

Featured software

Distillation simulator	www.vaxasoftware.com/soft_eduen/sden.html
FunGraph - Graphs of mathematical functions	www.vaxasoftware.com/soft_eduen/fungraph.html
Design of distillation columns by McCabe-Thiele method	www.vaxasoftware.com/soft_eduen/mctth.html
Worksheets Generators for Maths and Chemistry	www.vaxasoftware.com/pc/index.html
Acid-base equilibrium calculator	www.vaxasoftware.com/soft_eduen/abew.html
Statistics and Probability tools for Windows	www.vaxasoftware.com/soft_eduen/statool.html

Acid	Reaction	k_a
Perchloric	$\text{HClO}_4 + \text{H}_2\text{O} \rightarrow \text{ClO}_4^- + \text{H}_3\text{O}^+$	Very high
Hydroiodic	$\text{HI} + \text{H}_2\text{O} \rightarrow \text{I}^- + \text{H}_3\text{O}^+$	Very high
Hydrobromic	$\text{HBr} + \text{H}_2\text{O} \rightarrow \text{Br}^- + \text{H}_3\text{O}^+$	Very high
Hydrochloric	$\text{HCl} + \text{H}_2\text{O} \rightarrow \text{Cl}^- + \text{H}_3\text{O}^+$	Very high
Sulfuric	$\text{H}_2\text{SO}_4 + \text{H}_2\text{O} \rightarrow \text{HSO}_4^- + \text{H}_3\text{O}^+$	Very high
Nitric	$\text{HNO}_3 + \text{H}_2\text{O} \rightarrow \text{NO}_3^- + \text{H}_3\text{O}^+$	Very high
Iodic	$\text{HIO}_3 + \text{H}_2\text{O} \rightleftharpoons \text{IO}_3^- + \text{H}_3\text{O}^+$	0.19
Sulfurous	$\text{H}_2\text{SO}_3 + \text{H}_2\text{O} \rightleftharpoons \text{HSO}_3^- + \text{H}_3\text{O}^+$	0.016
Hydrogen sulfate	$\text{HSO}_4^- + \text{H}_2\text{O} \rightleftharpoons \text{SO}_4^{2-} + \text{H}_3\text{O}^+$	0.012
Phosphoric	$\text{H}_3\text{PO}_4 + \text{H}_2\text{O} \rightleftharpoons \text{H}_2\text{PO}_4^- + \text{H}_3\text{O}^+$	$7.5 \cdot 10^{-3}$
Hydrofluoric	$\text{HF} + \text{H}_2\text{O} \rightleftharpoons \text{F}^- + \text{H}_3\text{O}^+$	$7.0 \cdot 10^{-4}$
Nitrous	$\text{HNO}_2 + \text{H}_2\text{O} \rightleftharpoons \text{NO}_2^- + \text{H}_3\text{O}^+$	$4.5 \cdot 10^{-4}$
Formic	$\text{HCOOH} + \text{H}_2\text{O} \rightleftharpoons \text{HCOO}^- + \text{H}_3\text{O}^+$	$1.8 \cdot 10^{-4}$
Benzoic	$\text{C}_6\text{H}_5\text{COOH} + \text{H}_2\text{O} \rightleftharpoons \text{C}_6\text{H}_5\text{COO}^- + \text{H}_3\text{O}^+$	$6.6 \cdot 10^{-5}$
Acetic	$\text{CH}_3\text{COOH} + \text{H}_2\text{O} \rightleftharpoons \text{CH}_3\text{COO}^- + \text{H}_3\text{O}^+$	$1.8 \cdot 10^{-5}$
Carbonic	$\text{H}_2\text{CO}_3 + \text{H}_2\text{O} \rightleftharpoons \text{HCO}_3^- + \text{H}_3\text{O}^+$	$4.2 \cdot 10^{-7}$
Hydrosulfuric	$\text{H}_2\text{S} + \text{H}_2\text{O} \rightleftharpoons \text{HS}^- + \text{H}_3\text{O}^+$	$1.0 \cdot 10^{-7}$
Hypochlorous	$\text{HClO} + \text{H}_2\text{O} \rightleftharpoons \text{ClO}^- + \text{H}_3\text{O}^+$	$3.0 \cdot 10^{-8}$
Dihydrogen phosphate	$\text{H}_2\text{PO}_4^- + \text{H}_2\text{O} \rightleftharpoons \text{HPO}_4^{2-} + \text{H}_3\text{O}^+$	$6.2 \cdot 10^{-8}$
Ammonium	$\text{NH}_4^+ + \text{H}_2\text{O} \rightleftharpoons \text{NH}_3 + \text{H}_3\text{O}^+$	$5.5 \cdot 10^{-10}$
Hydrogen cyanide	$\text{HCN} + \text{H}_2\text{O} \rightleftharpoons \text{CN}^- + \text{H}_3\text{O}^+$	$4.0 \cdot 10^{-10}$
Hydrogen carbonate	$\text{HCO}_3^- + \text{H}_2\text{O} \rightleftharpoons \text{CO}_3^{2-} + \text{H}_3\text{O}^+$	$5.6 \cdot 10^{-11}$
Hydrogen phosphate	$\text{HPO}_4^{2-} + \text{H}_2\text{O} \rightleftharpoons \text{PO}_4^{3-} + \text{H}_3\text{O}^+$	$2.2 \cdot 10^{-13}$
Hydrogen sulfide	$\text{HS}^- + \text{H}_2\text{O} \rightleftharpoons \text{S}^{2-} + \text{H}_3\text{O}^+$	$1.0 \cdot 10^{-13}$

Base	Reaction	K_b
Sodium hydroxide	$\text{NaOH} \rightarrow \text{Na}^+ + \text{OH}^-$	Very high
Potassium hydroxide	$\text{KOH} \rightarrow \text{K}^+ + \text{OH}^-$	Very high
Methylamine	$\text{CH}_3\text{NH}_2 + \text{H}_2\text{O} \rightleftharpoons \text{CH}_3\text{NH}_3^+ + \text{OH}^-$	$5.4 \cdot 10^{-4}$
Ammonia	$\text{NH}_3 + \text{H}_2\text{O} \rightleftharpoons \text{NH}_4^+ + \text{OH}^-$	$1.8 \cdot 10^{-5}$
Aniline	$\text{C}_6\text{H}_5\text{NH}_2 + \text{H}_2\text{O} \rightleftharpoons \text{C}_6\text{H}_5\text{NH}_3^+ + \text{OH}^-$	$3.8 \cdot 10^{-10}$

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