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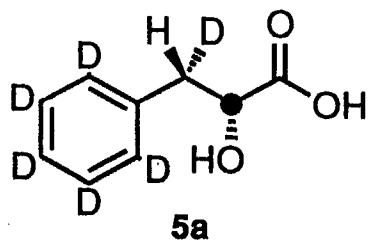
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NC FLOSS-PA
FILE /data/curdat/ncalijens.fid
RUN ON Jan 11 95
SOLVENT CDCl3

OBSERVE HI
Frequency 399.984 MHz
Spectral width 5000.0 Hz
Acquisition time 3.744 sec
Relaxation delay 0.000 sec
Pulse width 5.8 usec
Temperature 30.0 deg. C / 303.1 K
No. repetitions 64
Double Precision acquisition
DATA PROCESSING
Line broadening 0.3 Hz
FI size 65536
Total acquisition time 4 minutes



58

$D = {}^2H$ ● = ${}^{13}C$

$$J_{13C-H} = 149 \text{ Hz}$$

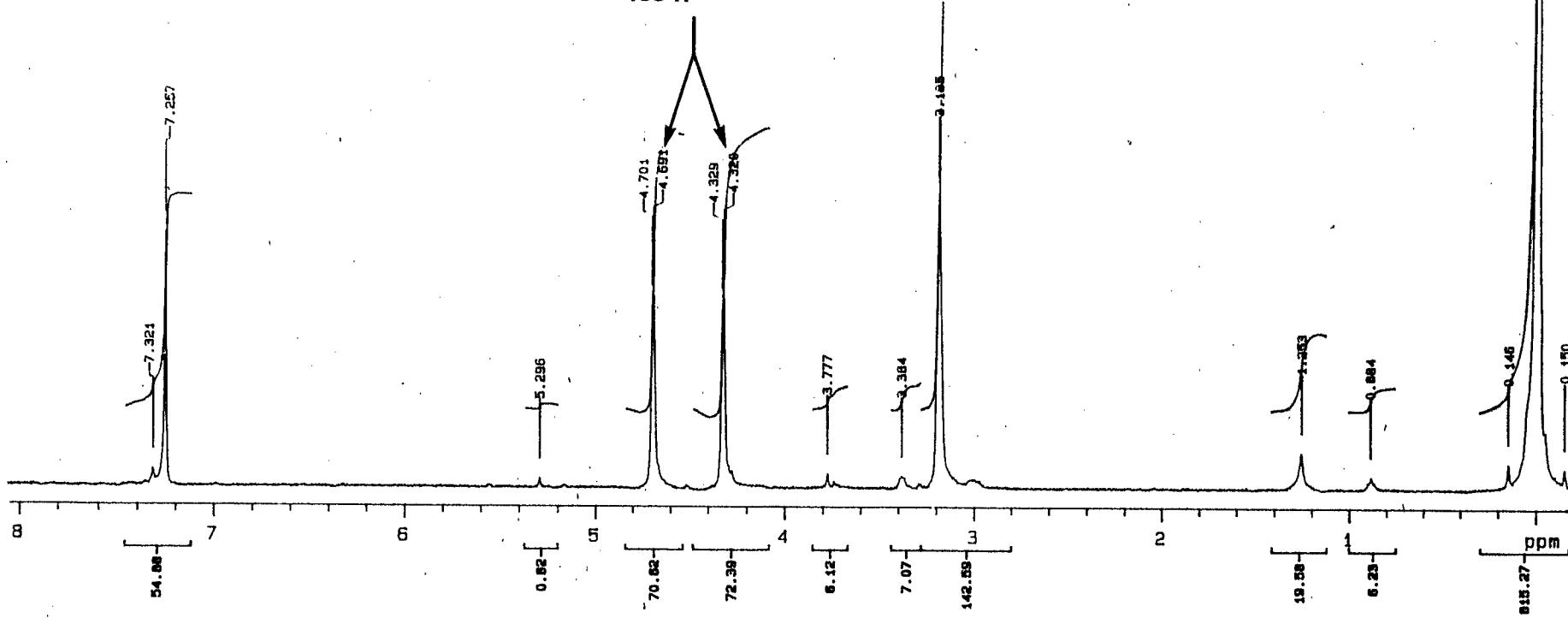


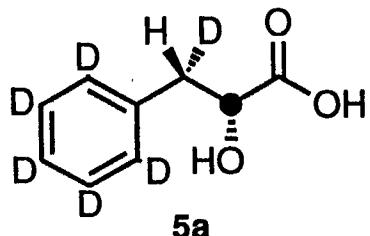
Figure 1 $^1\text{H-NMR}$ (CDCl_3 , 400MHz) of (*2R, 3S*)-[2- ^{13}C , 3- $^2\text{H}_1$, *phenyl*- $^2\text{H}_5$]-D-phenyllactate **5a**

