Recent
ASTM Publications

CHETAH, Chemical Thermodynamic Data and Energy Release Computer Program, DS 51

Data Bank EBCDIC for Use on IBM 360 or 370 OS, $295.00, 05-051010-31

Data Bank EBCDIC for Use on IBM 1130, $295.00, 05-051020-31

Data Bank BCDIC for Use on Some Other Computers (Univac), $295.00, 05-051030-31

Unified Numbering System for Metals and Alloys, DS 56, $40.00, 05-056000-01
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ASTM 1975
PHOTOGRAPHIC EXHIBIT

22–27 June 1975
Montreal, Canada

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2. PHOTOMICROGRAPHY AND ELECTRON MICROGRAPHY—examples of the application of excellent techniques as well as structural features of all materials—metals, nonmetals, organic or inorganic.

3. EMISSION MICROGRAPHY—to include examples of ion, electron, and thermal emission techniques.

4. SCANNING ELECTRON MICROGRAPHS—to cover examples of all techniques using the new scanning microscopes.

5. TECHNIQUE—examples of unique, unusual, or original techniques of value to the field of testing and evaluation.

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Cover Story

Third Prize in Light Photomicrography at the 1974 ASTM Photographic Exhibit was awarded to A. Ritzer for Cobalt-Carbon Eutectic, shown on this month’s front cover. The microstructure shown results from a solution of cobalt containing 25 at.% carbon, rapidly cooled from the cobalt-diamond eutectic temperature at elevated pressure. The white matrix is cobalt, while the dark areas are graphite. Colonies of cobalt-carbide containing a precipitated cobalt-rich phase are also present. The lighter band surrounding each carbide island constitutes a precipitate-free zone resulting from cobalt diffusion into the matrix. Some evidence of Widmanstätten precipitation of carbide is noted. This material was developed in an attempt to complete information for the Co-C phase diagram at experimental conditions. Mr. Ritzer, who is employed by General Electric at their Corporate Research and Development Center in Schenectady, N.Y., used bright field illumination at a magnification of ×450 and an etchant of 2% Nital®.