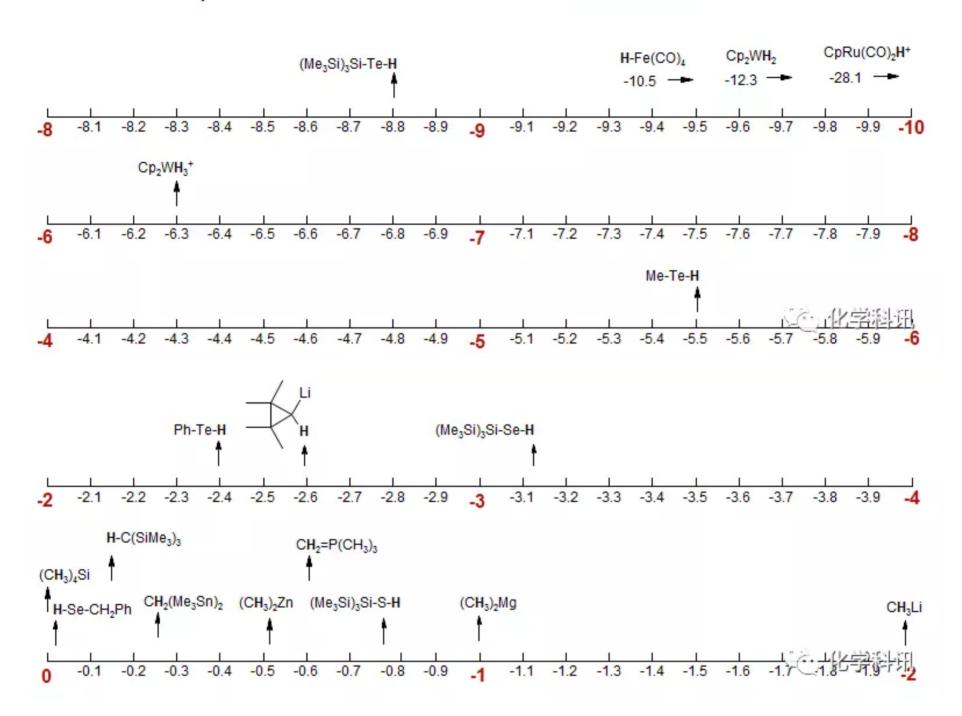
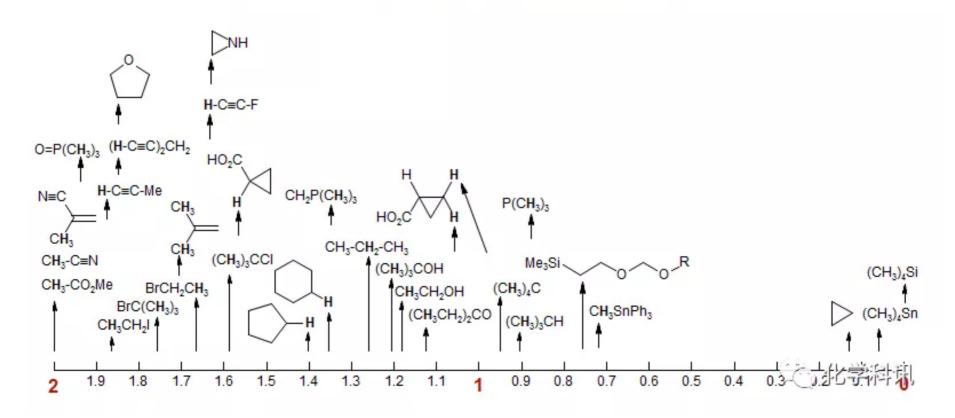
# 常见官能团的化学位移

