

Standard Reduction Potentials (25°C)

Half-Cell Reactions	E°	Half-Cell Reactions	E°
$F_{2(g)} + 2 e^- \rightleftharpoons 2 F^-_{(aq)}$	+2.87	$S_4O_6^{2-}_{(aq)} + 2e^- \rightleftharpoons 2 S_2O_3^{2-}_{(aq)}$	+0.169
$OF_{2(g)} + 2 H^+ + 4 e^- \rightleftharpoons H_2O_{(l)} + 2 F^-_{(aq)}$	+2.10	$Cu^{2+}_{(aq)} + e^- \rightleftharpoons Cu^+_{(aq)}$	+0.16
$O_{3(g)} + 2H^+_{(aq)} + 2e^- \rightleftharpoons O_{2(g)} + H_2O_{(l)}$	+2.08	$Sn^{4+}_{(aq)} + 2e^- \rightleftharpoons Sn^{2+}_{(aq)}$	+0.15
$S_2O_8^{2-}_{(aq)} + 2e^- \rightleftharpoons 2 SO_4^{2-}_{(aq)}$	+2.05	$S_{(s)} + 2H^+_{(aq)} + 2e^- \rightleftharpoons H_2S_{(g)}$	+0.14
$Ag^{2+}_{(aq)} + e^- \rightleftharpoons Ag^+_{(aq)}$	+1.980	$AgBr_{(s)} + e^- \rightleftharpoons Ag_{(s)} + Br^-_{(aq)}$	+0.07
$Co^{3+}_{(aq)} + e^- \rightleftharpoons Co^{2+}_{(aq)}$	+1.82	$2 H^+_{(aq)} + 2e^- \rightleftharpoons H_{2(g)}$	0.00
$H_2O_{2(aq)} + 2 H^+_{(aq)} + 2e^- \rightleftharpoons 2 H_2O_{(l)}$	+1.77	$Pb^{2+}_{(aq)} + 2e^- \rightleftharpoons Pb_{(s)}$	-0.13
$MnO_4^-_{(aq)} + 4 H^+_{(aq)} + 3e^- \rightleftharpoons MnO_{2(s)} + 2 H_2O_{(l)}$	+1.695	$Sn^{2+}_{(aq)} + 2e^- \rightleftharpoons Sn_{(s)}$	-0.14
$PbO_{2(s)} + SO_4^{2-}_{(aq)} + 4 H^+_{(aq)} + 2e^- \rightleftharpoons PbSO_{4(s)} + 2 H_2O_{(l)}$	+1.69	$AgI_{(s)} + e^- \rightleftharpoons Ag_{(s)} + I^-_{(aq)}$	-0.15
$Mn^{3+}_{(aq)} + e^- \rightleftharpoons Mn^{2+}_{(aq)}$	+1.51	$Ni^{2+}_{(aq)} + 2e^- \rightleftharpoons Ni_{(s)}$	-0.25
$MnO_4^-_{(aq)} + 8 H^+_{(aq)} + 5e^- \rightleftharpoons Mn^{2+}_{(aq)} + 4 H_2O_{(l)}$	+1.49	$Co^{2+}_{(aq)} + 2e^- \rightleftharpoons Co_{(s)}$	-0.28
$PbO_{2(s)} + 4 H^+_{(aq)} + 2e^- \rightleftharpoons Pb^{2+}_{(aq)} + 2 H_2O_{(l)}$	+1.46	$PbSO_{4(s)} + 2e^- \rightleftharpoons Pb_{(s)} + SO_4^{2-}_{(aq)}$	-0.36
$BrO_3^-_{(aq)} + 6 H^+_{(aq)} + 6e^- \rightleftharpoons Br^-_{(aq)} + 3 H_2O_{(l)}$	+1.44	$Cd^{2+}_{(aq)} + 2e^- \rightleftharpoons Cd_{(s)}$	-0.40
$Au^{3+}_{(aq)} + 3e^- \rightleftharpoons Au_{(s)}$	+1.42	$Fe^{2+}_{(aq)} + 2e^- \rightleftharpoons Fe_{(s)}$	-0.44
$Cl_{2(g)} + 2e^- \rightleftharpoons 2 Cl^-_{(aq)}$	+1.36	$Ga^{3+}_{(aq)} + 3e^- \rightleftharpoons Ga_{(s)}$	-0.56
$Cr_2O_7^{2-}_{(aq)} + 14 H^+_{(aq)} + 6e^- \rightleftharpoons 2 Cr^{3+}_{(aq)} + 7 H_2O_{(l)}$	+1.33	$PbO_{(s)} + H_2O_{(l)} + 2e^- \rightleftharpoons Pb_{(s)} + 2 OH^-_{(aq)}$	-0.58
$O_{3(g)} + H_2O_{(l)} + 2e^- \rightleftharpoons O_{2(g)} + 2 OH^-_{(aq)}$	+1.24	$Cr^{3+}_{(aq)} + 3e^- \rightleftharpoons Cr_{(s)}$	-0.74
$MnO_{2(s)} + 4 H^+_{(aq)} + 2e^- \rightleftharpoons Mn^{2+}_{(l)} + 2 H_2O_{(l)}$	+1.23	$Zn^{2+}_{(aq)} + 2e^- \rightleftharpoons Zn_{(s)}$	-0.76
