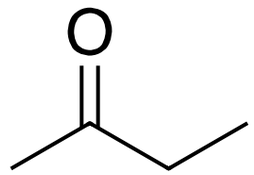
Representative Proton and Carbon NMR Spectra

Use these slides to study the general characteristics of the ^{1}H-NMR spectra of various compounds.

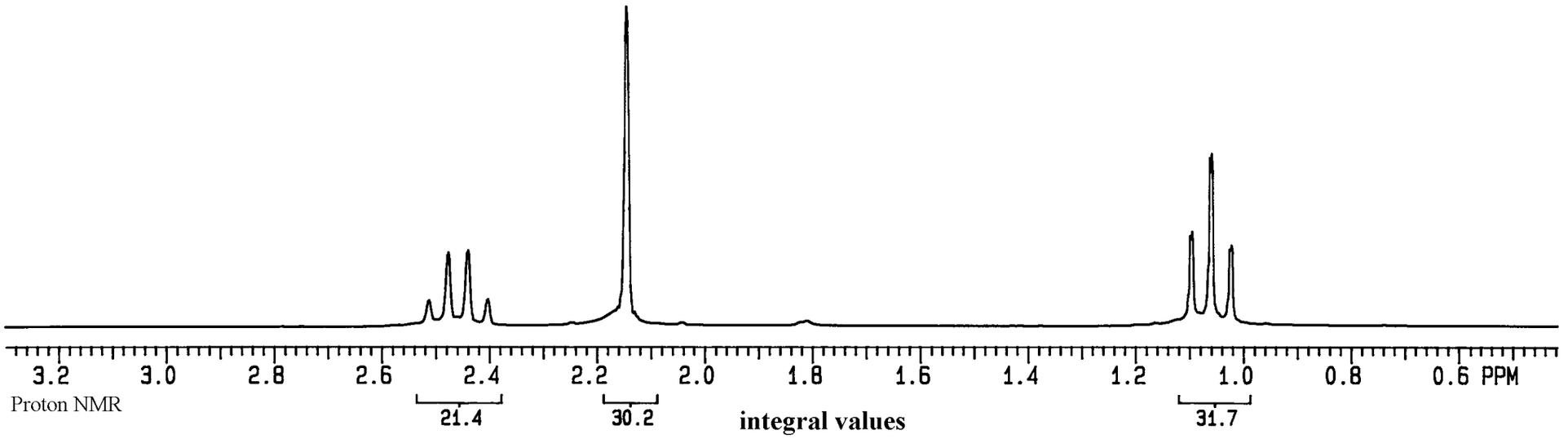
If you are viewing in a web browser, each slide will first display the name of the upcoming compound, then its structure and spectrum. You can use this behavior to practice drawing structures given a name and also to predict important spectral features given the structure.

Before clicking to reveal the spectrum you should practice predicting the expected chemical shifts and multiplicities for the signals.

