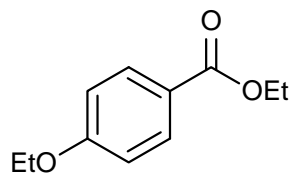


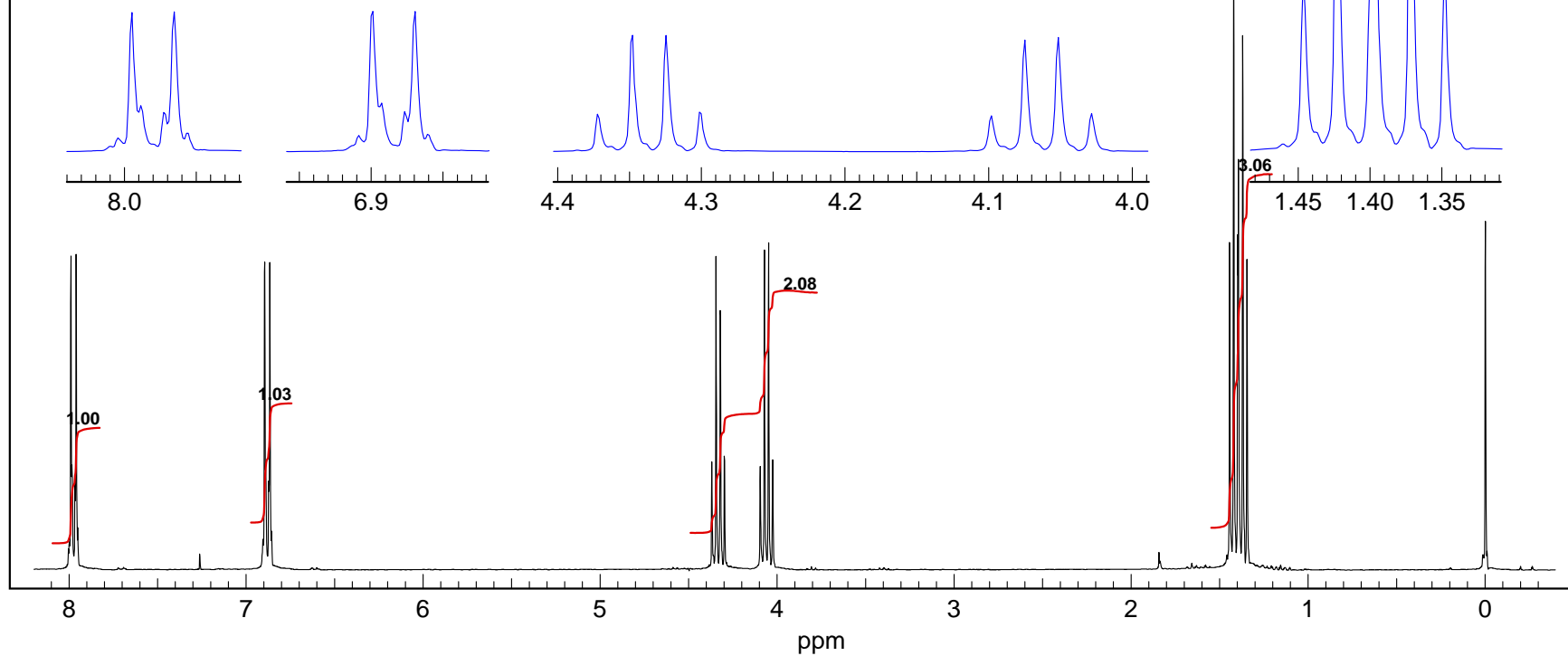
Problem R-26B ($C_{11}H_{14}O_3$)

