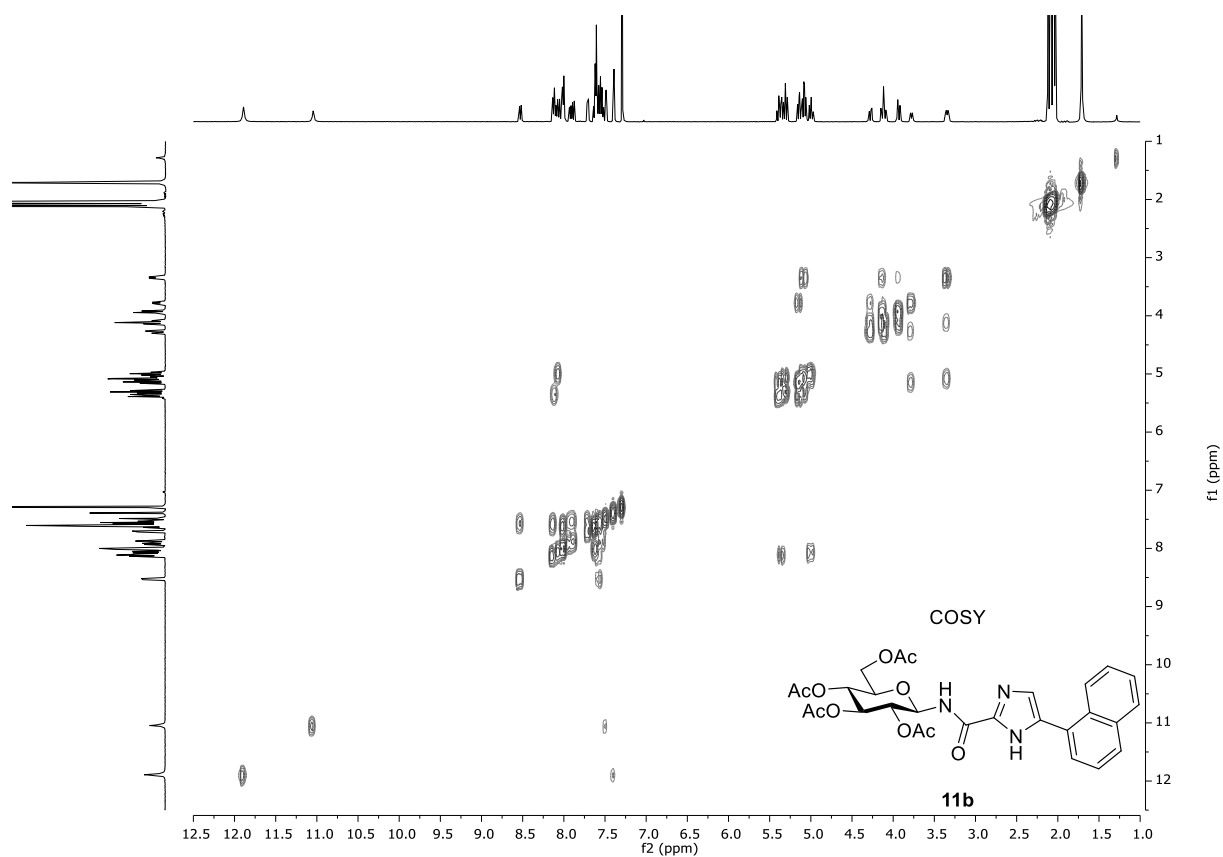


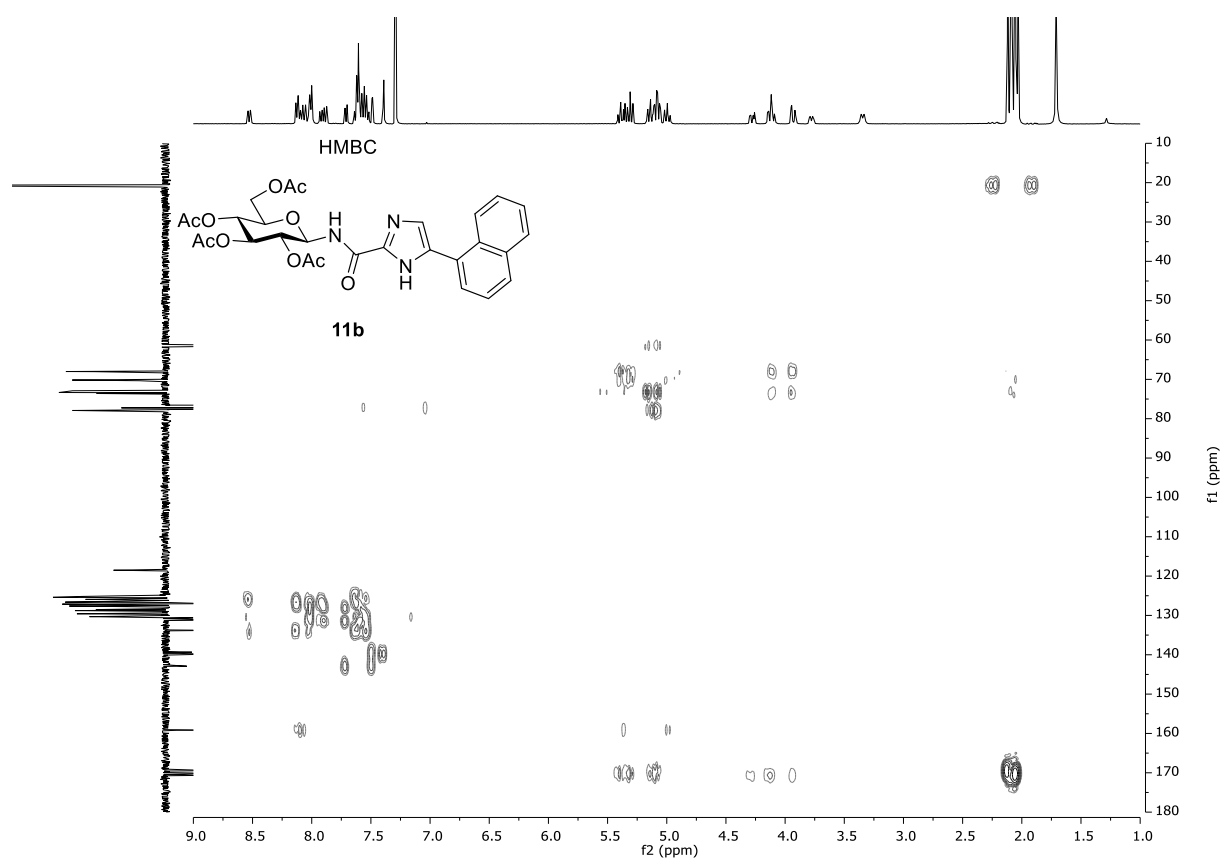




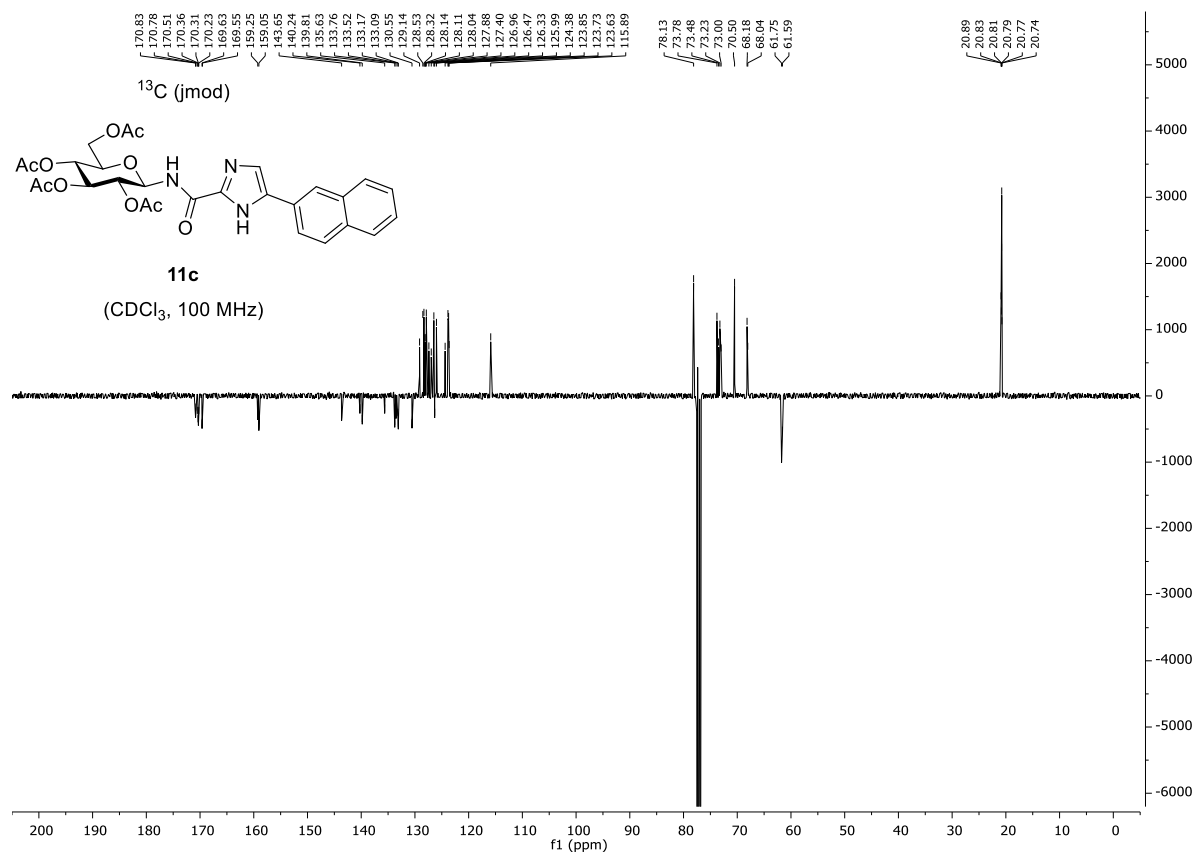
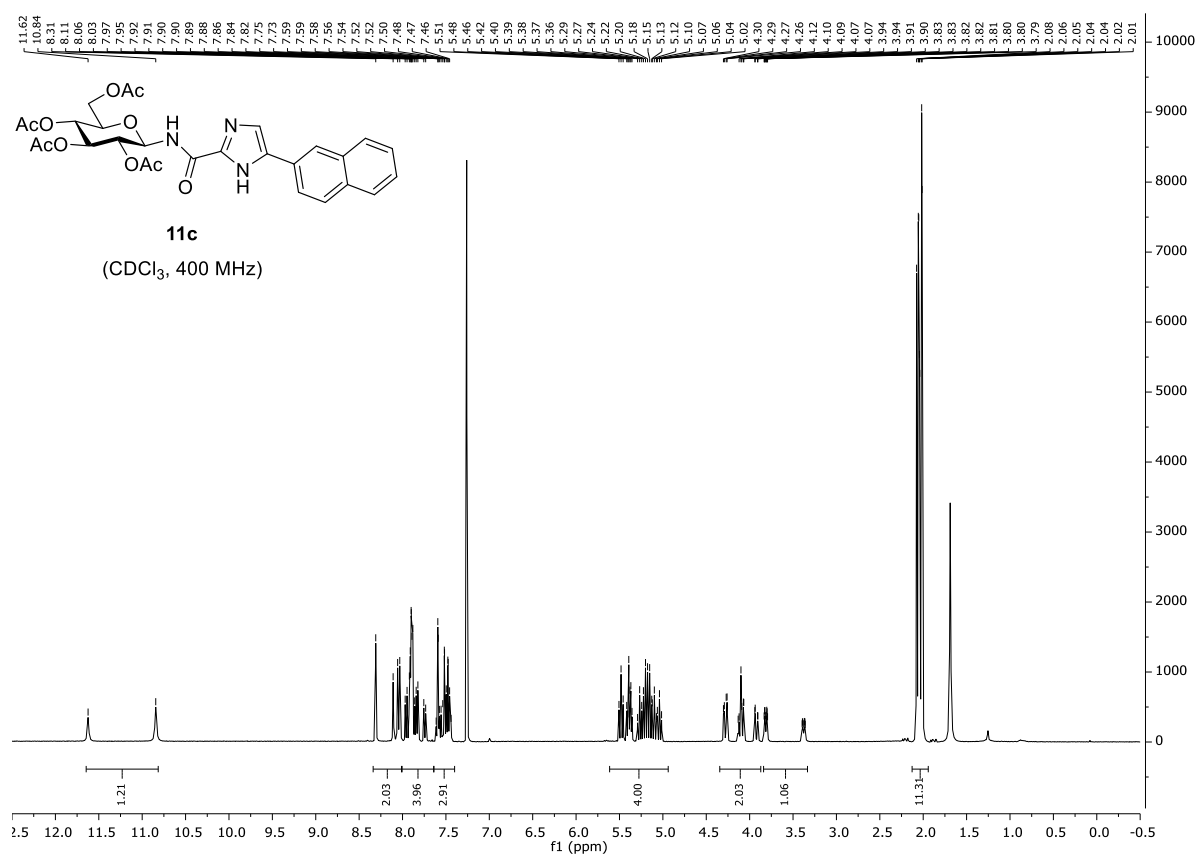
