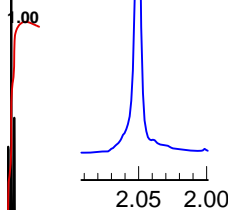
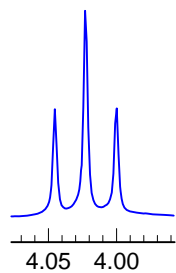
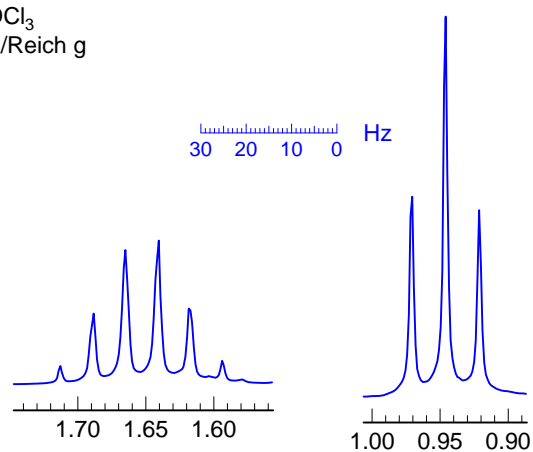
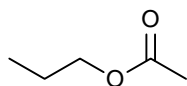


