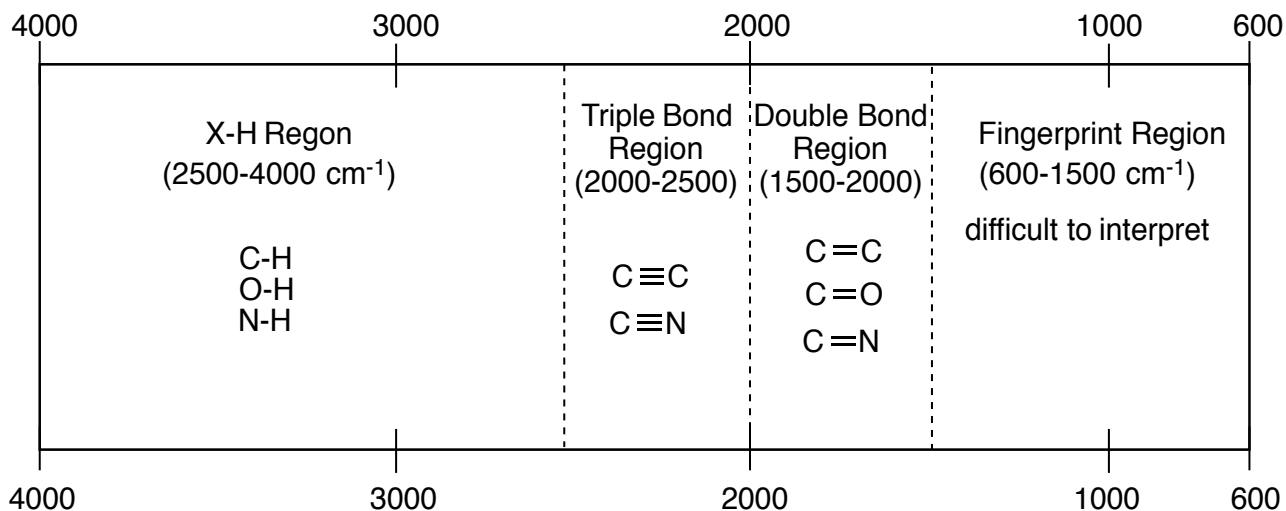



Typical IR Absorptions for Funtional Groups



Functional Group	cm ⁻¹	Functional Group	cm ⁻¹
Alkanes, Alkyl groups		Amines	
C-H	2850-2950 (m-s)	N-H	3350-3500 (br, m)
Alkenes		Amide	
=C-H	3000-3100 (m)	N-H	3180-3350 (br, m-w)
C=C	1620-1680 (m-w)	C=O	1680-1700 (s)
Alkynes		Carbonyl Group	
≡C-H	3310-3320 (s)	C=O	1650-1780 (s)
C≡C	2100-2260 (m-w)	C-O	~1200 (s)
Alkyl Halides		Carboxylic Acids	
C-Cl	600-800	O-H	2500-3100 (br, s)
C-Br	500-600	C=O	1700-1725 (s)
C-I	500		
Alcohols		Nitriles	
O-H	3200-3600 (br, m-s)	C≡N	2240-2250 (w-m)
C-O	1025-1200 (s)		
Aromatics		Nitro Group	
=C-H	3000-3100 (m-w)	-NO ₂	1540
	1450-1600 (m-w)		