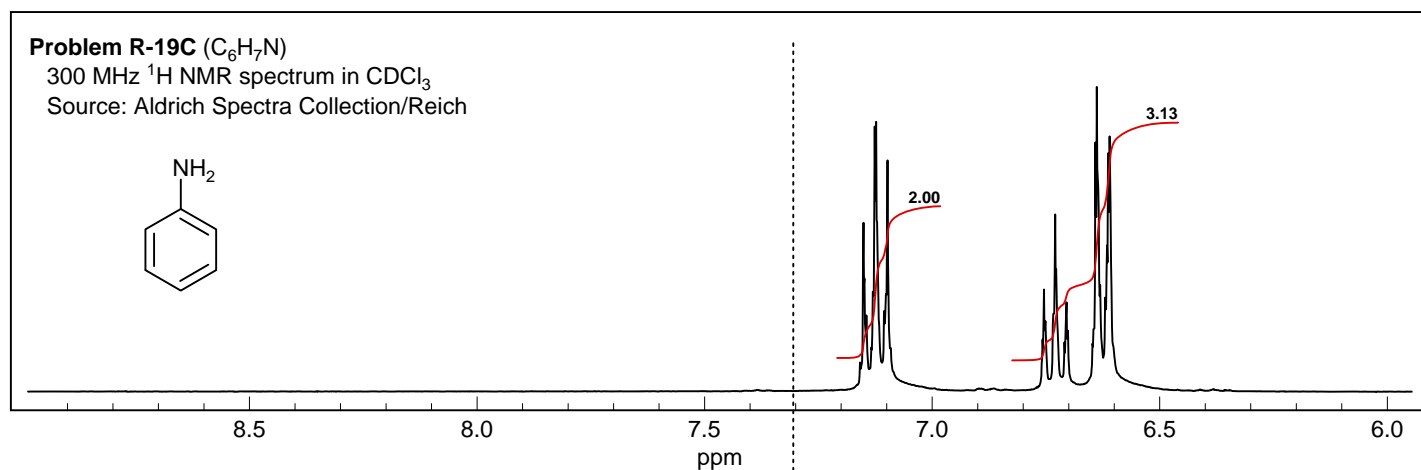
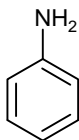


## Effect of Electron Donating and Withdrawing Substituents on NMR Chemical Shifts

### Problem R-19C ( $C_6H_7N$ )

300 MHz  $^1H$  NMR spectrum in  $CDCl_3$

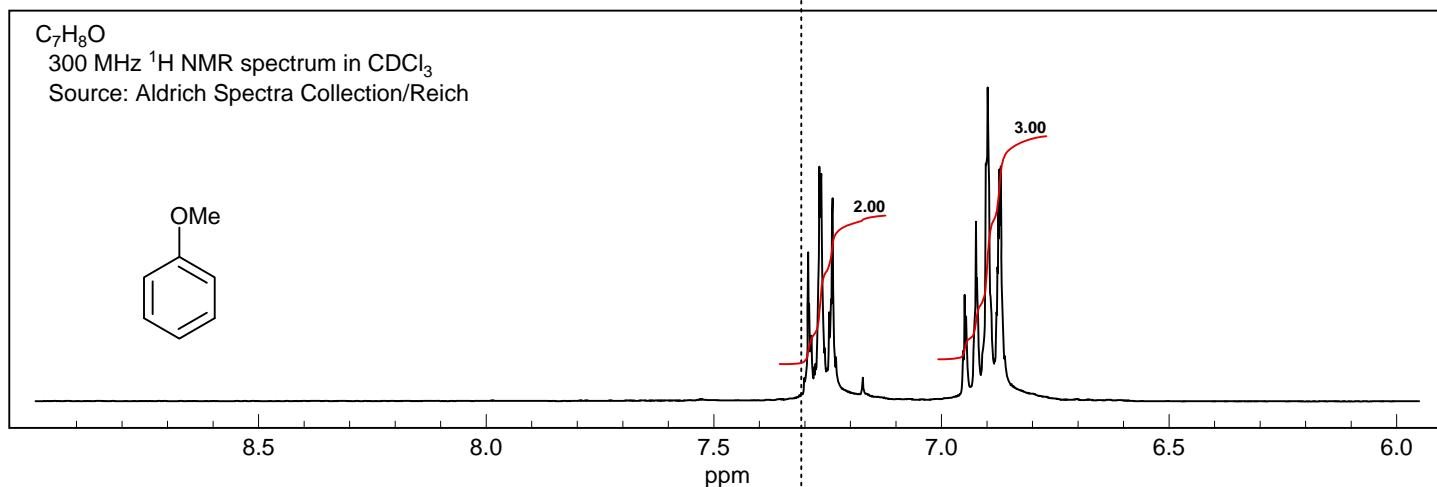
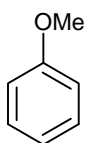
Source: Aldrich Spectra Collection/Reich



$C_7H_8O$

300 MHz  $^1H$  NMR spectrum in  $CDCl_3$

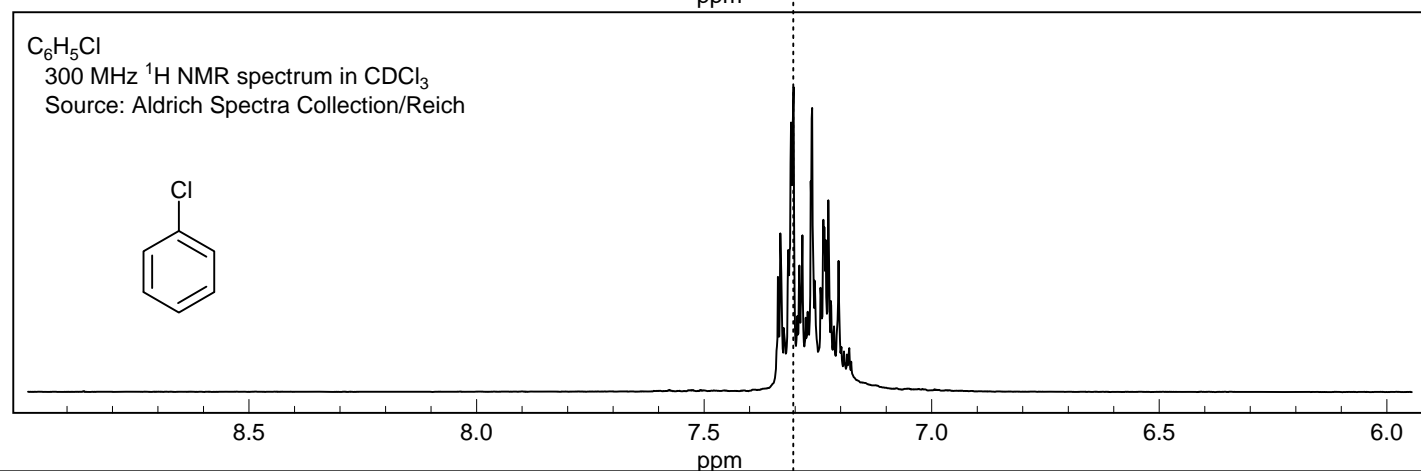
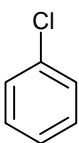
Source: Aldrich Spectra Collection/Reich



$C_6H_5Cl$

300 MHz  $^1H$  NMR spectrum in  $CDCl_3$

Source: Aldrich Spectra Collection/Reich



$C_6H_5NO_2$

300 MHz  $^1H$  NMR spectrum in  $CDCl_3$

Source: Aldrich Spectra Collection/Reich