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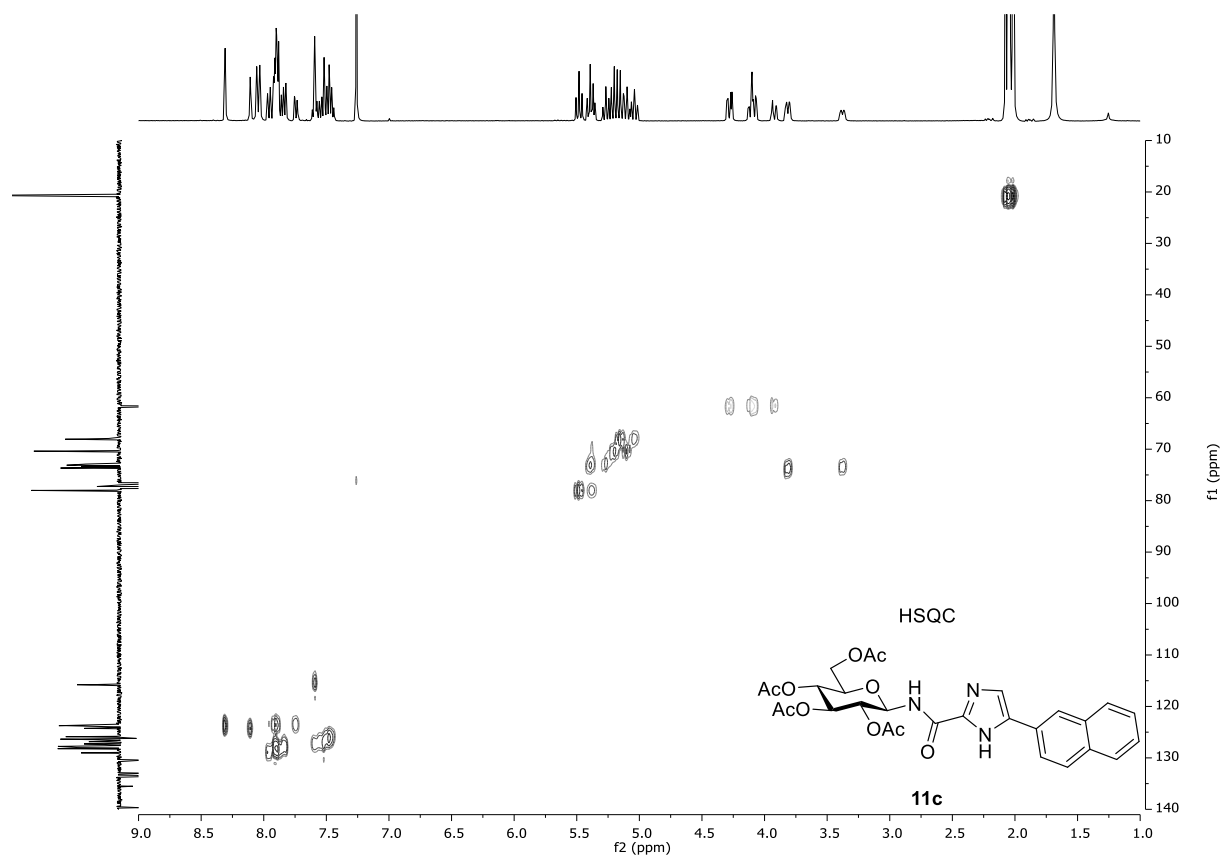
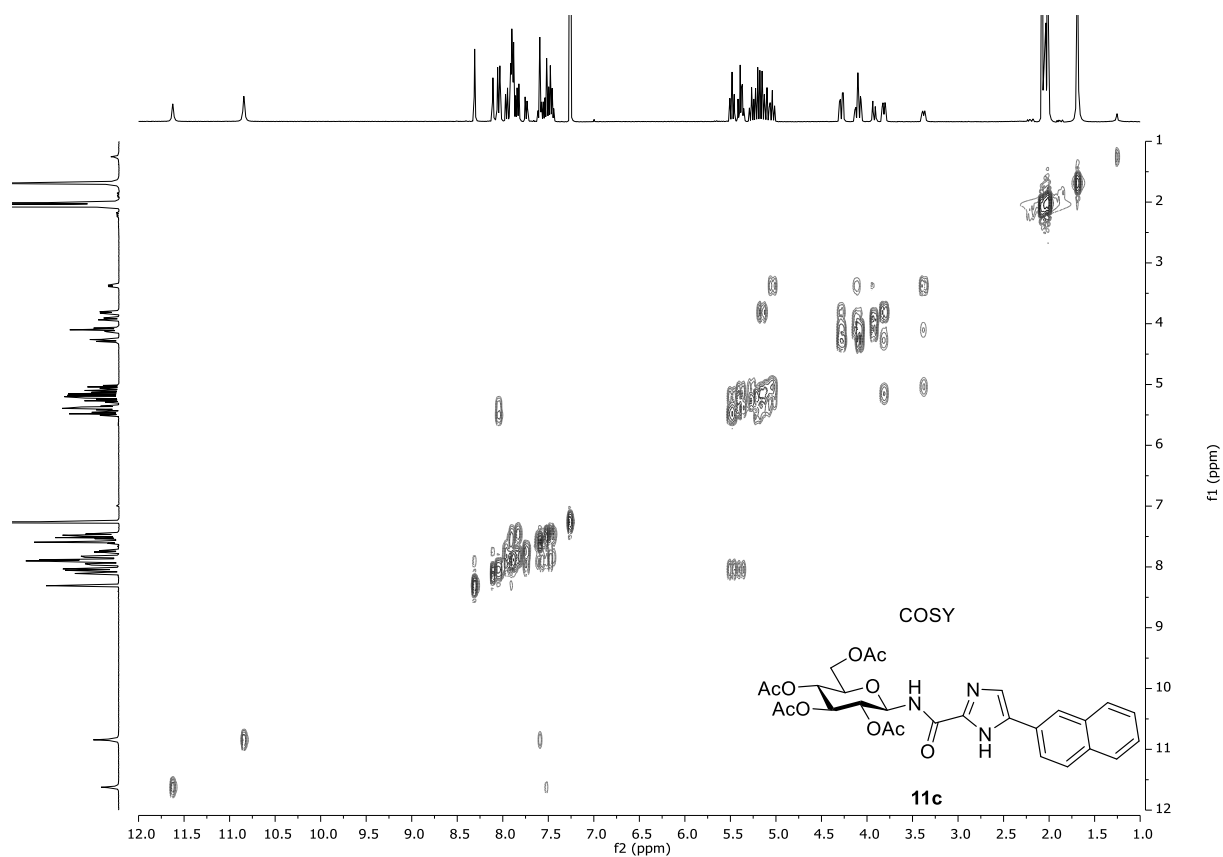