$O_{2(g)} + 4 H^+_{(aq)} + 4e^- \rightleftharpoons 2 H_2O_{(l)}$	+1.23	$Cd(OH)_{2(s)} + 2e^- \rightleftharpoons Cd_{(s)} + 2 OH^-_{(aq)}$	-0.81
$Pt^{2+}_{(aq)} + 2e^- \rightleftharpoons Pt_{(s)}$	+1.20	$2 H_2O_{(l)} + 2e^- \rightleftharpoons H_{2(g)} + 2 OH^-_{(aq)}$	-0.83
$Br_{2(aq)} + 2e^- \rightleftharpoons 2 Br^-_{(aq)}$	+1.07	$Fe(OH)_{2(s)} + 2e^- \rightleftharpoons Fe_{(s)} + 2 OH^-_{(aq)}$	-0.88
$NO_3^-_{(aq)} + 4 H^+_{(aq)} + 3e^- \rightleftharpoons NO_{(g)} + 2 H_2O_{(l)}$	+0.96	$Cr^{2+}_{(aq)} + 2e^- \rightleftharpoons Cr_{(s)}$	-0.91
$NO_3^-_{(aq)} + 3 H^+_{(aq)} + 2e^- \rightleftharpoons HNO_{2(g)} + H_2O_{(l)}$	+0.94	$N_{2(g)} + 4 H_2O_{(l)} + 4e^- \rightleftharpoons N_2O_{4(aq)} + 4 OH^-_{(aq)}$	-1.16
$2 Hg^{2+}_{(aq)} + 2e^- \rightleftharpoons Hg_{2}^{2+}_{(aq)}$	+0.91	$V^{2+}_{(aq)} + 2e^- \rightleftharpoons V_{(s)}$	-1.18
$2 NO_3^-_{(aq)} + 4 H^+_{(aq)} + 2e^- \rightleftharpoons 2 NO_{2(g)} + 2H_2O_{(l)}$	+0.80	$ZnO_{2}^-_{(aq)} + 2 H_2O_{(l)} + 2e^- \rightleftharpoons Zn_{(s)} + 4OH^-_{(aq)}$	-1.216
$Ag^+_{(aq)} + e^- \rightleftharpoons Ag_{(s)}$	+0.80	$Ti^{2+}_{(aq)} + 2e^- \rightleftharpoons Ti_{(s)}$	-1.63
$Fe^{3+}_{(aq)} + e^- \rightleftharpoons Fe^{2+}_{(aq)}$	+0.77	$Al^{3+}_{(aq)} + 3e^- \rightleftharpoons Al_{(s)}$	-1.66
$O_{2(g)} + 2H^+_{(aq)} + 2e^- \rightleftharpoons H_2O_{2(aq)}$	+0.69	$U^{3+}_{(aq)} + 3e^- \rightleftharpoons U_{(s)}$	-1.79
$I_{2(s)} + 2e^- \rightleftharpoons 2 I^-_{(aq)}$	+0.54	$Mg^{2+}_{(aq)} + 2e^- \rightleftharpoons Mg_{(s)}$	-2.37
$NiO_{2(s)} + 2 H_2O_{(l)} + 2e^- \rightleftharpoons Ni(OH)_{2(s)} + 2 OH^-_{(aq)}$	+0.49	$Na^+_{(aq)} + e^- \rightleftharpoons Na_{(s)}$	-2.71
$SO_{2(aq)} + 4 H^+_{(aq)} + 4e^- \rightleftharpoons S_{(s)} + 2 H_2O_{(l)}$	+0.45	$Ca^{2+}_{(aq)} + 2e^- \rightleftharpoons Ca_{(s)}$	-2.76
$O_{2(g)} + 2 H_2O_{(l)} + 4e^- \rightleftharpoons 4 OH^-_{(aq)}$	+0.401	$Sr^{2+}_{(aq)} + 2e^- \rightleftharpoons Sr_{(s)}$	-2.89
$Cu^{2+}_{(aq)} + 2e^- \rightleftharpoons Cu_{(s)}$	+0.34	$Ba^{2+}_{(aq)} + 2e^- \rightleftharpoons Ba_{(s)}$	-2.90
$Hg_2Cl_{2(s)} + 2e^- \rightleftharpoons 2 Hg_{(l)} + 2 Cl^-_{(aq)}$	+0.27	$Cs^+_{(aq)} + e^- \rightleftharpoons Cs_{(s)}$	-2.92
$PbO_{2(s)} + H_2O_{(l)} + 2e^- \rightleftharpoons PbO_{(s)} + 2 OH^-_{(aq)}$	+0.25	$K^+_{(aq)} + e^- \rightleftharpoons K_{(s)}$	-2.92
$AgCl_{(s)} + e^- \rightleftharpoons Ag_{(s)} + Cl^-_{(aq)}$	+0.2223	$Rb^+_{(aq)} + e^- \rightleftharpoons Rb_{(s)}$	-2.93
$SO_4^{2-}_{(aq)} + 4H^+_{(aq)} + 2e^- \rightleftharpoons H_2SO_{3(aq)} + H_2O_{(l)}$	+0.172	$Li^+_{(aq)} + e^- \rightleftharpoons Li_{(s)}$	-3.05