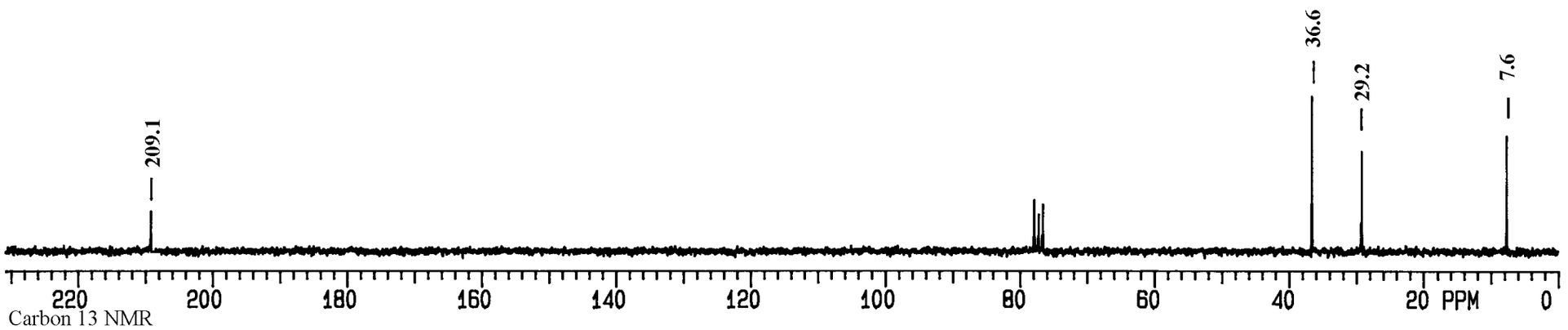
2-butanone



2-Butanone

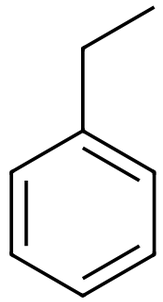


Proton NMR

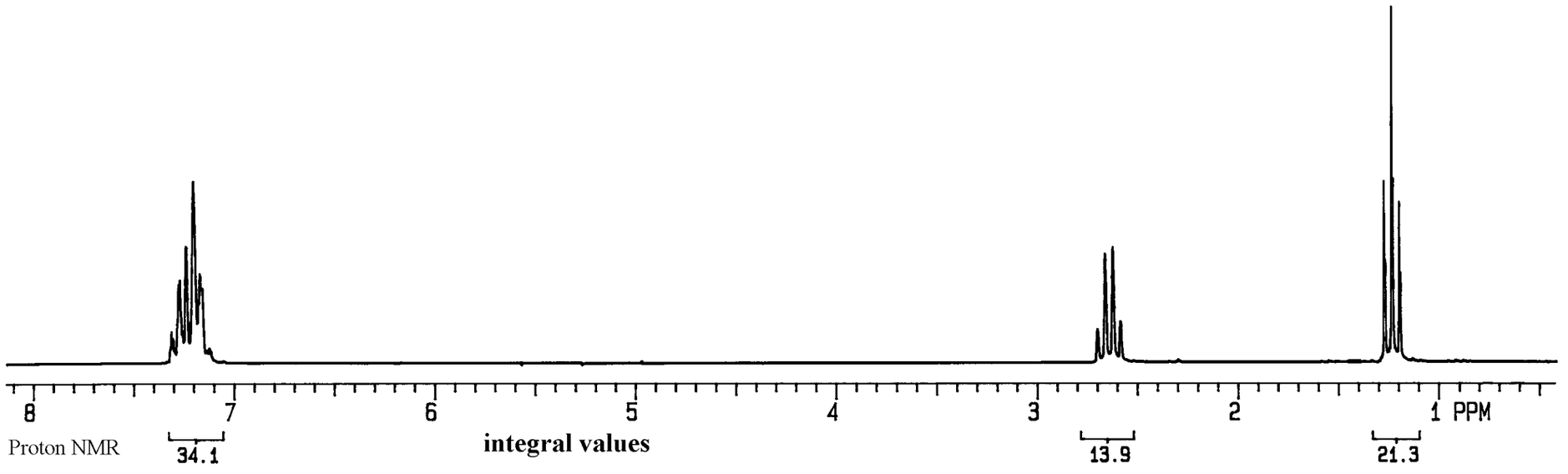


Carbon 13 NMR

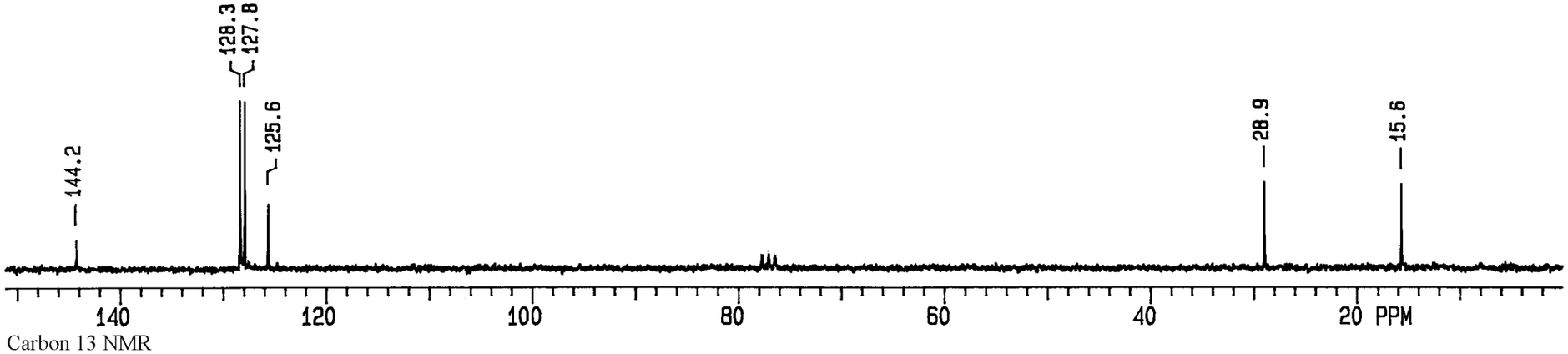
ethylbenzene



Ethylbenzene

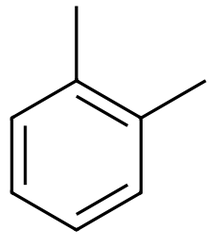