## 一、HNMR化学位移 (δ-10 to 20)

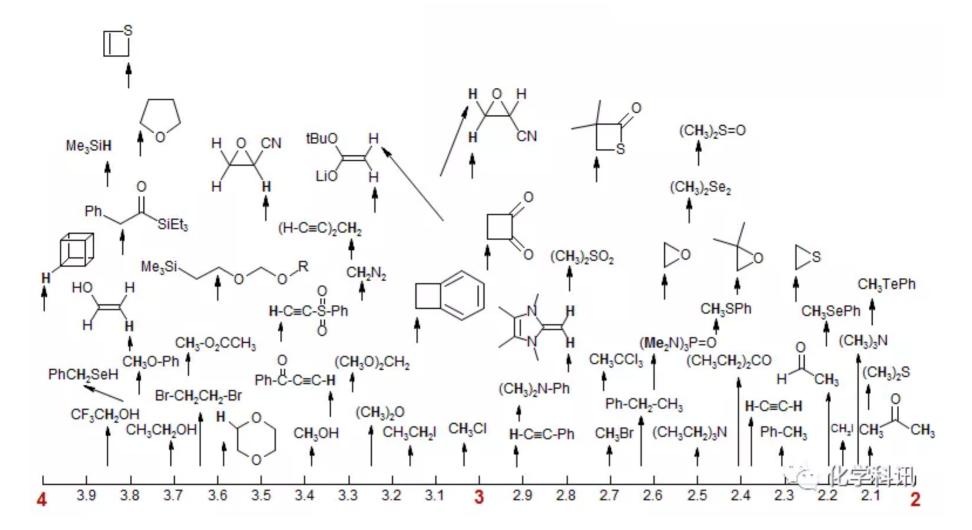
#### Representative Proton Chemical Shift Values (δ -10 to 0)



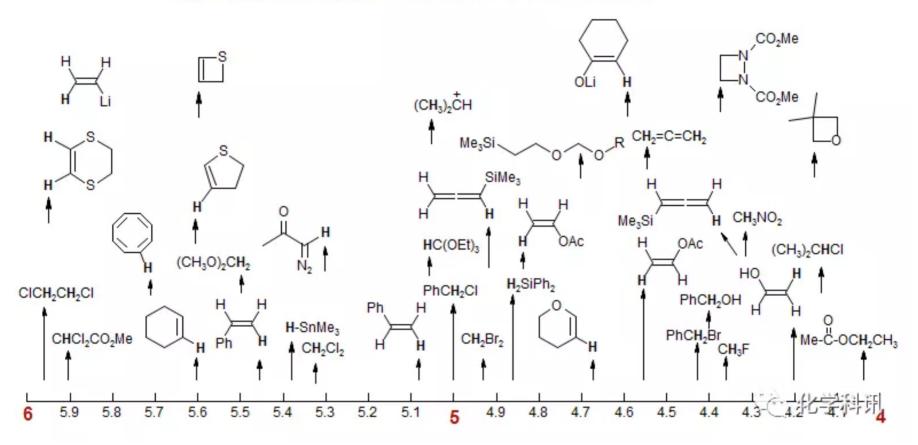
#### Representative Proton Chemical Shift Values (δ 0 to 2)



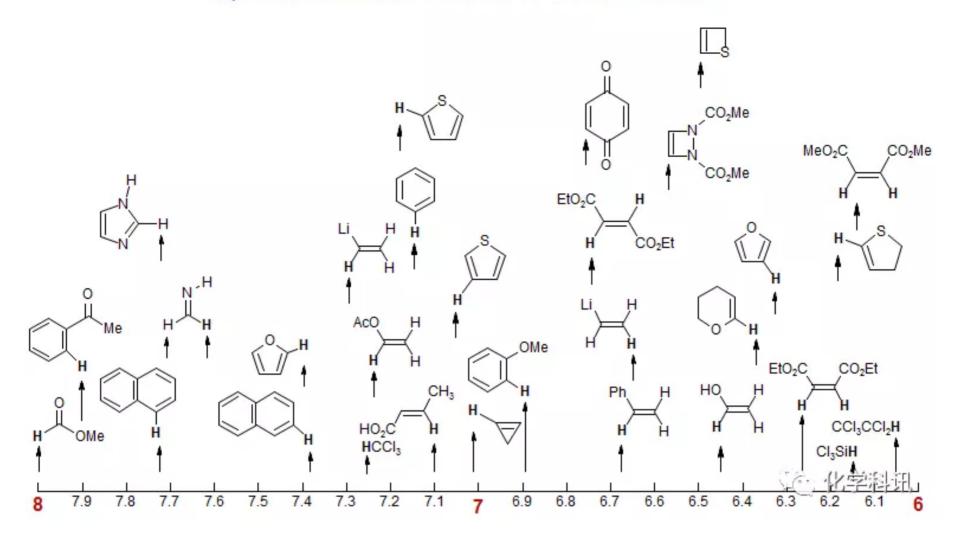
## Representative Proton Chemical Shift Values (δ 2 to 4)



