

Supporting Information for

One-Pot Conversions of Olefins to Cyclic Carbonates and Secondary Allylic and Homoallylic Amines to Cyclic Carbamates

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Paul M. Roberts, James E. Thomson, David M. Williamson

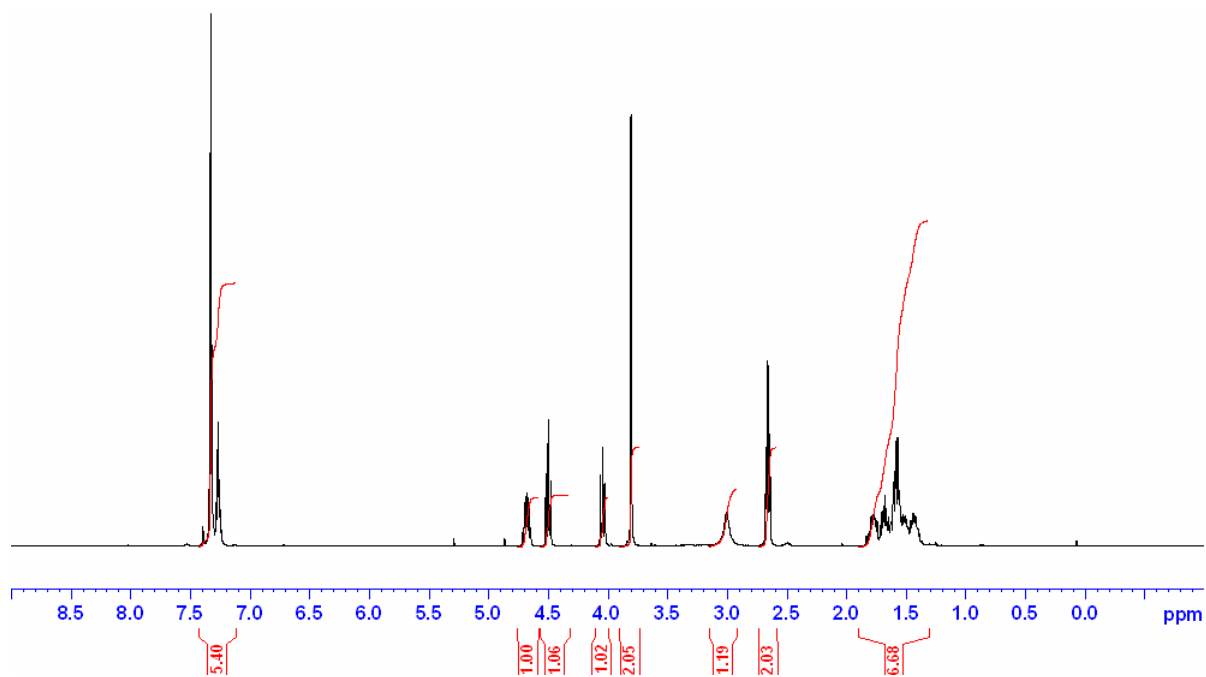
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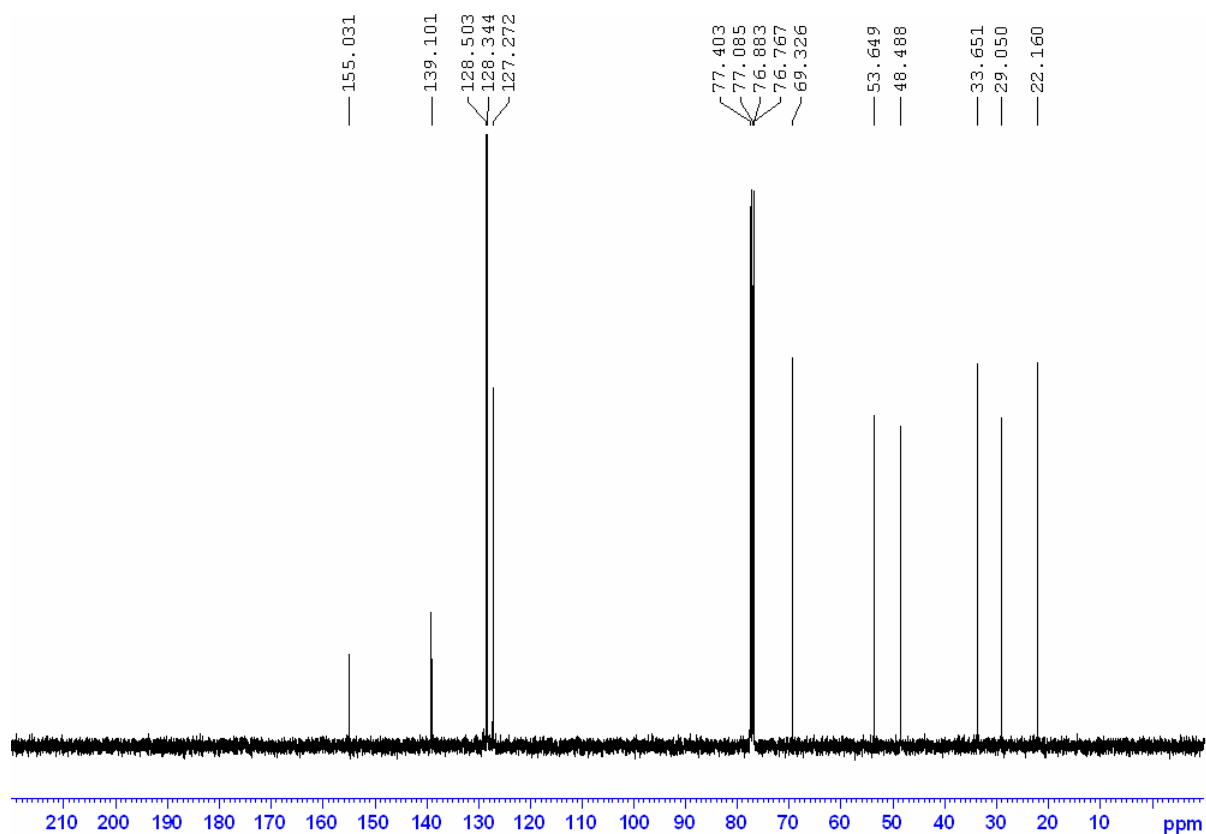
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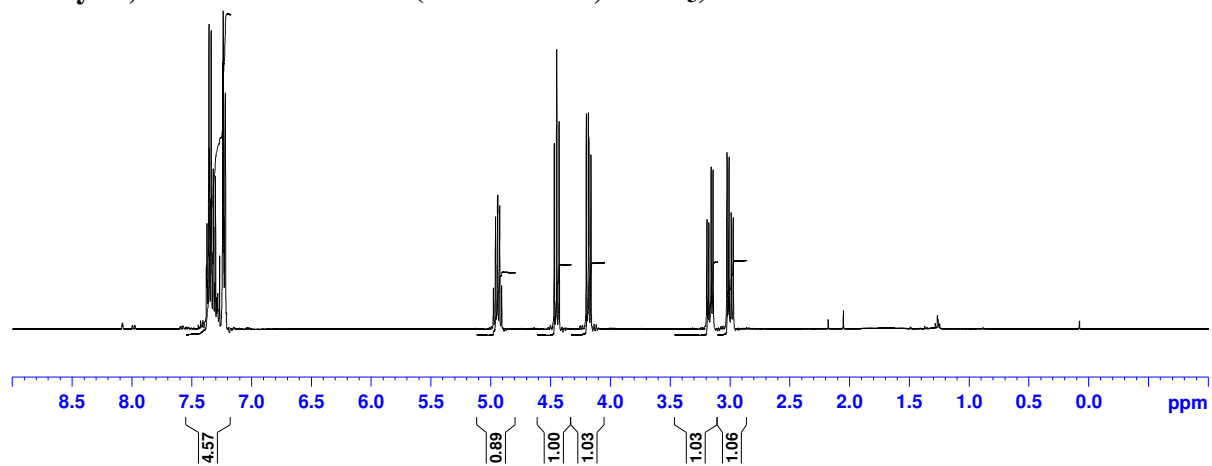
(RS)-4-(4'-N-Benzylaminobutyl)-1,3-dioxolan-2-one 7 (400 MHz ^1H , CDCl_3)



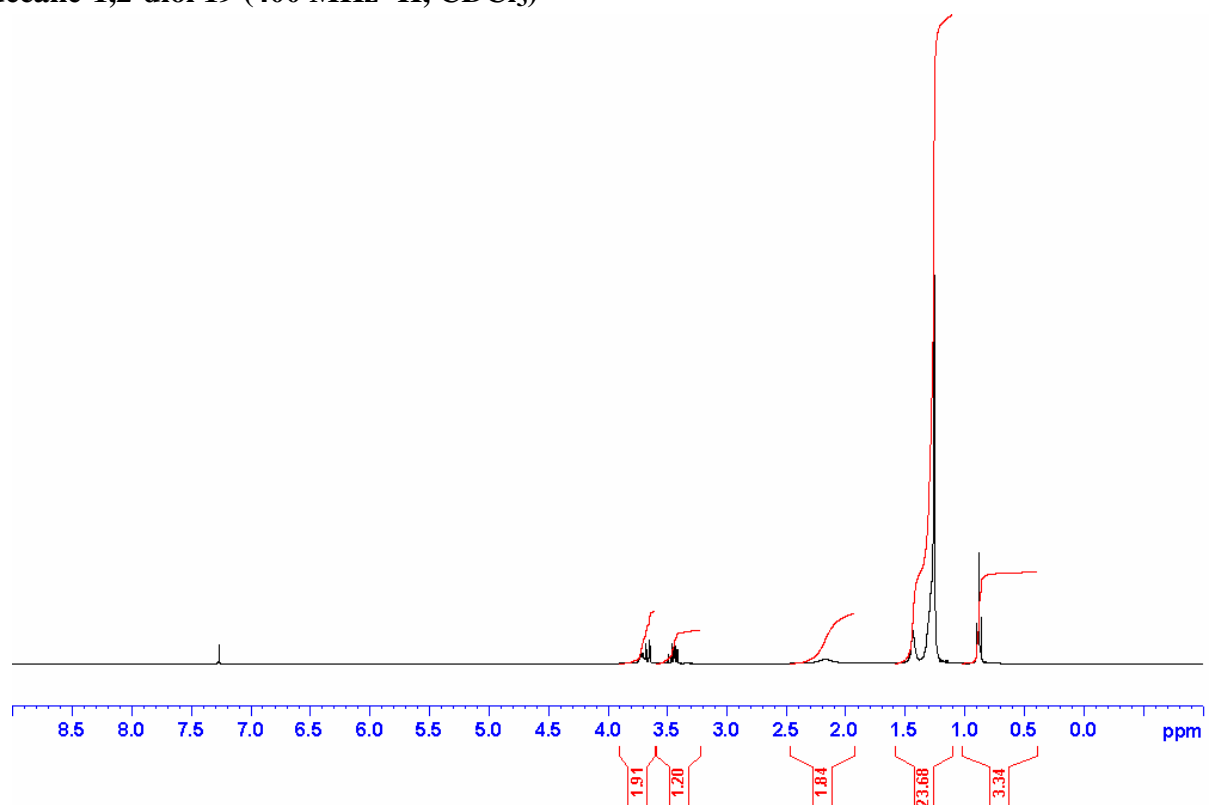
(RS)-4-(4'-N-Benzylaminobutyl)-1,3-dioxolan-2-one 7 (100 MHz ^{13}C , CDCl_3)



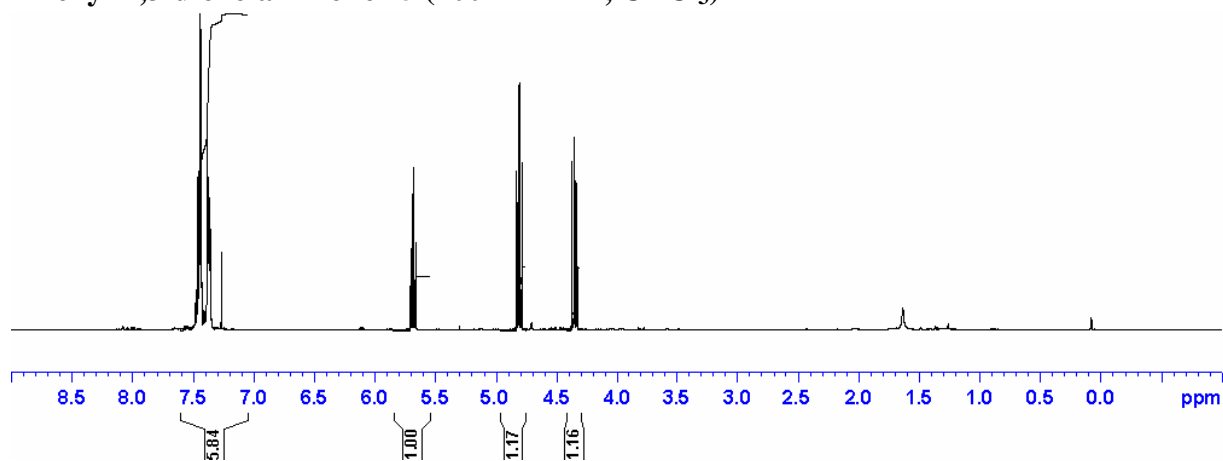
(RS)-4-Benzyl-1,3-dioxolan-2-one 12 (400 MHz ^1H , CDCl_3)



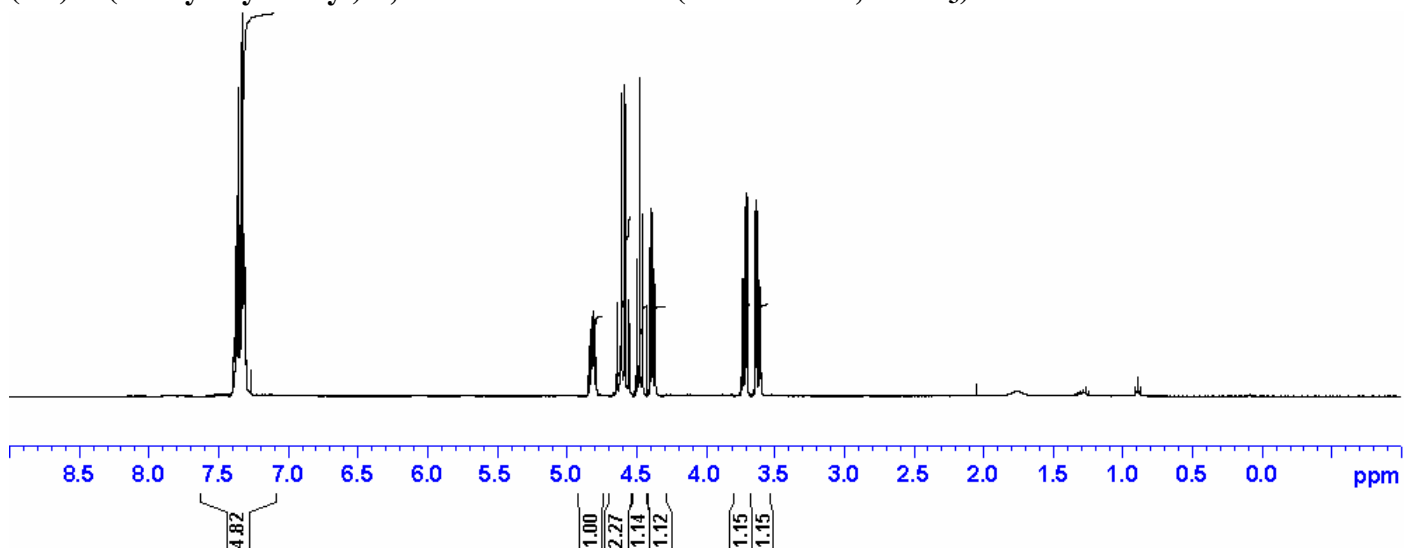
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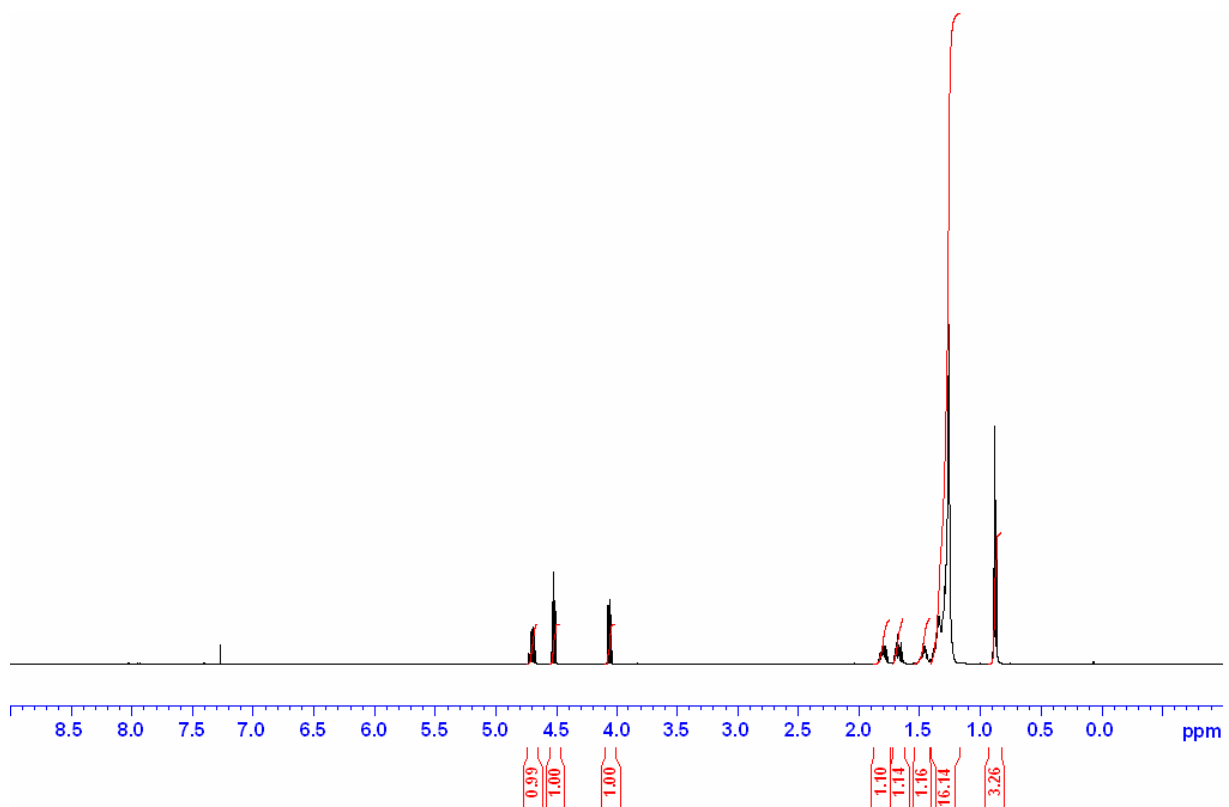
(*RS*)-4-Phenyl-1,3-dioxolan-2-one 25 (400 MHz ^1H , CDCl_3)



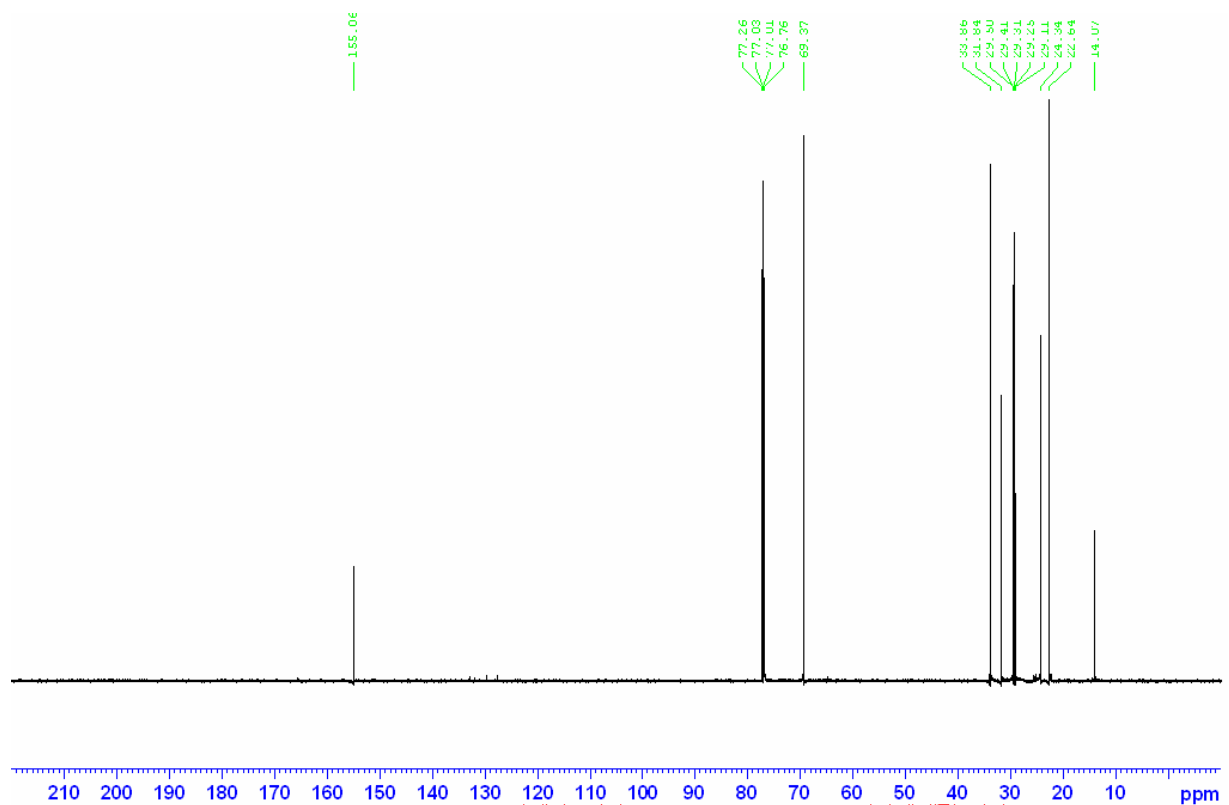
(*RS*)-4-(Benzyloxymethyl)-1,3-dioxolan-2-one 27 (400 MHz ^1H , CDCl_3)



