

附錄 錯離子之形成常數 (25°C)

錯離子形成反應 Complex formation reaction	K_f
$\text{Ag}^+ + 2\text{Br}^- \rightleftharpoons \text{AgBr}_2^-$	2.1×10^7
$\text{Ag}^+ + 2\text{Cl}^- \rightleftharpoons \text{AgCl}_2^-$	1.1×10^5
$\text{Ag}^+ + 2\text{CN}^- \rightleftharpoons \text{Ag}(\text{CN})_2^-$	1.3×10^{21}
$\text{Ag}^+ + 2\text{I}^- \rightleftharpoons \text{AgI}_2^-$	5.5×10^{11}
$\text{Ag}^+ + 2\text{NH}_3 \rightleftharpoons \text{Ag}(\text{NH}_3)_2^+$	1.1×10^7
$\text{Ag}^+ + 2\text{SCN}^- \rightleftharpoons \text{Ag}(\text{SCN})_2^-$	3.7×10^7
$\text{Ag}^+ + 2\text{S}_2\text{O}_3^{2-} \rightleftharpoons \text{Ag}(\text{S}_2\text{O}_3)_2^{3-}$	2.9×10^{13}
$\text{Al}^{3+} + 6\text{F}^- \rightleftharpoons \text{AlF}_6^{3-}$	6.9×10^{19}
$\text{Al}^{3+} + 4\text{OH}^- \rightleftharpoons \text{Al}(\text{OH})_4^-$	1.1×10^{33}
$\text{Cd}^{2+} + 4\text{Cl}^- \rightleftharpoons \text{CdCl}_4^{2-}$	6.3×10^2
$\text{Cd}^{2+} + 4\text{CN}^- \rightleftharpoons \text{Cd}(\text{CN})_4^{2-}$	6.0×10^{18}
$\text{Cd}^{2+} + 4\text{I}^- \rightleftharpoons \text{CdI}_4^{2-}$	2.6×10^5
$\text{Cd}^{2+} + 4\text{OH}^- \rightleftharpoons \text{Cd}(\text{OH})_4^{2-}$	4.2×10^8
$\text{Cd}^{2+} + 4\text{NH}_3 \rightleftharpoons \text{Cd}(\text{NH}_3)_6^{2+}$	1.3×10^7
$\text{Co}^{2+} + 6\text{NH}_3 \rightleftharpoons \text{Co}(\text{NH}_3)_6^{2+}$	1.3×10^5
$\text{Co}^{3+} + 6\text{NH}_3 \rightleftharpoons \text{Co}(\text{NH}_3)_6^{3+}$	2×10^{35}
$\text{Co}^{2+} + 4\text{SCN}^- \rightleftharpoons \text{Co}(\text{SCN})_4^{2-}$	1×10^3
$\text{Cr}^{3+} + 4\text{OH}^- \rightleftharpoons \text{Cr}(\text{OH})_4^-$	8×10^{29}
$\text{Cu}^{2+} + 4\text{OH}^- \rightleftharpoons \text{Cu}(\text{OH})_4^{2-}$	3×10^{18}
$\text{Cu}^{2+} + 4\text{NH}_3 \rightleftharpoons \text{Cu}(\text{NH}_3)_4^{2+}$	2.1×10^{13}
$\text{Fe}^{2+} + 6\text{CN}^- \rightleftharpoons \text{Fe}(\text{CN})_6^{4-}$	1×10^{35}
$\text{Fe}^{3+} + 6\text{CN}^- \rightleftharpoons \text{Fe}(\text{CN})_6^{3-}$	1×10^{42}
$\text{Fe}^{3+} + \text{SCN}^- \rightleftharpoons \text{Fe}(\text{SCN})^{2+}$	1.3×10^2
$\text{Fe}^{3+} + 2\text{SCN}^- \rightleftharpoons \text{Fe}(\text{SCN})_2^+$	2.3×10^3
$\text{Hg}^{2+} + 4\text{Br}^- \rightleftharpoons \text{HgBr}_4^{2-}$	1×10^{21}
$\text{Hg}^{2+} + 4\text{Cl}^- \rightleftharpoons \text{HgCl}_4^{2-}$	1.2×10^{15}
$\text{Hg}^{2+} + 4\text{CN}^- \rightleftharpoons \text{Hg}(\text{CN})_4^{2-}$	3×10^{41}
$\text{Hg}^{2+} + 4\text{I}^- \rightleftharpoons \text{HgI}_4^{2-}$	6.8×10^{29}
$\text{I}_2 + \text{I}^- \rightleftharpoons \text{I}_3^-$	7.8×10^2
$\text{Ni}^{2+} + 4\text{CN}^- \rightleftharpoons \text{Ni}(\text{CN})_4^{2-}$	2×10^{31}
$\text{Ni}^{2+} + 6\text{NH}_3 \rightleftharpoons \text{Ni}(\text{NH}_3)_6^{2+}$	5.5×10^8
$\text{Pb}^{2+} + 4\text{Cl}^- \rightleftharpoons \text{PbCl}_4^{2-}$	4×10^1
$\text{Pb}^{2+} + 4\text{I}^- \rightleftharpoons \text{PbI}_4^{2-}$	3.0×10^4
$\text{Sb}^{3+} + 4\text{Cl}^- \rightleftharpoons \text{SbCl}_4^-$	5.2×10^4
$\text{Sb}^{3+} + 4\text{OH}^- \rightleftharpoons \text{Sb}(\text{OH})_4^-$	2×10^{38}
$\text{Sn}^{2+} + 4\text{Cl}^- \rightleftharpoons \text{SnCl}_4^{2-}$	3.0×10^1
$\text{Zn}^{2+} + 4\text{CN}^- \rightleftharpoons \text{Zn}(\text{CN})_4^{2-}$	5×10^{16}
$\text{Zn}^{2+} + 4\text{OH}^- \rightleftharpoons \text{Zn}(\text{OH})_4^{2-}$	4.6×10^{17}
$\text{Zn}^{2+} + 4\text{NH}_3 \rightleftharpoons \text{Zn}(\text{NH}_3)_4^{2+}$	2.9×10^9

錄自：Bodner, G. M.; Pardue, H. L. *Chemistry-An Experimental Science*; 2nd ed.,
John Wiley & Sons, Inc.: New York, 1995.