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NC FLOSS-PA
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RUN ON Jan 11 93
SOLVENT CDCl₃

OBSERVE C13
Frequency 100.582 MHz
Spectral width 25000.0 Hz
Acquisition time 1.198 sec
Relaxation delay 3.000 sec
Pulse width 9.2 usec
Ambient temperature
No. repetitions 1281
DECOUPLE H1
High power 40
Decoupler continuously on

Double precision acquisition
DATA PROCESSING
Line broadening 1.1 Hz
Gaussian apodization 0.900 sec
FT size 131072
Total acquisition time 90 minutes



D = ²H ● = ¹³C

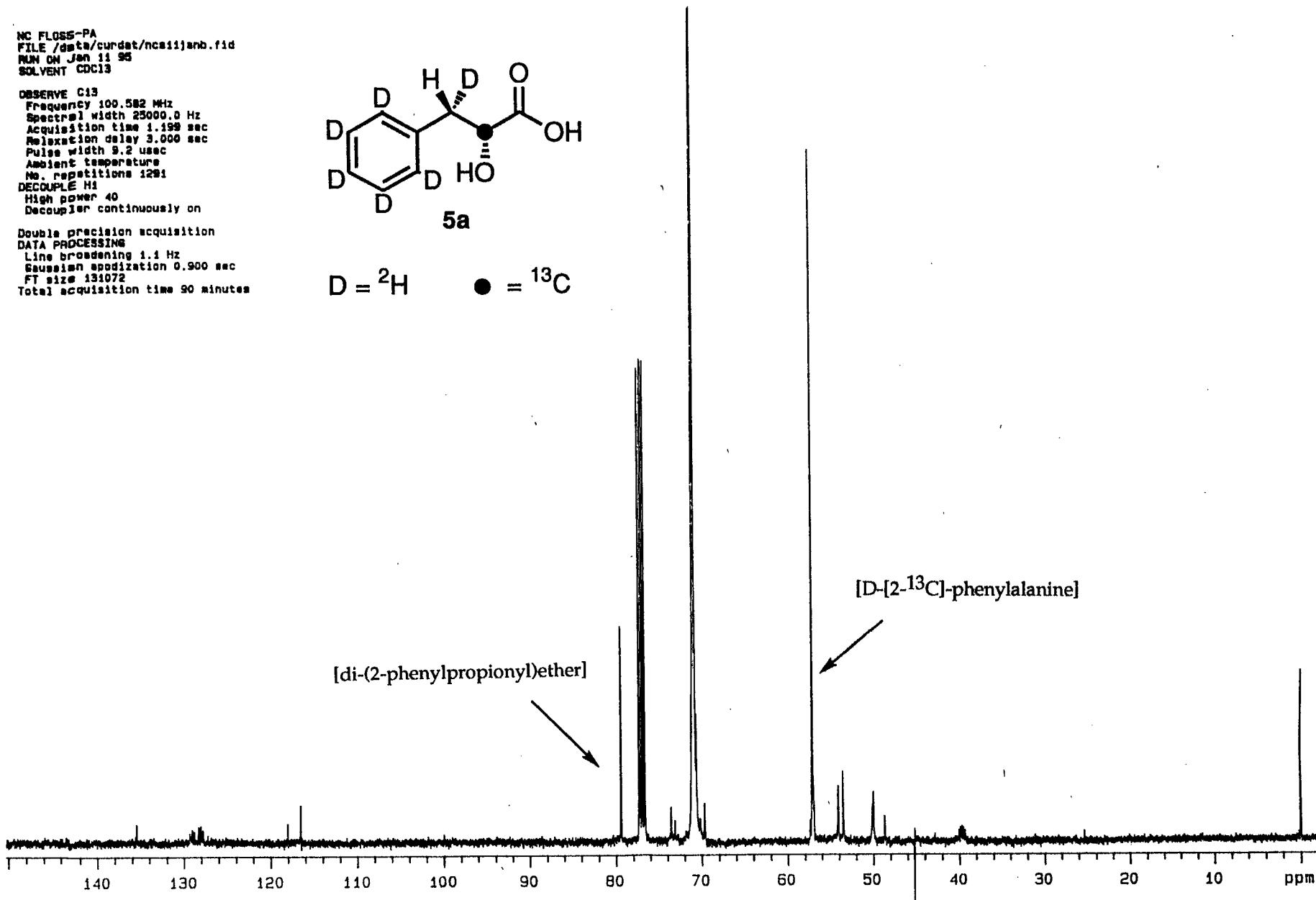


Figure 2 ¹³C-NMR (CDCl₃, 100Mz) of (2R, 3S)-[2-¹³C, 3-²H₁, phenyl-²H₅]-D-phenyllactate **5a**