300 MHz 1H NMR in $CDCl_3$

Source: Aldrich Spectra Collection/Reich g

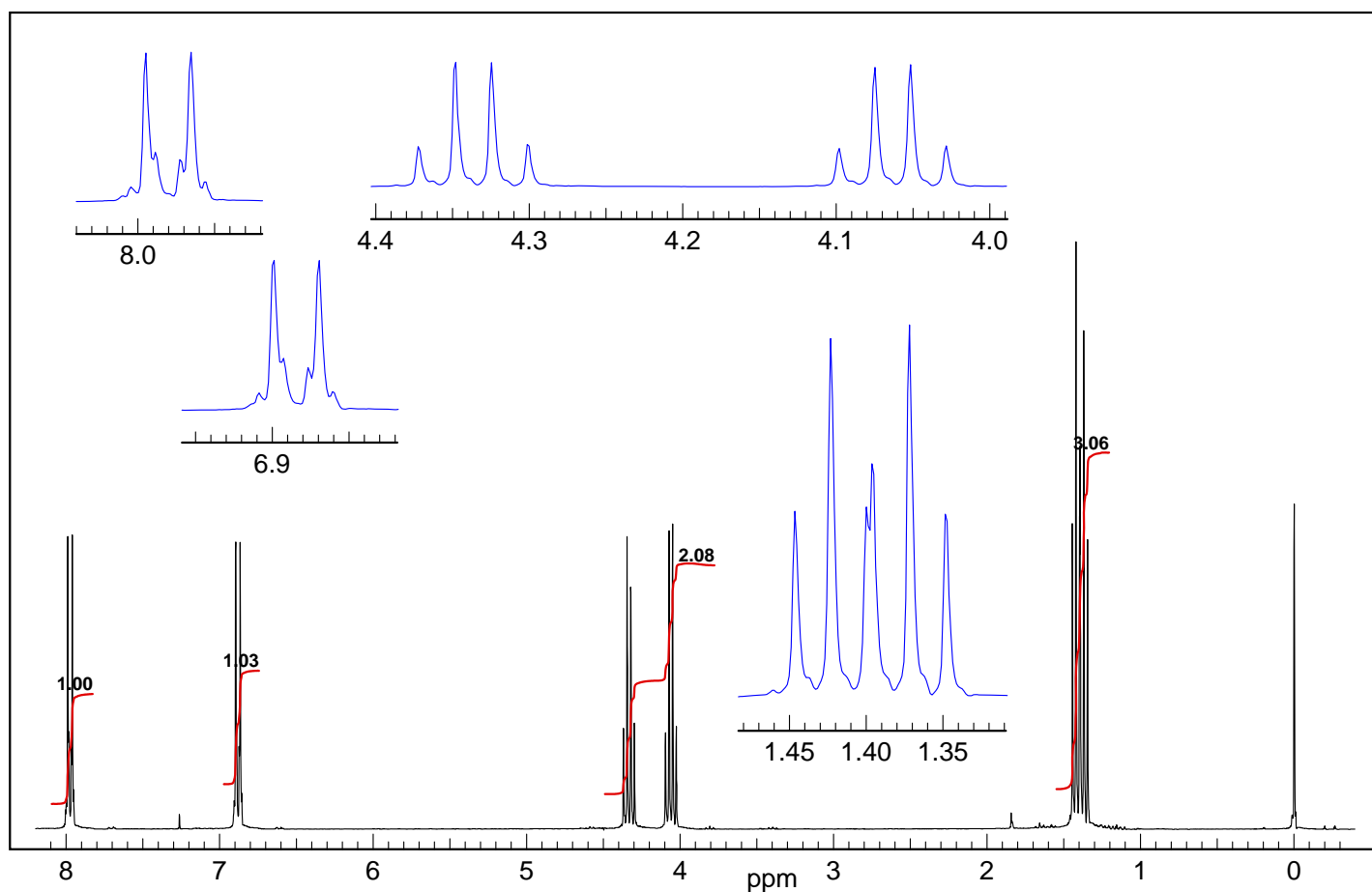


30 20 10 0 Hz



9. (15 pts.) Determine the structure of $C_{11}H_{14}O_3$ from the 1H NMR spectrum shown. Determine the **index of hydrogen deficiency**. Write part structures revealed by the chemical shifts, splitting and integrals for all the multiplets. In each part structure **circle** the hydrogens responsible for the absorption and **underline** the hydrogens that give rise to the splitting. *Hint: The multiplet at δ 1.40 consists of 2 overlapping triplets.*

