

NMR Spectroscopy – Introduction

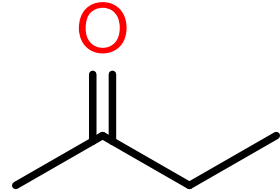
The following exercises are to help you become familiar with predicting the ^1H NMR spectra of simple organic molecules.

For each example you should find the number of signals you expect, where they should show on the scale (chemical shift), and what shape they should be (splitting patterns).

Use the spectroscopy sheet to become familiar with types of protons and where they show on the spectra.

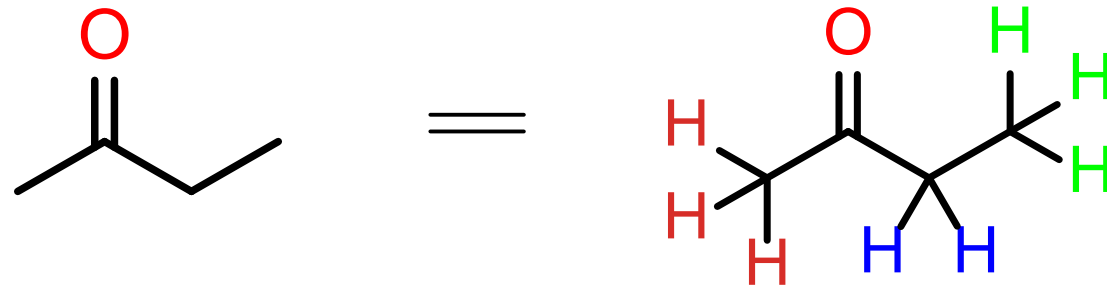
Have the spectroscopy sheet ready to use

NMR Spectroscopy Basics – 1



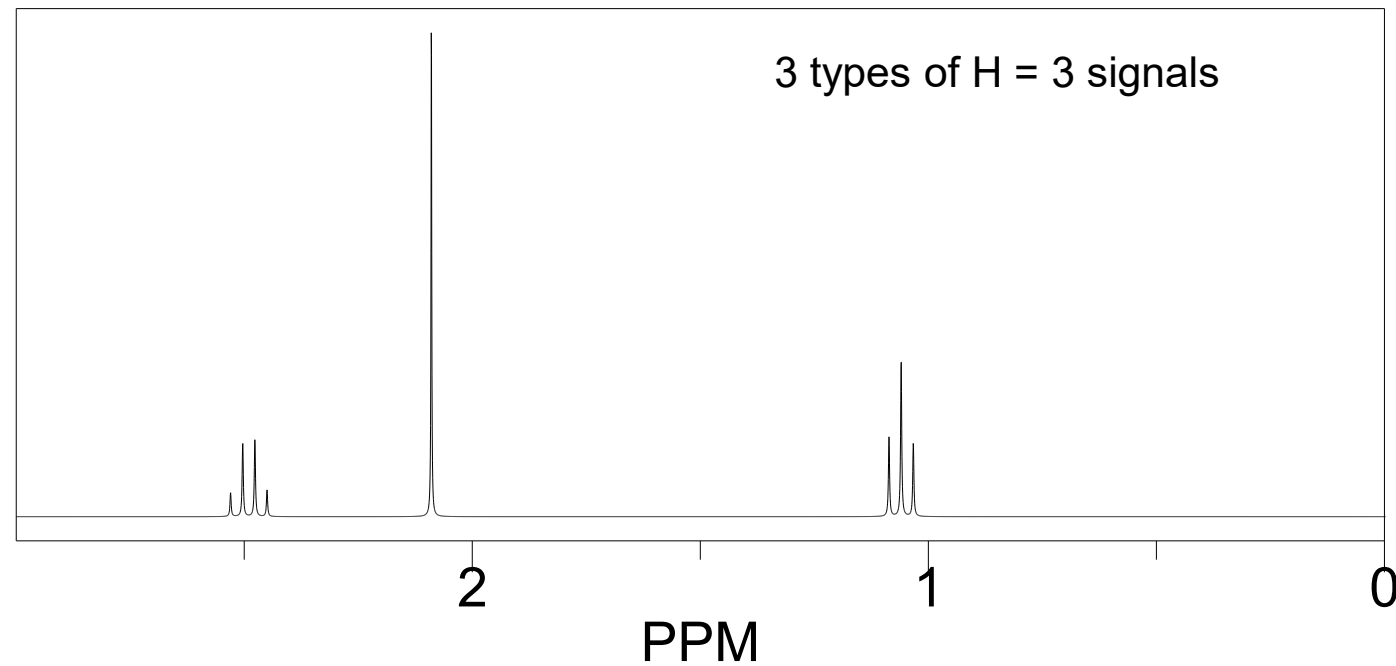
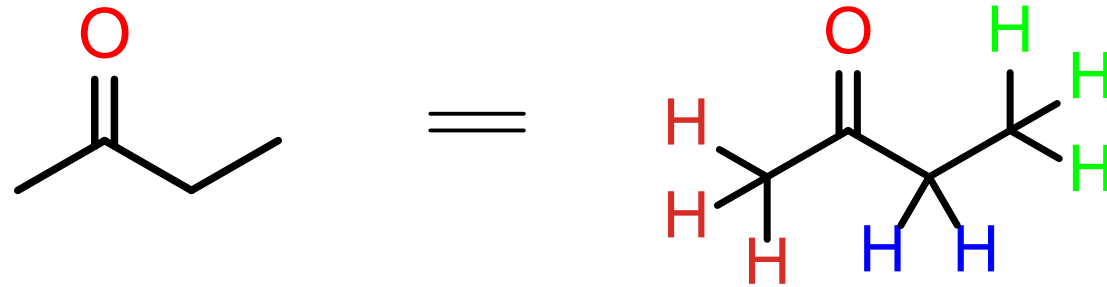
Predict the number of signals, chemical shifts, and signal shapes

