

Supporting informations

for

Stereoselective syntheses and application of chiral bi- and tridentate ligands derived from (+)-sabinol

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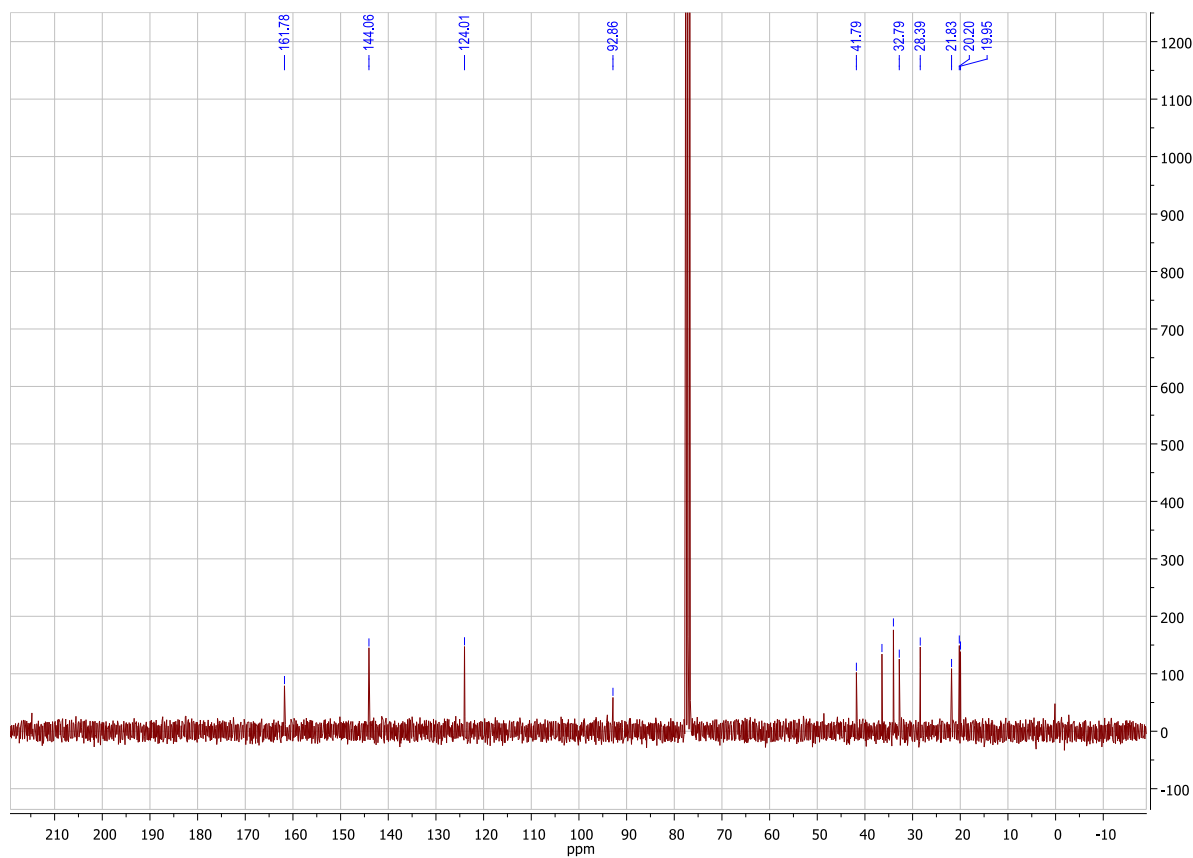
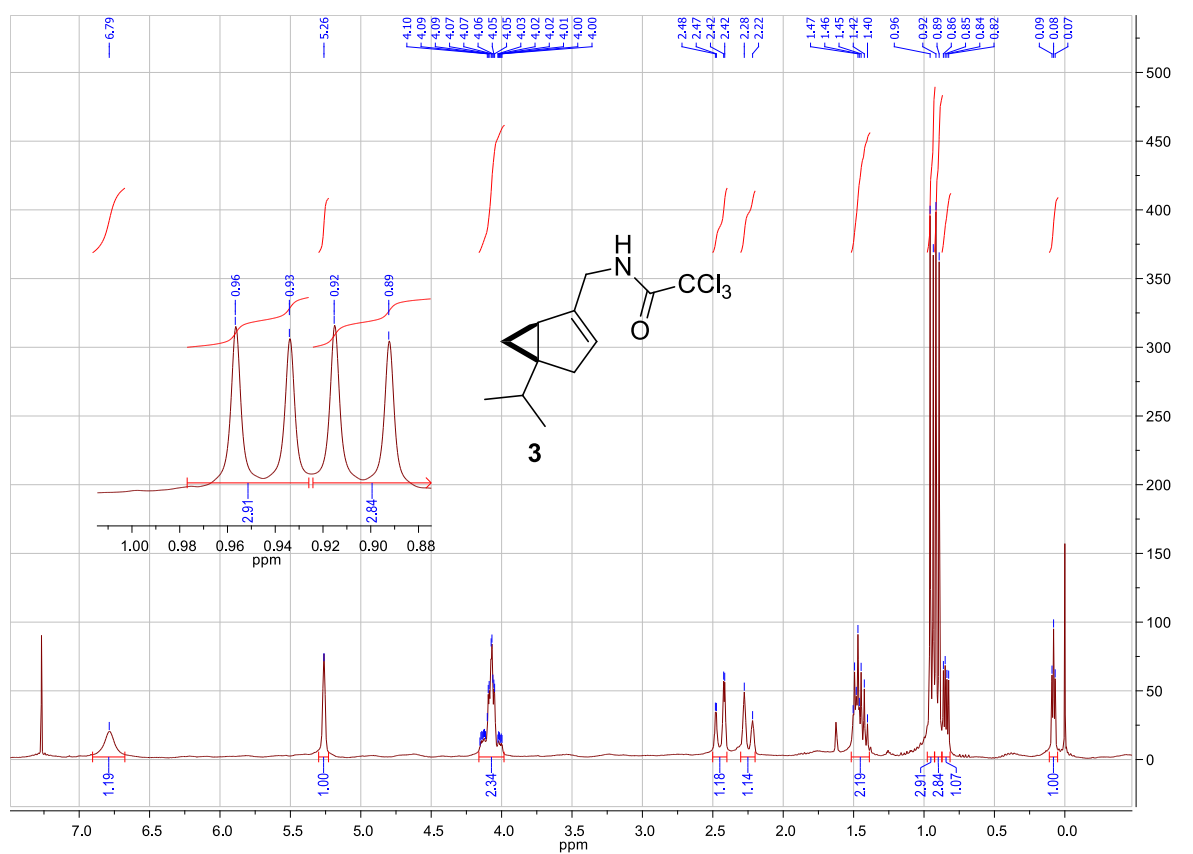
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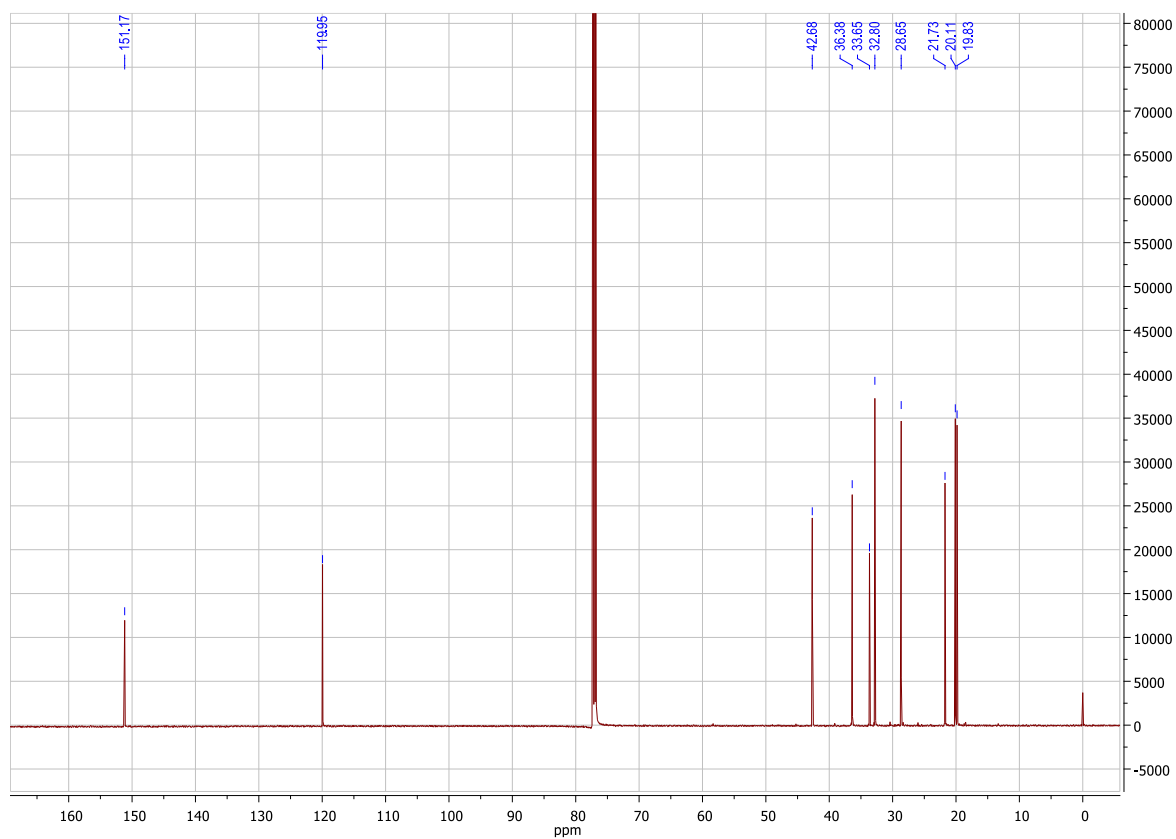
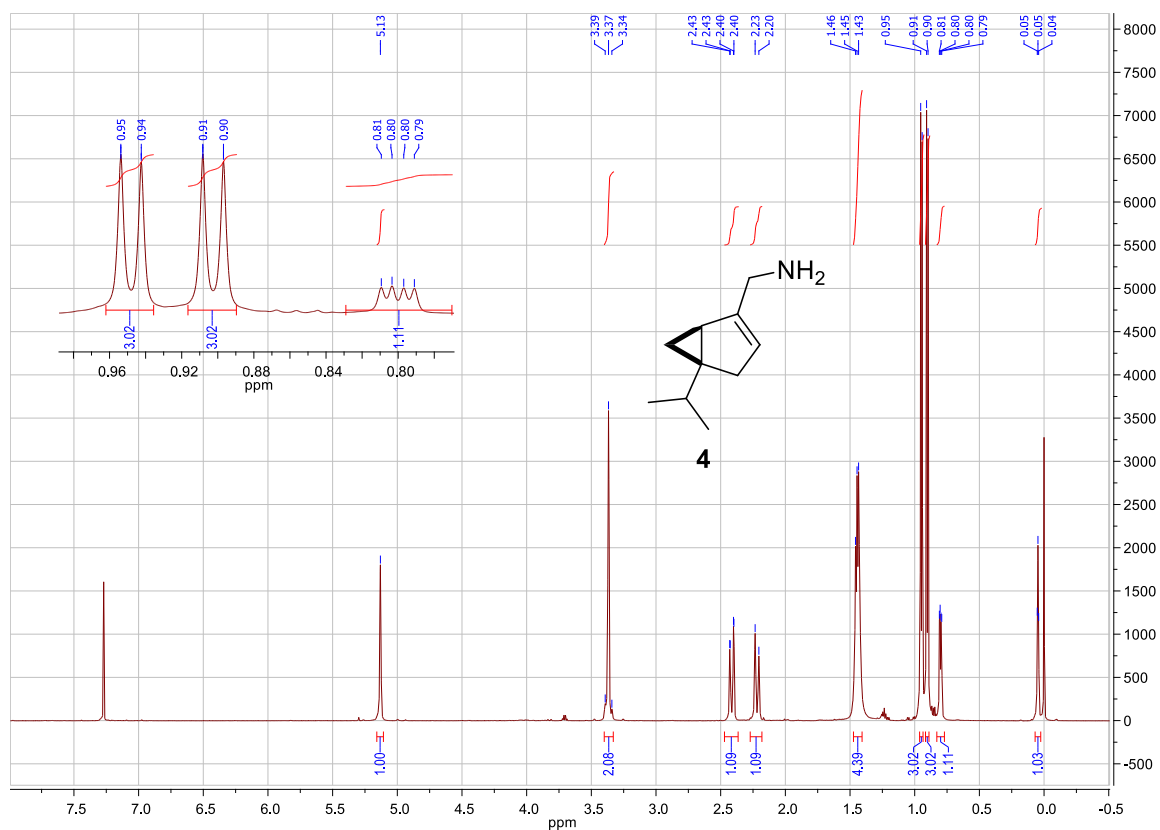
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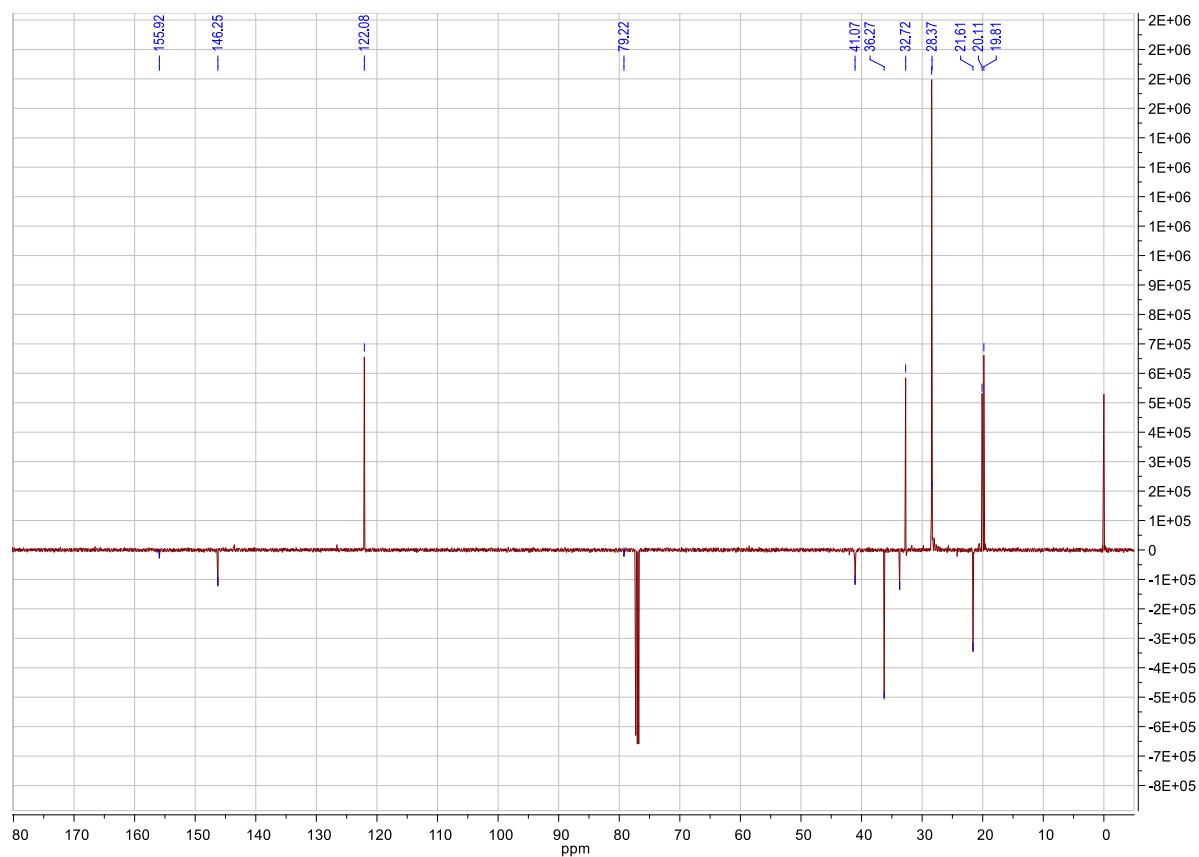
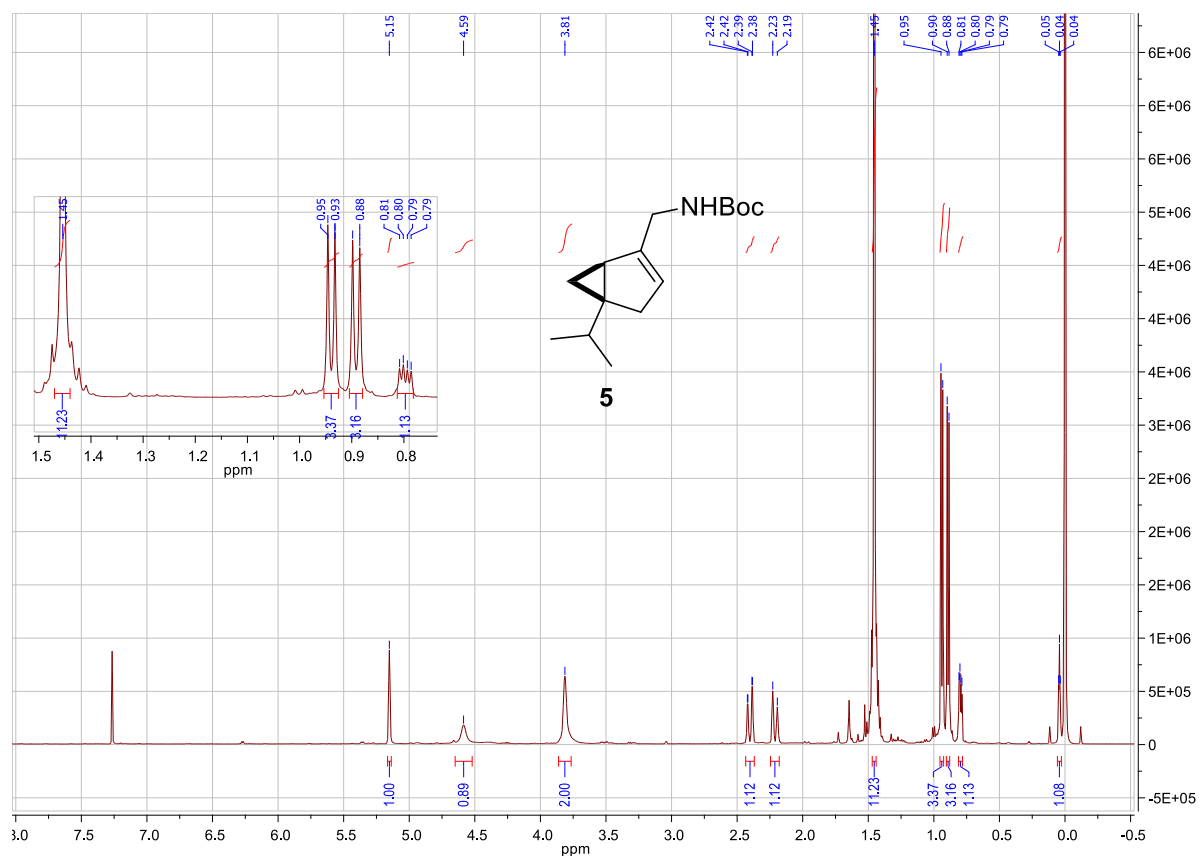
2,2,2-Trichloro-*N*-(((1*R*,5*S*)-5-isopropylbicyclo[3.1.0]hex-2-en-2-yl)methyl)acetamide (**3**)



