

NICKEL, AN HISTORICAL REVUE. F. B. HOWARD-WHITE. D. Van Nostrand Co., Inc., 120 Alexander St., Princeton, N. J. 350 pp. 5 Appendixes. 1963. \$6.95.

This is a literary *tour de force*, broadly conceived, exhaustively executed and elegantly illuminated. The author, who has spent his life in the world of nickel, was at his retirement a director of the International Nickel Company (Mond) Ltd. In this monograph he has attempted to include (and I suspect largely successfully) everything that is known on the discovery and development of nickel as a commercial metal, adding, en route, large dollops of data on such relevant topics as the earth's interior, composition of early bronze alloys, meteorites, early mining, extractive metallurgy, development of armor and ordnance, electroplating, international business operations, coinage, aircraft engines, world airplane speed records, properties of steels, atomic structure and medieval altarpieces. These various reflections are combined into a finely faceted whole, highlighted by numerous germane quotations from original sources. Illustrations are numerous and first class, including several in living color and a number of fold-out charts. The whole is a sumptuous production.

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DER MINERALIENSAMMLER. WERNER LIEBER. 225 pages, 56 figures, 28 plates (incl. 8 in color), rear pocket with 5 maps and 9 "exploded" crystal drawings for cut-out reassembling. OH-Verlag, Länggasse 57, Thun, Switzerland. \$6.45. 1963.

This is a complete guide and introduction to mineralogy for the beginning collector. Essentially it is in two parts: Chapters I-IX deal with elementary basic principles of mineralogy (formation of minerals, chemical composition, crystals, properties, mineral determination) and with mineral collecting (equipment, cleaning, preservation and display, purchase and swapping). Chapter X is a brief description of famous mineral localities in Germany, Austria, Switzerland, other European countries, and other regions. For the U. S. there are 19 entries, mostly of "classic" localities, many of which, for various reasons, are no longer accessible to the individual non-professional collector.

Chapter XI contains lists of A) Collections and museums (in Germany, Austria and Switzerland) open to the public B) Departments of Geology and/or Mineralogy in the same three countries C) State geological surveys in Germany D) Bureaus of mines and quarry operator associations E) Useful literature and journals. There are three indexes: subject, locality and mineral species.

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NOTICES

THE CLAY MINERALS SOCIETY

The Clay Minerals Society, an outgrowth of the highly successful Clay Minerals Conferences sponsored by the U. S. National Academy of Sciences for the past twelve years, was incorporated in the District of Columbia, the United States of America, and became officially operative by consent on October 1, 1963. Like its parent, the purpose of the Society is to promote the advancement of knowledge among individuals from the many diverse disciplines interested in clay mineral science and technology through meetings, discussions and publications. Annual conferences provide a forum for the presentation and the discussion of current research, and the programs are arranged so that there are no concurrent sessions. Papers presented may be either a part of planned symposia or unsolicited contributions, and they may be published in the annual proceedings, "Clays and Clay Minerals," which is now in its twelfth volume. In the informal atmosphere of these

conferences, an individual can attend the presentation of every paper and discuss clay problems with experts whose interests range from paper making to highway engineering, from catalysis to shale stratigraphy, from mine dusts to grease manufacture, and from soils to pottery.

Through the cooperation of many governments, industries, and the National Science Foundation, outstanding clay specialists from overseas have attended every conference. These have included representatives of clay groups in Europe, Australia, Africa, and Japan.

Individuals interested in clay mineral science and technology are invited to apply for membership in the Society. Charter membership will be available until June 1, 1964, by payment of the annual dues of five dollars (U. S.). After this date membership will be available by payment of the annual dues of five dollars and an initiation fee of five dollars. Student membership is open at any time to individuals duly registered in residence at an institution of higher learning by payment of two dollars annual dues. By payment of an additional seven dollars with your annual membership dues, a copy of the Proceedings of the Annual Conference will be sent to you commencing with the Atlanta Conference which will be available late in 1964. Subscription for the Proceedings cannot be accepted separately at this reduced rate. Of course, copies of the Proceedings of any of the conferences are available at regular prices.

