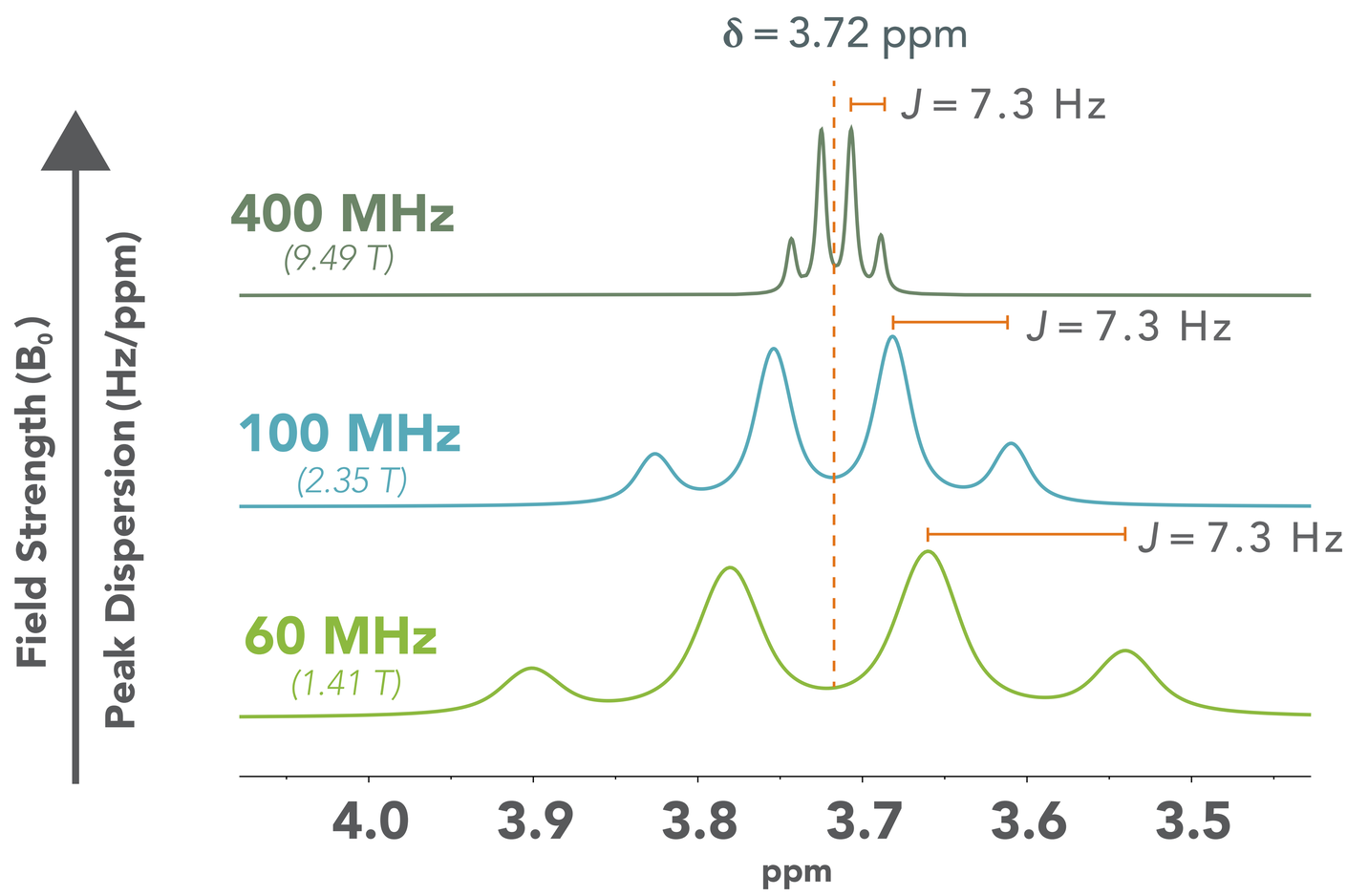
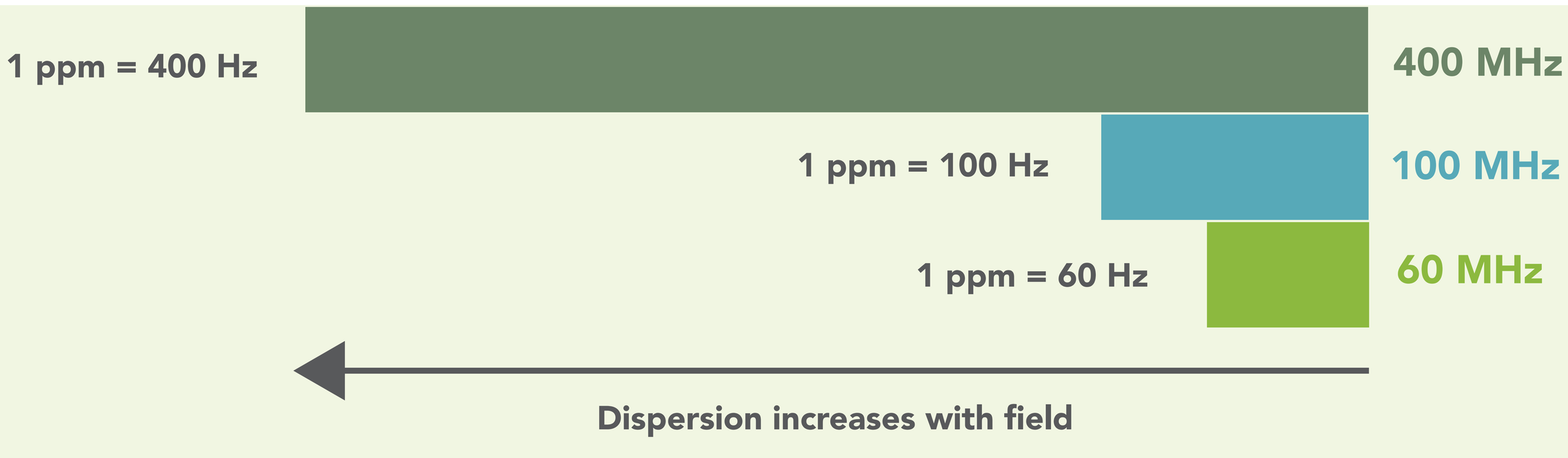
nanalysis™

NMR FIELD STRENGTH *VS.* PEAK DISPERSION



Frequency (MHz)	δ (ppm)	ν (Hz)	J (Hz)
400	3.72	1488	7.3
100	3.72	372	7.3
60	3.72	223	7.3



Higher fields lead to **increased dispersion** and consequently **less signal overlap**.

The chemical shift in **Hz** (ν) is **field dependent**. It is **normalized** to chemical shift in **ppm** (δ) to compare spectra taken at different B_0

$$\delta(\text{ppm}) = \frac{\nu_{\text{signal (Hz)}} - \nu_{\text{TMS (Hz)}}}{\text{spectrometer frequency (Hz)}} \times 10^6$$

The **coupling constant** (J) in Hz is **independent of B_0**