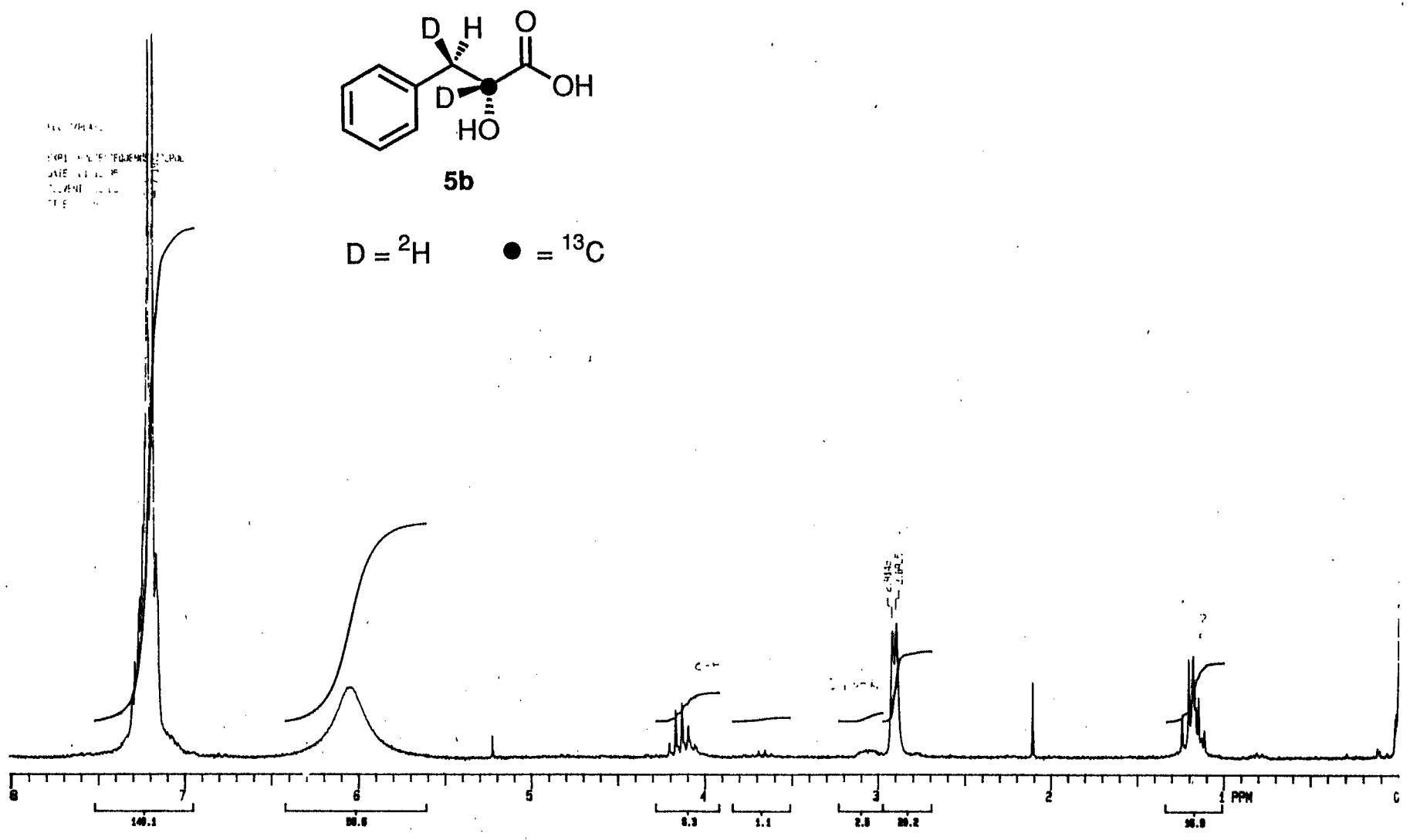
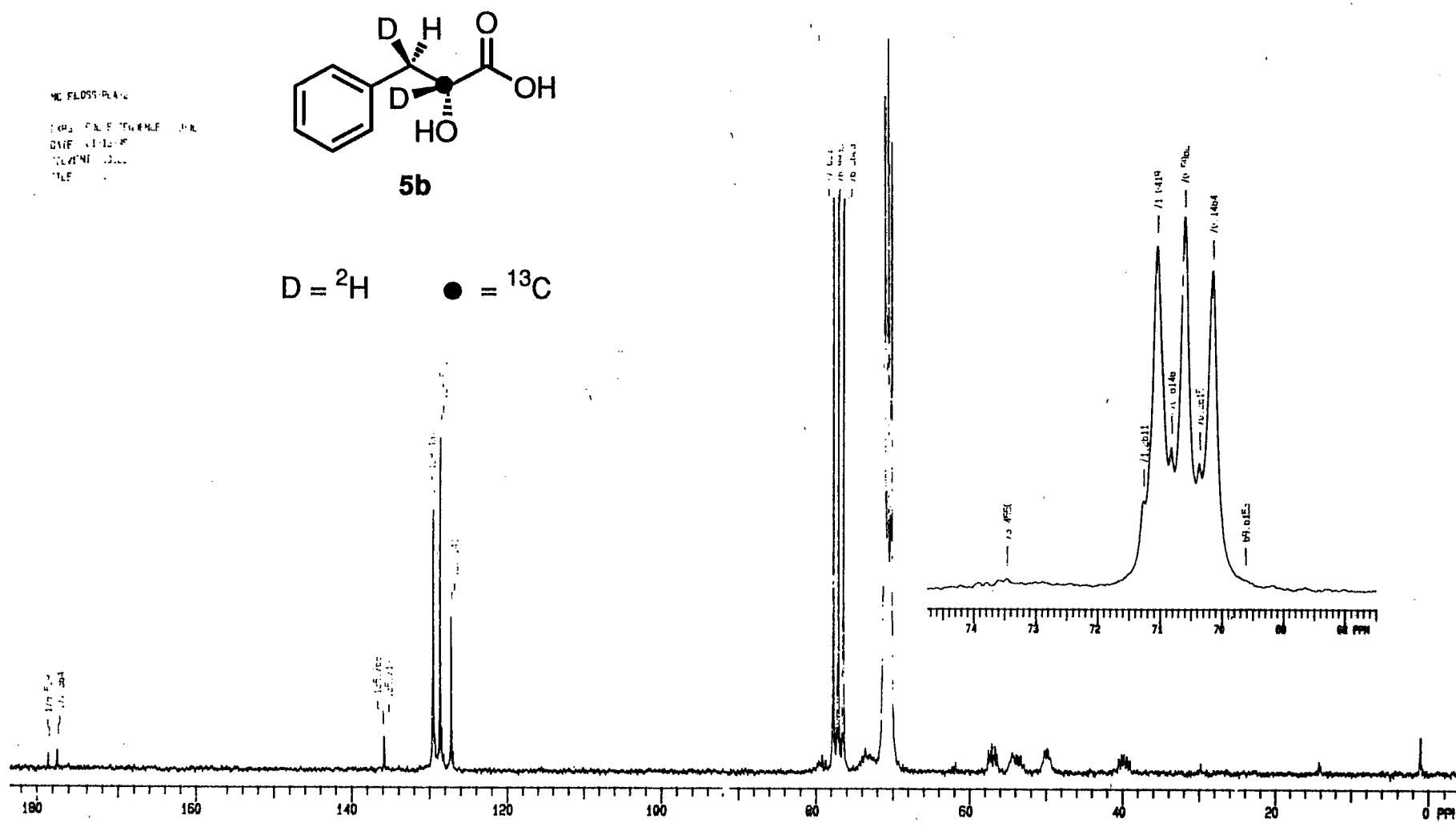


