MINERALOGICAL SOCIETY OF AMERICA MEETING, BOZEMAN, MONTANA—JULY 26-31, 1964. JOINT MEETING WITH THE AMERICAN CRYSTALLOGRAPHIC ASSOCIATION

Monday Morning—July 27, 1964

9:00 A.M. Welcoming Remarks
Dr. Leonard G. Berry, President of MSA
Dr. Howard T. Evans, Jr., President of ACA

Eugene B. Gross, Division of Mines and Geology, San Francisco, Calif.

A new, Baringer Hill-type, rare-earth pegmatite from the Central Mineral Region, Texas.
A. J. Ehmann, J. L. Walper, Texas Christian University, Fort Worth, Texas, and J. Williams, The Texas Architectural Aggregate Company, San Saba, Texas.

The origin of some native lead-pyrochroite parageneses.
Kurt Bostrom, Scripps Institute of Oceanography, La Jolla, Calif.

The mineralogy of the Butte District, Montana.

Xanthophyllite from the Tobacco Root Mountains, Montana.
R. G. Stevenson and Carl W. Beck, Indiana University, Bloomington, Ind.

Regressions of optical properties and density on the composition of orthopyroxene.
Horace Winchell and Bernard E. Leake, Yale University, New Haven, Conn.

The origin of tincalconite at Searles Lake, California.
Carl J. Bowser. The University of Wisconsin, Madison, Wis.

1 Deerite, howite, and zussmanite, three new minerals from the Franciscan of the Laytonville district, Mendocino Co., California.

Seven new barium minerals from eastern Fresno County, California.

Fluorapatite and sphene from Crystal Lode Pegmatite, Eagle, Colo.

Mineralogy of the Kalkar Quarry, Santa Cruz, California.

1 Invited paper—given at May 27, 1964 meeting of the Mineralogical Society of Great Britain.
Monday Afternoon—July 27, 1964

2:00 P.M. Geology of the Crazy Mountains, Montana—Alkaline dikes, sills, and laccoliths; northern part.
Frederick E. Simms, Jr., University of Cincinnati, Cincinnati, Ohio.

Geology of the Crazy Mountains, Montana—Clay minerals of the upper Livingston formation; northern part.
John D. Sims, Univ. of Cincinnati, Cincinnati, Ohio.

Geology of the Crazy Mountains, Montana—Big Timber Stock.
John Tappe, Univ. of Cincinnati, Cincinnati, Ohio.

Zircons of the Boulder Batholith near Helena, Montana.
Leonard H. Larsen, Univ. of Cincinnati, Cincinnati, Ohio.

Pyroxene relations in experimentally crystallized 1887 Mauna Loa basalt.
Myron G. Best, University of Ottawa, Ottawa, Canada.

An occurrence of abundant chiastolite, Sawtooth Mountains, Alaska.
Robert L. Foster and Clayton H. Johnson, University of Missouri, Columbia, Missouri.

Mineral orientation in slates and argillites—a comparison.

Skarns in the Precambrian of Denver Mountain Parks, Colorado.
Margaret Fuller Boos, Geologic Consultants, Denver, Colorado.

Zeolite zones in volcanic rocks, Nevada Test Site.

Groundwater leaching of quickly cooled volcanic rocks.

Tuesday—July 28, 1964

Field Trip—Butte Hill.

Wednesday—July 29, 1964

A.M. Field Trip—Bozeman Area Geology
P.M. Field Trip—Asbestos Mine in Gallatin Canyon
Evening Picnic

Thursday—July 30, 1964

9:00 A.M. The crystal structure of the decavanadate $K_2Zn_9V_{16}O_{43}\cdot16H_2O$, chemical analog of humerite and pascoite.

Crystal structure of the sodium-calcium borate mineral, ulexite.

Structure and twinning of synthetic lithium-fluor micas.
Hiroshi Takeda and J. D. H. Donnay, The Johns Hopkins University, Baltimore, Maryland.
NOTICES

The crystal structure of turquoise, CuAl₂(OPO₄)(OH)₂·4H₂O.
Hilda Cid-Dresdner, Massachusetts Institute of Technology, Cambridge, Mass.

Layer structures in secondary copper minerals.
Abraham Rosenzweig, The University of New Mexico, Albuquerque, New Mexico.

Observations on the crystal chemistry of fossil bone and the carbonate apatites.
J. Thomas Nash and Gerald P. Brophy, Amherst College, Amherst, Massachusetts.

Polytypism in biotites.

The crystal structure of alunite.
Rong Wang, W. F. Bradley, and H. Steinfink, University of Texas, Austin, Texas.

The crystal structure of a marialite scapolite.
James J. Papike and Tibor Zoltai, University of Minnesota, Minneapolis, Minnesota.

Temperature parameters of silicate crystal structures.
Charles W. Burnham, Geophysical Laboratory, Washington, D. C.

The shape of misoriented reciprocal lattice planes as recorded by precession photography.

A slide rule for choosing precession camera settings.
Seymour F. Kaplan, 603 Charles Place N. W., Albuquerque, New Mexico.

2:00 P.M. Quantitative prediction of mineral stability.
M. Slaughter, University of Missouri, Columbia, Mo.

The relationship between the mean sound velocity and the mean index of refraction for oxide minerals.
Orson L. Anderson, Lamont Geological Observatory, Palisades, N. Y.

A. N. Winchell's observations on plagioclase, 1900; an historical note.
A. Pabst, University of California, Berkeley, Calif.

New specific refractive energies \((n - 1/d = K)\) for CuO and Sc₂O₃.

Diamond disc preparation of polished thin sections for the electron microprobe.
Donald E. Cadwell and Paul Weiblen, Minnesota Mining and Manufacturing Company, St. Paul, Minnesota.

The origin of the term "nuée ardente."
Solubility and growth of sphalerite under hydrothermal conditions.
R. A. Laudise, E. D. Kolb and J. P. De Neufville, Bell Telephone Laboratories, Murray Hill, New Jersey.

Zeolite Type X equilibria with trivalent cerium and yttrium cations.

Evening Banquet

Friday—July 31, 1964
Field Trip—Yellowstone National Park

Saturday—August 1, 1964
Field Trip—Geology East of Butte

1 By title.