Proton NMR

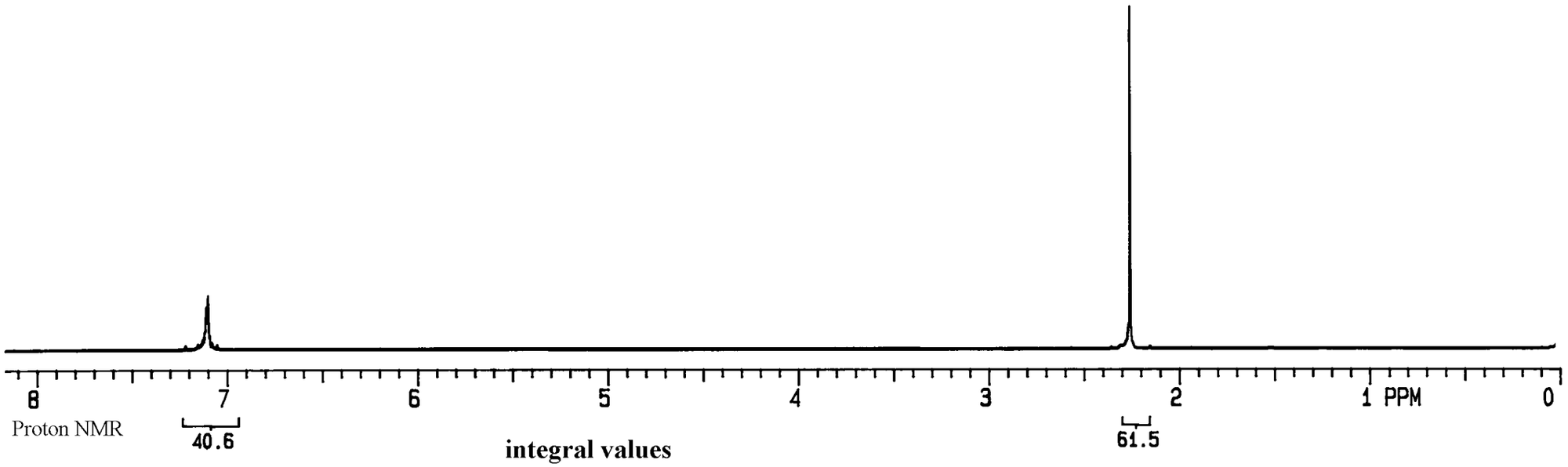


Carbon 13 NMR

o-xylene

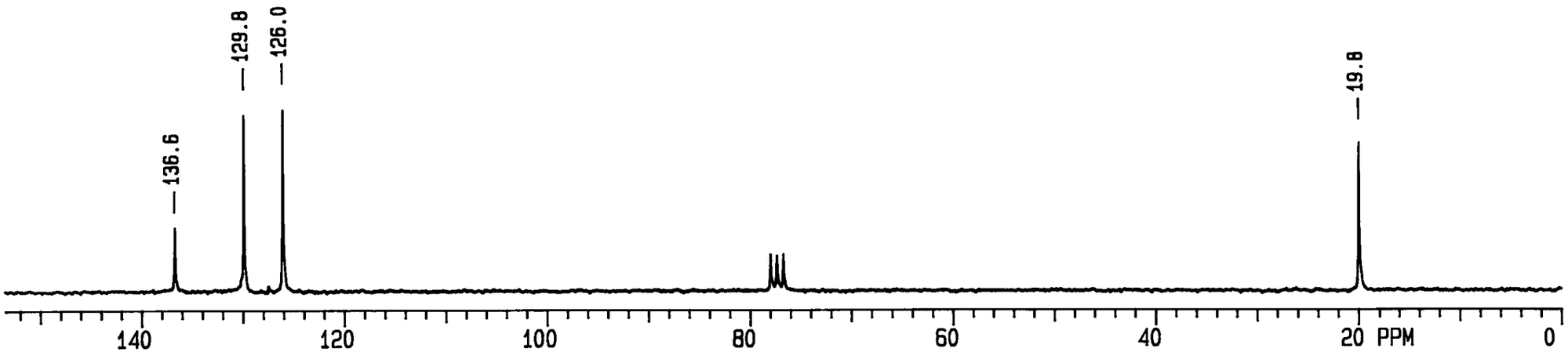


1,2-Dimethylbenzene



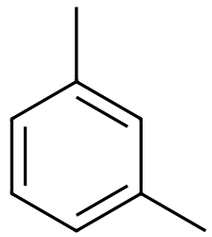
Proton NMR

integral values

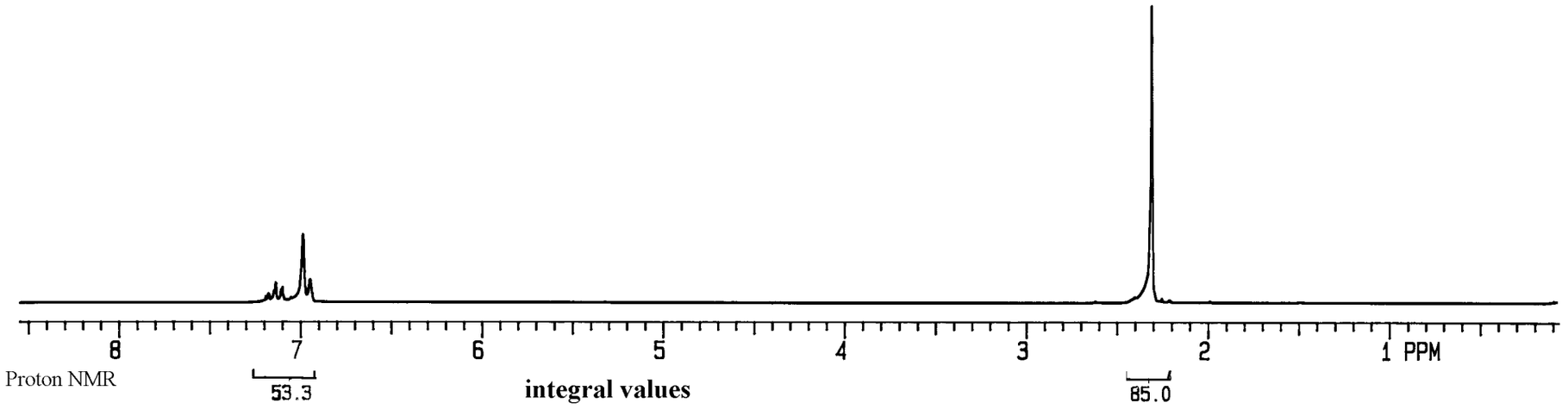