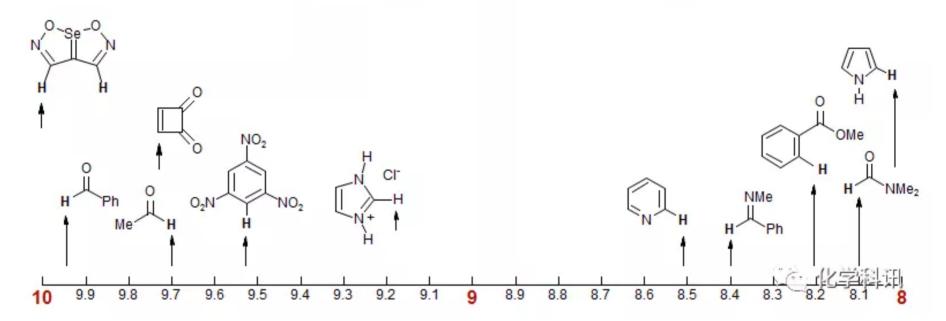
### Representative Proton Chemical Shift Values (δ 4 to 6)



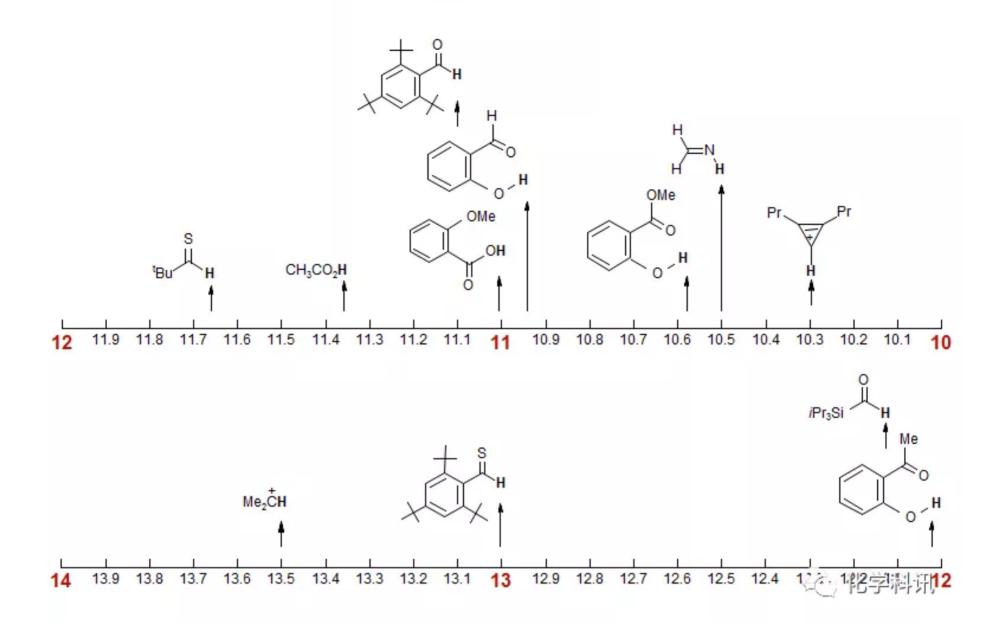
## Representative Proton Chemical Shift Values (δ 6 to 8)