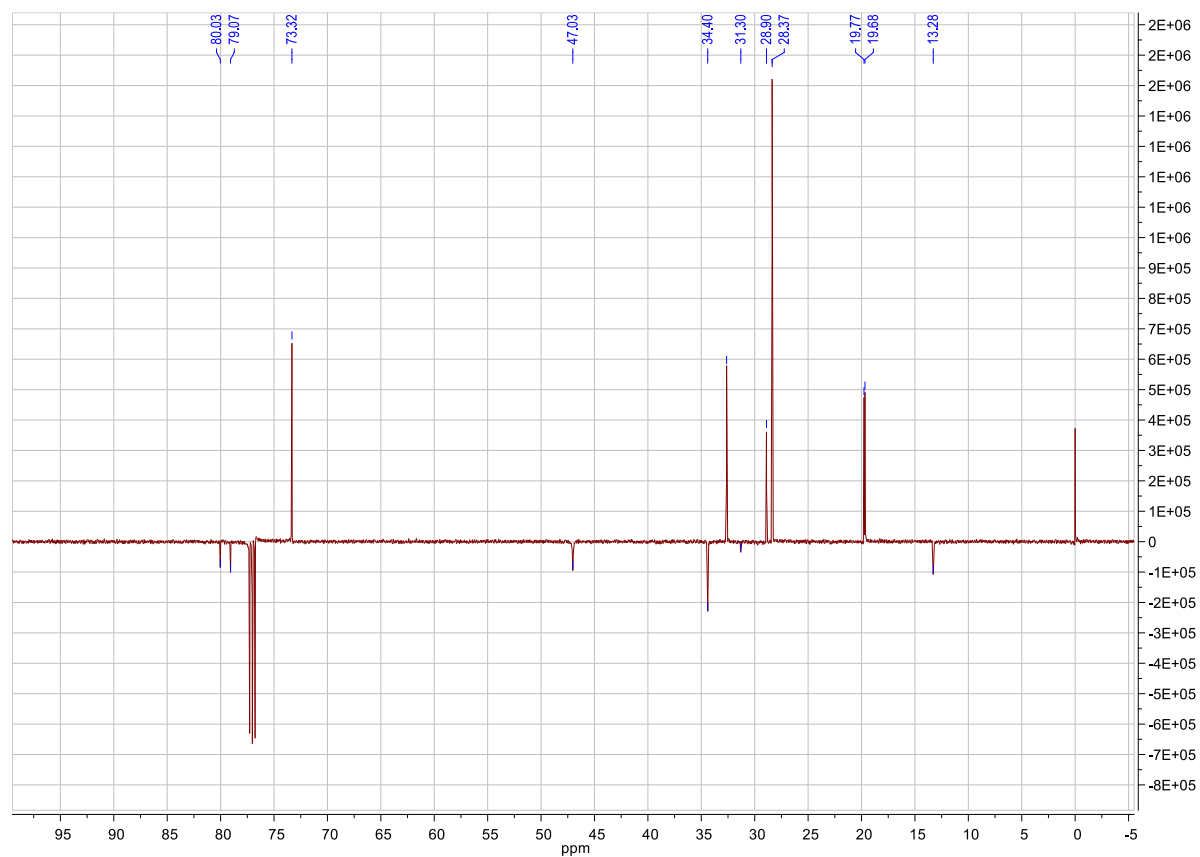
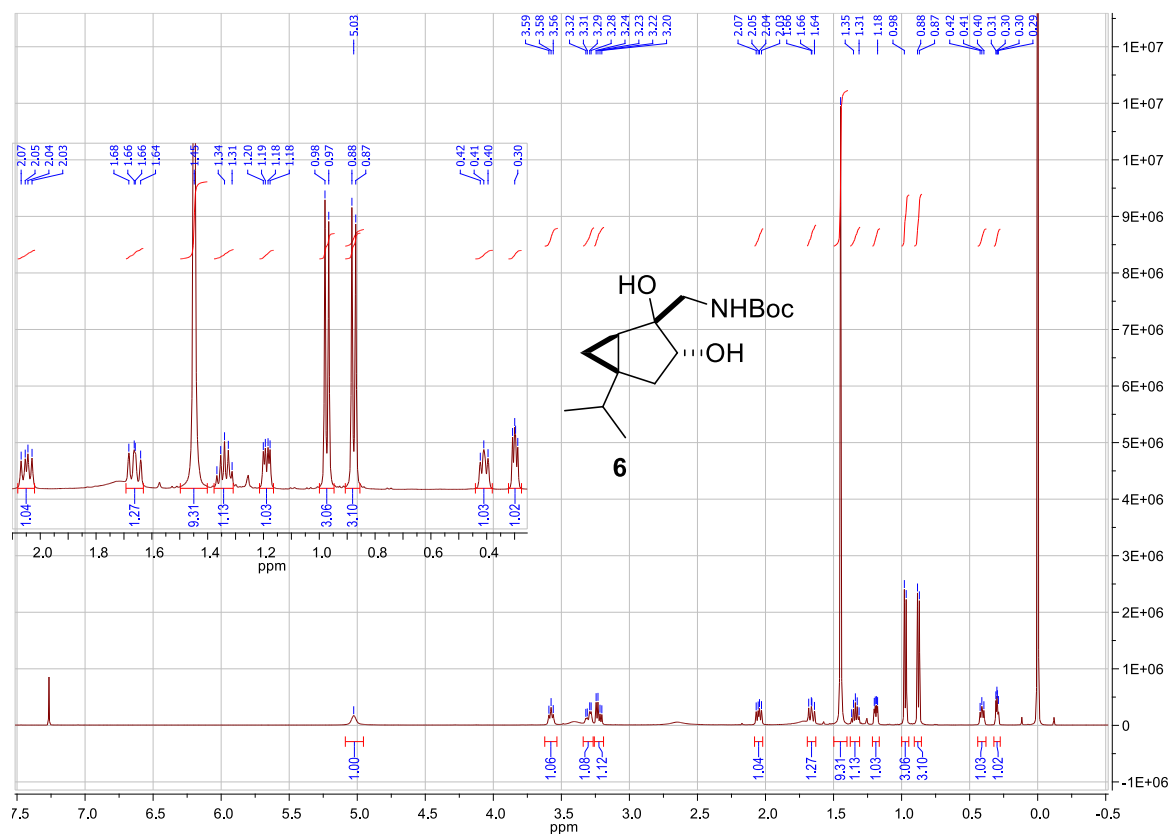
((1*R*,5*S*)-5-Isopropylbicyclo[3.1.0]hex-2-en-2-yl)methanamine (**4**)



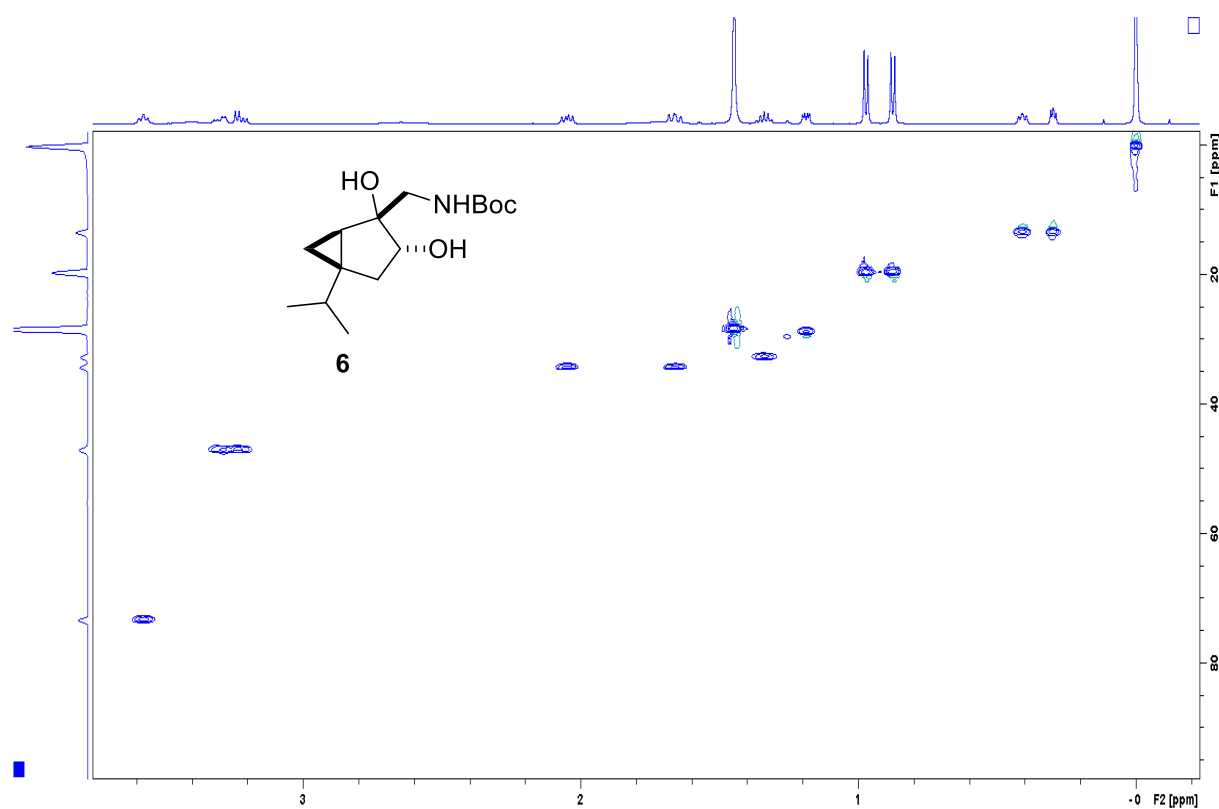
Tert-butyl (((1*R*,5*S*)-5-isopropylbicyclo[3.1.0]hex-2-en-2-yl)methyl)carbamate (**5**)



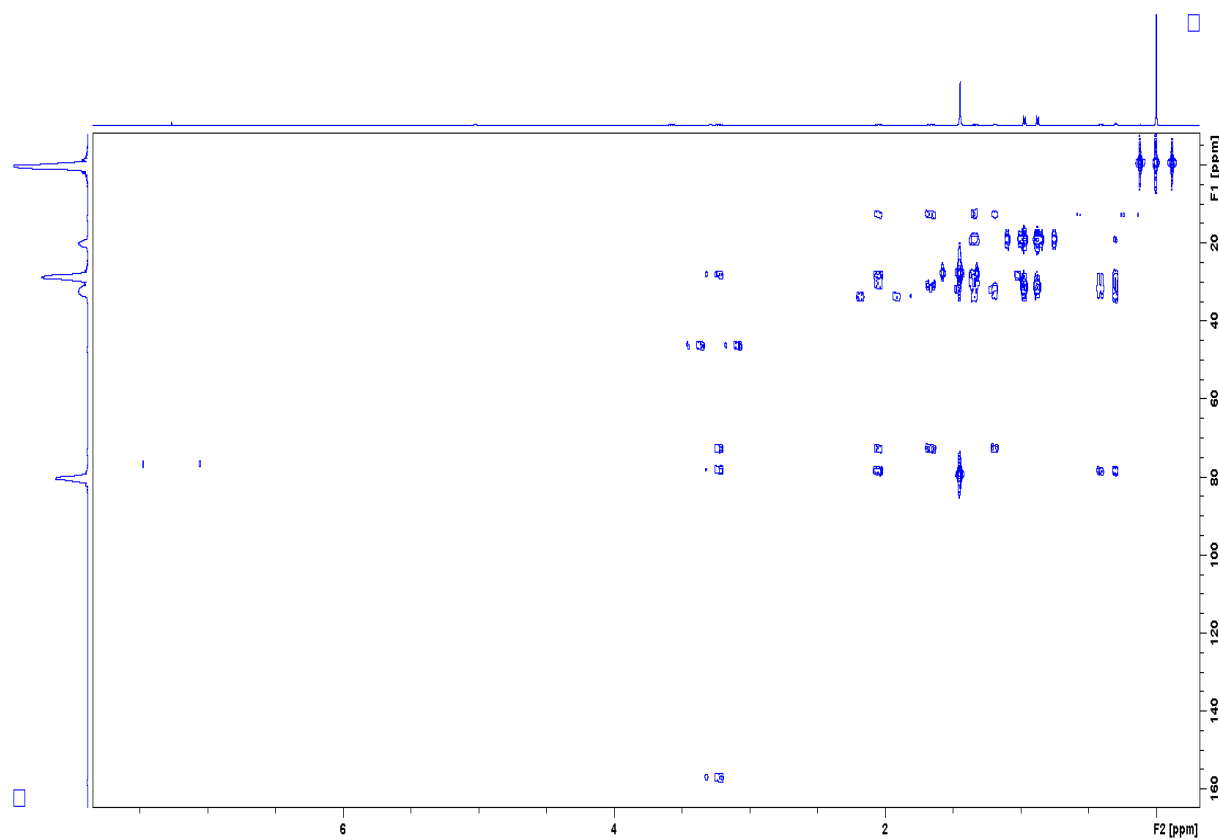
Tert-butyl (((1*R*,2*R*,3*R*,5*R*)-2,3-dihydroxy-5-isopropylbicyclo[3.1.0]hexan-2-yl)methyl)carbamate (**6**)



