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A Catalog of the Type Specimens in the Mineral Collection, National Museum of Natural History

Arthur Roe and John S. White, Jr.

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ABSTRACT

Roe, Arthur, and John S. White, Jr. A Catalog of the Type Specimens in the Mineral Collection, National Museum of Natural History. *Smithsonian Contributions to the Earth Sciences,* number 18, 43 pages, 1976.—A complete list, arranged alphabetically by mineral name, of the type specimens in the mineral collection of the National Museum of Natural History. These are the actual specimens that were used in defining new mineral species. For each species the catalog number, locality, literature citation for the original description, source of specimens, and date of accession are given.

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A Catalog of the Type Specimens in the Mineral Collection, National Museum of Natural History

Arthur Roe and John S. White, Jr.

Introduction

The actual specimens used to define new mineral species are known as "types." In nearly every case, when the description of a new mineral species has been completed, there is some of the new mineral remaining. It is important that such types be deposited in major museums where actively curated mineral collections are housed. Such care is necessary because only by studying the type material is there a possibility that inadequacies or errors in the original description or subsequent work can be rectified. Only in working with the type material can invalid species be discredited or discredited species be revalidated.

A type specimen catalog has value in many ways. Describers of new species learn, through these catalogs, that other scientists are depositing their specimens in museums. In discovering that museums covet such specimens, they may be encouraged to offer their own material which otherwise may gather dust in a drawer and eventually be discarded. It is hoped that the practice of preserving type specimens will thus become more automatic than it has been. There are still describers of new species who do not recognize the importance of type specimens and who are unaware of their obligation to make their specimens available to other scientists through placing them in museums.

Arthur Roe (Research Associate) and John S. White, Jr., Department of Mineral Sciences, National Museum of Natural History, Smithsonian Institution, Washington, D.C. 20560.

At least seven categories of types have been designated in mineralogy.* In this catalog we make no attempt to classify the types according to these designations, although many are clearly *holotype* (a single specimen selected by the author of a species as its type), some are *cotype* (specimens used to give additional information on the species) or *metatype* (specimens compared with the type by the author and determined to be co-specific with it), and others are types of even lower status. Most of the type specimens have been received over the years and incorporated into the collections without sufficient information to permit a secondary classification. The user and the curator, at the time when a new study is undertaken, will have to make the determination (if possible) of the class of type specimen being utilized. Ideally, a description of the type specimen and its pedigree would be included in any publication that results from each study. All records relating to the acquisition of each type specimen in this collection are retained with the original accession documents and are available for examination.

The collection of type specimens continues to grow as new species are constantly being added. For this reason, we plan to produce future editions of the catalog in order that the newer specimens can be incorporated.

* P. G. Embrey and M. H. Hey, 1970, *Mineralogical Record*, 1:102–104.

Catalog

Achrematite (discredited, =mixture of wulfenite and mimetite) NMNH R6417 Guanacere, Chihuahua, Mexico

J. W. Mallet, 1875. On Achrematite, a New Molybdo-Arsenate of Lead, from Mexico. *Journal of the Chemical Society of London,* 28: 1141–1147.

(Roebling Collection, from J. W. Mallet, 1927)

Afwillite NMNH 95237 Dutoitspan Mine, Kimberley, South Africa

J. Parry and F. E. Wright, 1925. Afwillite, a New Hydrous Calcium Silicate from Dutoitspan Mine, Kimberley, South Africa. *Mineralogical Magazine,* 20:277–286.

(A. F. Williams, 1925)

Ajoite NMNH 113220 Ajo, Arizona

W. T. Schaller and A. C. Vlisidis, 1958. Ajoite, a New Hydrous Aluminum Copper Silicate from Ajo. Arizona. *American Mineralogist,* 43: 1107–1111.

(U.S. Geological Survey, through T. Nolan, 1958)

Allargentum NMNH 135409 Cadesky Vein, Hi-Ho Mine, Cobalt, Ontario, Canada

W. Petruk, L. J. Cabri, D. C. Harris, J. M. Stewart and L. A. Clark, 1970. Allargentum Redefined. *Canadian Mineralogist,* 10:163–172.

(L. J. Cabri, 1976)

Aluminocopiapite NMNH 93834 Island Mountain, Trinity County, California

L. G. Berry, 1947. Composition and Optics of Copiapite from Island Mountain, Trinity County, California. *Contributions to Mineralogy from the Department of Geological sciences, University of Toronto,* 3:21–34.

M. C. Bandy, 1938. (Original analysis) Mineralogy of Three Sulphate Deposits of Northern Chile. *American Mineralogist,* 23:669–760.

(M. Vonsen, 1920)

Aluminocopiapite NMNH 103544 Temple Rock, Utah

See references above.

(W. F. Foshag, 1939)

Ambrosine (discredited, =Amber) NMNH 128739 Near Charleston, South Carolina

C. U. Shepard, 1870. On Ambrosine, A new Organic Mineral Substance. *Rural Carolinian,* 1:311.

(C. U. Shepard Collection, 1929)

Ammonioborite NMNH 94172 Larderello, Tuscany, Italy

W. T. Schaller, 1933. Ammonioborite, a New Mineral. *American Mineralogist,* 18:480–492.

(A. Pelloux, 1921)

Ammonioborite NMNH R6167 Larderello, Tuscany, Italy

See reference above.

(W. A. Roebling Collection, 1927)

Ammonioborite NMNH 93756 Larderello, Tuscany, Italy

See reference above.

(H. S. Washington, 1919)

Ammoniojarosite NMNH 95654 Western slope of Kaibab fault, southern Utah

E. V. Shannon, 1927. Ammoniojarosite, a New Mineral of the Jarosite Group from Utah. *American Mineralogist,* 12:424–426.

(F. Haycock, 1927)

Andersonite NMNH 106112 to 106115 Hillside Mine, Yavapai County, Arizona

J. M. Axelrod, F. S. Grimaldi, C. Milton and K. J. Murata, 1951. The Uranium Minerals from the Hillside Mine, Yavapai County, Arizona. *American Mineralogist,* 36:1–22.

(U.S. Geological Survey, 1950)

Anemousite (discredited, =Labradorite) NMNH 93379 Monte Rosso, Linosa Island, Mediterranean

H. S. Washington and F. E. Wright, 1910. A Feldspar from Linosa and the Existence of Soda Anorthite (Carnegieite). *American Journal of Science,* (4)29:52–70).

(H. S. Washington, 1917)

Antigorite, chromian—see Chromian Antigorite

Antillite (discredited, =Serpentine?) NMNH 128740 Regula, near Havana, Cuba

C. U. Shepard, 1872. Antillite, *Catalog of the*

Meteoric Collection of C. U. Shepard, page 6.
(C. U. Shepard Collection, 1929)

Antlerite NMNH 47698 Antler Mine, near Yucca Station, A&P Railroad, Mohave County, Arizona
W. F. Hillebrand, 1889. Mineralogical Notes; 5: A Basic Copper Sulphate. *United States Geological Survey Bulletin,* 55:54.
(C. W. Cummingham, 1888)

Aquacreptite (discredited, =Serpentine?) NMNH 128741 Strodes Mill, near West Chester, Chester County, Pennsylvania
C. U. Shepard, 1868. On Aquacreptite, a New Mineral, and on Corundophilite of Chester. *American Journal of Science,* (2)46:256–257.
(C. U. Shepard Collection, 1929)

Argentojarosite NMNH 104272 to 104274 Tintic Standard Mine, Utah County, Utah
W. T. Schaller, 1923. Argentojarosite, a New Silver Mineral. (Preliminary Note.) *Journal of the Washington Academy of Sciences,* 13:233.
(U.S. Geological Survey, through W. T. Schaller, 1942)

Argentojarosite NMNH 94707 Tintic Standard Mine, Utah County, Utah
See reference above.
(U.S. Geological Survey, through W. T. Schaller, 1923)

Argentojarosite NMNH R6309 Tintic Standard Mine, Utah County, Utah
See reference above
(U.S. Geological Survey, W. T. Schaller, through the Roebling Collection, 1923)

Arizonite (discredited =mixture of Hematite, Ilmenite, Anatase and Rutile; possibly weathered Ilmenite) NMNH 86793 Near Hackberry, Arizona
C. Palmer, 1909. Arizonite, Ferric Metatitanate. *American Journal of Science,* (4)28:353–356.
(U.S. Geological Survey, 1910)

Arkansite (discredited, =Brookite) NMNH 128742 Magnet Cove, Arkansas
C. U. Shepard, 1846. On Three New Minerals from Arkansas, and the Discovery of Diamond in North Carolina. *American Journal of Science,* (2)2:249–254.
(C. U. Shepard Collection, 1929)

Arrojadite NMNH 105948, 105949 Nickel Plate Mine, Pennington County, South Dakota
D. Guimarães, 1925. Arrojadita, um Novo Mineral do Grupo da Wagnerita. *Publicacão da Inspectoria de Obras Contra as Seccas,* No. 58. Abst: *American Mineralogist,* 12:355, 1927. [Actual type from Serra Branca, Picuhy, Parahyba, Brazil, believed to be the same as dark green phosphate described by W. P. Headden from South Dakota.]
W. P. Headden, 1891. A New Phosphate from the Black Hills of South Dakota. *American Journal of Science,* (3)41:415–417.
M. L. Lindberg, 1950. Arrojadite, Hühnerkobelite, and Graftonite. *American Mineralogist,* 35:59–76.
(U. S. Geological Survey, 1949)

Baddeckite (discredited, =mixture of Hematite and Clay) NMNH 117226 Baddeck, Victoria County, Nova Scotia, Canada
G. C. Hoffman, 1898. Baddeckite, a New Variety of Muscovite. *American Journal of Science,* (4)6:274–275.
(U. S. Geological Survey, through W. T. Schaller, 1964)

Bagotite (discredited, =Thomsonite) NMNH 128738 Bagot, Ontario, Canada
Unpublished manuscript.
(C. U. Shepard Collection, 1929)

Bakerite NMNH 94820 Calico Hills, San Bernardino County, California
W. B. Giles, 1903. Bakerite (a New Borosilicate of Calcium) and Howlite from California. *Mineralogical Magazine,* 13:353–355.
(British Museum (Natural History), 1923)

Bambollaite NMNH 128391 Moctezuma Mine, Moctezuma, Sonora, Mexico
D. C. Harris and E. W. Nuffield, 1972. Bambollaite, a New Copper Telluro-Selenide. *Canadian Mineralogist,* 11:738–742.
(R. V. Gaines, 1974)

Banalsite NMNH 105854 Benallt Mine, near Rhiw, Caernarvonshire, Wales, England
W. C. Smith, F. A. Bannister and M. H. Hey, 1944. Banasite, a New Barium-Feldspar from Wales. *Mineralogical Magazine,* 27:33–45.
(British Museum (Natural History), 1949)

Barbosalite (with type Tavorite) NMNH 106842 Sapucaia Pegmatite, Minas Gerais, Brazil
M. L. Lindberg and W. T. Pecora, 1954. Tavorite and Barbosalite, Two New Phosphate

Minerals from Minas Gerais, Brazil. *Science,* 119:739.

(U.S. Geological Survey, through W. T. Pecora, 1954)

Barrerite (Sodian Stellerite) NMNH 128521 Below S. Efisio Tower, near Capo Pula, Cagliari, Sardinia, Italy

E. Passaglia and D. Pongiluppi, 1974. Sodian Stellerite from Capo Pula, Sardegna. *Lithos,* 7:69–73.

(E. Passaglia, 1974)

Bayleyite NMNH 106101 to 106104 Hillside Mine, Yavapai County, Arizona

J. M. Axelrod, F. S. Grimaldi, C. Milton and K. J. Murata, 1951. The Uranium Minerals from the Hillside Mine, Yavapai County, Arizona. *American Mineralogist,* 36:1–22.

(U.S. Geological Survey, 1950)

Beaverite NMNH 86986 Beaver County, Utah

B. S. Butler and W. T. Schaller, 1911. Some Minerals from Beaver County, Utah. *American Journal of Science,* (4)32:418–424.

(U.S. Geological Survey, through W. T. Schaller, 1911)

Beaverite NMNH R6314 Beaver County, Utah

See reference above.

(Roebling Collection, from W. T. Schaller, 1927)

Beidellite NMNH R4761 Beidel, Saguache County Colorado

E. S. Larsen and E. T. Wherry, 1925. Beidellite, a New Mineral Name. *Journal of the Washington Academy of Sciences,* 15:465–468.

(Roebling Collection, through Larsen and Wherry, 1927)

Beiyinite (with type Oborite) NMNH R7709 Beiyin-Obo, North of Paoto, Suiyuan, China

T. L. Ho, 1935. Note on Some Rare Earth Minerals from Beiyin Obo, Suiyuan. *Bulletin of the Geological Society of China,* 14:279–282.

(T. L. Ho, 1936)

Benjaminite NMNH 95058 Outlaw Mine, Nye County, Nevada

E. V. Shannon, 1925. Benjaminite, a New Sulphosalt Mineral of the Klaprotholite Group. *Proceedings of the United States National Museum,* (65)24:1–9.

U.S. Geological Survey, through H. G. Clinton, 1925)

Benstonite NMNH 120234 & 120236 Pit of Baroid Division, National Lead Company, Hot Springs County, Arkansas

F. Lippman, 1961. Benstonit, $Ca_7Ba_6(CO_3)_{13}$, ein Neues Mineral. *Naturwissenschaften,* 16: 550–551. Abst: *American Mineralogist,* 46: 1517, 1961.

(F. Lippmann, 1967)

Beresofite (discredited, =Crocoite) NMNH 128737 Beresov, U.S.S.R.

C. U. Shepard, 1844. Beresofite. *Treatise on Mineralogy,* 2nd Edition, page 121.

(C. U. Shepard Collection, 1929)

Bermanite NMNH 120405 7–U–7 Ranch, near Bagdad, Arizona

C. S. Hurlbut, Jr., 1936. A New Phosphate, Bermanite, Occurring with Triplite in Arizona. *American Mineralogist,* 21:656–661.