Membership applications or additional information may be obtained from Dr. Richards A. Rowland, P.O. Box 481, Houston, Texas 77001, President; Dr. James W. Earley, P.O. Drawer 2038, Pittsburgh, Pa. 15230, Vice President; and Dr. Haydn H. Murray, 433 Broad Street, Elizabeth, N. J. 07207, Secretary-Treasurer.

15TH ANNUAL MID-AMERICA SYMPOSIUM ON SPECTROSCOPY

Sponsored by Chicago Section, Society for Applied Spectroscopy in cooperation with St. Louis, Niagara Frontier, Cleveland, Detroit, Indianapolis, Milwaukee, Sections of the Society and Chicago Gas Chromatography Discussion Group.

Plans for the 15th Annual Mid-America Symposium on Spectroscopy are well underway. An expanded program is planned for 1964 with two-day sessions in each of the following major areas:

Emission—Flame—Atomic Absorption
Nuclear Magnetic Resonance
Ultraviolet—Visible
X-Ray Spectroscopy
Gas Chromatography
Infrared—Raman

Original papers in these fields are invited. To facilitate programming, the committee would appreciate a notice of your desire to present a paper at the earliest possible date. Final deadline for submission of Titles and Abstracts is February 14, 1964. *Address communications to Symposium Chairman:* Elwin N. Davis, Sinclair Research Inc., 400 E. Sibley Blvd., Harvey, Illinois.

The Mid-America Symposium will again feature an exhibit of the latest Spectrographic and Gas Chromatographic Instrumentation by the leading manufacturers and distributors in the field.

June 2-3-4-5, 1964
Sheraton-Chicago Hotel
Chicago, Illinois

INTERNATIONAL MINERALOGICAL ASSOCIATION

Supplementing the previous notice (*Am. Mineral.* 48, 1431-1432, 1963 or Notice No. 125 of the Mineral. Society) regarding the India meeting of the International Mineralogical Association, the detailed schedule of the sessions is as follows:

Mon, 14th Dec. '64	2:30 P.M.— 4:30 P.M.	Meetings of the Council and 7 Commissions
Tu, 15th Dec. '64	9:00 A.M.—12:30 P.M.	Meetings of the Council and 7 Commissions
	2:30 P.M.— 4:30 P.M.	Preliminary General Meeting
Wed, 16th Dec. '64	2:30 P.M.— 4:30 P.M.	Zeolite Symposium
Th, 17th Dec. '64	9:00 A.M.—12:30 P.M.	Zeolite Symposium
Fri, 18th Dec. '64	2:30 P.M.— 4:30 P.M.	Symposium on Carbonatites, Kimberlites, and their minerals
Sat, 19th Dec. '64	9:00 A.M.—12:30 P.M.	Symposium on Carbonatites, Kimberlites, and their minerals
20th Dec. '64	—	Sunday
Mon, 21st Dec. '64	9:00 A.M.—12:30 P.M.	Symposium general
	2:30 P.M.— 4:30 P.M.	Symposium general
Tu, 22nd Dec. '64	9:00 A.M.—12:30 P.M.	Final General Meeting

THE WALKER MINERALOGICAL CLUB

Twelve papers were submitted for the 1962 Peacock Memorial Prize Competition. The judges decided that two papers were of sufficiently high calibre to warrant receipt of the prize. Consequently, \$100.00 was awarded to each of the following:

Edgar Frank Cruft,

The Geochemistry of Apatite

Ph.D. Thesis 1962. McMaster University.

I. D. MacGregor,

Geology, Petrology and Geochemistry of the Mount Albert and associated Ultra-
mafic Bodies of Central Gaspé, Quebec

M.Sc. Thesis 1962. Queen's University.

PEACOCK MEMORIAL PRIZE

TWO HUNDRED DOLLARS—\$200.00

For the best scientific paper on pure or applied mineralogy, including crystallography,
mineralogy, petrology, ore genesis and geochemistry.

