

Jigsaw 1B

Keeler Section 2.2. Linewidths, lineshapes and integrals

1. Explain how the linewidth of an absorption mode lineshape is measured.
2. Draw schematically the signal expected from a ^1H doublet with a 12 Hz linewidth, for cases where the separation between the two peaks in the doublet is:
 - a. 40 Hz
 - b. 12 Hz
 - c. 6 Hz
 - d. What happens to the signal in (c)?
3. If you have a peak corresponding to a single ^1H in a molecule, what happens to the intensity of the peak as the linewidth increases? Why?