

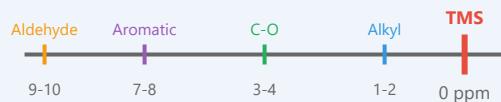
NMR Fundamentals

Nuclear Spin in Magnetic Field



^1H , ^{13}C , ^{15}N , ^{31}P nuclei have spin $1/2$

Chemical Shift (δ)



Electronic environment. ppm scale.

J-coupling



Spin-spin splitting. Connectivity information.

2D NMR



→ Structure determination

Biomolecular NMR



Solution state
Dynamics info