Carbon 13 NMR

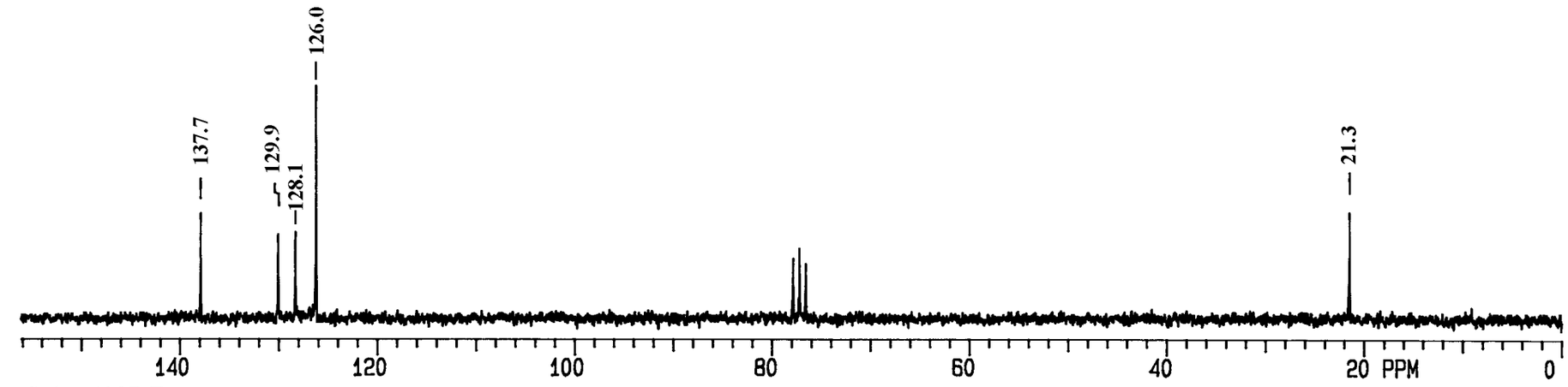
m-xylene



1,3-Dimethylbenzene



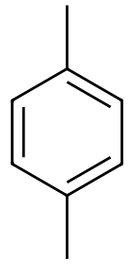
Proton NMR

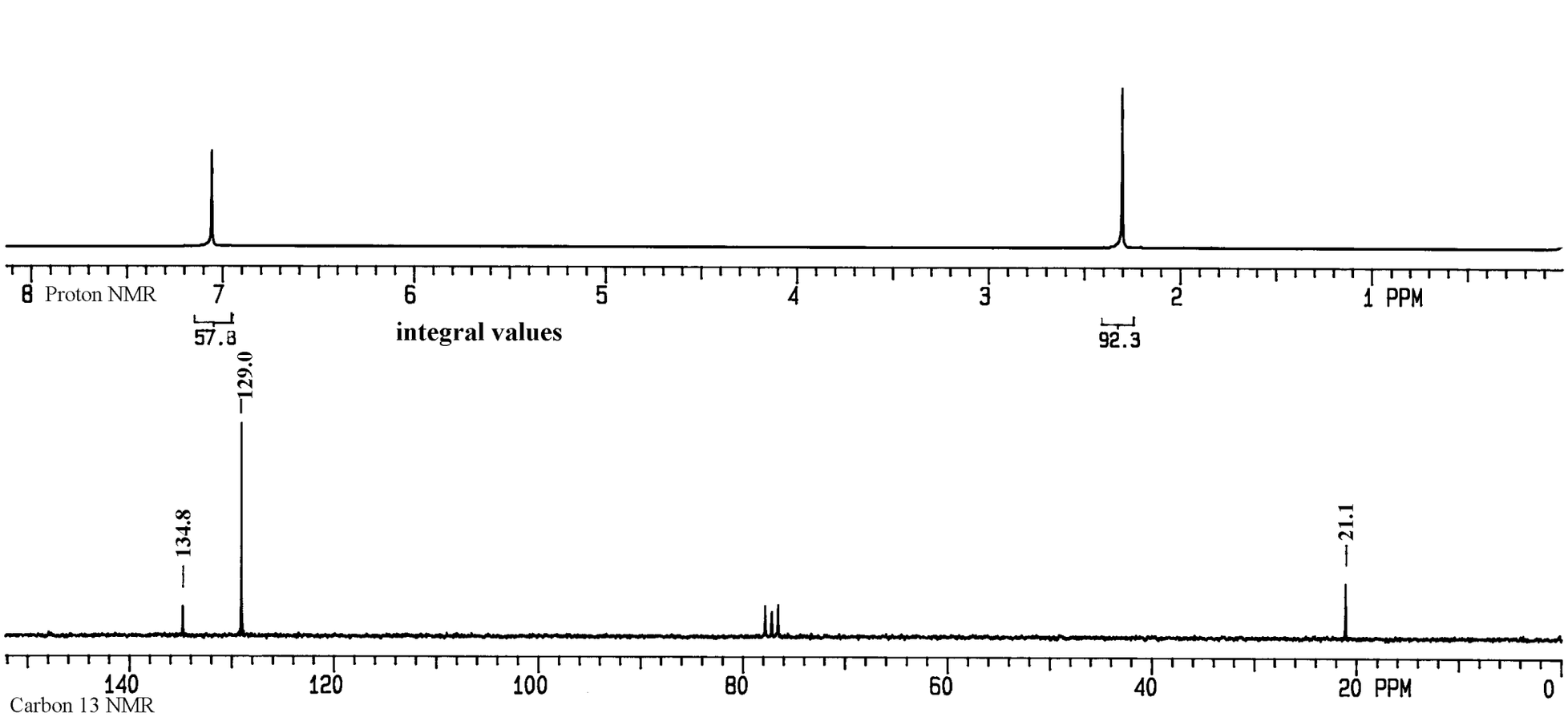


Carbon 13 NMR

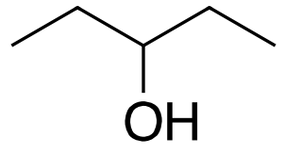
p-xylene

1,4-Dimethylbenzene