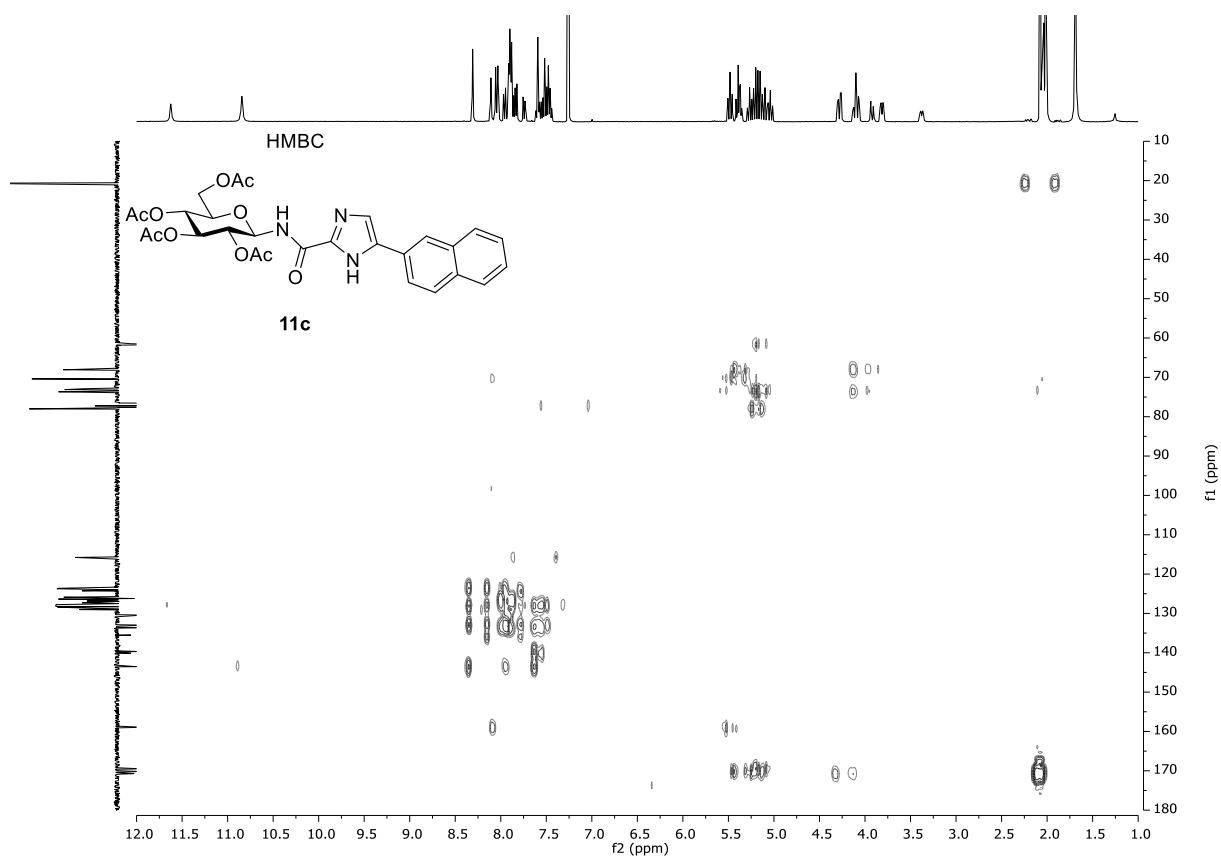




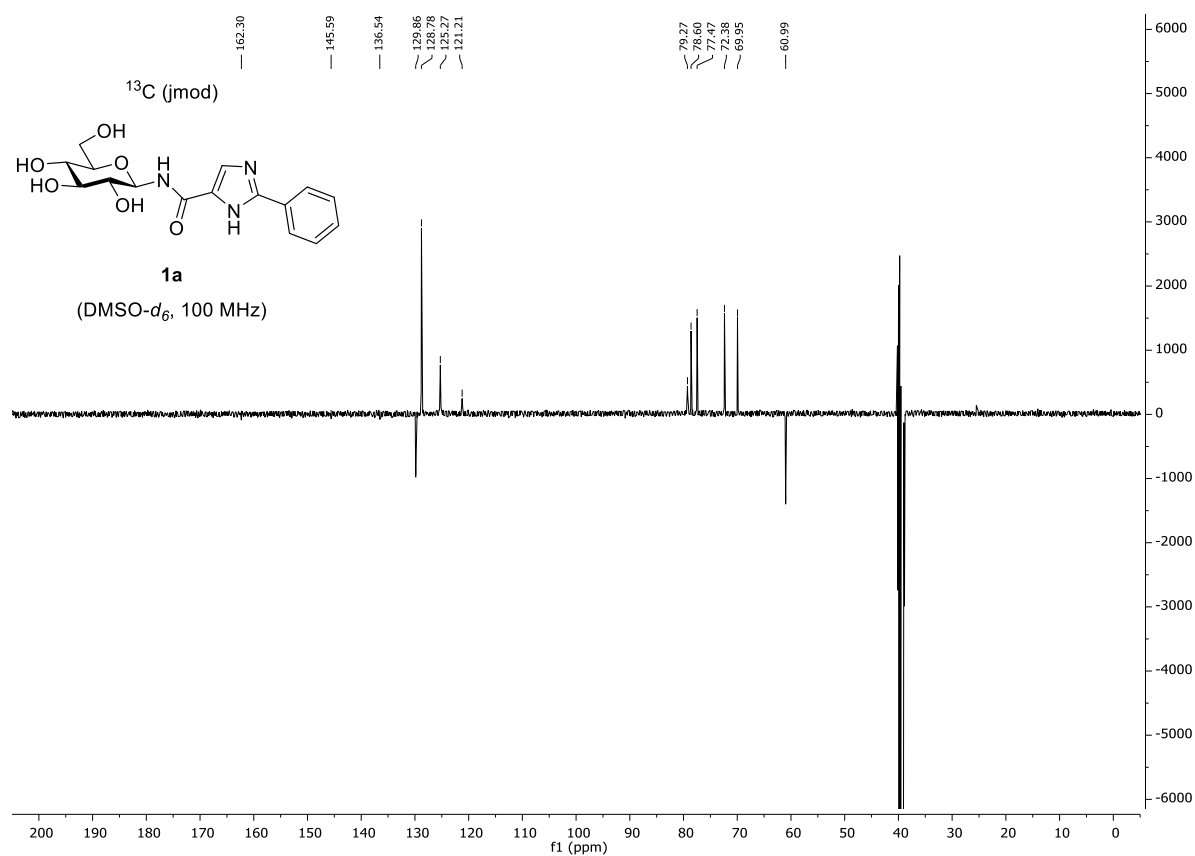
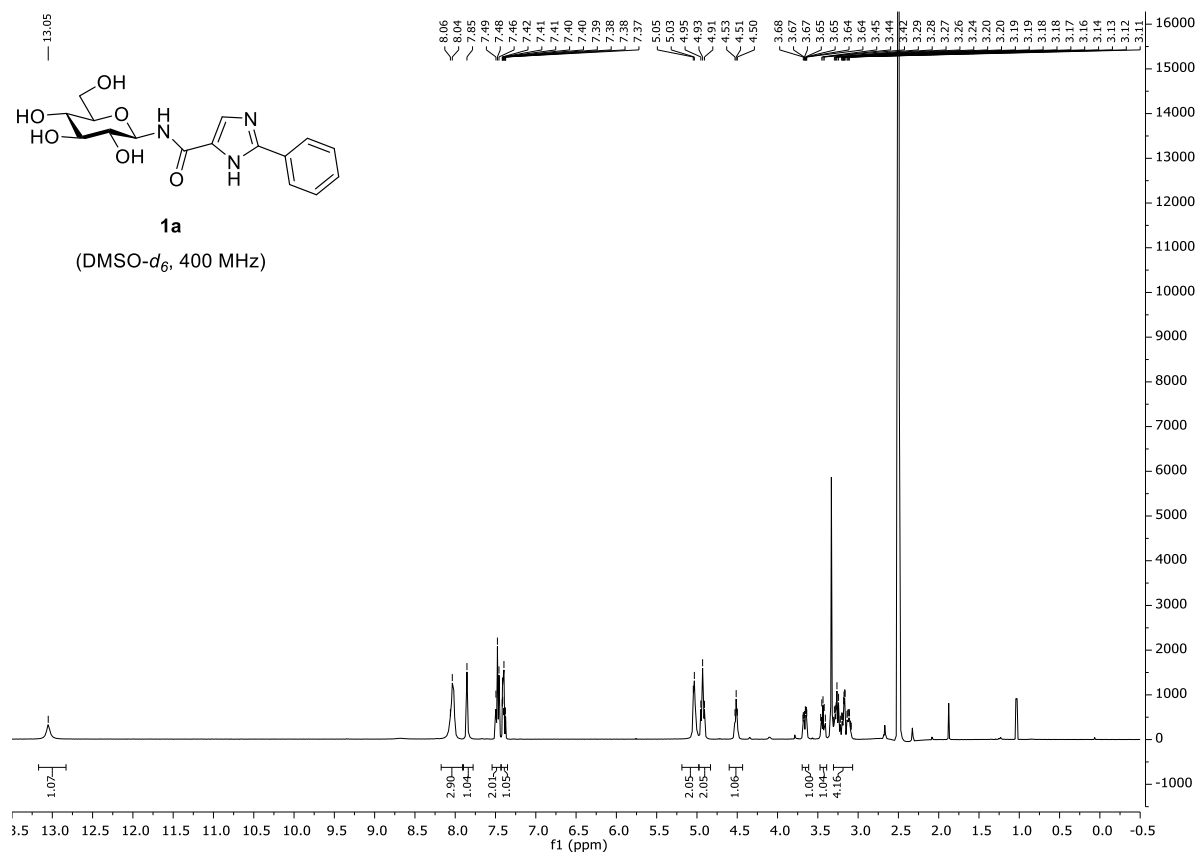
***N*-(2,3,4,6-Tetra-*O*-acetyl- β -D-glucopyranosyl)-4(5)-(2-naphthyl)-1*H*-imidazole-2-carboxamide (11c)**

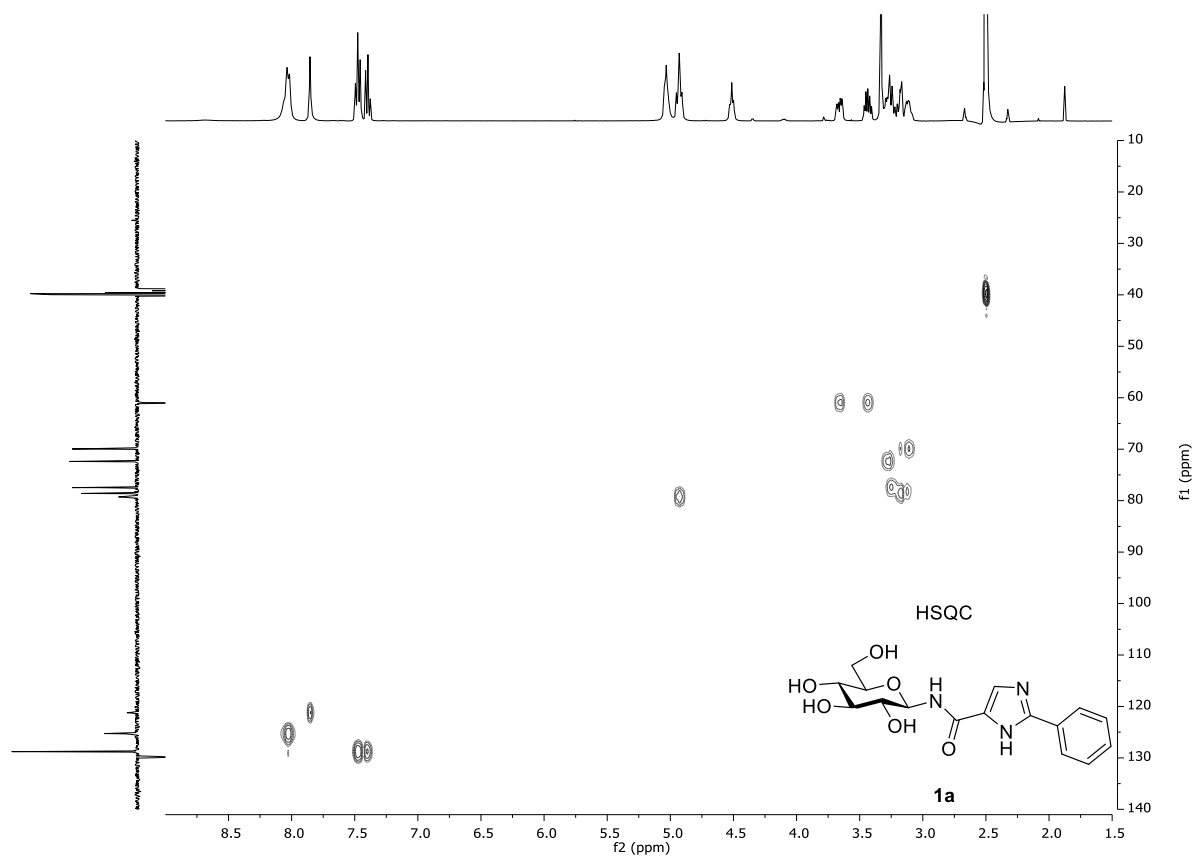
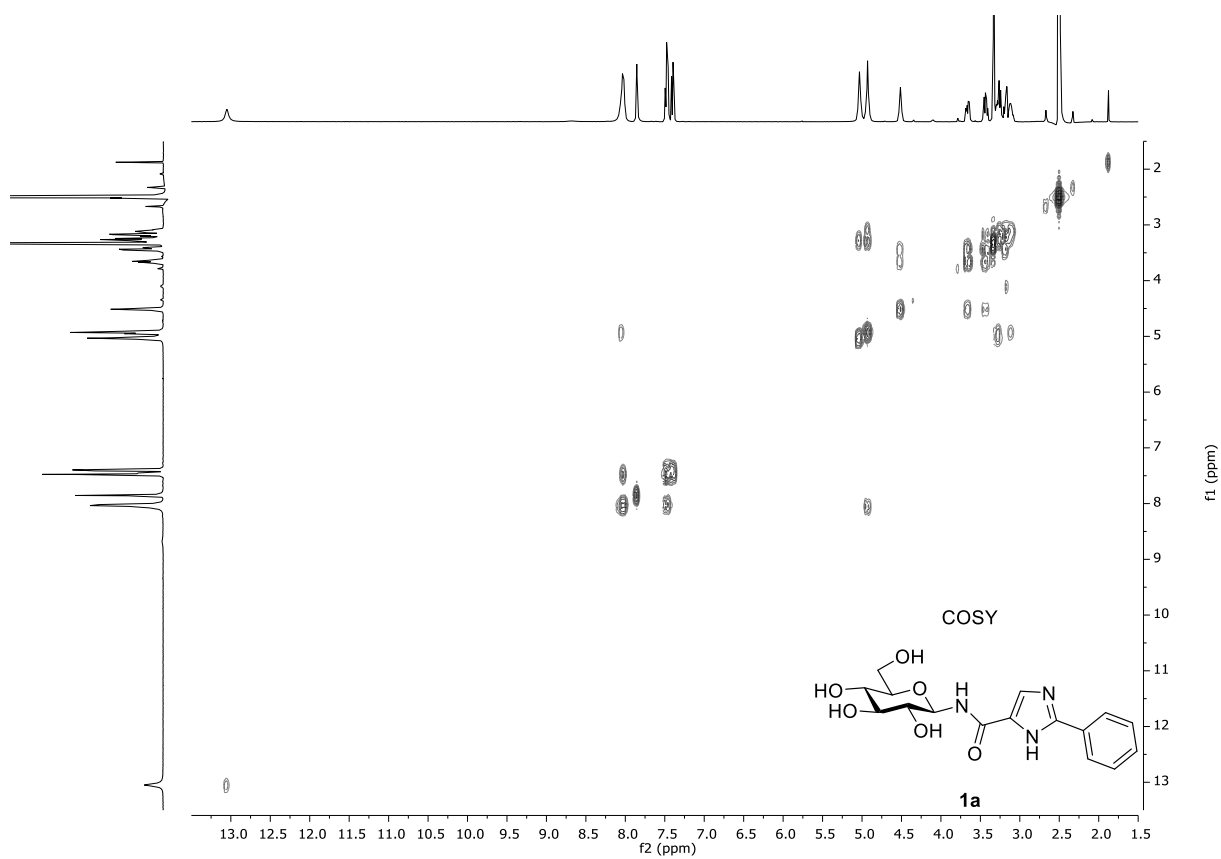