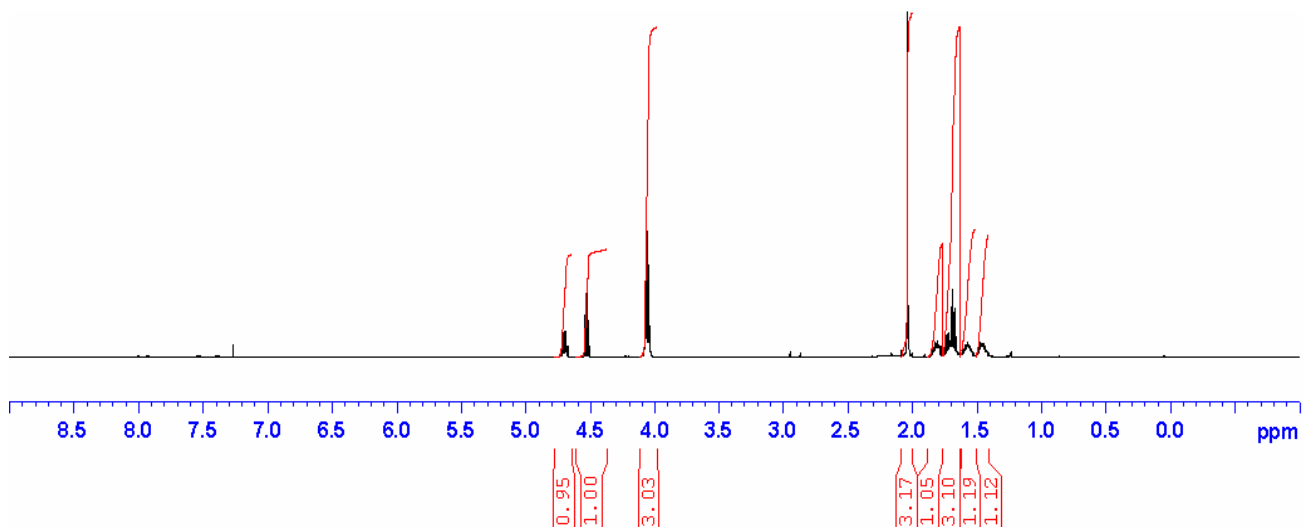
(*RS*)-4-Decyl-1,3-dioxolan-2-one 26 (400 MHz ^1H , CDCl_3)



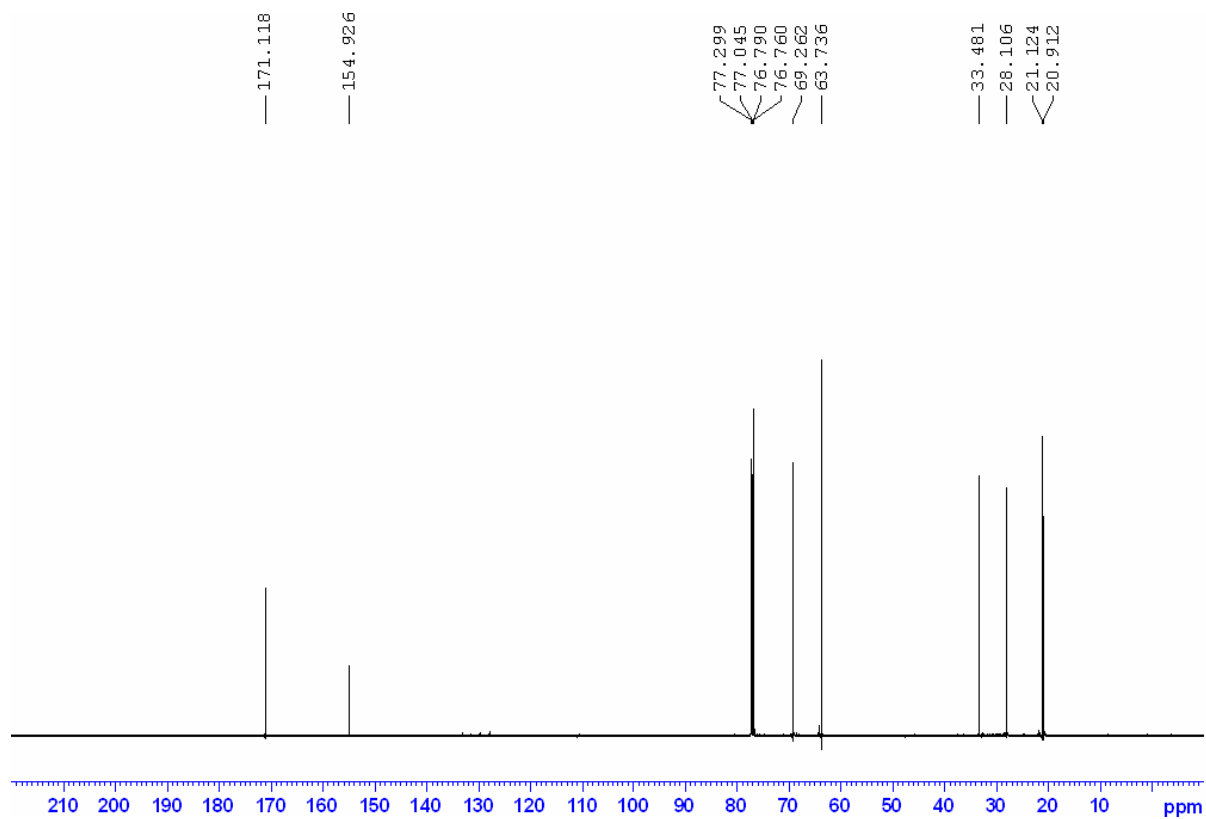
(*RS*)-4-Decyl-1,3-dioxolan-2-one 26 (100 MHz, ^{13}C , CDCl_3)



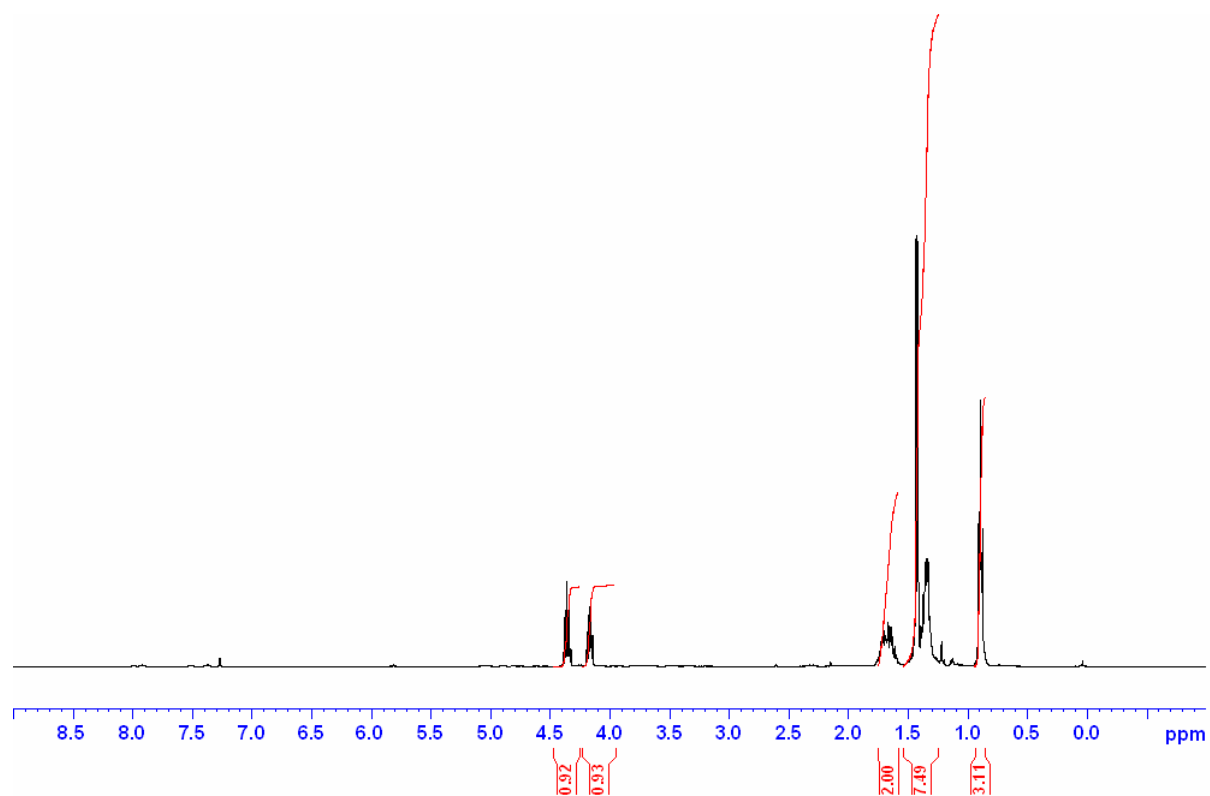
(*RS*)-4-(4'-Acetoxybutyl)-1,3-dioxolan-2-one 28 (400 MHz ^1H , CDCl_3)



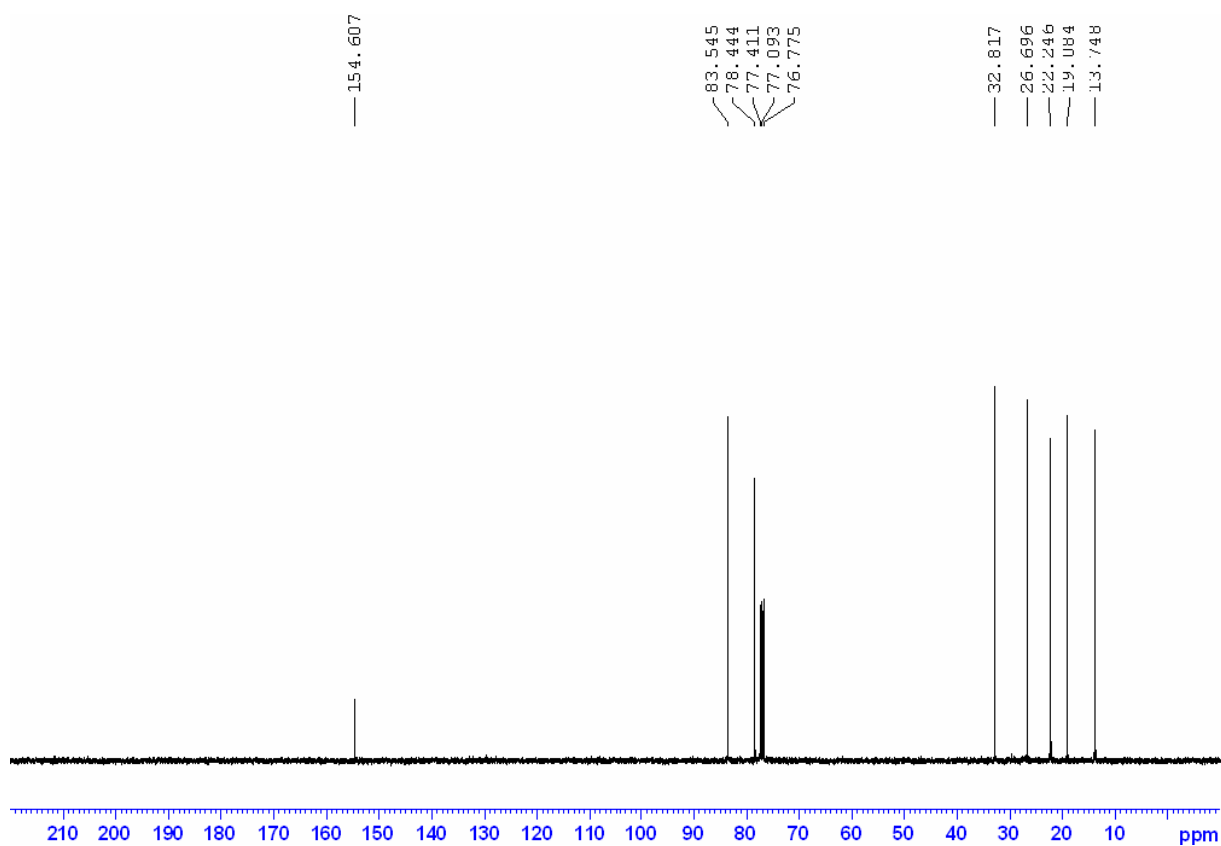
(*RS*)-4-(4'-Acetoxybutyl)-1,3-dioxolan-2-one 28 (100 MHz ^{13}C , CDCl_3)



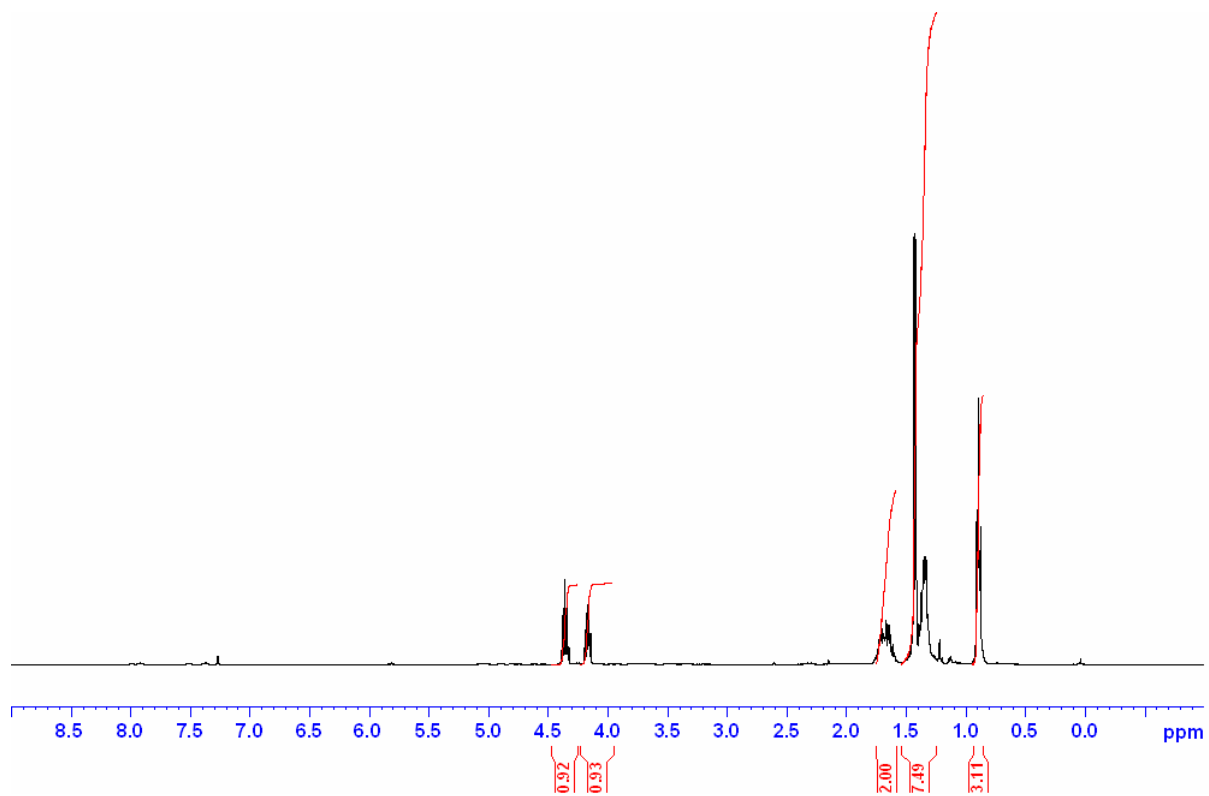
(*RS*)-Methyl 5-(1',3'-dioxolan-2'-one-4'-yl)pentanoate 29 (400 MHz ^1H , CDCl_3)



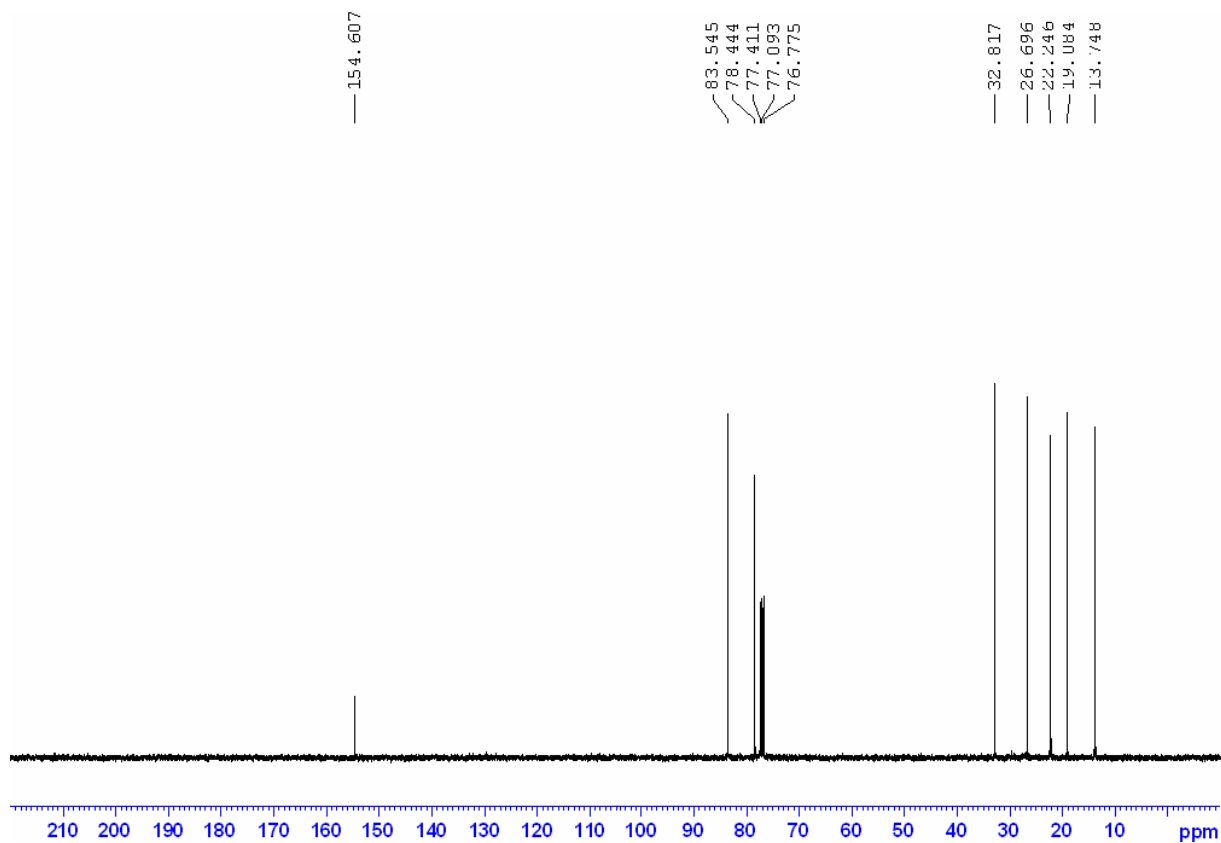
(*RS*)-Methyl 5-(1',3'-dioxolan-2'-one-4'-yl)pentanoate 29 (100 MHz ^{13}C CDCl_3)



