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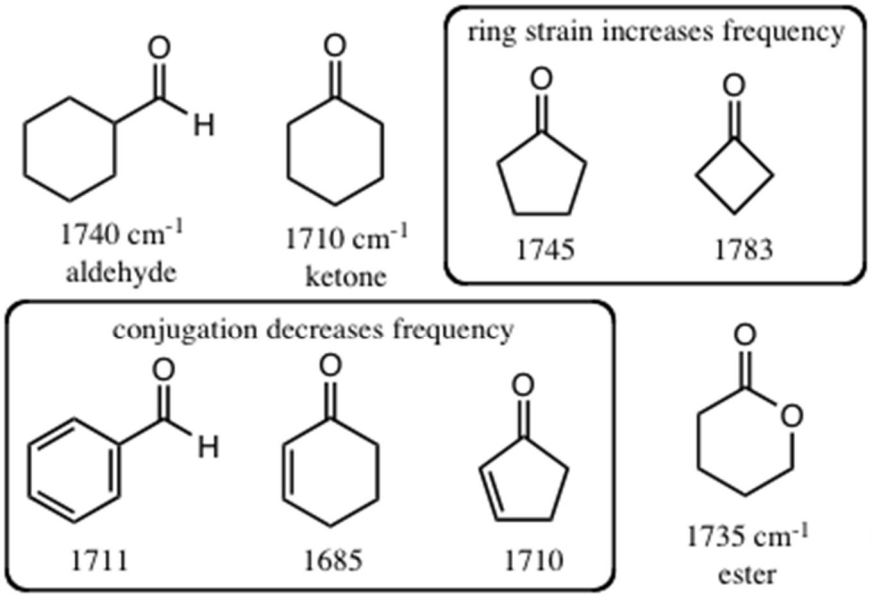
IR Correlation chart (s = strong, m = medium, v = variable)

3600–3300 (s, broad)	O–H stretch, alcohols
3400–2400 (s, broad)	O–H stretch, carboxylic acids
3500–3300 (m)	N–H stretch, amines
3300 (s)	C–H stretch, alkyne
3080–3020 (m) (just above 3000)	=C–H stretch (sp^2 CH), alkenes, aromatic (benzene)
2960–2850 (s) (just below 3000)	C–H stretch (sp^3 CH), alkanes
2850 and 2750 (w)	=C–H stretch, aldehyde CH
2260–2100 (v)	C≡C triple bond stretch, alkynes
2260–2220 (v)	C≡N triple bond stretch, nitriles
1750–1650 (s)	C=O stretch
1680–1620 (v)	C=C stretch, alkene
1300–1000 (s)	C–O stretch

Carbonyl Stretch: STRONG signal ~1700 cm^{-1}



Carbonyl frequencies for aldehydes and esters are typically higher than ketones.

Out-of-plane Bending Patterns (Aromatic Rings and Alkenes)