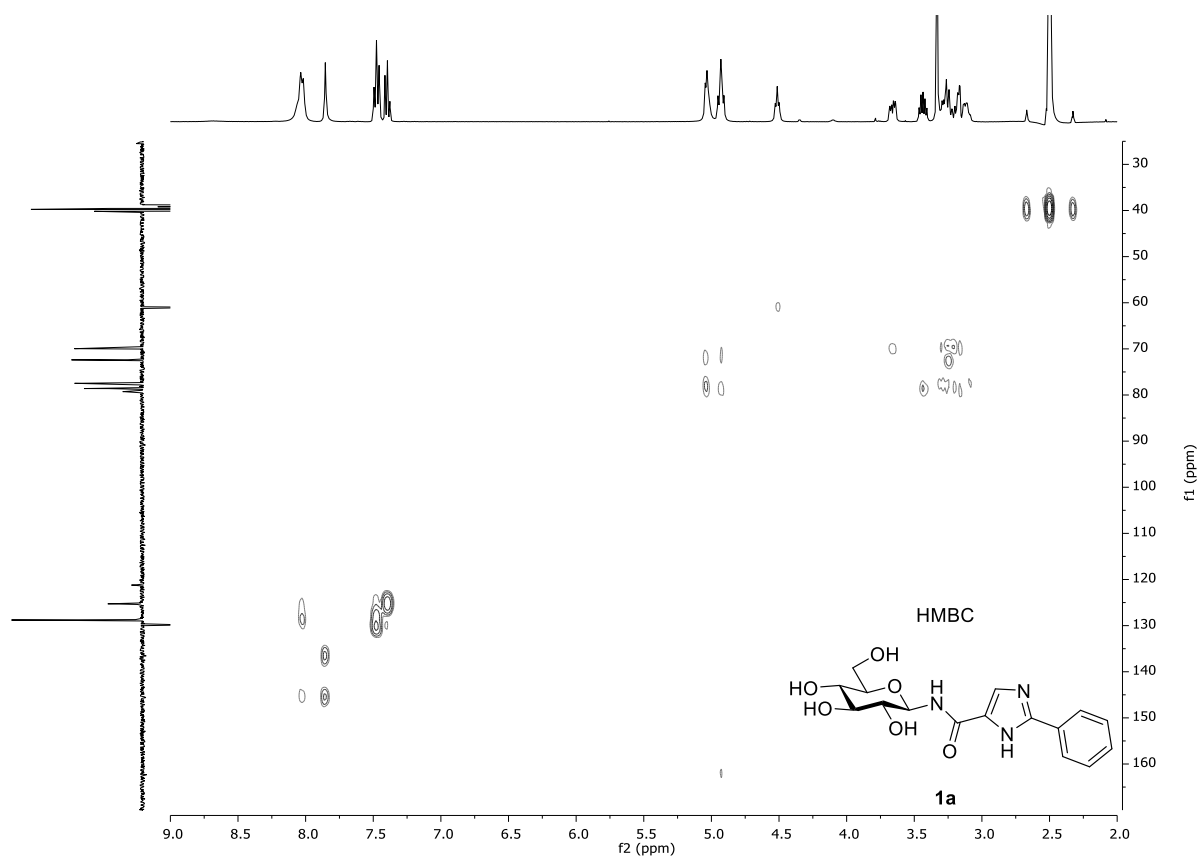


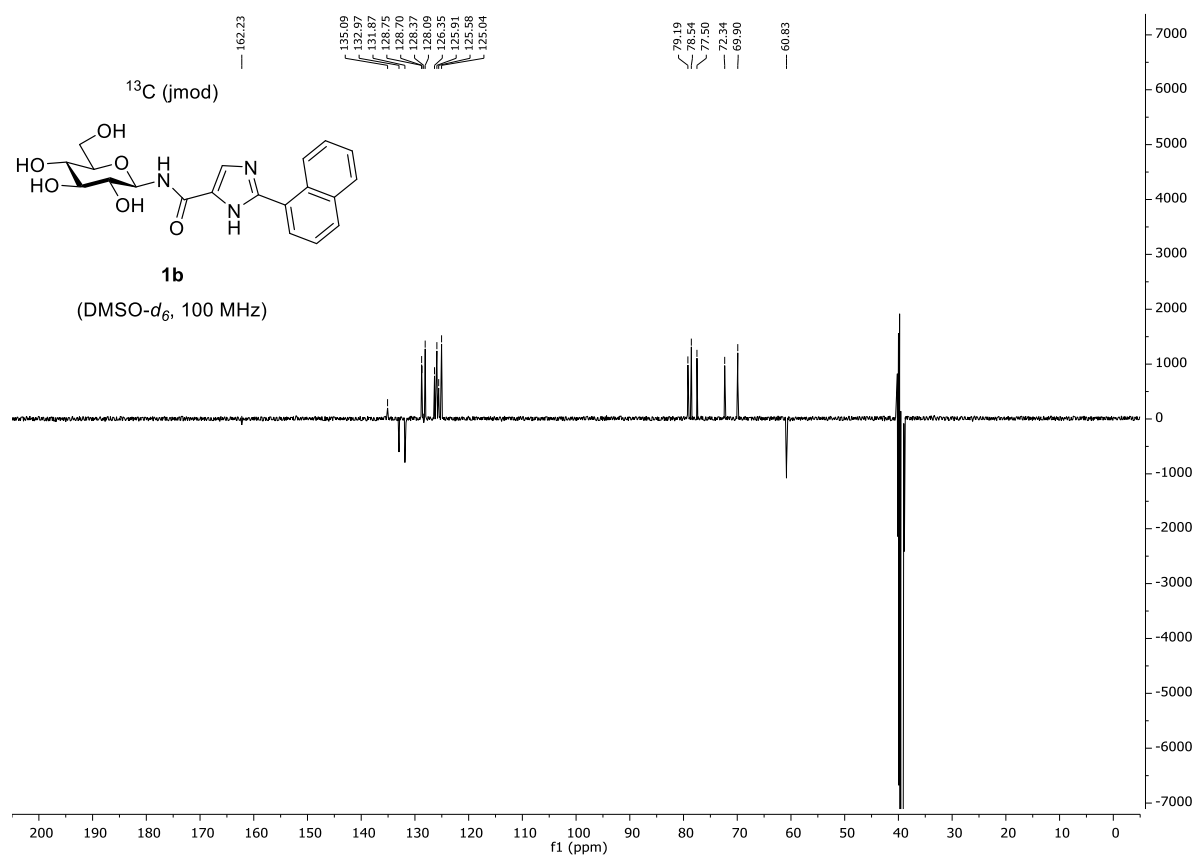


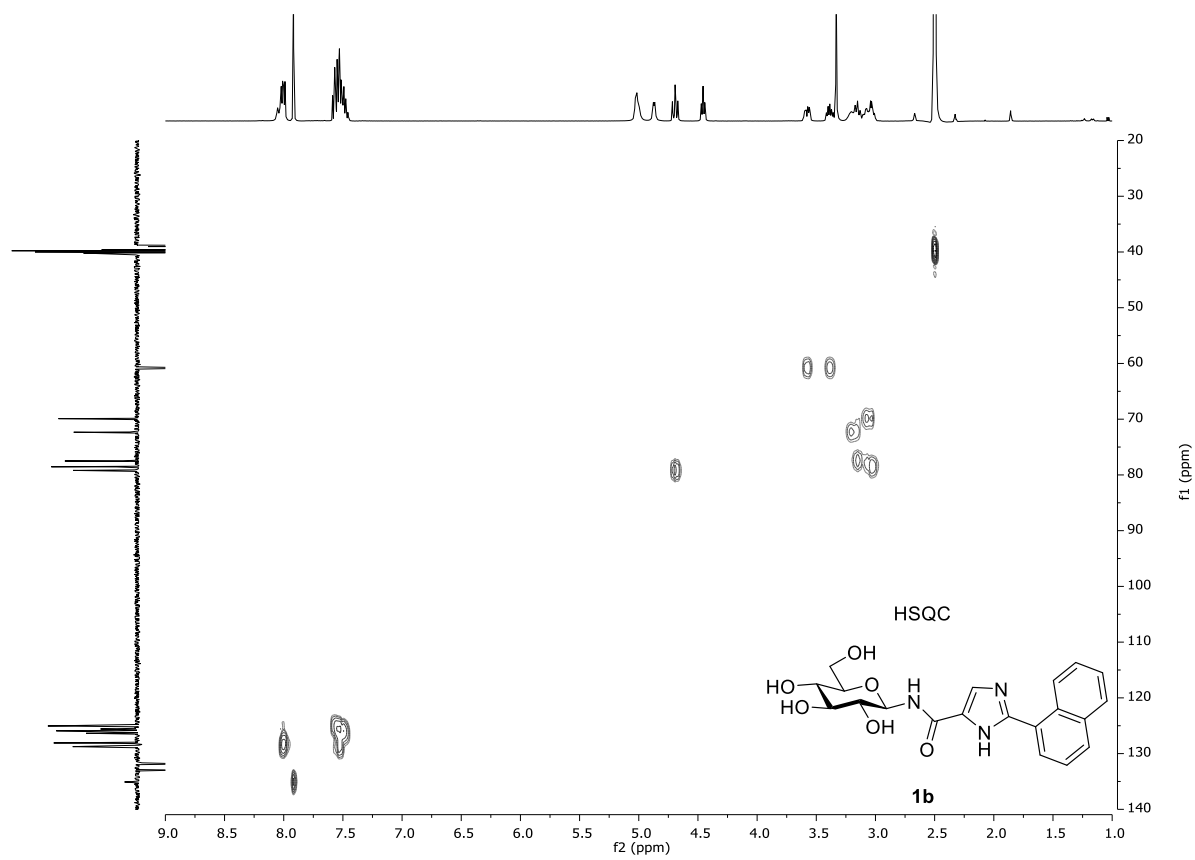
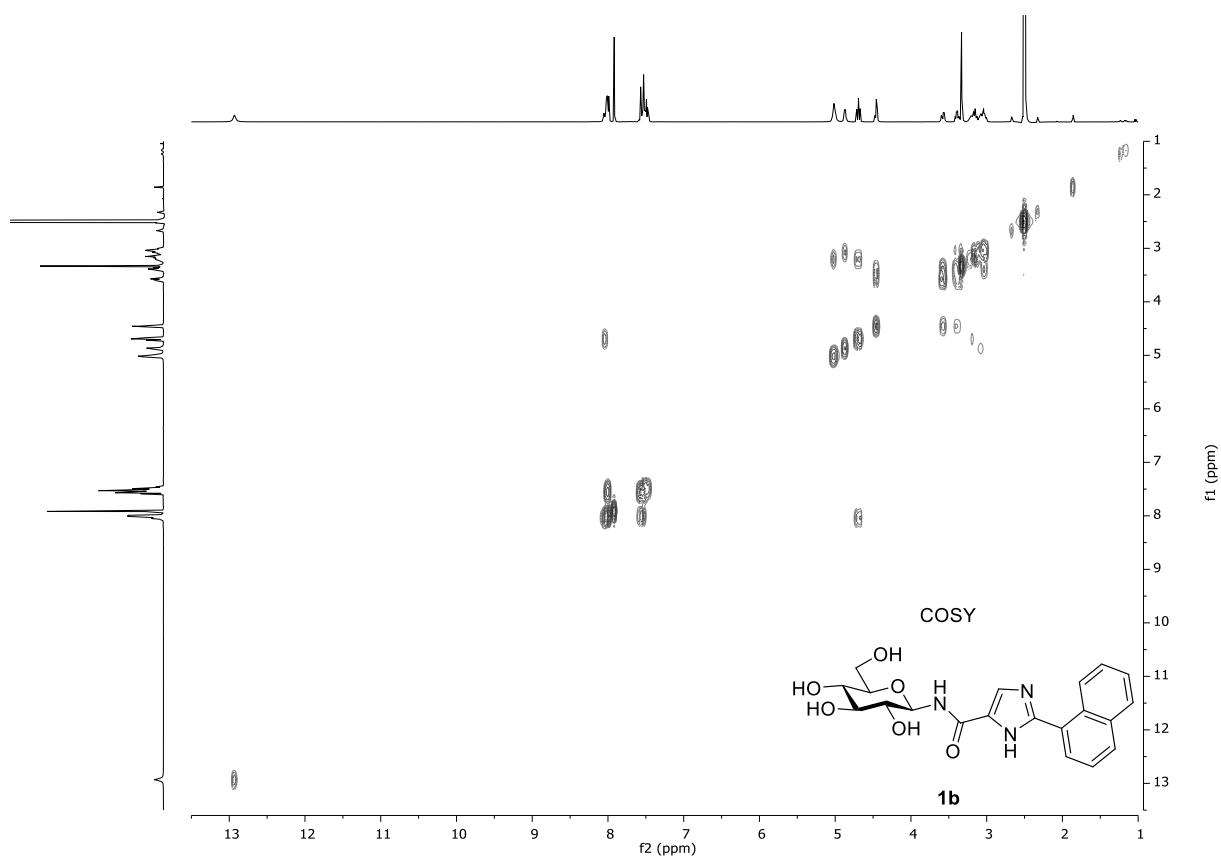
***N*-(β-D-Glucopyranosyl)-2-phenyl-1*H*-imidazole-4(5)-carboxamide (1a)**

