## CHEM 12A Section 311 Laboratory

I've separated them for readability.

For example, carbonyl  $\alpha$ -protons, phenols, and anilines, are excluded (they appear ~2ppm, ~7, and ~6ppm, respectively).

to predict NMR shifts of more obscure protons using your intuition and the principles of electron shielding.

Appear as a broad singlet due to proton exchange and hydrogen bonding. Resonant delocalization of electrons onto carbonyl carbon extensively as carboxylic acids since N is less electronegative than O.