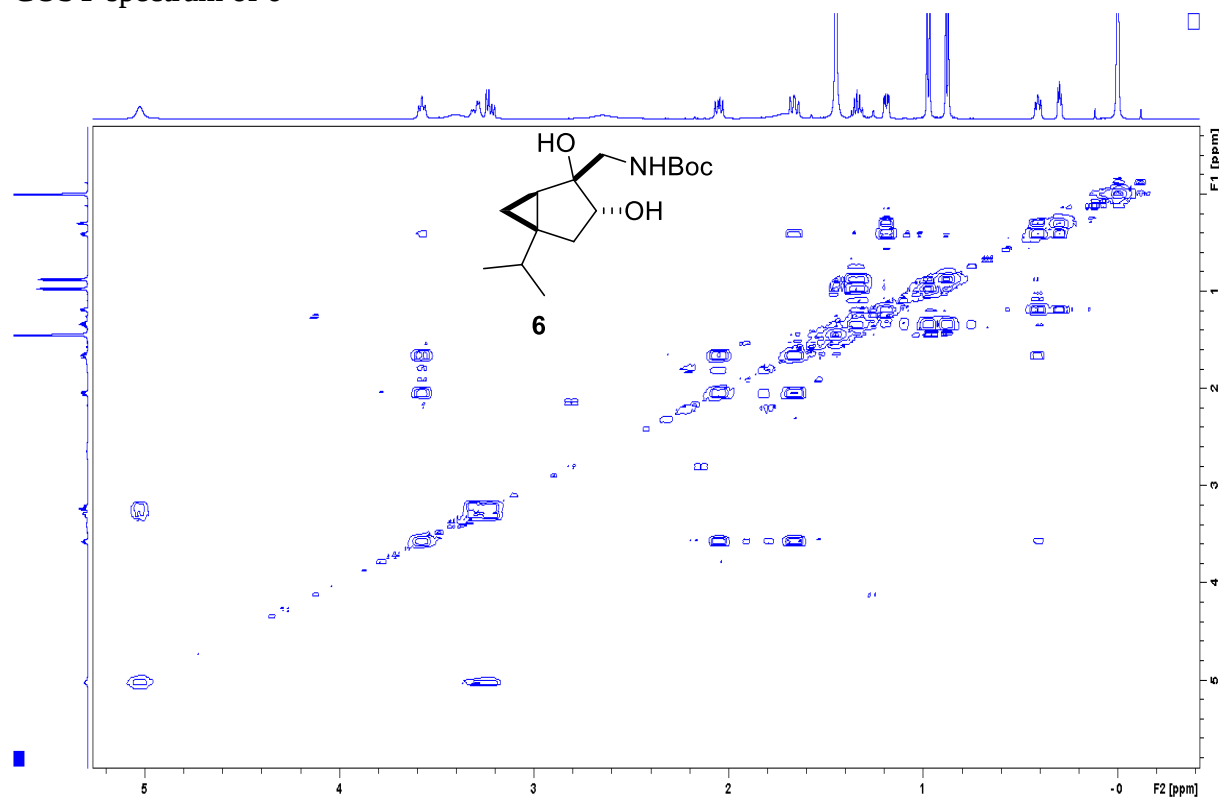
HMBC spectrum of **6**



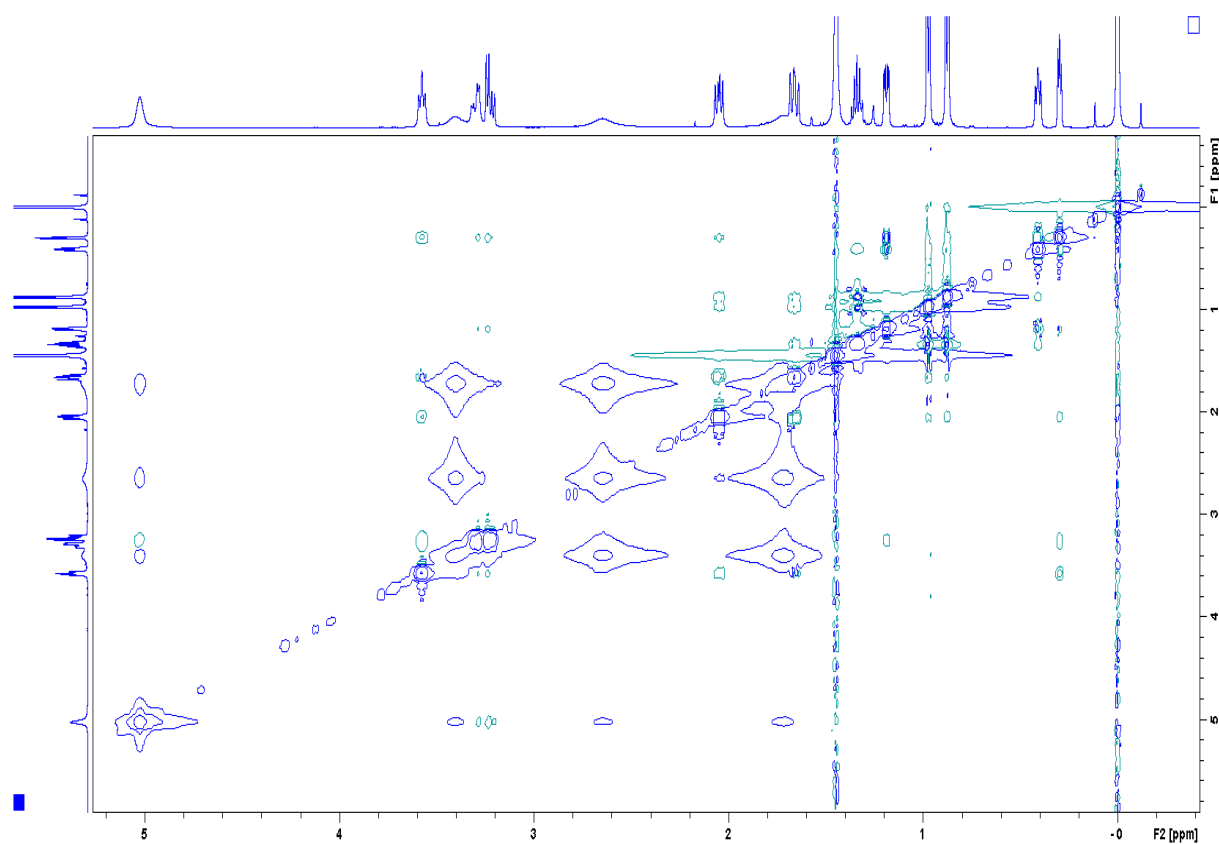
HSQC spectrum of **6**



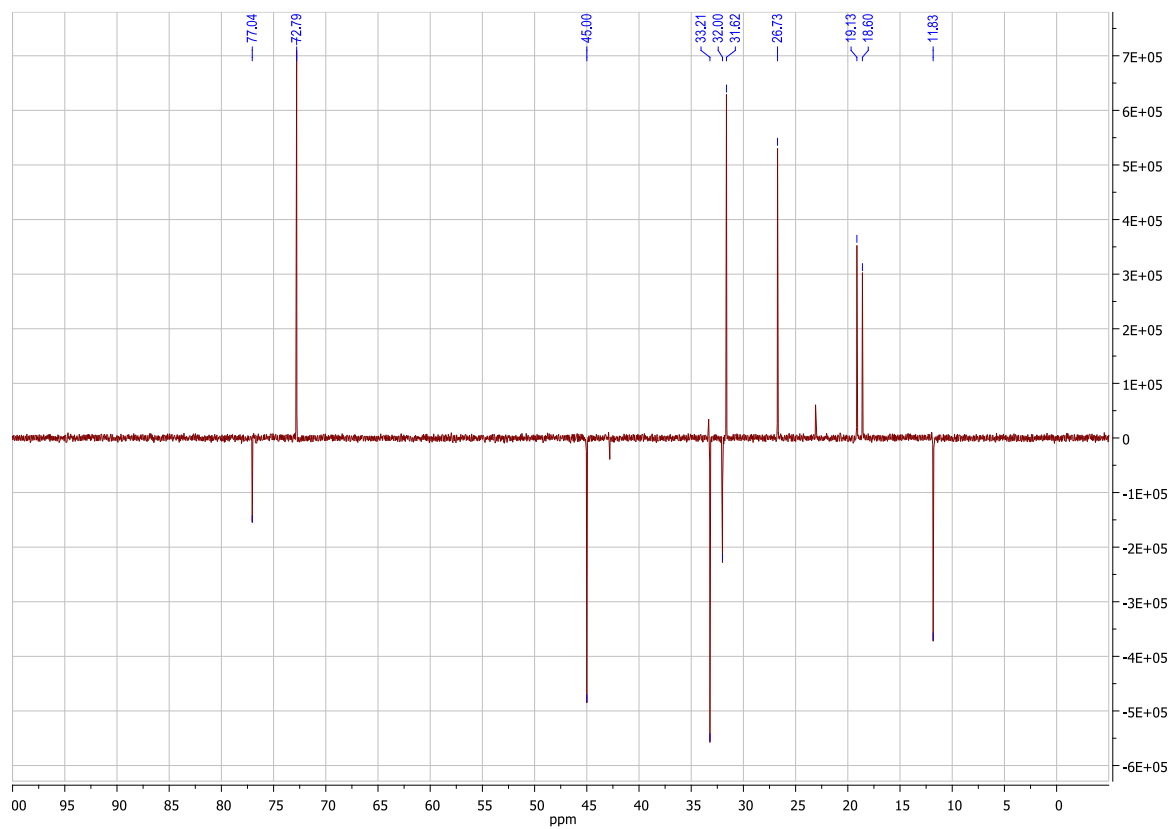
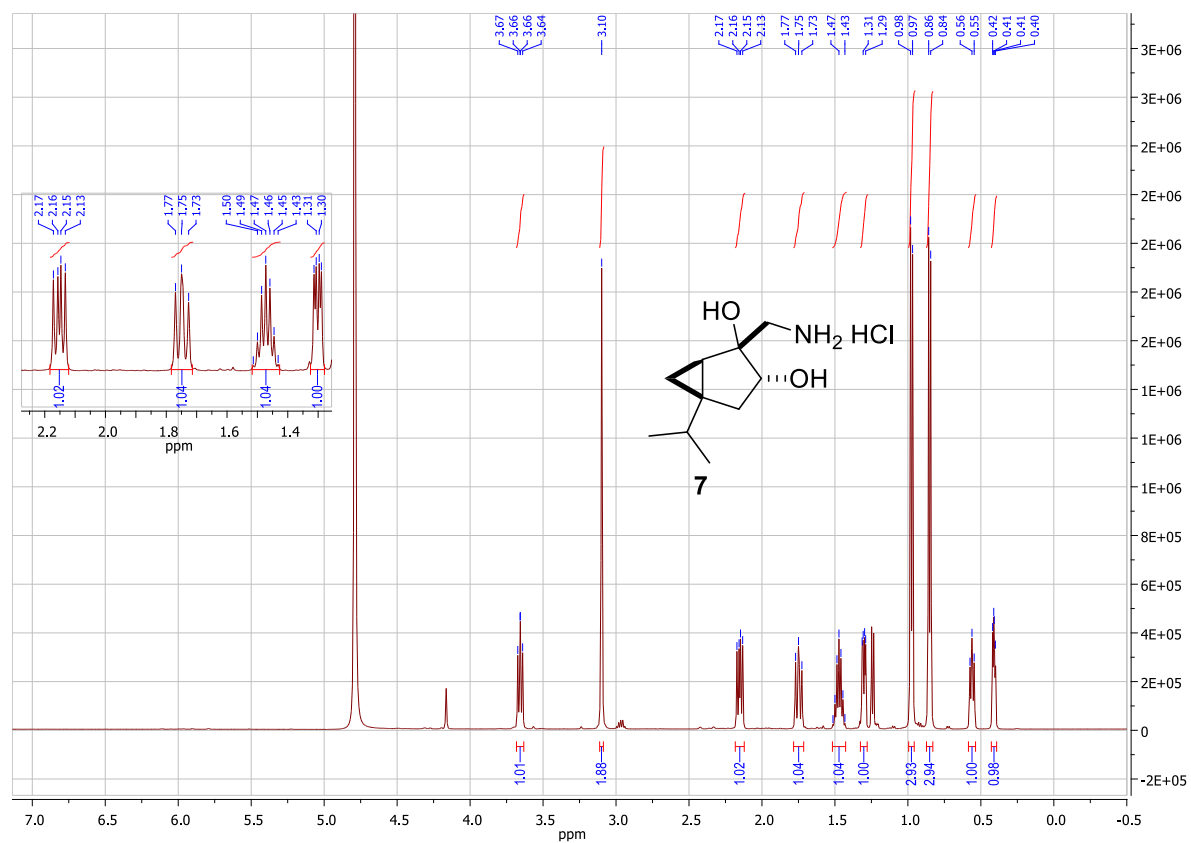
COSY spectrum of **6**



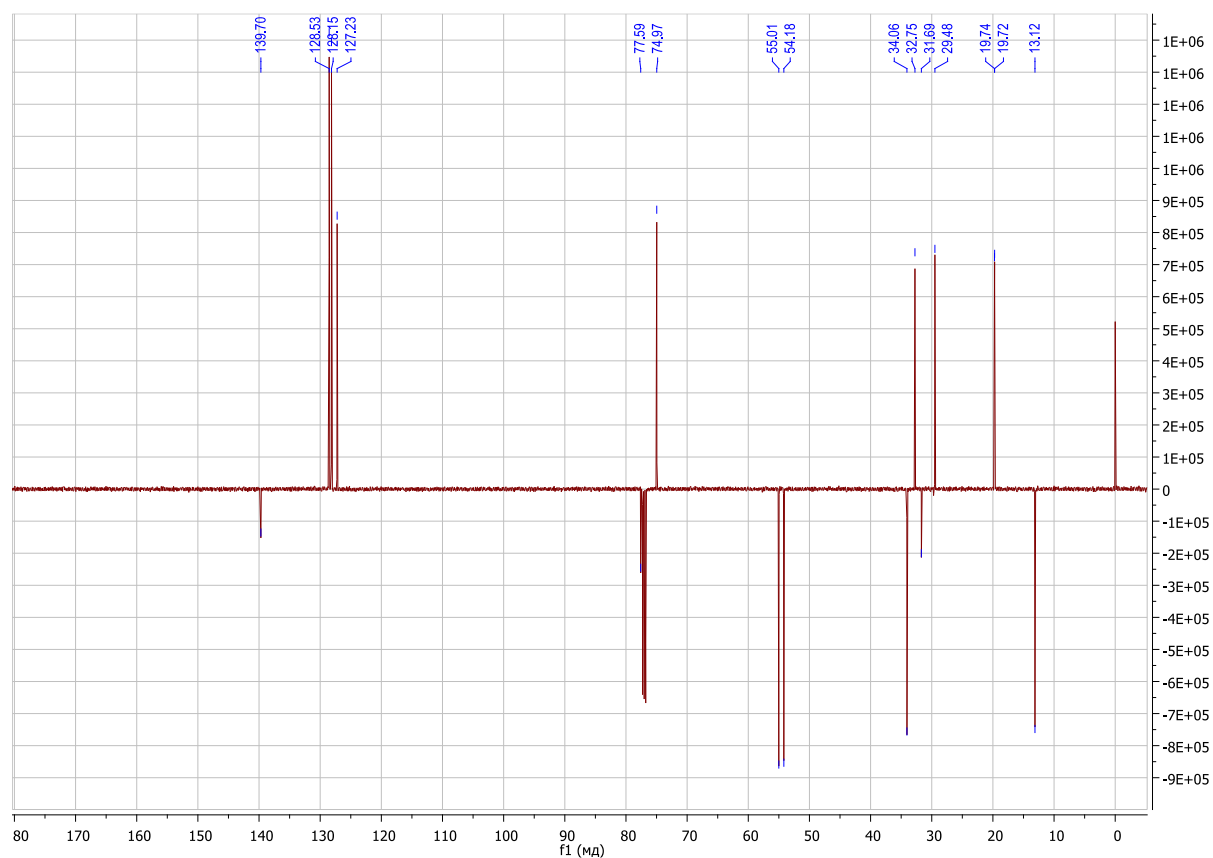
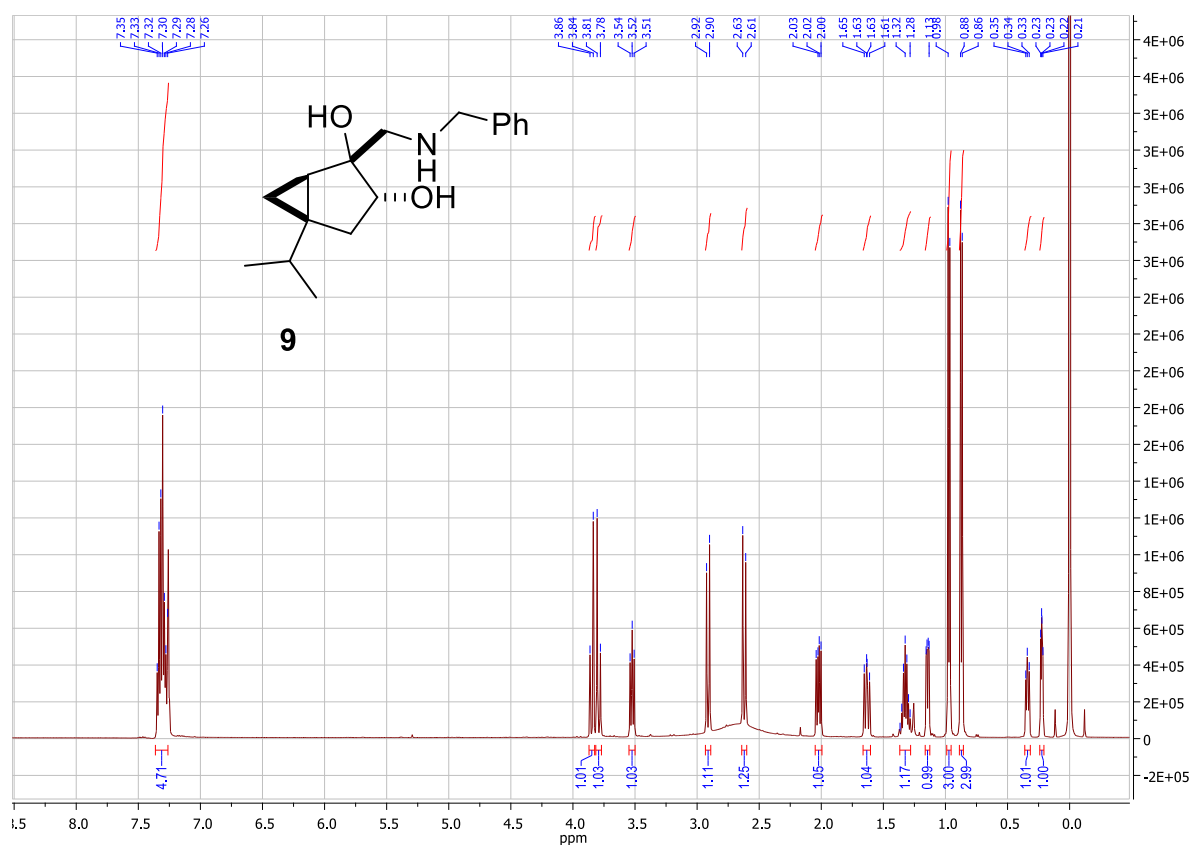
NOESY spectrum of **6**