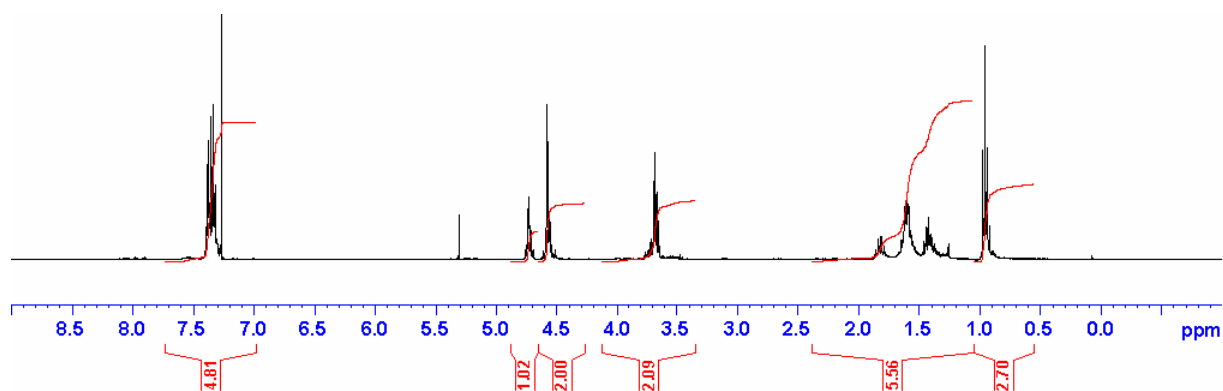
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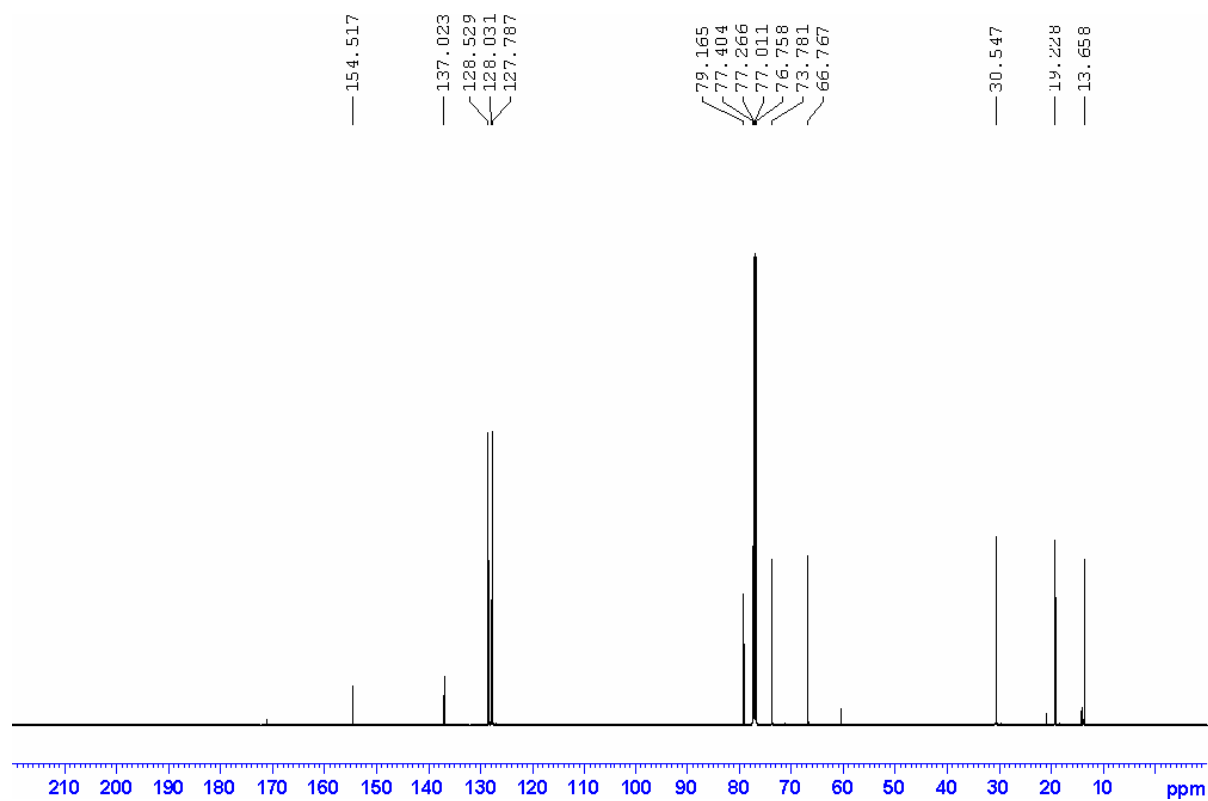
(*RS,RS*)-4-Butyl-5-methyl-1,3-dioxolan-2-one 34 (100 MHz ^{13}C CDCl_3)



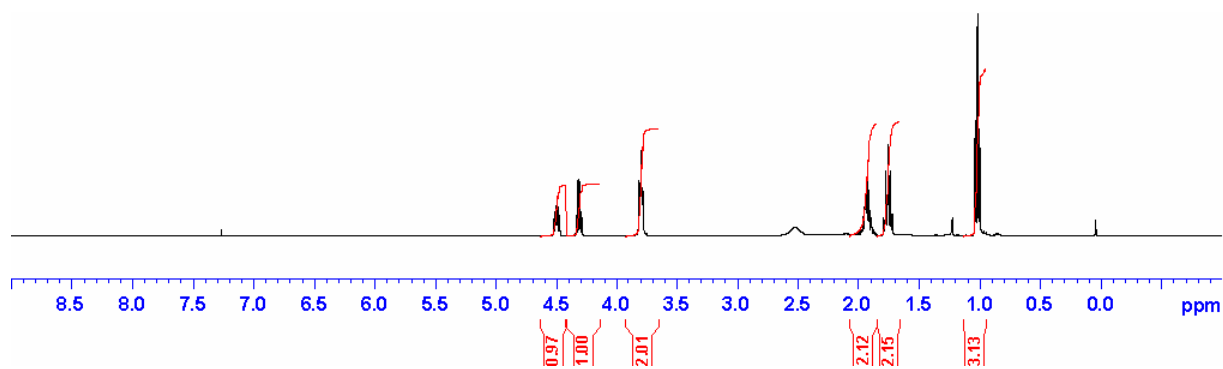
(*RS,RS*)-4-(Benzyloxymethyl)-5-propyl-1,3-dioxolan-2-one 35 (500 MHz ^1H , CDCl_3)



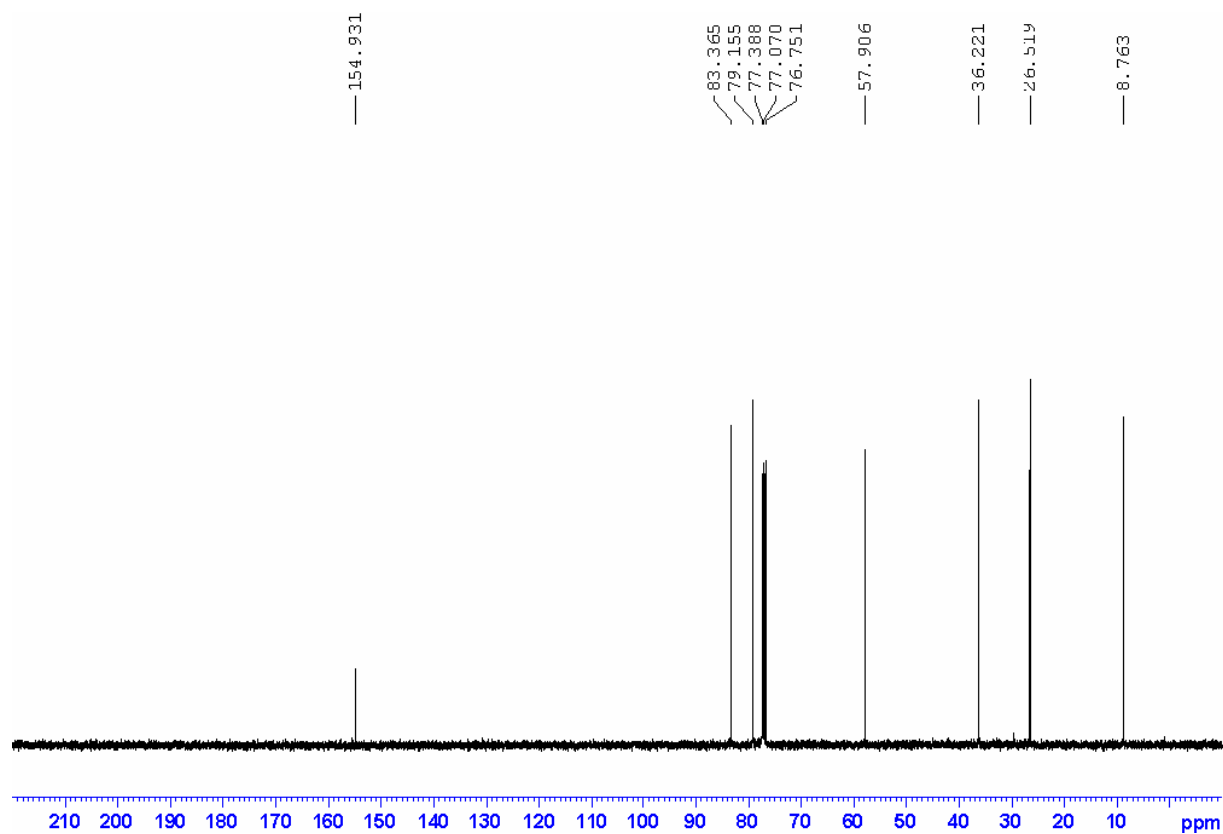
(*RS,RS*)-4-(Benzyloxymethyl)-5-propyl-1,3-dioxolan-2-one 35 (125 MHz ^1H , CDCl_3)



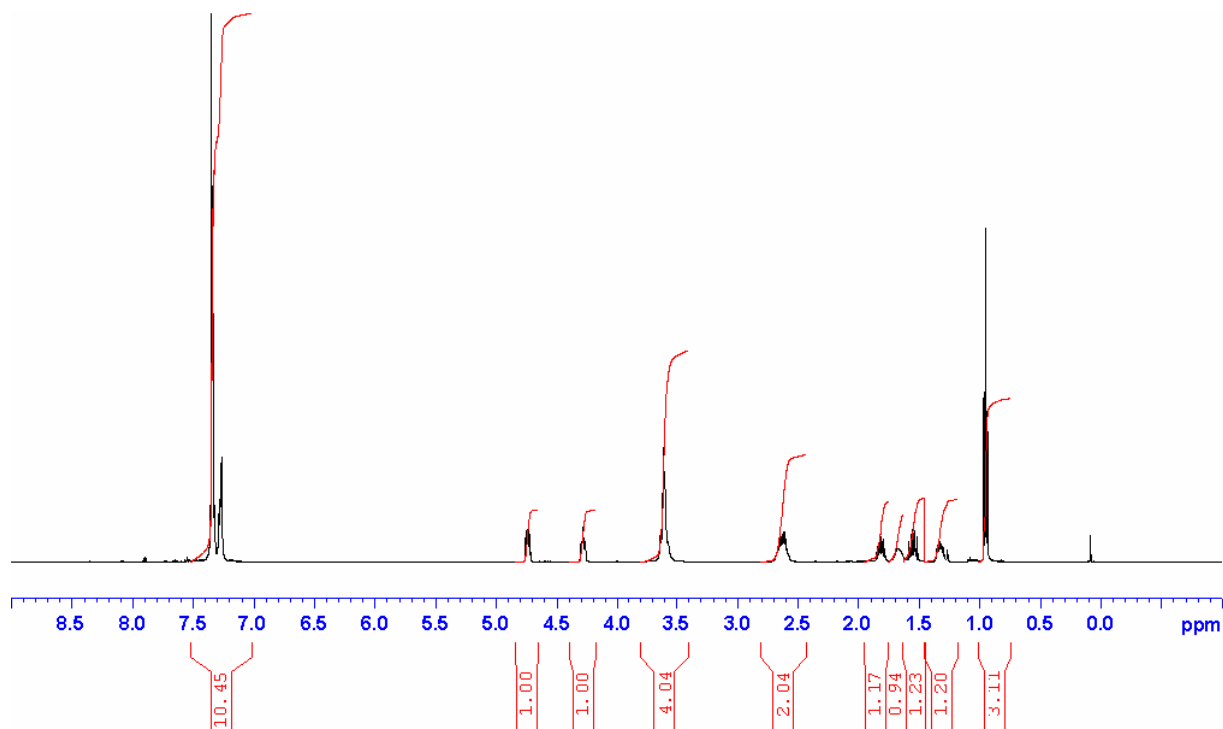
(*RS,RS*)-5-(2'-hydroxyethyl)-4-ethyl-1,3-dioxolan-2-one 36 (500 MHz ^1H , CDCl_3)



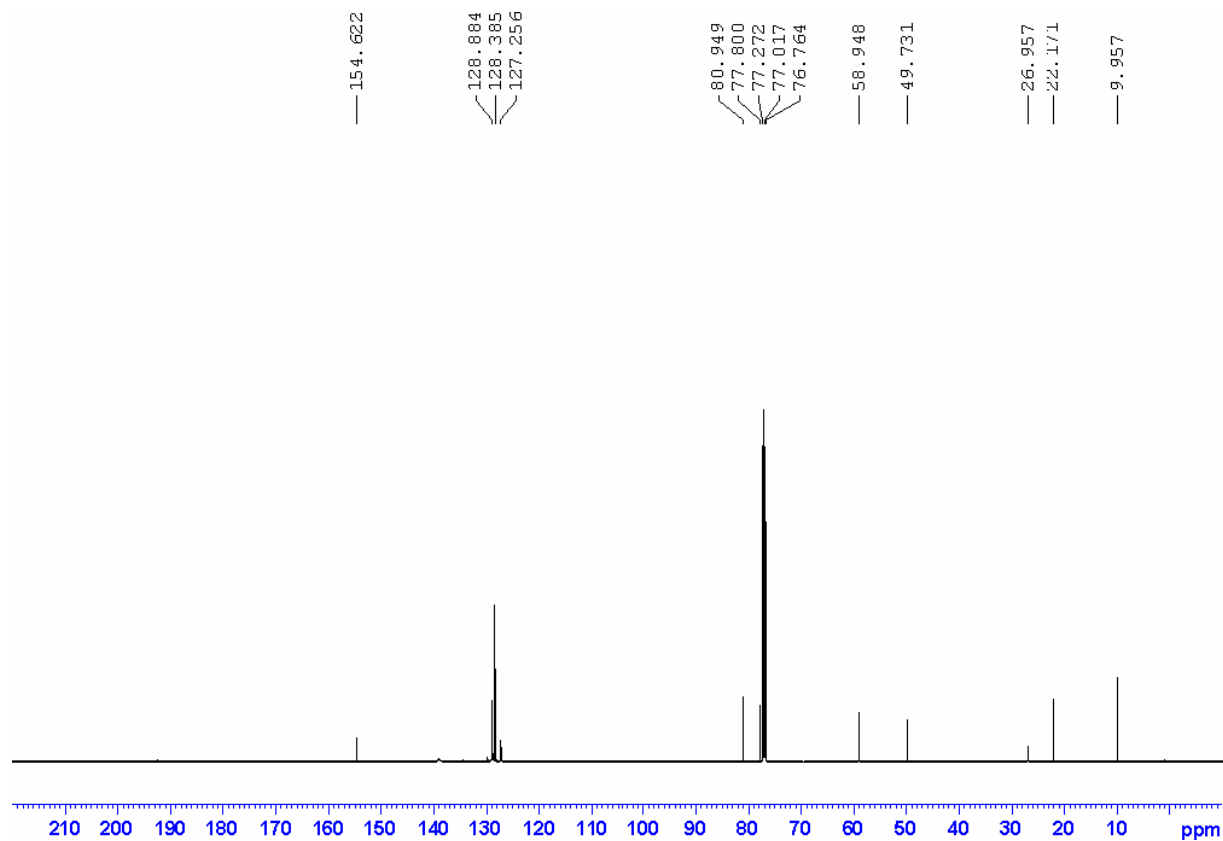
(*RS,RS*)-5-(2'-hydroxyethyl)-4-ethyl-1,3-dioxolan-2-one 36 (125 MHz ^{13}C , CDCl_3)



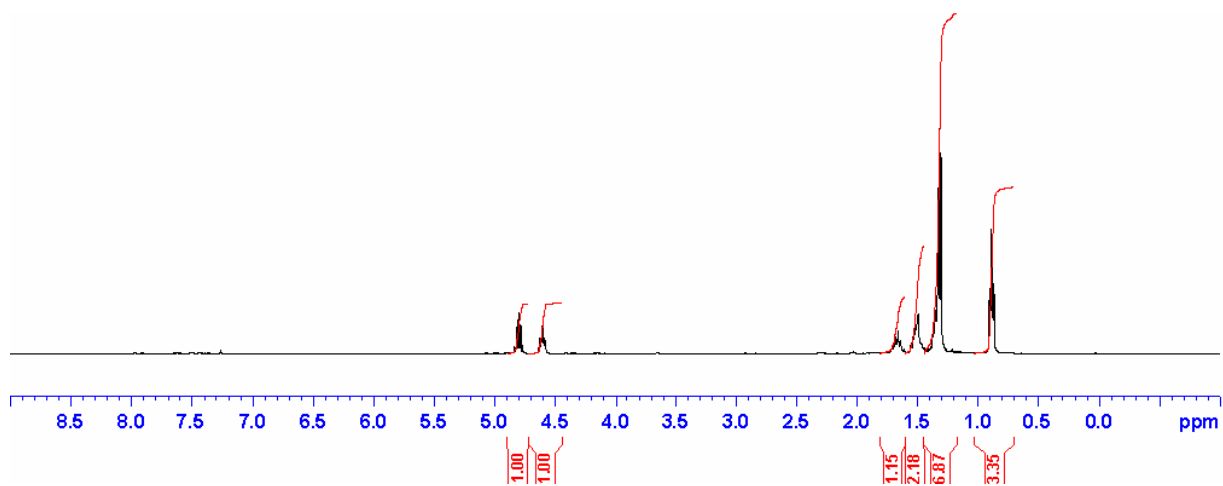
(*RS,RS*)-4-(2'-Dibenzylaminoethyl)-5-ethyl-1,3-dioxolan-2-one 37 (500 MHz ^1H , CDCl_3)



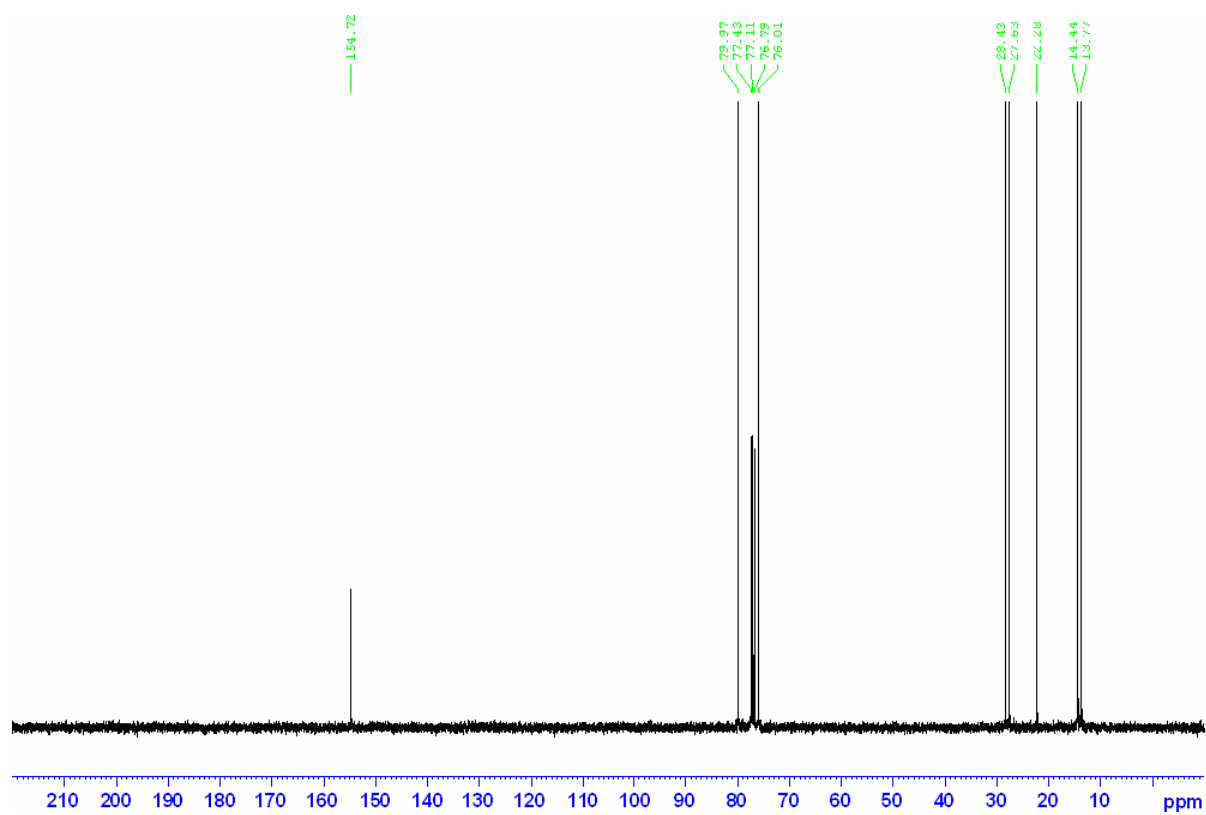
(*RS,RS*)-4-(2'-Dibenzylaminoethyl)-5-ethyl-1,3-dioxolan-2-one 37 (125 MHz ^{13}C , CDCl_3)