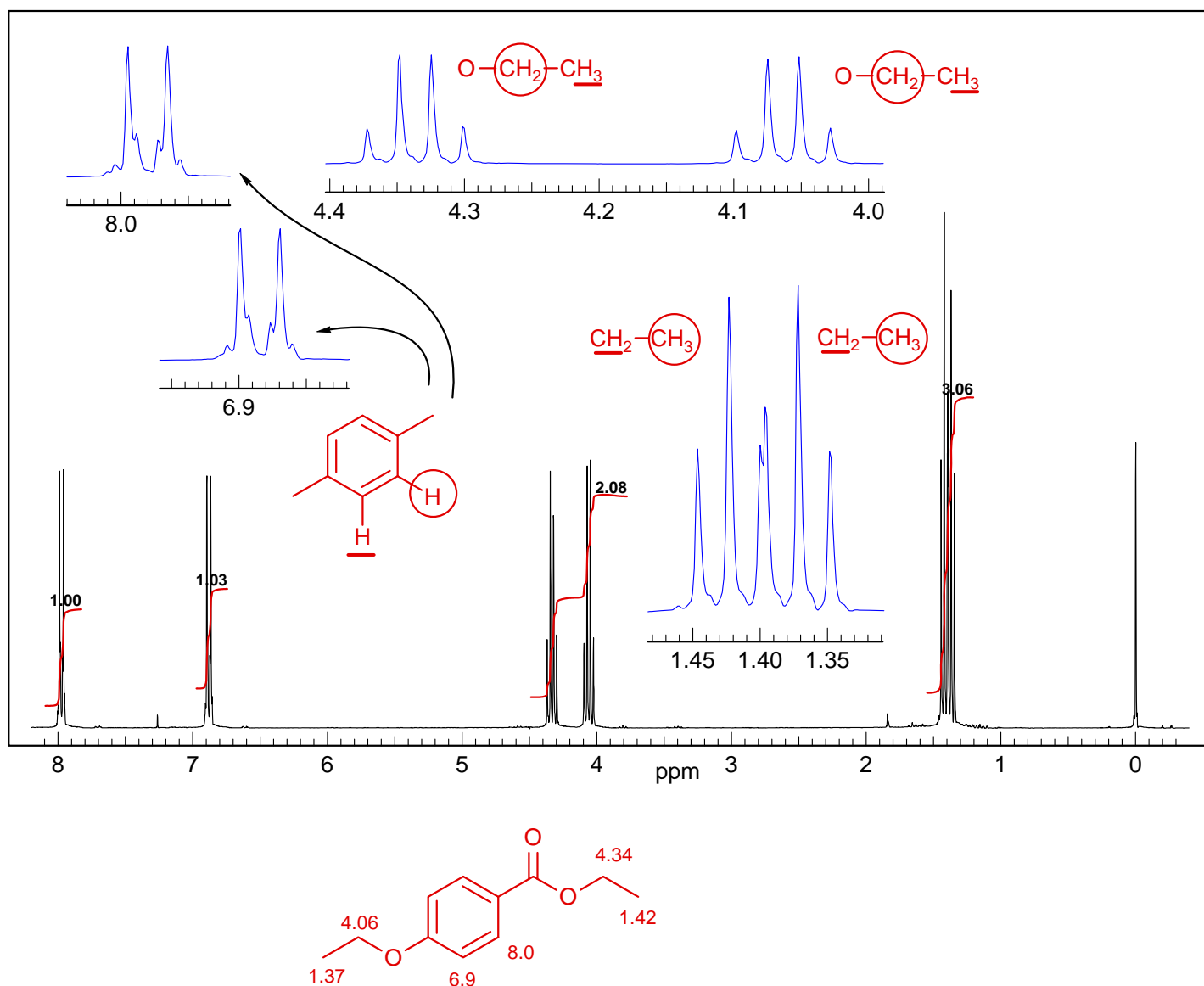
IHD = 5



If your structure seems correct, assign the protons in it to the various peaks in the spectrum (write δ values on the structure).

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If your structure seems correct, assign the protons in it to the various peaks in the spectrum (write δ values on the structure).