(Harvard University, C. S. Hurlbut, Jr., 1967)

Berndtite (with type Ottemannite) NMNH 114486 Maria Teresa Mine, Huari, Bolivia

G. H. Moh and F. Berndt, 1964. Two New Natural Tin Sulfides Sn_2S and SnS_2. *Neues Jahrbuck für Mineralogie, Geologie, und Paleontologie,* 3:94–95. Abst: *American Mineralogist,* 50:2107, 1965; (name) *American Mineralogist,* 51:1551, 1966.

(F. Ahlfeld Collection, through Ward's Natural Science Establishment, 1960)

Berndtite (with type Ottemannite) NMNH C5354 Maria Teresa Mine, Huari, Bolivia

See reference above.

(F. Ahlfeld Collection, through the Canfield Collection, 1935)

Berryite (with type Cuprobismutite) NMNH 92902 Missouri Mine, Park County, Colorado

E. W. Nuffield and D. C. Harris, 1965. A New Sulpho-salt Mineral. Paper presented at the Tenth Annual Meeting of the Mineralogical Association of Canada, March. Abst: *Canadian Mineralogist,* 8 (3):400.

E. W. Nuffield and D. C. Harris, 1966. Studies of Mineral Sulpho-salts: XX. Berryite, a New Species. *Canadian Mineralogist,* 8 (4):407.

(U.S. Geological Survey, 1915)

Beyerite NMNH 94017 Stewart Mine, Pala, San Diego County, California

C. Frondel, 1943. Mineralogy of the Oxides and Carbonates of Bismuth. *American Mineralogist,* 28:521–535.

(W. F. Foshag, 1920)

Beyerite NMNH R2756 Schneeberg, Saxony, Germany
See reference above.
(Roebling Collection, 1927)

Beyerite NMNH C2251 Schneeberg, Saxony, Germany
See reference above.
(Canfield Collection, 1927)

Bialite (discredited, =Wavellite) NMNH 95989 Mushishimano, Katanga, Zaire
H. Buttgenbach, 1929. Notes sur la Bialite, Noveau Mineral, et sur Quelques Autres Mineraux du Katanga. *Societe Geologique de Belgique, Annales,* 51:c.117–c.123. Abst: *Mineralogical Magazine,* 22:616, 1931.
(H. Buttgenbach, 1929)

Bianchite NMNH R6735 Raibl, Trentino, Italy
C. Andreatta, 1930. Bianchite, Nuovo Minerale. *Accademia Nazionale dei Lincei,* Rome, (6) 41:760–769.
(Roberto Palumbo, through the Roebling Collection, 1933)

Bideauxite NMNH 114583 Mammoth-St. Anthony Mine, Tiger, Pinal County, Arizona
S. A. Williams, 1970. Bideauxite, a New Arizona Mineral. *Mineralogical Magazine,* 37:637–640.
(Scott Williams Collection, obtained from Martin L. Ehrmann, in exchange, 1970)

Bisbeeite (with type Shattuckite) NMNH 87447 Shattuck Arizona Copper Company's Mine, Bisbee, Arizona
W. T. Schaller, 1915. Four New Minerals. *Journal of the Washington Academy of Sciences,* 5:7.
(U.S. Geological Survey, 1914)

Bisbeeite (with type Shattuckite) NMNH 93891 Bisbee, Arizona
See reference above.
(U.S. Geological Survey, 1920)

Bisbeeite (with type Shattuckite) NMNH 95727 Shattuck Mine, Bisbee, Arizona
See reference above.
(Joseph Walker, 1927)

Bisbeeite (with type Shattuckite) NMNH R4871 to R4874 Shattuck Mine, Bisbee, Arizona
See reference above.
(Roebling Collection, 1927)

Bismuthian Antimony NMNH R11805 Viitaniemi, Eräjärvi, Finland
A. Volborth, 1960. Gediegen Wismutantimon und Andere Erzmineralien im Li-Be-Pegmatit von Viitaniemi, Eräjärvi, Zentralfinnland. *Neues Jahrbuch für Mineralogie, Geologie, und Paleontologie,* 94:140–149.
(A. Volborth, 1960)

Blixite NMNH 114720 Långban, Sweden
O. Gabrielson, A. Parwel and F. E. Wickman, 1960. Blixite, a New Lead-Oxyhalide Mineral from Långban. *Archiv für Mineralogie, Geognosie, Bergbau, und Hüttenkunde,* 2:411–415. Abst: *American Mineralogist,* 45:908, 1960.
(Olaf Gabrielson, 1960)

Blockite (discredited, =Penroseite) NMNH R7754 Pacaake, Colquechaca, Bolivia
P. Ramdohr, 1935. Zwei Neue Mineralien. *Centralblat für Mineralogie, Geologie, und Paleontologie,* Abstract A (6):189 [Preliminary note].
R. Herzenberg and F. Ahlfeld, 1935. Blockite, ein Neues Selenerz aus Bolivien. *Centralblat für Mineralogie, Geologie, und Paleontologie,* Abstract A (9):277–279.
(F. Ahlfeld, through the Roebling Collection, 1936)

Boltonite (discredited, =Forsterite) NMNH 128743 Bolton, Massachusetts
C. U. Shepard, 1832. Boltonite. *Treatise on Mineralogy,* Part 2, Volume 1, pages 78–79.
(C. U. Shepard Collection, 1929)

Boltwoodite NMNH 112710 Pick's Delta Mine, San Rafael Swell, Utah
C. Frondel and J. Ito, 1956. Boltwoodite, a New Uranium Silicate. *Science,* 124:931.
(Harvard University, through C. Frondel, 1957)

Bradleyite NMNH 117718 John Hay, Jr., Well #1, Depth 1,342′ 10″, Sweetwater County, Wyoming
J. J. Fahey and G. Tunell, 1941. Bradleyite, a New Mineral, Sodium Phosphate-Magnesium Carbonate. *American Mineralogist,* 26:646–650.
(U.S. Geological Survey, 1965)

Braggite NMNH 105857 Potgietersrust, Transvaal, Republic of South Africa
F. A. Bannister, 1932. Determination of Minerals in Platinum Concentrates from the Transvaal by X-ray Methods. *Mineralogical Magazine,* 23:188–206.
(British Museum (Natural History), 1949)

Braitschite NMNH 120627 Paradox Member, Hermosa Formation, Paradox Basin, Utah

O. B. Raup, A. J. Gude and H. L. Groves, 1967. Rare-earth Mineral Occurrence in Marine Evaporites, Paradox Basin, Utah. *United States Geological Survey Professional Paper* 575–C:38–41.

(U.S. Geological Survey, through Omer B. Raup, 1967)

Brannerite NMNH 105793 and 114997 Kelly Gulch, Custer County, Idaho

F. L. Hess and R. C. Wells, 1920. Brannerite, a New Uranium Mineral. *Journal of the Franklin Institute,* Philadelphia, Pennsylvania, 189 (2):225–237. Abst: *American Mineralogist,* 5:105, 1921.

(U.S. Geological Survey (105793) and found in the collections (114997), 1948)

Brannockite NMNH 125045 Foote Mineral Company Spodumene Mine, Kings Mountain, North Carolina

J. S. White, Jr., J. E. Arem, J. A. Nelen, P. B. Leavens and R. W. Thomssen, 1973. Brannockite, a New Tin Mineral. *Mineralogical* Record, 4:73–76.

(Carter Hudgins, 1972)

Bravoite NMNH 87457 Minasragra, Peru

W. F. Hillebrand, 1907. The Vanadium Sulphide, Patronite, and its Mineral Associates from Minasragra, Peru. *American Journal of Science,* (4)24:141–151.

(Source not identified, 1915)

Brazilianite NMNH 105048 South slope of hill dividing Rio Doce and Rio São Matheus, near head of small tributary of Divino River, Minas Gerais, Brazil

F. H. Pough and E. P. Henderson, 1945. Brazilianite, a New Phosphate Mineral. *American Mineralogist,* 30:572–582.

(American Museum of Natural History, 1945)

Brockite NMNH 121952 Wet Mountains, Colorado

F. G. Fisher and R. Meyrowitz, 1962. Brockite, a New Calcium Thorium Phosphate from the Wet Mountains, Colorado. *American Mineralogist,* 47:1346–1355.

(U.S. Geological Survey, 1969)

Brownmillerite (with type Mayenite) NMNH 120045 Ettringer Bellerberg, Laacher Lake area, near Mayen, Eifel District, Germany

G. Hentschel, 1964. Mayenit, $12CaO{\cdot}7Al_2O_3$, und Brownmillerit, $2CaO{\cdot}(Al,Fe)_2O_3$, Zwei Neue Minerale in den Kalksteineinschlüssen der Lava des Ettringer Bellerberges. *Neues Jahrbuch für Mineralogie, Geologie, und Paleontologie,* 1:22–29. Abst: *American Mineralogist,* 50:2106, 1965.

(Gerhard Hentschel, 1966)

Brüggenite NMNH 122445 Pampa Pique III, Oficina Lantaro, Antofagasta, Chile

M. E. Mrose, G. E. Ericksen and J. W. Marinenko, 1972. Brüggenite, $Ca(IO_3)_2{\cdot}H_2O$, a New Saline Mineral from the Chilean Nitrate Deposits, *Program 20th Clay Minerals Conference, August, 1971.* Abst: *American Mineralogist,* 57:1911.

(U.S. Geological Survey, through Mary Mrose and G. Ericksen, 1975)

Buddingtonite NMNH 116974 Sulfur Bank, California

R. C. Erd, D. E. White, J. J. Fahey and D. E. Lee, 1964. Buddingtonite, an Ammonium Feldspar with Zeolitic Water. *American Mineralogist,* 49:831–850.

(U.S. Geological Survey, through R. C. Erd, 1963)

Buddingtonite NMNH 132920 Sulphur Bank Quicksilver Mine, Lake County, California

See reference above.

(U.S. Geological Survey, through R. C. Erd, 1974)

Buergerite NMNH 122200 Mexquitic, San Luis Potosi, Mexico

G. Donnay, C. O. Ingamells and B. Mason, 1966. Buergerite, a New Species of Tourmaline. *American Mineralogist,* 51:198–199.

(Smithsonian Institution, through Brian Mason, 1970)

Buetschliite (with type Fairchildite) NMNH 105675 and 105676 Kaniksu National Forest, Coolin, Idaho

C. Milton and J. Axelrod, 1947. Fused Wood-ash Stones: Fairchildite (n. sp.) $K_2CO_3{\cdot}CaCO_3$, Buetschliite (n. sp.) $3K_2CO_3{\cdot}2CaCO_2{\cdot}6H_2O$ and Calcite, $CaCO_3$, their Essential Components. *American Mineralogist,* 32:607–624.

(U.S. Geological Survey, 1948)

Burbankite NMNH 106843 Bearpaw Mountains, Montana

W. T. Pecora and J. H. Kerr, 1953. Burbankite and Calkinsite, Two New Carbonate Minerals

from Montana. *American Mineralogist,* 38: 1169–1183.

(U.S. Geological Survey, through W. T. Pecora, 1954)

Burkeite NMNH 97277 Searles Lake, California

W. F. Foshag, 1935. Burkeite, a New Mineral Species from Searles Lake, California. *American Mineralogist,* 20:50–56.

(U.S. Geological Survey, from NMNH #90685, 1919)

Burkeite NMNH 102866 to 102872 Searles Lake, California

See reference above.

(American Potash & Chemical Corp., California, 1936)

Butlerite NMNH 95953 United Verde Mine, Jerome, Arizona

C. Lausen, 1928. Hydrous Sulphates Formed under Fumerolic Conditions at the United Verde Mine. *American Mineralogist,* 13:203–229.

(C. Lausen, 1929)

Bystromite NMNH 106194 El Antimonio, Sonora, Mexico

B. Mason and C. J. Vitaliano, 1952. Bystromite, Magnesium Antimonate, a New mineral. *American Mineralogist,* 37:53–57.

(Brian Mason, 1951)

Cahnite NMNH 95568 Franklin, New Jersey

C. Palache, 1921. Holdenite and Cahnite, Two New Minerals from Franklin Furnace, N.J. Paper presented by title at the First Annual Meeting of the Mineralogical Society of America, Chicago, December, 1920. Abst: *American Mineralogist,* 6:39.

C. Palache and L. H. Bauer, 1927. Cahnite, a New Boro-arsenate of Calcium from Franklin, New Jersey. *American Mineralogist,* 12:149–153.

(R. B. Gage, through Roebling Collection, 1927)

Calcimangite (discredited, =Calcite, Manganoan) NMNH 128744 Sterling Hill, New Jersey

C. U. Shepard, 1865. Analysis of a Carbonate of Lime and Manganese (Spartaite of Breithaupt) from Sterling, Sussex County, New Jersey. *American Journal of Science,* (2)39:174–175.

(C. U. Shepard Collection, 1929)

Calumetite NMNH 115870 Centennial No. 2 Mine, 4700 foot level, Calumet, Houghton County, Michigan

S. A. Williams, 1963. Anthonyite and Calumetite, Two New Minerals from the Michigan Copper District. *American Mineralogist,* 48:614–619.

(S. Williams, 1963)

Calkinsite (type totally destroyed in analysis) Bearpaw Mountains, Montana

W. T. Pecora and J. H. Kerr, 1953. Burbankite and Calkinsite, Two New Carbonate Minerals from Montana. *American Mineralogist,* 38: 1169–1183.

