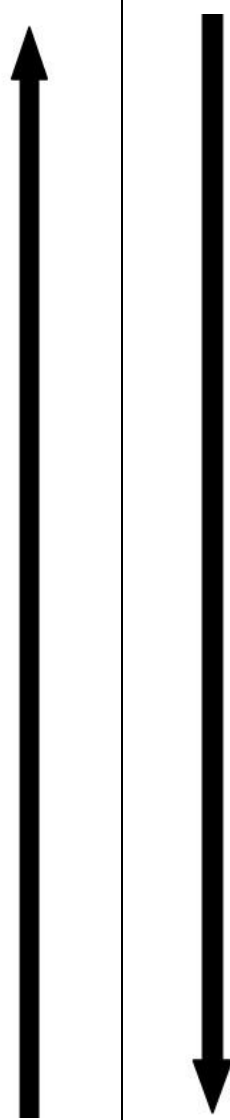




Table of Acids With K_a and pK_a Values

Acid	HA	A ⁻	K_a	pK_a	Acid Strength	Conjugate Base Strength
Hydroiodic	HI	I ⁻	*Strong acids completely dissociate in aqueous solutions ($K_a > 1$, $pK_a < 1$)			
Hydrobromic	HBr	Br ⁻				
Perchloric	HClO ₄	ClO ₄ ⁻				
Hydrochloric	HCl	Cl ⁻				
Chloric	HClO ₃	ClO ₃ ⁻				
Sulfuric (1)	H ₂ SO ₄	SO ₄ ²⁻				
Nitric	HNO ₃	NO ₃ ⁻				
Hydronium ion	H ₃ O ⁺	H ₂ O	1	0.0		
Iodic	HIO ₃	IO ₃ ⁻	1.6×10^{-1}	0.80		
Oxalic (1)	H ₂ C ₂ O ₄	HC ₂ O ₄ ⁻	5.9×10^{-2}	1.23		
Sulfurous (1)	H ₂ SO ₃	HSO ₃ ⁻	1.54×10^{-2}	1.81		
Sulfuric (2)	HSO ₄ ⁻	SO ₄ ²⁻	1.2×10^{-2}	1.92		
Chlorous	HClO ₂	ClO ₂ ⁻	1.1×10^{-2}	1.96		
Phosphoric (1)	H ₃ PO ₄	H ₂ PO ₄ ⁻	7.52×10^{-3}	2.12		
Arsenic (1)	H ₃ AsO ₄	H ₂ AsO ₄ ⁻	5.0×10^{-3}	2.30		
Chloroacetic	CH ₂ ClCOOH	CH ₂ ClCOO ⁻	1.4×10^{-3}	2.85		
Citric (1)	H ₃ C ₆ H ₅ O ₇	H ₂ C ₆ H ₅ O ₇ ⁻	8.4×10^{-4}	3.08		
Hydrofluoric	HF	F ⁻	7.2×10^{-4}	3.14		
Nitrous	HNO ₂	NO ₂ ⁻	4.0×10^{-4}	3.39		
Formic	HCOOH	HCOO ⁻	1.77×10^{-4}	3.75		
Lactic	HCH ₃ H ₅ O ₃	CH ₃ H ₅ O ₃ ⁻	1.38×10^{-4}	3.86		
Ascorbic (1)	H ₂ C ₆ H ₆ O ₆	HC ₆ H ₆ O ₆ ⁻	7.9×10^{-5}	4.10		
Benzoic	C ₆ H ₅ COOH	C ₆ H ₅ COO ⁻	6.46×10^{-5}	4.19		
Oxalic (2)	HC ₂ O ₄ ⁻	C ₂ O ₄ ²⁻	6.4×10^{-5}	4.19		
Hydrazoic	HN ₃	N ₃ ⁻	1.9×10^{-5}	4.72		
Citric (2)	H ₂ C ₆ H ₅ O ₇ ⁻	HC ₆ H ₅ O ₇ ²⁻	1.8×10^{-5}	4.74		
Acetic	HC ₂ H ₃ O ₂	C ₂ H ₃ O ₂ ⁻	1.76×10^{-5}	4.75		
Propionic	CH ₃ CH ₂ COOH	CH ₃ CH ₂ COO ⁻	1.34×10^{-5}	4.87		
Pyridinium ion	C ₅ H ₄ NH ⁺	C ₅ H ₄ N	5.6×10^{-6}	5.25		

Acid	HA	A ⁻	K _a	pK _a	Acid Strength	Conjugate Base Strength
Citric (3)	HC ₆ H ₅ O ₇ ²⁻	C ₆ H ₅ O ₇ ³⁻	4.0 x 10 ⁻⁶	5.40		
Carbonic (1)	H ₂ CO ₃	HCO ₃ ⁻	4.3 x 10 ⁻⁷	6.37		
Sulfurous (2)	HSO ₄ ⁻	SO ₄ ²⁻	1.02 x 10 ⁻⁷	6.91		
Arsenic (2)	H ₂ AsO ₄ ⁻	HAsO ₄ ²⁻	8/9.3 x 10 ⁻⁸	7.10/7.03		
Hydrosulfuric	H ₂ S	HS ⁻	1.0 x 10 ⁻⁷ /9.1 x 10 ⁻⁸	7/7.04		
Phosphoric (2)	H ₂ PO ₄ ⁻	HPO ₄ ²⁻	6.23 x 10 ⁻⁸	7.21		
Hypochlorous	HClO	ClO ⁻	3.5/3.0 x 10 ⁻⁸	7.46/7.53		
Hypobromous	HBrO	BrO ⁻	2 x 10 ⁻⁹	8.70		
Hydrocyanic	HCN	CN ⁻	6.17 x 10 ⁻¹⁰	9.21		
Boric (1)	H ₃ BO ₃	H ₂ BO ₃ ⁻	5.8 x 10 ⁻¹⁰	9.23		
Ammonium ion	NH ₄ ⁺	NH ₃	5.6 x 10 ⁻¹⁰	9.25		
Phenol	C ₆ H ₅ OH	C ₆ H ₅ O ⁻	1.6 x 10 ⁻¹⁰	9.80		
Carbonic (2)	HCO ₃ ⁻	CO ₃ ²⁻	4.8 x 10 ⁻¹¹	10.32		
Hypoiodous	HIO	IO ⁻	2 x 10 ⁻¹¹	10.70		
Arsenic (3)	HAsO ₄ ²⁻	AsO ₄ ³⁻	6.0 x 10 ⁻¹⁰ /3.0 x 10 ⁻¹²	9.22/11.53		
Hydrogen peroxide	H ₂ O ₂	HO ₂ ⁻	2.4 x 10 ⁻¹²	11.62		
Ascorbic (2)	HC ₆ H ₆ O ₆ ⁻	C ₆ H ₆ O ₆ ²⁻	1.6 x 10 ⁻¹²	11.80		
Phosphoric (3)	HPO ₄ ²⁻	PO ₄ ³⁻	4.8/2.2 x 10 ⁻¹³	12.32/12.66		
Water	H ₂ O	OH ⁻	1.0 x 10 ⁻¹⁴	14.0		
Group I metal hydroxides (LiOH, NaOH, etc.)			*Strong bases completely dissociate in aqueous solutions (K_b > 1, pK_b < 1)			
Group II metal hydroxides (Mg(OH) ₂ , Ba(OH) ₂ , etc.)						