NMR Spectroscopy Basics – 1



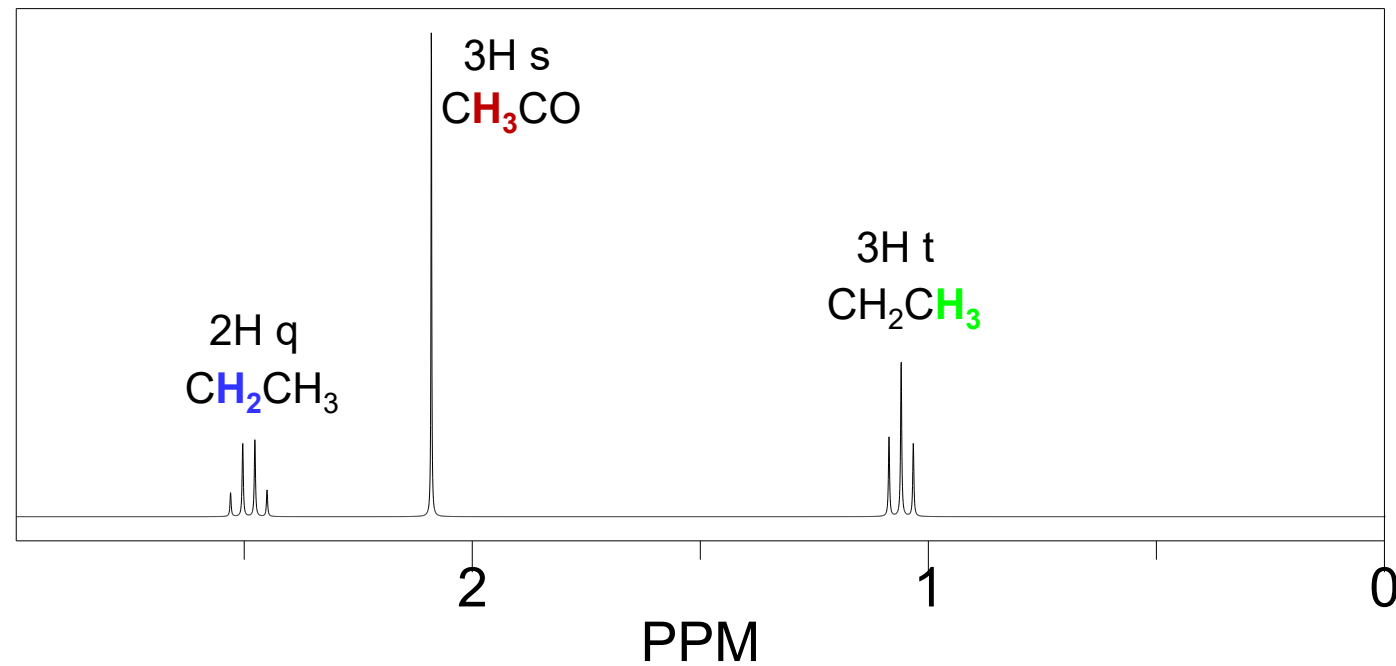
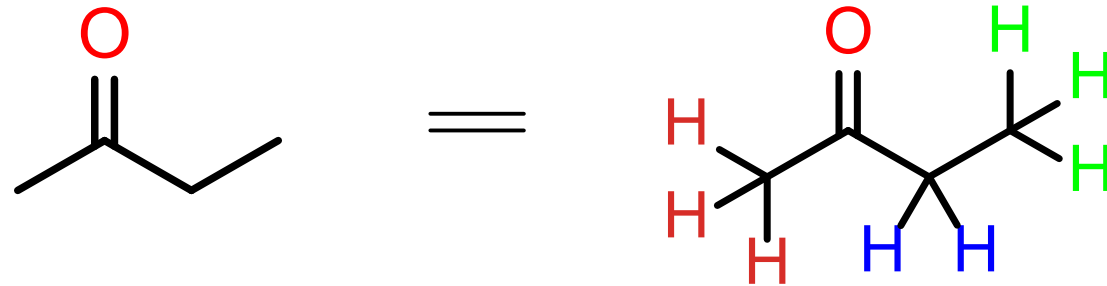
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NMR Spectroscopy Basics – 1



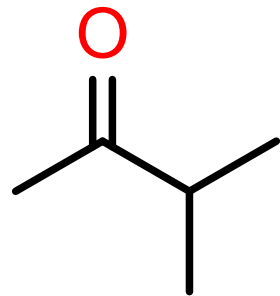
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NMR Spectroscopy Basics – 1



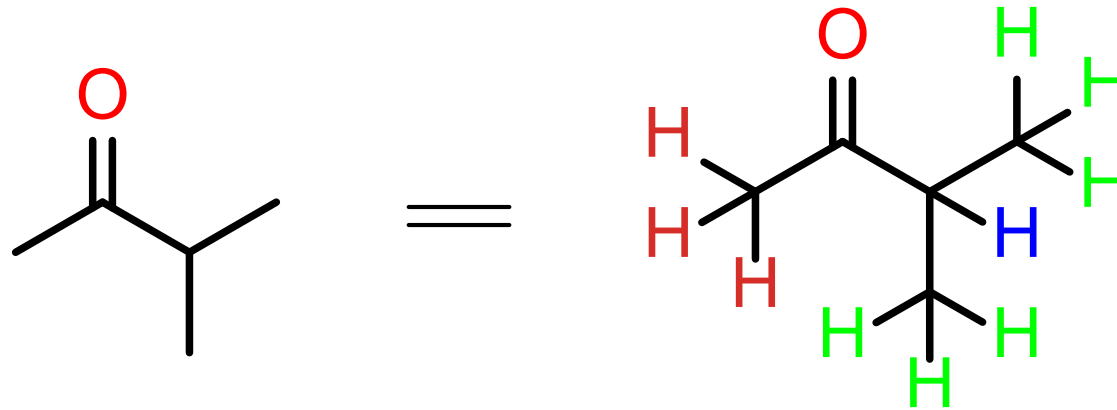
Predict the number of signals, chemical shifts, and signal shapes