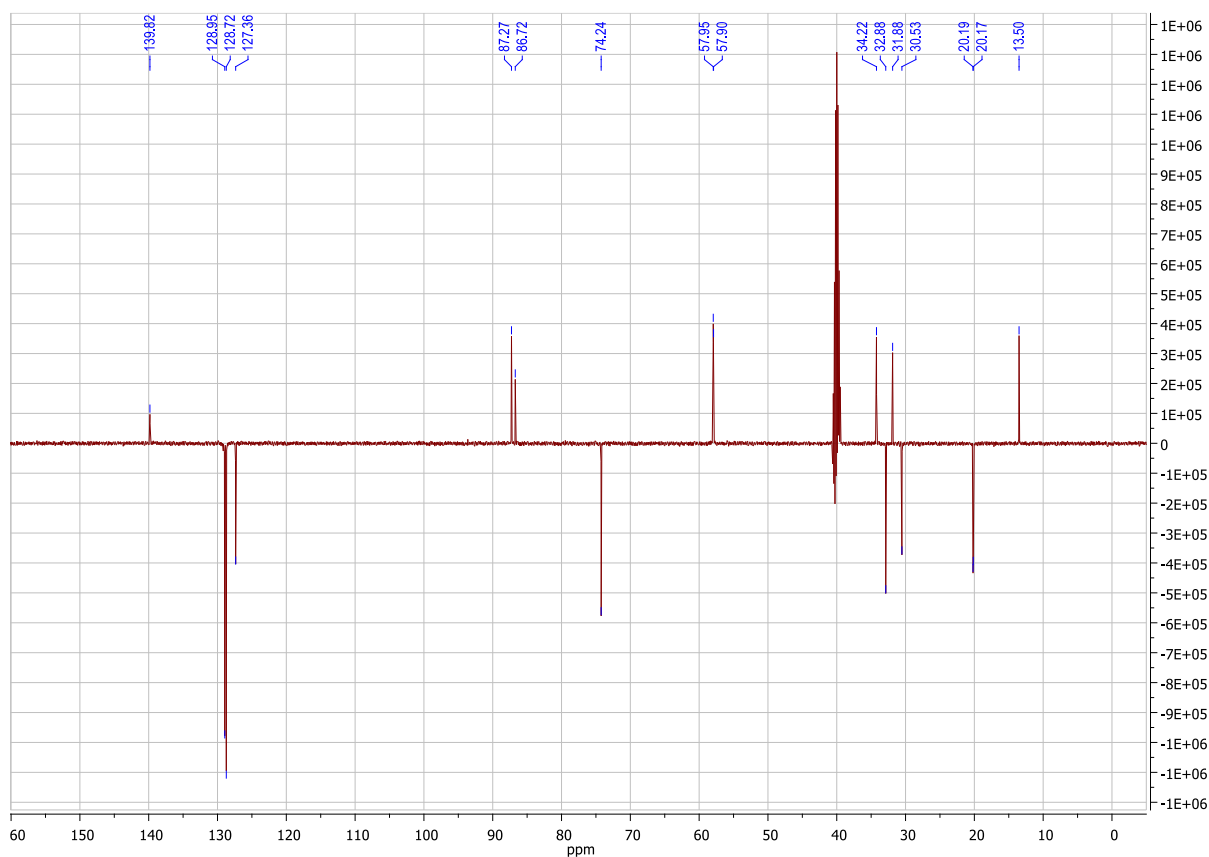
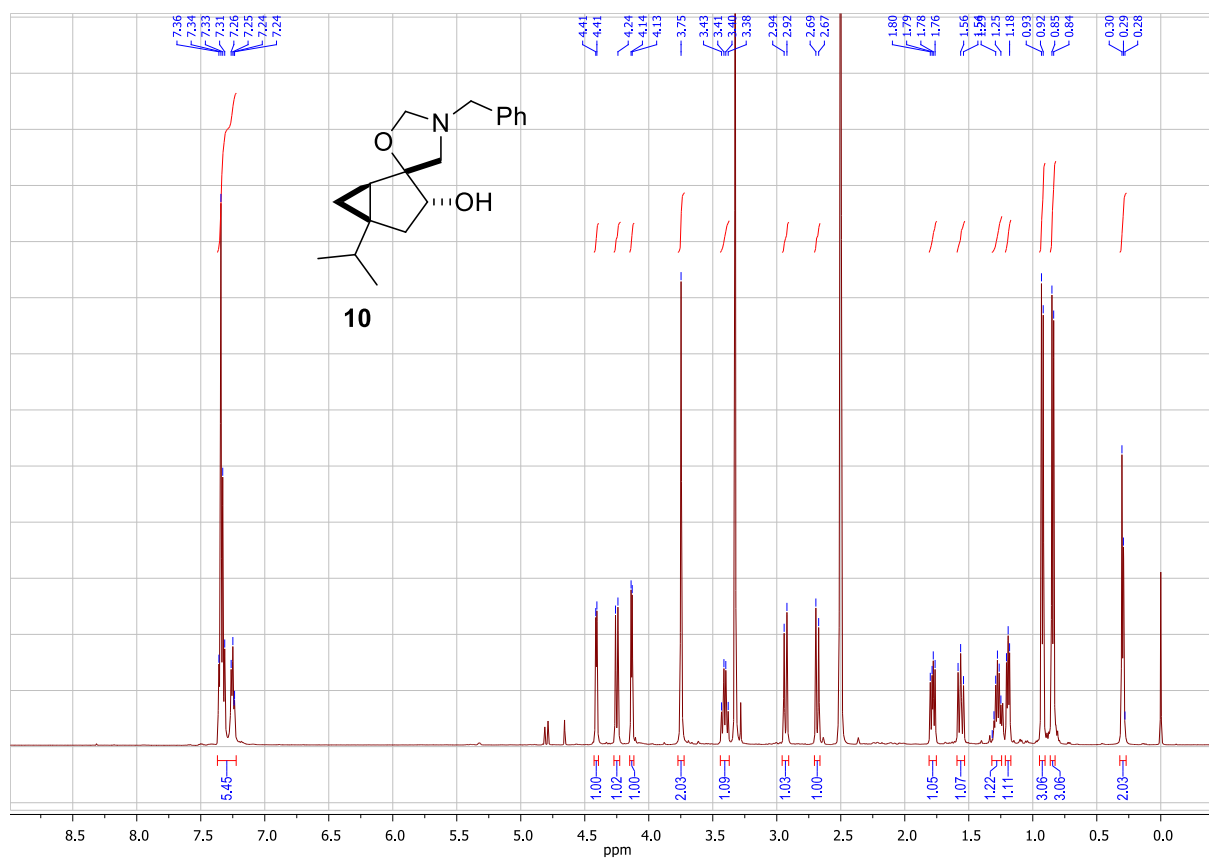
(1*R*,2*R*,3*R*,5*R*)-2-Aminomethyl-5-isopropylbicyclo[3.1.0]hexane-2,3-diol hydrochloride (**7**)



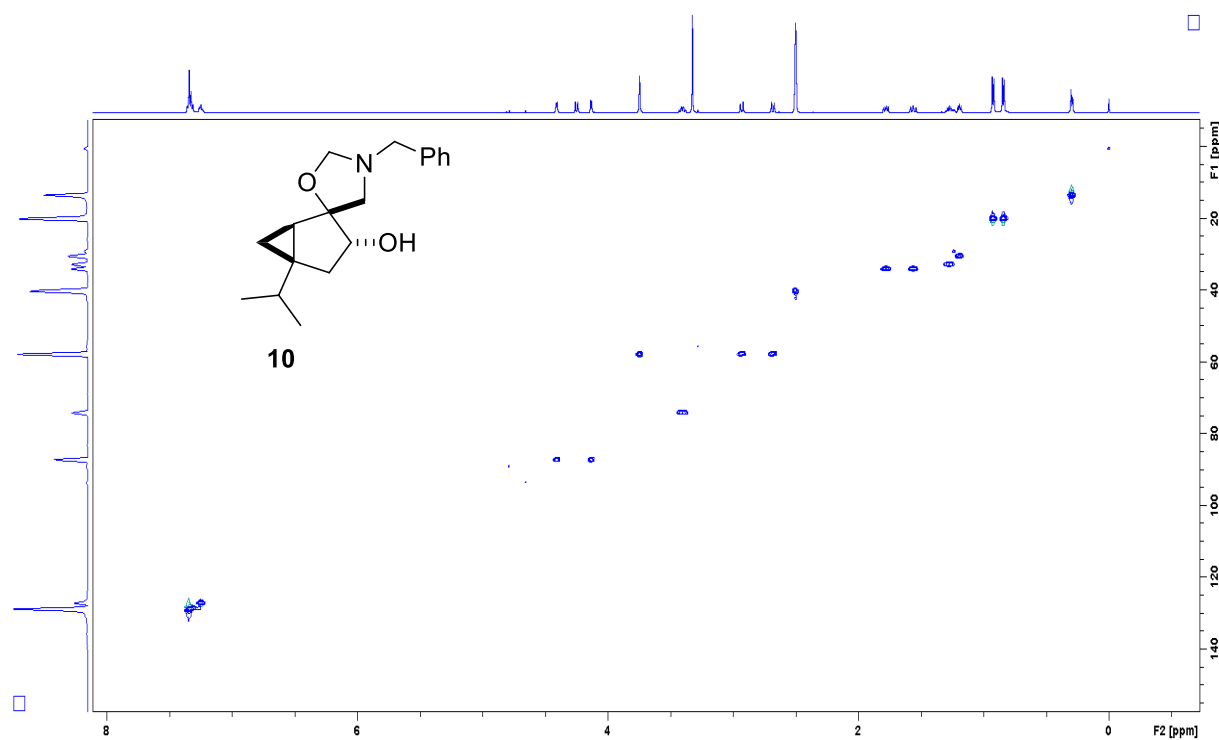
(1*R*,2*R*,3*R*,5*R*)-2-((Benzylamino)methyl)-5-isopropylbicyclo[3.1.0]hexane-2,3-diol (**9**)



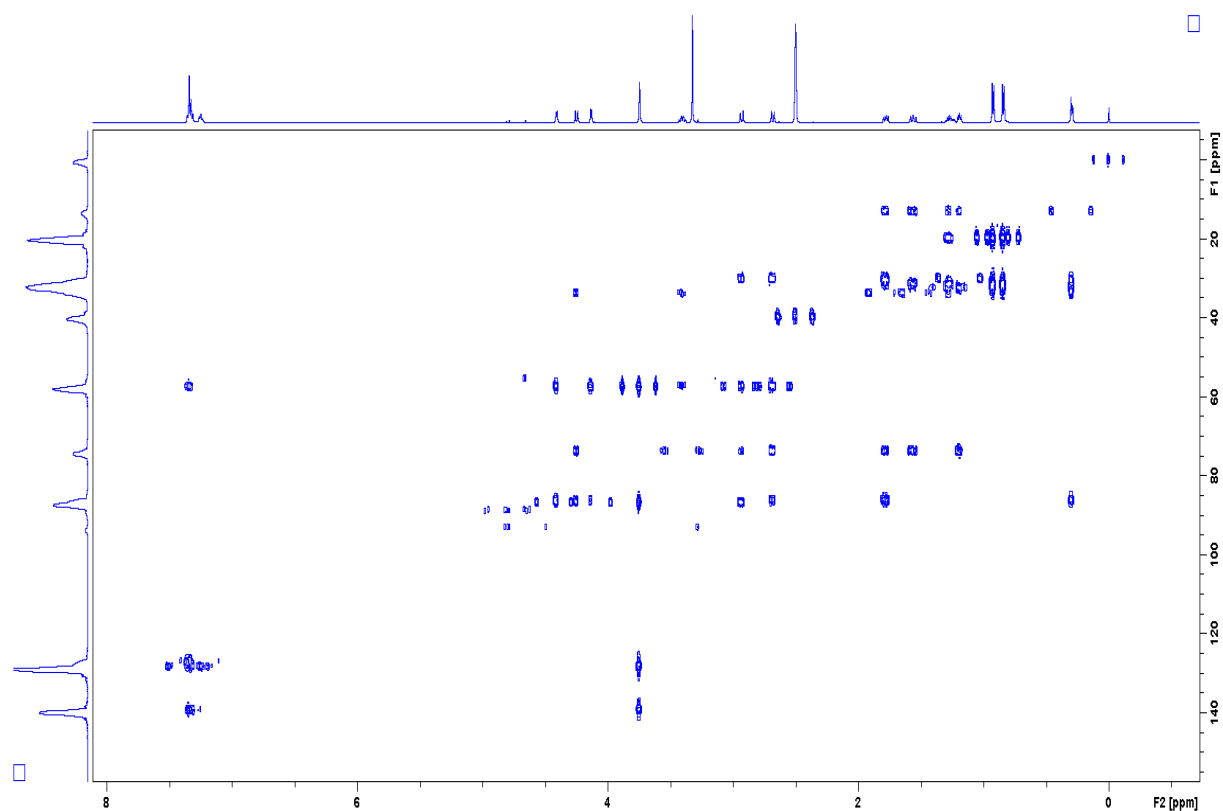
(1*R*,2*R*,3*R*,5*R*)-3'-Benzyl-5-isopropylspiro[bicyclo[3.1.0]hexane-2,5'-oxazolidin]-3-ol (**10**)



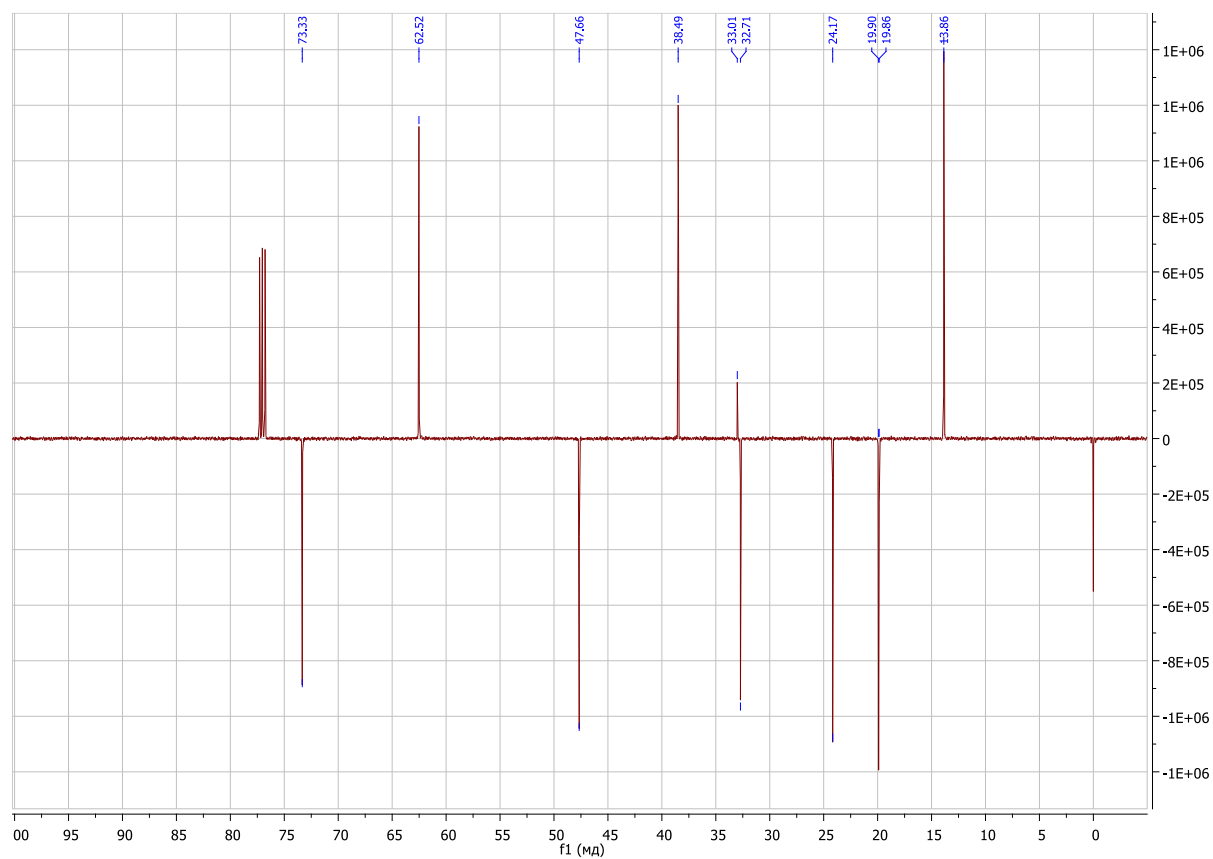
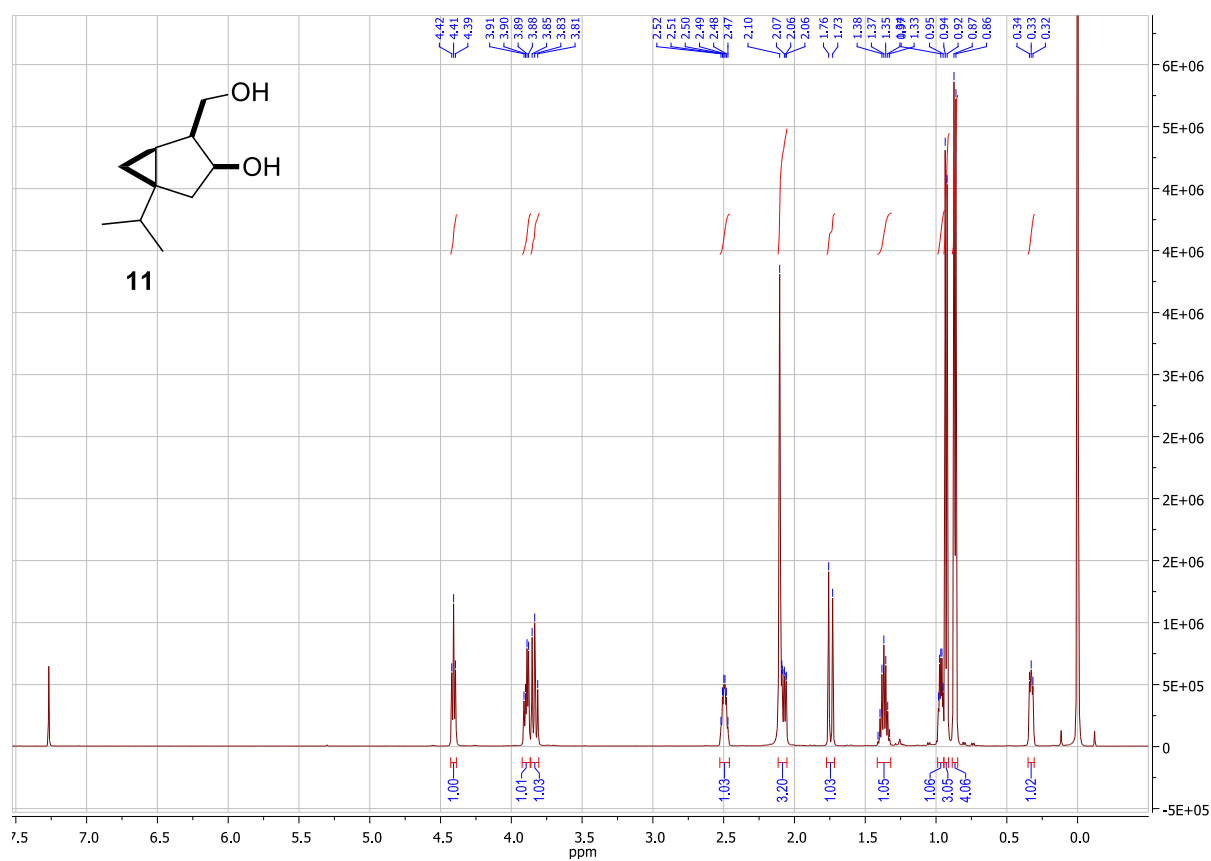
HSQC spectrum of **10**