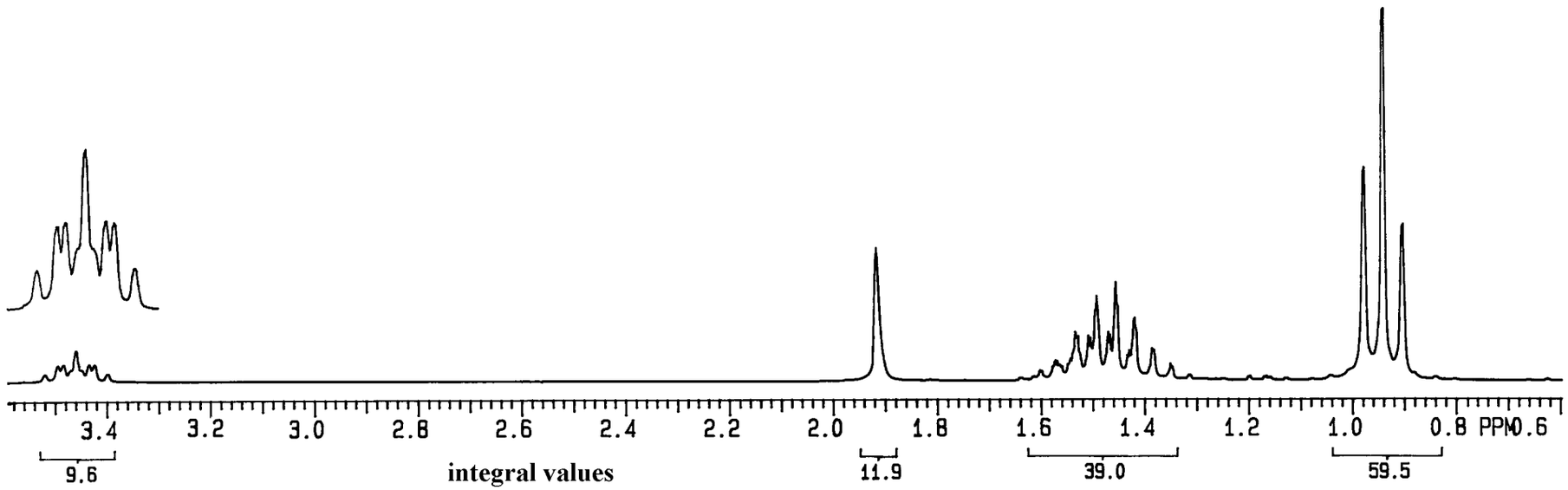




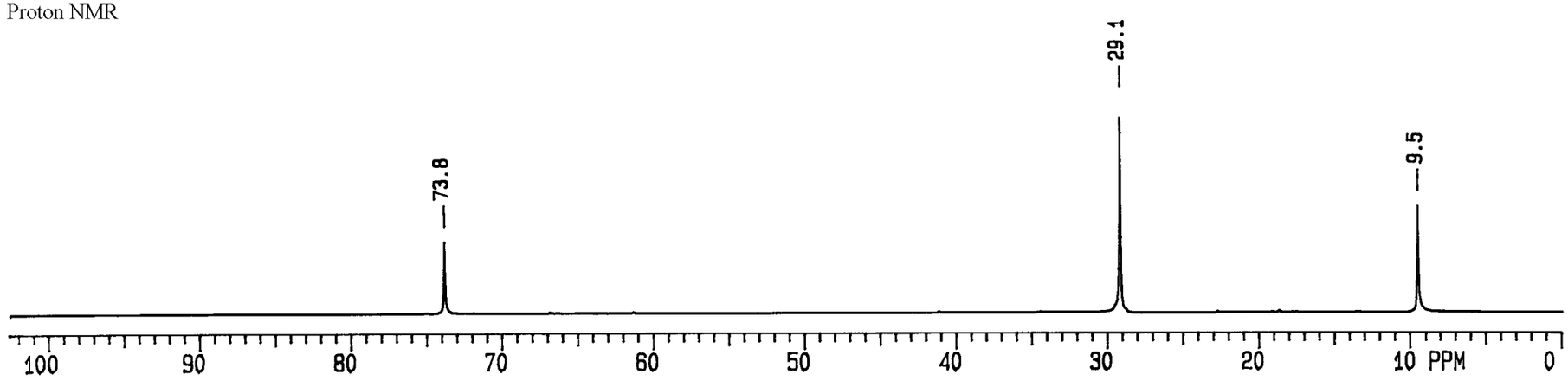
3-pentanol



3-Pentanol

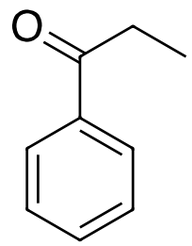


Proton NMR

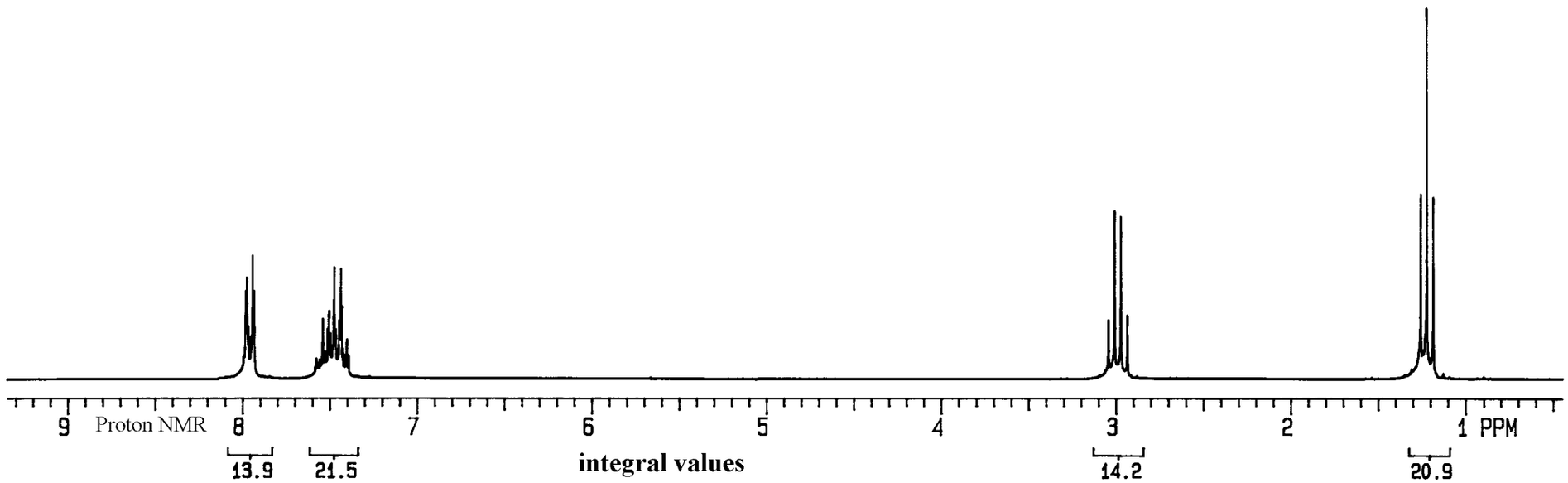


Carbon 13 NMR

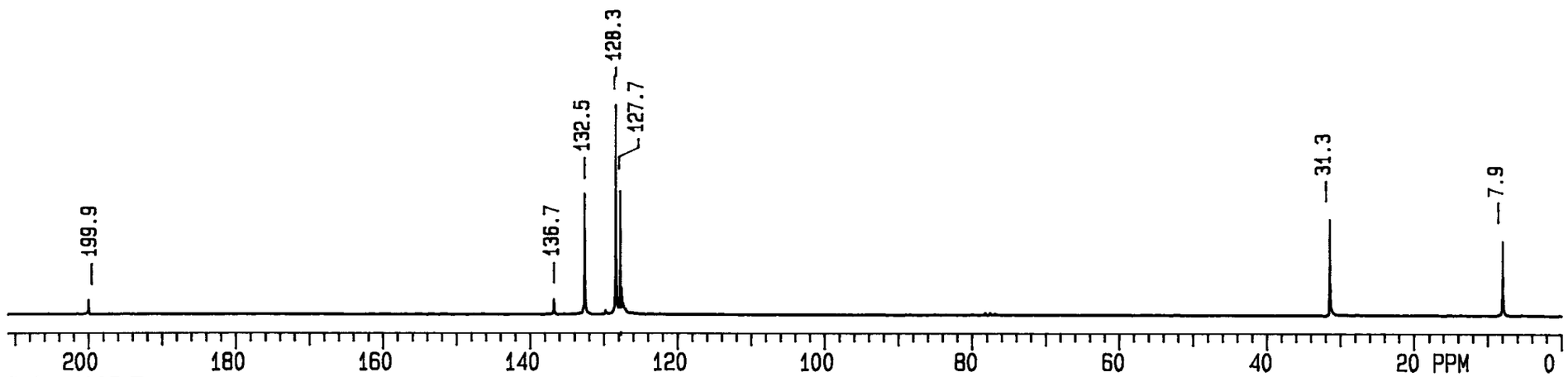
1-phenyl-1-propanone