NMR Spectroscopy Basics – 2



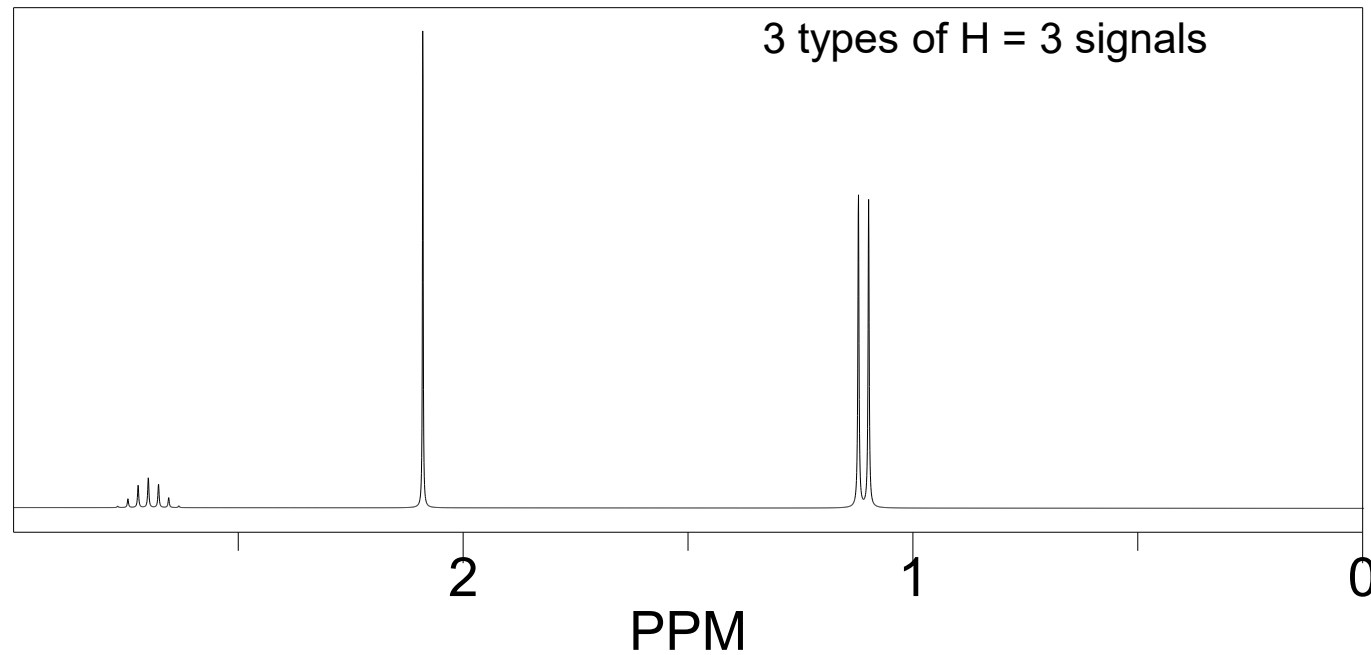
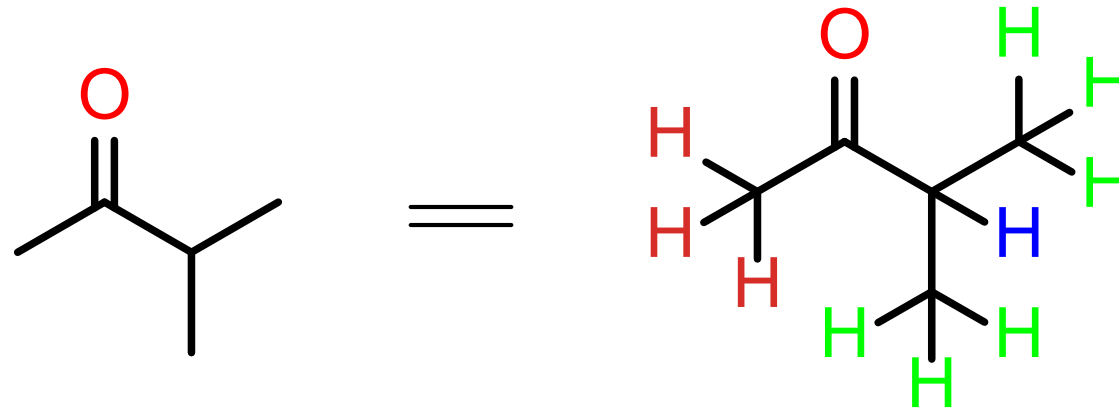
Predict the number of signals, chemical shifts, and signal shapes

NMR Spectroscopy Basics – 2



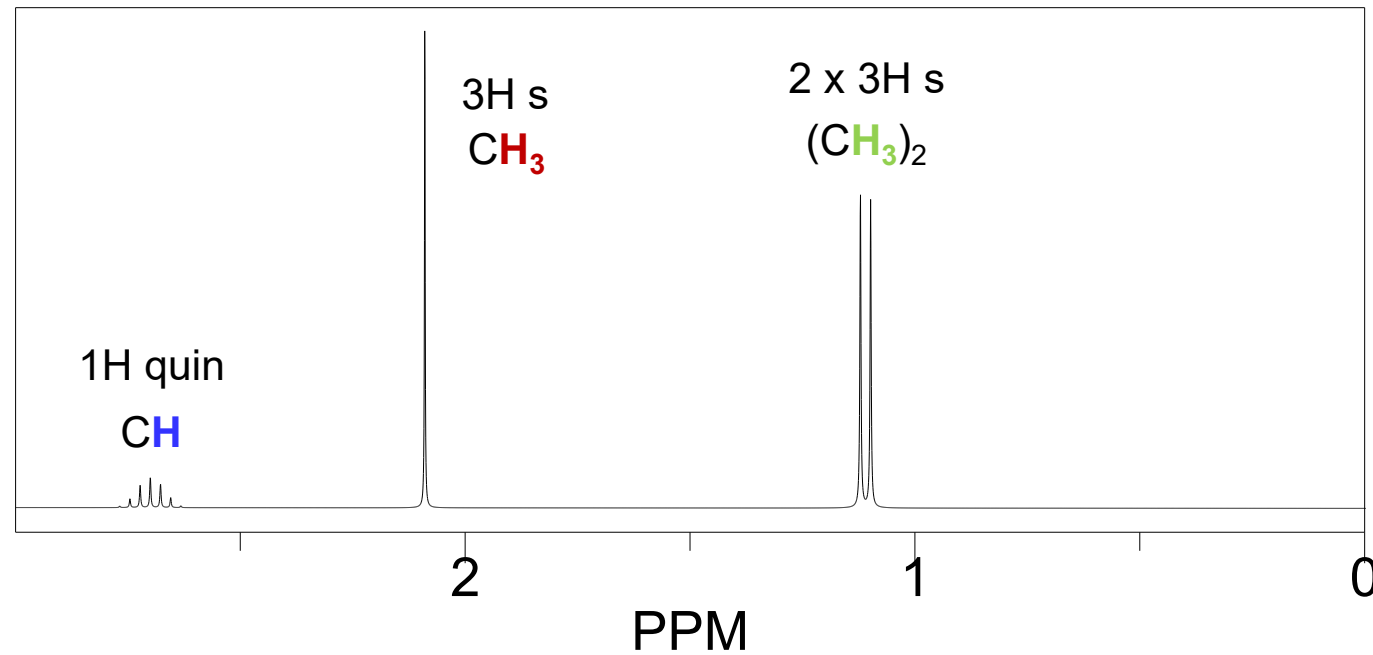
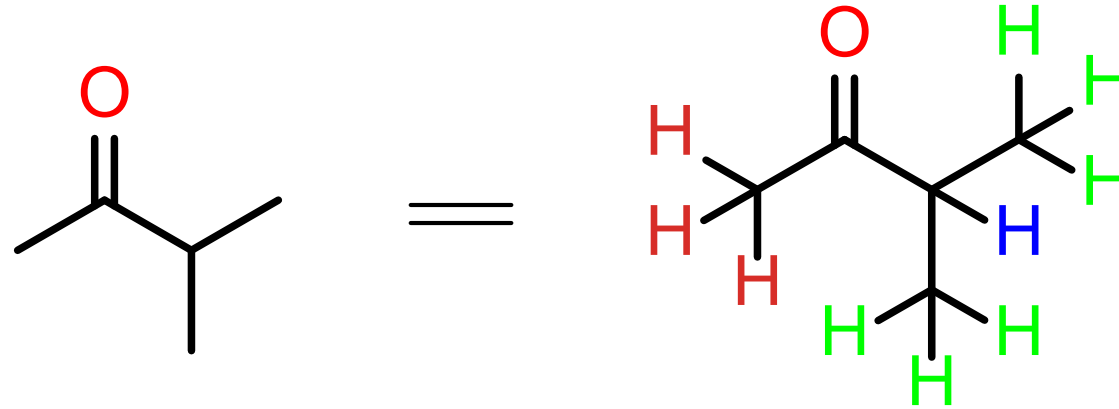
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NMR Spectroscopy Basics – 2