Conditions

1. The author of the paper shall be any graduate student enrolled in a Canadian university, a Canadian graduate student enrolled in any university, or any graduate student on a Canadian subject.
2. The paper, written in French or English, will be accepted for competition up to two years after completion of the work, even though the author may be enrolled no longer as a graduate student.
3. The paper may be in the form of:
 - (a) a thesis
 - (b) a paper ready for publication
 - (c) a printed publication.
4. The paper may offer new or refined observations; or a significant synthesis and interpre-

tation of existing data; or some new or improved application of mineralogy to useful ends; or the results of other work of sufficient interest and value.

5. Each paper must be accompanied by a letter from the candidate's supervisor stating the nature and extent of the assistance he may have given to the work submitted.
6. The paper is to be addressed to—Peacock Prize Committee, Walker Mineralogical Club, 100 Queen's Park, Toronto 5, Ontario.
7. CLOSING DATE OF THIS COMPETITION—March 31, 1964

If no paper of sufficient merit is received, the prize will not be given. All papers submitted will be returned to their authors as soon as the judging is completed. Announcement of the award will be made in the appropriate publications.

1964 CONFERENCE ON VACUUM METALLURGY

BARBIZON PLAZA HOTEL
NEW YORK CITY
JUNE 29-30, 1964

The Vacuum Metallurgy Division of the American Vacuum Society is pleased to announce its Seventh Annual Conference on Vacuum Metallurgy. The principal objective of these annual conferences is to present information on new research, advanced engineering data and recent process work in the field of vacuum metallurgy.

The general theme for the 1964 conference is "Vacuum Technology in Materials Processing." A lead-off session is planned on fundamentals of vacuum technology as applied to materials processing systems, and will include papers on system design, operation and control. Tentatively, other portions of the program may include sessions on vacuum melting, degassing, and fabrication, and solid state refining and processing. Also, because of increased interest, it is planned to devote a portion of the program to processing in high vacuum. Beyond the broad topics set forth, *papers in other areas* of vacuum metallurgy are also *invited* for consideration.

I am inviting you to contribute a paper to this conference. If you decide to do so, please send me title, author(s) and a two or three page synopsis no later than February 10, 1964. Authors will be given 20-30 minutes for presentation and additional time for discussion. Papers will be published in a Transactions volume.

Please address your replies as follows:

M. A. Cocca
General Electric Company Research Laboratory
P. O. Box 1088
Schenectady, New York 12301

INDIANA UNIVERSITY DEPARTMENT OF GEOLOGY

April 26-27, 1964. Dedication (3 P.M.) and Open House, Indiana University Department of Geology and Indiana Geological Survey Building (April 26), Bloomington, in association with Conference on Water and Geology sponsored by Indiana University Water Resources Research Center (9 A.M., April 27); joint banquet (7 P.M., April 26). All are cordially invited. Write R. H. Shaver, Indiana Geol. Survey, for Dedication and A. F. Agnew, Dept. Geology, for Conference.

NOTICE TO AUTHORS

The Council of the Mineralogical Society of America urges authors of papers submitted to *The American Mineralogist* to obtain *advance approval* of any new mineral names from the Commission on New Minerals and Mineral Names, IMA. All that is needed is to send a copy of the paper or a full abstract giving data on chemistry, physical and optical properties, crystallographic and x-ray data, occurrence, derivation of name and statement of where type material is deposited to Dr. Michael Fleischer, U. S. Geological Survey, Washington, D. C. (20242). Voting requires 40 days (45 from June to October), so that publication is not delayed.

Beginning with January 1, 1964, all MSS containing descriptions of new species and new mineral names that are submitted for publication in *The American Mineralogist* will be subject to review by the Commission. Authors will doubtless normally hasten publication of their papers, if advance approval of the new name and species is thus obtained. Approval by the Commission will not, however, *per se*, guarantee acceptance of any MS for publication in *The American Mineralogist*.

