

IUPAC Publications of Compilations and Critical Evaluations of Stability Constants

Comprehensive Compilations of Stability Constants of Metal-Ion Complexes

1. J. Bjerrum, G. Schwarzenbach and L. G. Sillén, *Stability Constants of Metal-Ion Complexes, Part I, Organic Ligands*, Special Publication No. 6, Chem. Soc. (London) 1957.
2. J. Bjerrum, G. Schwarzenbach and L. G. Sillén, *Stability Constants of Metal-Ion Complexes, Part II, Inorganic Ligands*, Special Publication No. 7, Chem. Soc. (London) 1958.
3. L. G. Sillén and A. E. Martell, *Stability Constants of Metal-Ion Complexes*, Special Publication No. 17, Chem. Soc. (London) 1964.
4. L. G. Sillén and A. E. Martell, *Stability Constants of Metal-Ion Complexes*, Special Publication No. 25, (Supplement No. 1 to Special Publication No. 17), Chem. Soc. (London) 1971.
5. E. Högfeldt, *Stability Constants of Metal-Ion Complexes, Part A: Inorganic Ligands*, IUPAC Chemical Data Series, No. 21, Pergamon, Oxford, 1982.
6. D. D. Perrin, *Stability Constants of Metal-Ion Complexes, Part B: Organic Ligands*, IUPAC Chemical Data Series, No. 22, Pergamon, Oxford, 1979

Comprehensive Compilations of Protonation Constants of Acids and Bases

7. D. D. Perrin, *Dissociation Constants of Organic Bases in Aqueous Solution*, IUPAC Chemical Data Series, No. 12, Butterworths, London, 1965.
8. D. D. Perrin, *Dissociation Constants of Inorganic Acids and Bases in Aqueous Solution*, IUPAC Chemical Data Series, No. 19, Pergamon, Oxford, 1969.
9. E. P. Serjeant and B. Dempsey, *Ionisation Constants of Organic Acids in Aqueous Solution*, IUPAC Chemical Data Series, No. 23, Pergamon, Oxford, 1979.

Stability Constants Database (compiled data)

10. L. D. Pettit, K. J. Powell. *IUPAC Stability Constant Database*, IUPAC/Academic Software, Otley, UK (2003).

Compilations and Critical Evaluations of Stability Constants for Selected Systems

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12. W. A. E. McBryde, A Critical Review of Equilibrium Data for Proton and Metal Complexes of 1,10-Phenanthroline, 2,2'-Bipyridyl, and Related Compounds, *IUPAC Chemical Data Series No. 17*, Pergamon, Oxford (1978).

13. J. Stary, Y. A. Zolotov and O. M. Petrukhin, Critical Evaluation of Equilibrium Constants Involving 8-Hydroxyquinoline and its Metal Chelates, *IUPAC Chemical Data Series No. 24*, Pergamon, Oxford (1979).
14. A. M. Bond and G. T. Hefter, Critical Survey of Stability Constants and Related Thermodynamic Data of Fluoride Complexes in Aqueous Solution, *IUPAC Chemical Data Series No. 27*, Pergamon, Oxford (1980).
15. J. Stary and J. O. Liljenzin, Critical Evaluation of Equilibrium Constants Involving Acetylacetone and its Metal Chelates, *Pure Appl. Chem.*, **54** (1982) 2557-2592.
16. G. Anderegg, Critical Survey of Stability Constants of NTA complexes, *Pure Appl. Chem.*, **54** (1982) 2693-2758.
17. D. G. Tuck, Critical Survey of Stability Constants of Complexes of Indium, *Pure Appl. Chem.*, **55** (1983) 1477-1528.
18. L. D. Pettit, Critical Survey of Formation Constants of Complexes of Histidine, Phenylalanine, Tyrosine, L-DOPA and Tryptophan, *Pure Appl. Chem.*, **56** (1984) 247-292.
19. P. Paoletti, Formation of Metal Complexes with Ethylenediamine: A Critical Survey of Equilibrium Constants, Enthalpy and Entropy Values, *Pure Appl. Chem.*, **56** (1984) 491-522.
20. M. T. Beck, Critical Survey of Stability Constants of Metal-Cyanide Complexes, *Pure Appl. Chem.*, **59** (1987) 1703-1720.
21. T. Kiss, I. Sovago and A. Gergely, Critical Survey of Stability Constants of Complexes of Glycine, *Pure Appl. Chem.*, **63** (1991) 597-638.
22. R. M. Smith, A. E. Martell and Y. Chen, Nucleotide Complexes with Protons and Metal Ions, *Pure Appl. Chem.*, **63** (1991) 1015-1080.
23. I. Sovago, T. Kiss and A. Gergely, Critical Survey of the Stability Constants of Complexes of Aliphatic Amino Acids, *Pure Appl. Chem.*, **65** (1993) 1029-1080.
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25. O. Yamauchi and A. Odani, Stability Constants of Metal Complexes of Amino Acids with Charged Side Chains - Part I: Positively Charged Side Chains, *Pure Appl. Chem.*, **68** (1996) 469-496.
26. L. H. J. Lajunen, R. Portanova, J. Piispanen and M. Tolazzi, Critical Evaluation of Stability Constants for *alpha*-Hydroxycarboxylic Acid Complexes with Protons and Metal Ions and the Accompanying Enthalpy Changes – Part I: Aromatic *ortho*-Hydroxycarboxylic Acids, *Pure Appl. Chem.*, **69** (1997) 329-381.
27. A. Bahta, G. A. Parker and D. G. Tuck, Critical Survey of Stability Constants of Complexes of Thiocyanate Ion, *Pure Appl. Chem.*, **69** (1997) 1489-1548.
28. S. Sjöberg, Critical Evaluation of Stability Constants of Metal-Imidazole and Metal-Histamine Systems, *Pure Appl. Chem.*, **69** (1997) 1549-1570.

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31. R. Portanova, L. H. J. Lajunen, M. Tolazzi and J. Piispanen, Stability Constants for *alpha*-Hydroxycarboxylic Acid Complexes with Protons and Metal Ions and the Accompanying Enthalpy Changes - Part II: Aliphatic 2-Hydroxycarboxylic Acids, *Pure Appl. Chem.*, **75** (2003) 495-540.
32. K. J. Powell, P. L. Brown, R. H. Byrne, T. Gajda, G. T. Hefter, S. Sjöberg and H. Wanner, Chemical speciation of environmentally significant heavy metals with inorganic ligands. Part 1: The Hg^{2+} - Cl^- , OH^- , CO_3^{2-} , SO_4^{2-} and PO_4^{3-} aqueous systems, *Pure Appl. Chem.*, **77** (2005) 739-800.
33. G. Anderegg, F. Arnaud-Neu, R. Delgado, J. Felcman and K. Popov, Critical Evaluation of Stability Constants of Metal Complexes of Complexones for Biomedical and Environmental Applications, *Pure Appl. Chem.*, **77** (2005) 1445-1495.
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