

Redoxreihe

Reduzierte Form		Oxidierter Form		Standardpotenzial (in Volt)
Li	\rightleftharpoons	Li ⁺	+ e ⁻	-3.03
K	\rightleftharpoons	K ⁺	+ e ⁻	-2.92
Ba	\rightleftharpoons	Ba ²⁺	+ 2 e ⁻	-2.90
Ca	\rightleftharpoons	Ca ²⁺	+ 2 e ⁻	-2.87
Na	\rightleftharpoons	Na ⁺	+ e ⁻	-2.71
Mg	\rightleftharpoons	Mg ²⁺	+ 2 e ⁻	-2.36
Al	\rightleftharpoons	Al ³⁺	+ 3 e ⁻	-1.66
Mn	\rightleftharpoons	Mn ²⁺	+ 2 e ⁻	-1.18
H ₂ + 2 OH ⁻	\rightleftharpoons	2 H ₂ O	+ 2 e ⁻ (bei pH 14)	-0.83
Se ²⁻	\rightleftharpoons	Se	+ 2 e ⁻	-0.77
Zn	\rightleftharpoons	Zn ²⁺	+ 2 e ⁻	-0.76
Cr	\rightleftharpoons	Cr ³⁺	+ 3 e ⁻	-0.74
S ²⁻	\rightleftharpoons	S	+ 2 e ⁻	-0.48
Fe	\rightleftharpoons	Fe ²⁺	+ 2 e ⁻	-0.41
H ₂ + 2 OH ⁻	\rightleftharpoons	2 H ₂ O	+ 2 e ⁻ (bei pH 7)	-0.41
Cd	\rightleftharpoons	Cd ²⁺	+ 2 e ⁻	-0.40
Co	\rightleftharpoons	Co ²⁺	+ 2 e ⁻	-0.28
Ni	\rightleftharpoons	Ni ²⁺	+ 2 e ⁻	-0.25
Sn	\rightleftharpoons	Sn ²⁺	+ 2 e ⁻	-0.14
Pb	\rightleftharpoons	Pb ²⁺	+ 2 e ⁻	-0.13
H ₂	\rightleftharpoons	2 H ⁺	+ 2 e ⁻ (bei pH 0)	0
H ₂ + 2 H ₂ O	\rightleftharpoons	2 H ₃ O ⁺	+ 2 e ⁻	0
Cu	\rightleftharpoons	Cu ²⁺	+ 2 e ⁻	+0.35
4 OH ⁻	\rightleftharpoons	O ₂ + 2 H ₂ O	+ 4 e ⁻ (bei pH 14)	+0.40
2 I ⁻	\rightleftharpoons	I ₂	+ 2 e ⁻	+0.54
Fe ²⁺	\rightleftharpoons	Fe ³⁺	+ e ⁻	+0.77
Ag	\rightleftharpoons	Ag ⁺	+ e ⁻	+0.80
NO ₂ + H ₂ O	\rightleftharpoons	NO ₃ ⁻ + 2 H ⁺	+ e ⁻	+0.81
2 H ₂ O	\rightleftharpoons	O ₂ + 4 H ⁺	+ 4 e ⁻ (bei pH 7)	+0.82
Hg	\rightleftharpoons	Hg ²⁺	+ 2 e ⁻	+0.85
2 Br ⁻	\rightleftharpoons	Br ₂	+ 2 e ⁻	+1.09
Pt	\rightleftharpoons	Pt ²⁺	+ 2 e ⁻	+1.20
2 H ₂ O	\rightleftharpoons	O ₂ + 4 H ⁺	+ 4 e ⁻ (bei pH 0)	+1.23
2 Cl ⁻	\rightleftharpoons	Cl ₂	+ 2 e ⁻	+1.36
Mn ²⁺ + 4 H ₂ O	\rightleftharpoons	MnO ₄ ⁻ + 8 H ⁺	+ 5 e ⁻	+1.50
2 SO ₄ ²⁻	\rightleftharpoons	S ₂ O ₈ ²⁻	+ 2 e ⁻	+2.01
2 F ⁻	\rightleftharpoons	F ₂	+ 2 e ⁻	+2.80

Reduzierende Wirkung nimmt zu

Oxidierende Wirkung nimmt zu

Alle Ionen hydratisiert.