Figure 3 ^1H -NMR (CDCl_3 , 200MHz) of (*2R, 3R*)-[2- ^{13}C , 2,3- $^2\text{H}_2$]-D-phenyllactate **5b**

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J926-5

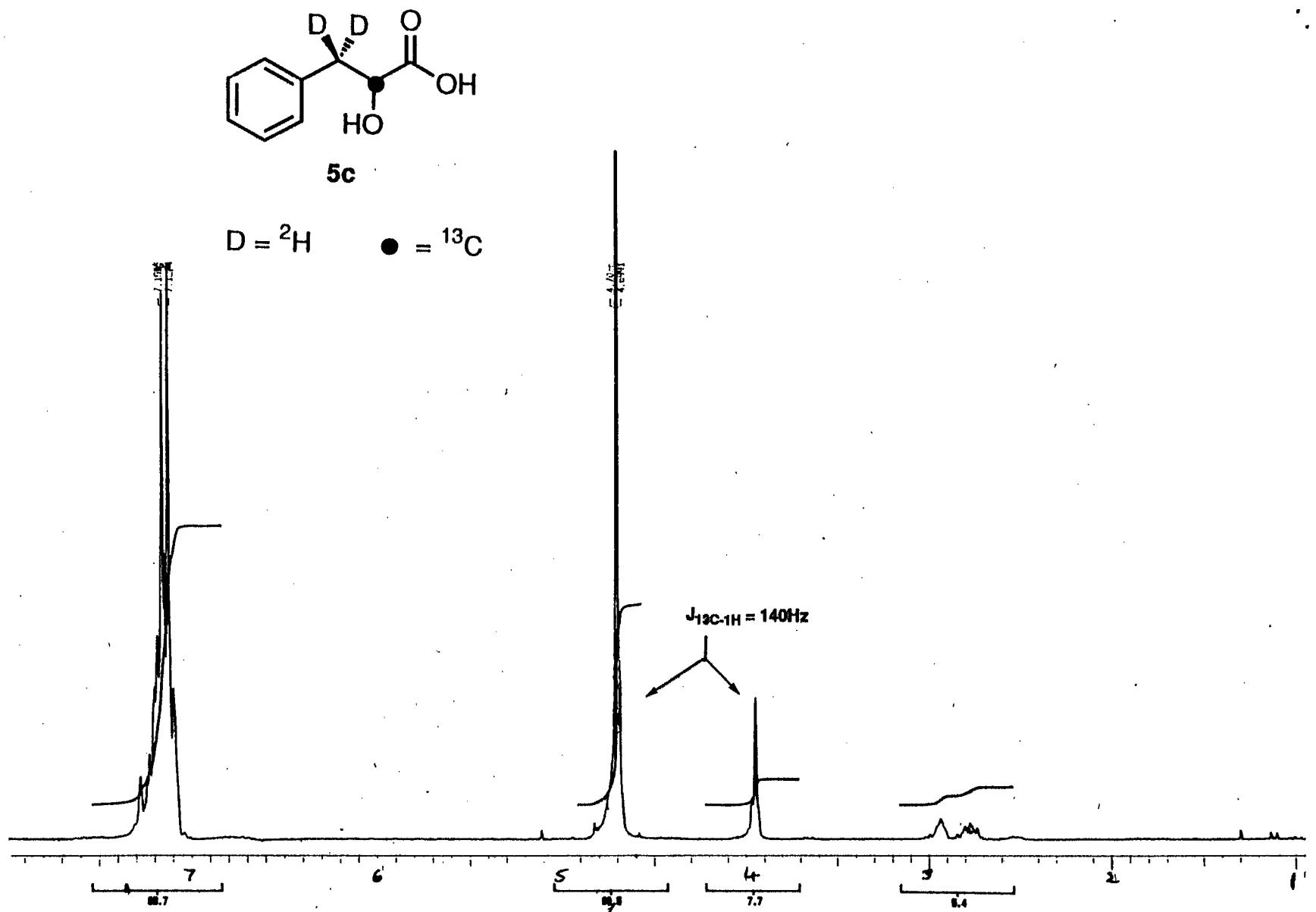