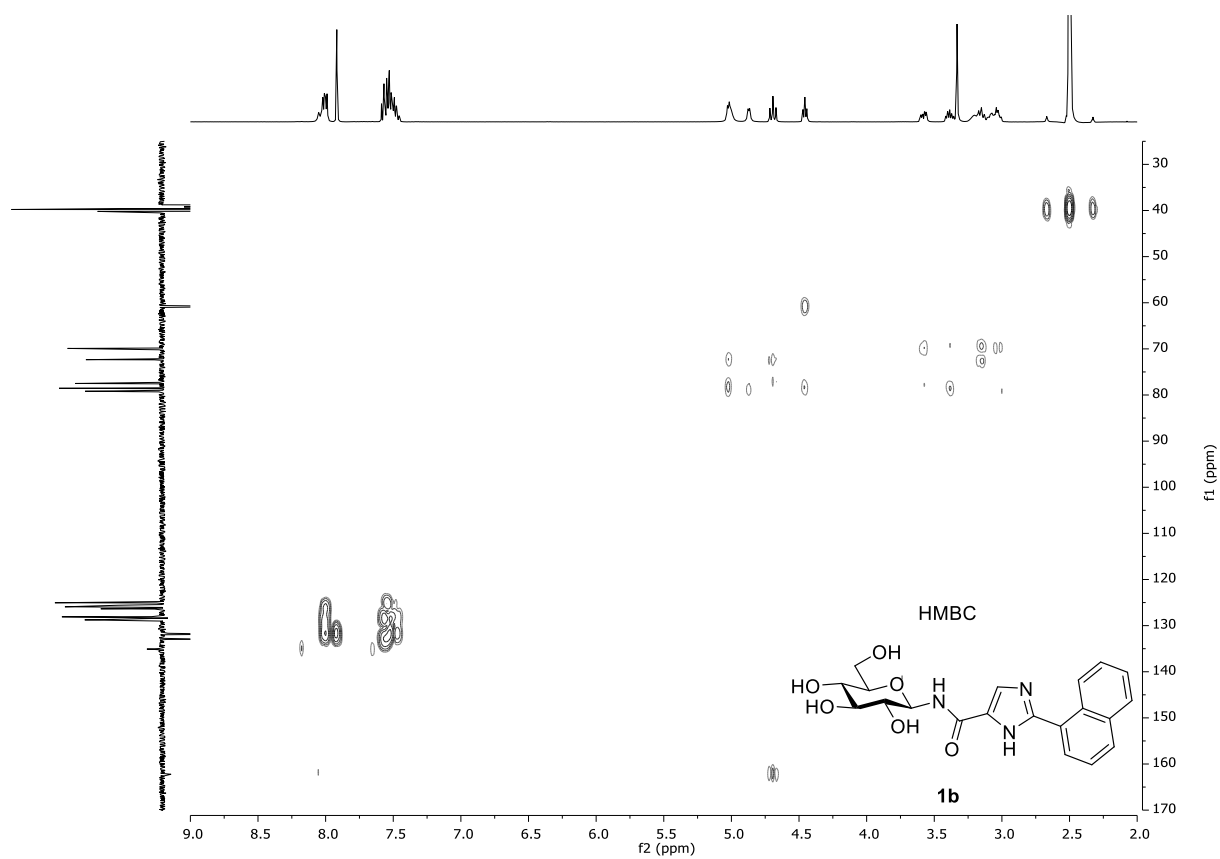




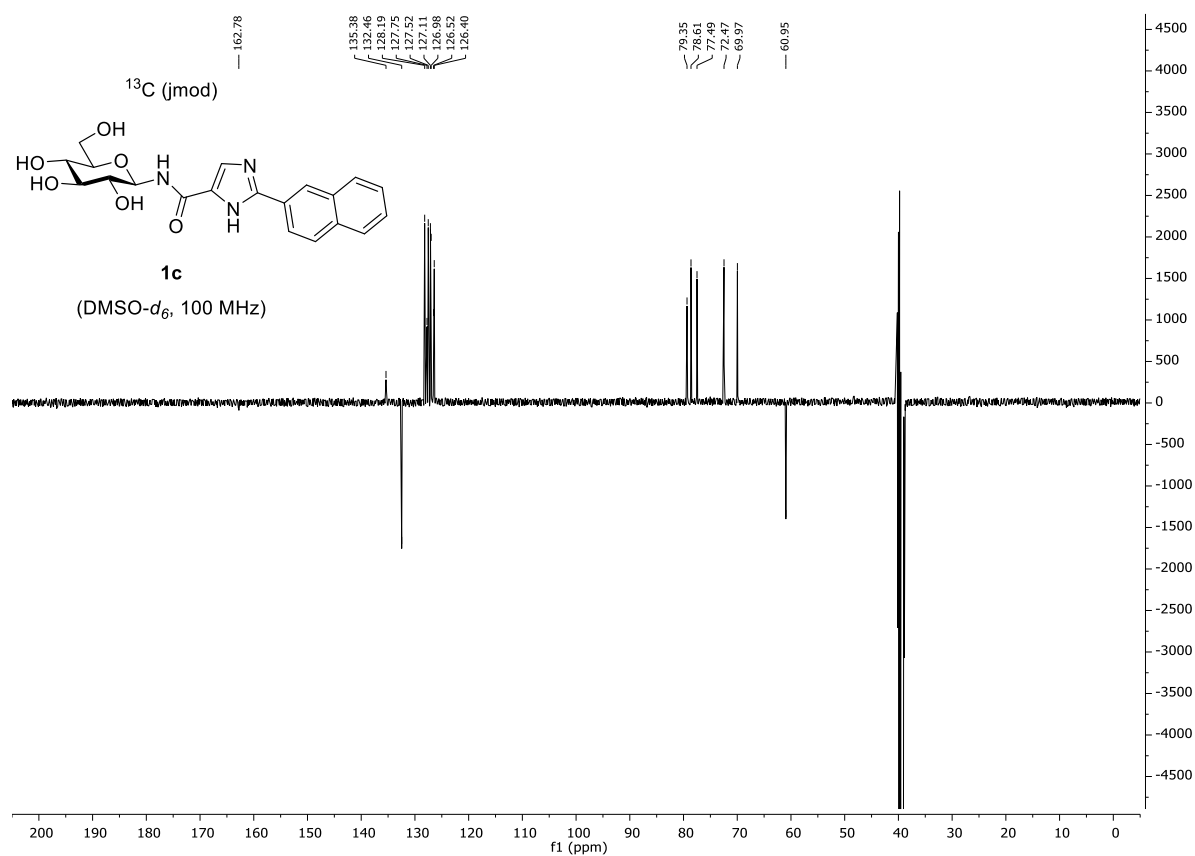
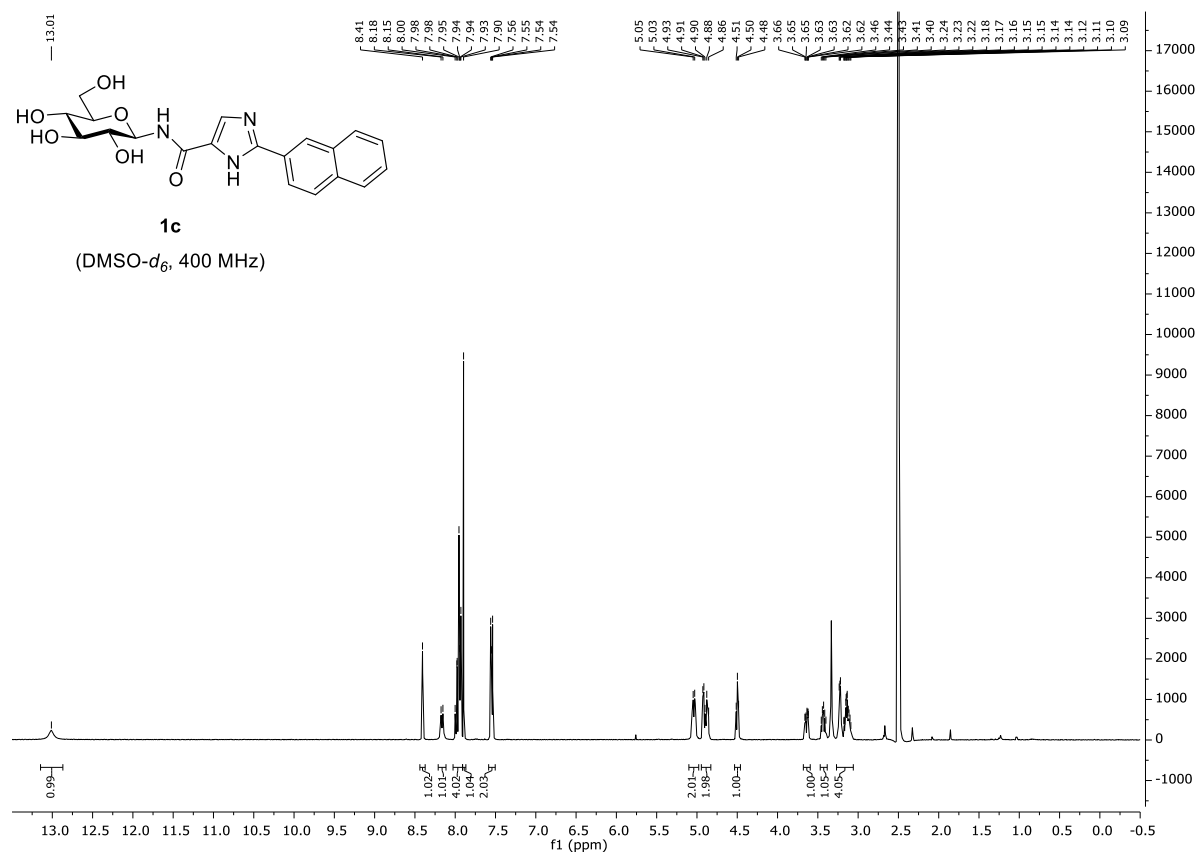


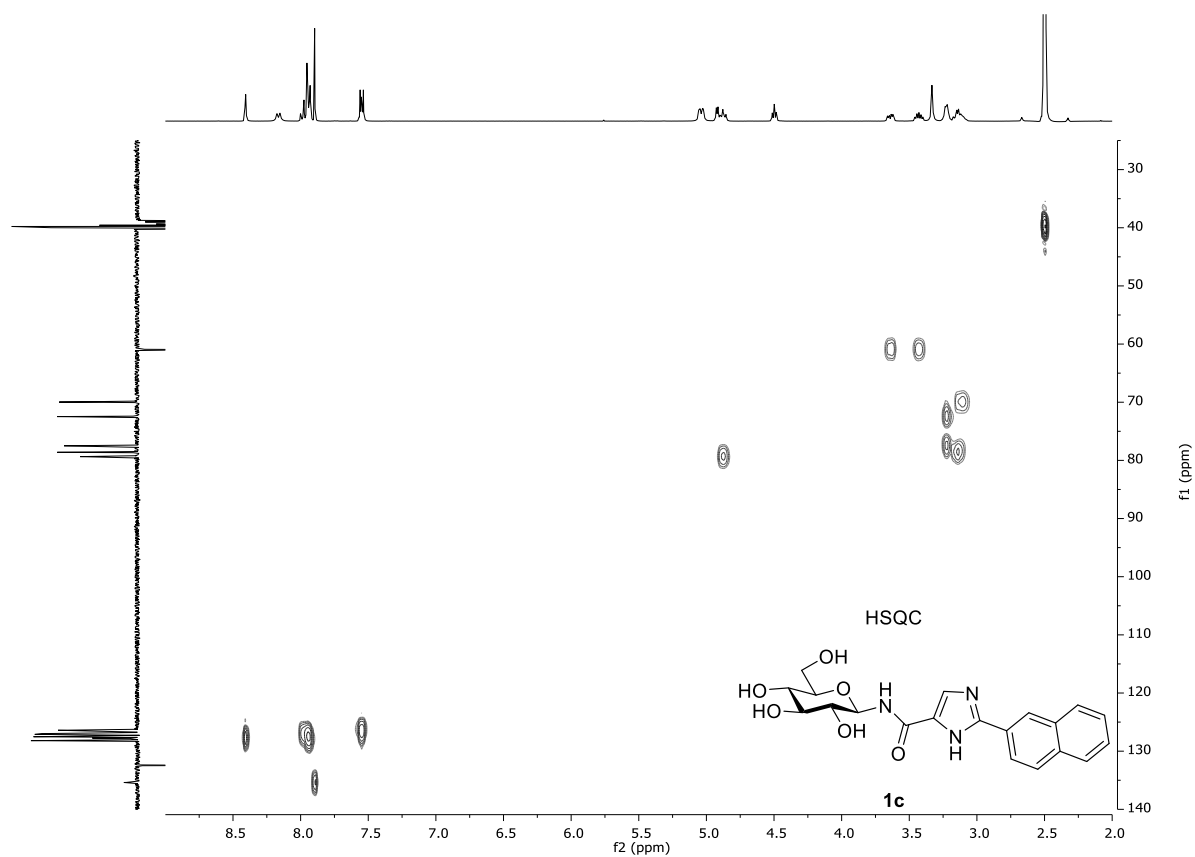
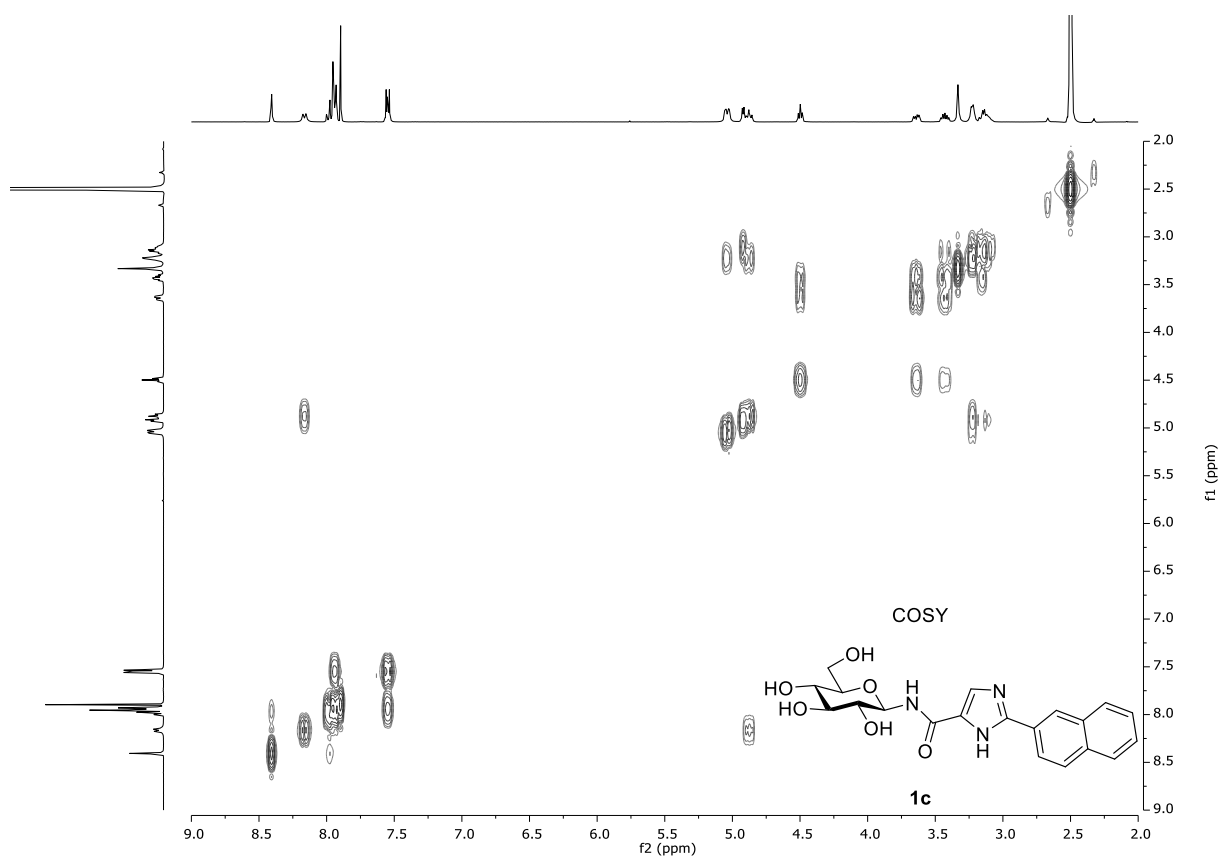
[illegible]