Problem R-18R1: C₅H₁₀O₂

300 MHz ¹H NMR Spectrum in CDCl₃

Source: Aldrich Spectra Collection/Reich g



1.49

1.09

1.57

10 9 8 7 6 5 4 3 2 1 0
ppm

Problem R-18R1: C₅H₁₀O₂

75 MHz ¹³C NMR Spectrum in CDCl₃

Source: Aldrich Spectra Collection/Reich

171.1

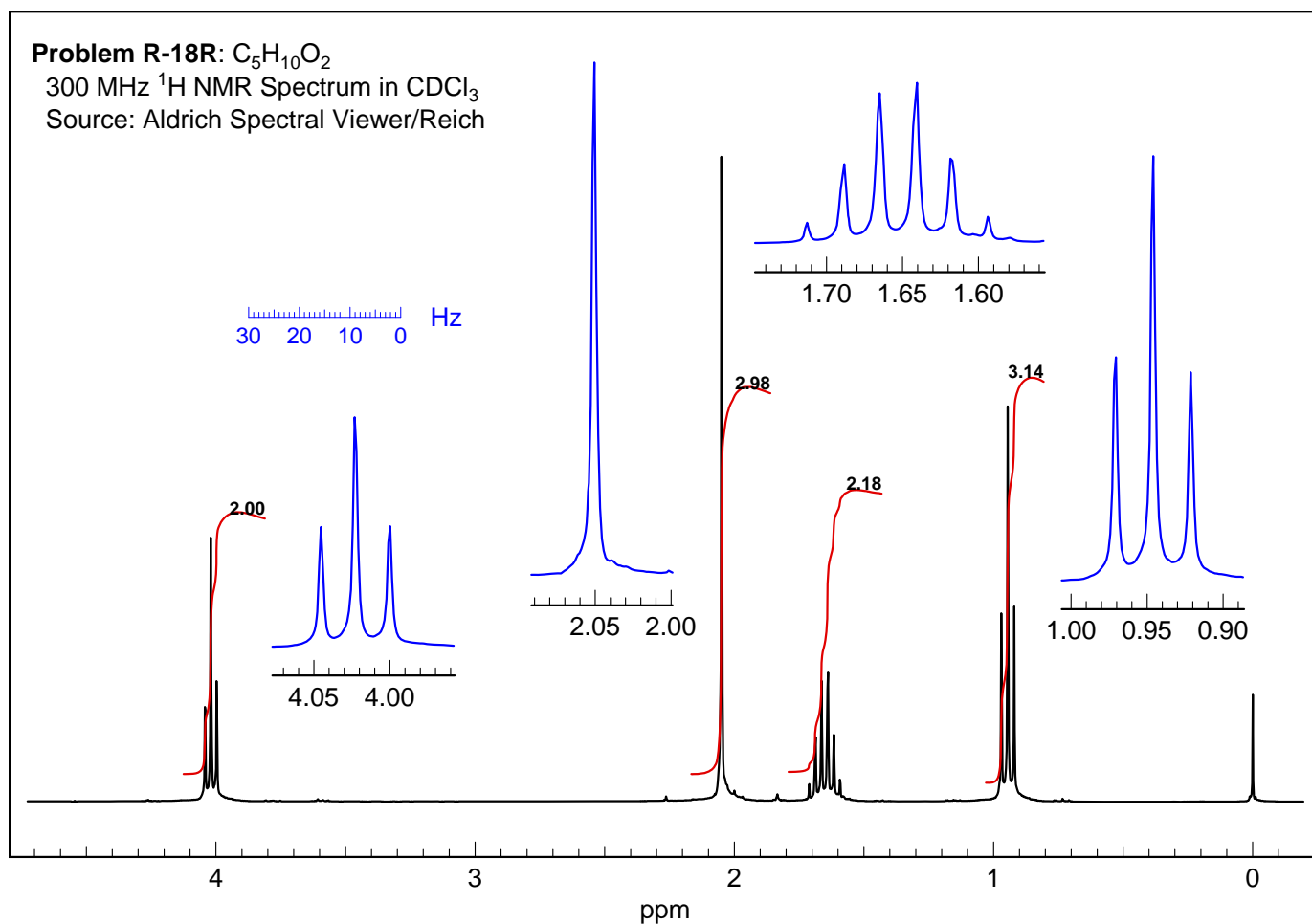
66.0

21.9
21.0

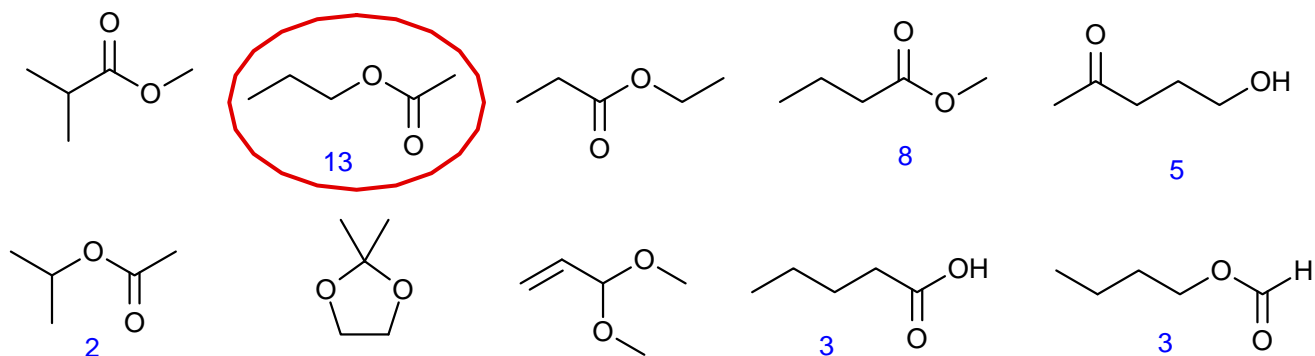
10.3

220 200 180 160 140 120 100 80 60 40 20 0
ppm

7. (13 pts.) The ^1H NMR of a compound $\text{C}_5\text{H}_{10}\text{O}_2$ is shown below.