Figure 5 ¹H-NMR (D_2O , 200MHz) of [2-¹³C,3-²H₂]-DL-phenyllactate **5c**

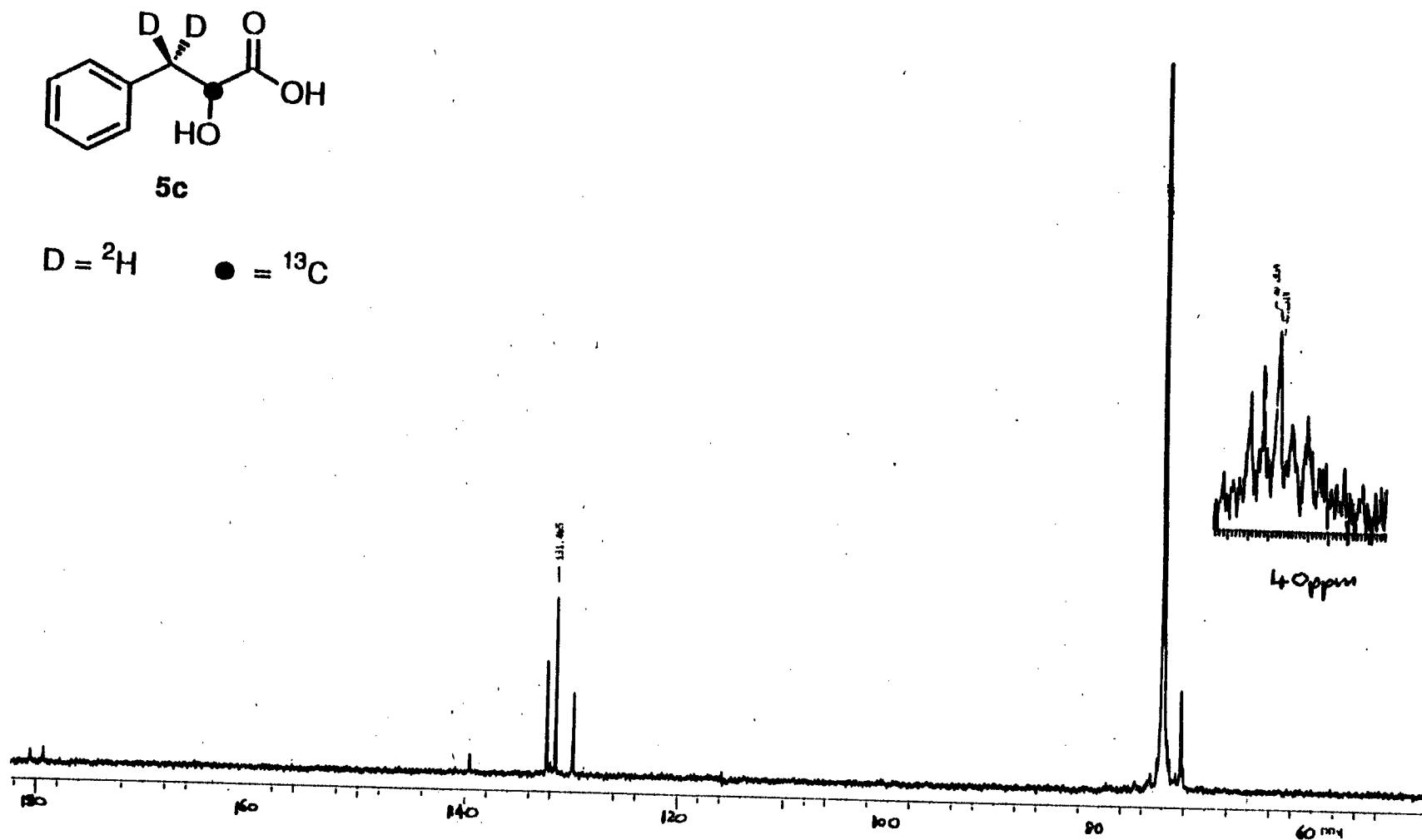


Figure 6 ^{13}C -NMR (D_2O , 50MHz) of [2- ^{13}C ,3- $^2\text{H}_2$]-DL-phenyllactate 5c