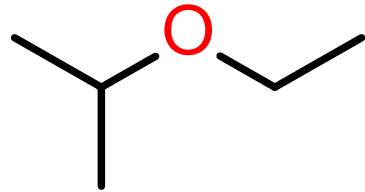
Predict the number of signals, chemical shifts, and signal shapes

NMR Spectroscopy Basics – 2



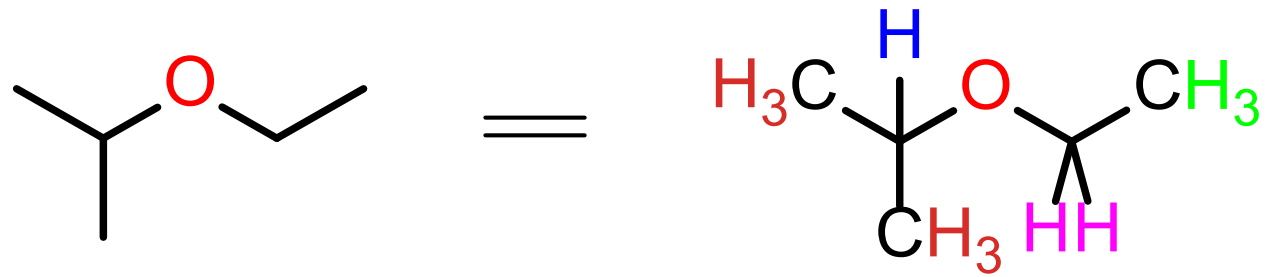
Predict the number of signals, chemical shifts, and signal shapes

NMR Spectroscopy Basics – 3



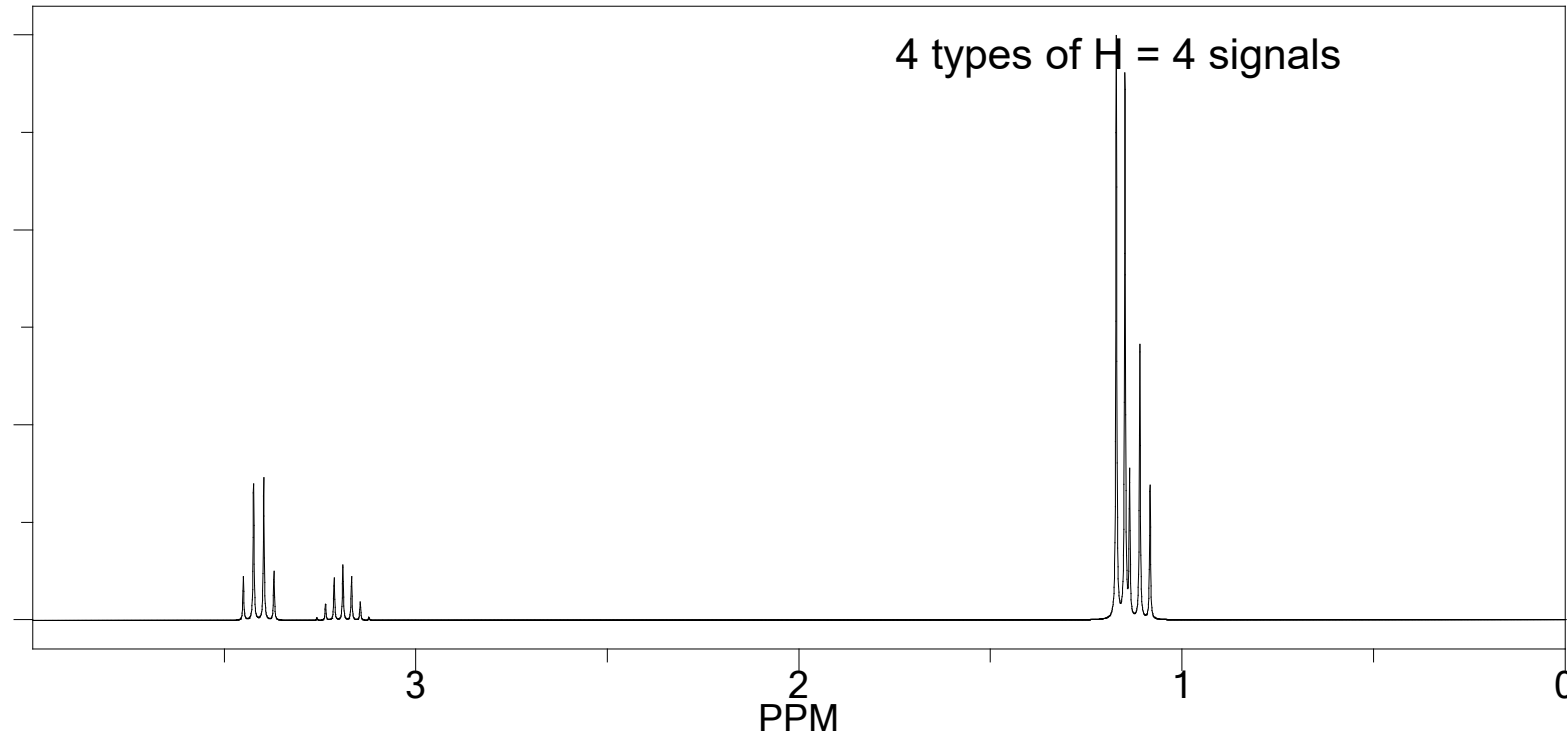
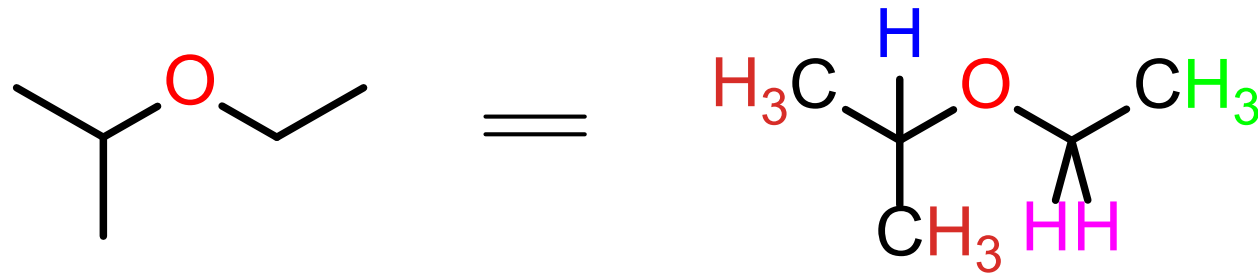
Predict the number of signals, chemical shifts, and signal shapes