(U.S. Geological Survey, through W. T. Pecora)

Canbyite (discredited, =Hisingerite) NMNH 94715 Wilmington, Delaware

A. C. Hawkins and E. V. Shannon, 1924. Canbyite, a New Mineral. *American Mineralogist,* 9:1–5.

(Alfred C. Hawkins, 1923)

Carlfriesite NMNH 128393 Mina Bambollita, Moctezuma, Sonora, Mexico

S. A. Williams and R. V. Gaines, 1975. Carlfriesite, $H_4Ca(TeO_3)_3$, a New Mineral from Moctezuma, Sonora, Mexico. *Mineralogical Magazine,* 40:127–130.

(R. V. Gaines, 1974)

Carlfriesite NMNH 135058 Mina Bambollita, Moctezuma, Sonora, Mexico

See reference above.

(S. A. Williams, 1976)

Carlinite NMNH 132497 Carlin Deposit, Northern Eureka County, Nevada

A. S. Radtke and F. W. Dickson, 1975. Carlinite, Tl_2S, a New Mineral from Nevada. *American Mineralogist,* 60:559–565.

(U.S. Geological Survey, through A. S. Radtke, 1975)

Cassidyite (with type Reevesite) NMNH 119553 and 119554 Wolf Creek meteorite, Australia

J. S. White, Jr., E. P. Henderson and B. Mason, 1967. Secondary Minerals Produced by Weathering of the Wolf Creek Meteorite. *American Mineralogist,* 52:1190–1197.

(Smithsonian Institution, Division of Meteorites, 1966)

Cavansite NMNH 120583 Goble, Oregon

L. W. Staples, H. T. Evans, Jr., and J. R. Lindsay, 1973. Cavansite and Pentagonite, New Dimorphous Calcium Vanadium Silicate Min-

erals from Oregon. *American Mineralogist,* 58:405–411.
(L. W. Staples, 1967)

Cavansite NMNH 120584 Owyhee Dam, Malheur County, Oregon
See above reference.
(F. S. Zimmerman, 1967)

Cebollite NMNH 87530 Beaver Creek, near Powderhorn, Iron Hill area, Gunnison County, Colorado
E. S. Larsen and W. T. Schaller, 1914. Cebollite, a New Mineral. *Journal of the Washington Academy of Sciences,* 4:480–482.
(U.S. Geological Survey, 1915)

Cebollite NMNH C3217 Beaver Creek, near Powderhorn, Iron Hill area, Gunnison County, Colorado
See above reference.
(Canfield Collection, 1929)

Cebollite NMNH R6451 Beaver Creek, near Powderhorn, Iron Hill area, Gunnison County, Colorado
See above reference.
(Roebling Collection, 1927)

Centrallasite (discredited, =Gyrolite) NMNH R4043 King's County, Nova Scotia, Canada
H. How, 1859. Description and Analysis of Three New Minerals, Associates in the Trap of the Bay of Fundy. *The Edinburgh New Philosophical Journal,* (new series) 10:84–94.
(Roebling Collection, 1927)

Chalcoalumite NMNH 95226 Bisbee, Arizona
E. S. Larsen and H. E. Vassar, 1925. Chalcoalumite, a New Mineral from Bisbee, Arizona. *American Mineralogist,* 10:79–83.
(Harvard University, 1925)

Chalcoalumite NMNH R6326 Bisbee, Arizona
See above reference.
(Roebling Collection, 1927)

Chalcodite (discredited, =Stilpnomelane) NMNH 128745 Antwerp, New York
C. U. Shepard, 1851. On Chalcodite, a New Mineral Species. *Proceedings of the American Association for the Advancement of Science,* 6: 232–233.
(C. U. Shepard Collection, 1929)

Chalconatronite NMNH 112695 Alteration product from Egyptian bronzes
C. Frondel and R. J. Gettens, 1955. Chalconatronite, a New Mineral from Egypt. *Science,* 122:75–76.
(Freer Gallery of Art, Smithsonian Institution, through R. J. Gettens, 1956)

Chambersite NMNH 115327 Northwest side of Barber's Hill Salt Dome, Mont Belvieu, Chambers County, Texas
R. M. Honea and F. R. Beck, 1962. Chambersite, a New Mineral. *American Mineralogist,* 47: 665–671.
(Frank R. Beck, 1962)

Chlorophoenicite NMNH 94964 Franklin Furnace, New Jersey
W. F. Foshag and R. B. Gage, 1924. Chlorophoenicite, a New Mineral from Franklin Furnace, New Jersey (Preliminary Description). *Journal of the Washington Academy of Sciences,* 14:362–363.
(R. B. Gage, 1924)

Chromian Antigorite NMNH 114107 Wood's Mine, Lancaster County, Pennsylvania
J. J. Glass, A. C. Vlisidis, and N. C. Pearre, 1959. Chromian Antigorite from the Wood's Mine, Lancaster County, Pennsylvania. *American Mineralogist,* 44:651–656.
(U.S. Geological Survey, through Jewell J. Glass, 1960)

Chromrutile (now Redledgeite) NMNH 95846 Red Ledge Mine, Washington District, Nevada County, California
S. G. Gordon and E. V. Shannon, 1927. Chromrutile, a New Mineral from California. Paper given at meeting of the Philadelphia Mineralogical Society. Abst: *American Mineralogist,* 13:69, 1928.
(Philadelphia Academy of Sciences, 1928)

Clarkeite NMNH 96510 Spruce Pine, North Carolina
C. S. Ross, E. P. Henderson and E. Posnjak, 1931. Clarkeite, a New Uranium Mineral. *American Mineralogist,* 16:213–220.
(C. S. Ross, 1931)

Clarkeite NMNH R6607 Deer Park Mine, Spruce-Pine, North Carolina
See above reference.
(B. C. Burgess, 1930)

Cliffordite NMNH 120246 San Miguel Mine, Moctezuma, Sonora, Mexico
R. V. Gaines, 1969. Cliffordite, a New Tellurite Mineral from Moctezuma, Sonora, Mexico. *American Mineralogist,* 54:697–701.

(Richard V. Gaines, 1967)

Clinobarrandite (discredited, =Phosphosiderite, Aluminian) NMNH 94669 Manhattan, Nevada

D. McConnell, 1940. Clinobarrandite and the Isodimorphous Series, Variscite-Metavariscite. *American Mineralogist,* 25:719–725.

(H. G. Clinton, 1923)

Clinoferrosilite NMNH 102793 Obsidian Cliff, Yellowstone National Park, Wyoming

N. L. Bowen, 1935. "Ferrosilite" as a Natural Mineral. *American Journal of Science,* (5)30: 481–494.

(J. P. Iddings, 1936)

Coalingite NMNH 119335 Coalinga, California

F. A. Mumpton, H. W. Jaffe and C. S. Thompson, 1965. Coalingite, a New Mineral from the New Idria Serpentinite, Fresno and San Benito Counties, California. *American Mineralogist,* 50:1893–1913.

(Howard W. Jaffe, 1966)

Cocinerite (discredited, =mixture of Chalcocite, Silver, Copper and Cuprite) NMNH 95665 Cocinera Mine, Mexican Copper Company, Ramos, San Luis Potosi, Mexico

G. J. Hough, 1919. Notes on an Unlisted Mineral. *American Journal of Science,* (4)48:206

(George J. Hough, 1927)

Coconinoite NMNH 119772 Sun Valley Mine, Coconino County, Arizona

E. J. Young, A. D. Weeks and R. Meyrowitz, 1966. Coconinoite, A New Uranium Mineral from Utah and Arizona. *American Mineralogist,* 51:651–663.

(U.S. Geological Survey, through E. J. Young, 1966)

Columbiconite (status undetermined) NMNH 128732 Portland, Connecticut

A. H. Chester, 1896. Columbiconite. *A Dictionary of the Names of Minerals,* page 63.

(C. U. Shepard Collection, 1929)

Corderoite NMNH 133354 McDermitt Mine (old Cordero Mine), Humboldt County, Nevada

E. F. Foord, P. Berendzen and L. O. Storey, 1974. Corderoite, First Natural Occurrence of α-$Hg_3S_2Cl_2$ from the Cordero Mercury Deposit, Humboldt County, Nevada. *American Mineralogist,* 59:652–655.

(E. F. Foord, 1974)

Coronadite NMNH 86040 Coronado Lode, 3 to 4 miles west J. Horse-Shoe Shaft, Clifton-Morenci District, Arizona

W. Lindgren, 1904. Copper Deposits of the Clifton-Morenci District, Arizona. *United States Geological Survey Professional Paper,* 43:103–106.

(U.S. Geological Survey, Lindgren Collection, 1906)

Coronadite NMNH R2012 Morenci, Arizona

See above reference.

(Roebling Collection, 1927)

Corrensite NMNH 107373 Three kilometers from Zaiserweiher, near Maulbron, Germany

F. Lippmann, 1954. Über einen Keuperton von Zaisersweiher bei Maulbronn Heidelberg. *Beiträge zur Mineralogie und Petrologie,* 4:130–134. Abst.: *American Mineralogist,* 40:137–138. 1955.

(University of Göttigen, 1955)

Corvusite NMNH 96806 and 96807 Ponto #3 Claim, north wall of Gypsum Valley, San Miguel County, Colorado

E. P. Henderson and F. L. Hess, 1933. Corvusite and Rilandite, New Minerals from the Utah-Colorado Carnotite Region. *American Mineralogist,* 18:195–205.

(U.S. Geological Survey, through F. L. Hess, 1932)

Corvusite-like mineral NMNH 121958 Monument No. 2 Mine, Apache County, Arizona

M. Ross, 1959. Mineralogical Applications of Electron Diffraction, II: Studies of Vanadium Minerals of the Colorado Plateau. *American Mineralogist,* 44:322–341.

(U.S. Geological Survey, 1969)

Costibite (with type Willyamite) NMNH R849 A. B. H. Consols Mine, Broken Hill, New South Wales, Australia

L. J. Cabri, D. C. Harris, J. M. Stewart, 1970. Costibite (CoSbS), a New Mineral from Broken Hill, N.S.W., Australia. *American Mineralogist,* 55:10–17.

(Roebling Collection, 1927)

Cowlesite NMNH 135026 Goble, Columbia County Oregon

W. S. Wise and R. W. Tschernich, 1975. Cowlesite, a New Ca-Zeolite. *American Mineralogist,* 60:951–956.

(W. S. Wise, 1975)

Crandallite NMNH R5641 Dump of Brooklyn

Mine, 1¼ miles northwest of Silver City, Tintic District, Utah

G. F. Loughlin and W. T. Schaller, 1917. Crandallite, a New Mineral. *American Journal of Science,* (4)43:69–74.

(Roebling Collection, from W. T. Schaller, 1929)

Creedite NMNH 93117 Wagon Wheel Gap, Creede Quadrangle, Colorado

E. S. Larsen and R. C. Wells, 1916. Some Minerals from the Fluorite-Barite Vein near Wagon Wheel Gap, Colorado. *Proceedings of the National Academy of Science,* 2:360–365.

(U.S. Geological Survey, 1916)

Creedite NMNH C1034 Wagon Wheel Gap, Creede Quadrangle, Colorado

See reference above.

(Canfield Collection, 1927)

Crestmoreite (discredited, =mixture of Tobermorite and Wilkeite) NMNH 95683 Crestmore, near Riverside, California

A. S. Eakle, 1917. Minerals Associated with the Crystalline Limestone at Crestmore, Riverside County, California. *Bulletin of the Department of Geology, University of California,* 10 (19):327–360. Abst: *American Mineralogist,* 3:19–20, 1918.

(A. S. Eakle, 1927)

Crossite NMNH 94366A North of Berkeley, California

C. Palache, 1894. On a Rock from the Vicinity of Berkeley, (Cal.) Containing a New Soda Amphibole. *Bulletin of the Department of Geology, University of California,* 1:181–192.

(C. Palache and W. T. Schaller, 1922)

Cuprobismutite (with type Berryite) NMNH 92902 Missouri Mine, Park County, Colorado

W. F. Hillebrand, 1884. On an Interesting Variety of Löllingite and Other Minerals. *American Journal of Science,* (3)27:349–358.

(U.S. Geological Survey, 1915)

Cuprospinel NMNH 128673 Baie Verte, Newfoundland, Canada

E. H. Nickel, 1973. The New Mineral Cuprospinel ($CuFe_2O_4$) and Other Spinels from an Oxidized Ore Dump at Baie Verte, Newfoundland. *Canadian Mineralogist,* 11:1003–1007.

(D. C. Harris, 1974)

Custerite (discredited, =Cuspidine) NMNH 87445 3½ miles southwest of Mackey, Custer County, Idaho

J. B. Umpleby, W. T. Schaller and E. S. Larsen, 1913. Custerite, a New Contact Metamorphic Mineral. *American Journal of Science,* (4)36: 385–394.

(U.S. Geological Survey, through J. B. Umpleby, 1914)

Cymatolite (discredited, =mixture of Muscovite and Albite) NMNH 128734 Goshen, Massachusetts

C. U. Shepard, 1867. Cymatolite. Private Publication, May 24, and Correspondence, December 24; reference in J. D. Dana, *System of Mineralogy,* 1877, 5th Edition, page 455.

(C. U. Shepard Collection, 1929)

Dachiaridite NMNH 123998 Elba, Italy

G. D'achiardi, 1906. Zeolite del Filone della Speranza. *Societa Toscana di Scienze Naturali Pisa,* 22:150–165.

(U.S. Geological Survey, through W. T. Schaller, 1972)

Dadsonite NMNH 123240 Wolfsberg, Germany

J. L. Jambor, 1969. Dadsonite (Minerals Q and QM), a New Lead Sulphantimonide. *Mineralogical Magazine,* 37:437–441.

(W. W. Pinch, 1972)

Dahllite (discredited, =Carbonate-apatite NMNH 93884 Ödegården, Bamle, Norway

W. C. Brögger and H. Bäckström, 1888. Über den Dahllite, ein Neues Mineral von Ödegården, Bamle, Norwegen. *Meddelanden Från Stockholms Högskola,* 77:3–6.