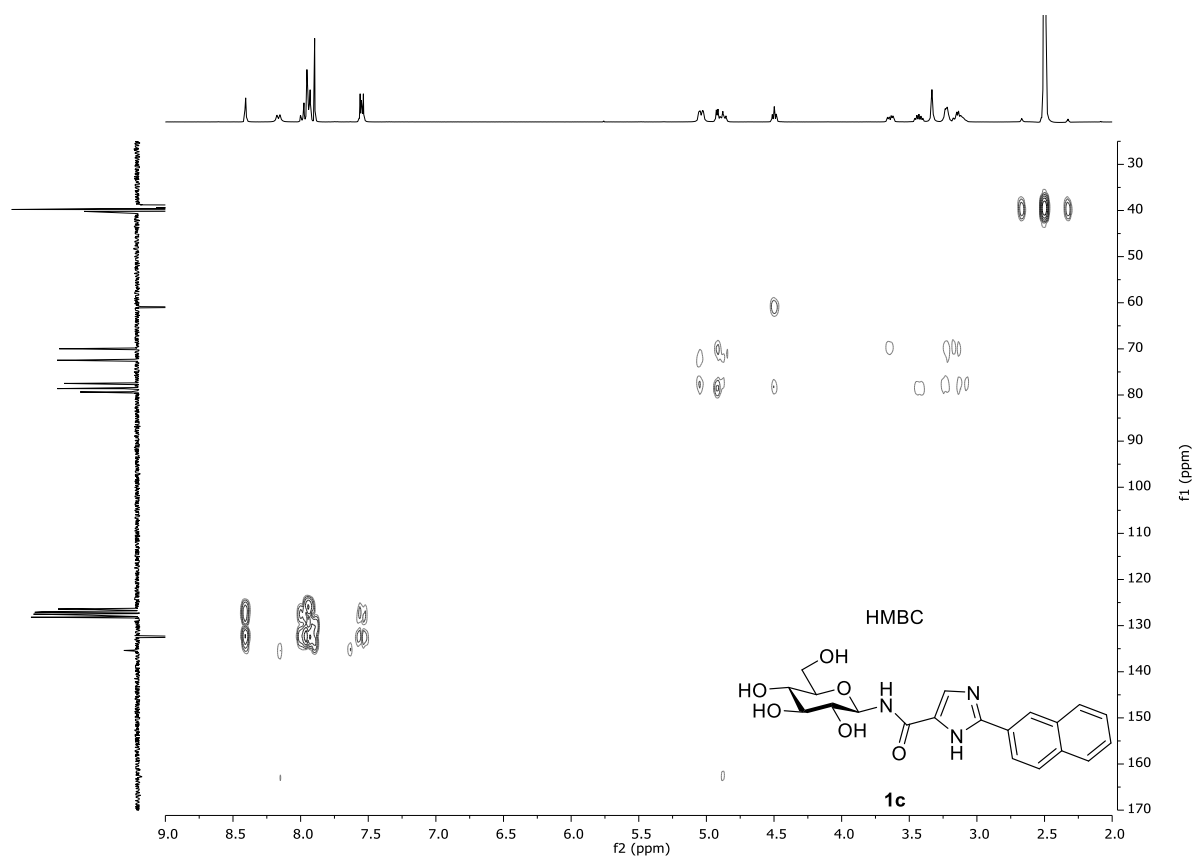




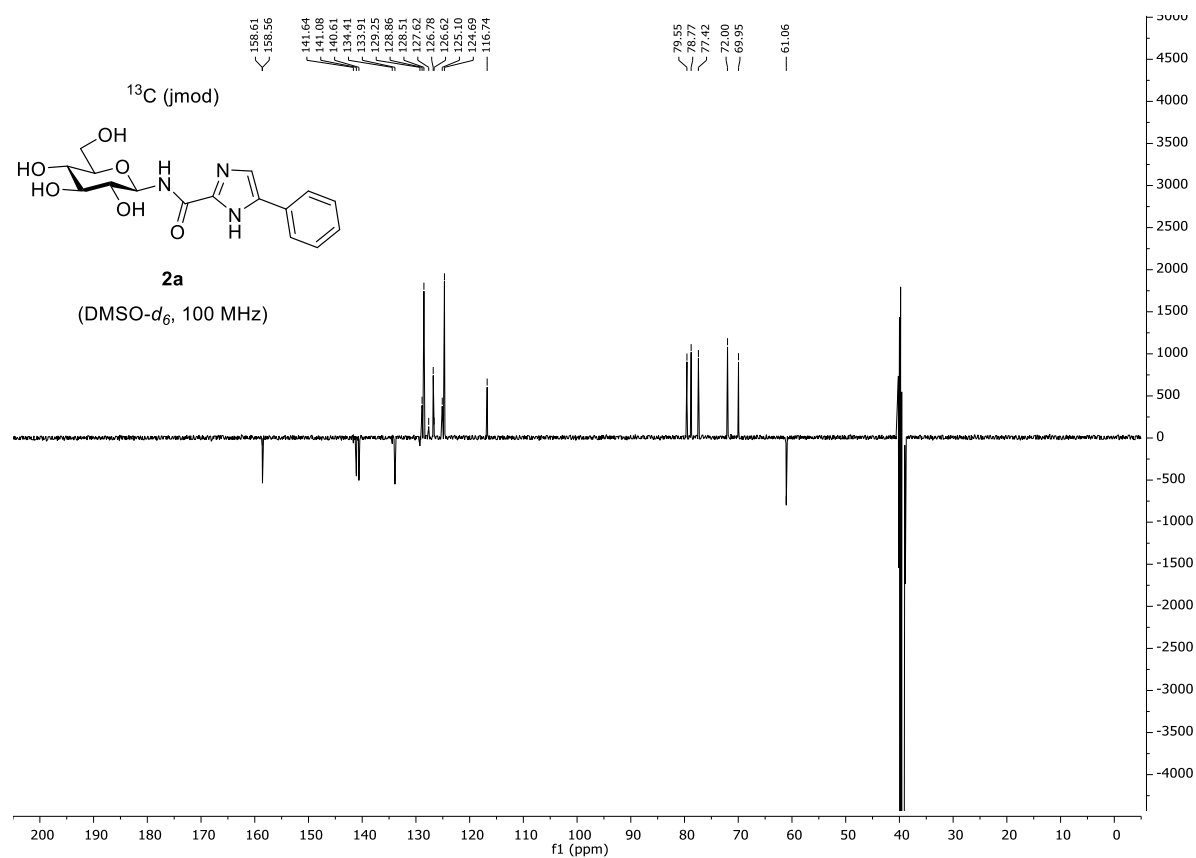
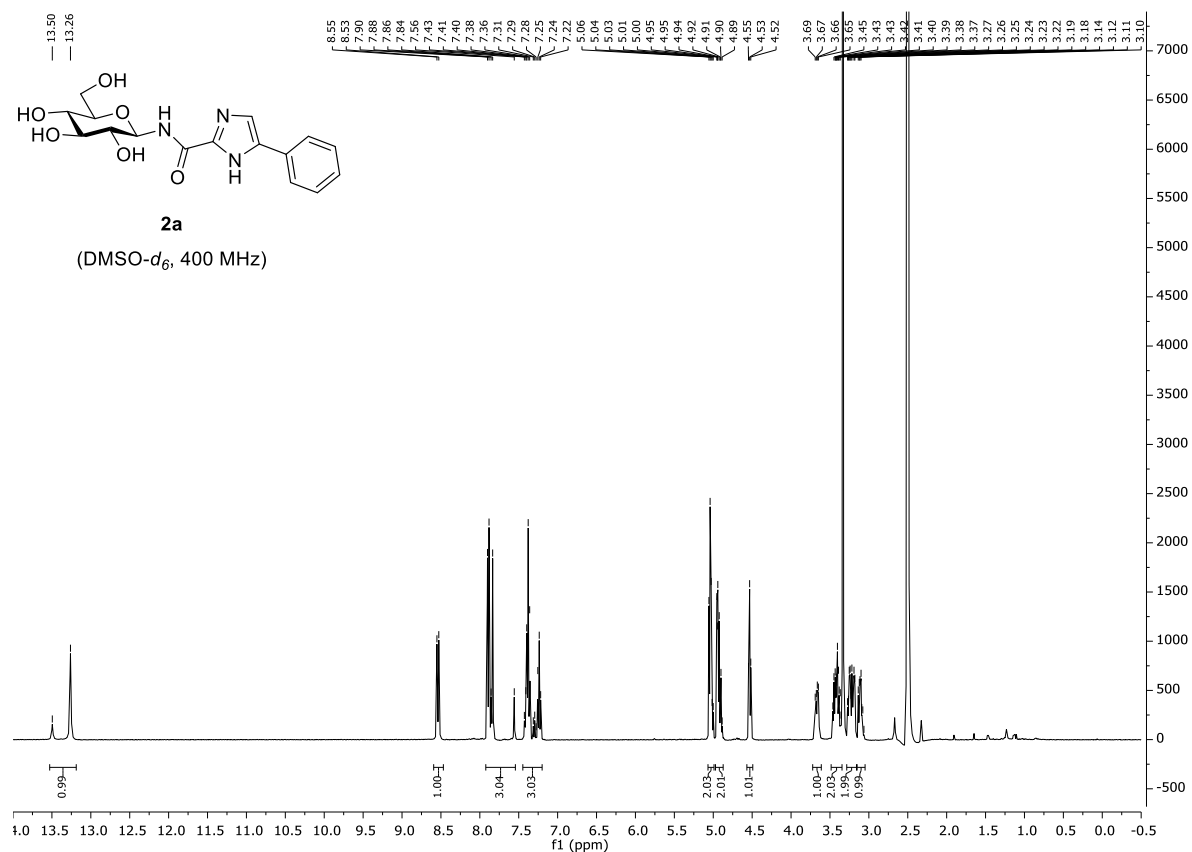
***N*-(β -D-Glucopyranosyl)-2-(2-naphthyl)-1*H*-imidazole-4(5)-carboxamide (1c)**