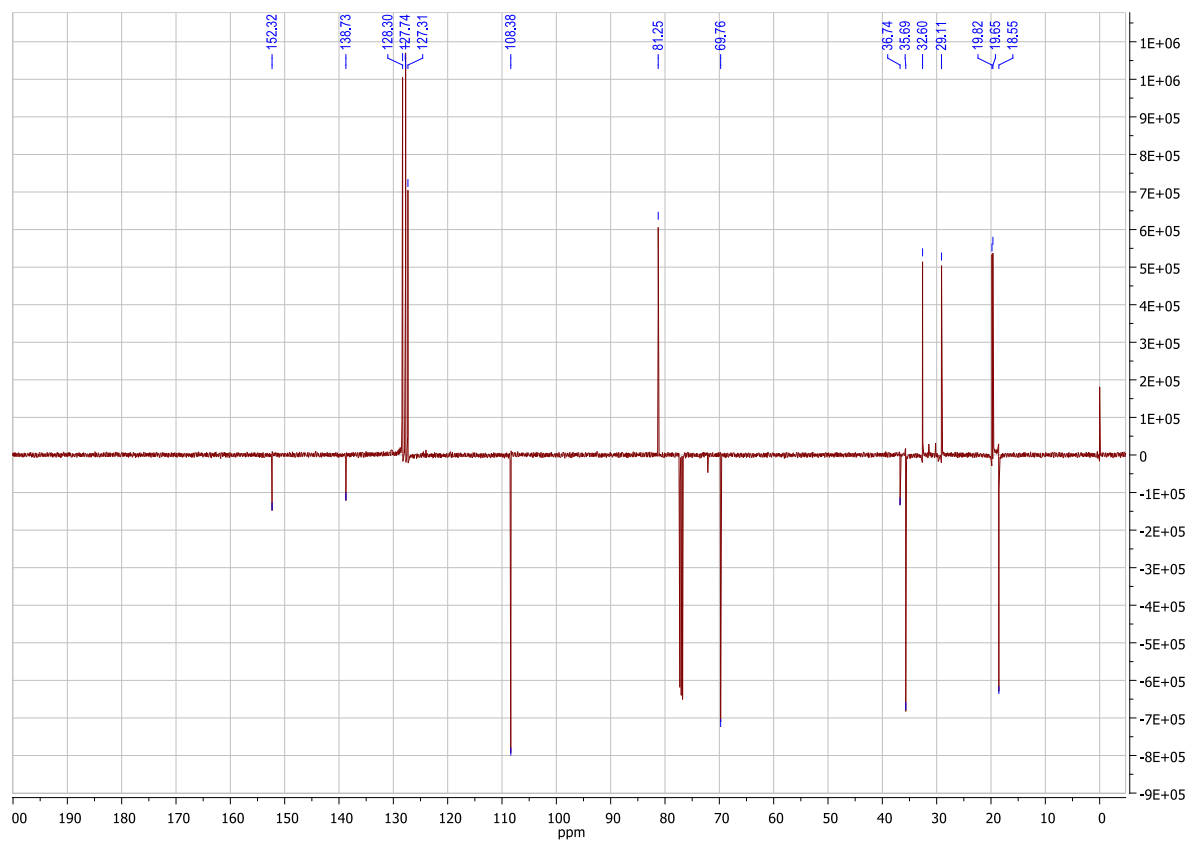
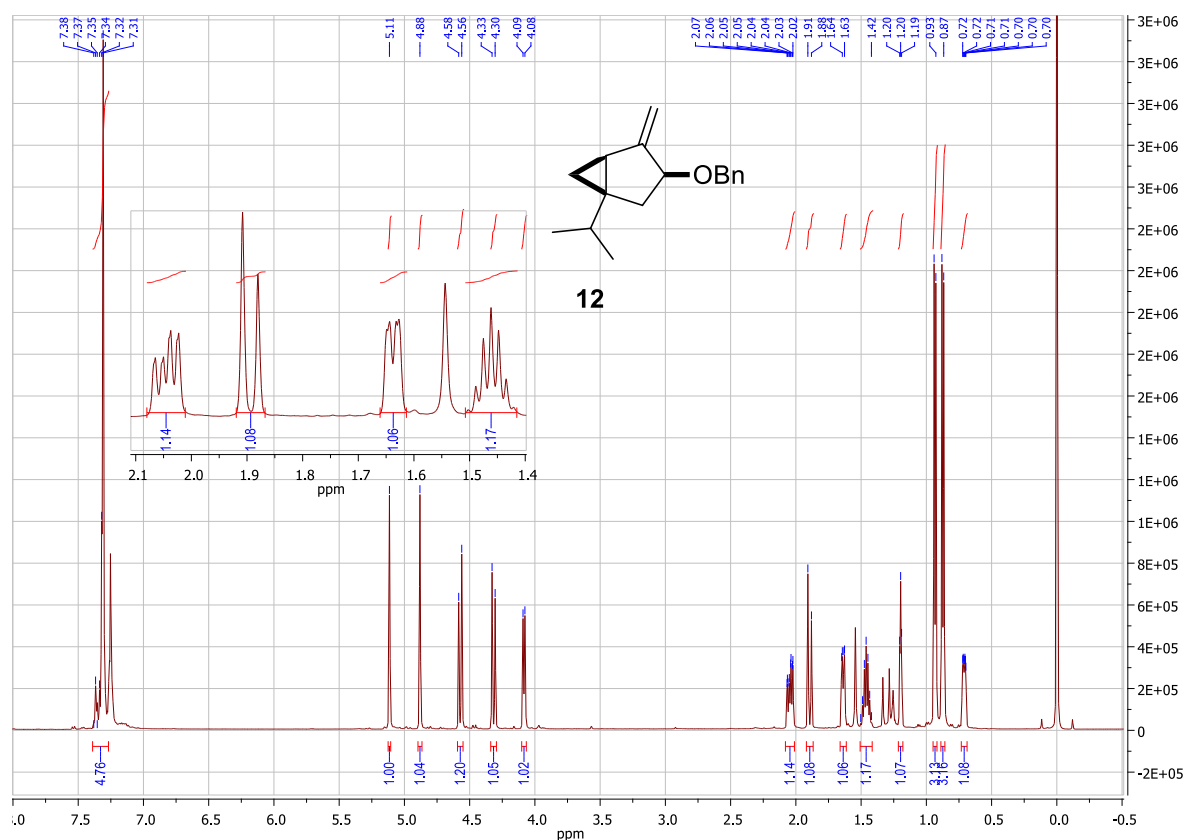
HMBC spectrum of **10**



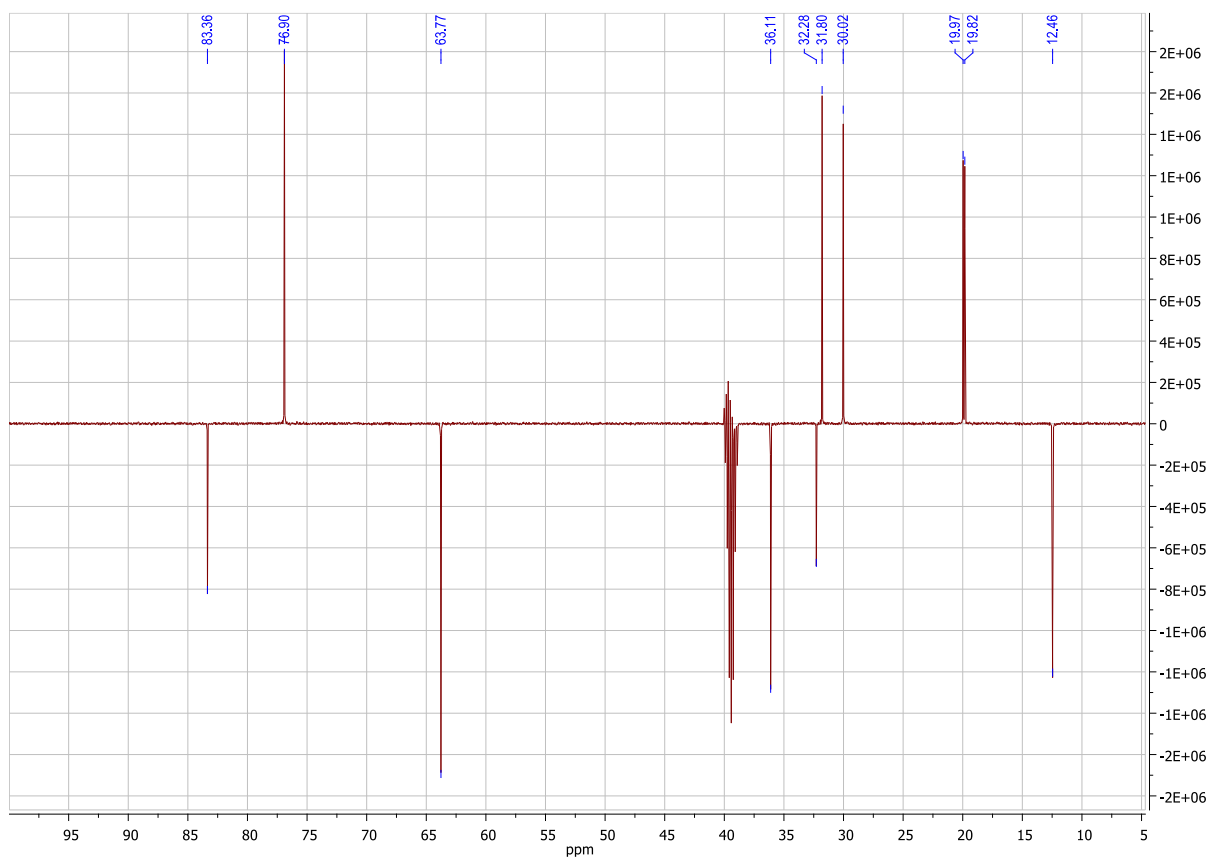
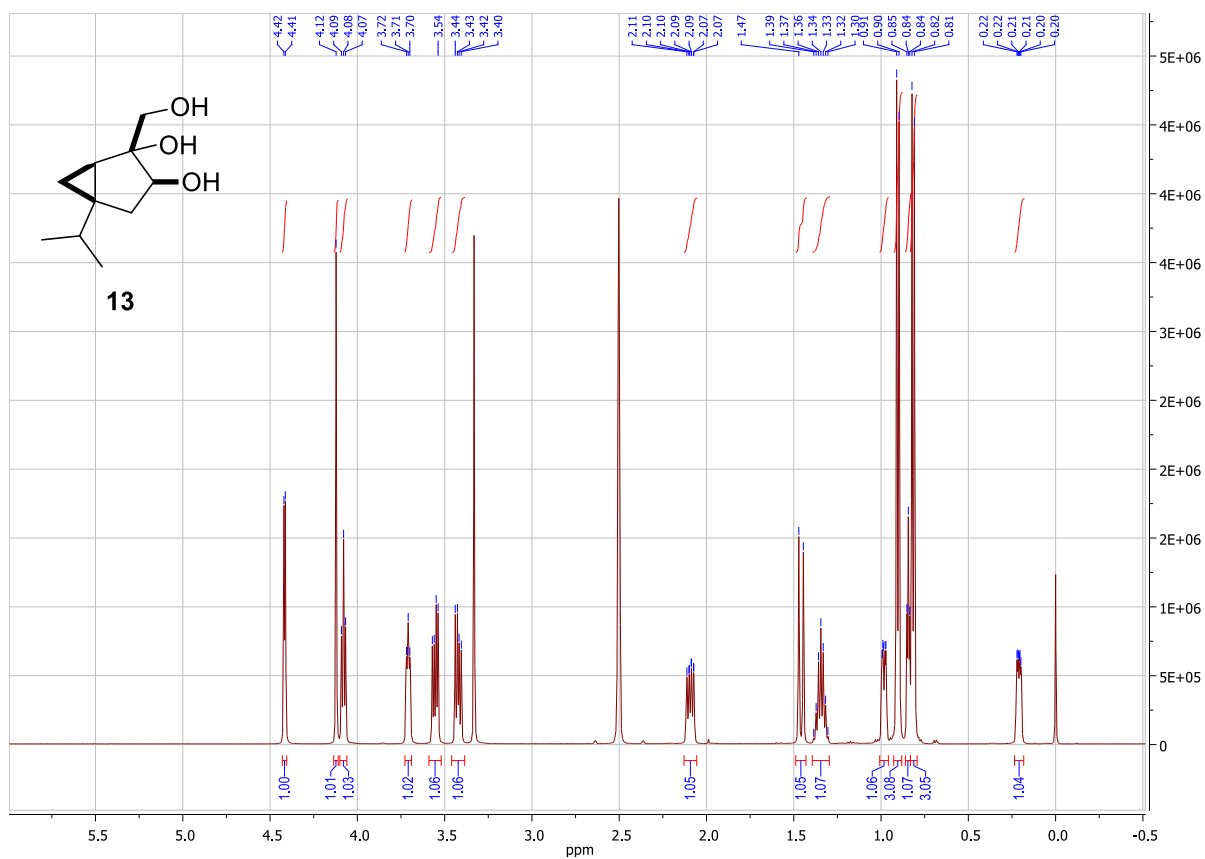
(1*R*,3*S*,4*S*,5*S*)-4-Hydroxymethyl-1-isopropylbicyclo[3.1.0]hexan-3-ol (**11**)