WORK OF THE COMMISSION ON NEW MINERALS AND MINERAL NAMES, IMA

ANNUAL REVIEW OF NEW NAMES AND SUGGESTED CHANGES IN NOMENCLATURE

At its meeting in 1960, the Commission voted that there should be an annual review, with indications of approval or disapproval. Below are given the lists for 1959 (prepared March, 1961), for 1960 (prepared October, 1961), and for 1961 (prepared September, 1962). It should be noted that some of the votes were on the basis of preliminary notes; if fuller data are presented later, the Commission will reconsider. The 1962 List is now being voted on.

1959 LIST

New names approved (28)—alvanite, angelellite, baotite, batisite, cafetite, canasite, cobalt pentlandite, cornubite, delhayelite, delrioite, fenaksite, gowerite, haiweeite, hellerite, honessite, ikunolite, laitakarite, metahaiweeite, ningyoite, norsethite, novakite, orcelite, oregonite, pandaite, satpaeelite, wyartite, yavapaiite, and yoderite.

New names with 50% approval, 50% disapproval (7)—bergenite, calciotalc, karnasurtite, sakharovaite, strontioiginorite, p-veatchite, yoshimuraitite.

Names disapproved (17)—dixeyite, fenghuanglite, hormites (group name), hydroamesite, hydroantigorite, hydrocerite, igdloite (=lueshite), jiningite, kivuite, manganosteenstrupine, rezhikite, shentulite, sokolovite, 1Tc-strontiohilgardite, 2M(Cc)-calcium-hilgardite, 3Tc-calcium hilgardite, sulunite.

Discredited minerals, names to be dropped (12)—barium-phosphuranylite, delorenzite, epi-ianthinite, foresite, gearksite, hydrocastorite, igalikite, kozhanovite, manganomossite, pseudonatrolite, revoredite, uigite.

There was disagreement on the status of the name erikite.

1960 LIST

New names approved (25): beryllosodalite, blixite, chudobaite, chukhrovite, coesite, fleischerite, hydronium jarosite, itoite, laitakarite (reconsidered), loughlinitite, lueshite, metaschoderite, orthopinakiolite, papagoite, paratellurite, paulingite, perite, reedmergerite, rusakovite, schoderite, strauskiite, talmessite, vaterite, weeksite, zincsilite.

New names disapproved (23): behierite*, doverite, ellweilerite*, garronite*, gutsevichite, hexastannite*, hydrosodalite, innelite*, lazarevicite*, magnesium szomolnokite, mozambikite, nakaseite, nickelmelane (also cobalto-melane, cryptonickelmelane, alumo-cobalto-melane, buryktalskite), niobozerconolite, paulite*, ranquillite, rozenite, strontio-borite, wohlerite (=carbonaceous material).

(NOTE: *Indicates preliminary description, to be reconsidered.)

Discredited minerals, names to be dropped (10): ampingabeite, calcium rinkite, delatorreite, deltaite, gajite, glottalite, lesserite, pilinite, plinthite, woodfordite.

1961 LIST

New names approved (29): behierite*, benstonite, betpakdalite, calciocopiapite, calzirtite, carbocernaite, ekanite, farringtonite, beta-fergusonite, freudenbergite, gagarinite, geversite, grantsite, innelite*, kennedyite, kimzeyite, neighborite, nifontovite, nobleite, norsethite, novakite, redledgeite, spencite, tacharanite, tunellite, vlasovite, vulcanite, wegscheiderite, yoshimuraite*.

(*Previous rejection reconsidered.)

New names disapproved (14): alumobriholite, boleslavite, gelzircon, hallimondite, karrovite, kmaite, nioboeschynite, olovotantalite (tin-tantalite), silicorhabdophane, sulfate-monazite, titanoeschynite, titanorhabdophane, weilerite, widemannite.

Discredited minerals, names to be dropped (8): dillnite, goureite, henwoodite, namaqualite, shattuckite, vernadskite, wathlingenite, wiikite (nuolaite).

Redefinition accepted (3): betafite, alpha-fergusonite, hügelite.