J926-6

J926-7

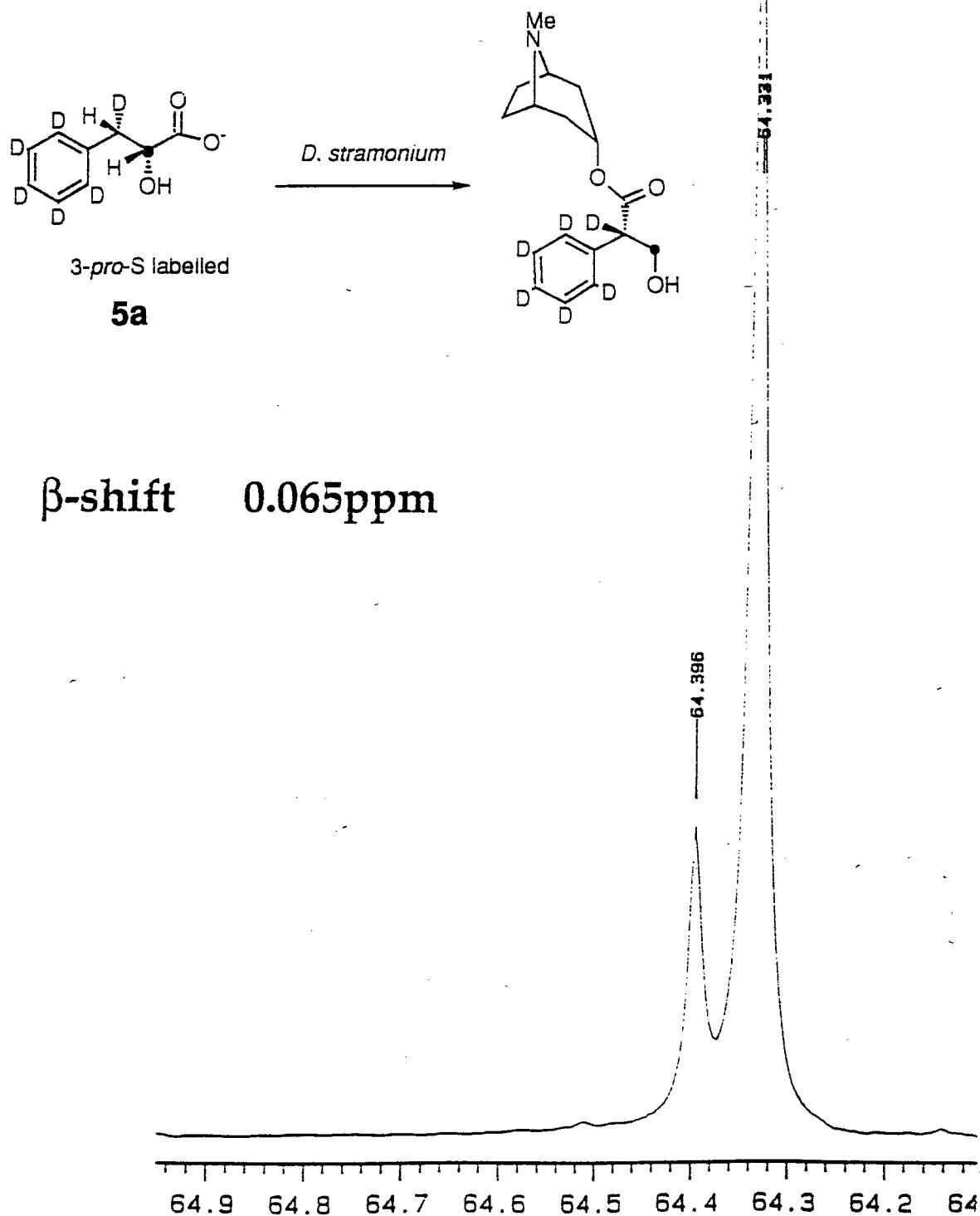


Figure 7 Section of the ^{13}C -NMR (CDCl_3 , 100MHz) of hyoscyamine after feeding $(2R, 3S)$ -[$2\text{-}^{13}\text{C}$, $3\text{-}^2\text{H}_1$, *phenyl* $\text{-}^2\text{H}_5$]-D-phenyllactate **5a** showing enrichment at C3' and β -shift.

