recently published in the 1981 Edition of Part 11. In light of the current ASM/NBS activities regarding phase-diagram publication, the subcommittee anticipates further work on this standard in an effort to increase the relevance of the document.

Reference

1. Hubbard, C. R. and Calvert, L. D., *Bull. Alloy Phase Diagrams,* 2(2), 153-157 (1981).

Contributed by **M. J. A. Nousak,** Assistant Chief Metallurgist, PARTEK, Inc., P. O. Box 749, Houma, LA 70361; telephone: 504/851-5310. (Chairman of Subcommittee E.04.03)

ASTM Subcommittee E.04.16 on Phase Identification

The Committee on Metallography (E.04) of the American Society for Testing and Materials (ASTM) has an active subcommittee concerned with phase identification. Subcommittee E.04.16 on Phase Identification is responsible for the development and revision of standards involving metallographic techniques of phase identification.

The subcommittee is currently preparing a new document entitled "Standard Practice for Electrolytic Extraction with Hydrochloric Acid–Methanol" for extracting carbides and *TCP* phases in nickel and nickel-iron base γ' strengthened alloys.

Contributed by **Donald R. Green,** Supervisor–R & D Laboratory Services, Universal-Cyclops Specialty Steel Div., Bridgeville, PA 15017; telephone: 412/221-8000, Ext. 342. (Chairman of Subcommittee E.04.16)

Comments from interested individuals are welcome regarding the standards currently being developed, as well as suggestions or recommendations pertaining to related items. For further information please contact: American Society for Testing and Materials, Committee E.04 on Metallography, Louise M. Neall, Staff Manager, 1916 Race Street, Philadelphia, PA 19103; telephone: 215/299-5529.

Current Alloy Constitution Work in France (1975-1982)

- *Université Claude Bernard,* Lyon I, Laboratoire de Physico-Chimie Minérale II, Associé au CNRS n° 116 (Directeur, R. Cohen-Adad), 43, Boulevard du 11 Novembre 1918, 69622 Villeurbanne Cedex.

  Study of the Al-Co-Fe system by zone melting. (M. Th. Saugier and M. Gharbi)

  Determination of the equilibrium between the Pb-Sb-Mg and Pb-Ca-Mg phases. (J. J. Counioux)

  Al-Si, Al-Cu, and Al-Cu-Mg-Ti alloys with oriented texture produced by progressive solidification and zone melting. (R. Cohen-Adad and J. J. Counioux)

  Contribution to the study of the alloys Al-Zn, Al-Zn-Ge, and Al-Zn-Sn. (J. Said, E. Tadjbakhche, A. Sebaoun, and D. Vincent)

- *Ecole Nationale Supérieure des Mines de Paris,* Centre des Matériaux, B. P. 87, 91000 EVRY Cedex.

  Experimental determination in commercial superalloys of equilibrium relationships, including (*a*) study of the sequence of phase formation during the directions solidification of Ni-base superalloys, with an emphasis on minor phases; (*b*) study of δ/δ' phase composition relationships in commercial Ni-base superalloys; and (*c*) study of chemical interactions between refractory particles and superalloys in sintering.

- *Institut National des Sciences Appliquées,* Laboratoire de Métallurgie et Physico-Chimie des Matériaux, 20, Avenue des Buttes de Cöesmes-35043 Rennes Cedex.

  The Ti-N, Zr-N, and Hf-N systems in connection with the kinetics of nitriding, the diffusion of nitrogen, and the practical properties of the materials studied. (Dr. E. Etchessahar, Dr. J. P. Bars, and Prof. J. Debuigne)

  Ti-Fe system: thermodynamic study, retrograde solubility of Fe in Ti, dilatometry, and metallurgical study (in collaboration with C. E. C. M./C. N. R. S. Vitry-sur-Seine). (Dr. B. Jounel and Prof. J. Debuigne)

  Zr-Al system. (Dr. B. Jounel, Dr. J. Bauer, and Prof. J. Debuigne)

  Rare earth-boron-carbon systems; crystal chemistry study. (Dr. J. Bauer)

  Ho-Si system: crystal chemistry and metallography. (Dr. J. Bauer and Dr. B. Jounel)

  Ti-Al-N, Zr-Al-N, and Hf-Al-N systems. (Dr. J. Bauer, with Dr. J. Schuster, University of Vienna)

  Mn-Pt system: order-disorder, diffusion, grain boundary diffusion, and metallurgical study. (Dr. D. Ansel and Prof. J. Debuigne)

  Cu-Mn-N system: diffusion, thermodynamic equilibrium, and metallurgical study. (Dr. D. Ansel, J. L. Aubin, and Prof. J. Debuigne)

- *Université Paris XI,* Faculté de Pharmacie, rue J. B. Clément 92290 Chatenay, Malabry, Laboratoire de Chimie Minérale II.

  Study of equilibrium phase diagrams; systems based on the chalcogens Se and Te; experimental determinations with the aid of differential thermal analysis (DTA), differential scanning calorimetry (DSC), X-ray crystallography on powder, and metallography; and determination of C_p and the heat of mixing by Calvet microcalorimetry. (Prof. C. Souleau and Dr. B. Legendre)

- *Ecole Centrale des Arts et Manufactures Laboratoire,* "Gas dans les Métaux", 92290 Chatenay-Malabry.

  Study of martensitic transformations in the Fe-Ni and Fe-Ni-C alloys between room and liquid helium temperatures; role of carbon and hydrogen; and structural transformation. Methods used include (*a*) internal friction, (*b*) dilatometry, (*c*) acoustic emission, and (*d*) mechanical testing (tension).

- *Université Aix-Marseille II,* Faculté de Pharmacie, Laboratoire de Chimie Générale, 27 Boulevard Jean Moulin, 13385 Marseille Cedex 5.

  Study by calorimetry, potentiometry, and differential thermal analysis of thermodynamic properties of ternary alloys formed by binary systems having certain miscibility gaps present in the liquid state (Al-Bi, Al-In, Bi-Ga, and Bi-Zn) or of definite compounds (Al-Sb and Ga-Sb). (Prof. R. Baret)

- *C. N. R. S. Centre d'Etudes de Chimie Métallurgique,* 15, rue Georges Urbain, 94400 Vitry-sur-Seine.

  Mo-C: diffusion and solubility of C in Mo and in Ti-Zr-Mo alloys. (G. Lorang and J. P. Langeron)

  Ti-Fe: Fe retrograde solubility in αTi and precipitation phenomenon. (J. Matyka, F. Faudot, and J. Bigot)