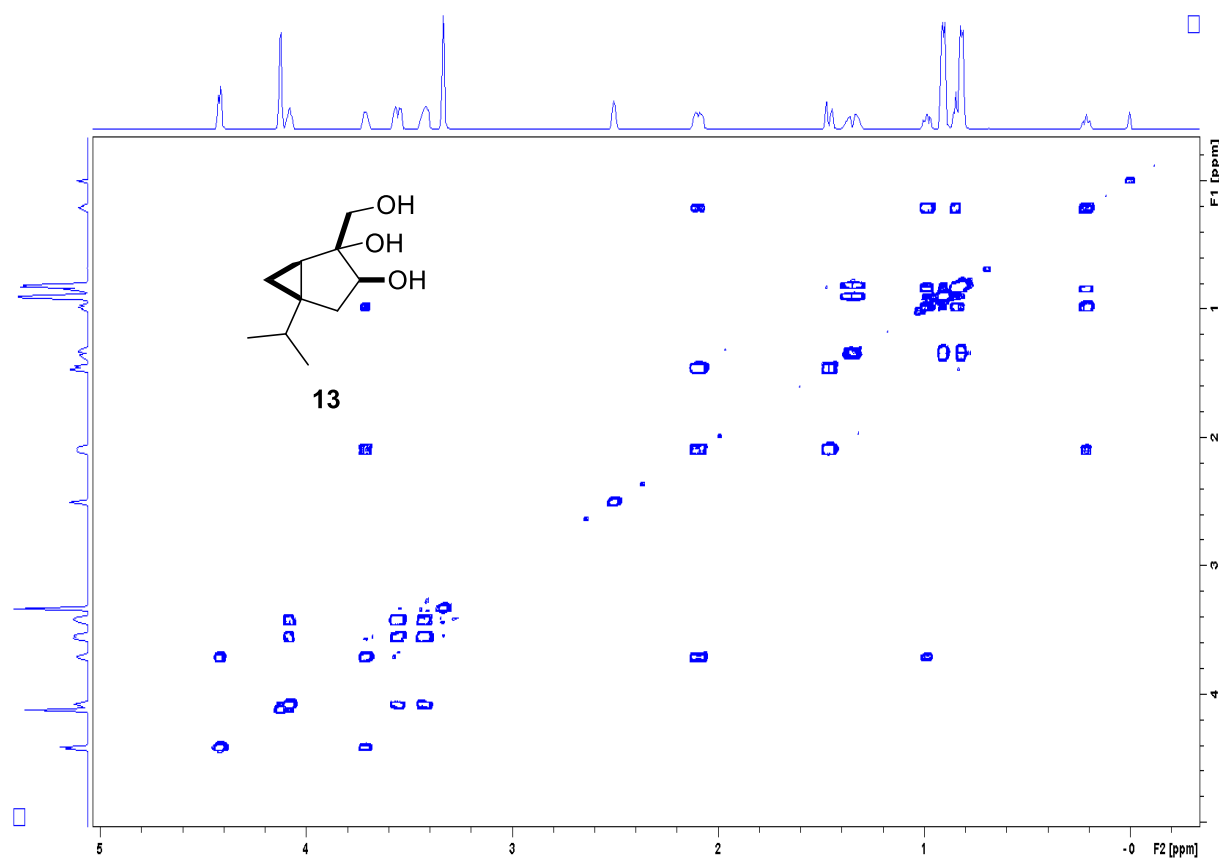
(1*R*,3*S*,5*R*)-3-Benzyloxy-1-isopropyl-4-methylenebicyclo[3.1.0]hexane (**12**)



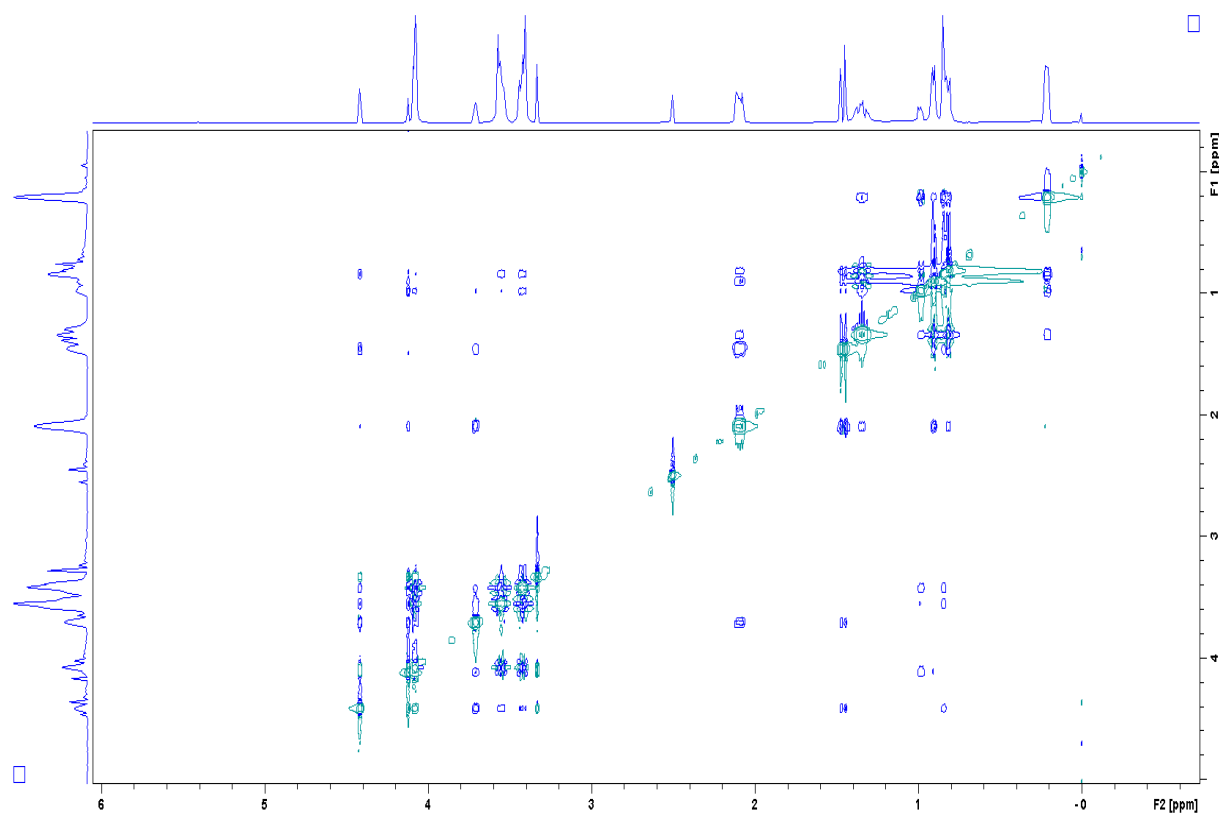
(1*R*,2*R*,3*S*,5*R*)-2-Hydroxymethyl-5-isopropylbicyclo[3.1.0]hexane-2,3-diol (**13**)



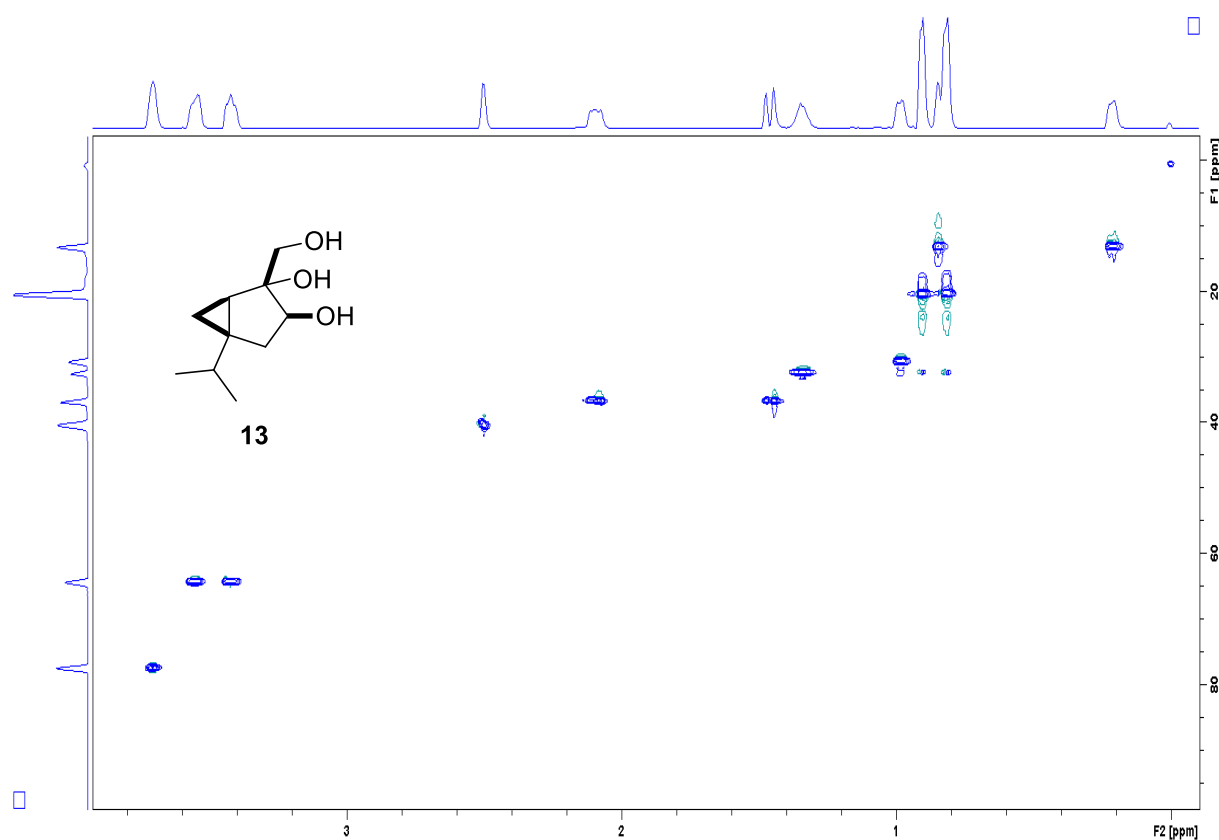
COSY spectrum of **13**



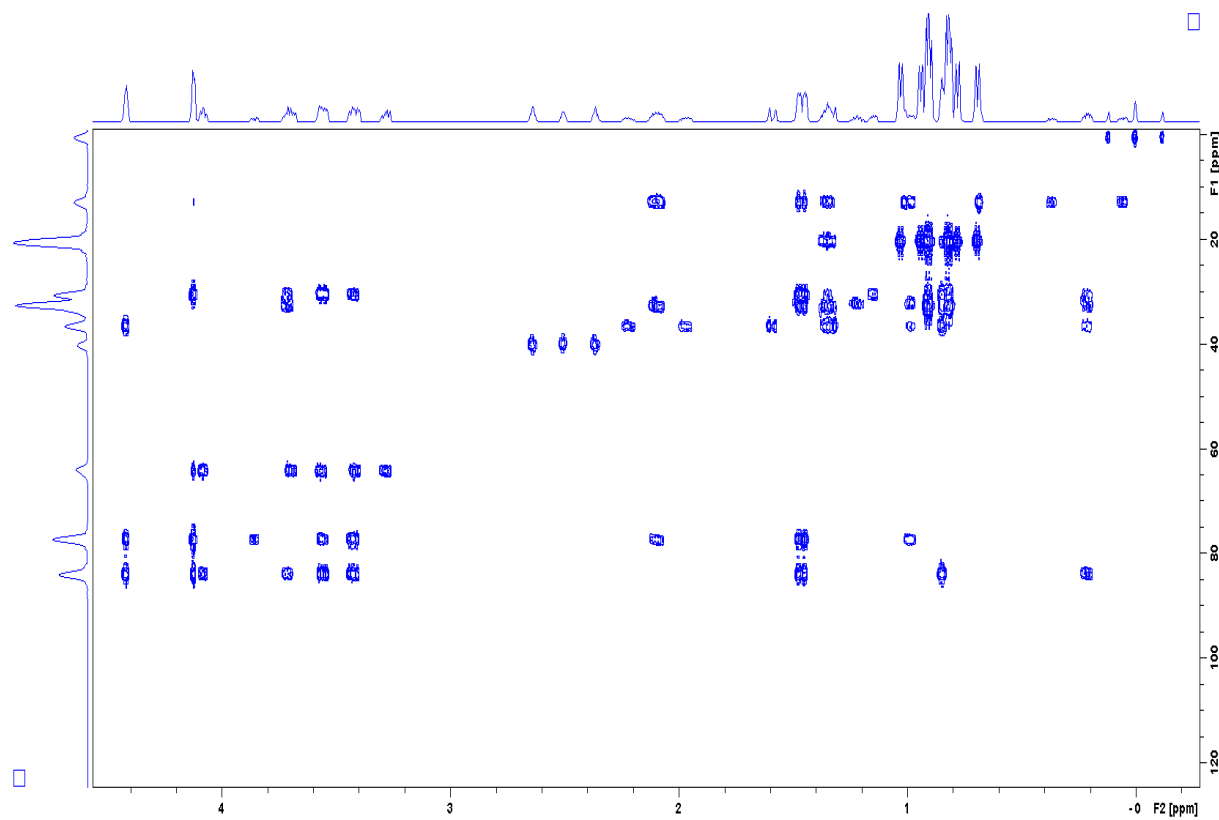
NOESY spectrum of **13**



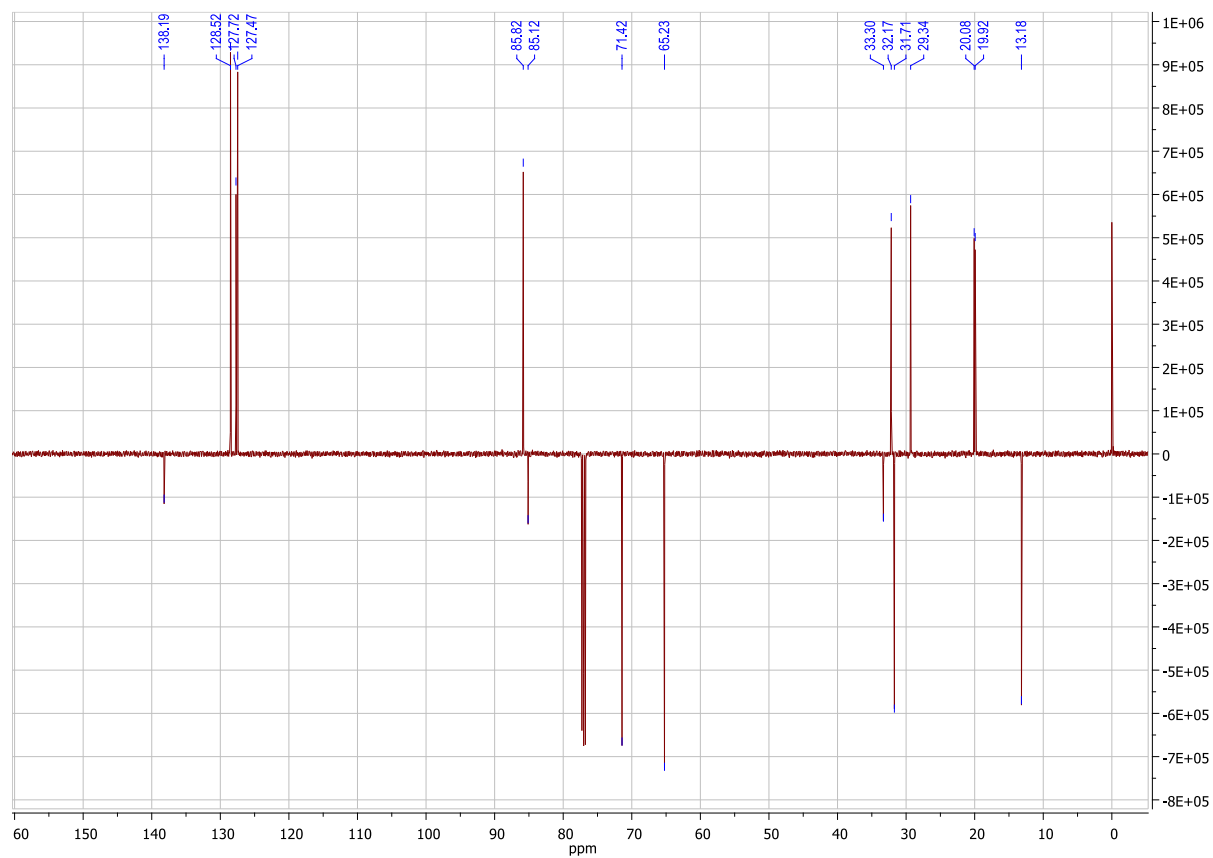
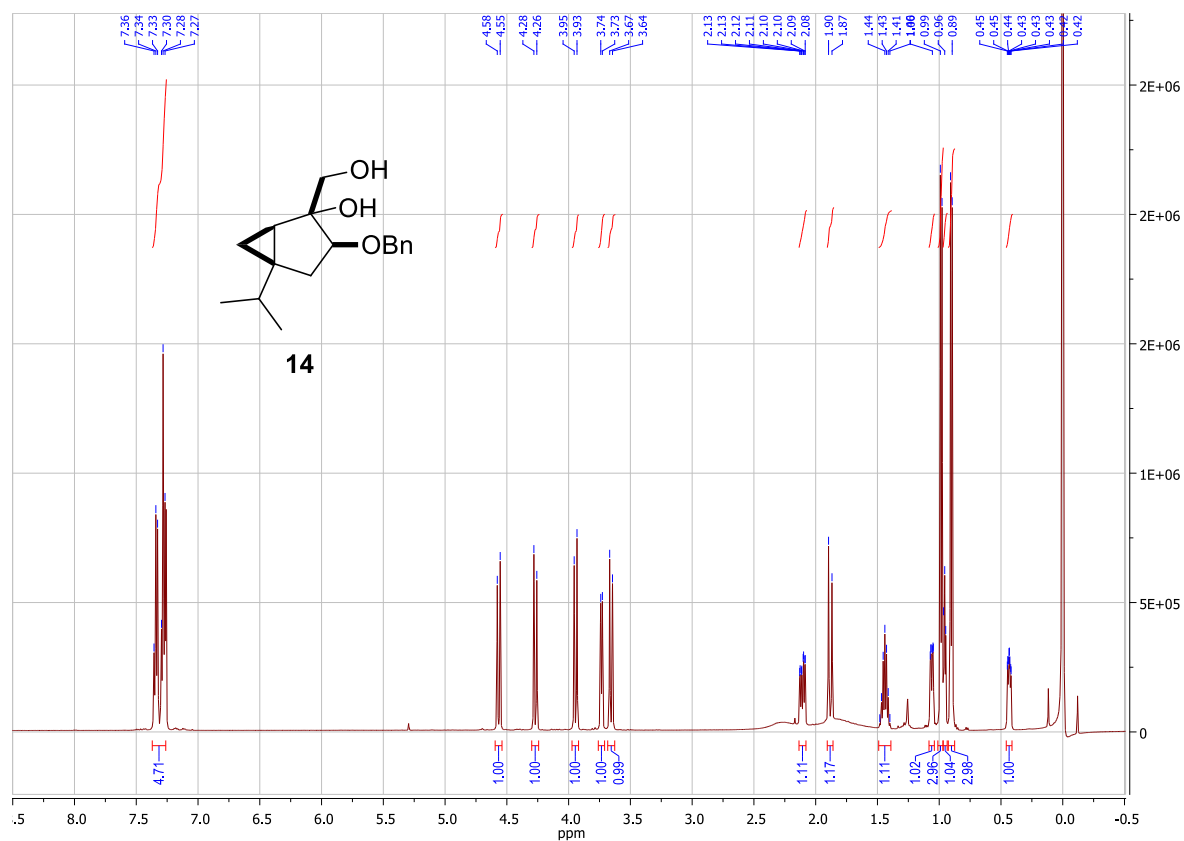
HSQC spectrum of **13**



