

Evaluations of Alloy Systems

Seven sets of evaluations are presented in this issue. Six of the sets present the evaluations submitted by "Category Editors" and their co-investigators — one binary titanium system and one binary aluminum system from J. L. Murray; two binary vanadium systems from J. F. Smith, co-authored by D. T. Peterson; one binary copper system from D. E. Laughlin and D. J. Chakrabarti; eleven binary rare-earth systems from K. A. Gschneidner, Jr., co-authored by F. W. Calderwood (see "Critical Evaluation of Binary Rare-Earth Phase Diagrams" in Vol. 2, No. 4, p 444 for introduction to this project); and three zirconium evaluations, one unary and two binary, from J. P. Abriata, co-authored by J. C. Bolcich (Zr, Hf-Zr, and Nb-Zr) and H. A. Peretti (Hf-Zr). In addition, six evaluations of actinide binary alloys were selected from Chiotti¹ (see "Bookshelf" in Vol. 2, No. 4, p 427 for listing of all systems in this book). References frequently cited in the evaluations that follow are cited by author name rather than by number; these general references are listed below.

General References

1. P. Chiotti, V. V. Akhachinskij, I. Ansara, and M. H. Rand, *The Chemical Thermodynamics of Actinide Elements and Compounds*, Part 5: The Actinide Binary Alloys, V. Medvedev, M. H. Rand, E. F. Westrum, Jr., and F. L. Oetting, Ed., International Atomic Energy Agency, Vienna (1981). [Chiotti]
2. M. Hansen and K. Anderko, *Constitution of Binary Alloys*, McGraw-Hill, New York or General Electric Co., Business Growth Services, Schenectady, New York 12345 (1958). [Hansen]
3. R. P. Elliott, *Constitution of Binary Alloys, First Supplement*, McGraw-Hill, New York or General Electric Co., Business Growth Services, Schenectady, New York 12345 (1965). [Elliott]
4. F. A. Shunk, *Constitution of Binary Alloys, Second Supplement*, McGraw-Hill, New York or General Electric Co., Business Growth Services, Schenectady, New York 12345 (1969). [Shunk]
5. W. B. Pearson, *Handbook of Lattice Spacings and Structures of Metals and Alloys*, Vol. 1 (1958) and Vol. 2 (1967), Pergamon, New York. [Pearson]
6. Landolt-Börnstein Tables, New Series, Group III, *Selected Data of Elements and Intermetallic Compounds*, Vol. 6, Springer-Verlag, New York (1971). [Landolt-Börnstein]
7. 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, Ohio (1973). [Hultgren, Elements]
8. 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, Ohio (1973). [Hultgren, Binary]
9. *Metals Handbook, Metallography, Structures and Phase Diagrams*, Vol. 8, 8th ed., American Society for Metals, Metals Park, Ohio (1973). [Metals Handbook]
10. L. F. Mondolfo, *Aluminum Alloys: Structure and Properties*, Butterworths, London: 88 Kingsway, WC2B 6AB; Boston: 161 Ash Street, Reading, MA 01867. [Mondolfo]

NBS Computer Databank

Diagrams marked with the logo shown here indicate that the diagram was computer generated at NBS from material provided by the cited evaluator. These diagrams form part of the growing phase diagram computer graphics data base at NBS. (See the article entitled "Interactive Computer Graphics for Storing Phase Diagrams" on page 19 of the *Bulletin*, Vol. 1, No. 1.)