NMR Spectroscopy Basics – 3



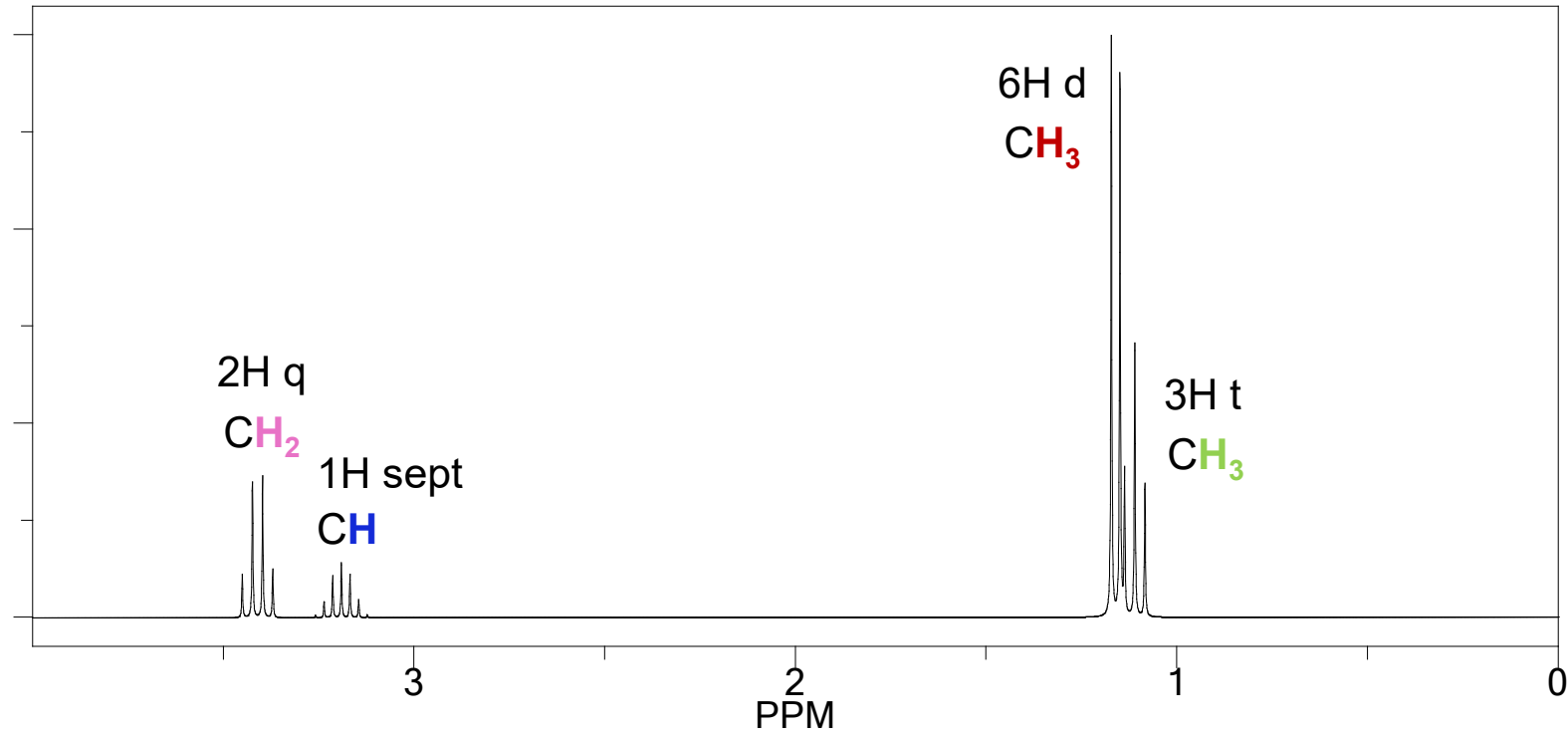
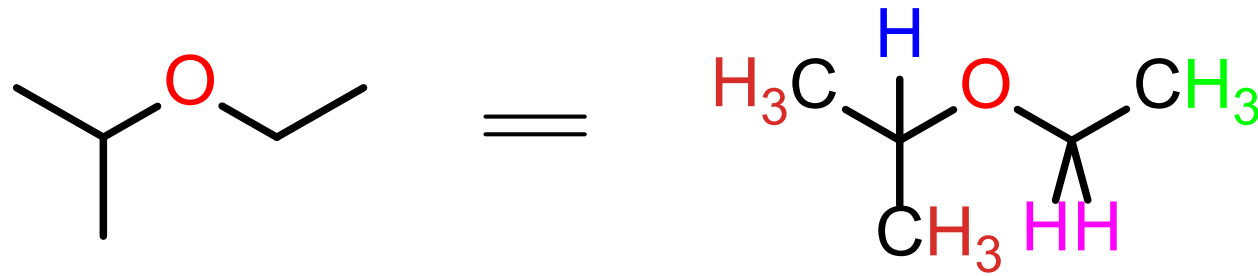
Predict the number of signals, chemical shifts, and signal shapes

NMR Spectroscopy Basics – 3



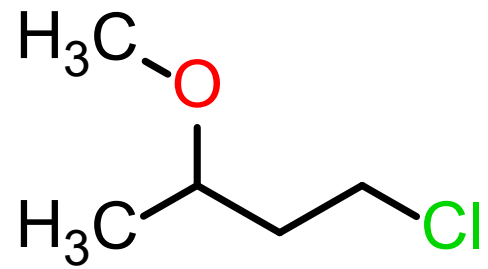
Predict the number of signals, chemical shifts, and signal shapes

NMR Spectroscopy Basics – 3



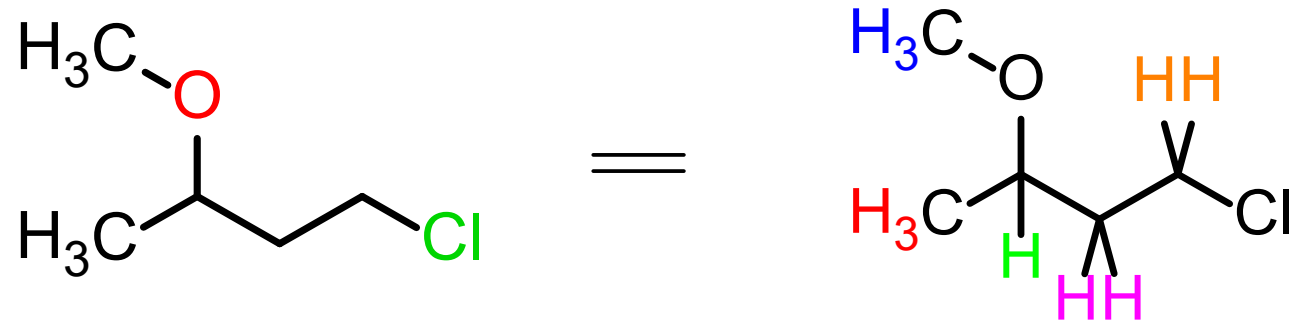
Predict the number of signals, chemical shifts, and signal shapes