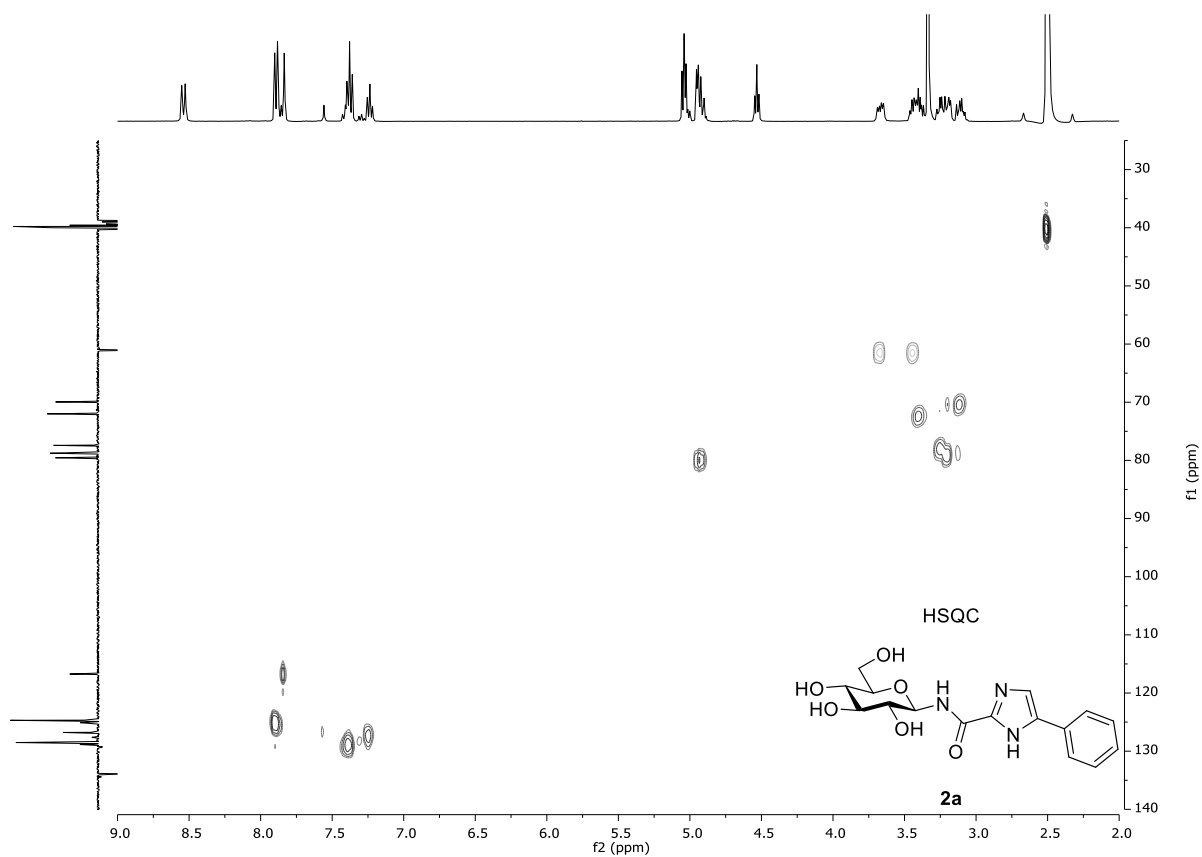
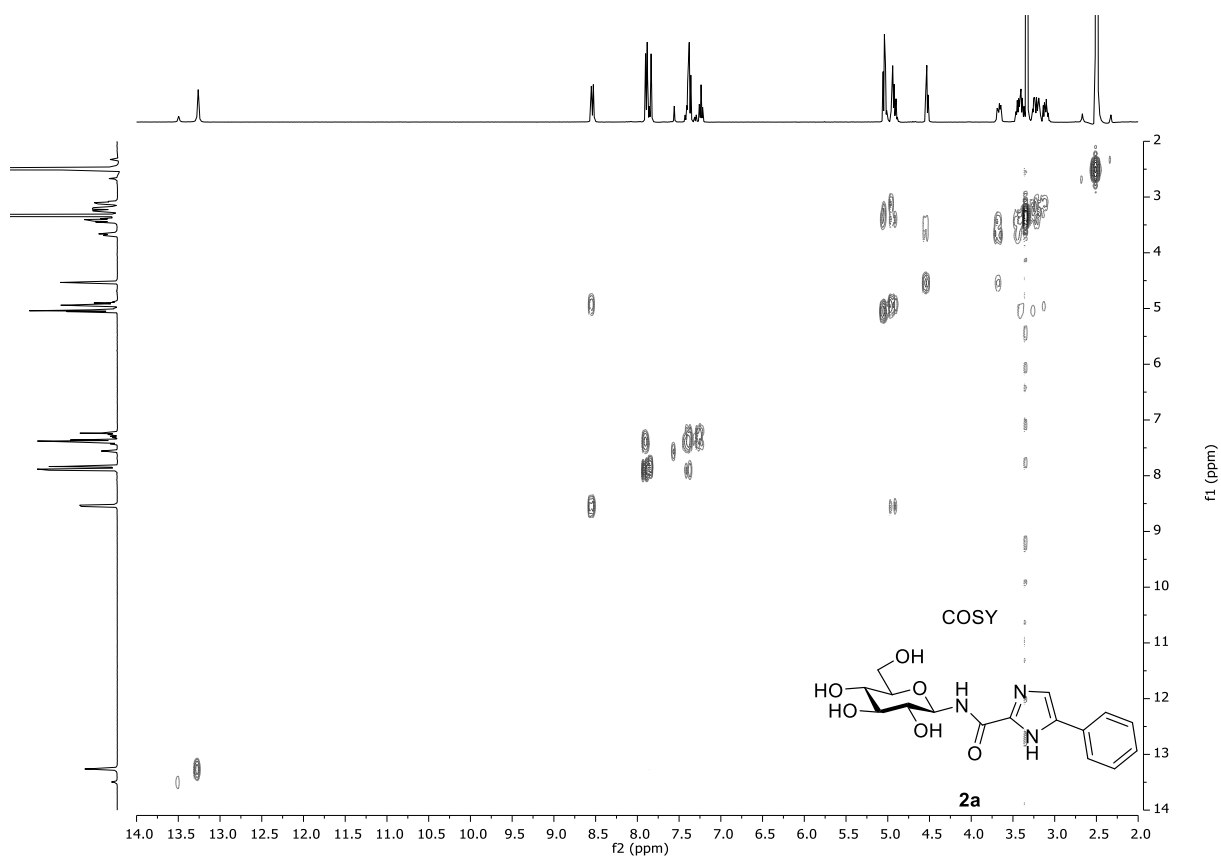


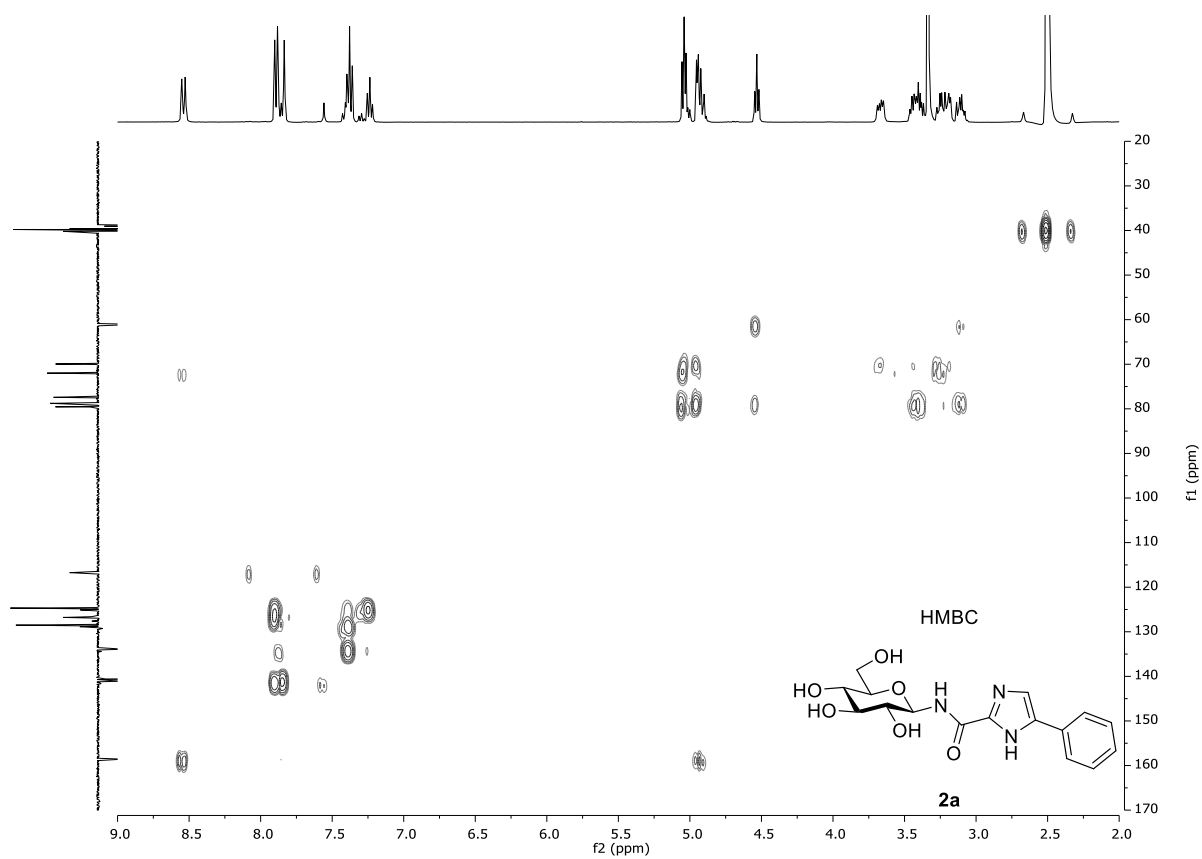




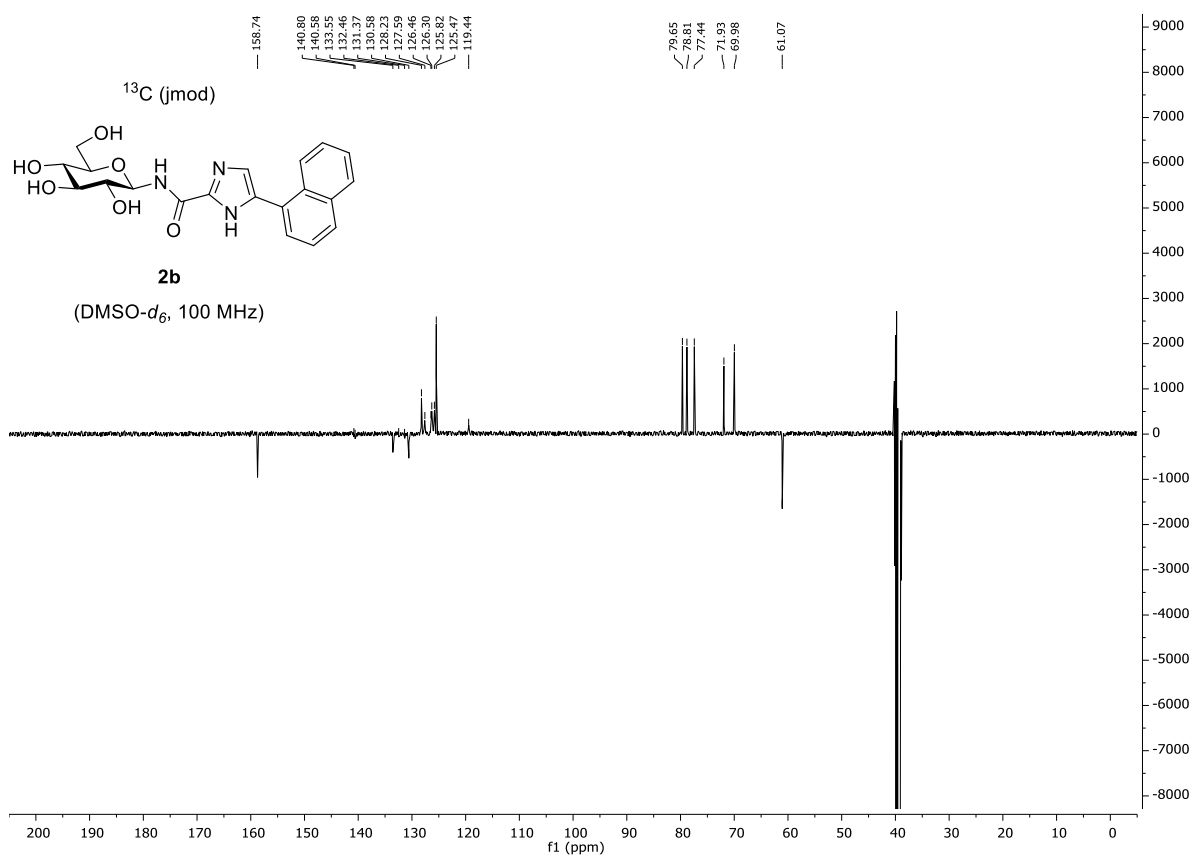
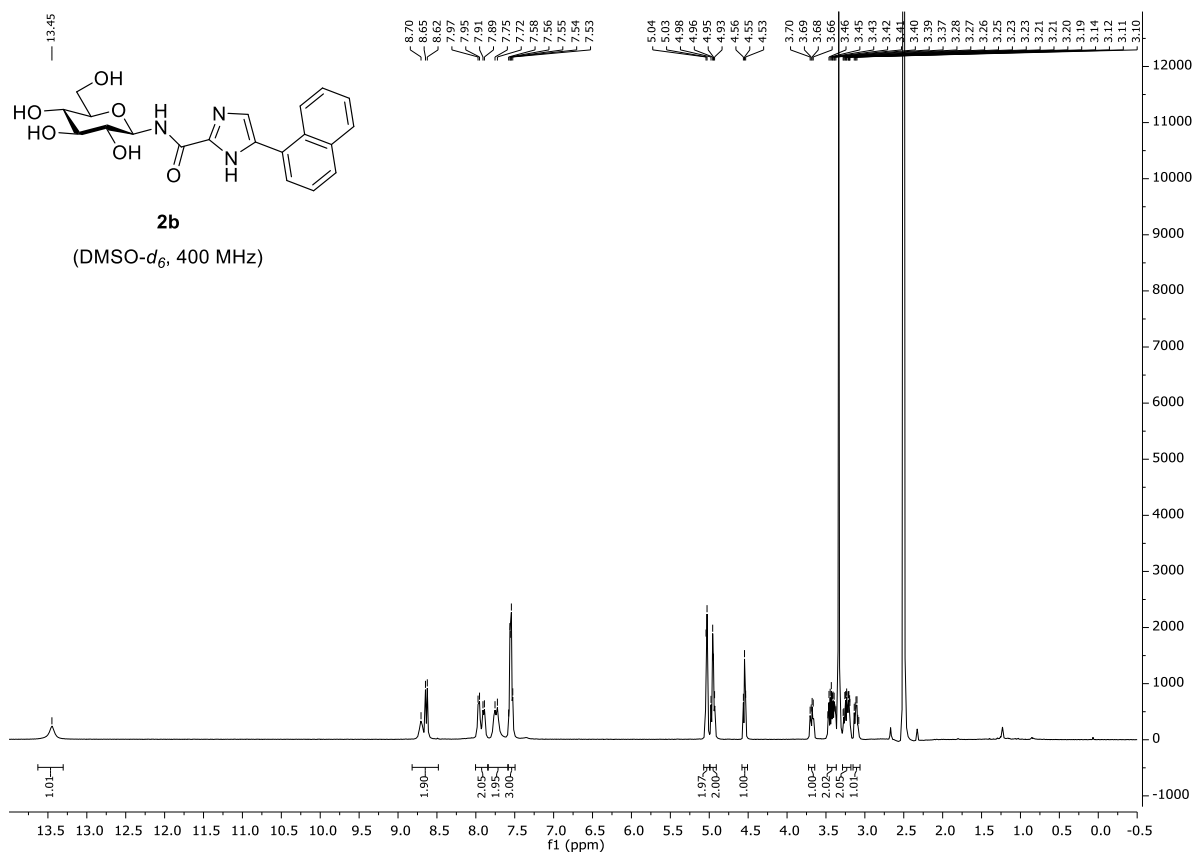
***N*-(β-D-Glucopyranosyl)-4(5)-phenyl-1*H*-imidazole-2-carboxamide (2a)**