1-Phenyl-1-propanone

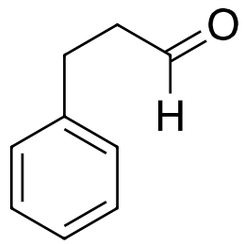


Proton NMR

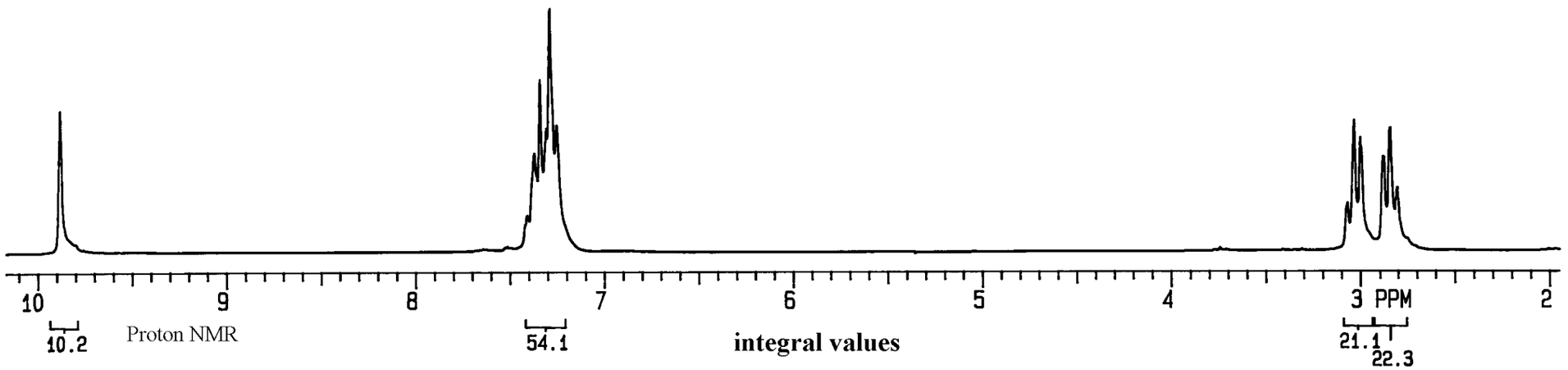


Carbon 13 NMR

3-phenylpropanal

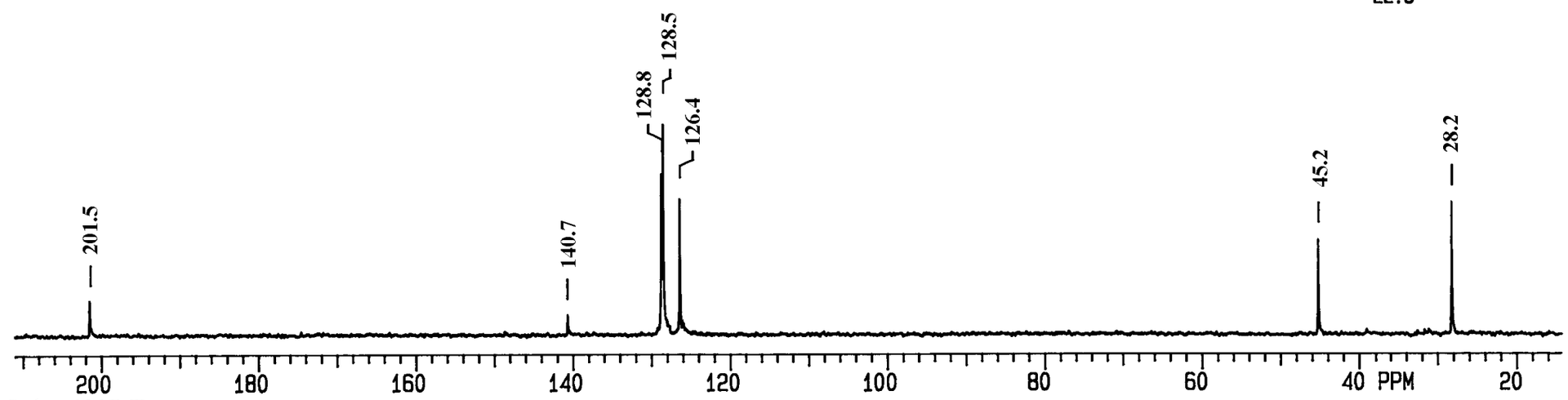


3-Phenylpropanal



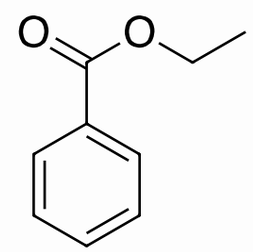
Proton NMR