NMR Spectroscopy Basics – 4



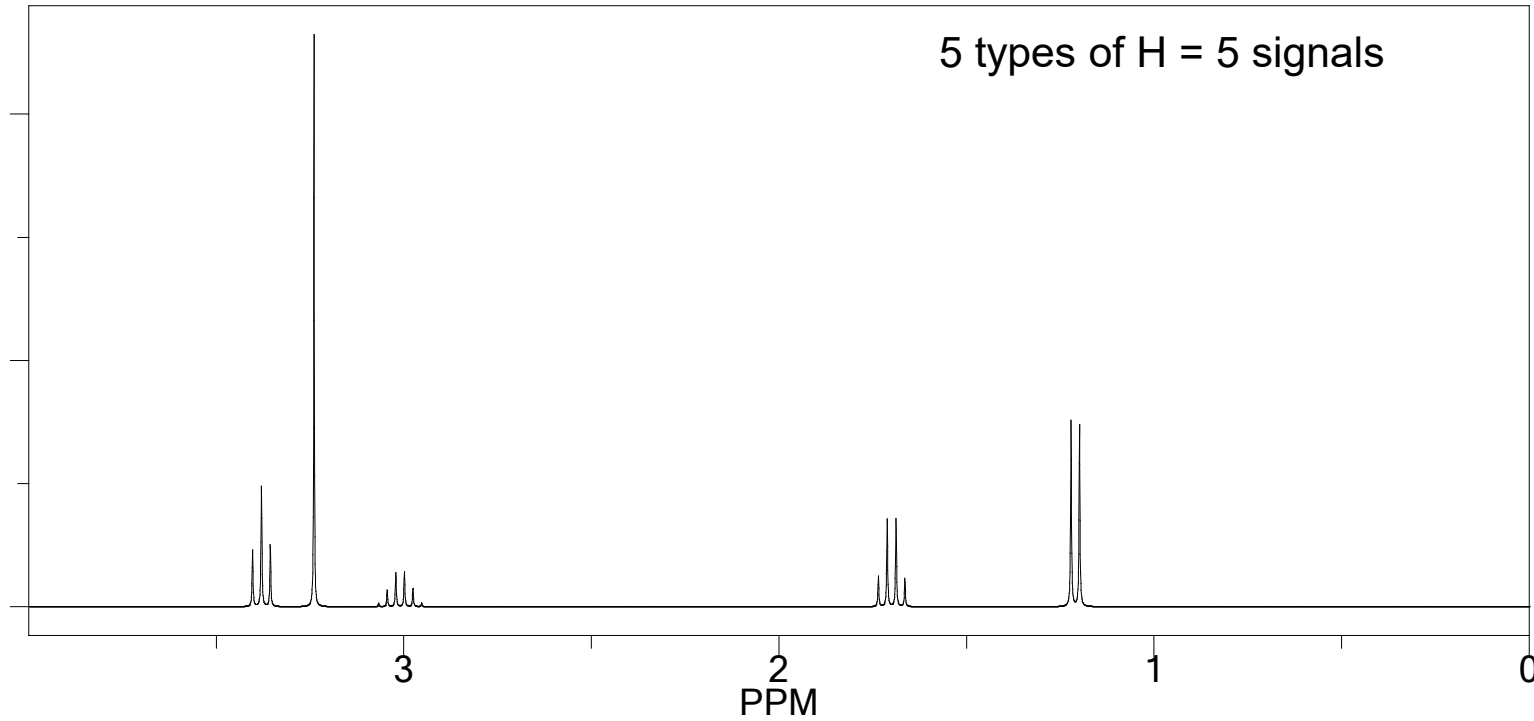
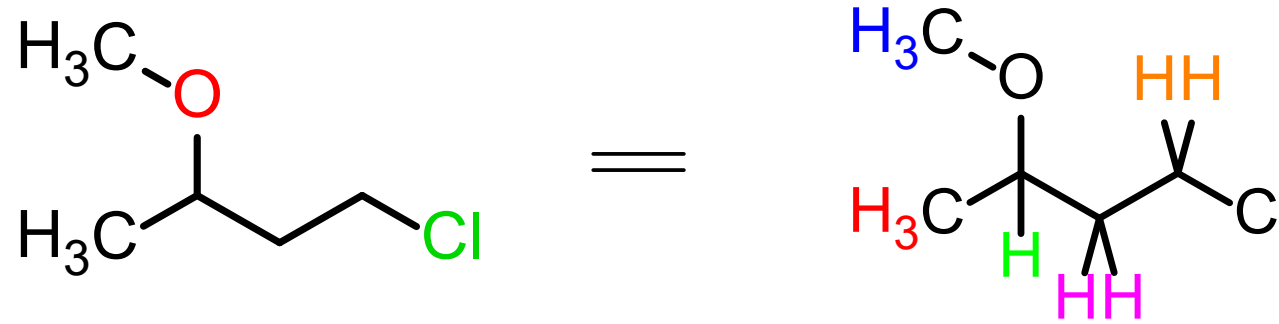
Predict the number of signals, chemical shifts, and signal shapes