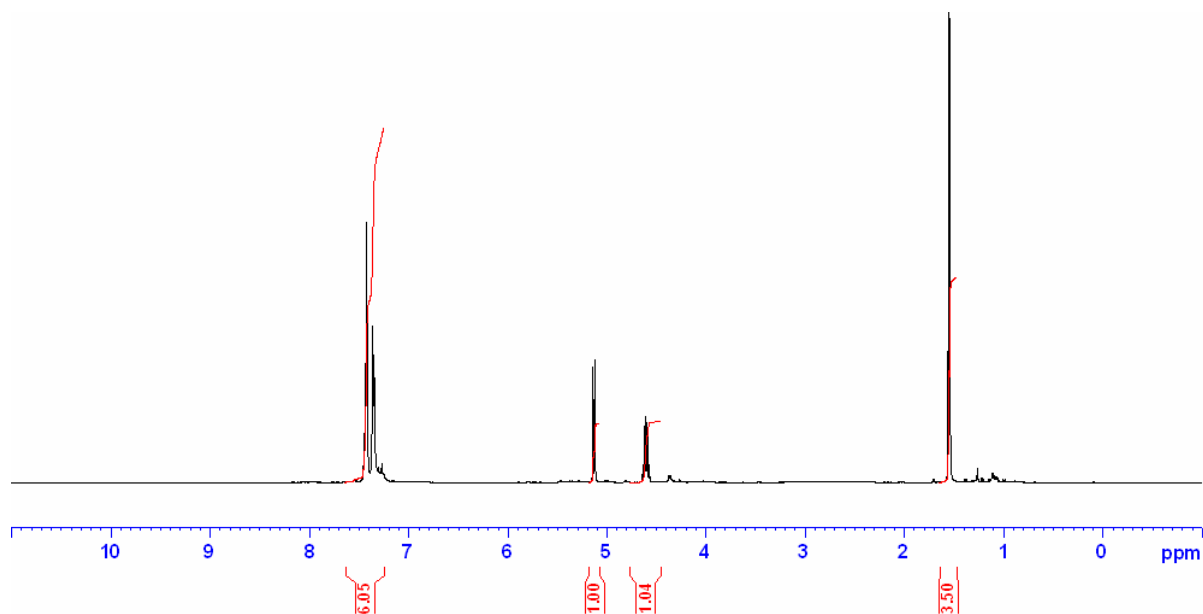
(*RS,SR*)-4-Butyl-5-methyl-1,3-dioxolan-2-one 43 (400 MHz ^1H , CDCl_3)



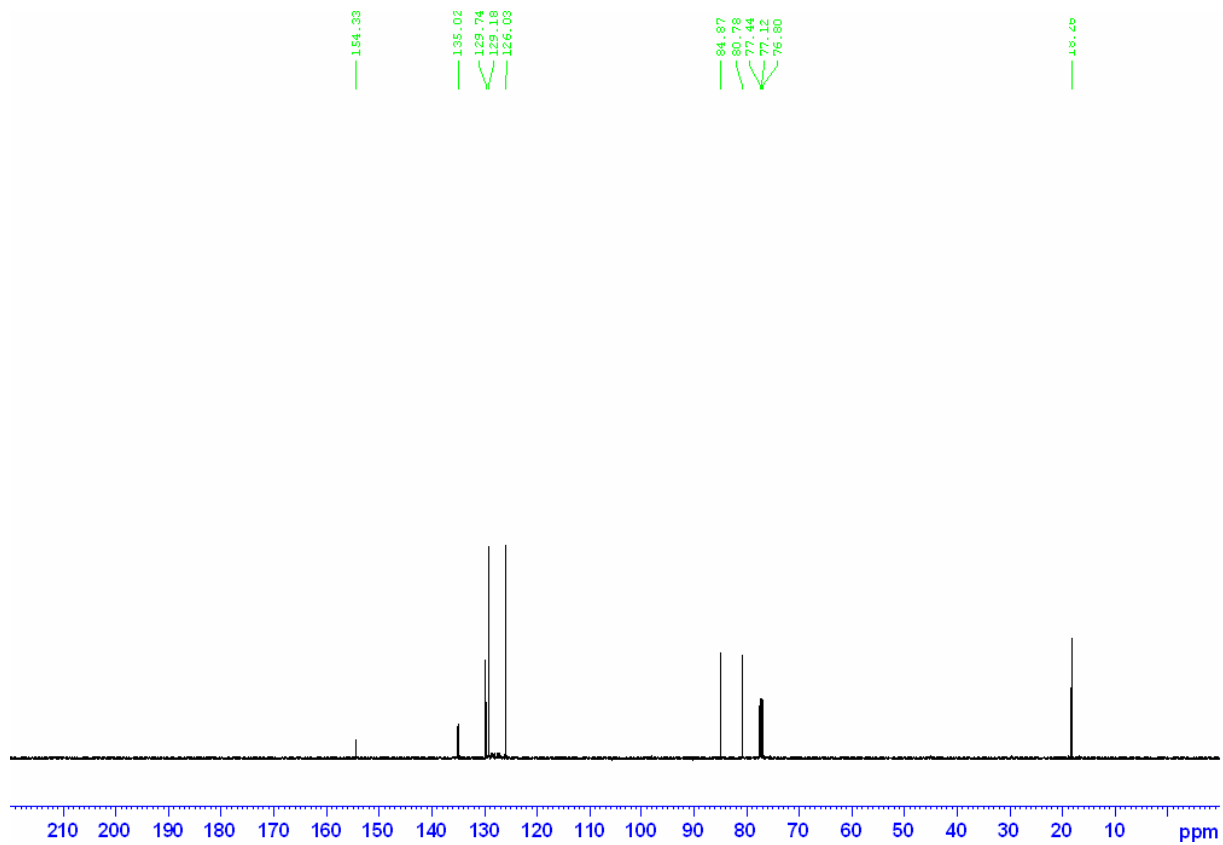
(*RS,SR*)-4-Butyl-5-methyl-1,3-dioxolan-2-one 43 (100 MHz ^{13}C , CDCl_3)



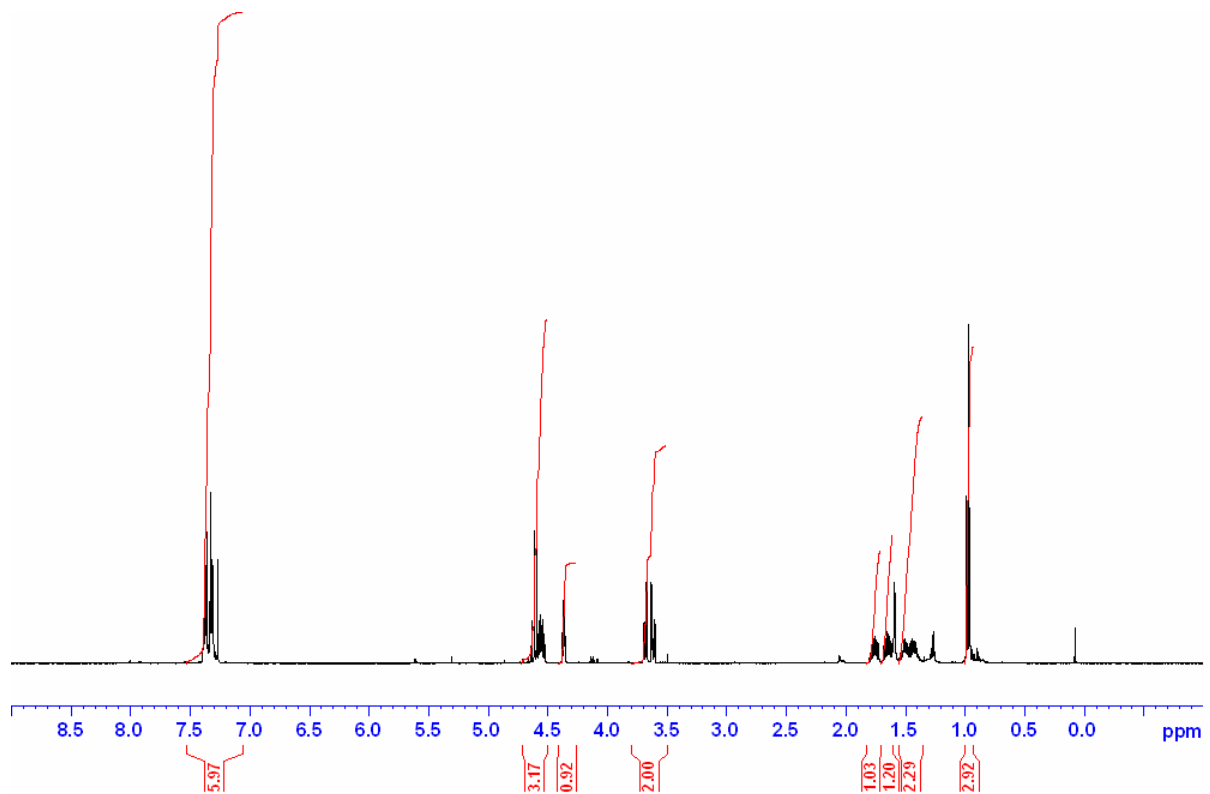
(*RS,SR*)-4-Phenyl-4-methyl-1,3-dioxolan-2-one 44 (400 MHz ^1H , CDCl_3)



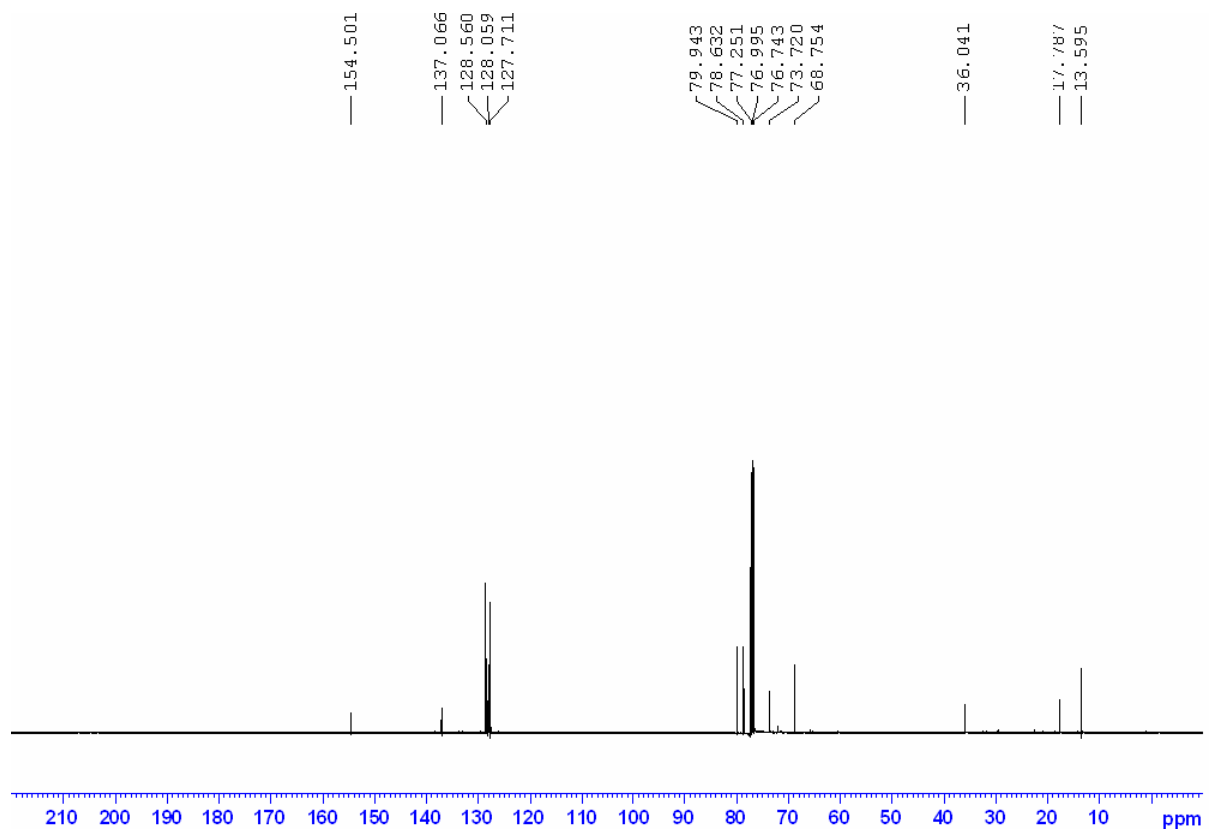
(*RS,SR*)-4-Phenyl-4-methyl-1,3-dioxolan-2-one 44 (100 MHz ^{13}C , CDCl_3)



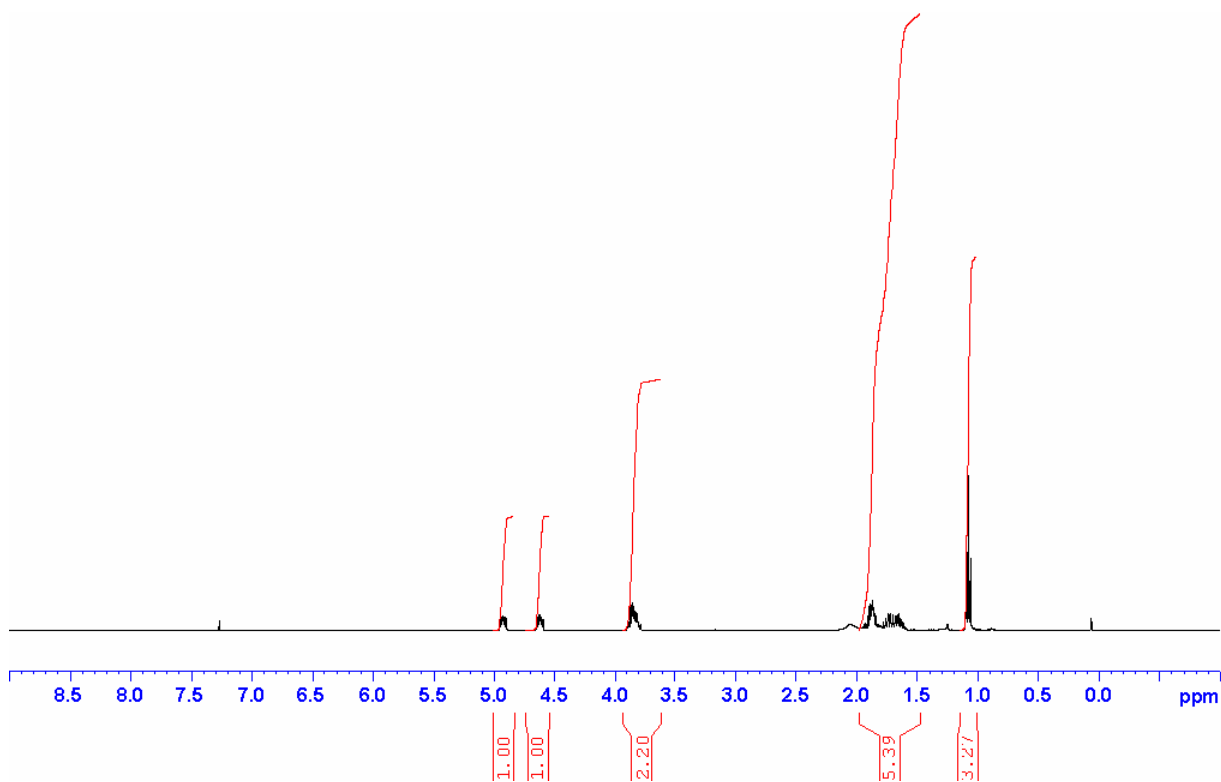
(*RS,SR*)-4-(Benzyloxymethyl)-5-propyl-1,3-dioxolan-2-one 45 (500 MHz ^1H , CDCl_3)



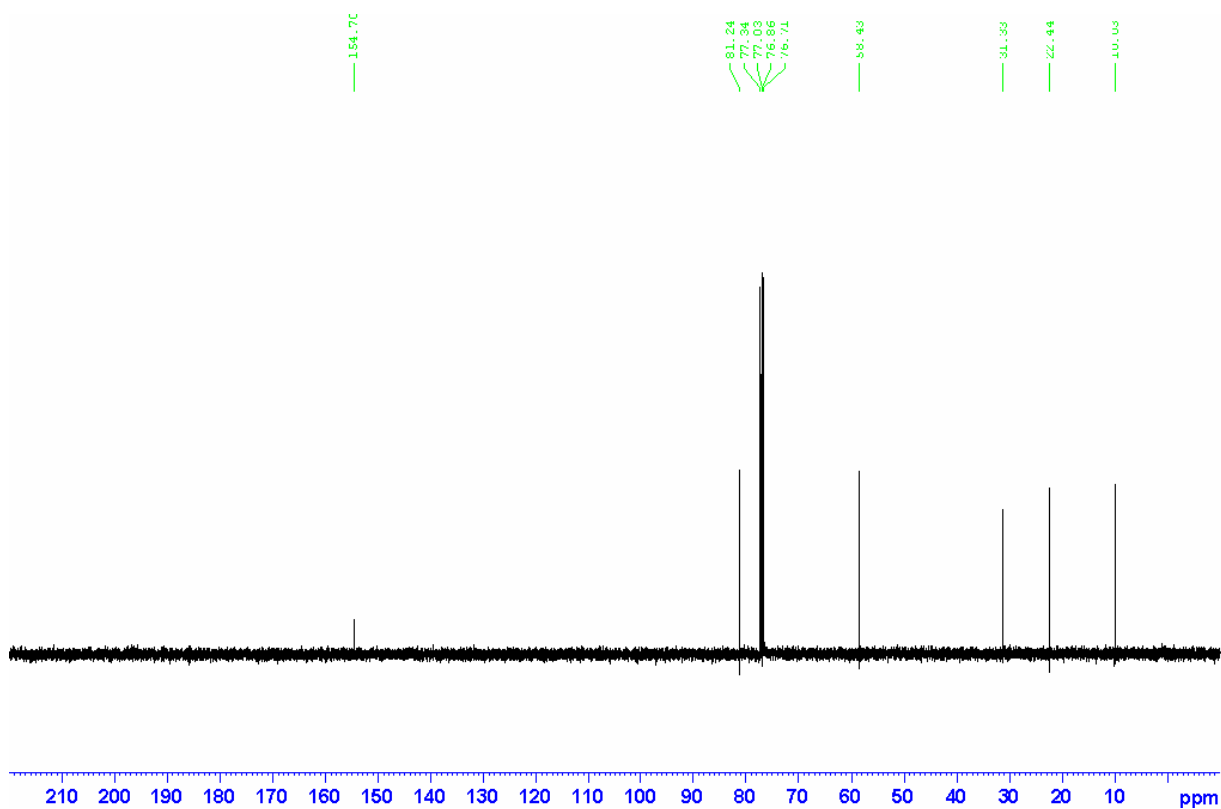
(*RS,SR*)-4-(Benzyloxymethyl)-5-propyl-1,3-dioxolan-2-one 45 (125 MHz ^{13}C , CDCl_3)



