

**pKa Values for Some Acids & Bases**

Acid		Base	pK <sub>a</sub>	
HBr	$\rightleftharpoons$	Br <sup>-</sup>	-9	----- <i>strong acids</i>
HCl		Cl <sup>-</sup>	-7	-----
H <sub>3</sub> O <sup>+</sup>		H <sub>2</sub> O	-1.7	<i>water/alcohols</i> <i>acting as BASES</i>
RCH <sub>2</sub> OH <sub>2</sub> <sup>+</sup>		RCH <sub>2</sub> OH	-2	-----
RCO <sub>2</sub> H		RCO <sub>2</sub> <sup>-</sup>	4-5	<i>weak acids/</i> <i>weak bases</i>
HCN		CN <sup>-</sup>	9.2	-----
NH <sub>4</sub> <sup>+</sup>		NH <sub>3</sub>	9.2	<i>amines</i> <i>acting as BASES</i>
RNH <sub>3</sub> <sup>+</sup>		RNH <sub>2</sub>	10-11	-----
H <sub>2</sub> O		OH <sup>-</sup>	15.7	<i>water/alcohols</i> <i>acting as ACIDS</i>
MeOH		MeO <sup>-</sup>	15.7	-----
(i-Pr) <sub>2</sub> NH		(i-Pr) <sub>2</sub> N <sup>-</sup>	36	<i>amines</i> <i>acting as ACIDS</i>
NH <sub>3</sub>		NH <sub>2</sub> <sup>-</sup>	38	-----

increasing strength of acid

increasing strength of base