NMR Spectroscopy Basics – 4



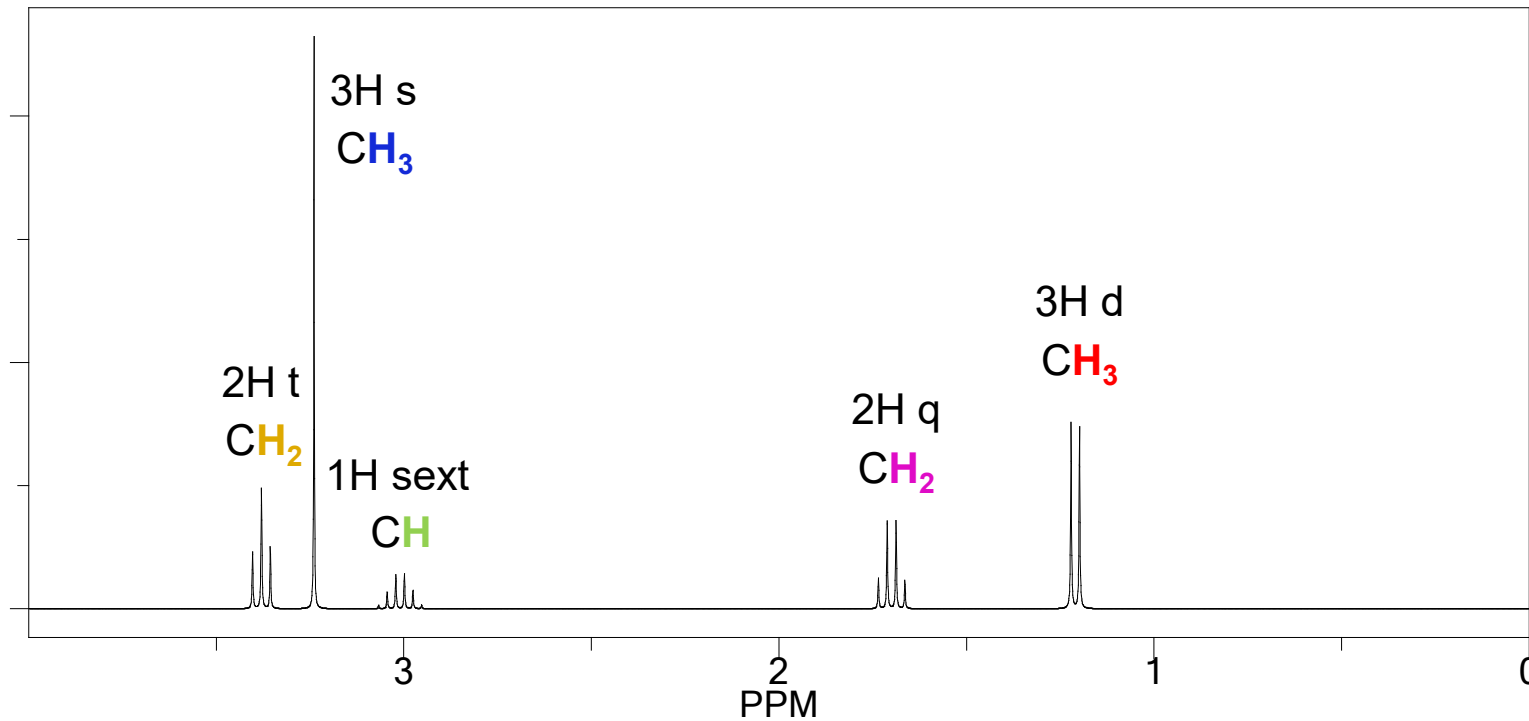
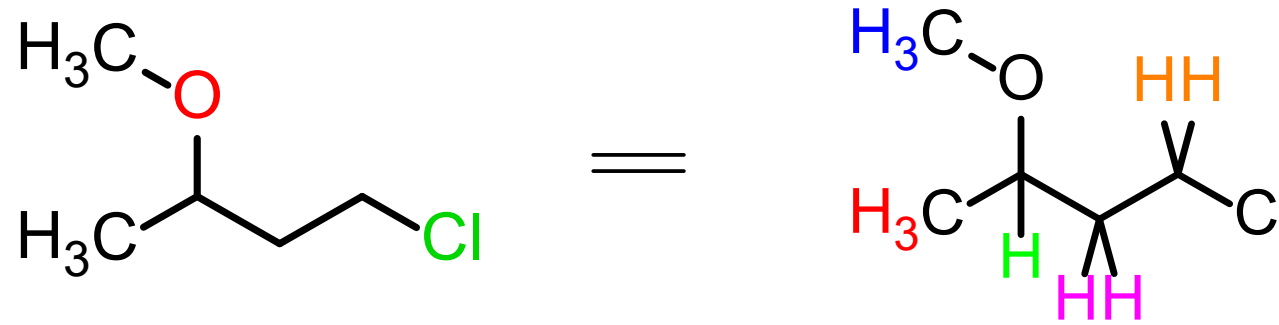
Predict the number of signals, chemical shifts, and signal shapes

NMR Spectroscopy Basics – 4



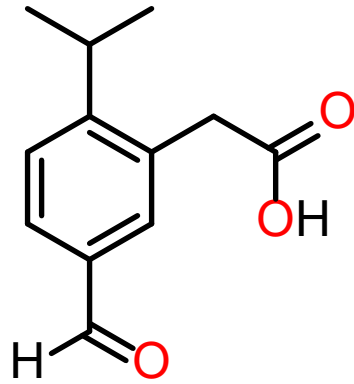
Predict the number of signals, chemical shifts, and signal shapes

NMR Spectroscopy Basics – 4



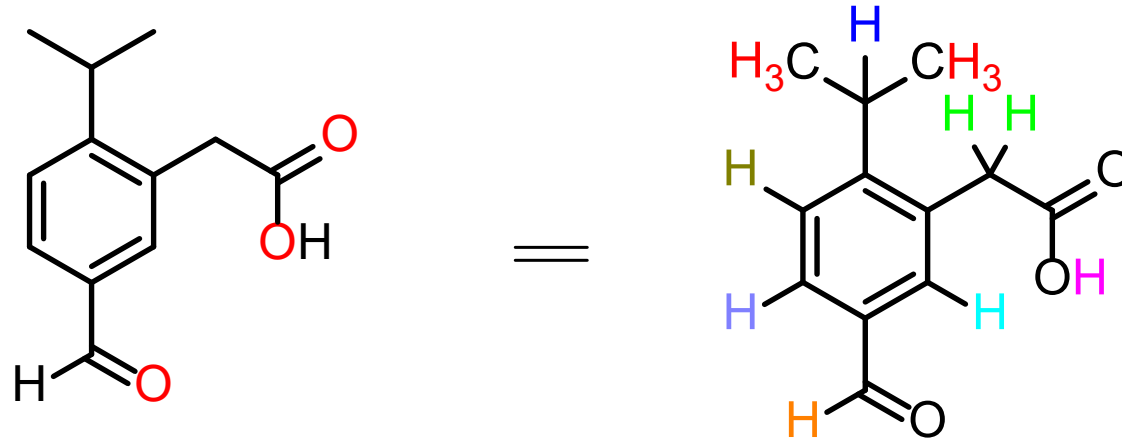
Predict the number of signals, chemical shifts, and signal shapes