integral values

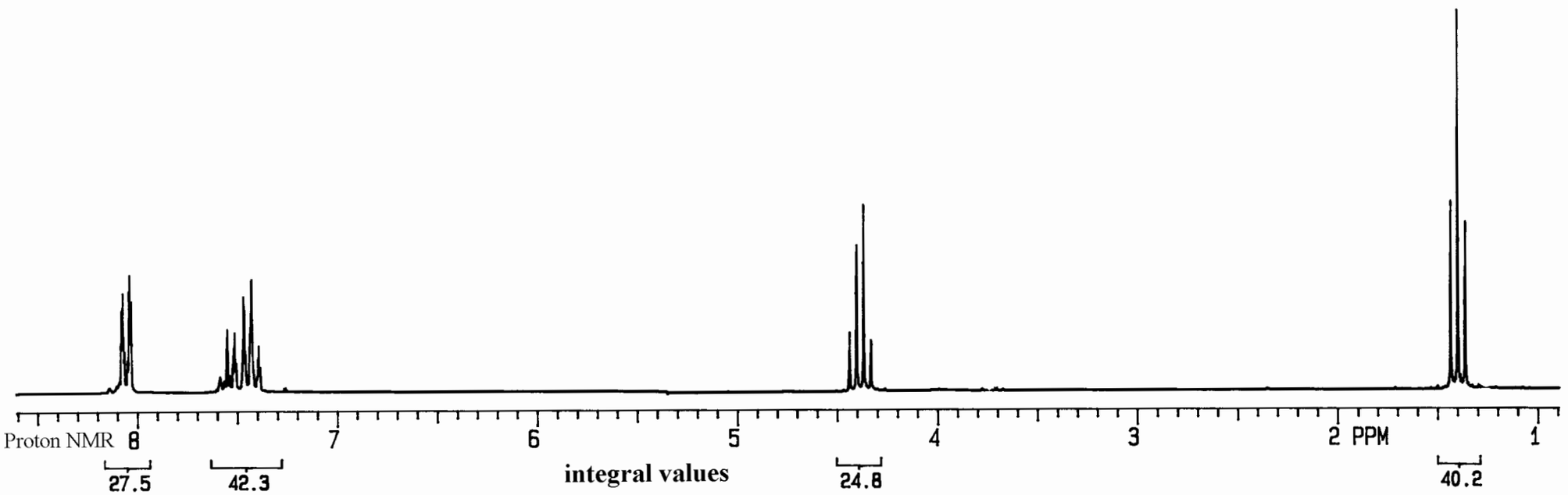


Carbon 13 NMR

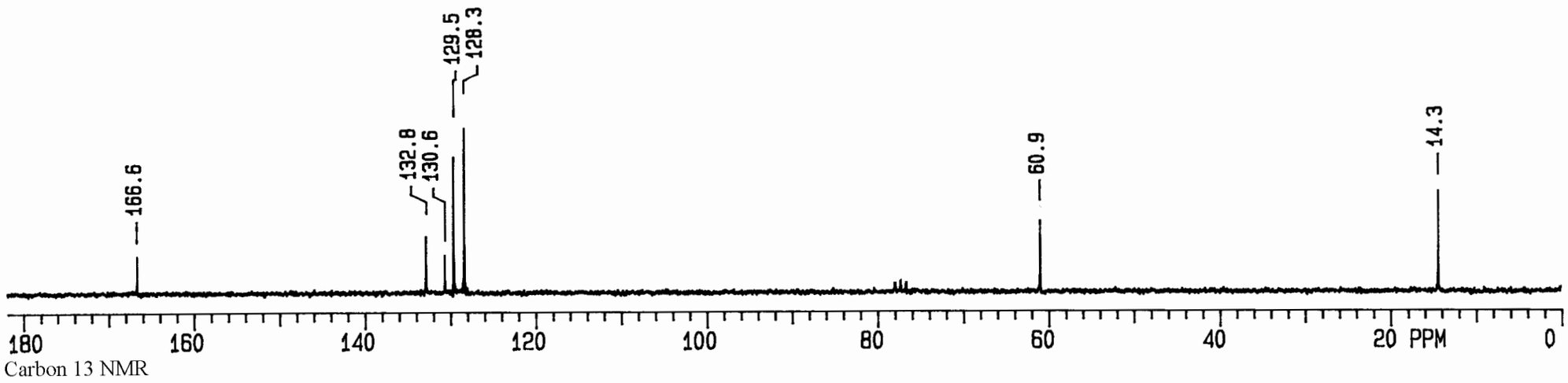
ethyl benzoate



Ethyl benzoate

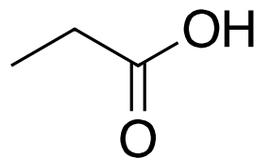


Proton NMR

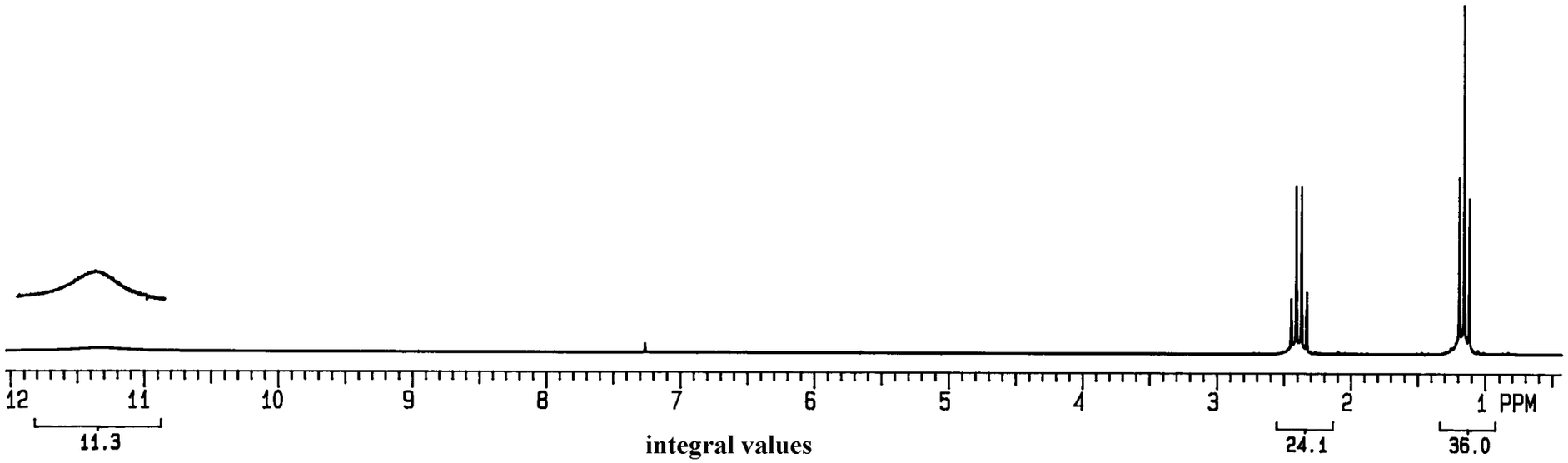


Carbon 13 NMR

