

Cases; 4) The economics of mineral raw materials and energy sources—convened by Cl. Guillemin and Cl. Salle.

Topic number one has been approached by reviewing the metallogeny of two contrasting "domains": (a) Provinces of Precambrian domains; (b) Circum-Pacific copper-molybdenum domains. Within the first group D. R. Derry has reviewed the metallogenic provinces in the Precambrian of North America and Australia, with the special attention paid to Abitibi area of the Canadian shield; W. J. Van Biljon has reviewed the metal deposits of Southern Africa giving a table illustrating the distribution of the Precambrian metal deposits in time, including gold, uranium, chromium, tin and others and differentiating between deposits bound on sedimentary sequences such as the Witwatersrand and those bound on igneous intrusions such as the Bushveld.

The Circum-Pacific Cu-Mo domains are analyzed in papers by J. D. Lowell, "Metallogenesis and porphyry deposits of North America and the Pacific Region", and by Jorge Qyarzún M. and José Frutos "Metallogenesis and porphyry deposits of the Andes (Southeastern Pacific Region)", the latter paper setting the origin of the deposits in the context of paleogeographic and magmatic evolution of the Andes.

Leo J. Miller reviews the "Distribution of ore deposits through geologic time", distinguishing four global geological environments of mineralization: 1) Eugeosynclines, 2) Back Arc shelves, 3) Cra-

tonal shelves, and 4) Cratons. The beginning of the porphyry-type mineralization is placed at about 2,500 m.y. ago with a weak (uneconomic) manifestation of a porphyry copper-gold mineralization in the Superior zone of Quebec and Ontario, followed by significant deposits in the Jurassic at about 190 m.y. in British Columbia and by further increase in porphyry copper-gold deposits especially in the Circum-Pacific zone of the Southern Pacific Ocean, mostly differing from their cratonic counterparts by more mafic, usually quartz diorite host rock. The classical Cu-Mo deposits of the southwestern United States and the Andes Mountains in South America are classified under Cratonic-Porphyry copper and moly deposits, stressing that both are underlain by miogeosynclinal rocks of Paleozoic age. A separate group of "Cratonic—Porphyry moly deposits" includes the porphyry moly belt within the Rocky Mountains of the United States containing the well known deposits of Climax and Urad-Henderson.

P. Routhier's concluding remarks quote some points from a discussion that followed the presentation of papers and encourages further research.

JAN KUTINA
The American University
Washington, D.C.

NOTICES

28th Annual Tucson Gem & Mineral Show

The 28th Annual Tucson Gem & Mineral Show will be held February 12, 13, 14, 1982 at The Tucson Community Center Exhibition Hall, 260 S. Church Avenue, Tucson, Arizona. Hours: 12th & 13th: 10 a.m.—8 p.m. 14th: 10 a.m.—5 p.m. Admission: \$1.50 per day or \$3.00 for three days. For further information: TGMS Show Committee, P.O. Box 42543, Tucson, Arizona 85733.

Set 31 of the Powder Diffraction File

This year, the Powder Diffraction File features Set 31 which contains 1,500 inorganic patterns and 500 organic and organo-metallic patterns.

The complete Powder Diffraction File, used as the standard reference source for powder diffraction analysis consists of 31 sets of data containing over 37,000 numeric patterns of crystalline materials.

Each set of data is divided into an inorganic section, consisting of inorganic compounds, metals, alloys and minerals, and an organic section consisting of organic and organic-metallic compounds. Powder patterns for materials are easily located in the File by the use of Search Manuals in which the eight strongest lines with relative intensities are listed and the three most intense permuted. Reference is made to a corresponding data card. The File is available in Card Form, Microfiche, Magnetic Tape, APD Disk and Computer Time Sharing. Subfiles for Minerals and Metals/Alloys are also available. For a descriptive brochure, write to:

JCPDS—International Centre for Diffraction Data
1601 Park Lane
Swarthmore, Pennsylvania 19081

0003-004X/81/0910-1105\$00.50

OES Solicits Suggestions

The Office of Earth Sciences (OES) and its Advisory Board, Assembly of Mathematical and Physical Sciences, National Research Council, are anxious to have the assistance of earth scientists in assuring that their responsibilities are fully met. These responsibilities include continued awareness and active concern for the health of the earth sciences, identification of opportunities for the earth sciences in meeting national needs, and fostering of awareness of scientific advances that may help resolve national problems. Atmospheric, oceanographic, and solid-earth scientists are invited to suggest activities at the national level to the office and its advisory board.