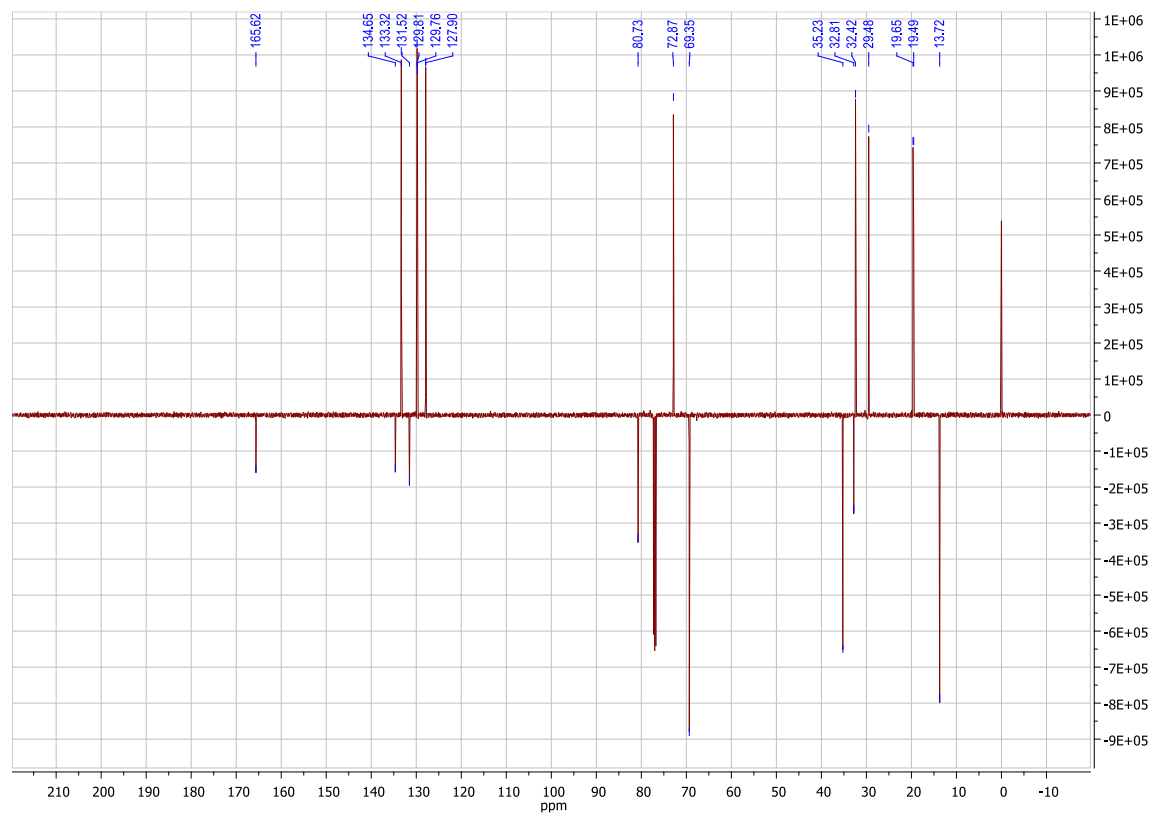
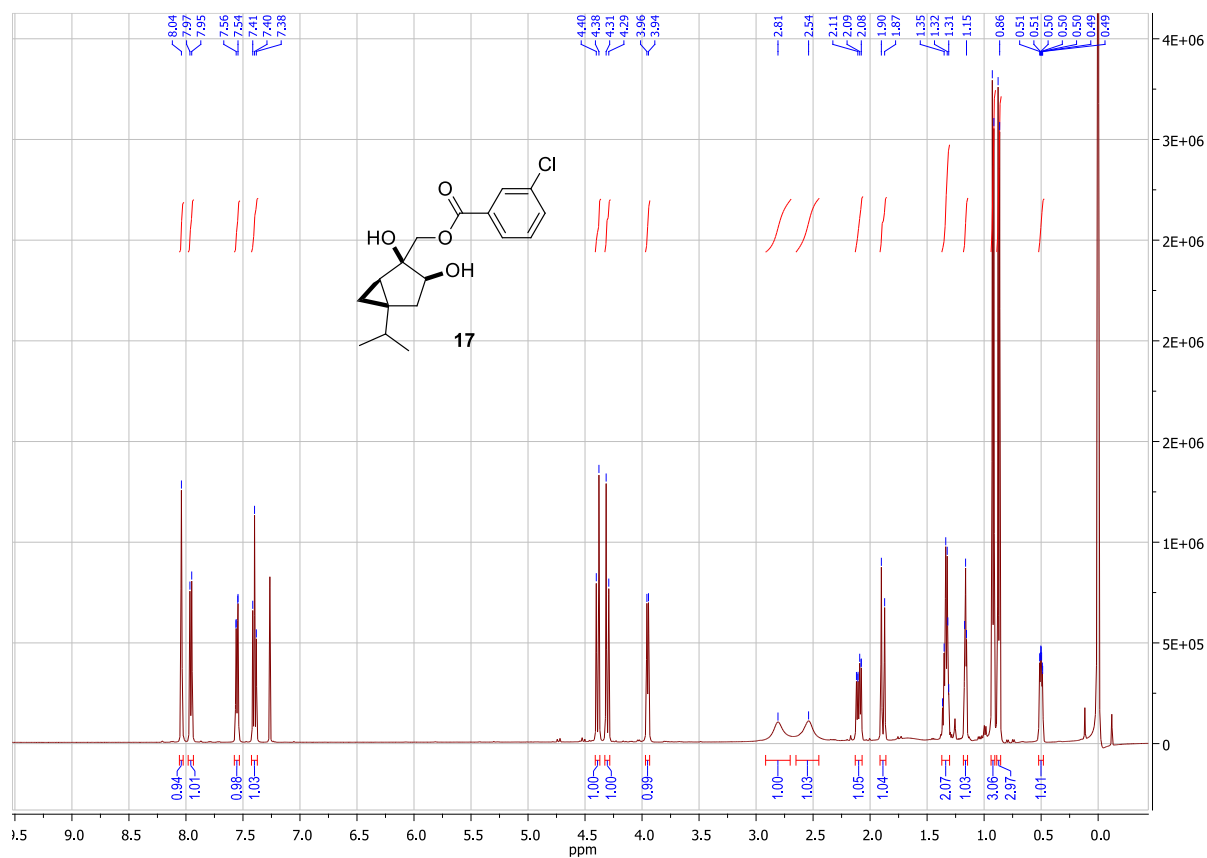
HMBC spectrum of **13**



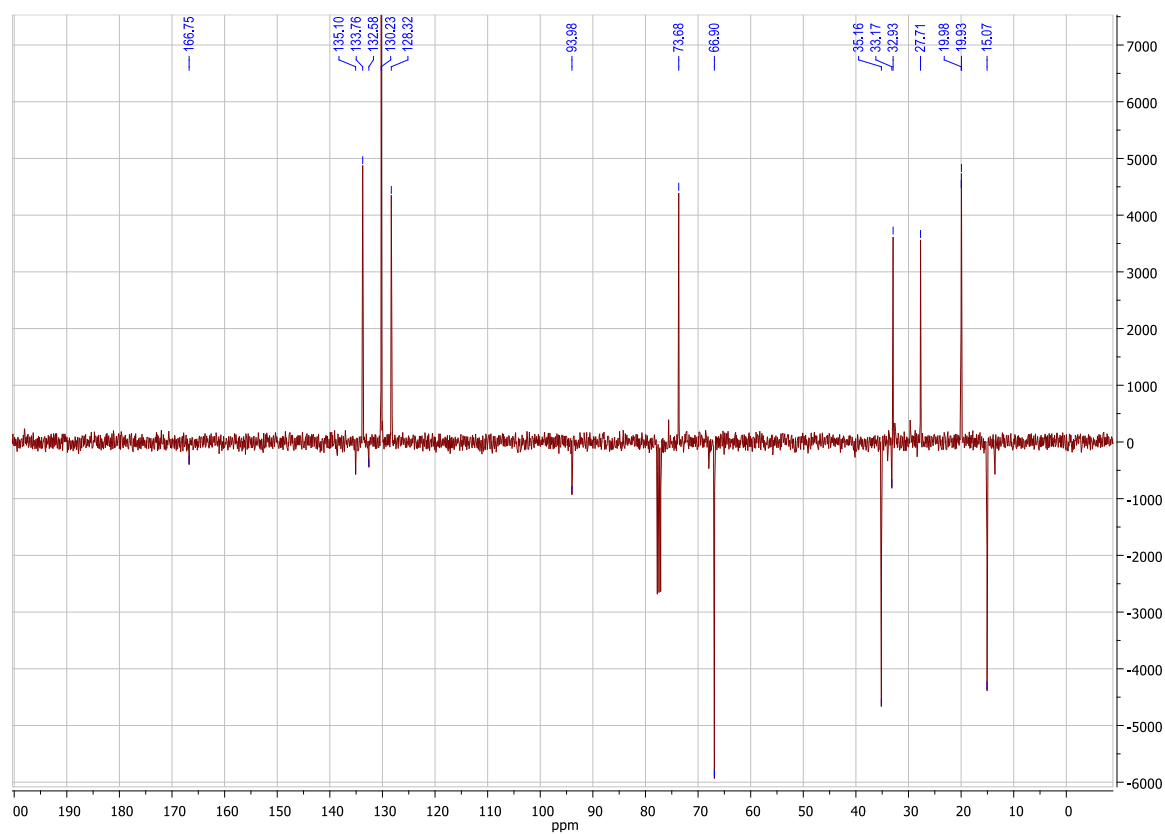
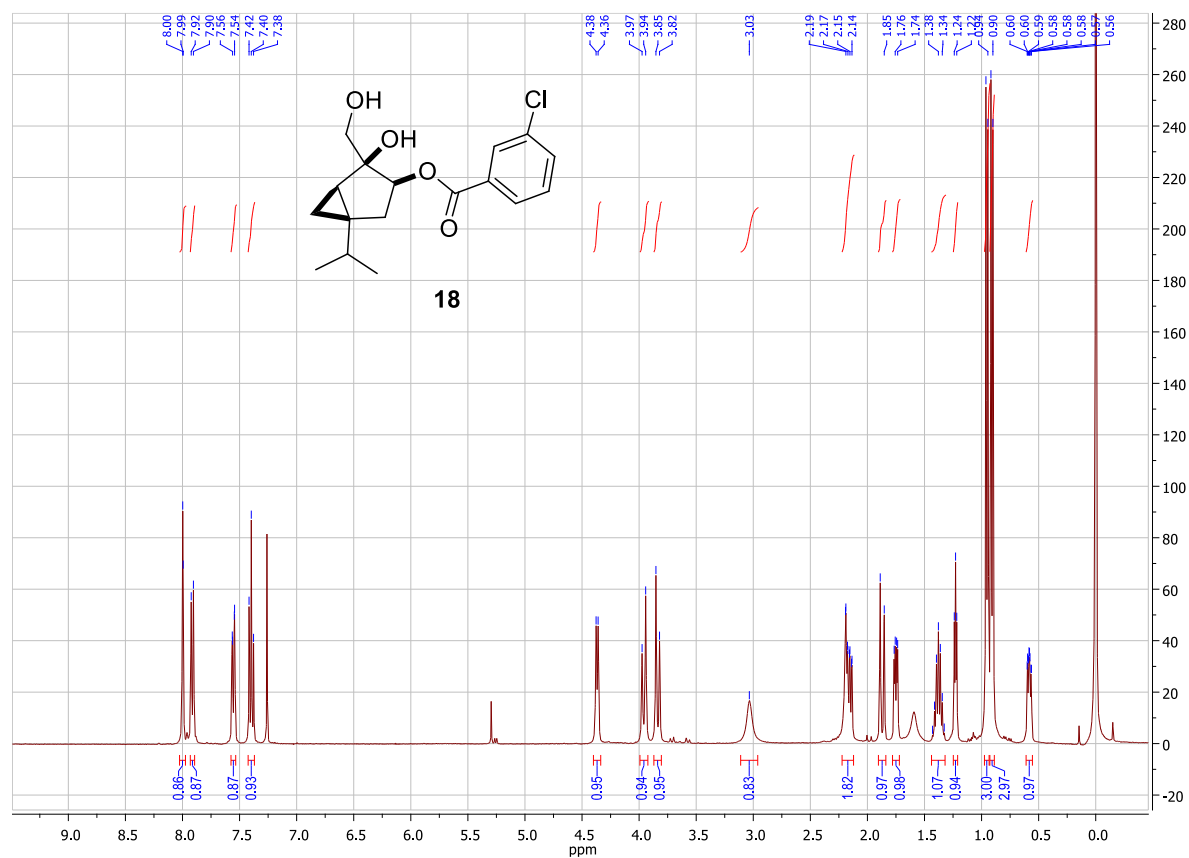
(1*R*,2*R*,3*S*,5*R*)-3-Benzoyloxy-2-hydroxymethyl-5-isopropylbicyclo[3.1.0]hexan-2-ol (**14**)



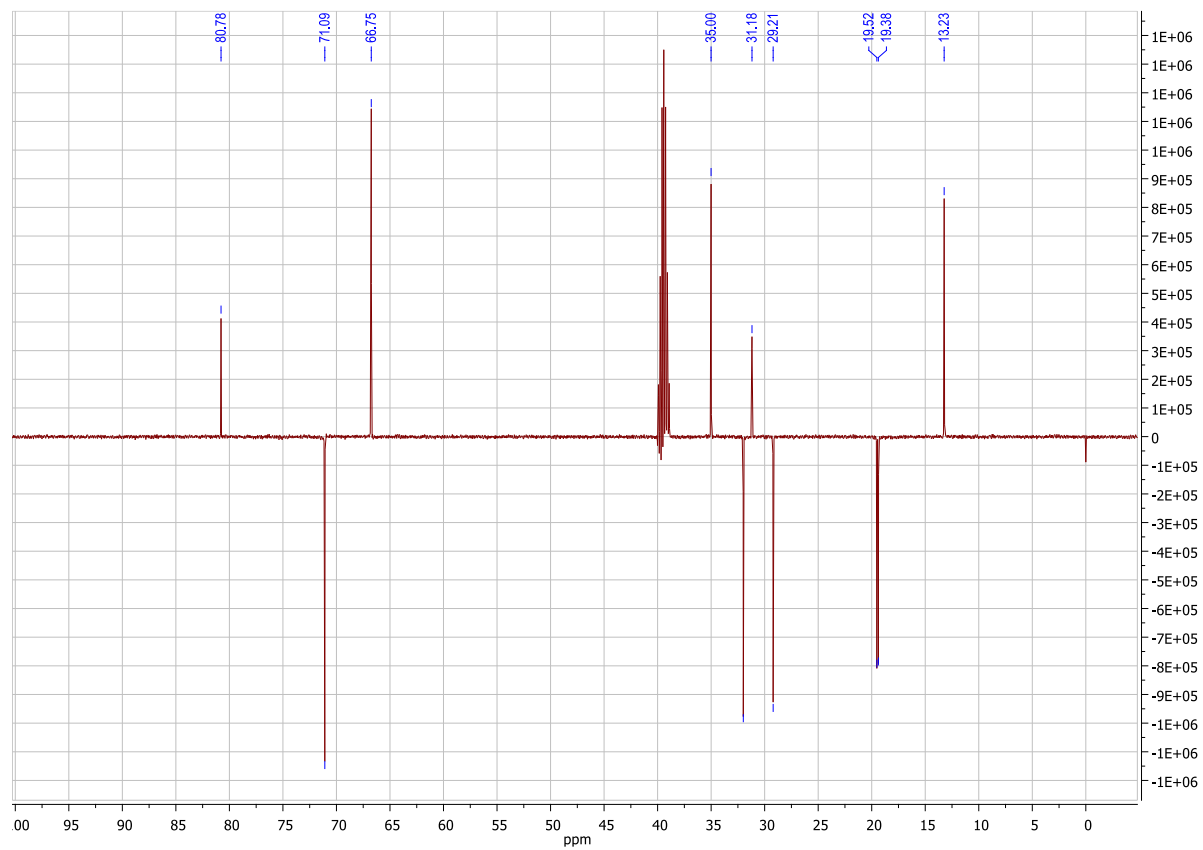
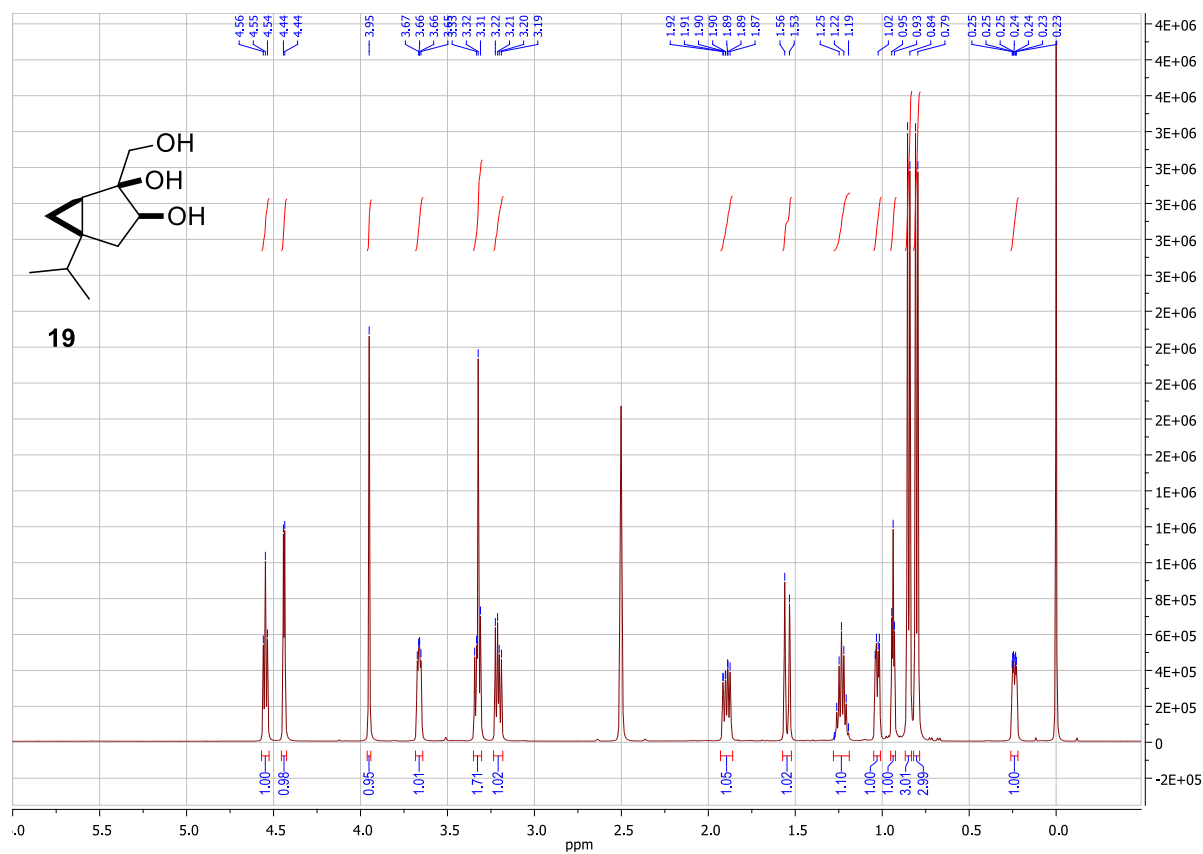
((1R,2S,3S,5R)-2,3-Dihydroxy-5-isopropylbicyclo[3.1.0]hexan-2-yl)methyl 3-chlorobenzoate
(17)



