OCR Chemistry Data Sheet

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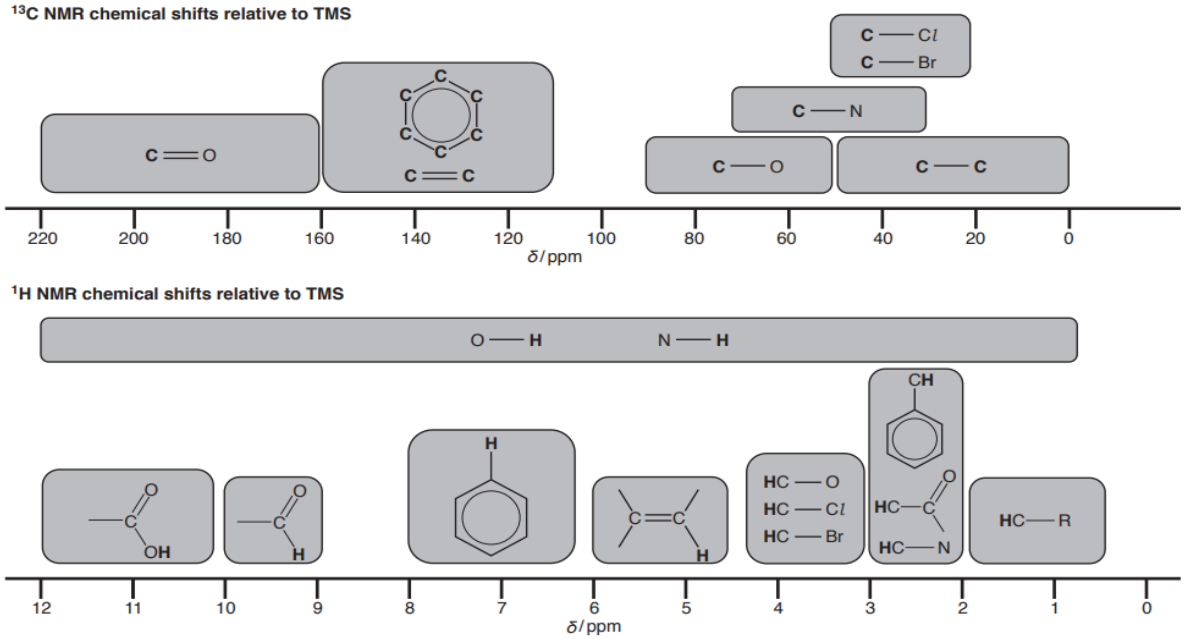
General Information

Molar gas volume = 24.0 dm^3 mol^{-1} at RTP
Avogadro constant, N_A = 6.02 × 10^{23} mol^{-1}
Specific heat capacity of water, c = 4.18 J g^{-1} K^{-1}
Planck constant, h = 6.63 × 10^{-34} J Hz^{-1}
Speed of light in a vacuum, c = 3.00 x 108 m s^{-1}
Ionic product of water, K_w = 1.00 x 10^{-14} mol^2 dm^{-6} at 298 K 1 tonne = 10^6 g
Arrhenius equation: $k = Ae^{-Ea/RT}$ or $\ln k = -E_a/RT + \ln A$
Gas constant, R = 8.314 J mol^{-1} K^{-1}

Triplet base codes (codons) for some amino acids used in mRNA

Glycine GGU
Alanine GCC
Leucine CUG
Serine UCG
Aspartic acid GAU
Glutamine CAA
Valine GUC



Chemical shifts are variable and can vary depending on the solvent, concentration and substituents. As a result, shifts may be outside the ranges indicated above.
OH and N**H** chemical shifts are very variable and are often broad. Signals are not usually seen as split peaks.
Note that C**H** bonded to 'shifting groups' on either side, e.g. O–CH_2–C=O, may be shifted more than indicated above.

Characteristic infrared absorptions in organic molecules

Bond	Location		Wavenumber/cm^{-1}
C–H	Alkanes Alkenes, arenes		2850–2950 3000–3100
C–C	Alkanes		750–1100
C=C	Alkenes		1620–1680
aromatic C=C	Arenes		Several peaks in range 1450–1650 (variable)
C=O	Aldehydes Ketones Carboxylic acids Esters Amides Acyl chlorides and acid anhydrides		1720–1740 1705–1725 1700–1725 1735–1750 1630–1700 1750–1820
C–O	Alcohols, ethers, esters and carboxylic acids		1000–1300
C≡N	Nitriles		2220–2260
C–X	Fluoroalkanes Chloroalkanes Bromoalkanes		1000–1350 600–800 500–600
O–H	Alcohols, phenols Carboxylic acids		3200–3600 (broad) 2500–3300 (broad)
N–H	Primary amines Amides		3300–3500 ca. 3500

Now you have an idea about the **OCR Chemistry Data Sheet**. You can revise all the general information mentioned in this blog post so you can have an idea about the data sheet of chemistry.