

Approx. Freq. (cm ⁻¹)	Intensity	Shape	Interpretation
3500-3600	med	shrp	OH no hydrogen bonding
3000-3600	med-str	broad	OH hydrogen bonding
3300-3500	med	var	NH hydrogen bonding
3200-3300	med-str	shrp	sp CH
>3000	var	var	sp ² CH
<3000	var	var	sp ³ CH
2700-2800	med	shrp	aldehyde CH
2100-2300	wk-med	shrp	triple bonds
1700-2000	weak	var	aromatic overtones
1700-1800	str	shrp	most carbonyl
1600-1700	str	shrp	amide carbonyl, etc
1600	var	shrp	CC double bond
1450-1600	med	mult	Aromatic
1500+, 1250+	str	shrp	Nitro
1360-1380	weak	shrp	methyl bend
1000-1300	str	shrp	CO or CN
700-900	var	shrp	CCl
700-900	var	shrp	C=CH out-of-plane bend
600-700	var	shrp	CBr

Remember that stronger bonds and smaller atoms mean higher frequency and larger dipoles mean higher intensity.

Approx. Chem. Shift (ppm)	Interpretation
200	carbonyl
160-180	carboxylic acid derivative
110-160	sp ²
120	nitrile
80	sp
40-80	CX (X=O, N, Cl)
40-50	CH
20-30	CH ₂
10-20	CH ₃

Remember that more hydrogen atoms on a carbon mean taller peaks.