

# Phase Diagram Evaluations

The *Journal* contains provisional evaluated phase diagrams (together with associated data) of systems that are of principal interest to those in metallurgy and metals-related fields, including metal-metal, metal-metalloid, and metal-gas systems; the various forms of presentation can include pressure-temperature, metastable, and multicomponent diagrams.

All evaluations are contributed to the *Journal* by Category Editors, Contributing Editors, and their co-investigators. To enhance the value of the list of references accompanying each evaluation, the editors are providing some additional specific information in parentheses following each reference. These annotations will include indication of: (a) key papers, by an asterisk placed in front of the reference designation (e.g., \*1983Abc); (b) nature of the data available (i.e., Equilibrium Diagram, Metastable Phases, Crystal Structure, Thermodynamics, and Pressure); (c) document classification (i.e., Experimental, Theory, Review, or Compilation); and (d) presence of an accepted phase diagram, or portion of one, by a number sign (#) at the end of the annotation. References frequently cited in evaluations that follow are cited by author name rather than by number; these general references are listed below.

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## General References

- [Elliott]:** R.P. Elliott, *Constitution of Binary Alloys, First Supplement*, originally published by McGraw-Hill, reprinted and available from Genium Publishing, Schenectady, NY, 1965
- [Hansen]:** M. Hansen and K. Anderko, *Constitution of Binary Alloys*, originally published by McGraw-Hill, reprinted and available from Genium Publishing, Schenectady, NY, 1958
- [Hultgren,B]:** R. Hultgren, P.D. Desai, D.T. Hawkins, M. Gleiser, and K.K. Kelley, *Selected Values of the Thermodynamic Properties of Binary Alloys*, American Society for Metals, Metals Park, OH, 1973
- [Hultgren,E]:** R. Hultgren, P.D. Desai, D.T. Hawkins, M. Gleiser, K.K. Kelley, and D.D. Wagman, *Selected Values of the Thermodynamic Properties of the Elements*, American Society for Metals, Metals Park, OH, 1973
- [King1]:** H.W. King, Crystal Structures of the Elements at 25°C, *Bull. Alloy Phase Diagrams*, Vol 2 (No. 3), 1981, p 401-402
- [King2]:** H.W. King, Temperature-Dependent Allotropic Structures of the Elements, *Bull. Alloy Phase Diagrams*, Vol 3 (No. 2), 1982, p 275-276; Vol 3 (No. 3), 1982, p 308
- [King3]:** H.W. King, Pressure-Dependent Allotropic Structures of the Elements, *Bull. Alloy Phase Diagrams*, Vol 4 (No. 4), 1983, p 449-450
- [Landoll]:** Landolt-Bornstein Tables, New Series, Group II, *Structure Data of Elements and Intermetallic Compounds*, Vol 6, Springer-Verlag, New York, 1971
- [Massalski]:** T.B. Massalski, J.L. Murray, L.H. Bennett, and H. Baker, *Binary Alloy Phase Diagrams*, Vol 1 and 2, American Society for Metals, Metals Park, OH, 1986
- [Massalski2]:** T.B. Massalski, P.R. Subramanian, H. Okamoto, and L. Kacprzak, Ed., *Binary Alloy Phase Diagrams*, 2nd ed., Vol 1, 2, and 3, ASM International, Materials Park, OH, 1990
- [Melt]:** Melting Points of the Elements, *Bull. Alloy Phase Diagrams*, Vol 7 (No. 6), 1986, p 601-602
- [Metals]:** *Metals Handbook, Metallography, Structures and Phase Diagrams*, Vol 8, 8th ed., American Society for Metals, Metals Park, OH, 1973
- [Moffatt]:** W.G. Moffatt, *Handbook of Binary Phase Diagrams*, Genium Publishing, Schenectady, NY, 1978 and Supplements
- [Pearson1]:** W.B. Pearson, *Handbook of Lattice Spacings and Structures of Metals and Alloys*, Vol 1, Pergamon, New York, 1958
- [Pearson2]:** W.B. Pearson, *Handbook of Lattice Spacings and Structures of Metals and Alloys*, Vol 2, Pergamon, New York, 1967
- [Pearson3]:** P. Villars and L.D. Calvert, *Pearson's Handbook of Crystallographic Data for Intermetallic Phases*, Vol 1, 2, and 3, American Society for Metals, Metals Park, OH, 1985
- [Pearson4]:** P. Villars and L.D. Calvert, *Pearson's Handbook of Crystallographic Data for Intermetallic Phases*, 2nd ed., Vol 1, 2, 3, and 4, ASM International, Materials Park, OH, 1991
- [Shunk]:** F.A. Shunk, *Constitution of Binary Alloys, Second Supplement*, originally published by McGraw-Hill, reprinted and available from Genium Publishing, Schenectady, NY, 1969