Representative ^{1}H Chemical Shifts

Characteristic Proton Chemical Shifts		
Type of Proton		**Chemical shift in ppm (δ)**
Primary Alkyl	$RC\underline{H}_3$	0.8-1.2
Secondary Alkyl	$R_2C\underline{H}_2$	1.2-1.5
Tertiary Alkyl	$R_3C\underline{H}$	1.4-1.8
Vinylic (Alkene)	$R_2C{=}C\underline{H}$-	4.5-6.5
Acetylenic (Alkyne)	C≡C-H	2.5–3.1
Aromatic	Ar-H	6.0–8.5
Benzylic	Ar-C-H	2.2–2.5
Allylic	C=C-CH	1.6–1.9
Alkyl Chloride	HC-Cl	3.6–3.8
Alkyl Bromide	HC-Br	3.4–3.6
Alpha to Alcohol	HC-OH	3.3–4
Ether	HC-OR	3.3–3.9
Ester (Alcohol side)	RC(O)O-CH	3.7–4.1
Alpha to Carbonyl	HC-C=O	2-2.7
Aldehyde	RC(O)H	9.5-10.5
Alcohol Hydroxyl	ROH	0.5–6.0*
Phenolic	ArOH	4.5-7.7*
Amino	$RN\underline{H}_2$	1.0-5.0*
Carboxylic acid	RC(O)OH	10-13*

* = proton exchanges with D_2O