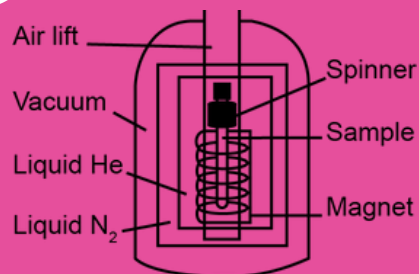
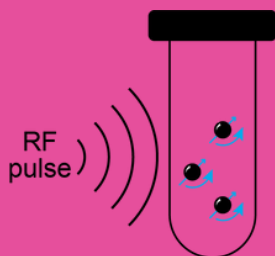


1

Sample is lowered into a magnet where it is spun and hit with electromagnetic pulses in the radio frequency (RF) range. The RF frequency is tuned to the specific nucleus you are studying (e.g. H-1 or C-13).

2

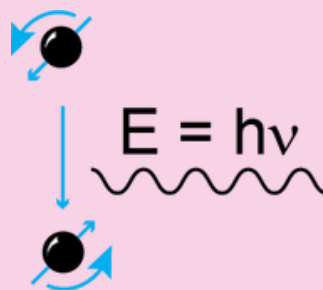
Nuclei absorb energy from the pulse and go from a lower energy state to a higher energy state.

How NMR Works

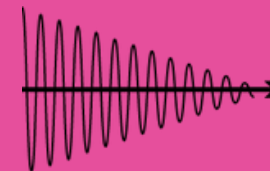
IN 6 STEPS

3

After the pulse, the nuclei relax back to the lower energy level, releasing energy.

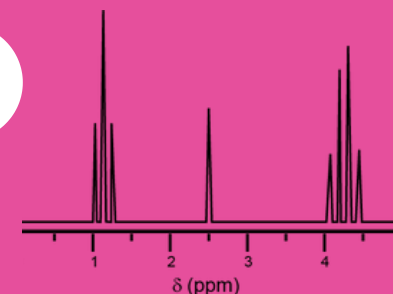
**4**

The instrument repeats the scan multiple times to maximize signal and minimize noise.

5

Time

NMR instrument performs a Fourier transform on the signals to show each individual RF frequency that made up the composite signal.

6

The frequencies make up your NMR Spectrum.