

Standard Half-Cell Potentials in Aqueous Solution at 25 °C

Reduction Half-Reaction	Half-Cell	E° (V)
$F_2(g) + 2 e^- \rightarrow 2 F^-(aq)$	$F_2(g) F^-(aq) Pt$	+2.87
$H_2O_2(aq) + 2 H^+(aq) + 2 e^- \rightarrow 2 H_2O(\ell)$	$H_2O_2(aq), H^+(aq), H_2O(\ell) Pt$	+1.763
$PbO_2(s) + SO_4^{2-}(aq) + 4 H^+(aq) + 2 e^- \rightarrow PbSO_4(s) + 2 H_2O(\ell)$	$PbO_2(s) SO_4^{2-}(aq), H^+(aq) PbSO_4(s) Pb$	+1.690
$Au^{3+}(aq) + 3 e^- \rightarrow Au(s)$	$Au^{3+}(aq) Au(s)$	+1.52
$MnO_4^-(aq) + 8 H^+(aq) + 5 e^- \rightarrow Mn^{2+}(aq) + 4 H_2O(\ell)$	$MnO_4^-(aq), H^+(aq), Mn^{2+}(aq) Pt$	+1.51
$Cr_2O_7^{2-}(aq) + 14 H^+(aq) + 6 e^- \rightarrow 2 Cr^{3+}(aq) + 7 H_2O(\ell)$	$Cr_2O_7^{2-}(aq), H^+(aq), Cr^{3+}(aq) Pt$	+1.36
$Cl_2(g) + 2 e^- \rightarrow 2 Cl^-(aq)$	$Cl_2(g) Cl^-(aq) Pt$	+1.358
$O_2(g) + 4 H^+(aq) + 4 e^- \rightarrow 2 H_2O(\ell)$	$O_2(g) H^+(aq) Pt$	+1.229
$Br_2(\ell) + 2 e^- \rightarrow 2 Br^-(aq)$	$Br_2(\ell) Br^-(aq) Pt$	+1.066
$NO_3^-(aq) + 4 H^+(aq) + 3 e^- \rightarrow NO(g) + 2 H_2O(\ell)$	$NO_3^-(aq), H^+(aq) NO(g) Pt$	+0.96
$OCl^-(aq) + H_2O(\ell) + 2 e^- \rightarrow Cl^-(aq) + 2 OH^-(aq)$	$OCl^-(aq), Cl^-(aq), OH^-(aq) Pt$	+0.89
$Hg^{2+}(aq) + 2 e^- \rightarrow Hg(\ell)$	$Hg^{2+}(aq) Hg(\ell)$	+0.8535
$Ag^+(aq) + e^- \rightarrow Ag(s)$	$Ag^+(aq) Ag(s)$	+0.7991
$Hg_2^{2+}(aq) + 2 e^- \rightarrow 2 Hg(\ell)$	$Hg_2^{2+}(aq) Hg(\ell)$	+0.7960
$Fe^{3+}(aq) + e^- \rightarrow Fe^{2+}(aq)$	$Fe^{3+}(aq), Fe^{2+}(aq) Pt$	+0.771
$I_2(s) + 2 e^- \rightarrow 2 I^-(aq)$	$I_2(s) I^-(aq) Pt$	+0.535
$O_2(g) + 2 H_2O(\ell) + 4 e^- \rightarrow 4 OH^-(aq)$	$O_2(g) OH^-(aq) Pt$	+0.401
$Cu^{2+}(aq) + 2 e^- \rightarrow Cu(s)$	$Cu^{2+}(aq) Cu(s)$	+0.340
$Sn^{4+}(aq) + 2 e^- \rightarrow Sn^{2+}(aq)$	$Sn^{4+}(aq), Sn^{2+}(aq) Pt$	+0.15
$2 H^+(aq) + 2 e^- \rightarrow H_2(g)$	$H^+(aq) H_2(g) Pt$	0
$Sn^{2+}(aq) + 2 e^- \rightarrow Sn(s)$	$Sn^{2+}(aq) Sn(s)$	-0.1375
$Ni^{2+}(aq) + 2 e^- \rightarrow Ni(s)$	$Ni^{2+}(aq) Ni(s)$	-0.25
$PbSO_4(s) + 2 e^- \rightarrow Pb(s) + SO_4^{2-}(aq)$	$PbSO_4(s) SO_4^{2-}(aq) Pb(s)$	-0.3505
$Cd^{2+}(aq) + 2 e^- \rightarrow Cd(s)$	$Cd^{2+}(aq) Cd(s)$	-0.403
$Fe^{2+}(aq) + 2 e^- \rightarrow Fe(s)$	$Fe^{2+}(aq) Fe(s)$	-0.44
$Zn^{2+}(aq) + 2 e^- \rightarrow Zn(s)$	$Zn^{2+}(aq) Zn(s)$	-0.763
$2 H_2O(\ell) + 2 e^- \rightarrow H_2(g) + 2 OH^-(aq)$	$H_2O(\ell), OH^-(aq) H_2(g) Pt$	-0.8277
$Al^{3+}(aq) + 3 e^- \rightarrow Al(s)$	$Al^{3+}(aq) Al(s)$	-1.676
$Mg^{2+}(aq) + 2 e^- \rightarrow Mg(s)$	$Mg^{2+}(aq) Mg(s)$	-2.356
$Na^+(aq) + e^- \rightarrow Na(s)$	$Na^+(aq) Na(s)$	-2.714
$K^+(aq) + e^- \rightarrow K(s)$	$K^+(aq) K(s)$	-2.925
$Li^+(aq) + e^- \rightarrow Li(s)$	$Li^+(aq) Li(s)$	-3.045