Säure-Base-Reihe

pK_s	Säure			Korrespondierende Base
≈ -9.00	Perchlorsäure	HClO_4	ClO_4^-	Perchlorat-Ion
≈ -8.00	Wasserstoffiodid	HI	I^-	Iodid-Ion
≈ -7.00	Wasserstoffbromid	HBr	Br^-	Bromid-Ion
≈ -6.00	Wasserstoffchlorid	HCl	Cl^-	Chlorid-Ion
≈ -3.00	Schwefelsäure	H_2SO_4	HSO_4^-	Hydrosulfat-Ion
-1.74	Oxonium-Ion	H_3O^+	H_2O	Wasser
-1.32	Salpetersäure	HNO_3	NO_3^-	Nitrat-Ion
0	Chlorsäure	HClO_3	ClO_3^-	Chlorat-Ion
1.92	Hydrosulfat-Ion	HSO_4^-	SO_4^{2-}	Sulfat-Ion
1.96	Schweflige Säure	H_2SO_3	HSO_3^-	Hydrosulfit-Ion
1.96	Phosphorsäure	H_3PO_4	H_2PO_4^-	Dihydrogenphosphat-Ion
2.22	Hexaaqua-Eisen(III)-Ion	$[\text{Fe}(\text{H}_2\text{O})_6]^{3+}$	$[\text{Fe}(\text{H}_2\text{O})_5(\text{OH})]^{2+}$	
3.14	Wasserstofffluorid	HF	F^-	Fluorid-Ion
3.35	Salpetrige Säure	HNO_2	NO_2^-	Nitrit-Ion
3.77	Ameisensäure	HCOOH	HCOO^-	Formiat-Ion
4.76	Essigsäure	CH_3COOH	CH_3COO^-	Acetat-Ion
4.90	Hexaaquaaluminium-Ion	$[\text{Al}(\text{H}_2\text{O})_6]^{3+}$	$[\text{Al}(\text{H}_2\text{O})_5(\text{OH})]^{2+}$	
6.46	Kohlensäure	H_2CO_3	HCO_3^-	Hydrogencarbonat-Ion
7.06	Diwasserstoffsulfid	H_2S	HS^-	Hydrosulfid-Ion
7.20	Hydrosulfit-Ion	HSO_3^-	SO_3^{2-}	Sulfit-Ion
7.21	Dihydrogenphosphat-Ion	H_2PO_4^-	HPO_4^{2-}	Hydrogenphosphat-Ion
7.25	Unterchlorige Säure	HClO	ClO^-	Hypochlorit-Ion
9.21	Ammonium-Ion	NH_4^+	NH_3	Ammoniak
9.40	Blausäure	HCN	CN^-	Cyanid-Ion
9.66	Hexaaquazink-Ion	$[\text{Zn}(\text{H}_2\text{O})_6]$	$[\text{Zn}(\text{H}_2\text{O})_5(\text{OH})]^{2+}$	
10.40	Hydrogencarbonat-Ion	HCO_3^-	CO_3^{2-}	Carbonat-Ion
12.32	Hydrogenphosphat-Ion	HPO_4^{2-}	PO_4^{3-}	Phosphat-Ion
12.90	Hydrosulfid-Ion	HS^-	S^{2-}	Sulfid-Ion
15.74	Wasser	H_2O	OH^-	Hydroxid-Ion
16.00	Ethanol	$\text{C}_2\text{H}_5\text{OH}$	$\text{C}_2\text{H}_5\text{O}^-$	Ethanolat-Ion
23.00	Ammoniak	NH_3	NH_2^-	Amid-Ion
24.00	Hydroxid-Ion	OH^-	O^{2-}	Oxid-Ion

Säurestärke nimmt zu

Basenstärke nimmt zu