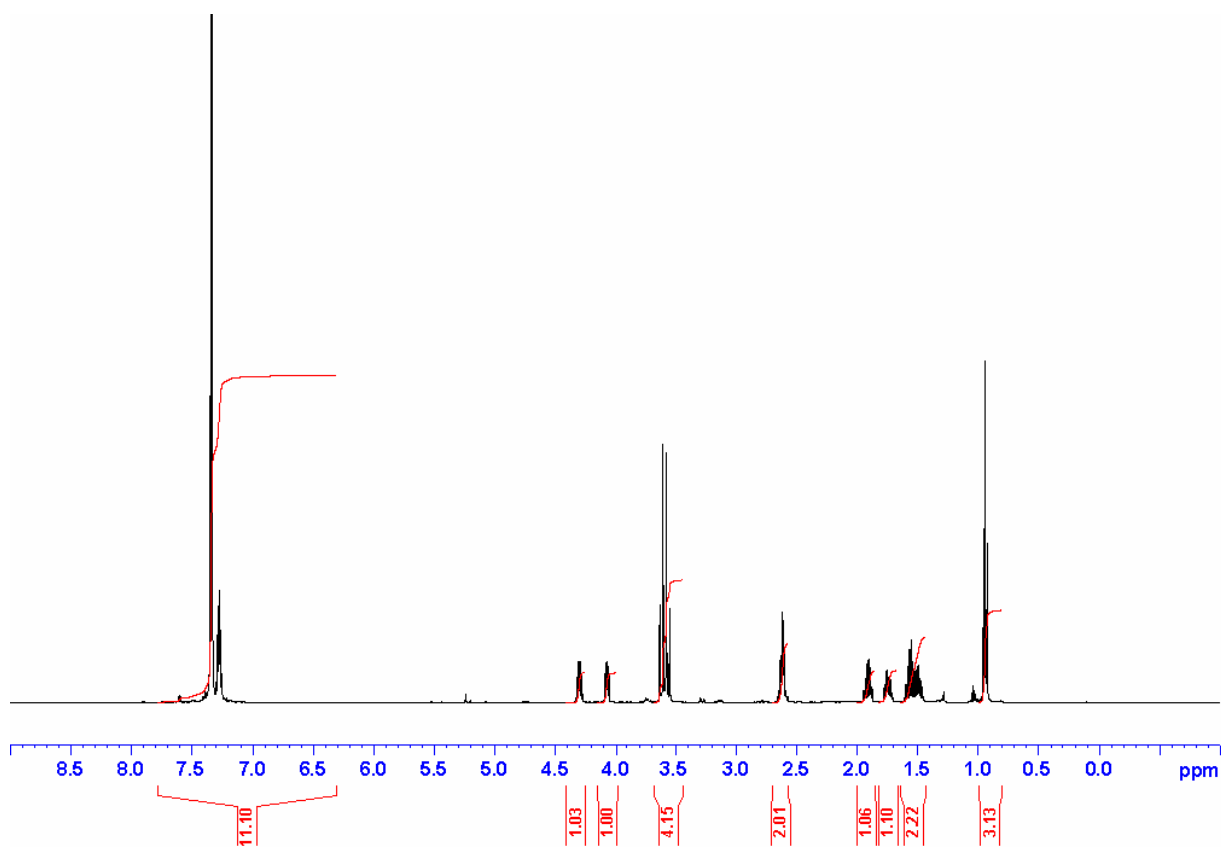
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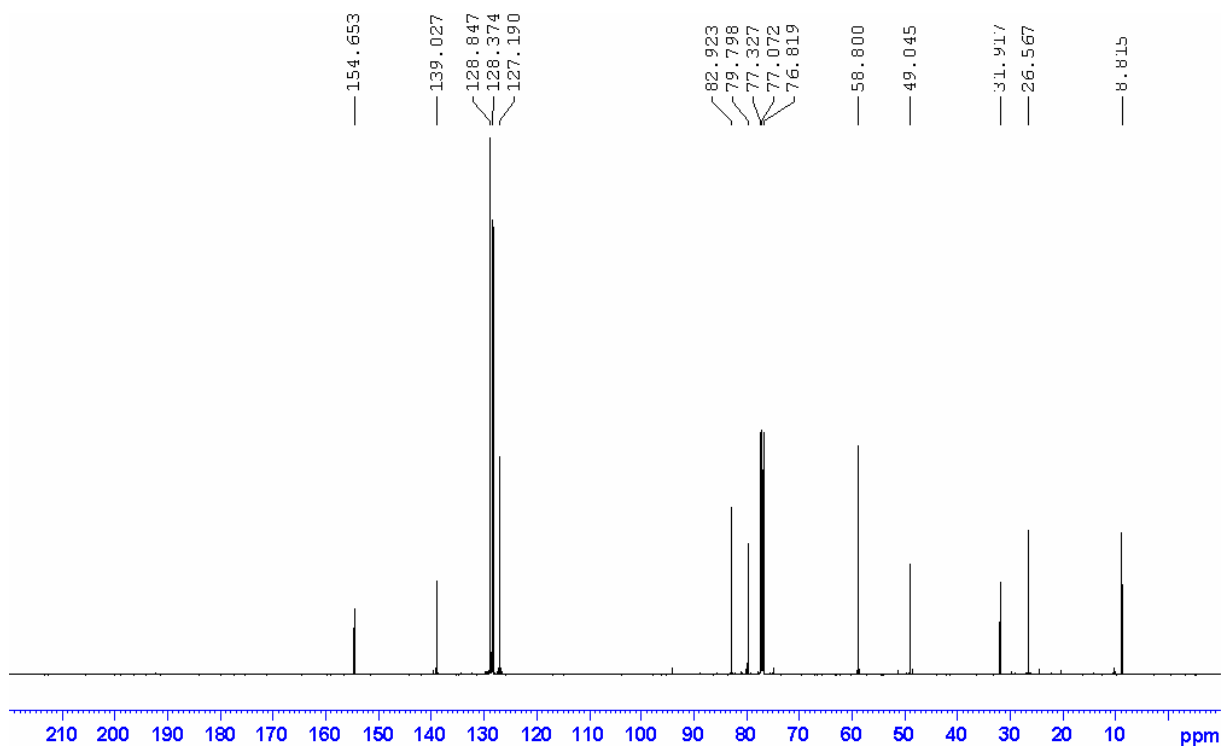
(*RS,SR*)-4-(2'-Hydroxyethyl)-5-ethyl-1,3-dioxolan-2-one 46 (125 MHz ^{13}C , CDCl_3)



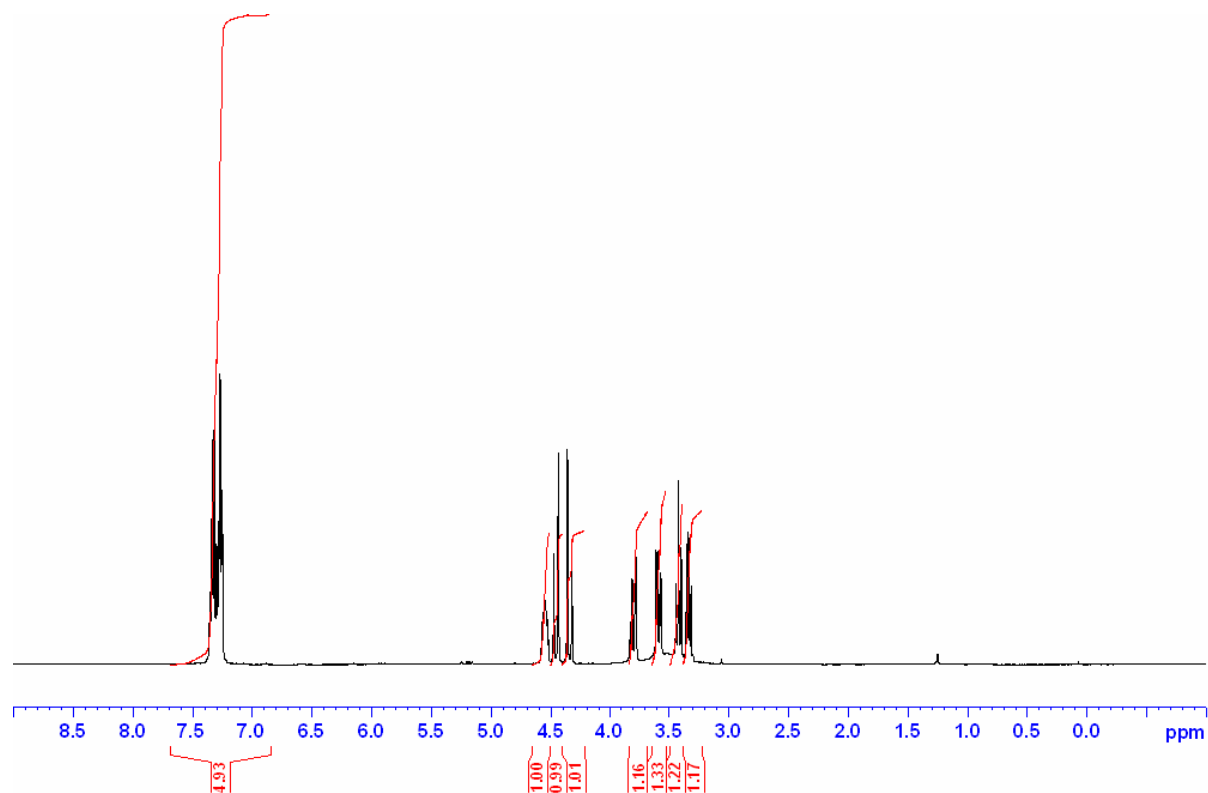
(*RS,SR*)-4-(2'-Dibenzylaminoethyl)-5-ethyl-1,3-dioxolan-2-one 47 (500 MHz ^1H , CDCl_3)



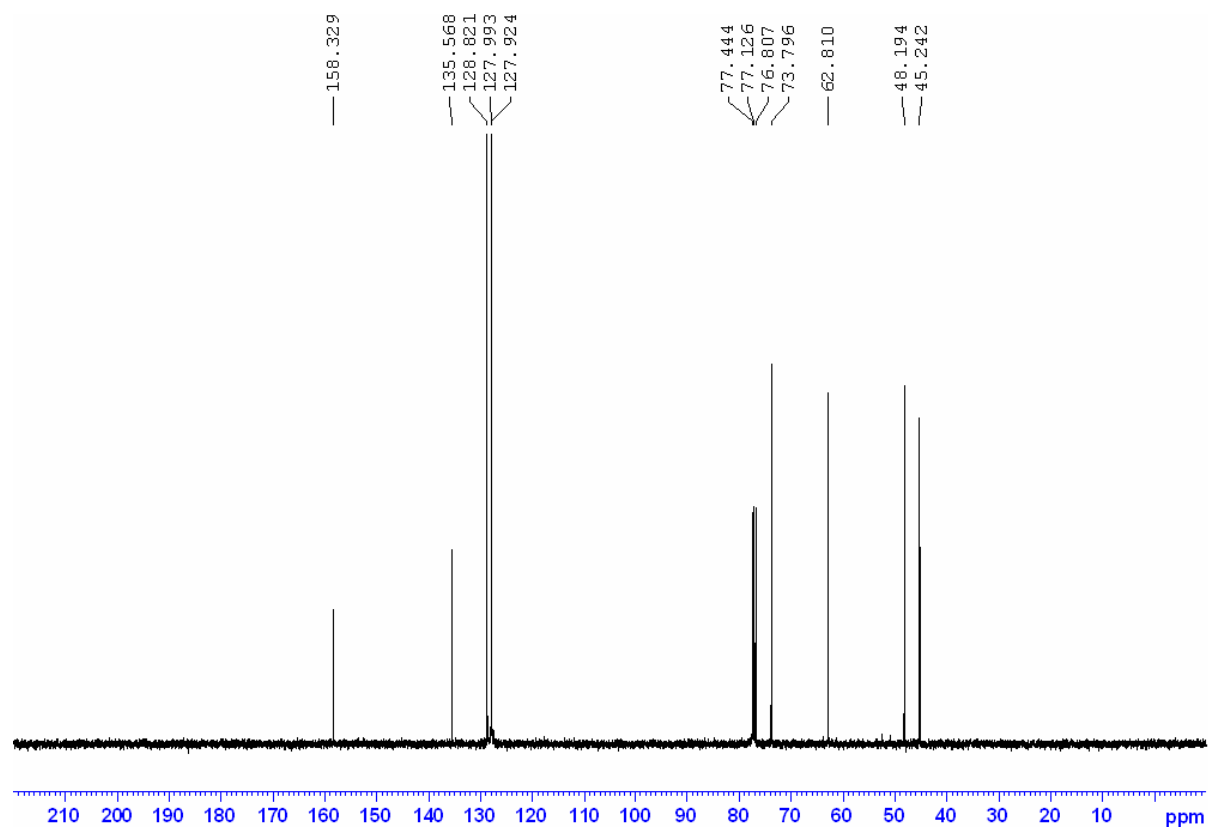
(*RS,SR*)-4-(2'-Dibenzylaminoethyl)-5-ethyl-1,3-dioxolan-2-one 47 (125 MHz ^{13}C , CDCl_3)



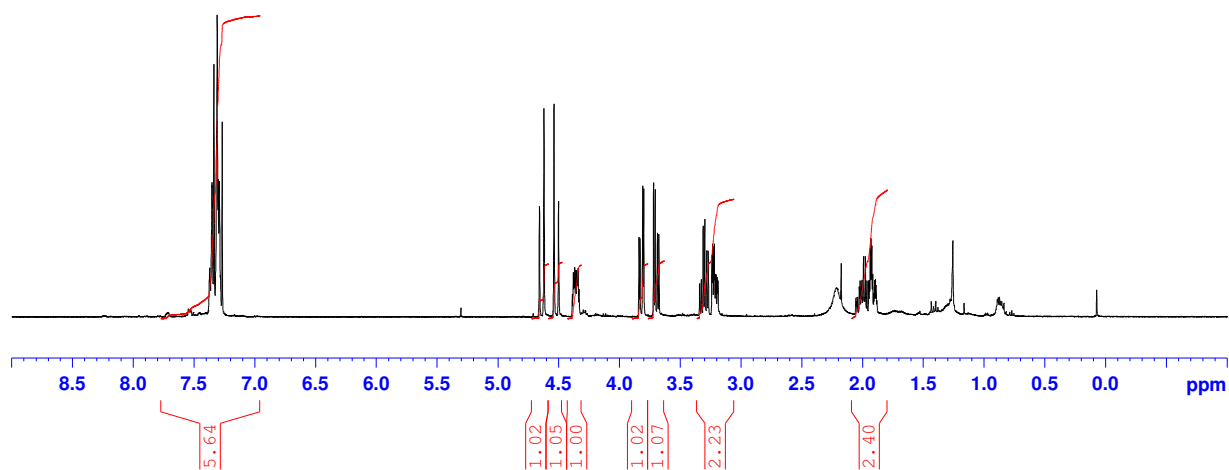
(*RS*)-*N*(3)-Benzyl-5-(hydroxymethyl)-1,3-oxazolidin-2-one 50 (400 MHz ^1H , CDCl_3)



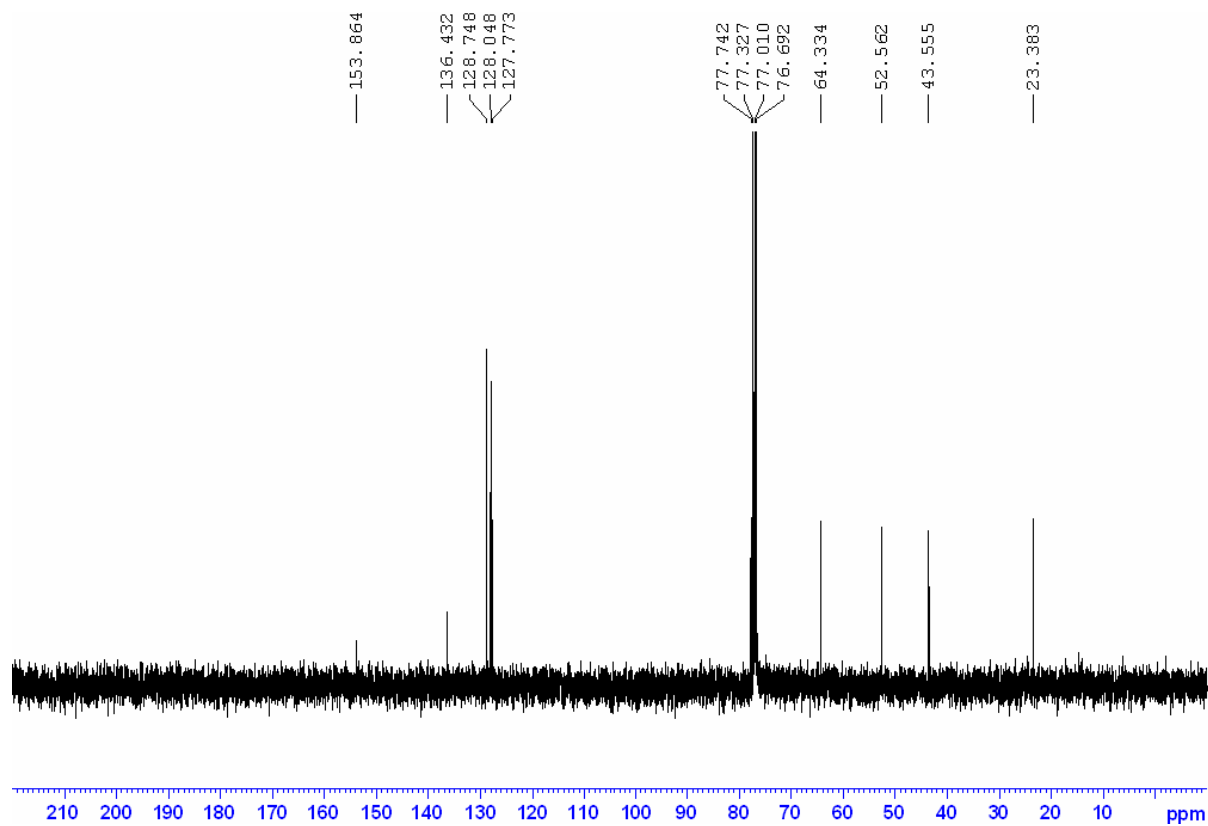
(*RS*)-*N*(3)-Benzyl-5-(hydroxymethyl)-1,3-oxazolidin-2-one 50 (100 MHz ^{13}C , CDCl_3)



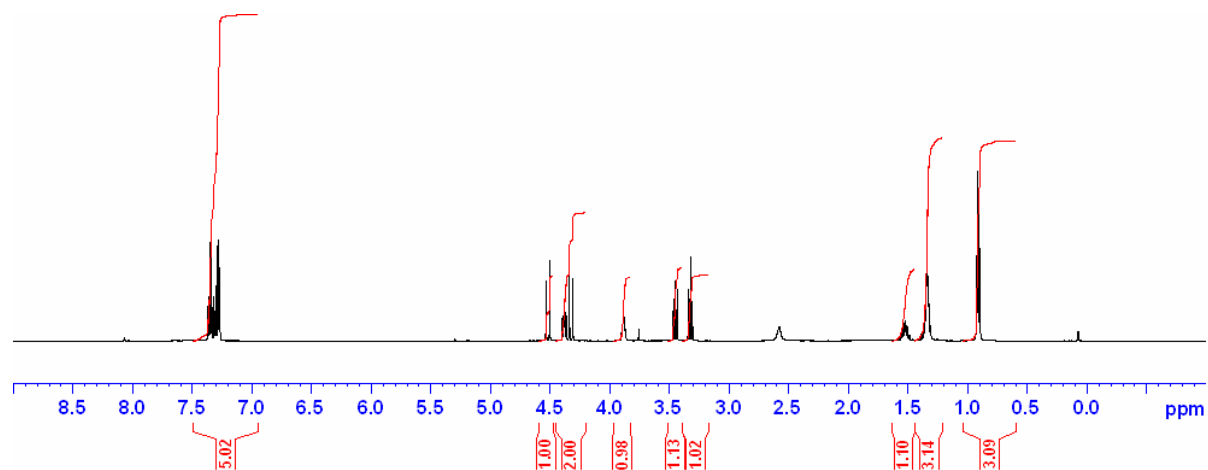
(*RS*)-*N*(3)-Benzyl-6-(hydroxymethyl)-1,3-oxazinan-2-one 51 (400 MHz ^1H , CDCl_3)



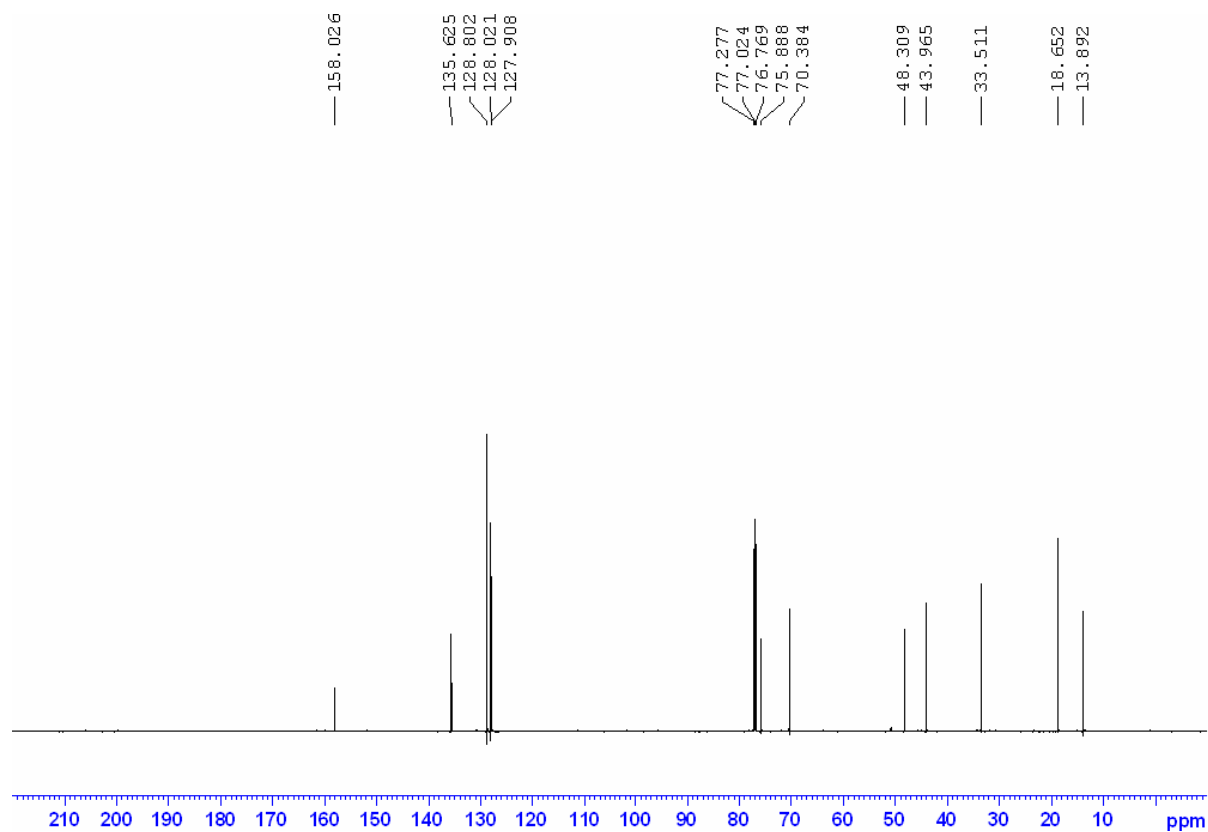
(*RS*)-*N*(3)-Benzyl-6-(hydroxymethyl)-1,3-oxazinan-2-one 51 (100 MHz ^{13}C , CDCl_3)