(U.S. Geological Survey, through W. T. Schaller, who received it from H. Bäckström, 1920)

Dalyite NMNH 113106 Green Mountain, Ascension Island

R. Van Tassel and M. H. Hey, 1952. Dalyite, a New Potassium Zirconium Silicate, from Assension Island, Atlantic. *Mineralogical Magazine,* 29:850–857.

(S. O. Agrell, 1959)

Danalite NMNH 124353 Rockport, Cape Ann, Massachusetts

J. P. Cooke, Jr., 1866. On Danalite, a New Mineral Species from the Granite of Rockport, Massachusetts. *American Journal of Science,* (2)42:73–79.

(U.S. Geological Survey, through W. T. Schaller, from J. P. Cooke, Jr., 1972)

Deeckëite (a pseudomorph of Melilite?) NMNH R4061 Kaiserstuhl, Baden, Germany

J. Soellner, 1913. Über Bergalith ein Neues Melilithreiches Ganggestein aus dem Kaiserstuhl. *Baden Geologische Landesanstalt,* 7:415–466. Abst: *Mineralogical Magazine,* 17:348, 1916.

(Roebling Collection, 1927)

Dehrnite NMNH R5590 Dehrn, Nassau, Germany

E. S. Larsen and E. V. Shannon, 1930. Two Phosphates from Dehrn, Dehrnite and Crandallite. *American Mineralogist,* 15:303–306.

(Roebling Collection, 1927)

Dellaite NMNH 119426 ¾ mile north of hotel, Kilchoan, Ardnamurchan, Scotland

S. O. Agrell, 1965. Polythermal Metamorphism of Limestones at Kilchoan, Ardnamurchan. *Mineralogical Magazine,* 34:1–15.

(S. O. Agrell, 1966)

Delrioite NMNH 128296 Jo Dandy Mine, Paradox Valley, Montrose County, Colorado

M. E. Thompson and A. M. Sherwood, 1959. Delrioite, a New Calcium Strontium Vanadate from Colorado. *American Mineralogist,* 44: 261–264.

(U.S. Geological Survey, through M. Mrose, 1974)

Diaboleite NMNH 94813 Higher Pitts Mine, Priddy, Mendip Hills, Somerset, England

L. J. Spencer and E. D. Mountain, 1923. New Lead-Copper Minerals from the Mendip Hills (Somerset). *Mineralogical Magazine,* 20:67–92.

(British Museum (Natural History), 1923)

Dickite NMNH 80561 American Bell, San Juan County, Colorado

C. S. Ross and P. F. Kerr, 1930. Dickite, a Kaolin Mineral, [Probably not really type, but cited in this article, locality given as National Belle Mine, Red Mountain.] *American Mineralogist,* 15:34–39.

(U.S. Geological Survey, through Whitman Cross, 1892)

Diderichite (discredited, =Rutherfordine) NMNH 115878 Katanga, Zaire

J. F. Vaes, 1947. Six Nouveaux Mineraux d'Urane Provenant de Shinkolobwe (Katanga). *Société Géologique de Belgique, Annales,* 70: B212–B223. Abst: *American Mineralogist,* 33: 385, 1948.

(U.S. Geological Survey, 1963)

Eakerite NMNH 120301 & 121143 Foote Mineral Company Spodumene Mine, Kings Mountain, Cleveland County, North Carolina.

P. B. Leavens, J. S. White, Jr., and M. H. Hey, 1970. Eakerite—a New Tin Silicate. *Mineralogical Record,* 1:92–96.

(J. Eaker (120301), 1967; L. Shrum (121143), 1968)

Eakleite (discredited, =Xonotlite) NMNH 93243 St. Inez, California

E. S. Larsen, 1917. Eakleite, a New Mineral from California. *American Journal of Science,* (4) 43:464–465.

(U.S. Geological Survey, 1917)

Eakleite (discredited, =Xonotlite) NMNH R4045 St. Inez, California

See reference above.

(Roebling Collection, 1927)

Eardleyite NMNH 114257 Southern Oquirrh Mountains, Utah

B. J. Anderson and J. A. Whelan, 1962. Nickel-bearing Minerals in the Southern Oquirrh Mountains, Utah. Abst: *Geological Society of America Special Paper,* 68:83.

(University of Utah, through J. A. Whelan, 1960)

Earlandite NMNH 105859 Weddell Sea, Antarctic

F. A. Bannister, 1936. Report on Some Crystalline Components of the Weddell Sea Deposits. *Discovery Reports,* 13:67–69. Abst: *American Mineralogist,* 22:71, 1937.

(British Museum (Natural History), 1949)

Edwardsite (discredited, =Monazite) NMNH 128736 Norwich, Connecticut

C. U. Shepard, 1837. Description of Edwardsite, a New Mineral. *American Journal of Science,* (1)32:162–166.

(C. U. Shepard Collection, 1929)

Eglestonite NMNH R1325 Terlingua, Texas

A. J. Moses, 1903. Eglestonite, Terlinguaite and Montroydite, New Mercury Minerals from Terlingua, Texas. *American Journal of Science,* (4)16:253–263.

(L. Cahn, through the Roebling Collection, 1927)

Ellestadite NMNH 103072 Crestmore, California

D. McConnell, 1937. The Substitution of SiO_4- and SO_4- Groups for PO_4- Groups in the

Apatite Structure; Ellestadite, the End-member. *American Mineralogist,* 22:977–986.
(D. McConnell, 1937)

Elpasolite NMNH 83302 Cincinnati Mine, St. Peter's Dome, Pikes Peak, Colorado
W. Cross and W. F. Hillebrand, 1885. II, Minerals from the Neighborhood of Pikes Peak: Elpasolite, a New Mineral. *United States Geological Survey Bulletin,* 20:57.
(U.S. Geological Survey, through W. Cross, 1894)

Elroqueite (discredited, =mixture of Variscite and Quartz) NMNH 128747 Elroque Island, West Indies
C. U. Shepard, 1877. Elroqueite. *Contributions to Mineralogy,* pages 6–8.
(C. U. Shepard Collection, 1929)

Epiphanite NMNH R4589 Tvärå, Wermland, Sweden
L. J. Igleström, 1868. Bidrag till Kännedomen af Wermlands Mineralier och Bergarter. *Öfversigt af Svenska Vetenskapsakademien Förhandingar, Stockholm,* 25:32.
(L. J. Igleström, through the Roebling Collection, 1927)

Ericssonite NMNH 120061 Långban, Sweden
P. B. Moore, 1971. Ericssonite and Orthoericssonite, Two New Members of the Lamprophyllite Group, from Långban, Sweden. *Lithos,* 4: 137–145. Abst: *Mineralogical Abstracts,* 22:71-3104, 1971.
(P. B. Moore, 1967)

Erionite NMNH 133333 Durkee, Oregon
A. S. Eakle, 1898. Erionite, a New Zeolite. *American Journal of Science,* (4)6:66–68.
(U.S. Geological Survey, through E. S. Larsen, Jr., date unknown)

Erionite NMNH R4066 Durkee, Oregon
See reference above.
(A. S. Eakle, through the Roebling Collection, 1927)

Erlichmanite NMNH 123914–123915 MacIntosh Mine, Willow Creek, Trinity River, Humboldt County, California
K. G. Snetsinger, 1971. Erlichmanite, OsS_2, a New Mineral. *American Mineralogist,* 56: 1501–1506.
(National Aeronautics and Space Administration, through K. G. Snetsinger, 1972)

Eveite NMNH 120062 Långban, Sweden
P. B. Moore, 1968. Eveite, $Mn_2(OH)(AsO_4)$, a New Mineral from Långban. *Arkiv for Kemi, Mineralogi och Geologi,* 4:473–476. Abst: *Minerological Abstracts,* 20:69-2397, 1969.
(P. B. Moore, 1967)

Ewaldite (with type Mackelveyite) NMNH 121683 Green River Formation, Wyoming
G. Donnay, J. D. H. Donnay and M. H. Hey, 1971. Ewaldite, a New Barium Calcium Carbonate. *Tschermaks Mineralogische und Petrographische Mitteilung,* 15:185–212. Abst: *Mineralogical Abstracts,* 22:71–3105, 71–3106. 1971.
(U.S. Geological Survey, through C. Milton, 1964)

Ezcurrite NMNH 123927 Tincalayu Borax Mine, Salta province, Argentina
S. Muessig and R. D. Allen, 1957. Ezcurrite ($2Na_2O{\cdot}5B_2O_3{\cdot}7H_2O$), a New Sodium Borate from Argentina; Occurrence, Mineralogy, and Associated Minerals. *Economic Geology,* 52: 426–437.
(U.S. Geological Survey, through W. T. Schaller, from S. Muessig, 1972)

Faheyite NMNH 112653 Sapucaia Pegmatite, Minas Gerais, Brazil
M. L. Lindberg and K. J. Murata, 1953. Faheyite, a New Phosphate Mineral from the Sapucaia Pegmatite Mine, Minas Gerais, Brazil. *American Mineralogist,* 38:263–270.
(U.S. Geological Survey, 1956)

Fairchildite (with type Buetschliite) NMNH 105675 and 105676 Grand Canyon National Park, Arizona
C. Milton and J. Axelrod, 1947. Fused Wood-Ash Stones: Fairchildite (n. sp.) $K_2CO_3{\cdot}CaCO_3$, Buetschliite (n. sp.) $3K_2CO_3{\cdot}2CaCO_3{\cdot}6H_2O$ and Calcite, $CaCO_3$, Their Essential Components. *American Mineralogist,* 32:607–624.
(U.S. Geological Survey, 1948)

Faustite NMNH 106879 Copper King Mine, Maggie Creek District, Eureka County, Nevada
R. C. Erd, M. D. Foster and P. D. Proctor, 1953. Faustite, a New Mineral, the Zinc Analogue of Turquoise. *American Mineralogist,* 38:964–972
(U.S. Geological Survey, 1954)

Faustite NMNH 113171 Copper King Mine, Maggie Creek District, Eureka County, Nevada
See reference above.
(P. D. Proctor, 1959)

Fermorite NMNH 94809 Sitapar, Chhindwara District, Central India

G. F. H. Smith and G. T. Prior, 1911. On Fermorite, a New Arsenate and Phosphate of Lime and Strontia, and Tilasite, from the Manganese-ore Deposits of India. *Mineralogical Magazine,* 16:84–96.

(British Museum (Natural History), 1923)

Fernandinite NMNH 87661 Minasragra, Peru

W. T. Schaller, 1915. Four New Minerals. *Journal of the Washington Academy of Sciences,* 5:7.

(U.S. Geological Survey, through D. F. Hewett, 1912)

Ferricopiapite NMNH 80516 Atacama, Chile

L. G. Berry, 1947. Composition and Optics of Copiapite. *Contributions to Mineralogy from the Department of Geological Sciences, University of Toronto,* 3:21–34. [Original analysis: M. C. Bandy, 1938. Mineralogy of Three Sulphate Deposits of Northern Chile. *American Mineralogist,* 23:669–760.]

(T. Egleston, 1892)

Ferriphengite (Probably invalid but not formally discredited) NMNH 115033 Iimori District, Kii Peninsula, Honshu, Japan

S. Banno and K. Kanehira, 1960. Ferriphengite and Aegirinejadeite in a Crystalline Schist of the Iimori District, Kii Peninsula. *Journal of the Geological Society of Japan,* 66:654–659.

(S. Banno and K. Kanehira, 1961)

Ferrisymplesite NMNH 95461 Hudson Bay Mine, Cobalt, Ontario, Canada

T. L. Walker and A. L. Parsons, 1924. The Arsenates of Cobalt, Nickel, and Iron Observed in the Silver-bearing Veins at Cobalt, Ontario. *Contributions to Canadian Mineralogy,* 17: 13–17.

(Royal Ontario Museum, 1926)

Ferritungstite NMNH 86985 Germania Tungsten Mine, Deertrail Mining District, Washington

W. T. Schaller, 1911. Ferritungstite, a New Mineral. *American Journal of Science,* (4)32: 161–162.

(W. T. Schaller and H. Bancroft, 1911)

Ferroanthophyllite (discredited, =Actinolite) NMNH 93998 Tamarack-Custer Mine, Coeur d'Alene District, Idaho

E. V. Shannon, 1921. Description of Ferroanthophyllite, an Orthorhombic Iron Amphibole from Idaho, with a Note on the Nomenclature of the Anthophyllite group. *Proceedings of the United States National Museum,* 59:397–401.

(F. Barker, 1920)

Ferrocarpholite NMNH 106754 West of Tomate, eastern central Celebes

W. P. de Roever, 1951. Ferrocarpholite, the Hitherto Unknown Ferrous Iron Analogue of Carpholite Proper. *American Mineralogist,* 36: 736–745.

(H. A. Brouwer, 1953)

Ferroschallerite (discredited, =Friedelite) NMNH C6219 Trotter Shaft, Franklin, New Jersey

L. H. Bauer and H. Berman, 1930. Notes on Some Franklin Minerals. *American Mineralogist,* 15:340–348.

(L. H. Bauer Collection, through the Canfield Collection, 1955)

Ferroschallerite (discredited, =Friedelite) NMNH R7824 Trotter Shaft, Franklin, New Jersey

See reference above.

(Harvard University, through the Roebling Collection, 1938)

Fervanite NMNH 96420 Polar Mesa, north side of La Sal Mountains, Utah

F. L. Hess and E. P. Henderson, 1931. Fervanite, a Hydrous Ferric Vanadate. *American Mineralogist,* 16:273–277.

(U.S. Geological Survey, F. L. Hess collection, 1930)

Fervanite NMNH 97874 North side of Gypsum Valley, Colorado

See reference above.

(U.S. Geological Survey)

Fleischerite NMNH 115310 Tsumeb, Southwest Africa

C. Frondel and H. Strunz, 1960. Fleischerit und Itoit, Zwei Neue Germanium-Mineralien von Tsumeb. *Neues Jahrbuch fur Mineralogie, Geologie, und Paleontologie, Monatsh.,* 1960: 132–142. Abst: *American Mineralogist,* 45: 1313, 1960.