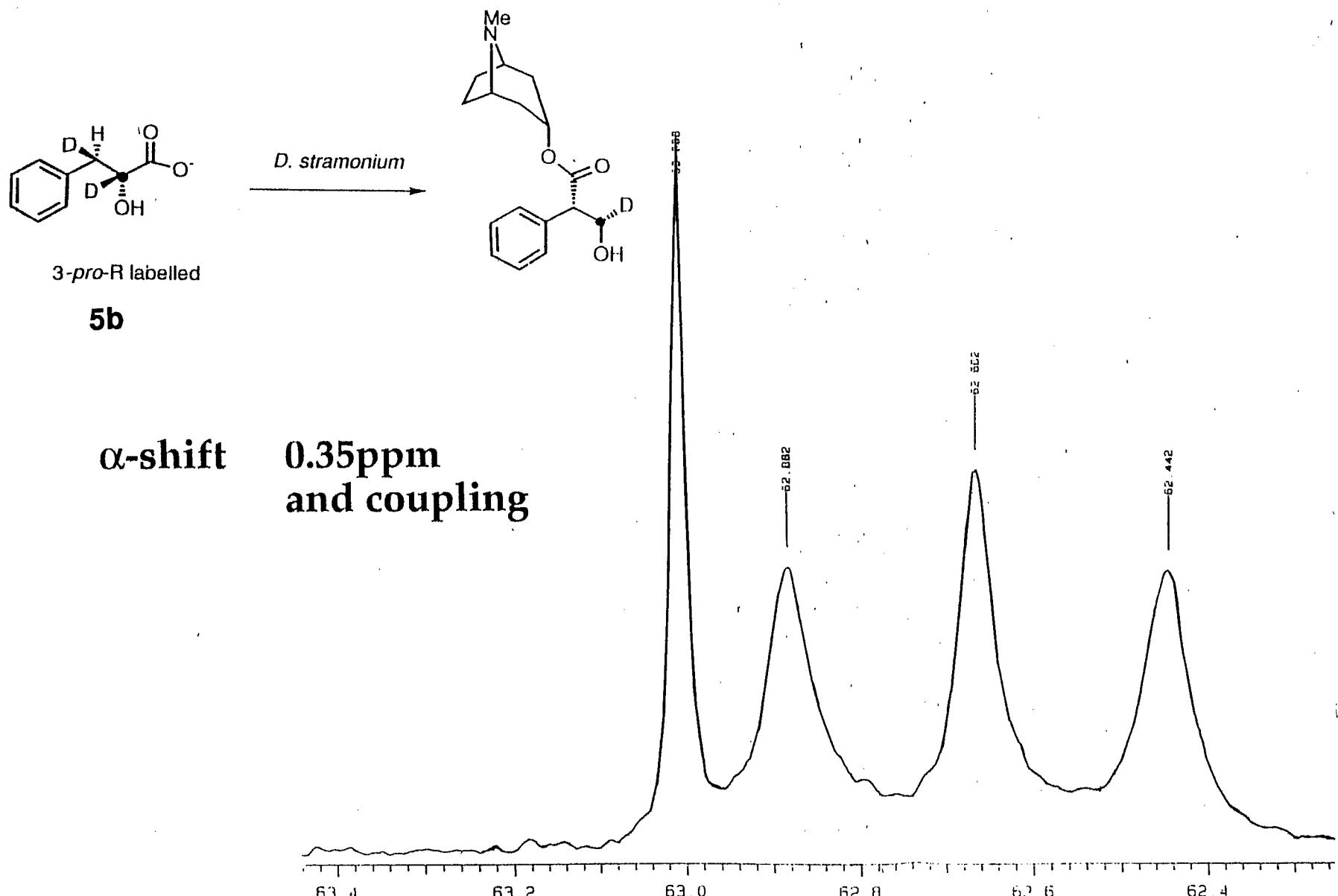


Figure 8 Section of the ^{13}C -NMR (CDCl_3 , 100MHz) of hyoscyamine after feeding ($2R, 3R$)-[$2-^{13}\text{C}, 2,3-^2\text{H}_2$]-D-phenyllactate **5b** showing enrichment at C3' and α -shift