The OES uses the solicited suggestions to complement its perception of important national topics that need attention. Research is not supported, but the suggestions receive attention in several ways. They are sent to appropriate units of the National Research Council when related activity is underway. In some cases, a suggestion may result in an independent committee being established to study and report on the topic. For example, a report is currently being prepared on the geological aspects of industrial waste disposal which was a suggested topic. Such a report is usually read by government officials, scientists in the field, and the public.

It is the wish of the OES Advisory Board to make this resource known to the scientific community so that all earth scientists can actively participate. Effective reports can strengthen our sciences through increased support of the scientific and technological community, increased awareness of the importance of particular topics, and initiation or change in the emphasis of federally-supported programs.

A suggestion should be sent to the Chairman of the Office of

Earth Sciences, National Research Council, National Academy of Sciences Building, 2101 Constitution Avenue, N.W., Washington, D.C. 20418. The statement should include sufficient information for the advisory board to evaluate the national significance of the topic.

John C. Crowell, Chairman
Office of Earth Sciences

AGI Minority Participation Program Scholarships

The American Geological Institute will again offer scholarships for geoscience majors who are United States citizens and member of the following ethnic minority groups: Blacks, Hispanics, and Native Americans (American Indian, Eskimo, Hawaiian, Samoan, or other qualified Native minority). Approximately 50 such awards (ranging from \$500 to \$1500 were granted in 1981-1982. About the same number (and amounts) will be awarded for 1982-83.

The term "geoscience" is used broadly to include major study in the fields of geology, geochemistry, geophysics, hydrology, meteorology, oceanography, and space and planetary sciences.

Monies for support/funding of this program are administered by the AGI Minority Participation Program Advisory Committee and have come from six member societies, more than 16 mining, petroleum, geological supply, and geophysical companies, and many individuals.

Requests for application materials or nominations for scholarships should be addressed to William H. Matthew III, Director of Education, American Geological Institute, Box 10031, Lamar University Station, Beaumont, Texas 77710. The deadline for filing the completed application is February 1, 1982.

The U.S. National Mineral Collection

The mineral collections of the National Museum of Natural History, Smithsonian Institution, Washington, D.C., are very ex-

tensive and are among the largest in the world. These collections are readily available to, and used by, the scientific community for worthwhile research. The museum maintains, in addition to the study and exhibit collections, a repository for *type* and *described* mineral specimens, *i.e.*, those from which data have been gathered, and usually published. The *type* collection presently contains over 500 mineral species and is continually growing. The number of *described* mineral specimens presently exceeds 4700 specimens. We should all be concerned about the preservation of minerals for which analytical data of any form exists. The data become far less significant if the specimens are lost, for they cannot be verified, amended, or enhanced by subsequent, perhaps more sophisticated, studies.

Far too often, minerals described in published papers are deposited in drawers or cabinets by the authors and subsequently forgotten. With the passage of time and continual shifting from place to place, these specimens are usually lost to science. Such loss, though unintentional, is an irresponsible disservice to our science. It is the rule rather than the exception and this should be changed for the betterment of mineralogy.

Just as it is important to publish our research and disseminate knowledge, so also is it important to see to it that the specimens involved are preserved. Repositories of described specimens should continue to grow in depth and quality to the advantage of all who study minerals. Authors are therefore asked, and strongly encouraged, to send all analyzed or otherwise described mineral specimens to the Department of Mineral Sciences, National Museum of Natural History, Smithsonian Institution, Washington, D.C. 20560. Acknowledgement of receipt will be by letter, and the specimens will be carefully curated. Postage franks are available upon request. In turn, the museum will continue to do its best to furnish research materials to the scientist upon written request.

Pete J. Dunn
Smithsonian Institution