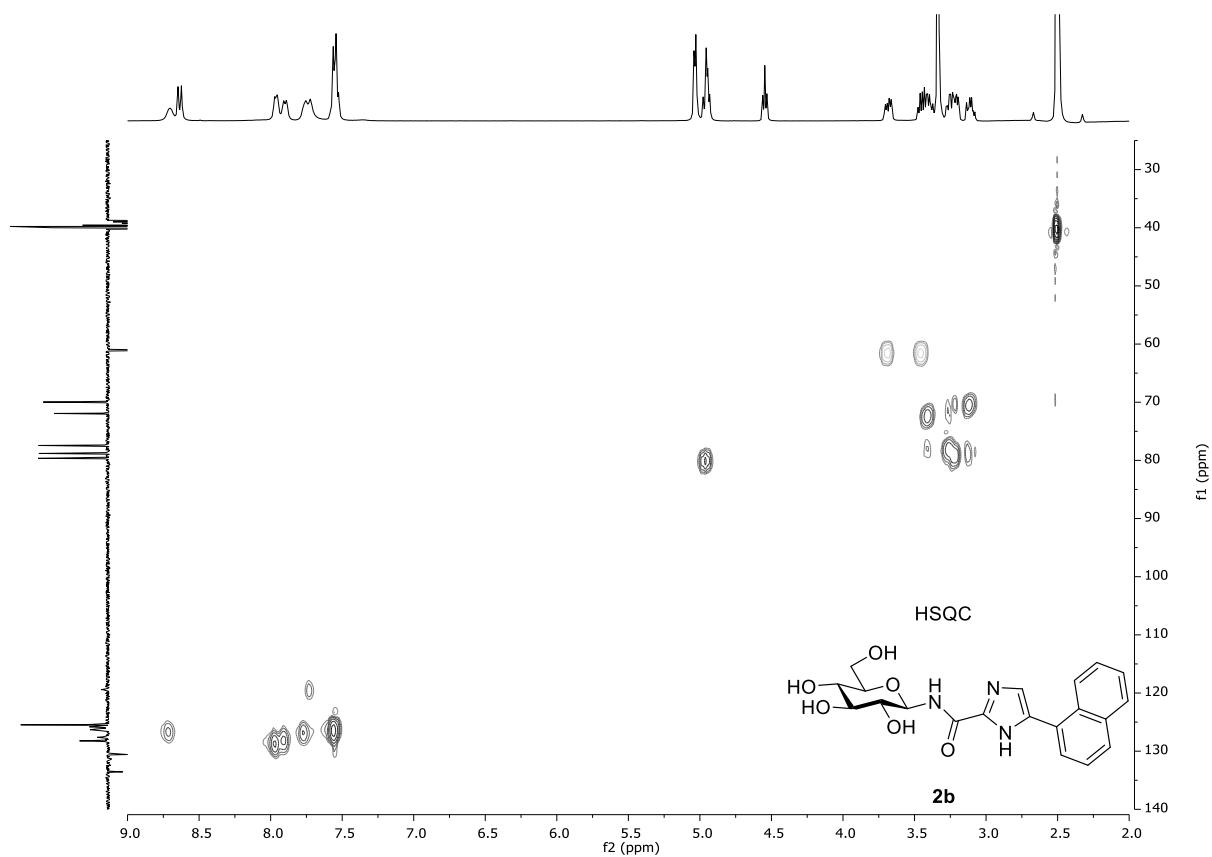
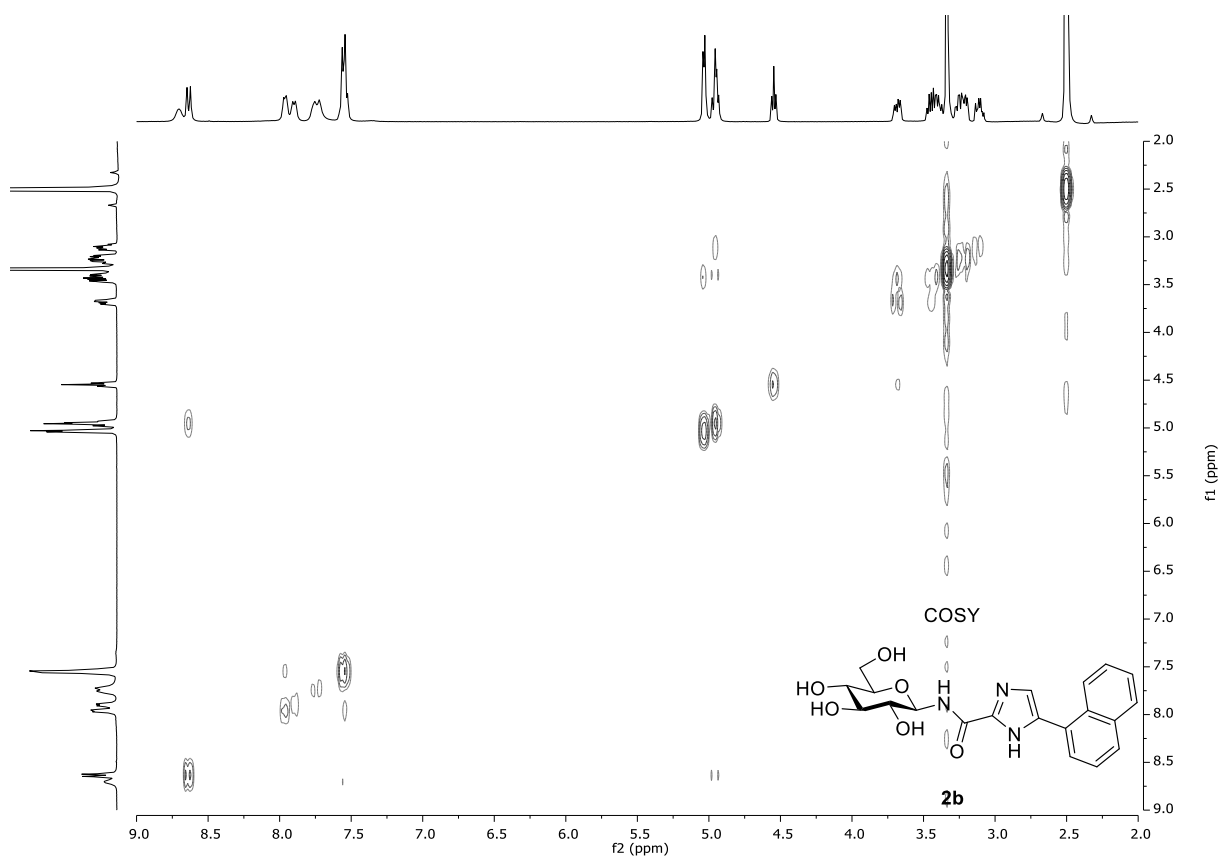


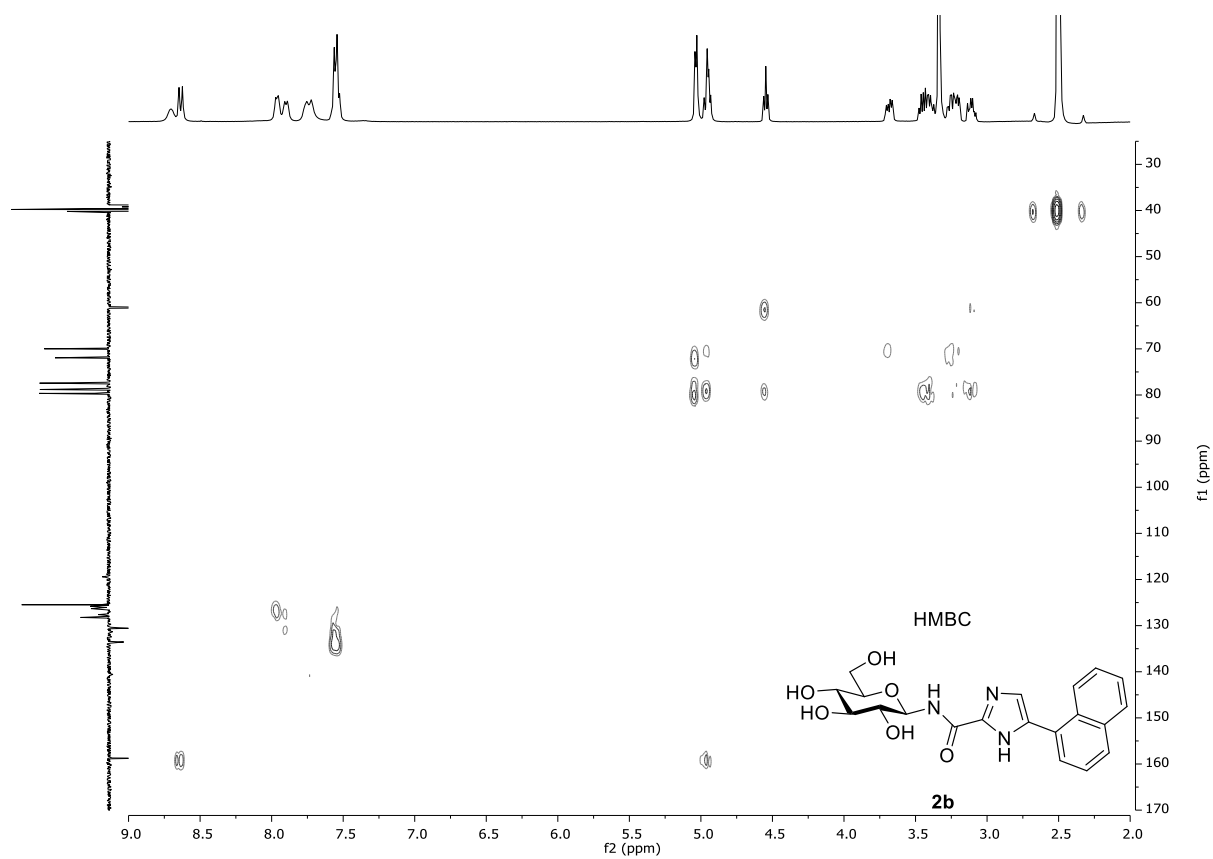




***N*-(β-D-Glucopyranosyl)-4(5)-(1-naphthyl)-1*H*-imidazole-2-carboxamide (2b)**







***N*-(β -D-Glucopyranosyl)-4(5)-(2-naphthyl)-1*H*-imidazole-2-carboxamide (2c)**

