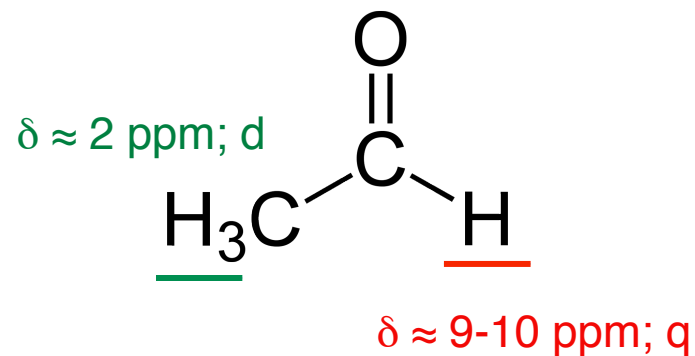
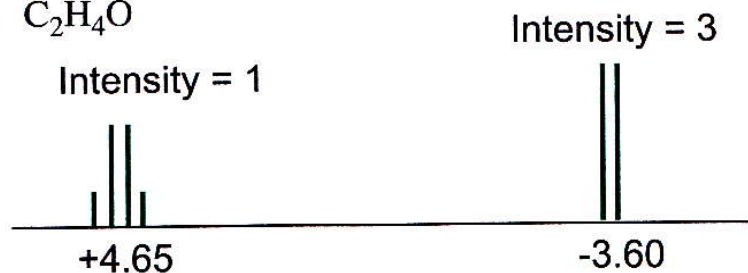


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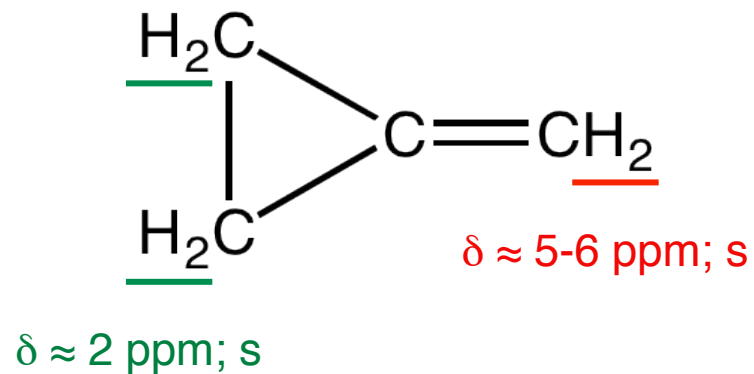
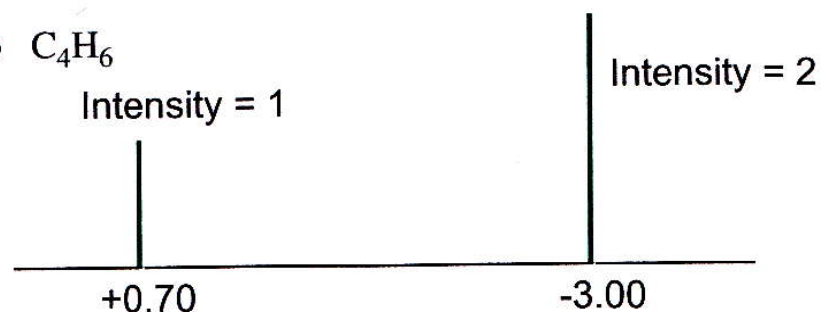
Example Problem from Textbook:

4. Deduce the structure of the two compounds below. Designate which protons go with which NMR lines. Chemical shifts are given in ppm relative to water.

