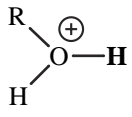
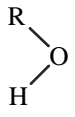
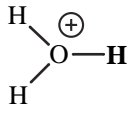
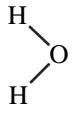
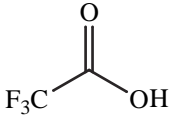
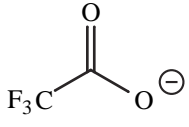
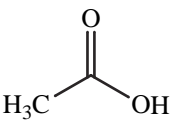
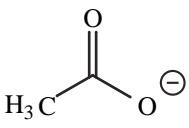
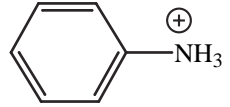
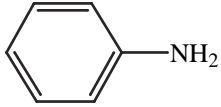
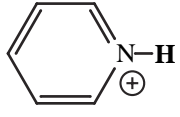
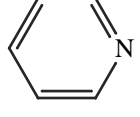


**pKa VALUES OF COMMON ORGANIC AND INORGANIC ACIDS**

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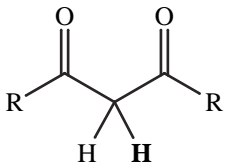
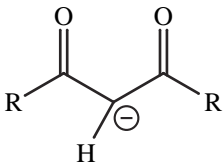
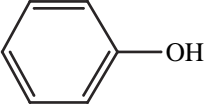
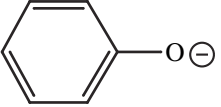
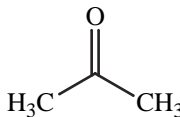
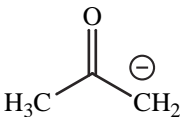
R = alkyl group

Acid	pK <sub>a</sub>	Conjugate Base
$\text{R}-\text{C}\equiv\text{N}^{\oplus}-\text{H}$	-10	$\text{R}-\text{C}\equiv\text{N}$
<b>HBr</b>	-9	$\text{Br}^{\ominus}$
<b>HCl</b>	-7	$\text{Cl}^{\ominus}$
<b>HO-SO<sub>3</sub>H</b> (H <sub>2</sub> SO <sub>4</sub> )	-10	$^{\ominus}\text{O}-\text{SO}_3\text{H}$
	-2	
	-1.7	
	0	
<b>HF</b>	3	$\text{F}^{\ominus}$
	5	
	4-5	
	5	
H <sub>2</sub> CO <sub>3</sub>	6.4	$\text{HCO}_3^{\ominus}$
H <sub>2</sub> S	7	$\text{HS}^{\ominus}$
HCN	9.2	$\text{N}\equiv\text{C}^{\ominus}$

**pKa VALUES OF COMMON ORGANIC AND INORGANIC ACIDS**

(p. 2 of 2)

R = alkyl group

Acid	pK <sub>a</sub>	Conjugate Base
	9	
$\text{NH}_4^+$	9.2	$\text{H}_3\text{N}$
	10	
RSH	11	RS <sup>⊖</sup>
H <sub>2</sub> O	15.7	HO <sup>⊖</sup>
ROH (alcohols)	16–17	RO <sup>⊖</sup>
	20	
N≡C—CH <sub>3</sub>	25	N≡C—CH <sub>2</sub> <sup>⊖</sup>
RC≡CH	25	RC≡C <sup>⊖</sup>
NH <sub>3</sub>	38	H <sub>2</sub> N <sup>⊖</sup>
ArCH <sub>3</sub>	40	ArCH <sub>2</sub> <sup>⊖</sup>
R <sub>2</sub> C=CH <sub>2</sub>	44	R <sub>2</sub> C=CH <sup>⊖</sup>
RC—H (alkanes)	~ 48–53	RC <sup>⊖</sup>