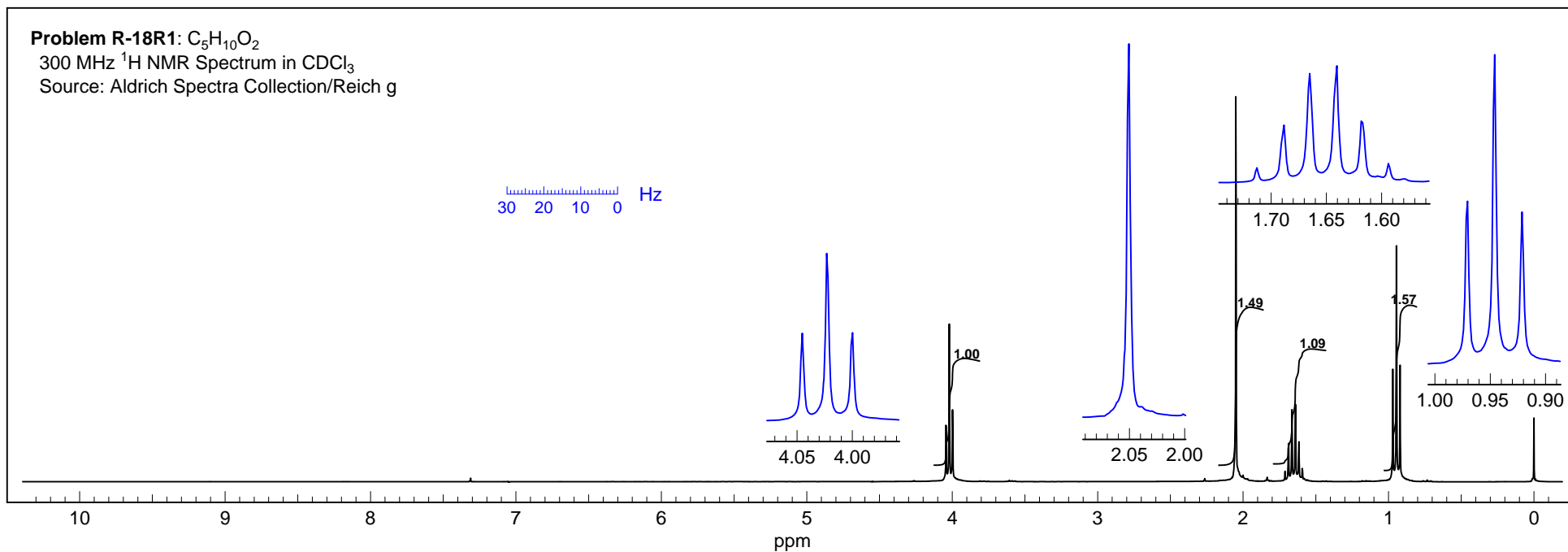
Circle the correct structure that corresponds to the NMR spectrum:



