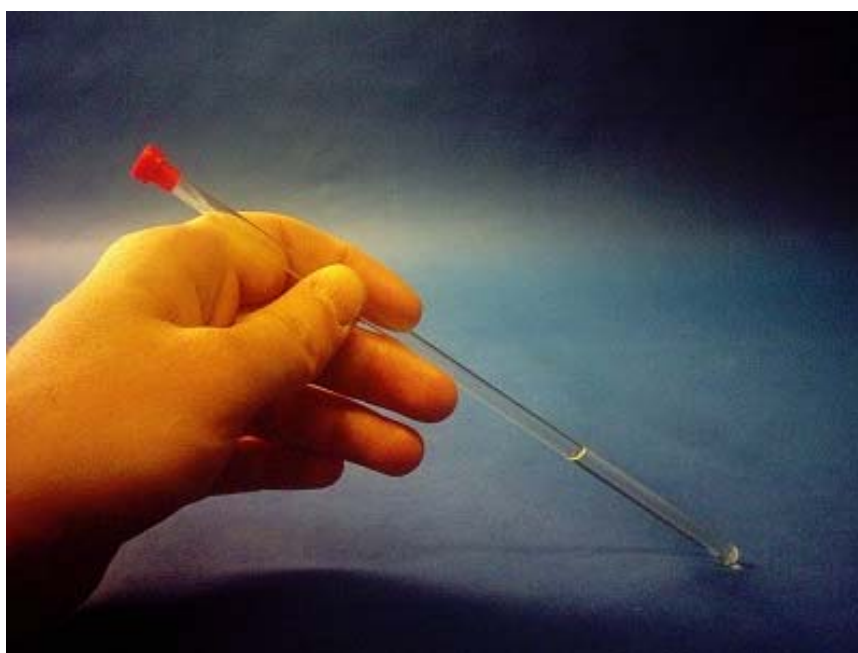


HOW TO PREPARE AN NMR SAMPLE?

DISSOLVE THE COMPOUND IN A DEUTERATED SOLVENT AND PLACE IT IN AN NMR TUBE

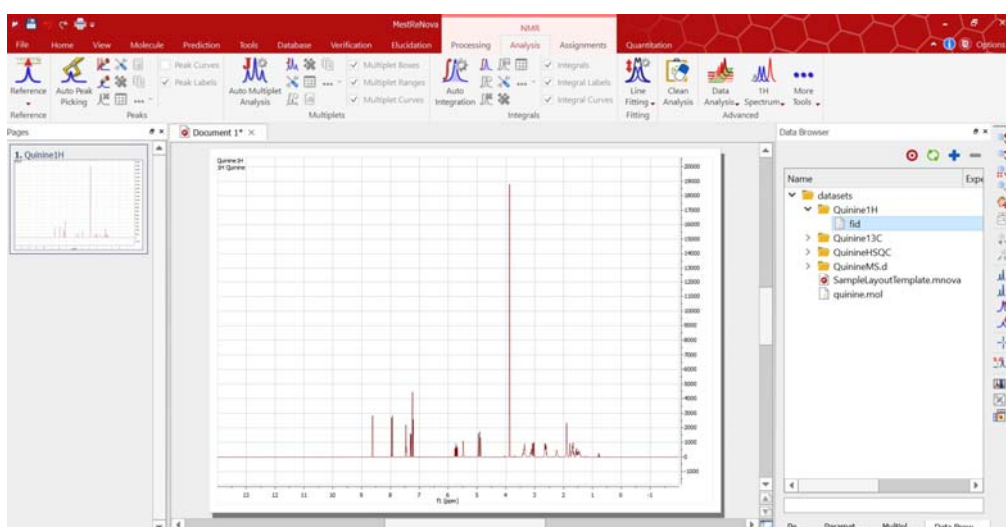
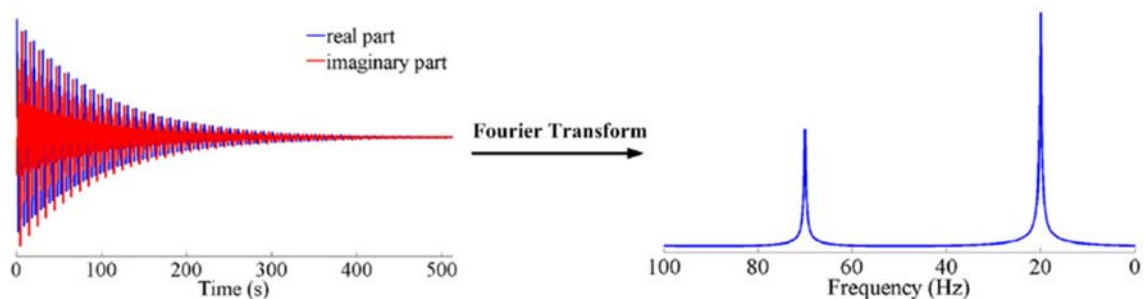