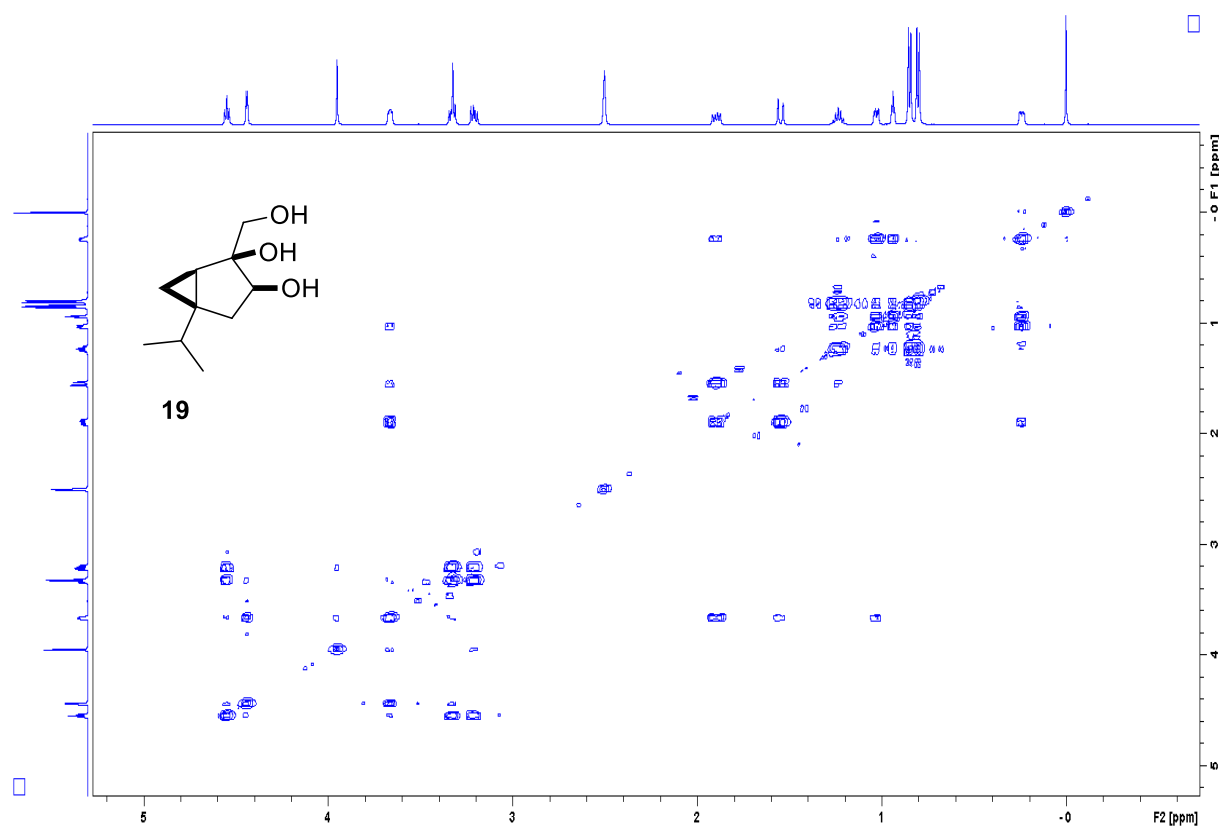
(1*R*,3*S*,4*S*,5*R*)-4-Hydroxy-4-hydroxymethyl-1-isopropylbicyclo[3.1.0]hexan-3-yl 3-chlorobenzoate (**18**)



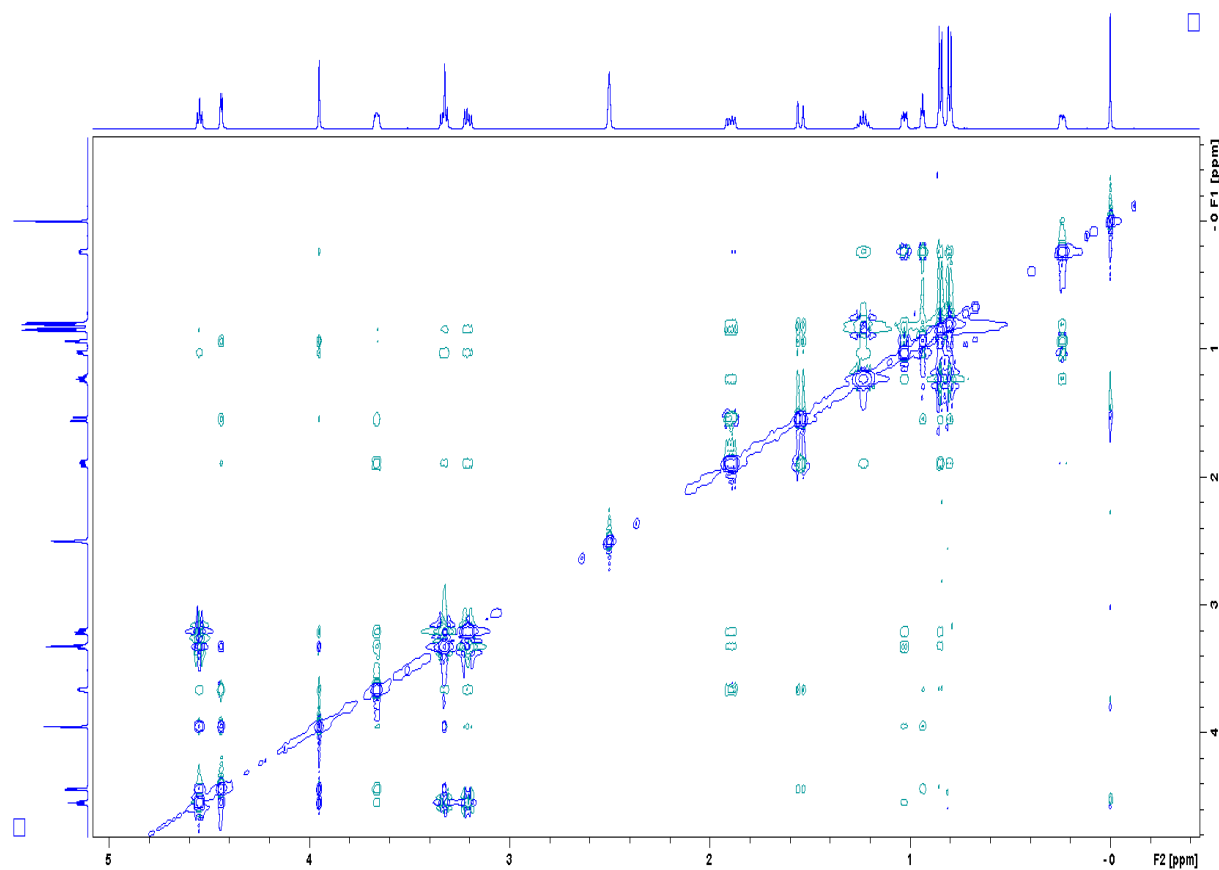
(1*R*,2*S*,3*S*,5*R*)-2-Hydroxymethyl-5-isopropylbicyclo[3.1.0]hexane-2,3-diol (**19**)



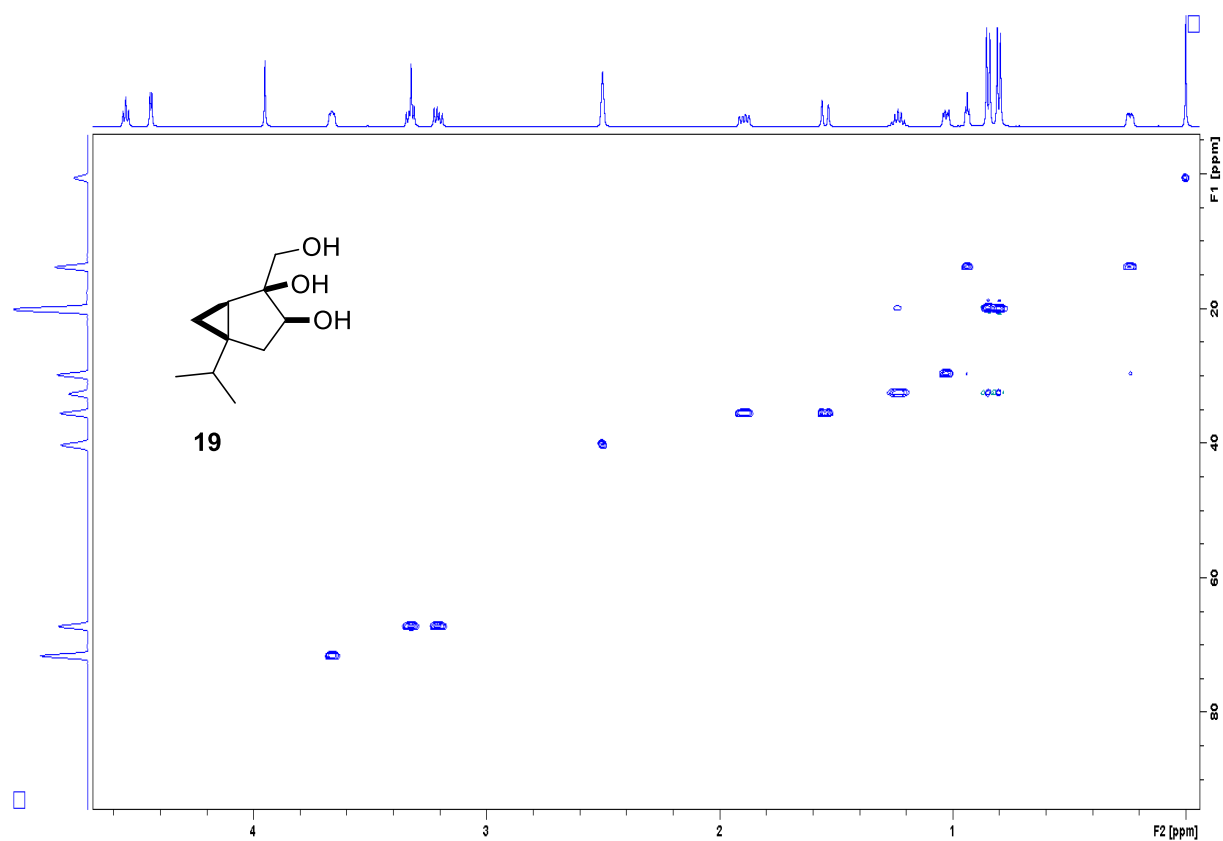
COSY spectrum of **19**



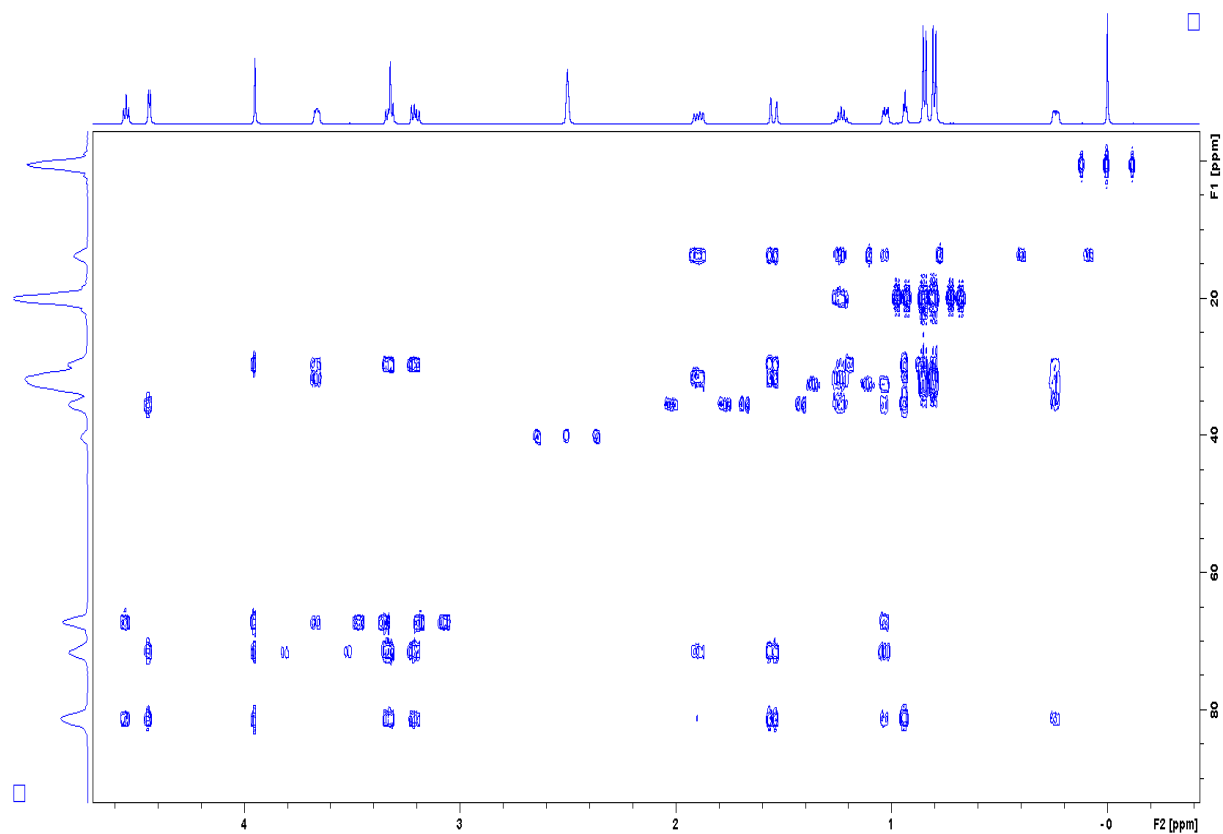
NOESY spectrum of **19**



HSQC spectrum of **19**



HMBC spectrum of **19**



CCDC number 1814013 contains the supplementary crystallographic data for this paper. These data can be obtained free of charge via <http://www.ccdc.cam.ac.uk/conts/retrieving.html> (or from the CCDC, 12 Union Road, Cambridge CB2 1EZ, UK; Fax: +44-1223-336033; E-mail: deposit@ccdc.cam.ac.uk).

Figure S1. Crystal structure of diol **11**.