NMR Spectroscopy Basics – 4



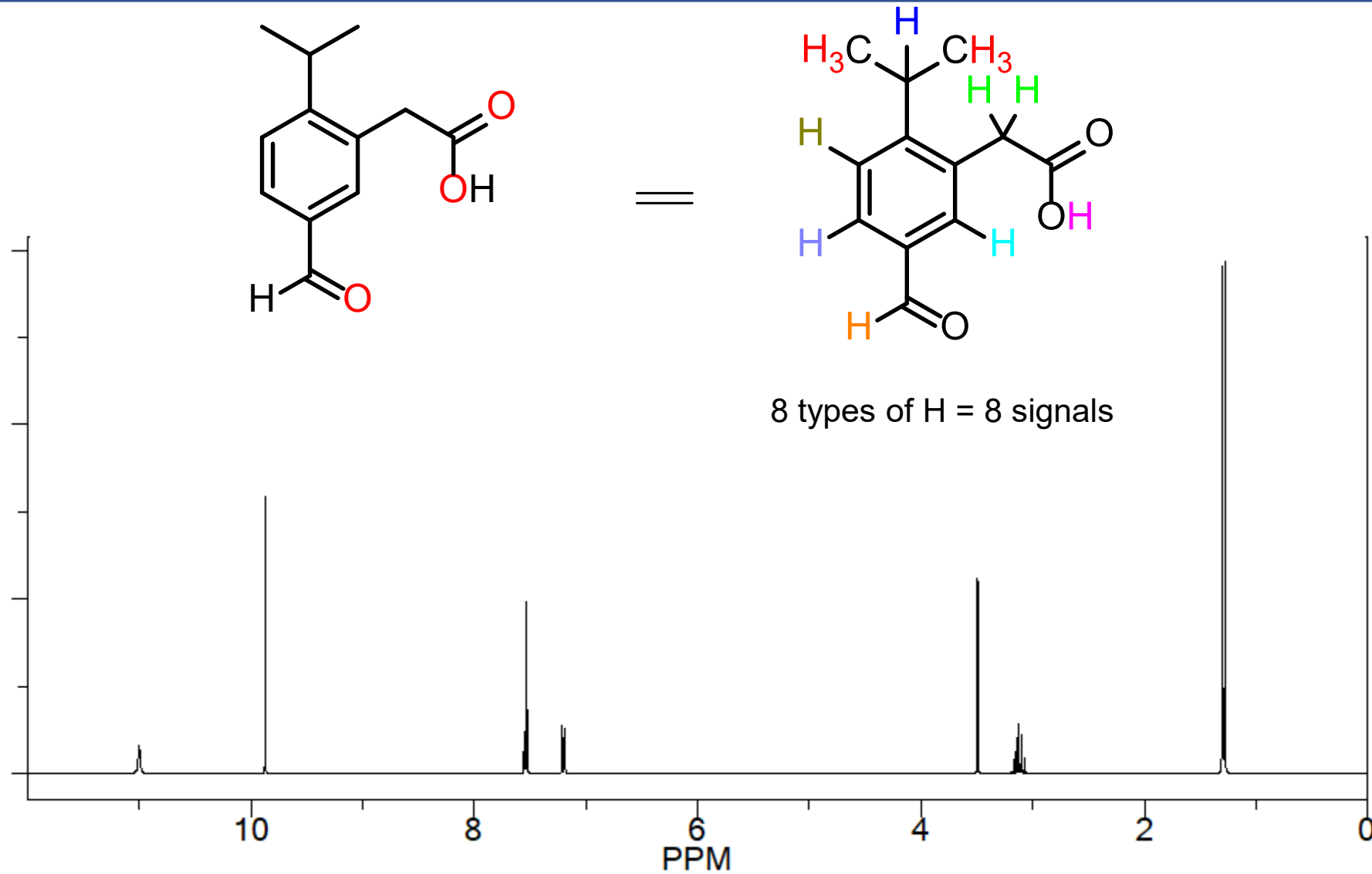
Predict the number of signals, chemical shifts, and signal shapes

NMR Spectroscopy Basics – 4



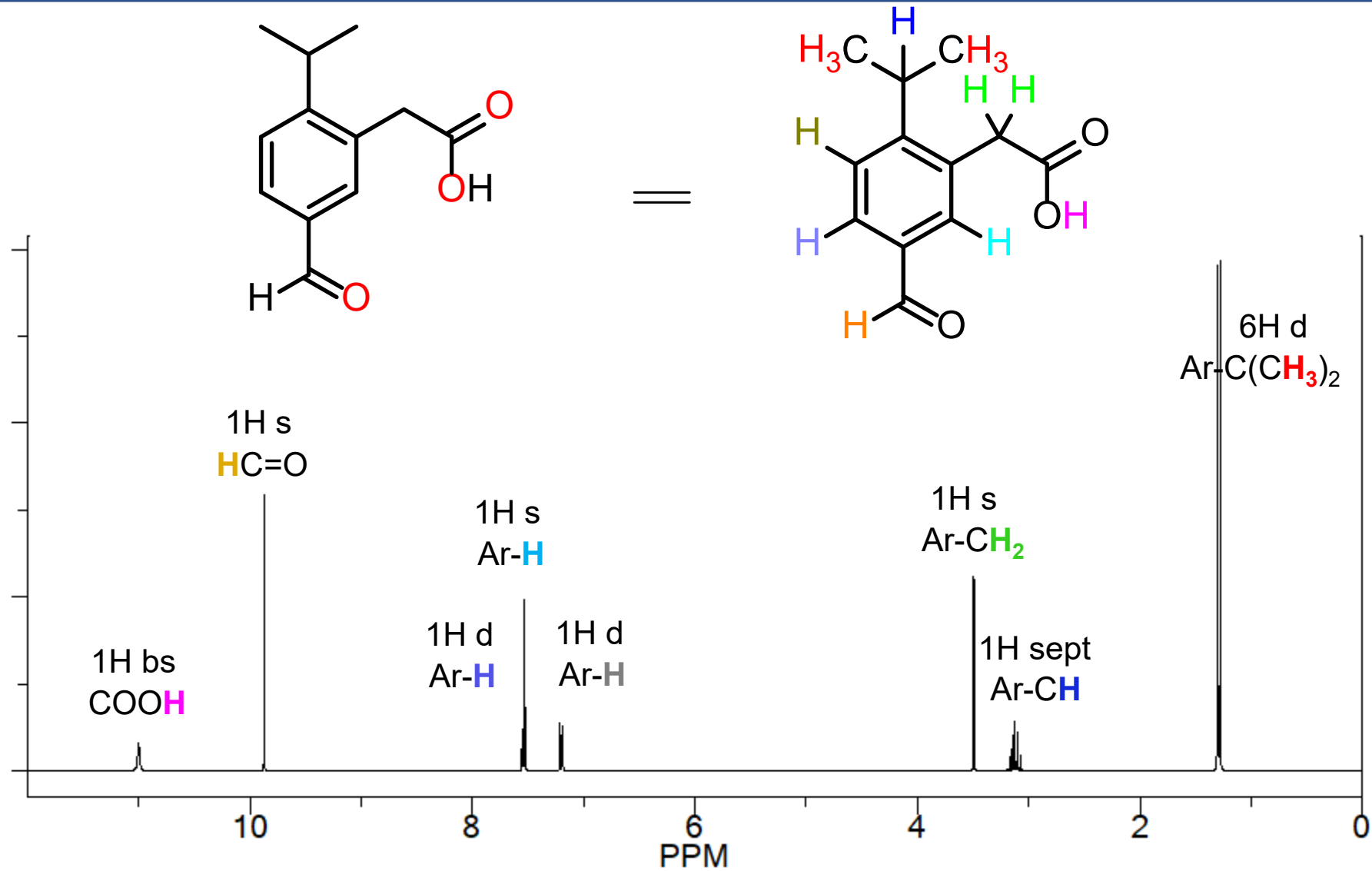
Predict the number of signals, chemical shifts, and signal shapes

NMR Spectroscopy Basics – 4



Predict the number of signals, chemical shifts, and signal shapes

NMR Spectroscopy Basics – 4



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