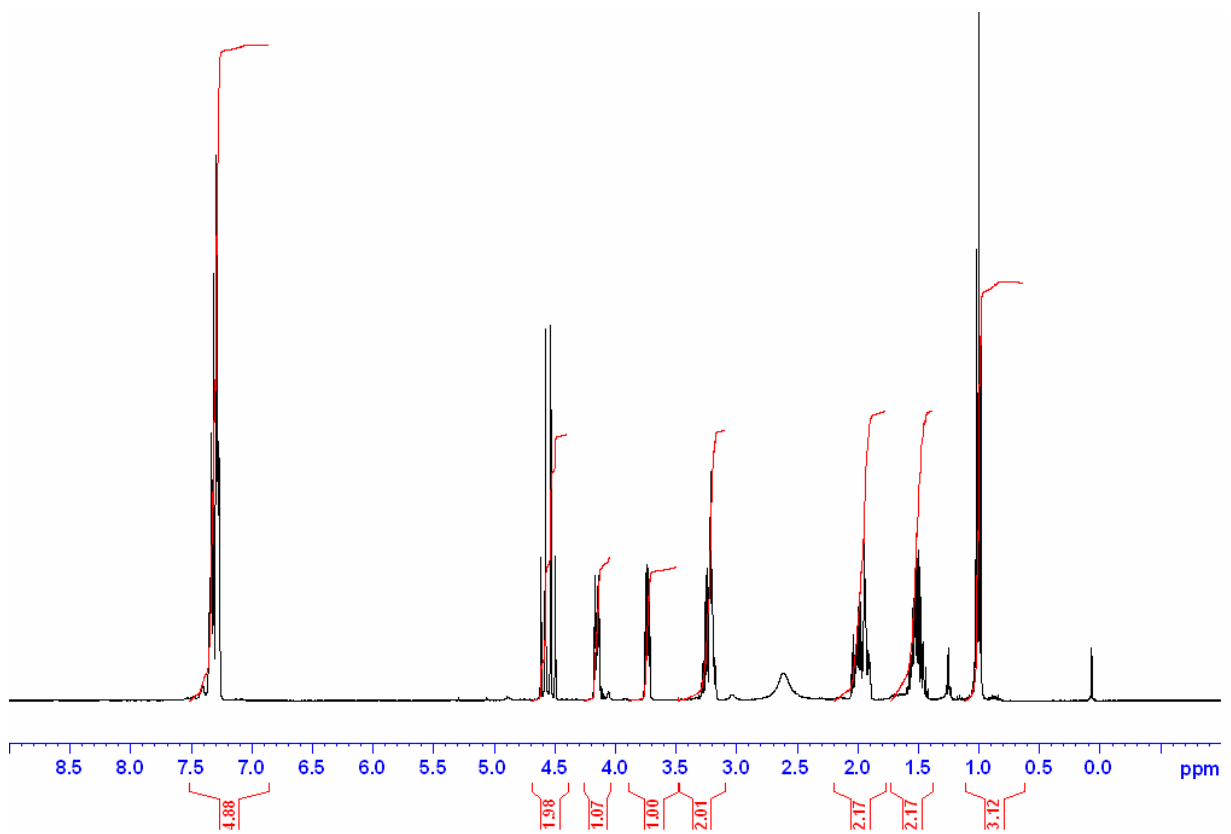
(*RS,SR*)-*N*(3)-Benzyl-5-(1'-hydroxybutyl)-1,3-oxazolidin-2-one 54 (500 MHz ^1H , CDCl_3)



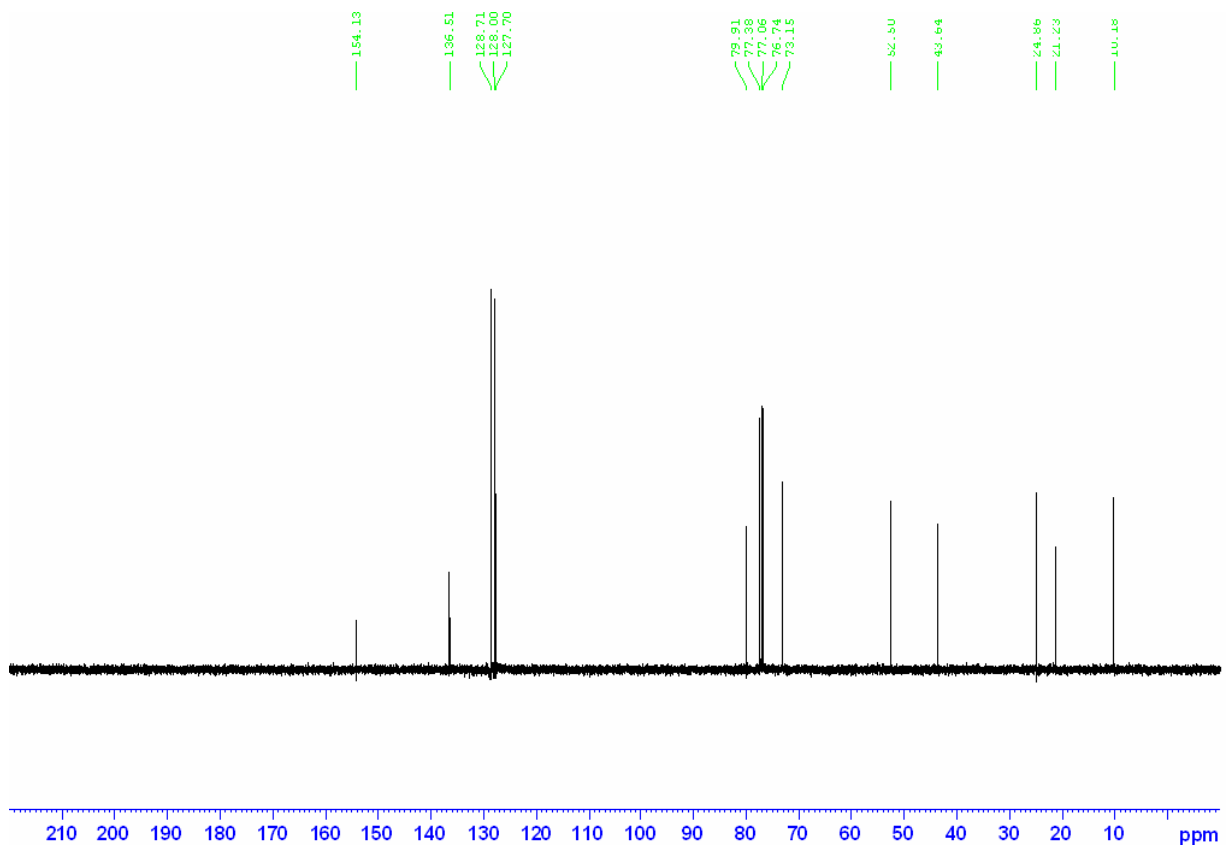
(*RS,SR*)-*N*(3)-Benzyl-5-(1'-hydroxybutyl)-1,3-oxazolidin-2-one 54 (125 MHz ^{13}C , CDCl_3)



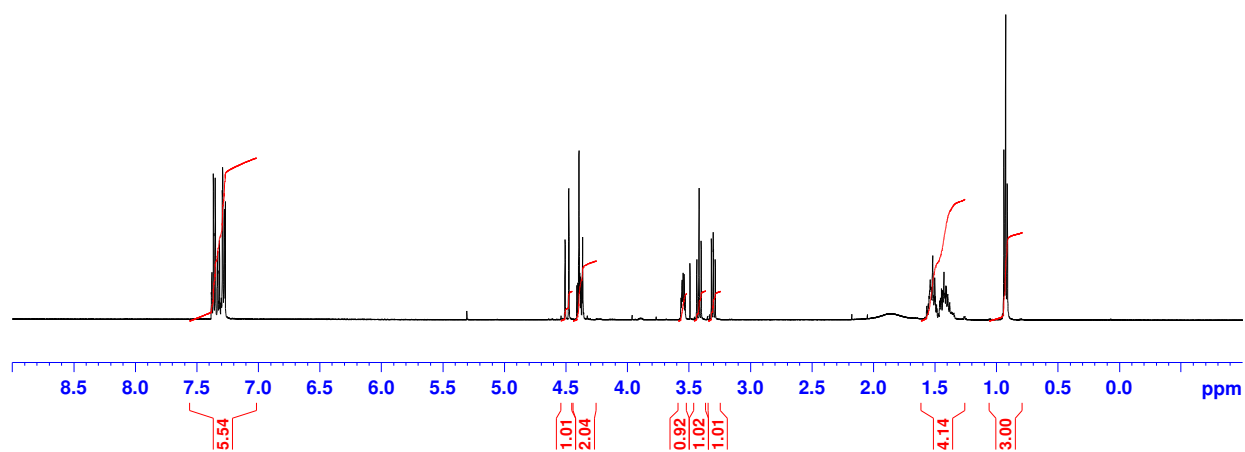
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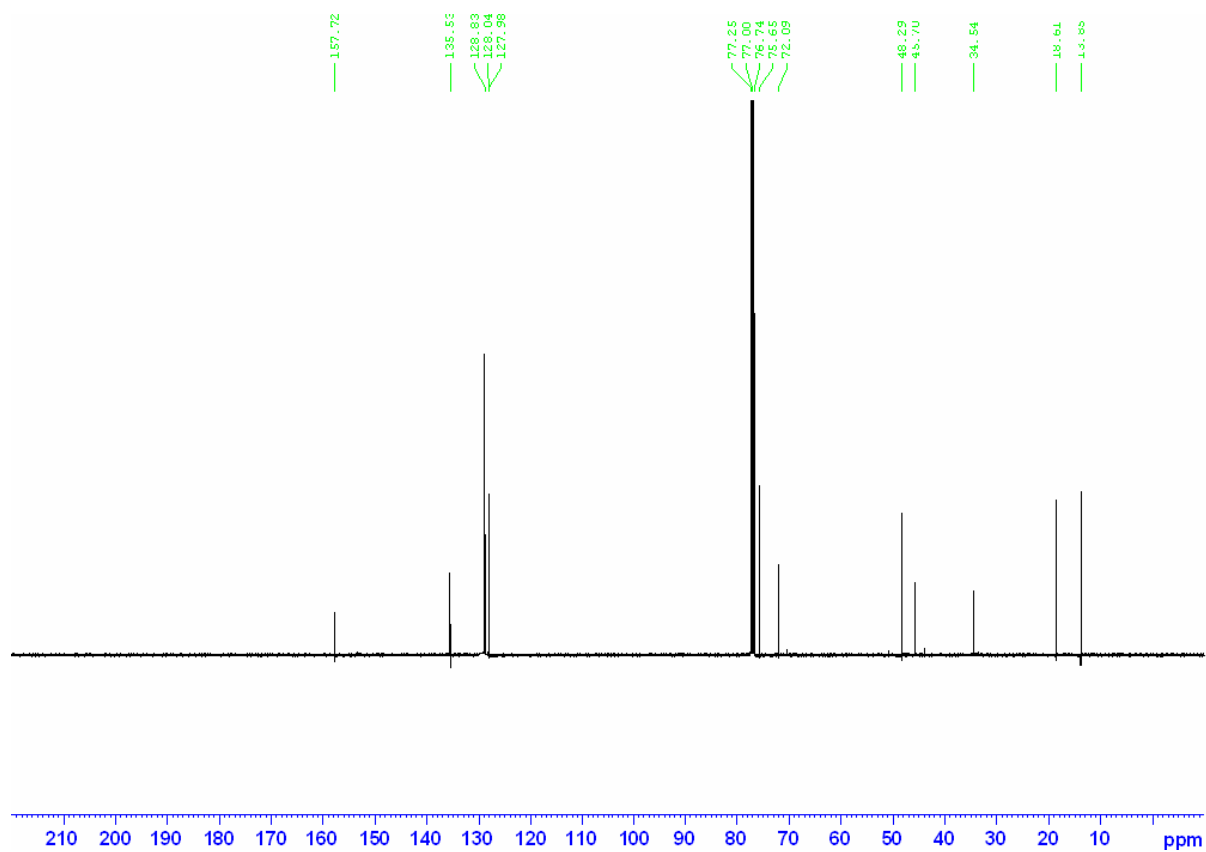
(*RS,SR*)-*N*(3)-Benzyl-6-(1'-hydroxypropyl)-1,3-oxazinan-2-one 55 (100 MHz ¹³C, CDCl₃)



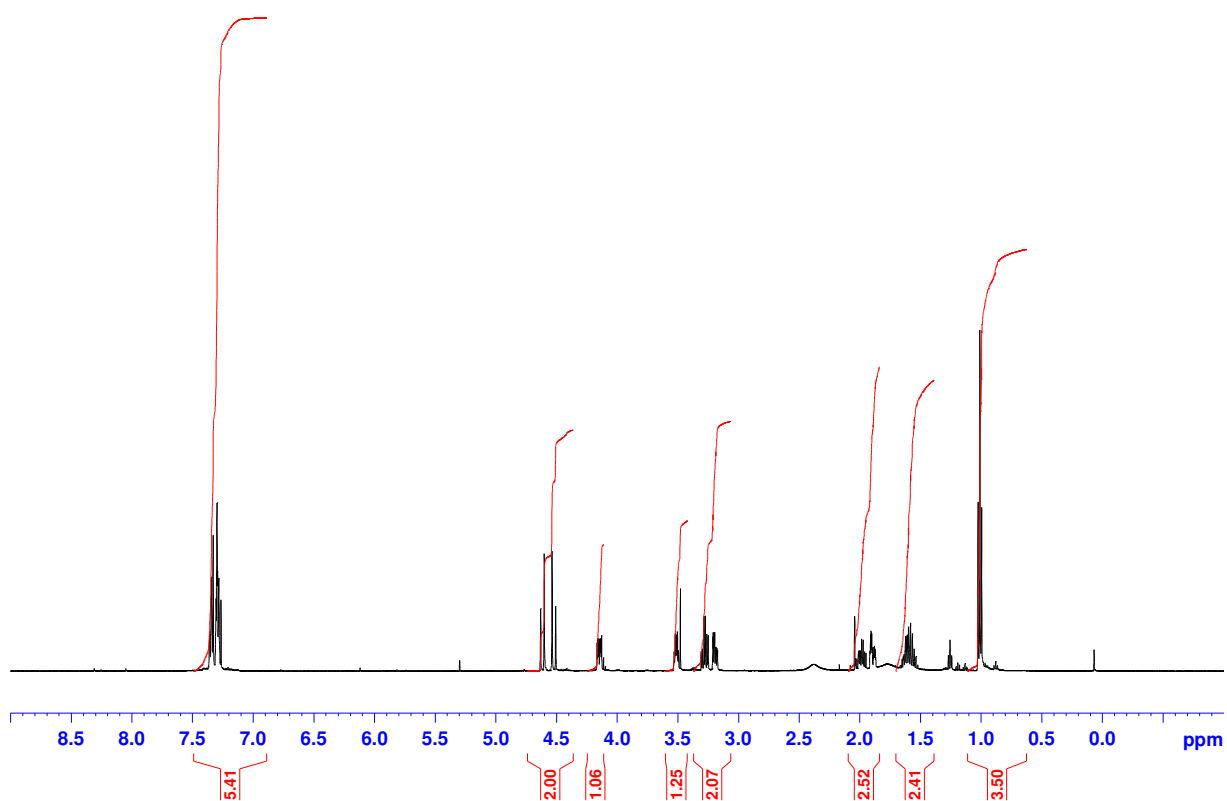
(*RS,RS*)-*N*(3)-Benzyl-5-(1'-hydroxybutyl)-1,3-oxazolidin-2-one 58 (500 MHz ^1H , CDCl_3)



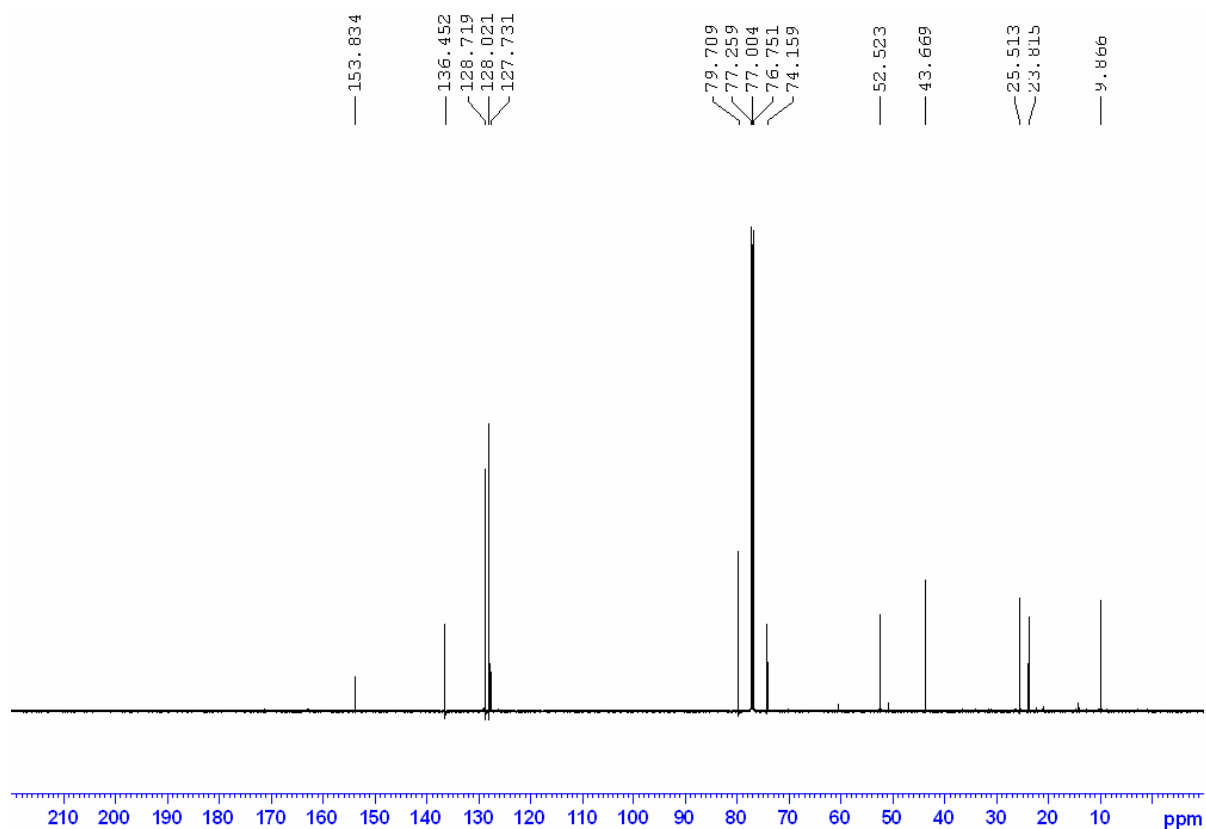
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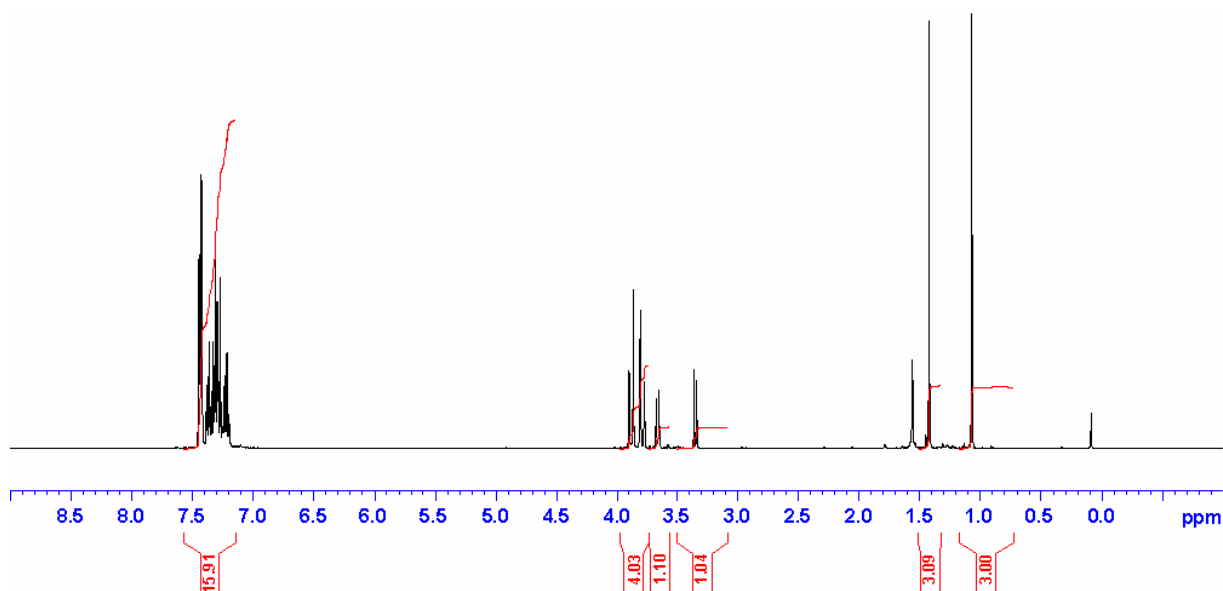
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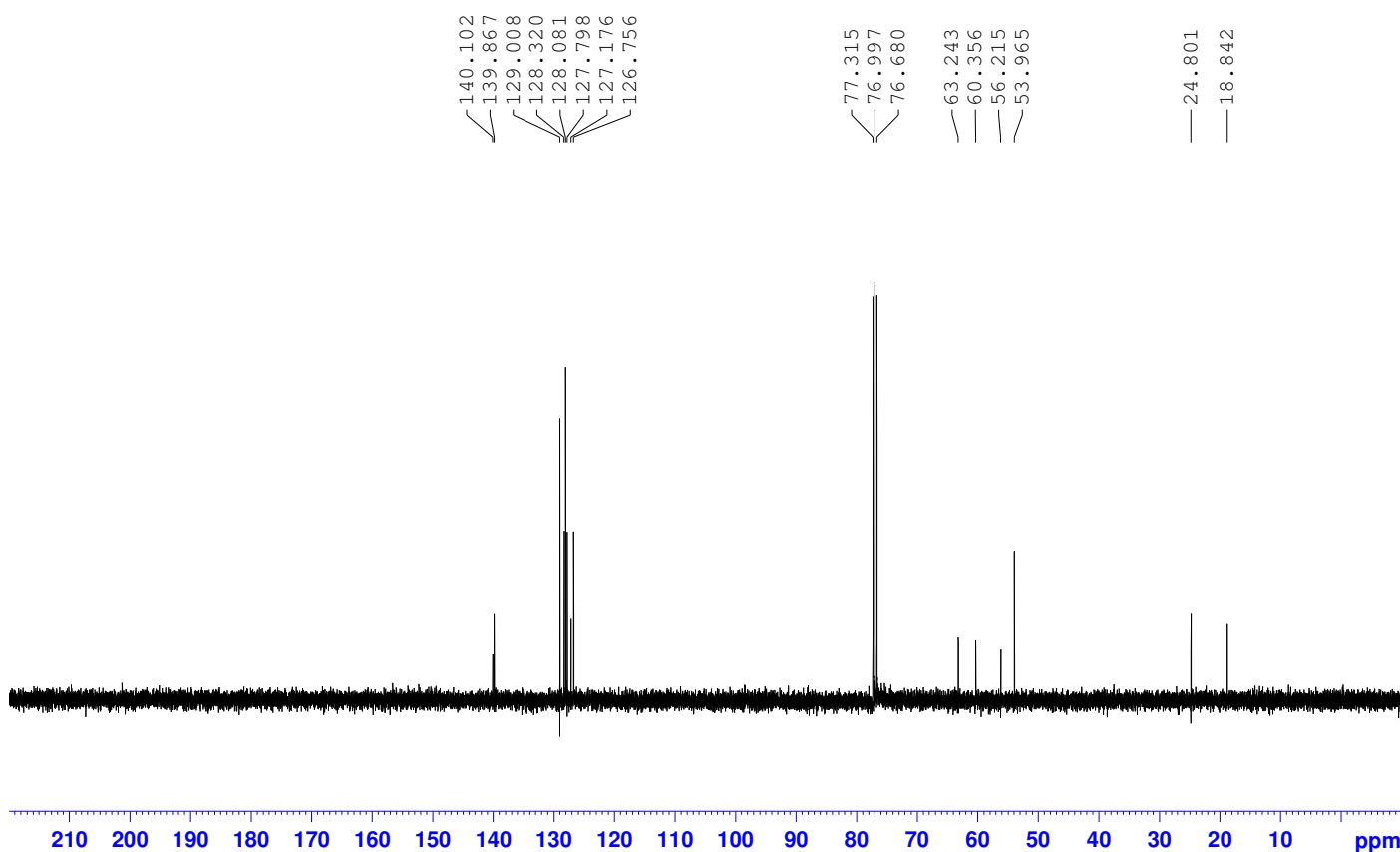
(*RS,RS*)-*N*(3)-Benzyl-6-(1'-hydroxypropyl)-1,3-oxazinan-2-one 59 (100 MHz ^{13}C , CDCl_3)