Redefinition not accepted (1): hyelmitite

At its meetings in 1960 and 1962, the Commission considered many cases of minerals for which more than one name is in use. The difficulties caused in this way, and especially in indexing, are well known. It is hoped that American mineralogists will follow the recommendations made; those from other countries have made greater concessions than we have.

Unanimously agreed:

Analcime, not analcite	Nontronite, not chloropal
Anatase, not octahedrite	Piemontite, not piedmontite
Bornite, not erubescite	Rutherfordine, not rutherfordite
Devilline, not devillite or herregrundite	Spessartine, not spessartite
Digenite, not neodigenite	Sphero-cobaltite, not cobaltocalcite
Feldspar or feldspath, not felspar	Spodumene, not triphane
Grossular, not grossularite	Tenorite, not melaconite
Hematite, not oligiste	Tetrahedrite, not fahllore,
Hemimorphite, not calamine	fahlerz, or panabase
Magnesite, not giobertite	Valentinite, not exitele

Wernerite to be the species name, scapolite the group name

Agreed to by large majorities:

Arsenopyrite rather than mispickel	Rhodochrosite rather than dialogite
Bromargyrite bromyrite	Siderite chalybite
Chlorargyrite cerargyrite	or siderose
Gibbsite hydrargillite	Sphalerite blende
Iodargyrite iodyrite	Stilbite desmine
Orthoclase orthose	Szaibelyite ascharite

For the forms of CaSiO_3 , the names wollastonite (low-temperature form) and pseudo-wollastonite (high-temperature form) were agreed to. It was also recommended that the name parawollastonite be dropped and that the stacking polymorphs be designated as wollastonite—1Tc,—2M, etc.

No agreement reached: The Commission was closely divided on the following (discussion will continue): allanite-orthite; barite-baryte-barytine-barytite-schwerspath; blöditte-astrakhanite (bloedite and astrakanite were rejected), celestite-celestine, chalcocite-chalcocine-chalcosite, idocrase-vesuvianite-vesuvian, kyanite-cyanite-disthene, natron-soda, niccolite-nickeline, sphene-titanite, stibnite-stibine-antimonite.

PREPARATION OF MANUSCRIPTS

INSTRUCTIONS TO AUTHORS

The greatly increased cost of printing makes it essential that manuscript copy sent to the printer be in the best possible form. Accordingly, manuscripts submitted to *The American Mineralogist* must conform to the following general standards before they can be considered for critical review.

GENERAL REQUIREMENTS

1. All manuscripts and illustrations must be submitted in duplicate.
2. All manuscripts must be typewritten, double-spaced, on standard "typewriter paper" ($8\frac{1}{2} \times 11$ or $8 \times 10\frac{1}{2}$ inches). "Legal size" ($8\frac{1}{2} \times 13$ inches) paper should not be used. Be sure that References are double-spaced.
3. Illustrations, both photographs and line drawings, should be submitted as numbered glossy prints (in duplicate) reduced to the approximate size at which they will appear. The maximum width is 4 inches; the maximum height (including legend) is 7 inches. Do not send original tracings or negatives; do not mount prints on paper or cardboard; do not insert them in the body of the text. Supply on a separate sheet numbered legends for the illustrations. Tables should be on separate pages.
4. Corrections and additions to the manuscript should be minimal. A minor correction should be placed at the same level as the line in which it is to appear; a major correction should be retyped. Do not "paste in" corrections with cellulose tape.

FURTHER SUGGESTIONS

1. Avoid colored paper for either original or carbon. Use standard-weight stock for original; lightweight stock may be used for the carbon.
2. Allow sufficient margins; typewritten lines should be no more than 6 inches long.
3. All typed material should be double-spaced. Use double spacing for footnotes, quoted material, or references (bibliographies). The difficulty of editing this material is markedly increased if it appears in single-spaced form.
4. Footnotes should be typed at the bottom of a page. They should never be run into the text.
5. The abstract should be informative. Avoid an abstract of a "mechanistic" nature, such as:

"A detailed study of thorium and uranium distribution in lead ore deposits has been undertaken in order to compare variations in their relative abundance with respect to the geologic environment of the deposit."