NMR EQUIPMENT



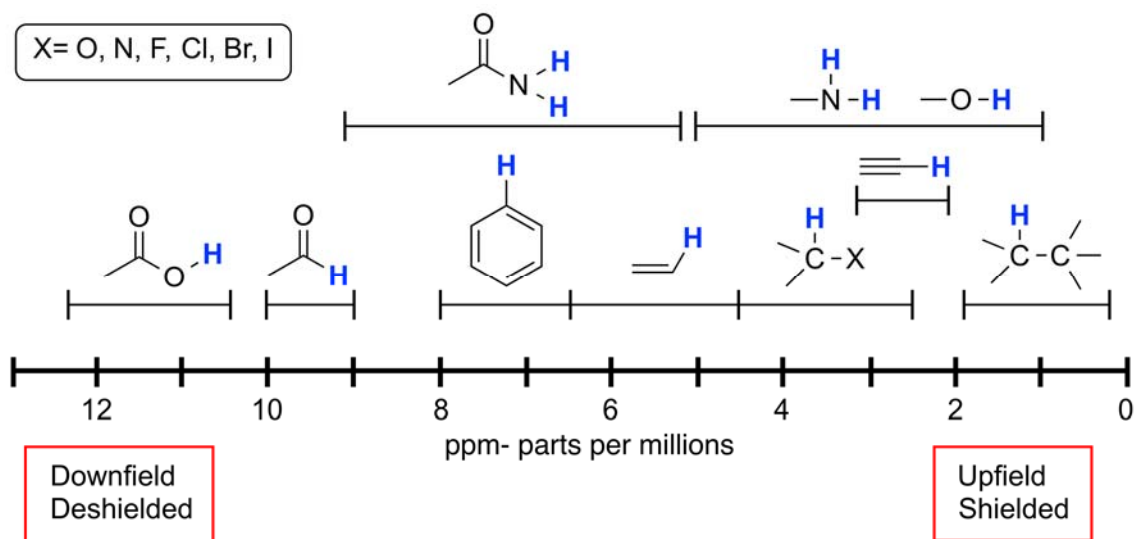
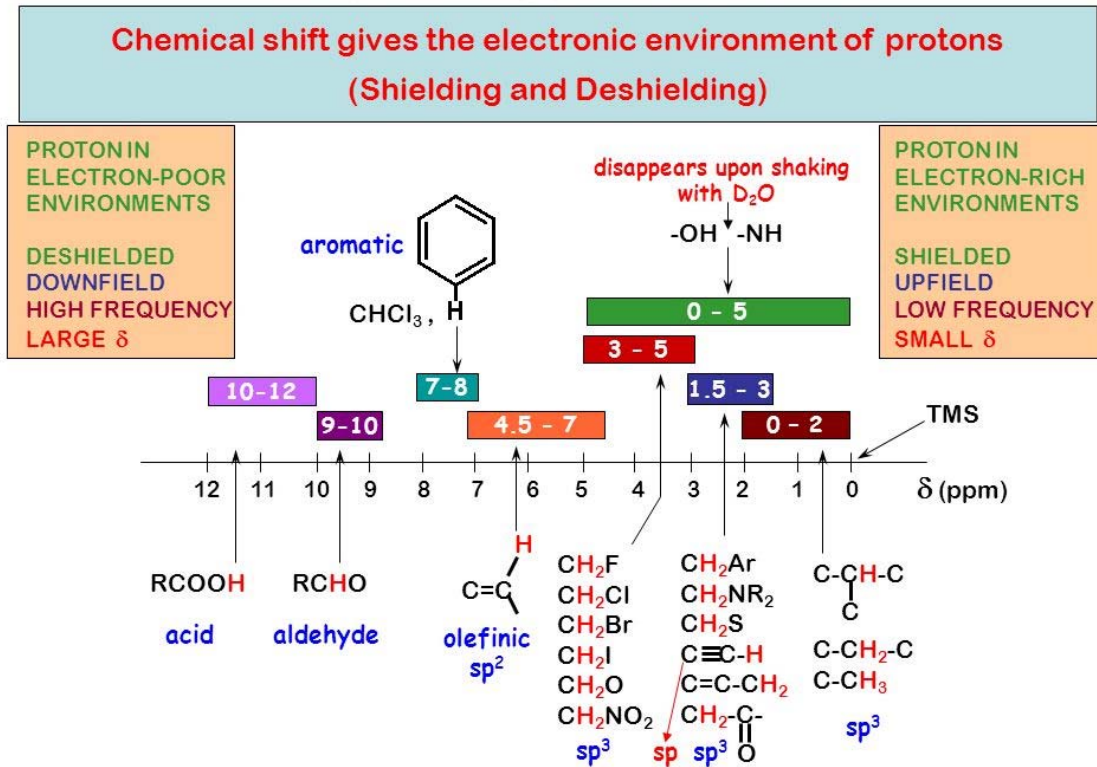
HOW DO WE PROCESS THE INFORMATION?

