Table of Characteristic Proton NMR Shifts

type of proton	*type of compound*	*chemical shift range, ppm*
RCH_3	1˚ aliphatic	0.9
R_2CH_2	2˚ aliphatic	1.3
R_3CH	3˚ aliphatic	1.5
C=C–H	vinylic	4.6-5.9
C=C–H	vinylic, conjugated	5.5-7.5
C≡C–H	acetylenic	2-3
Ar–H	aromatic	6-8.5
Ar–C–H	benzylic	2.2-3
$C=C–CH_3$	allylic	1.7
HC–F	fluorides	4-4.5
HC–Cl	chlorides	3-4
HC–Br	bromides	2.5-4
HC–I	iodides	2-4
HC–OH	alcohols	3.4-4
HC–OR	ethers	3.3-4
RCOO–CH	esters	3.7-4.1
HC–COOR	esters	2-2.2
HC–COOH	acids	2-2.6
HC–C=O	carbonyl compounds	2-2.7
RCHO	aldehydic	9-10
ROH	hydroxylic	2-4
ArOH	phenolic	4-12
C=C–OH	enolic	15-17
RCOOH	carboxylic	10.0-13.2
RNH_2	amino	1-5