(Harvard University, 1962)

Florencite NMNH R5209 Diamantina, Minas Geraais, Brazil

E. Hussak and G. T. Prior, 1900. Florencite, a New Hydrated Phosphate of Aluminum and the Cerium Earths from Brazil. *Mineralogical Magazine,* 12:244–248.

(E. Hussak, through the Roebling Collection, 1927)

Footetite (discredited, =Connellite) NMNH 85154 Copper Queen Mine, Bisbee, Arizona

G. A. Koenig, 1891. On Paramelaconite and the Associated Minerals. *Proceedings of the Academy of Natural Sciences, Philadelphia,* 43: 284–289.

(W. M. Foote, 1903)

Foshagite NMNH 95229 Crestmore, California

A. S. Eakle, 1925. Foshagite, a New Silicate from Crestmore, California. *American Mineralogist,* 10:97–99.

(M. Vonsen, 1925)

Fowlerite (discredited, =Rhodonite, Zincian) NMNH 128748 Franklin Furnace, New Jersey

C. U. Shepard, 1832. A Sketch of the Mineralogy and Geology of the Counties of Orange (N. J.). *American Journal of Science,* (1) 21:321–334.

(C. U. Shepard Collection, 1929)

Frankdicksonite NMNH 133958 Carlin Gold Deposit, Eureka County, Nevada

A. S. Radtke and G. E. Brown, 1974. Frankdicksonite, BaF_2, a New Mineral from Nevada. *American Mineralogist,* 59:885–888.

(U.S. Geological Survey, through A. S. Radtke, 1975)

Freirinite (dsicredited, =Lavendulan) NMNH 81706 San Juan, Chile

W. F. Foshag, 1924. Freirinite: a New Mineral Species. *American Mineralogist,* 9:30–31.

(U.S. Geological Survey, the Leidy Collection, 1894)

Fremontite, see Natromontebrasite

Frondelite NMNH 105946 Sapucaia Pegmatite, Minas Gerais, Brazil

M. L. Lindberg, 1949. Frondelite and the Frondelite-Rockbridgeite Series. *American Mineralogist,* 34:541–549.

(U.S. Geological Survey, 1949)

Gabrielsonite NMNH 120063 Långban, Sweden

P. B. Moore, 1967. Gabrielsonite, $PbFe(AsO_4)(OH)$, a New Member of the Descloizite-Pyrobelonite Group, from Långban. *Mineralogi och Geologi Arkiv för Kemi,* 4: 401–405. Abst: *Mineralogical Abstracts,* 19: 128, 1968.

(P. B. Moore, 1967)

Gageite NMNH 86845 Franklin Furnace, New Jersey

A. H. Phillips, 1910. Gageite, a New Mineral from Franklin, New Jersey. *American Journal of Science,* (4)30:283–284.

(R. B. Gage, through W. T. Schaller, U.S. Geological Survey, 1911)

Gageite NMNH R6444 Franklin Furnace, New Jersey

See reference above.

(Roebling Collection, 1927)

Galeite NMNH 107385 Searles Lake, California

A. Pabst, D. L. Sawyer and G. Switzer, 1955. Galeite, a New Mineral from Searles Lake, California. *Bulletin of the Geological Society of America,* 66:1658–1659.

(G. Switzer, 1955)

Gamagarite NMNH 105142 Postmasburg, Cape Province, South Africa

J. E. de Villiers, 1943. Gamagarite, a New Vanadium Mineral from the Postmasburg Manganese Deposits. *American Mineralogist,* 28: 329–335.

(U.S. Geological Survey, through M. Fleischer, 1945)

Gaspeite NMNH 119544 Gaspé Peninsula, Quebec, Canada

D. W. Kohls and J. L. Rodda, 1966. Gaspeite, $(Ni,Mg,Fe)(CO_2)$, a New Carbonate from the Gaspé Peninsula, Quebec. *American Mineralogist,* 51:677–684.

(New Jersey Zinc Company, through D. W. Kohls, 1966)

Genthelvite NMNH 127180 Western Cheyenne Canyon, El Paso County, Colorado

J. J. Glass, R. H. Jahns and R. E. Stevens, 1944. Helvite and Danalite from New Mexico and the Helvite Group. *American Mineralogist,* 29:163–191.

(Pennsylvania State University, through D. Smith and P. J. Dunn, 1973)

Gerstleyite NMNH 106916 Baker Mine, Kramer District, California

C. Frondel and V. Morgan, 1956. Inderite and Gerstleyite from the Kramer Borate District, Kern County, California. *American Mineralogist,* 41:839–843.

(Harvard University, 1954)

Getchellite NMNH 118159 and 118160 Getchell Mine, Humboldt County, Nevada

B. G. Weissberg, 1965. Getchellite, $AsSbS_3$, a New Mineral from Humboldt County, Nevada *American Mineralogist,* 50:1817–1826.
(New Zealand Department of Scientific and Industrial Research, through B. G. Weissberg, 1965)

Gillespite NMNH 94347 Dry Delta, Alaska Range, Alaska
W. T. Schaller, 1922. Gillespite, a New Mineral. *Journal of the Washington Academy of Sciences,* 12:7–8.
(U.S. Geological Survey, 1921)

Gilpinite (discredited, =Johannite) NMNH 49090 Central City, Colorado
E. S. Larsen and G. V. Brown, 1917. Gilpinite, a New Uranium Mineral from Colorado. *American Mineralogist,* 2:75–79.
(U.S. Geological Survey, through W. F. Hillebrand, 1890)

Glaukosphaerite NMNH 131889 Hampton East Location 48, near the Durkin Shaft, Kambalda, Western Australia, Australia
M. W. Pryce and J. Just, 1974. Glaukosphaerite: a New Nickel Analogue of Rosasite. *Mineralogical Magazine,* 39:737–743.
(M. W. Pryce, 1975)

Glinkite (discredited, =Olivine) NMNH 16257 Lake Itkul, Katharineburg District, Ural Mountains, USSR
H. Romanovski, 1847. Glinkit. *Bergjournal Russ.,* October. Abst: *Dana* 6:451.
(The Museum of the Mining School of St. Petersburg, USSR, 1884)

Glossecolite (discredited, =Halloysite) NMNH 128749 Rising Fawn, Georgia
C. U. Shepard, 1857. Glossecolite. *Treatise on Mineralogy,* 3rd Edition, Part, 2, Supplement pages iii-iv.
(C. U. Shepard Collection, 1929)

Goldichite NMNH 106903 Dexter 7 Mine, Calf Mesa, San Rafael Swell, Utah
A. Rosenzweig and E. B. Gross, 1955. Goldichite, a New Hydrous Potassium Ferric Sulfate from the San Rafael Swell, Utah. *American Mineralogist,* 40:469–480.
(A. Rosenzweig, 1954)

Goldmanite NMNH 121717 Laguna, New Mexico
R. H. Moench and R. Meyrowitz, 1964. Goldmanite, a Vanadium Garnet from Laguna, New Mexico. *American Mineralogist,* 49:644–655.
(U.S. Geological Survey, through R. H. Moench, 1969)

Goldmanite NMNH 121953 Laguna, New Mexico
See reference above.
(U.S. Geological Survey, 1969)

Gonyerite NMNH 106913 Långban, Sweden
C. Frondel, 1955. Two Chlorites: Gonyerite and Melanolite. *American Mineralogist,* 40:1090–1094.
(Harvard University, through C. Frondel, 1954)

Graftonite NMNH C4037 Melvin Mountain, near Grafton, New Hampshire
S. L. Penfield, 1900. Über Graftonit, ein Neues Mineral von Grafton, New Hampshire, und dessen Verwachsung mit Triphylin. *Zeitschrift für Krystallographie und Mineralogy,* 32: 433–445.
(Canfield Collection, 1927)

Graftonite NMNH R5183 Melvin Mountain, near Grafton, New Hampshire
See reference above.
(Roebling Collection, 1927)

Grantsite NMNH 121956 New Mexico, Colorado or Utah
A. D. Weeks, M. L. Lindberg and R. Meyrowitz, 1961. Grantsite, a New Hydrated Sodium Calcium Vanadyl Vanadate from New Mexico and Colorado—a Preliminary Description. *United States Geological Survey Professional Paper,* 424–B:293.
(U.S. Geological Survey, 1969)

Greenalite NMNH 91160 Mesabi District, Minnesota
C. K. Leith, 1903. The Mesabi Iron Bearing District of Minnesota. *United States Geological Survey Monograph,* 43:102–115.
(University of Wisconsin, through C. K. Leith, 1921)

Greenalite NMNH 124953 Mesabi District, Minnesota
See reference above.
(British Museum (Natural History), through J. P. Fuller, 1972)

Greigite NMNH 117502 Kramer–Four Corners Area, San Bernardino County, California
B. J. Skinner, R. C. Erd and F. S. Grimaldi, 1964. Greigite, the Thio-Spinel of Iron; a New Mineral. *American Mineralogist,* 49:543–555.
(U.S. Geological Survey, 1964)

Griffithite (discredited, =Saponite, Ferroan) NMNH 93241 Griffith Park, California
E. S. Larsen and G. Steiger, 1917. Griffithite, a Member of the Chlorite Group. *Jounal of the Washington Academy of Sciences,* 7:11–12.
(U.S. Geological Survey, 1917)

Griffithite (discredited, =Saponite, Ferroan) NMNH R4603 Griffith Park, California
See reference above.
(Roebling Collection, 1927)

Griphite NMNH R5315 Harney City, South Dakota
D. McConnell, 1942. Griphite, a Hydrophosphate Garnetoid. *American Mineralogist,* 27: 452–461.
(Roebling Collection, 1927)

Grothine NMNH R4347 Campanian Bluff, near Nocera, Italy
F. Zambonini, 1913. Grothina, un Nuovo Minerale. *Reale Accademia Nazionale die Lincei, Roma,* (5)22:801–803.
(Roebling Collection, 1927)

Groutite NMNH 105004 Cuyuna Range, Minnesota
J. W. Gruner, 1947. Groutite, $HMnO_2$, a New Mineral of the Diaspore-Goethite Group. *American Mineralogist,* 32:654–659.
(University of Minnesota, through J. W. Gruner, 1944)

Guildite NMNH 95950 United Verde Mine, Jerome, Arizona
C. Lausen, 1928. Hydrous Sulphates Formed under Fumerolic Conditions at the United Verde Mine. *American Mineralogist,* 13:203–229.
(C. Lausen, 1929)

Guilleminite NMNH 119360 Musonoi, Katanga, Congo (now Zaïre)
R. Pierrot, J. Toussaint and T. Verbeek, 1965. La Guilleminite, une Nouvelle Espèce Minerale. *Bulletin de la Société Française de Mineralogie et de Cristallographie,* 88:132–135. Abst: *American Mineralogist,* 50:2103, 1965.
(École National Supérieure des Mines de Paris, through P. Sainfeld, 1966)

Guitermanite (discredited, =impure Jordanite?, Baumhauerite?) NMNH 48408 Anvil Mountain, Silverton, Colorado
W. F. Hillebrand, 1885. Zunyite and Guitermanite, Two New Minerals from Colorado. *Proceedings of the Colorado Scientific Society,* 1:124–132; and *United States Geological Survey Bulletin,* 20:100–107.
(U.S. Geological Survey, through W. F. Hillebrand, 1889)

Guitermanite (discredited, =impure Jordanite?, Baumhauerite?) NMNH 81117 Silverton, Colorado
See reference above.
(S. L. Penfield, 1893)

Gunnisonite (discredited, =impure Fluorite?) NMNH 14250 Gunnison County, Colorado
F. W. Clarke and N. W. Perry, 1882. A New Mineral from Colorado (Gunnisonite). *American Chemical Journal,* 4:140–142.
(F. W. Clarke, 1884)

Haddamite (discredited, =Microlite) NMNH 128722 Haddam, Connecticut
C. U. Shepard, 1870. Mineralogical Contributions, 2: Unknown Mineral (Microlite?) in Haddam Columbite. *American Journal of Science,* (2)50:90–97.
(C. U. Shepard Collection, 1929)

Hagemannite (discredited, =mixture of Thomsenolite and Ralstonite) NMNH 128723 Ivigtut, Greenland
C. U. Shepard, 1866. Mineral Notices, 1: On Hagemannite, a New Mineral from Arksutfiord, Greenland. *American Journal of Science,* (2)42:246–248.
(C. U. Shepard Collection, 1929)

Hambergite NMNH 116994 Helgaraen, Langesundfjord, Norway
W. B. Brögger, 1890. Hambergit. *Zeitschrift für Krystallographie und Mineralogie,* 16:65–67.
(H. Neumann, 1964)

Hanksite NMNH 81217 Borax Lake, San Bernardino County, California
W. E. Hidden, 1885. On Hanksite, a New Anhydrous Sulphatocarbonate, from San Bernardino County, California. *Annals of the New York Academy of Sciences,* 3:238–241.
(H. G. Hanks, 1895)

Haycockite (with type Mooihoekite) NMNH 124965 Mooihoek Farm, Transvaal, Republic of South Africa
L. J. Cabri and S. R. Hall, 1972. Mooihoekite and Haycockite, Two New Copper-Iron Sulfides, and Their Relationship to Chalcopyrite

and Talnakhite. *American Mineralogist,* 57: 689–708.
(Ontario Department of Energy, Mines and Resources, through L. J. Cabri, 1972)

Heazlewoodite NMNH R641 Heazlewood, Tasmania, Australia
W. F. Petterd, 1869. *Catalogue of Minerals of Tasmania,* page 47.
(Roebling Collection, 1927)

Heinrichite NMNH 121950 Near Lakeview, Oregon
E. B. Gross, A. S. Corey, R. S. Mitchell and K. Walenta, 1958. Heinrichite and Metaheinrichite, Hydrated Barium Uranyl Arsenate Minerals. *American Mineralogist,* 43:1134–1143.
(U.S. Geological Survey, 1969)