We process the FID (free induction decay), the observable signal

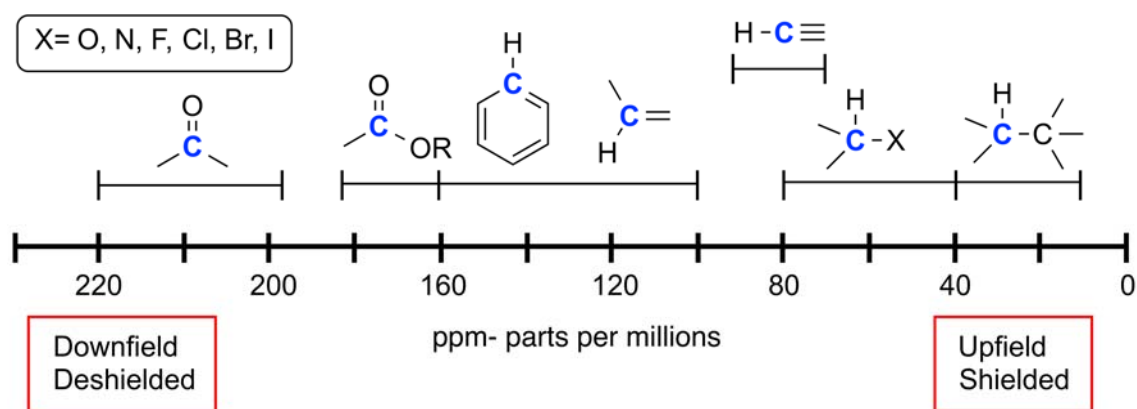


GENERAL ^1H NMR SPECTRA

NMR CORRELATION CHART



GENERAL ^{13}C NMR SPECTRA



THE MOST COMMON SOLVENT IS DEUTERATED CHLOROFORM (CDCl_3)

^1H NMR 7.26 ppm (singlet)

^{13}C NMR 77 ppm (triplet)

WHY DO WE SEE THE SOLVENT IN NMR?

^1H NMR: RESIDUAL CHCl_3

^{13}C NMR: WHY A TRIPLET?

An atom has $2nI + 1$ possible orientations, where n = number of nuclei, and I = number of spin

CDCl_3 contains 1D of $I = 1$, hence $2+1= 3$

possible orientations