## Approximate $pK_a$ Values for Commonly Encountered Structural Types

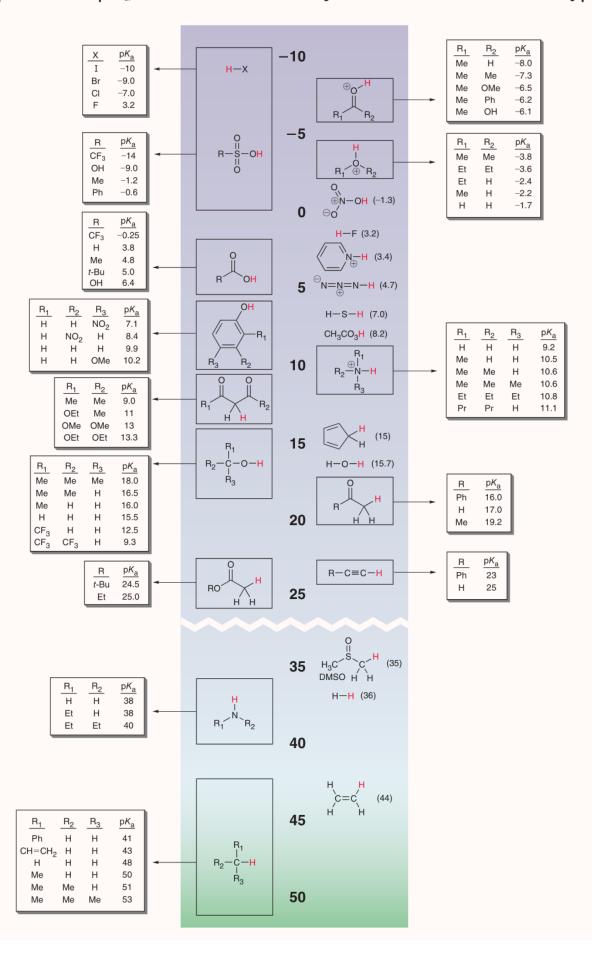


TABLE 3.1 PKa VALUES OF COMMON COMPOUNDS AND THEIR CONJUGATE BASES

ACID  $pK_a$ CONJUGATE BASE Strongest Weakest acid base protonated -7.3ketone -7 -1.744.75 9.0 beta-diketone H H 9.9 phenol 15.7 16 tert-butyl 18 alcohol acetone 19.2 acetylene  $_{\mathrm{H-C}\equiv\mathrm{C-H}}$  $\mathsf{H-C}\!\equiv\!\mathsf{C}^{\scriptscriptstyle \ominus}$ 25 38 44 Strongest Weakest acid ethane 50 base