Hendersonite NMNH 115888 J. J. Mine, Montrose County, Colorado
M. L. Lindberg, A. D. Weeks, M. E. Thompson, D. P. Elston and R. Meyrowitz, 1962. Hendersonite, a New Calcium Vanadyl Vanadate from Colorado and New Mexico. *American Mineralogist,* 47:1252–1272.
(U.S. Geological Survey, 1963)

Hendersonite NMNH 121955 Colorado, or New Mexico
See reference above.
(U.S. Geological Survey, 1969)

Hermannolite (discredited, =Columbite) NMNH 128724 Haddam, Connecticut
C. U. Shepard, 1870. Mineralogical Contributions, 1: A New Variety (Species?) of Columbite. *American Journal of Science,* (2)50:90–97; and (3)11:140–141, 1876.
(C. U. Shepard Collection, 1929)

Heterobrochantite (discredited, =Antlerite) NMNH 95988 Unknown, perhaps Chile
H. Buttgenbach, 1926. Notes Mineralogiques. L'Heterobrochantite, Variete d'Antlerite (Stelznerite). *Annales Société Géologique de Belgique,* 49:B164–B180. Abst: *Mineralogical Magazine,* 3:270, 1927.
(H. Buttgenbach, 1929)

Hewettite NMNH 87459 Minasragra, Peru
W. F. Hillebrand, H. E. Merwin and F. E. Wright, 1914. Hewettite, Metahewettite and Pascoite, Hydrous Calcium Vanadates. *Proceedings of the American Philosophical Society of Philadelphia,* 53:31–54. Abst: *Mineralogical Magazine,* 17:351, 1916.
(American Vanadium Company, 1914)

Heyite NMNH 127424 Betty Jo Claim, White Pine County, Nevada
S. A. Williams, 1973. Heyite, $Pb_5Fe_2(VO_4)_2O_4$, a New Mineral from Nevada. *Mineralogical Magazine,* 39:65–68.
(S. A. Williams, 1973)

Heyite NMNH 135056 Betty Jo Claim, White Pine County, Nevada
See reference above.
(S. A. Williams, 1976)

Hibbenite (discredited, =Hopeite, Alpha) (with type Spencerite and Salmoite) NMNH 121566 Hudson Bay Zinc Mine, about 5 miles east of Salmo, near Nelson, West Kootenay District, British Columbia, Canada
A. H. Phillips, 1916. New Zinc Phosphates from Salmo, British Columbia. *American Journal of Science,* (4)42:275–278.
(U.S. Geological Survey, through E. S. Larsen)

Hidalgoite NMNH 112726 and 112727 San Pasquale Mine, Zimapan Mining District, Mexico
R. L. Smith, F. S. Simons and A. C. Vlisidis, 1953. Hidalgoite, a New Mineral. *American Mineralogist,* 38:1218–1224.
(U.S. Geological Survey, through A. Baker, 1957)

Higginsite (discredited, =Conichalcite) NMNH 93838 Higgins Mine, Bisbee, Arizona
C. Palache and E. V. Shannon, 1920. Higginsite, a New Mineral of the Olivenite Group. *American Mineralogist,* 5:155–157.
(C. Palache, 1920)

Hilgardite NMNH R7822 Choctaw Salt Dome, Iberville Parish, Louisiana
C. S. Hurlbut, Jr. and R. E. Taylor, 1937. Hilgardite, a New Mineral Species, from Choctaw Salt Dome, Louisiana. *American Mineralogist,* 22:1052–1057.
(Harvard University, through the Roebling Collection, 1938)

Hillebrandite NMNH 86531 8th Level, Terneras Mine, Velardena, Durango, Mexico
F. E. Wright, 1908. On Three Contact Minerals from Velardena, Durango, Mexico (Gehlenite, Spurrite and Hillebrandite). *American Journal of Science,* (4)26:545–554.
(F. E. Wright, 1908)

Hinsdalite NMNH 86987 Hinsdale County, Colorado
E. S. Larsen, Jr. and W. T. Schaller, 1911. Hins-

dalite, a New Mineral. *American Journal of Science,* (4)32:251–255.

(U.S. Geological Survey, through E. S. Larsen, 1911)

Hinsdalite NMNH 92971 Golden Fleece Mine, near Lake City, Colorado

See reference above.

(U.S. Geological Survey, 1916)

Hitchcockite (discredited, =Plumbogummite) NHNH 128725 Canton Mine, Cherokee County, Georgia

C. U. Shepard, 1856. Hitchcockite. *Report on the Copper and Silver-Lead Mine at Canton, Georgia,* 2nd Edition, page 11.

(C. U. Shepard Collection, 1929)

Hodgkinsonite NMNH 87231 Franklin Furnace, New Jersey

C. Palache and W. T. Schaller, 1913. Hodgkinsonite, a New Mineral from Franklin Furnace, N.J. *Journal of the Washington Academy of Sciences,* 3:474–478, 4:153–154, 1914. Abst: *Mineralogical Magazine,* 17:351, 1916.

(H. H. Hodgkinson, 1913)

Holdenite NMNH 95434 Franklin Furnace, New Jersey

C. Palache and E. V. Shannon, 1927. Holdenite, a New Arsenate of Manganese and Zinc, from Franklin, New Jersey. *American Mineralogist,* 12:144–148.

(C. Palache, 1926)

Holtite NMNH 128674 Greenbushes, Western Australia, Australia

M. W. Pryce, 1971. Holtite, a New Mineral Allied to Dumortierite. *Mineralogical Magazine,* 38: 21–25.

(L. W. Samuel, 1974)

Honessite NMNH 117698 Near Linden, Iowa County, Wisconsin

A. V. Heyl, C. Milton and J. M. Axelrod, 1959. Nickel Minerals from near Linden, Iowa County, Wisconsin. *American Mineralogist,* 44:995–1009.

(U.S. Geological Survey, 1965)

Ioughite (discredited, =Hydrotalcite after Spinel) NMNH 128726 Near Oxbow, and near Sommerville in Rossie, St. Lawrence County, New York

C. U. Shepard, 1851. Mineralogical Notices, 4: Houghite. *American Journal of Science,* (2) 12:205–222.

(C. U. Shepard Collection, 1929)

Huemulite NMNH 120076 Huemul Mine, Mendoza Province, Argentina

C. E. Gordillo, E. Linares, R. O. Toubes and H. Winchell, 1966. Huemulite, $Na_4MgV_{10}O_{28}\cdot 24H_2O$, a New Hydrous Sodium and Magnesium Vanadate from Huemul mine, Mendoza Province, Argentina. *American Mineralogist,* 51:1–13.

(E. Linares, 1967)

Hulsite NMNH 86791 Brooks Mountain, Alaska

A. Knopf and W. T. Schaller, 1908. Two New Boron Minerals of Contact-Metamorphic Origin. *American Journal of Science,* (4)25: 323–331.

(U.S. Geological Survey, through A. Knopf, 1910)

Hulsite NMNH 86989 Brooks Mountain, Seward Peninsula, Alaska

See reference above.

(U.S. Geological Survey, through W. T. Schaller, and A. Knopf, 1911)

Humberstonite NMNH 120898 Oficina Alemania, Chile

G. E. Ericksen, J. J. Fahey and M. E. Mrose, 1967. Humberstonite, $Na_7K_3Mg_2(SO_4)_6(NO_3)_2\cdot 6H_2O$, a New Saline Mineral from the Atacama Desert, Chile. *Geological Society of America, Program Annual Meeting,* Page 59. Abst: *American Mineralogist,* 53:507, 1968.

(U.S. Geological Survey, through M. Mrose, 1968)

Humoferrite (discredited, =an earthy ochre) NMNH 128727 Whatley, Massachusetts

C. U. Shepard, 1876. Humoferrite. *Catalog of Minerals Found within About 75 Miles of Amherst College,* page 3.

(C. U. Shepard Collection, 1929)

Huttonite NMNH 106265 South Westland, New Zealand

A. Pabst and C. O. Hutton, 1951. Huttonite, a New Monoclinic Thorium Silicate. *American Mineralogist,* 36:60–69.

(C. O. Hutton, 1951)

Hydronephelite (discredited, =mixture of Natrolite and/or Nepheline with Diaspore and/or Gibbsite) NMNH 47362 Litchfield, Maine

F. W. Clarke, 1886. The Minerals of Litchfield, Maine. *American Journal of Science,* (3)31: 262–272.

(U.S. Geological Survey, through F. W. Clarke, 1887)

Hydronephelite (discredited, =mixture of Natrolite and/or Nepheline with Diaspore and/or Gibbsite) NMNH 82555 Litchfield, Maine

See reference above.

(U.S. Geological Survey, the Leidy Collection, 1894)

Hydroxyl-ellestadite NMNH 122444 Doshinkubo Ore Body, Chichibu Mine, Saitama Prefecture, Japan

K. Harada, K. Nagashima, K. Nakao and A. Kato, 1971. Hydroxylestadite, a New Apatite from Chichibu Mine, Saitama Prefecture, Japan. *American Mineralogist,* 56:1507–1518.

(A. Kato, 1970)

Igalikite (discredited, =mixture of Analcime and Muscovite) NMNH 97478 Igaliko, Greenland

O. B. Bøggild, 1933. Igalikite and Naujakasite, Two New Minerals from South Greenland. *Meddelelser om Grønland,* 92:9:1–12. Abst: *American Mineralogist,* 20:138, 1935.

(Meddelelser og Geologiske Museum, through O. B. Bøggild, 1935)

Iimoriite NMNH 120635 Fusumata, Kawamata-machi, Fukushima Prefecture, Japan

M. Nambu (Editor), 1970. *Introduction to Japanese Minerals,* page 85. Kawasaki: Geological Survey of Japan.

(A. Kato, 1967)

Illite NMNH R7827 Maquoketa Shale near Gilead, Calhoun County, Illinois

R. E. Grim, R. H. Bray and W. F. Bradley, 1937. The Mica in Argillaceous Sediments. *American Mineralogist,* 22:813–829.

(R. E. Grim, 1938)

Inyoite (with type Meyerhofferite) NMNH 87237 Mt. Blanco Deposit, Furnace Creek, Death Valley, California

W. T. Schaller, 1914. Mineralogical Notes, Series 3. *Journal of the Washington Academy of Sciences,* 4:354–356.

(U.S. Geological Survey, 1914)

Inyoite NMNH 93639 Mt. Blanco Deposit, Furnace Creek, Death Valley, California

See reference above.

(U.S. Geological Survey, 1919)

Iowaite NMNH 121706 Sioux County, Iowa

D. W. Kohls and J. L. Rodda, 1967. Iowaite, a New Hydrous Magnesium Hydroxide-Ferric Oxychloride from the Precambrian of Iowa. *American Mineralogist,* 52:1261–1271.

(New Jersey Zinc Company, through D. W. Kohls, 1969)

Jagowerite NMNH 128337 16 miles north of the Hess River, N.T.S. Area, Yukon Territory, Canada

E. P. Meagher, M. E. Coates and A. E. Aho, 1973. Jagowerite: a New Barium Phosphate Mineral from the Yukon Territory. *Canadian Mineralogist,* 12:135–138.

(University of British Columbia, through G. A. Lager, 1974)

Jahnsite NMNH 127153 Tip Top Pegmatite, Custer, South Dakota

P. B. Moore, 1974. Jahnsite, Segelerite, and Robertsite, Three New Transition Metal Phosphate Species. *American Mineralogist,* 59: 48–59.

(P. B. Moore, 1973)

Jennite NMNH 119007 Crestmore, California

A. B. Carpenter, R. A. Chalmers, J. A. Gard, K. Speakman and H. F. W. Taylor, 1966. Jennite, a New Mineral. *American Mineralogist,* 51: 56–74.

(H. F. W. Taylor, 1966)

Joesmithite NMNH 120064 Långban, Sweden

P. B. Moore, 1968. Joesmithite, a New Amphibole-like Mineral from Långban. *Arkiv för Mineralogi och Geologi,* 4:487–492. Abst: *American Mineralogist,* 54:577–578, 1969.

(P. B. Moore, 1967)

Johannsenite NMNH 94246 Espiritu Santo Mine, Real del Monte, Pachuca, Mexico

W. T. Schaller, 1932. Johannsenite, a New Manganese Pyroxene. A paper presented to the Thirteenth Annual Meeting of the Mineralogical Society of America, December, 1932. Abst: *American Mineralogist,* 18:113–114, 1933.

(U.S. Geological Survey, 1942)

Johannsenite NMNH 104260 and 104261 Puebla, Mexico

See reference above.

(U.S. Geological Survey, 1942)

Johannsenite NMNH 104266 and 104267 Lane County, Oregon

See reference above.