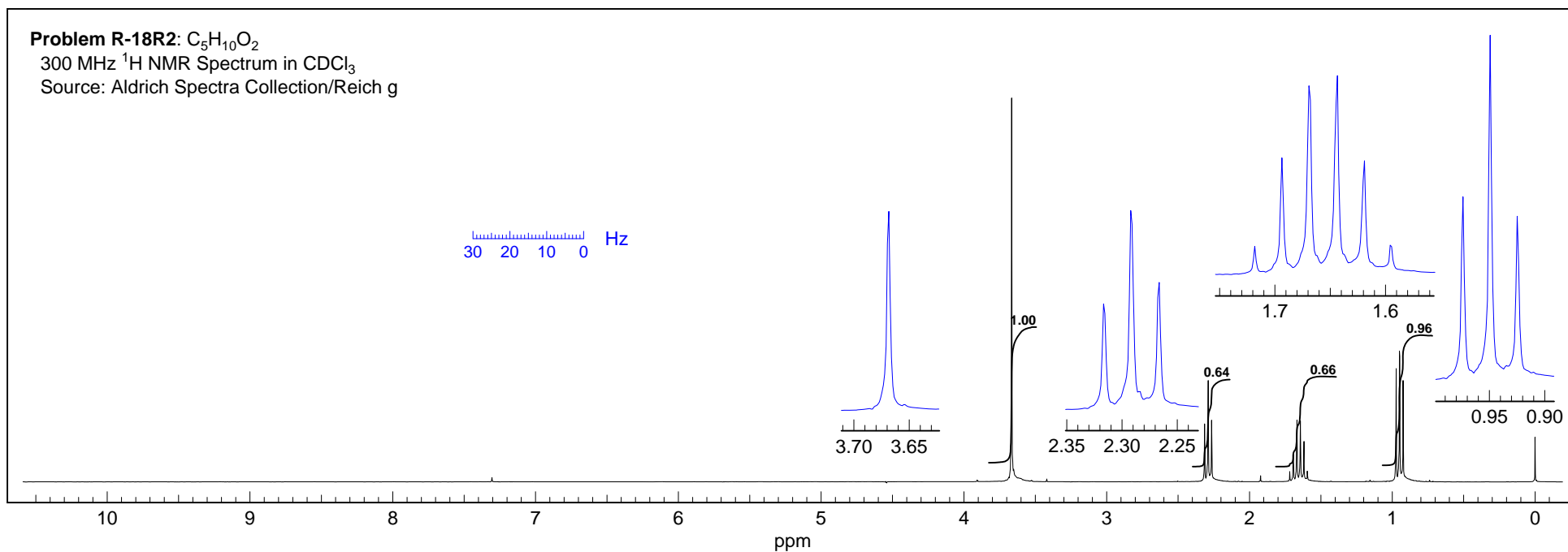
Problem Set 1 - NMR Spectra

Reich
Chem 345

Problem R-18R1: $C_5H_{10}O_2$
300 MHz 1H NMR Spectrum in $CDCl_3$
Source: Aldrich Spectra Collection/Reich g



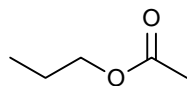
Problem R-18R2: $C_5H_{10}O_2$
300 MHz 1H NMR Spectrum in $CDCl_3$
Source: Aldrich Spectra Collection/Reich g



Problem Set 1 - NMR Spectra

Reich
Chem 345

Problem R-18R1: $C_5H_{10}O_2$
300 MHz 1H NMR Spectrum in $CDCl_3$
Source: Aldrich Spectra Collection/Reich g

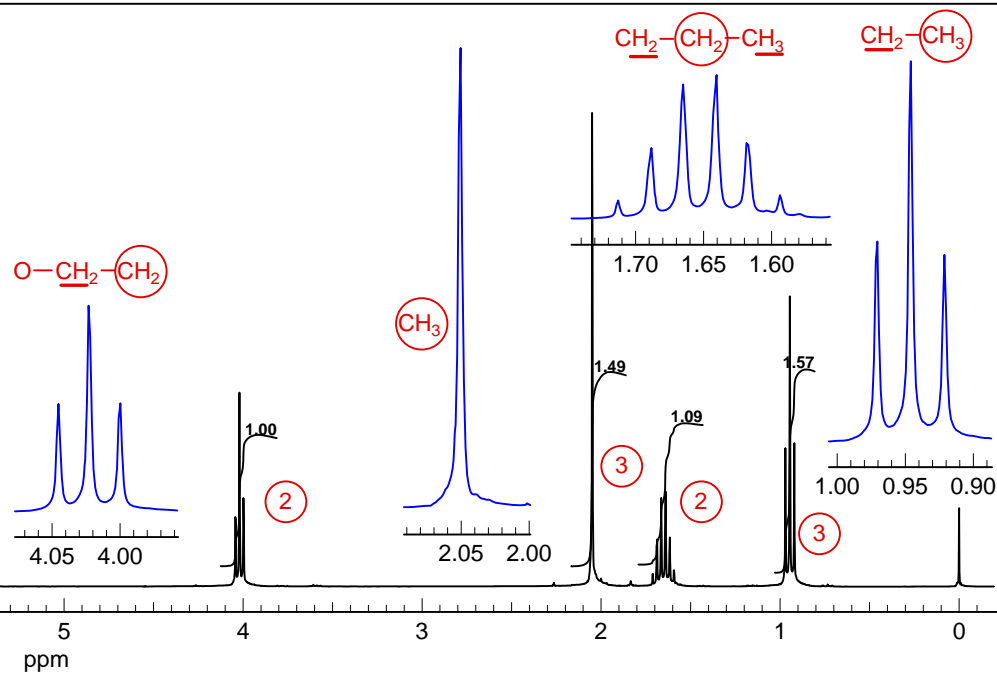


Propyl acetate

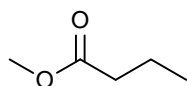
IHD = 1

30 20 10 0 Hz

Observed protons are circled
protons causing splitting are underlined



Problem R-18R2: $C_5H_{10}O_2$
300 MHz 1H NMR Spectrum in $CDCl_3$
Source: Aldrich Spectra Collection/Reich g



methyl butyrate

IHD = 1

30 20 10 0 Hz