The abstract should not be a simple restatement of any section entitled "Conclusions." The abstract should not exceed 200 words. All major articles must be preceded by an abstract. For shorter articles under MINERALOGICAL NOTES, abstracts are not used.

6. Articles for MINERALOGICAL NOTES generally should be restricted to 3-4 printed pages (1-9 manuscript pages).
7. References should be placed alphabetically at the end of the article, not as footnotes, in the following style:

PALACHE, CHARLES AND L. H. BAUER (1927) Cahnite, a new boro-arsenate of calcium from Franklin, New Jersey. *Am. Mineral.* 12, 149-153.

Also acceptable for "Mineralogical Notes" articles is the following abbreviated style:

PALACHE, CHARLES AND L. H. BAUER (1927) *Am. Mineral.* 12, 149-153.

References should *not* be numbered and they should be indicated in the text by their publication date.

8. Every effort should be made to make the text accurate, clear and concise. Only essential illustrations of high reproducibility can be included. Extensive tables such as

those, for example, listing individual results on many single experiments or observed and calculated structure amplitude values should normally not be included in a manuscript. Such data are of particular interest to only a very few readers. A footnote should be inserted in the paper as follows (example):

"A table listing results of equilibration runs has been deposited as Document No. _____ with the American Documentation Institute, Auxiliary Publications Project, Photoduplication Service, Library of Congress, Washington 25, D. C. Copies may be secured by citing the document number, and remitting \$_____ for photoprints or \$_____ for 35 mm. microfilm. Advance payment is required." Material for deposit in the ADI Auxiliary Publications Project is accepted only from *journal editors*. Thus, such material should be submitted with the manuscript but marked "for ADI deposit."

9. Manuscripts in which new minerals are described or in which new mineral names are introduced are subject to particular scrutiny. Manuscripts proposing new names for imperfectly or incompletely described minerals or new names for mere compositional varieties cannot be accepted. In describing and naming new minerals or varieties, writers should conform to the rules and principles recommended by the Committee on Nomenclature and Classification of Minerals of the Mineralogical Society of America as set forth in *The American Mineralogist*, 8, 50, 1923; 9, 60, 1924; and 21, 188, 1936. These recommendations are also tabulated in Dana, *System of Mineralogy*, 7th ed. Vol. I, 42-47, 1944.

The Council of the Mineralogical Society of America urges that writers of papers containing descriptions of new mineral species with new mineral names obtain *advance approval* of the new names from the I.M.A. Commission on New Minerals and Minerals Names, by submitting a copy of the paper to Dr. Michael Fleischer, U. S. Geol. Survey, Washington 25, D. C.

10. Authors are further reminded that corrections and changes made on galley proof should approach, as closely as possible, the space occupied by the deletions. Revisions and additions made on galley proof are expensive, and their cost is chargeable to the author.

The American Mineralogist is the journal of the Mineralogical Society of America and through the Editor is governed by the Council of the Society which determines general policy for conduct of the journal.

The main purpose of *The American Mineralogist* is to publish the results of original scientific research in the general fields of mineralogy, crystallography and petrology, including such areas as: descriptive mineralogy and properties of minerals, experimental mineralogy and petrology, geochemistry, isotope mineralogy, mineralogical apparatus and techniques, mineral occurrences and deposits, paragenesis, petrography and petrogenesis, and topographical mineralogy. Only those articles that have not previously appeared or are not about to appear, wholly or in part, in other journals (either U. S. or foreign) can be considered for publication.

All manuscripts are to be sent to the Editor, **Dr. E. Wm. Heinrich**, *Department of Geology and Mineralogy, The University of Michigan, Ann Arbor, Michigan, U.S.A.*; and publication is subject to the discretion of the Editor as agent of the Council. The Editor is actively assisted by the Board of Associate Editors and other qualified critics called upon by him.