(U.S. Geological Survey, 1942)

Johannsenite (with Bustamite) NMNH 104269 Franklin Furnace, New Jersey
See reference above.
(U.S. Geological Survey, 1942)

Johannsenite NMNH 104308 Telela del Oro, Mexico
See reference above.
(U.S. Geological Survey, 1942)

Johannsenite NMNH R3118 Schio, Viscentino, Italy
See reference above.
(Roebling Collection, 1927)

Joseite NMNH R400 San Jose, Minas Gerais, Brazil
M. A. Damour, 1845. Analyse D'un Tellurure de Bismuth du Bresil. *Annales de Chimie et de Physique,* 13:372–376.
(Roebling Collection, from collection of A. A. Damour, 1927)

Josephinite (discredited, =Nickel-Iron) NMNH 80671 Josephine and Jackson Counties, Oregon
W. H. Melville, 1892. Josephinite, a New Nickel-Iron. *American Journal of Science,* (3)43: 509–515.
(U.S. Geological Survey, 1892)

Juanite (discredited, =probably a fibrous Hornblende) NMNH 105990 Iron Hill, Gunnison County, Colorado
E. S. Larsen and E. A. Goranson, 1932. The Deuteric and Later Alterations of the Uncompahgrite of Iron Hill, Colorado. *American Mineralogist,* 17:343–356.
(U.S. Geological Survey, 1949)

Jurupaite (discredited, =Xonotlite, Magnesian) NMNH R4056 Crestmore, Riverside County, California
A. S. Eakle, 1921. Jurupaite—a New Mineral. *American Mineralogist,* 6:107–109.
(Roebling Collection, 1927)

Kalithomsonite (discredited, =Ashcroftine) NMNH 95320 Narsarsuk, Greenland
S. G. Gordon, 1924. Minerals Obtained in Greenland on the Second Academy-Vaux Expedition, 1923. *Proceedings of the Academy of Natural Sciences, Philadelphia,* 76:249–268. Abst: *American Mineralogist,* 10:132,1925.
(Philadelphia Academy of Natural Sciences, 1925)

Kalithomsonite (discredited, =Ashcroftine) NMNH R4333 Narsarsuk, Greenland
See reference above.
(Roebling Collection, 1927)

Kalsilite NMNH 105856 Mafuru, Uganda
F. A. Bannister and M. H. Hey, 1942. Kalsilite, a Polymorph of $KAlSiO_4$, from Uganda. *Mineralogical Magazine,* 26:218–224.
(British Museum (Natural History), 1949)

Karelianite NMNH 121785 and 121786 Outokumpu, Finland
J. V. P. Long, Y. Vuorelainen and O. Kouvo, 1963. Karelianite, a New Vanadium Mineral. *American Mineralogist,* 48:33–41.
(Y. Vuorelainen, 1969)

Kawazulite NMNH 121926 Kawazu Mine, Shizuoka Prefecture, Japan
A. Kato, 1970. In *Introduction to Japanese Minerals,* pages 87–88. Kawasaki: Geological Survey of Japan. Abst: *American Mineralogist,* 57:1312, 1972.
(A. Kato, 1969)

Keatingite (discredited, =Rhodonite, Zincian) NMNH 128728 Sterling Hill, New Jersey
E. S. Dana, 1876. New Minerals. *American Journal of Science,* (3)12:231.
(C. U. Shepard Collection, 1929)

Keeleyite (discredited, =Zinckenite) NMNH R949 San Jose Mine, Oruro, Bolivia
S. G. Gordon, 1922. Keeleyite, a New Lead Sulfantimonide from Oruro, Bolivia. *Proceedings of the Academy of Natural Sciences, Philadelphia,* 74:101–103.
(Philadelphia Academy of Natural sciences, through the Roebling Collection, 1927)

Kegelite NMNH 134514 Tsumeb, Southwest Africa
O. Medenbach and K. Schmetzer, 1975. Kegelit, ein neues Bleisilicat. *Naturwissenschaften,* 62: 137.
(O. Medenbach, 1975)

Kellyite NMNH 127101 Bald Knob, near Sparta, North Carolina
D. R. Peacor, E. J. Essene, W. B. Simmons, Jr. and W. C. Bigelow, 1974. Kellyite, a New Mn-Al Member of the Serpentine Group from Bald Knob, North Carolina, and New Data on Grovesite. *American Mineralogist,* 59: 1153–1156.
(D. R. Peacor, 1973)

Kempite NMNH R1352 Alum Rock Park, near San Jose, Santa Clara County, California
A. F. Rogers, 1924. Kempite, a New Manganese

Mineral from California. *American Journal of Science,* (5)8:145–150.
(Roebling Collection, 1927)

Kenyaite (with type Magadiite) NMNH 121337 Lake Magadi, Kenya
H. P. Eugster, 1967. Hydrous Sodium Silicates from Lake Magadi, Kenya: Precursors of Bedded Chert. *Science,* 157:1177–1180.
(H. P. Eugster, 1968)

Kernite NMNH 95643 Near Rich Station, San Bernardino County, California
W. T. Schaller, 1927. Kernite, a New Sodium Borate. *American Mineralogist,* 12:24–25.
(W. M. Balling, 1927)

Kilchoanite NMNH 119424 and 119425 ¾ mile north of hotel, Kilchoan, Ardnamurchan, Scotland
S. O. Agrell and P. Gay, 1961. Kilchoanite, a Polymorph of Rankinite. *Nature,* 189:743.
(S. O. Agrell, 1966)

Killalaite NMNH 128672 Killala Bay, Inishcrone, County Sligo, Ireland
R. Nawaz, 1974. Killalaite, a New Mineral from Co. Sligo, Ireland. *Mineralogical Magazine,* 39:544–548.
(R. Nawaz, 1974)

Kimzeyite NMNH 117124 Magnet Cove, Arkansas
C. Milton and L. V. Blade, 1958. Preliminary Note on Kimzeyite, a New Zirconium Garnet. *Science,* 127:1343.
(U.S. Geological Survey, through A. A. Baker, 1964)

Kingite NMNH 112693 Robertstown, South Australia, Australia
K. Norrish, L. E. R. Rogers and R. E. Shapter, 1957. Kingite, a New Hydrated Aluminum Phosphate Mineral from Robertstown, South Australia. *Mineralogical Magazine,* 31:351–357.
(Australian Government, through K. Norrish, 1956)

Kinoite NMNH 122395 Santa Rita Mountains, Pima County, Arizona
J. W. Anthony and R. B. Laughon, 1970. Kinoite, a New Hydrous Copper Calcium Silicate Mineral from Arizona. *American Mineralogist,* 55:709–715.
(V. J. Hoffmann, 1970)

Kitkaite NMNH 120267 Kuusamo, Juuma, Finland
T. A. Hakli, Y. Vuorelainen and T. G. Sahama, 1965. Kitkaite (NiTeSe), a New Mineral from Kuusamo, northeast Finland. *American Mineralogist,* 50:581–586.
(Y. Vuorelainen, 1967)

Kleinite NMNH 86639 through 86641 and 86647 Terlingua, Texas
A. Sachs, 1905. Kleinit. *Sitzungsberichte Akademis der Wissenschaften, Berlin,* 1905:1091–1094.
(U.S. Geological Survey, through F. W. Clarke, 1910)

Knipovichite (discredited, =Alumohydrocalcite, Chromian) NMNH 120098 Ak-su River, Turinskya, A.S.S.R., U.S.S.R.
E. I. Nefedov, 1953. Report on New Minerals discovered by Him. In V. A. Mokievsky, The Scientific Session of the Federov Institute Together with the All-Union Mineralogical Society. *Vserossiikoe Mineralogicheskoe Obshchestvo, Leningrad,* 82:311–317. Abst: *American Mineralogist,* 40:551, 1955.
(M. Dorfman, 1967)

Koechlinite NMNH 93646 Daniel Mine, Schneeberg, Saxony, Germany
W. T. Schaller, 1914. Mineralogical Notes, Series 3. *Journal of the Washington Academy of Sciences,* 4:354–356.
(U.S. Geological Survey, 1919)

Koechlinite NMNH R6411 Daniel Mine, Schneeberg, Saxony, Germany
See reference above.
(Roebling Collection, 1927)

Kogarkoite NMNH 127420 Hortense Hot Spring, Chaffee County, Colorado
A. Pabst and W. N. Sharp, 1973. Kogarkoite, a New Natural Phase in the System Na_2SO_4-NaF-NaCl. *American Mineralogist,* 58:116–127.
(University of California, Berkeley, through A. Pabst, 1973)

Kogarkoite NMNH 128029 and 128030 Hortense Hot Spring, Mt. Princeton, Colorado (128029) Wright's Well, Mt. Princeton, Colorado (128030)
See reference above.
(U.S. Geological Survey, through W. N. Sharp, 1974)

Kolbeckite NMNH 106329 Schmiedberg, Saxony, Germany
F. Edelmann, 1926. Kolbeckite, ein Neues Sächsisches Mineral. *Berg-und Huttenmannisches*

Jahrbuch, Sachsen, 100:73–74. Abst: *American Mineralogist,* 13:592, 1928.
(American Museum of Natural History, through F. H. Pough, 1951)

Kossmatite (discredited, =Vermiculite?) NMNH 96429 Prilep, Macedonia, Yugoslavia
O. H. Erdmannsdöffer, 1925. Über Kossmatite, ein Neues Gleid der Sprödglimmergruppe und seine Paragenese. *Centralblat fur Mineralogie, Geologie, und Paleontologie,* Abt. A. 1925: 69–72. Abst: *American Mineralogist,* 10:448, 1925.
(Wysogorski, through W. F. Foshag, 1928)

Kotoite NMNH 103502 Hol Kol Gold Mine, Suan, Korea
T. Watanabe, 1939. Kotoit, ein Neues gesteinbildendes Magnesiumborat. *Mineralogische und Petrographische Mitteilungen,* 50:411–643. Abst: *American Mineralogist,* 24:406, 1939.
(T. Watanabe, 1939)

Kramerite (discredited, =Probertite) NMNH 95832 and 95833 Kramer, Kern County, California
W. T. Schaller, 1928. Borate Minerals from the Mojave Desert, California. Paper delivered to the New York Mineralogical Club, 21 March 1928. Abst: *American Mineralogist,* 13:452–453, 1928.
(U.S. Geological Survey, 1928)

Krausite NMNH 96094 Borate, Calico Hills, San Bernardino County, California
W. F. Foshag, 1930. A New Sulfate of Iron and Potash from California. Paper presented to the Eleventh Annual Meeting of the Mineralogical Society of America, December, 1930. Abst: *American Mineralogist,* 16:115 and 352–360, 1931.
(W. F. Foshag, 1930)

Krausite NMNH R7652 Borate, Calico Hills, San Bernardino County, California
See reference above.
(Roebling Collection, 1935)

Labuntsovite NMNH 113995 Khibina, Kola Peninsula, U.S.S.R.
E. I. Semenov and T. A. Burova, 1955. On the New Mineral Labuntsovite and on the So-called Titanoelpidite. *Doklady Rossiiskoi Akamdeiia Nauk,* 101:1113–1116. Abst: *American Mineralogist,* 41:163, 1956.
(Vlasov, through the Academy of Sciences, U.S.S.R., 1960)

Lancasterite (discredited, =Hydromagnesite) NMNH R2745 Lancaster County, Pennsylvania
B. Silliman, Jr., 1850. On the New American Mineral Lancasterite, *American Journal of Science,* (2)9:216.
(Roebling Collection, 1927)

Laubmannite NMNH 86134 Shady, Polk County, Arkansas
C. Frondel, 1949. The Dufrenite Problem. *American Mineralogist,* 34:513–540.
(J. S. Lawrence, 1907)

Lawsonite NMNH 83635 Tiburon Peninsula, Marin County, California
F. L. Ransome, 1895. On Lawsonite, a New Rock-forming Mineral from the Tiburon Peninsula, Marin Co., California. *University of California, Bulletin of the Department of Geology,* 1:301–312. Abst: *Mineralogical Magazine,* 11:157–158, 1896.
(F. L. Ransome, 1895)

Lederite (discredited, =Titanite) NMNH 128729 Grenville, Canada
C. U. Shepard, 1840. On a Supposed New Mineral Species. *American Journal of Science,* (1)39:357–360.
(C. U. Shepard Collection, 1929)

Legrandite NMNH 114810 Flor de Peña Mine, Lampazos, Nuevo Leon, Mexico
J. Drugman, M. H. Hey and F. A. Bannister, 1932. Legrandite, a New Zinc Arsenate. *Mineralogical Magazine,* 23:175–178.
(British Museum (Natural History), through M. H. Hey, 1960)

Lehiite NMNH 114987 Fairfield, Utah County, Utah
E. S. Larsen and E. V. Shannon, 1930. The Minerals of the Phosphate Nodules from near Fairfield, Utah. *American Mineralogist,* 15: 307–337.
(Found in collection, 1961)

Leightonite NMNH C5536 Chuquicamata, Chile
C. Palache, 1938. Leightonite, a New Sulphate of Copper from Chile. *American Mineralogist,* 23:34–47.
(Canfield Collection, 1936)

Leucophoenicite NMNH R3878 Franklin, New Jersey
S. L. Penfield and C. H. Warren, 1899. Some New Minerals from the Zinc Mine at Franklin, N. J., and Note Concerning the Chemical

Composition of Ganomalite. *American Journal of Science,* (4)8:339–353. Abst: *Mineralogical Magazine,* 12:315–316, 1900.
(Roebling Collection, 1927)

Leucophosphite NMNH 96772 Ninghanboun Hills, Western Australia, Australia
E. S. Simpson, 1931–32. Contributions to the Mineralogy of Western Australia. *Journal of the Royal Society of Western Australia,* 18: 69–74. Abst: *American Mineralogist,* 17:495–496, 1932.
(E. W. Simpson, 1932)

Leucopyrite (discredited, =Loellingite) NMNH 130719 Reichenstein, Silesia, Poland
C. U. Shepard, 1835. Leucopyrite. *Treatise on Mineralogy,* Part 2, Volume 2, pages 8–10.
(C. U. Shepard Collection, 1929)

Lewisite NMNH R5741 Tripuhy, Minas Gerais, Brazil
E. Hussak and G. T. Prior, 1895. Lewisite and Zirkelite, Two New Brazilian Minerals. *Mineralogical Magazine,* 11:80–88.
(Roebling Collection, 1927)

Lizardite NMNH 114569 Kennack Cove, Cornwall, England
H. G. Midgley, 1950. A Serpentine from Kennack Cove, Lizard, Cornwall, *Mineralogical Magazine,* 29:526–530.
E. J. W. Whittaker and J. Zussman, 1956. The Characterization of Serpentine Minerals by X-ray Diffraction. *Mineralogical Magazine,* 31:107–126 [name introduced].
(H. G. Midgley, 1960)