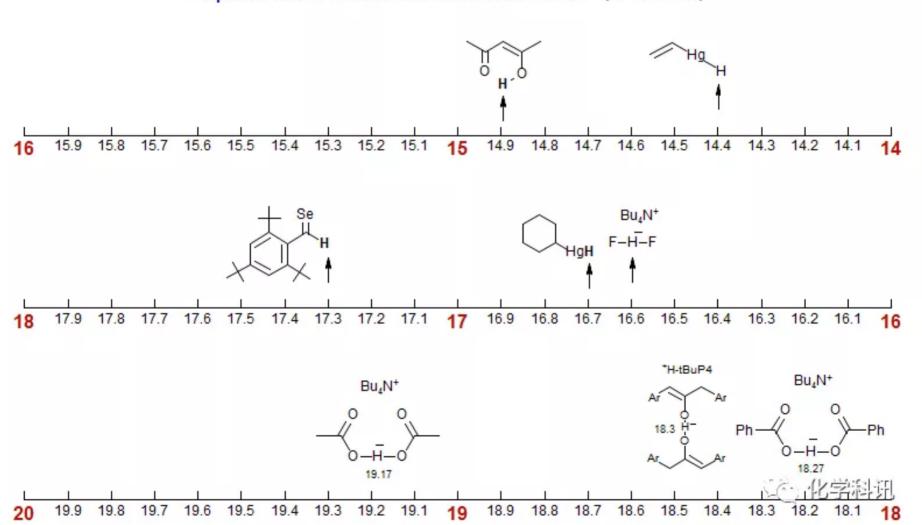
## Representative Proton Chemical Shift Values (δ 8 to 10)



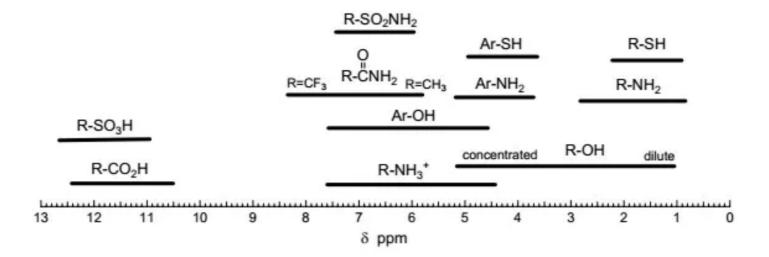
### Representative Proton Chemical Shift Values (δ 10 to 14)



#### Representative Proton Chemical Shift Values (δ 14 to 20)



## 二、活泼氢化学位移 (CDCl3)



# 三、CNMR化学位移

206.2

211.7

210

220

199.6

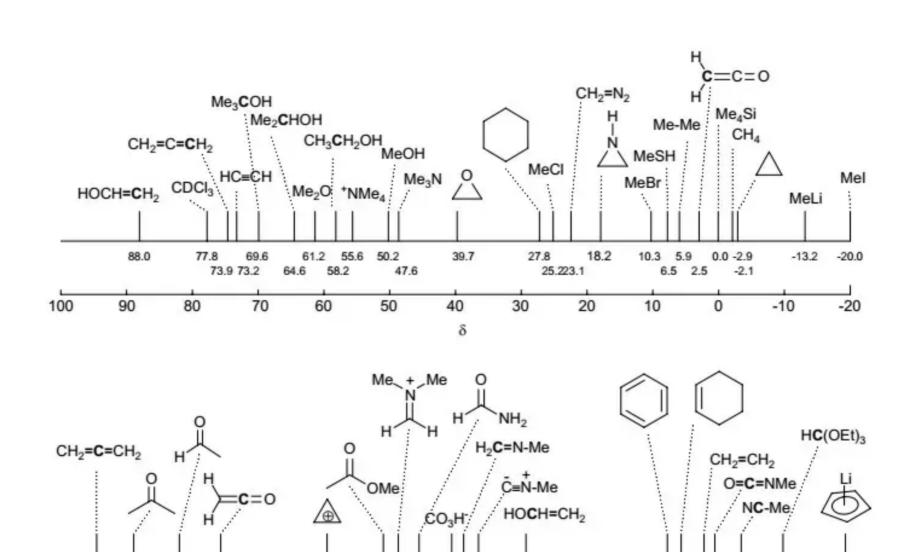
200

194.0

190

177.0

180



169.9 164.9 160 156.7 149.0

160

δ

158.2

150

140

167.9

170

128.5

130

127.2 121.7

123.2 117.7 113.9

120

102.6