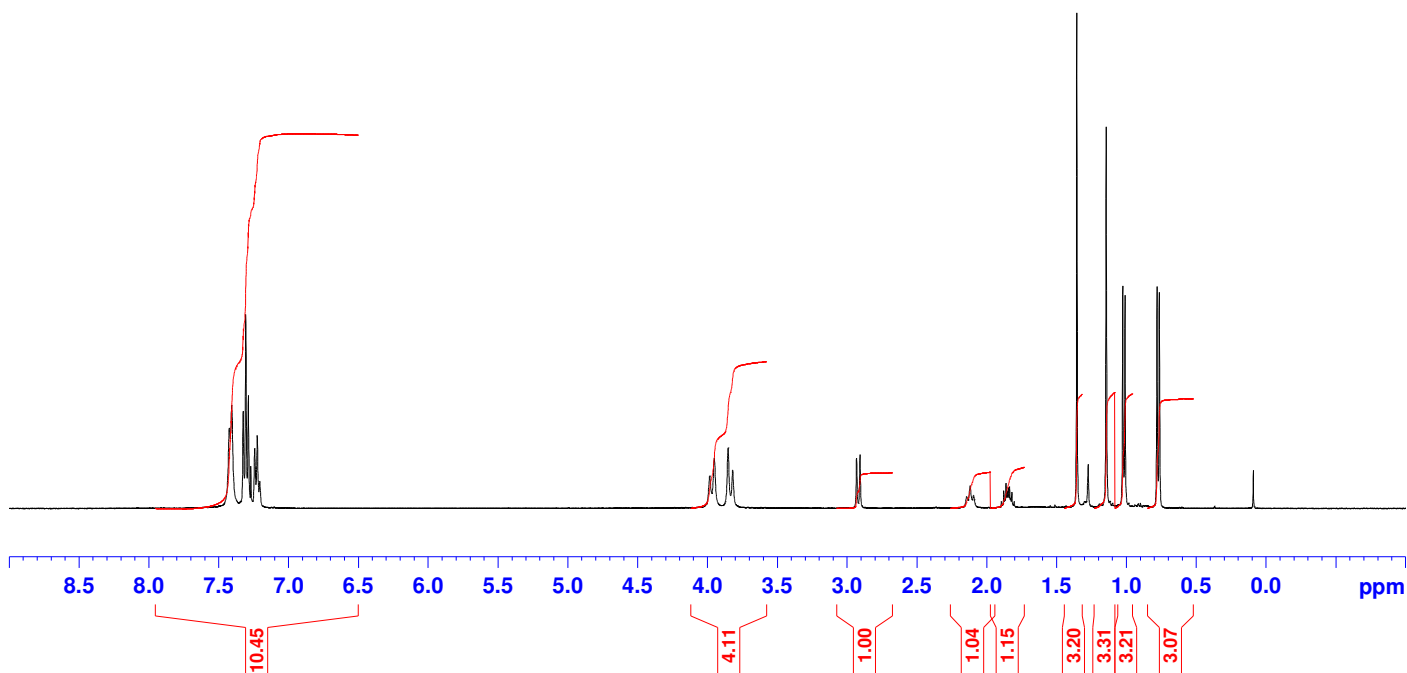
(*RS,SR*)-1-*N,N*-Dibenzylamino-1-phenyl-2,3-epoxy-3-methylbutane 73 (400 MHz ¹H, CDCl₃)



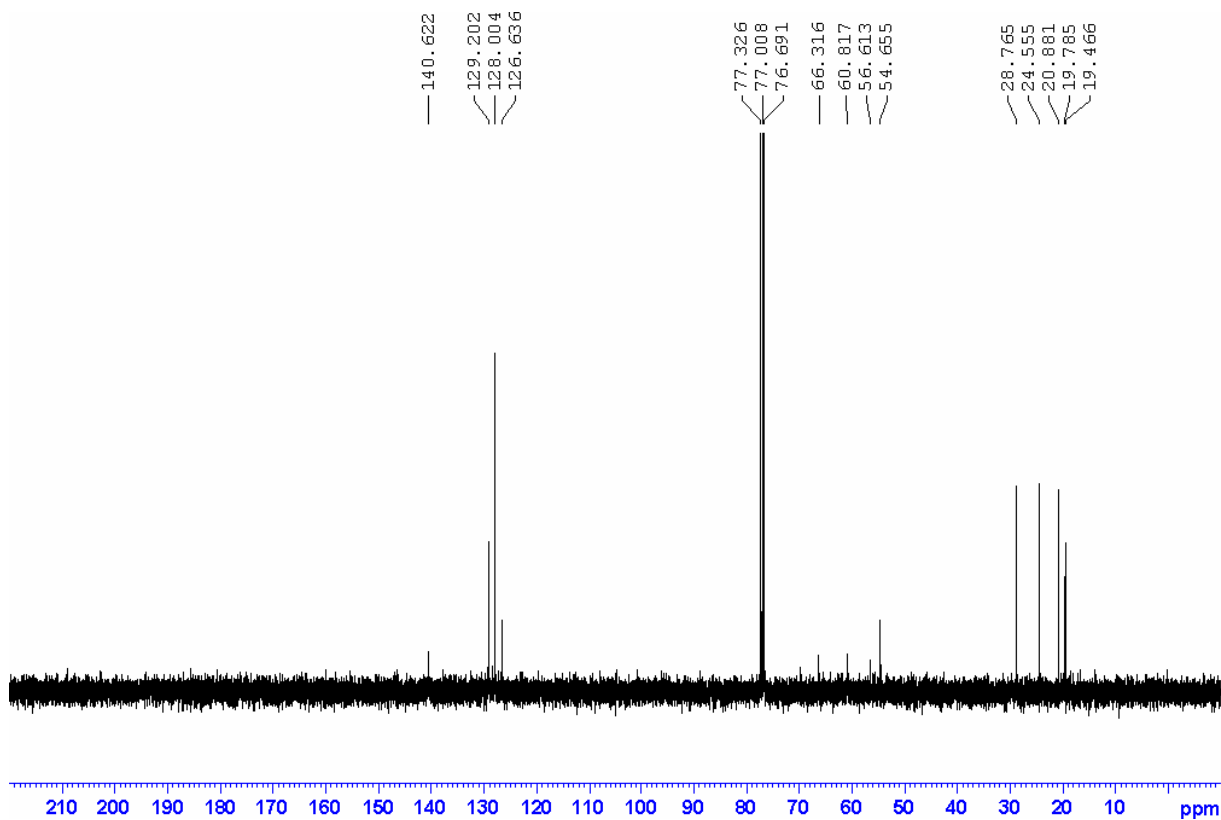
(*RS,SR*)-1-*N,N*-Dibenzylamino-1-phenyl-2,3-epoxy-3-methylbutane 73 (100 MHz ¹³C, CDCl₃)



(*RS,SR*)-1-*N,N*-Dibenzylamino-1-isopropyl-2,3-epoxy-3-methylbutane 74 (400 MHz ^1H , CDCl_3)

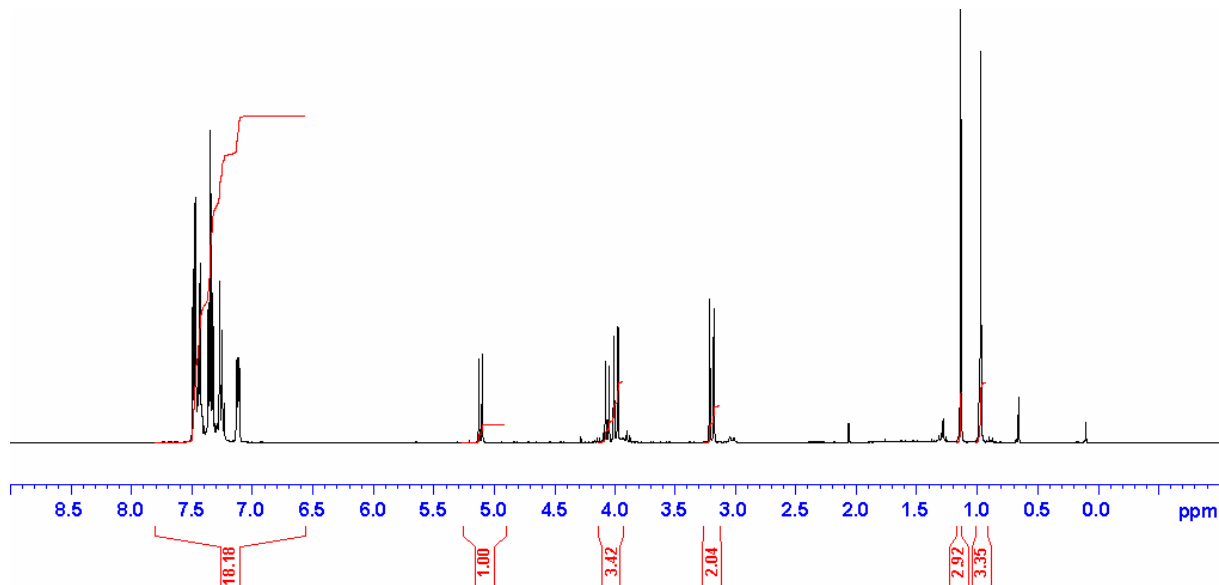


(*RS,SR*)-1-*N,N*-Dibenzylamino-1-isopropyl-2,3-epoxy-3-methylbutane 74 (100 MHz ^{13}C , CDCl_3)



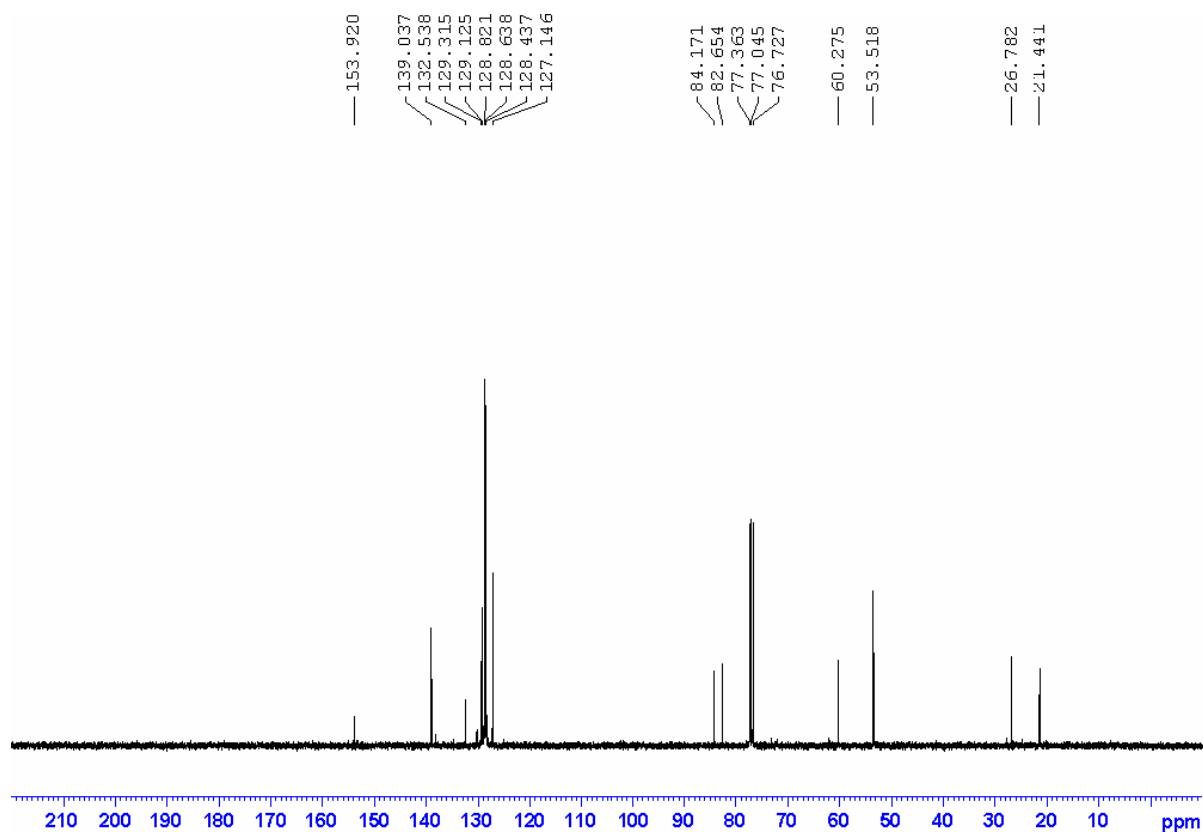
(*RS,SR*)-4,4-Dimethyl-5-[(*N,N*-dibenzylamino)(phenyl)methyl]-1,3-dioxolan-2-one 76

(400 MHz ^1H , CDCl_3)

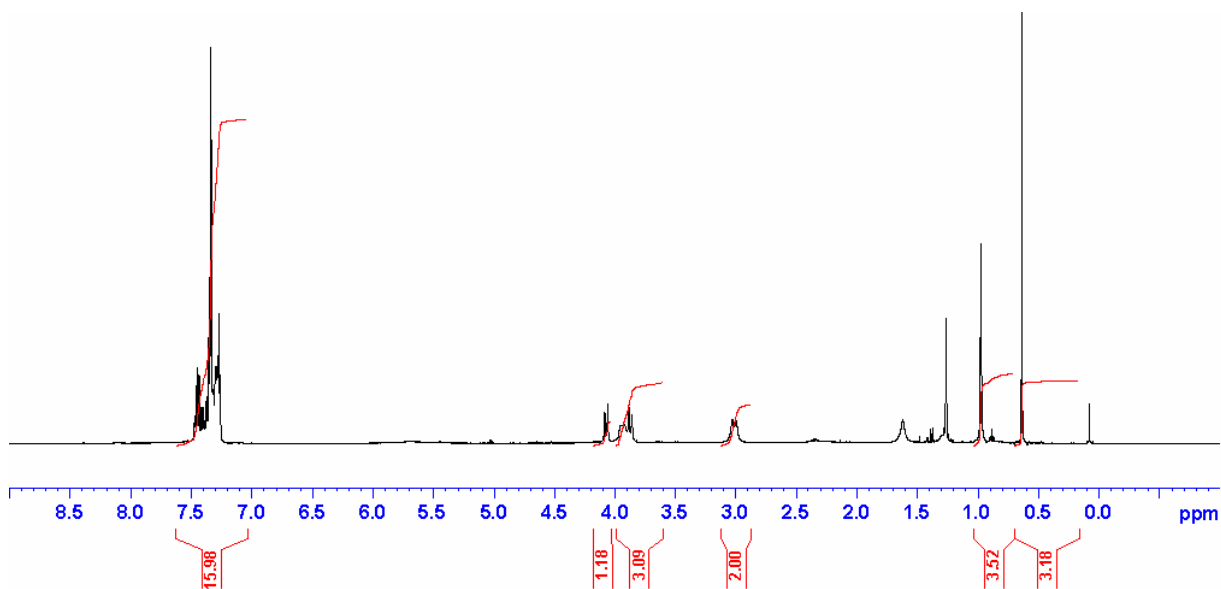


(*RS,SR*)-4,4-Dimethyl-5-[(*N,N*-dibenzylamino)(phenyl)methyl]-1,3-dioxolan-2-one 76

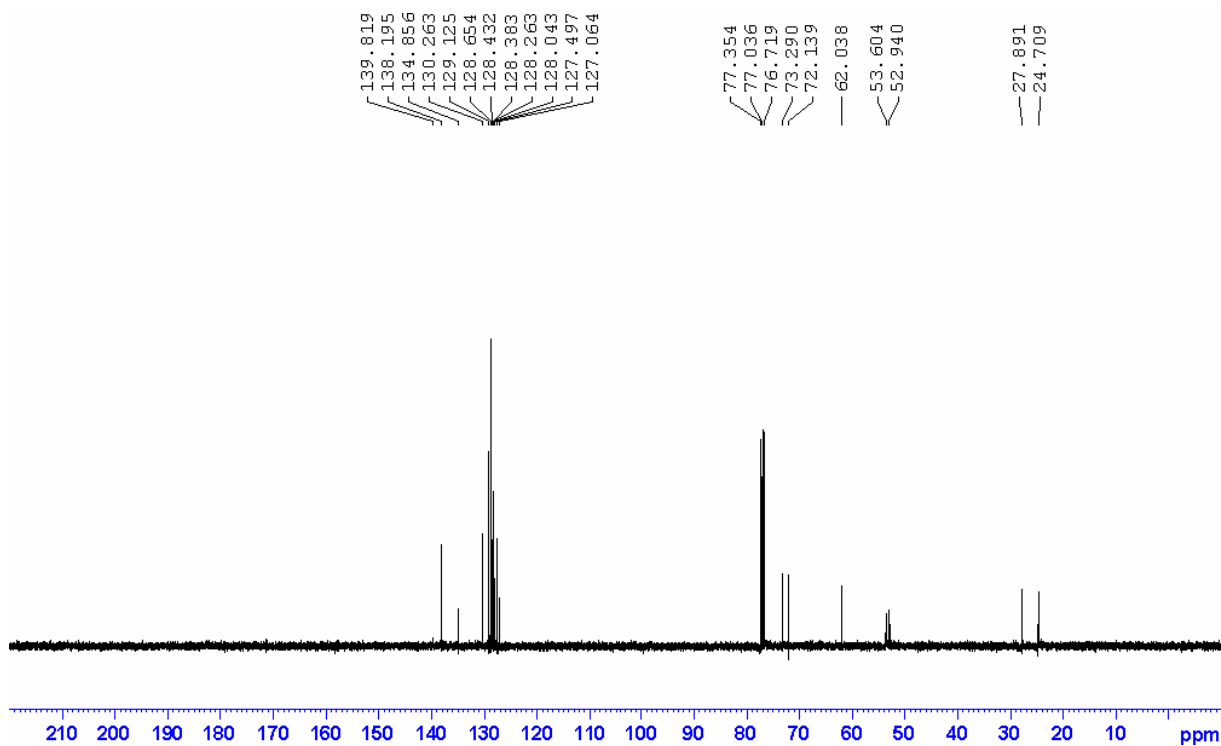
(100 MHz ^{13}C , CDCl_3)



