

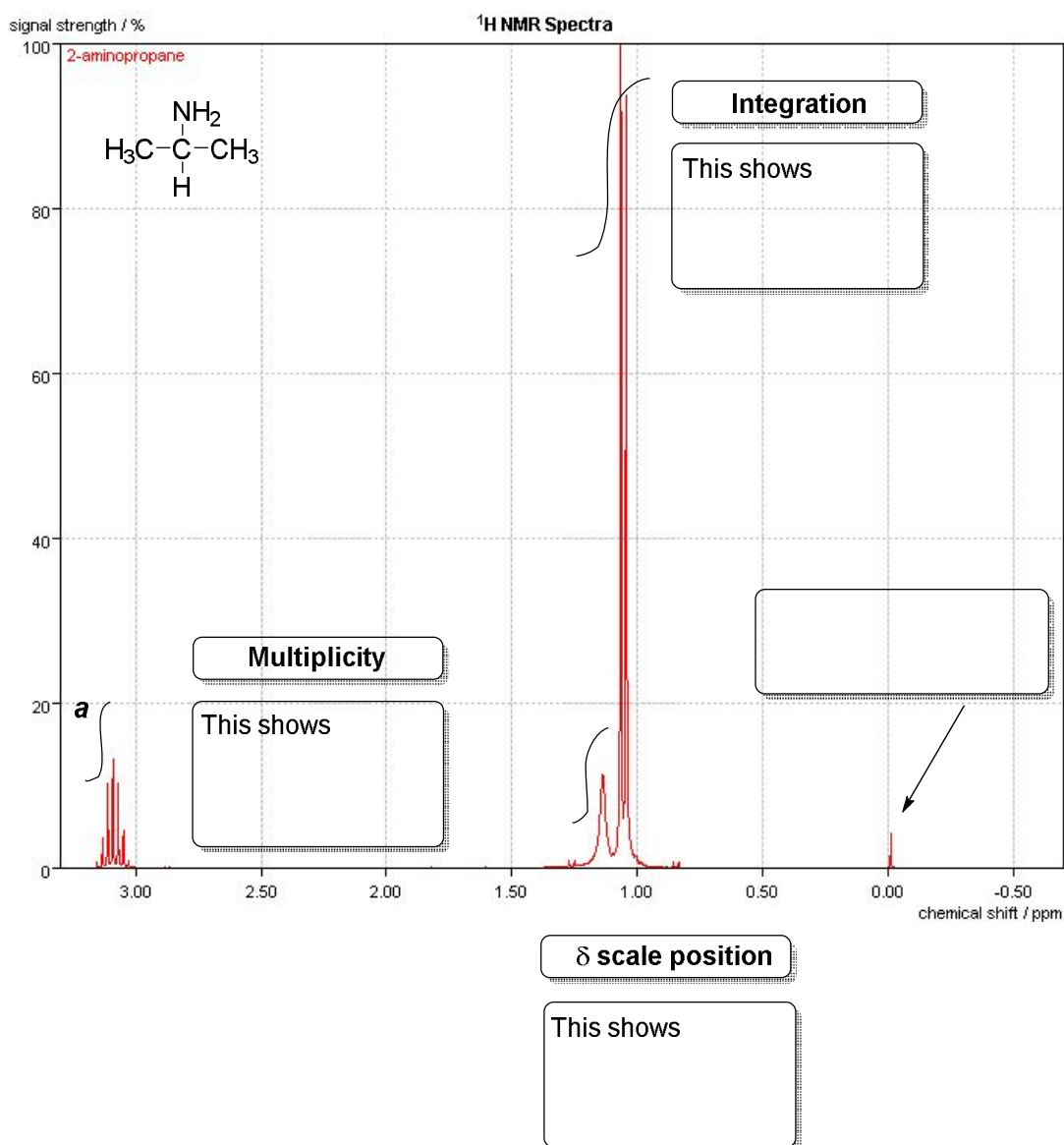


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8.3. ^1H NMR spectra

^1H NMR spectroscopy tells us about the environment of the hydrogen atoms in organic molecules.

1. Outline how you would prepare a sample of an organic substance for analysis in an NMR spectrometer. (5 marks)
2. The axes below show the ^1H NMR spectrum for 2-aminopropane. Label the features of the spectrum shown by the arrows and boxes. (4 marks)
3. On the structure of 2-aminopropane, indicate which proton(s) give rise to the peak labelled **a**. (1 mark)





STARTER FOR 10...

8. Answers

8.3 ¹H NMR spectroscopy

- ✓ Dissolve between 10-20mg /a small quantity of the substance (2 marks, QoL for dissolve, plus quantity)
- ✓ In a small volume/1-2cm³ of CDCl₃ (one mark for suitable deuterated solvent)
- ✓ Add one drop of TMS reference solution (one mark for TMS)
- ✓ Transfer to a clean, dry NMR tube using a Pasteur pipette (one mark for NMR tube)

Total = 5