(a) C_2H_4O



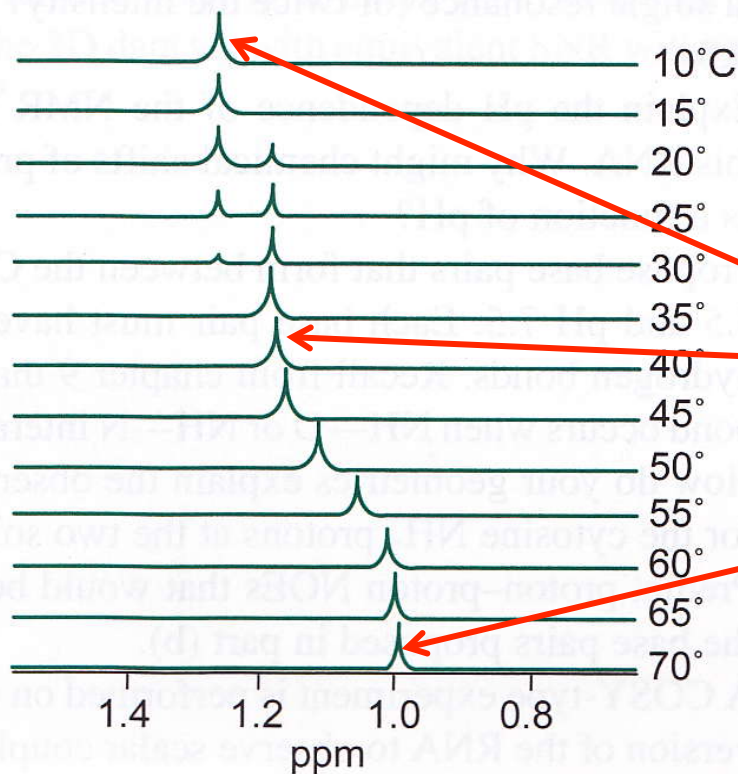
(b) C_4H_6



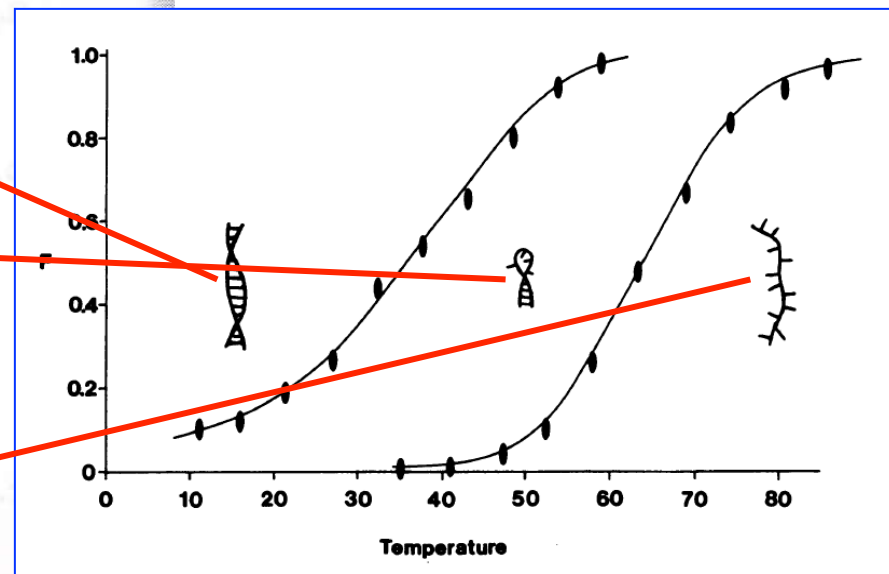
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Example Problem from Textbook:

13. The NMR spectrum from a single methyl group (on T) in a DNA oligomer d(CGCGTATACGCG) is shown as a function of temperature. In general terms, explain what may be occurring to give rise to these spectra.



Wemmer et al., *Nucleic Acids Res.*
(1985) 10, 3755



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Example Problem from Textbook:

21. The ^{13}C - ^1H HSQC is shown below for L-leucine (adapted from peak lists given in the biological magnetic resonance bank, BMRB, <http://www.bmrw.wisc.edu/>). Propose likely assignments for all peaks shown. Note that carbon chemical shifts often follow trends similar to proton chemical shifts.