J926-9

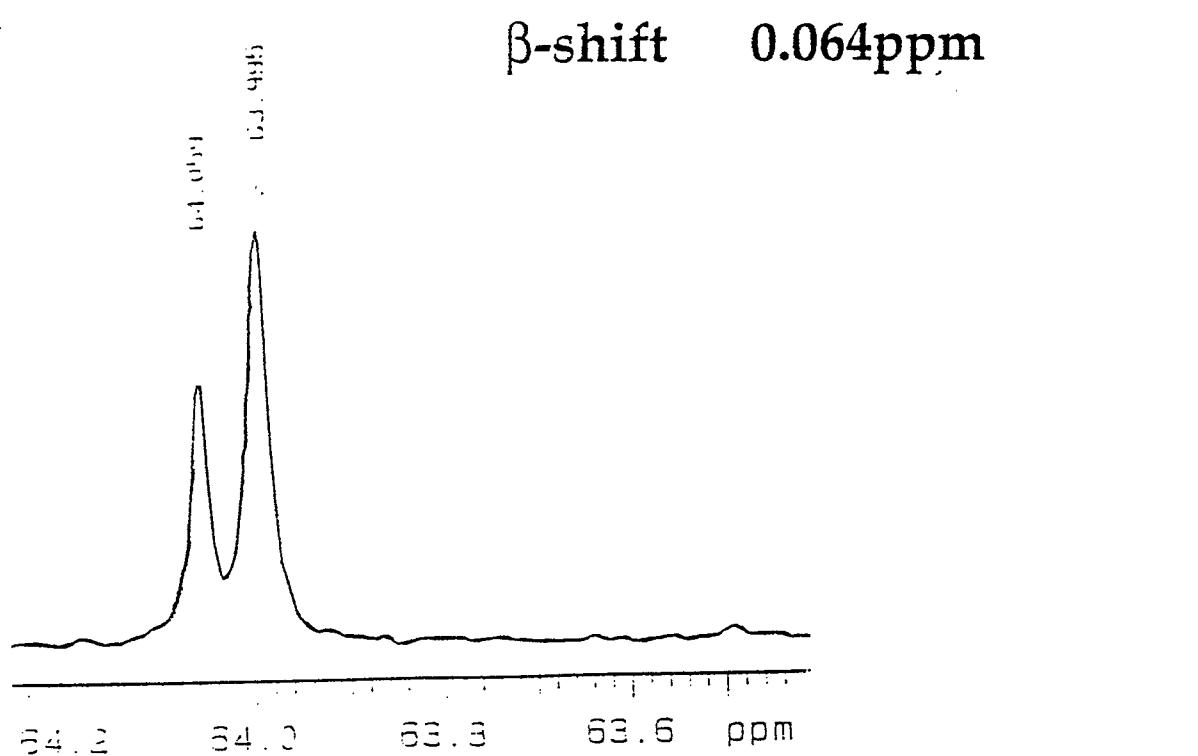
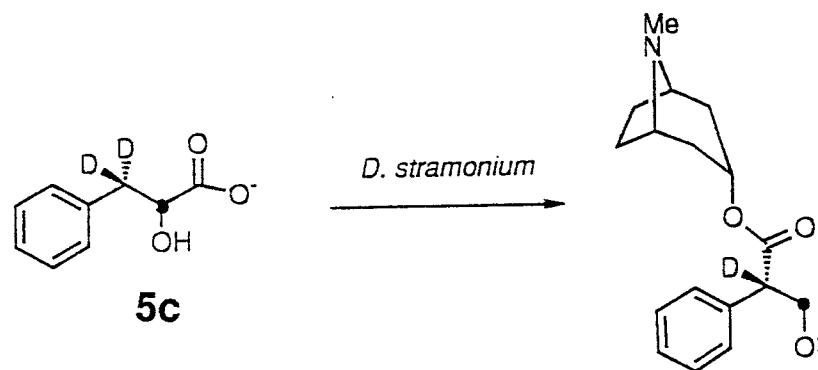


Figure 9 Section of the ^{13}C -NMR (CDCl_3 , 100MHz) of hyoscyamine after feeding DL-[2- ^{13}C ,3- $^2\text{H}_2$]-phenyllactate 5c showing enrichment at C3' and β -shift.