(*RS,SR*)-1-*N,N*-Dibenzylamino-1-phenyl-3-methyl-butane-2,3-diol 77 (400 MHz ^1H , CDCl_3)

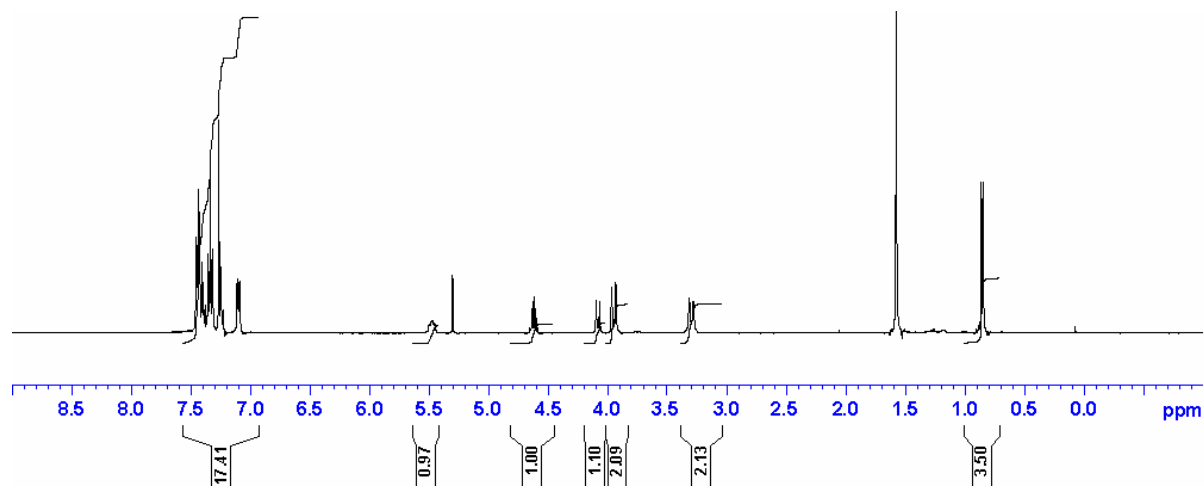


(*RS,SR*)-1-*N,N*-Dibenzylamino-1-phenyl-3-methyl-butane-2,3-diol 77 (100 MHz ^{13}C , CDCl_3)



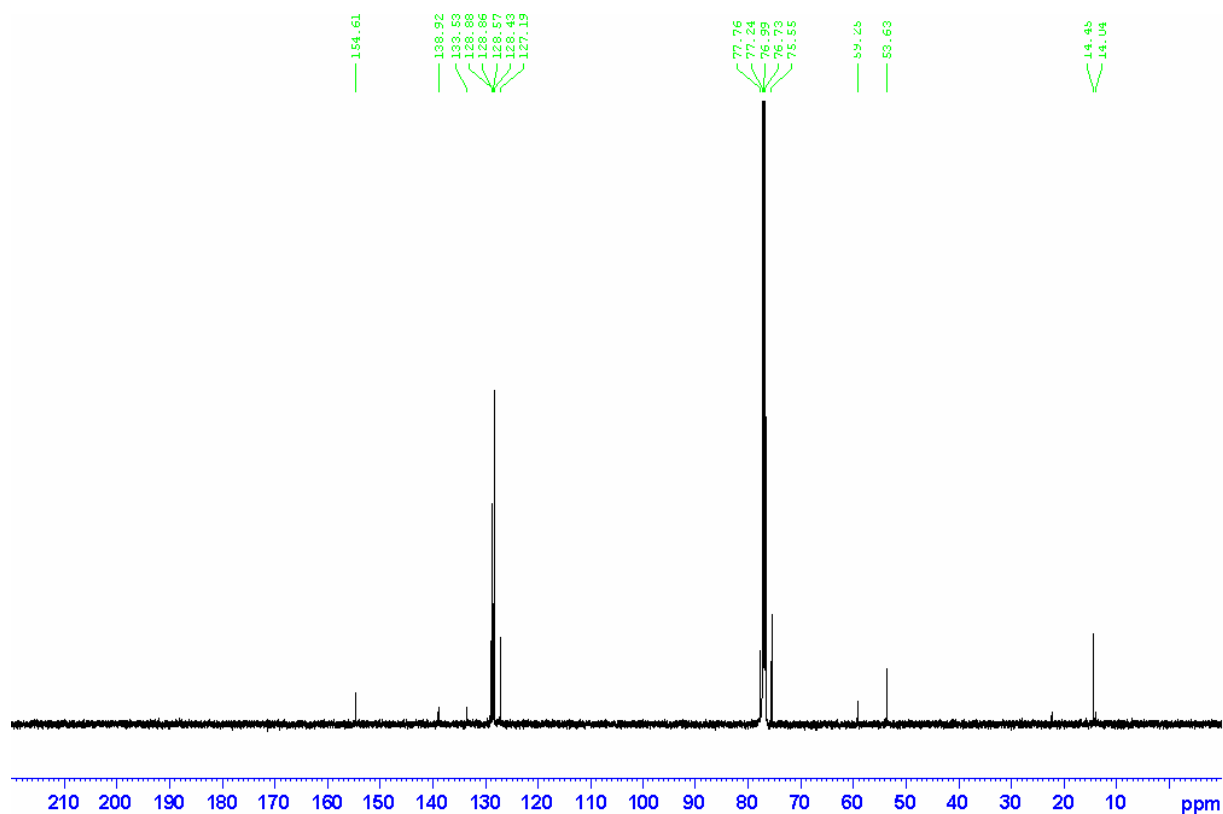
(4*RS*,5*SR*,1'*SR*)-4-[(*N,N*-Dibenzylamino)(phenyl)methyl]-5-methyl-1,3-dioxolan-2-one 82

(400 MHz ¹H, CDCl₃)

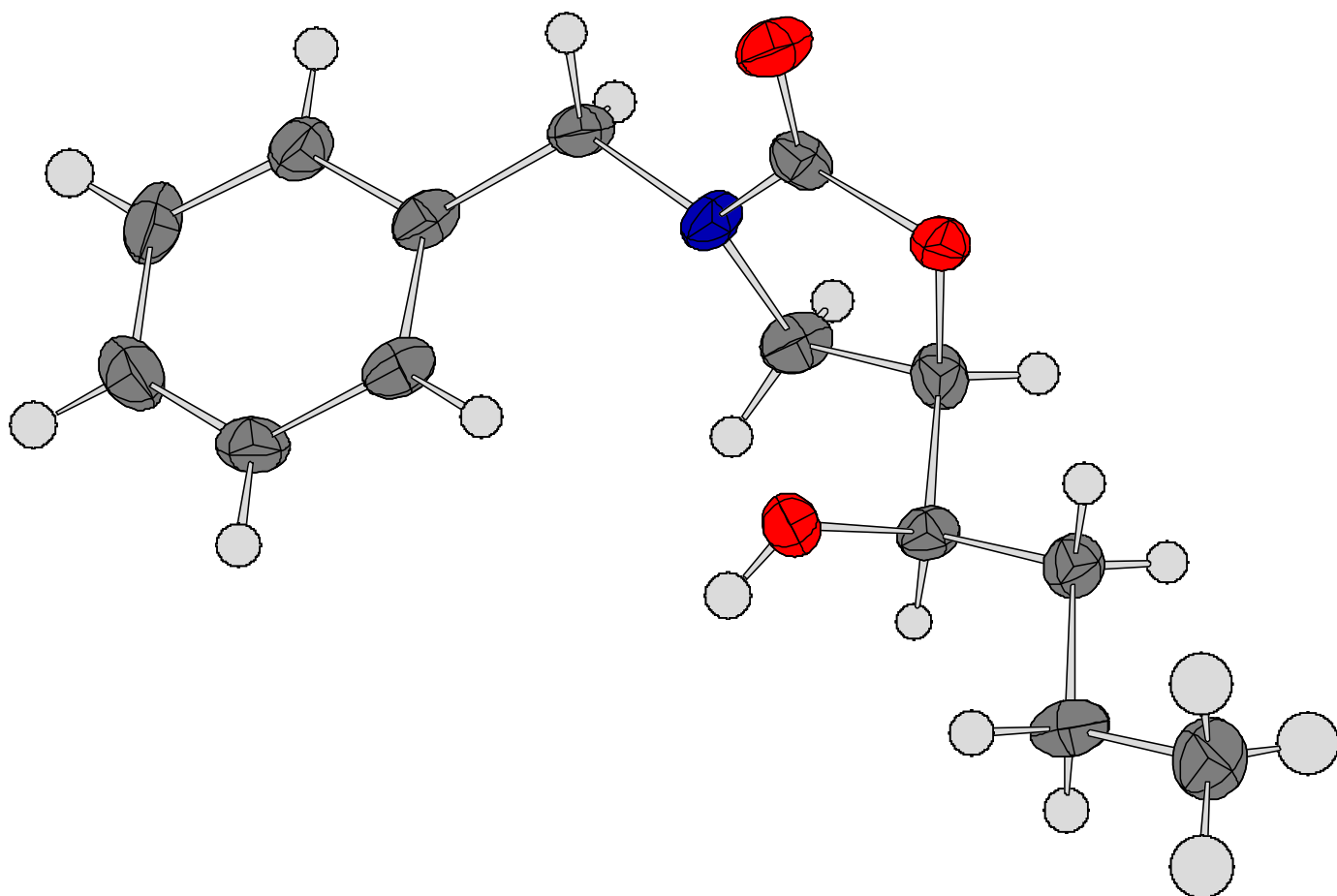


(4*RS*,5*SR*,1'*SR*)-4-[(*N,N*-Dibenzylamino)(phenyl)methyl]-5-methyl-1,3-dioxolan-2-one 82

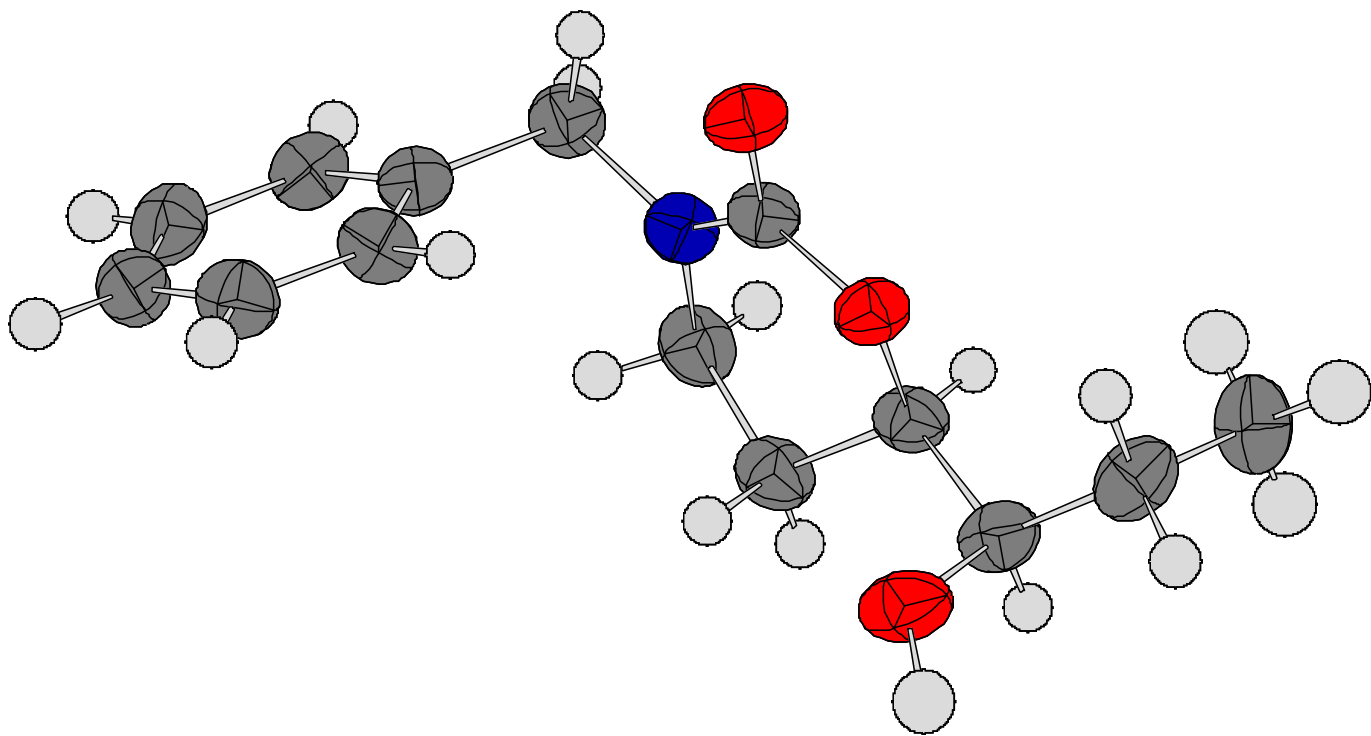
(100 MHz ¹³C, CDCl₃)



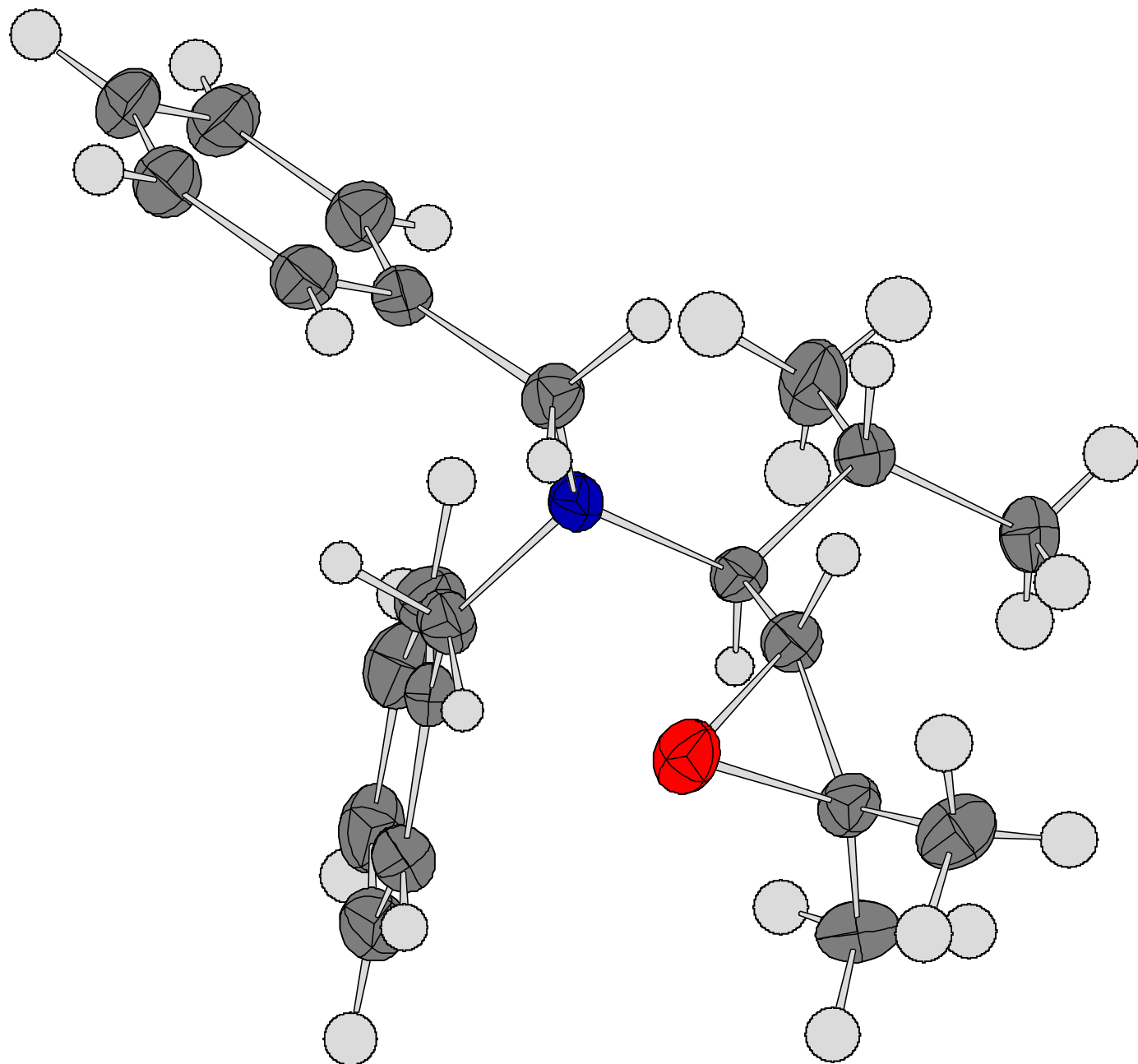
Thermal ellipsoid plot for *(RS,RS)*-*N*(3)-Benzyl-5-(1'-hydroxybutyl)-1,3-oxazolidin-2-one 58



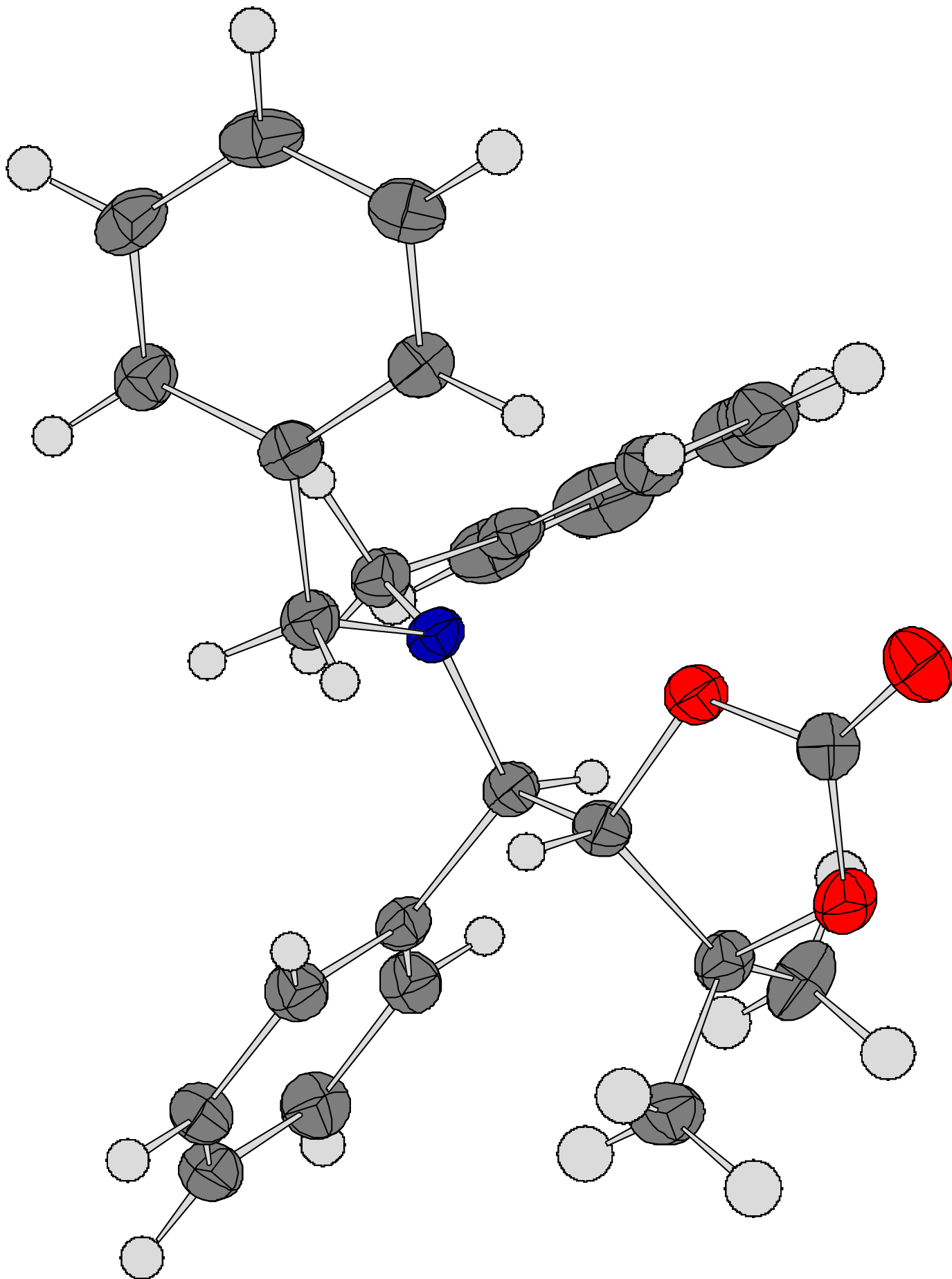
Thermal ellipsoid plot for *(RS,RS)*-*N*(3)-Benzyl-6-(1'-hydroxypropyl)-1,3-oxazinan-2-one 59



Thermal ellipsoid plot for *(RS,SR)*-1-*N,N*-Dibenzylamino-1-isopropyl-2,3-epoxy-3-methylbutane 74



Thermal ellipsoid plot for *(RS,SR)*-4,4-Dimethyl-5-[(*N,N*-dibenzylamino)(phenyl)methyl]-1,3-dioxolan-2-one 76



Thermal ellipsoid plot for *(RS,SR)*-1-*N,N*-Dibenzylamino-1-phenyl-3-methyl-butane-2,3-diol 77