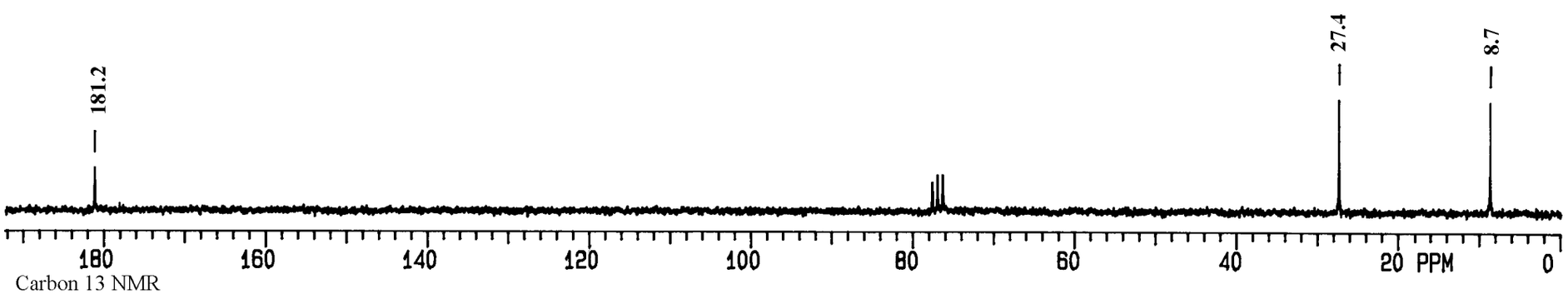
propanoic acid



Propanoic acid

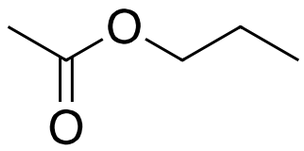


Proton NMR

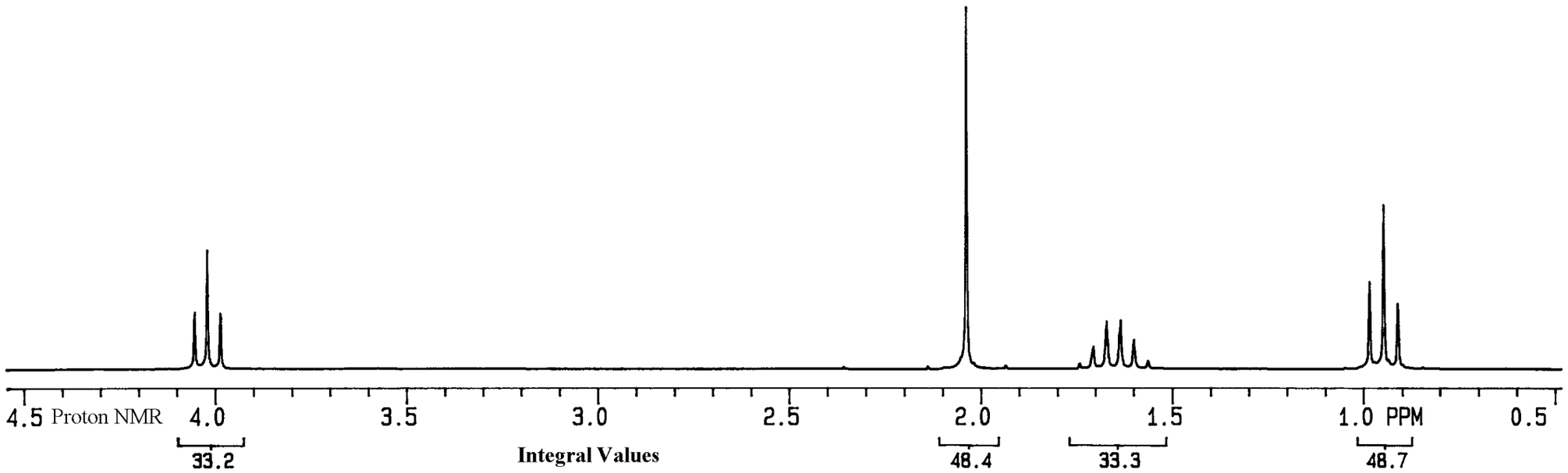


Carbon 13 NMR

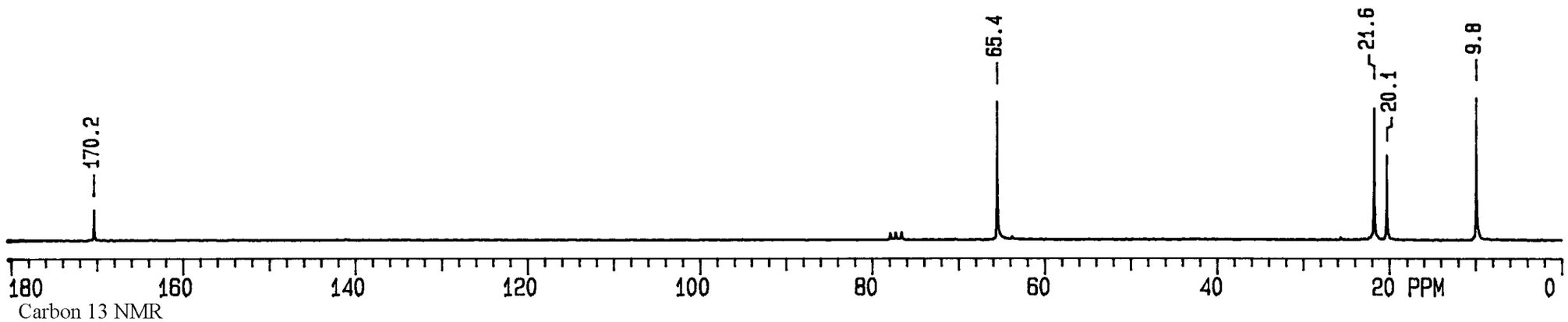
propyl acetate



Propyl acetate



Proton NMR



Carbon 13 NMR