Lopezite NMNH C5487 Oficina Rosario, Iquique Pampa, Huara, Chile
M. C. Bandy, 1937. Lopezite, a New Mineral. *American Mineralogist,* 22:929–930.
(M. C. Bandy, through the Canfield Collection, 1936)

Lorettoite NMNH 93242 Loretto, Tennessee
R. C. Wells and E. S. Larsen, 1916. Lorettoite, a New Mineral. *Journal of the Washington Academy of Sciences,* 6:669–672. Abst: *American Mineralogist,* 2:26, 1917.
(U.S. Geological Survey, 1917)

Lorettoite NMNH R1388 Loretto, Tennessee
See reference above.
(Roebling Collection, 1927)

Loseyite NMNH 95984 Franklin, New Jersey
L. H. Bauer and H. Berman, 1929. Loseyite—a New Franklin Mineral. *American Mineralogist,* 14:150–153.
(Harvard University, 1929)

Louderbackite (discredited, =Roemerite) NMNH 95952 United Verde Mine, Jerome, Arizona
C. Lausen, 1928. Hydrous Sulphates Formed under Fumerolic Conditions at the United Verde Mine. *American Mineralogist,* 13:203–229.
(C. Lausen, 1929)

Loughlinite NMNH 117717 Shaft of Westvaco Trona Mine, Sweetwater County, Wyoming
J. J. Fahey and J. M. Axelrod, 1947. Paper presented to the Twenty-eighth Annual Meeting of the Mineralogical Society of America, December, 1947. Abst: *American Mineralogist,* 33:195, 1948.
(U.S. Geological Survey, 1965)

Lucasite (discredited, =probably a Hydrobiotite) NMNH 88507 Corundum Hill, North Carolina
T. M. Chatard, 1886. Lucasite, a New Variety of Vermiculite. *American Journal of Science,* (3) 32:375–377. Abst: *Zeitschrift für Krystallographie und Mineralogie,* 12:629–630, 1887.
(U.S. Geological Survey, through T. M. Chatard, 1915)

Lucinite (discredited, =Variscite) NMNH 87485 Lucin, Utah
W. T. Schaller, 1914. Mineralogical Notes, Series 3. *Journal of the Washington Academy of Sciences,* 4:354–356 [preliminary note].
(U.S. Geological Survey, 1915)

Lusakite (discredited, =Staurolite, Cobaltian) NMNH 105853 80 miles north of Lusaka, Zambia
A. C. Skerl, F. A. Bannister and A. W. Groves, 1934. Lusakite, a Cobalt-bearing Silicate from Northern Rhodesia. *Mineralogical Magazine,* 23:598–606.
(British Museum (Natural History), 1949)

Mackelveyite (with type Ewaldite) NMNH 121683 Green River Formation, Wyoming
C. Milton, B. Irgram, J. R. Clark and E. J. Dwornik, 1965. Mckelveyite [sic], a New Hydrous Sodium Barium Rare-earth Uranium Carbonate Mineral from the Green River Formation, Wyoming. *American Mineralogist,* 50: 593–612.

(U.S. Geological Survey, through C. Milton, 1964)

Mackinstryite NMNH 120056 Foster Mine, Cobalt, Ontario, Canada

B. J. Skinner, J. L. Jambor and M. Ross, 1966. Mckinstryite, a New Copper-Silver Sulfide. *Economic Geology,* 61:1383–1387.

(B. Skinner, 1967)

Magadiite (with type Kenyaite) NMNH 121336 Lake Magadi, Kenya

H. P. Eugster, 1967. Hydrous Sodium Silicates from Lake Magadi, Kenya: Precursors of Bedded Chert. *Science,* 157:1177–1180.

(H. P. Eugster, 1968)

Magnesiocopiapite NMNH 80696 Near Las Vegas, New Mexico

M. C. Bandy, 1938. Mineralogy of Three Sulphate Deposits of Northern Chile. *American Mineralogist,* 23:669–760 [first analysis].

L. G. Berry, 1947. Composition and Optics of Copiapite. *Contributions to Mineralogy from the Dept. of Geological Sciences, University of Toronto,* 3:21–34.

(W. F. Hillebrand, U.S. Geological Survey, 1892)

Magnesiocopiapite NMNH 103543 Blythe, California

See reference above.

(W. F. Foshag, 1939)

Magnesioludwigite (discredited, =Ludwigite) NMNH 94370 Bog Lake, Cottonwood District, Utah

B. S. Butler and W. T. Schaller, 1913. Magnesioludwigite, a New Mineral. *Journal of the Washington Academy of Sciences,* 7:29–31. Abst: *American Mineralogist,* 2:68–69, 1917.

(U.S. Geological Survey, 1922)

Magnesium-chlorophoenicite NMNH 96495 Franklin, New Jersey

C. Palache, 1935. The Minerals of Franklin and Sterling Hill, Sussex County, New Jersey. *United States Geological Survey Professional Paper,* 180:123–124. Abst: *Mineralogical Abstracts,* 6:261, 1936.

(Harvard University, 1931)

Majorite NMNH 122379 Coorara Meteorite, near Rawlinna, W. Australia, Australia

J. V. Smith and B. Mason, 1970. Pyroxene-Garnet Transformation in Coorara Meteorite. *Science,* 168:832–833.

(B. Mason, 1970)

Makatite NMNH 122169, 122170 and 122171 Lake Magadi, Kenya

R. A. Sheppard and A. J. Gude, III, 1970. Makatite, a New Hydrous Sodium Silicate Mineral from Lake Magadi, Kenya. *American Mineralogist,* 55:358–366.

(U.S. Geological Survey, through R. A. Sheppard, 1970)

Manganpyrosmalite NMNH C6216 Sterling Hill, New Jersey

C. Frondel and L. H. Bauer, 1953. Manganpyrosmalite and its Polymorphic Relation to Friedelite and Schallerite. *American Mineralogist,* 38:755–760.

(L. H. Bauer collection, through the Canfield Collection, 1955)

Mansfieldite NMNH 106565 Hobart Butte, Lane County, Oregon

V. T. Allen and J. J. Fahey, 1945. Mansfieldite, a New Aluminum Arsenate, and the Mansfieldite-Scorodite Series. Paper presented at the 26th Annual Meeting of the Mineralogical Society of America, December. Abst: *American Mineralogist,* 31:189, 1946.

(U.S. Geological Survey, 1953)

Mansfieldite NMNH 117722 Hobart Butte, Lane County, Oregon

See reference above.

(U.S. Geological Survey, 1965)

Marcylite (discredited, =mixture of Tenorite and Covellite) NMNH 128701 Red River, near Wichita Mountains, Oklahoma (?)

C. U. Shepard, 1854. Appendix c, Mineralogy: Report on the Minerals Collected, 1: Copper Ores - Marcylite. In R. C. Marcy, *Exploration of the Red River in Louisiana in the Year 1852,* pages 135–139.

(C. U. Shepard Collection, 1929)

Maufite (probably not a valid species) NMNH 96398 Ruorka Ranch, Lomagundi District, Rhodesia

F. E. Keep, 1930. Notes on Nickel Occurrences in the Great Dyke of Southern Rhodesia. *Transactions of the Geological Society of South Africa,* 32:103–110. Abst: *Mineralogical Abstracts,* 4:248–249, 1930.

(F. E. Keep, 1930)

Maxixe-aquamarine (discredited, =Beryl) NMNH R7460 Maxixe Mine, near Piauhy River, be-

tween Bavre Postal and Itinga, Minas Gerais, Brazil

G. O. Wild, 1933. Mitteilung über ein Anscheinend Neues Berylliumsilikat. *Centralblat für Mineralogie, Geologie, und Paleontologie,* Abstract A (1933):38–39. Abst: *Mineralogical Abstracts,* 5:295, 1933.

(G. O. Wild, through the Roebling Collection, 1934)

Mayenite (with type Brownmillerite) NMNH 120045 Ettringer Bellerberg, Laacher Lake area, near Mayen, Eifel District, Germany

G. Hentschel, 1964. Mayenit, $12CaO \cdot 7Al_2O_3$, und Brownmillerit, $2CaO \cdot (Al,Fe)_2O_3$, Zwei Neue Minerale in den Kalksteineinschlüssen der Lava des Ettringer Bellerberges. *Neues Jahrbuch für Mineralogie, Geologie, und Paleontologie, Monatsh,* 1:22–29. Abst: *American Mineralogist,* 50:2106, 1965.

(G. Hentschel, 1966)

Mazzite NMNH 128520 Mont Semiol, near Montbrison, Loire, France

E. Galli, E. Passaglia and D. Pongiluppi, 1974. Mazzite, a New Mineral, the Natural Counterpart of the Synthetic Zeolite Ω. *Contributions to Mineralogy and Petrology,* 45:99–105.

(E. Passaglia, 1974)

Mcallisterite NMNH 134613 Death Valley Region, Inyo County, California

W. T. Schaller, A. C. Vlisidis and M. E. Mrose, 1965. Macallisterite [sic], $2MgO \cdot 6B_2O_3 \cdot 15H_2O$, a New Hydrous Magnesium Borate Mineral from the Death Valley Region, Inyo County, California, *American Mineralogist,* 50:629–640.

(U.S. Geological Survey, through M. E. Mrose, 1975)

Melonjosephite NMNH 128338 Pegmatite d'Angarf-Sud, Plaine des Zenaga, Anti-Atlas, Morocco

A. M. Fransolet, 1973. La Mélonjosephite $CaFe^{+2}Fe^{+3}(PO_4)_2(OH)$, une Nouvelle Espèce Minérale. *Bulletin de la Société Française de Mineralogie et de Cristallographie,* 96:135–142.

(University of Liege, through A. M. Fransolet, 1974)

Mertieite NMNH 132499 Goodnews Bay, Alaska

G. A. Desborough, J. J. Finney and B. F. Leonard, 1973. Mertieite, a New Palladium Mineral from Goodnews Bay, Alaska. *American Mineralogist,* 58:1–10.

(U.S. Geological Survey, through G. A. Desborough, 1974)

Merwinite NMNH 94030 Crestmore, Riverside, California

E. S. Larsen and W. F. Foshag, 1921. Merwinite, a New Calcium Magnesium Orthosilicate from Crestmore, California. *American Mineralogist,* 6:143–148.

(W. G. Foshag, 1920)

Metaheinrichite NMNH 115884 White King Mine, Lakeview, Oregon

E. B. Gross, A. S. Corey, R. S. Mitchell and K. Walenta, 1958. Heinrichite and Metaheinrichite, Hydrated Barium Uranyl Arsenate Minerals. *American Mineralogist,* 43:1134–1143.

(U.S. Geological Survey, 1963)

Metahewettite NMNH 93305, 93306, 93307 and 93308 Joe Dandy Claim, East Paradox Valley, Colorado

W. F. Hillebrand, H. E. Merwin and F. E. Wright, 1914. Hewettite, Metahewettite and Pascoite, Hydrous Calcium Vanadates. *Proceedings of the American Philosophical Society of Philadelphia,* 53:31–54. Abst: *Mineralogical Magazine,* 17:354, 1916.

(W. F. Hillebrand, 1917)

Metastibnite NMNH 79185 Steamboat Springs, Washoe County, Nevada

G. F. Becker, 1888. Geology of a Quicksilver Deposit of the Pacific Slope. *United States Geological Survey Monograph,* 13:343–344, 389.

(U.S. Geological Survey, through W. H. Melville, 1891)

Metaswartzite (inadequately described) NMNH 106109 Hillside Mine, Yavapai County, Arizona

J. Axelrod, F. Grimaldi, C. Milton and K. J. Murata, 1948. Uranium Minerals from the Hillside mine, Yavapai County, Arizona. Paper given at the 29th Annual Meeting of the Mineralogical Society of America, 1948. Abst: *American Mineralogist,* 34:274, 1949.

(U.S. Geological Survey, 1950)

Metavariscite NMNH 86993 Utahlite Hill, 5 miles northwest of Lucin, Utah

E. S. Larsen and W. T. Schaller, 1925. The Identity of Variscite and Peganite and the Dimorphous Form, Metavariscite. *American Mineralogist,* 10:23–28.

(U.S. Geological Survey, through D. B. Sterrett, 1911)

Metavariscite NMNH 87484 Lucin, Utah

See reference above.

(U.S. Geological Survey, 1915)

Meyerhofferite (with type Inyoite) NMNH 87237 Mount Blanco Deposit, Furnace Creek, Death Valley, California

W. T. Schaller, 1914. Mineralogical Notes, Series 3. *Journal of the Washington Academy of Sciences,* 4:354–356.

(U.S. Geological Survey, 1914)

Meyerhofferite (with type Inyoite) NMNH 93640 Death Valley, California

See reference above.

(U.S. Geological Survey, 1919)

Miargyrite NMNH 95334 Kelley Mine, Randsburg, California

E. V. Shannon, 1929. Miargyrite Silver Ore from the Randsburg District, California. *Proceedings of the United States National Museum,* 74, art. 21:1–10. Abst: *Mineralogical Abstracts,* 4: 142–143, 1929.

(U.S. Geological Survey, 1925)

Microlite NMNH 128730 Chesterfield, Massachusetts

C. U. Shepard, 1835. Microlite, a New Mineral Species. *American Journal of Science,* (1) 27:361–362.

(C. U. Shepard Collection, 1929)

Minasragrite NMNH 87515 Minasragra, Peru

W. T. Schaller, 1915. Four New Minerals. *Journal of the Washington Academy of Sciences,* 5:7.

(E. W. Wilson, 1915)

Minyulite NMNH 96769 Near Minyulo Well, Dandaragan, W. Australia

E. S. Simpson and C. R. LeMesurier, 1933. Minyulite, a New Phosphate Mineral from Dandaragan, W. A. *Journal of the Royal Society of Western Australia,* 19:13–16. Abst: *Mineralogical Abstracts,* 5:293, 1933.

(E. S. Simpson, 1932)

Moctezumite NMNH 128392 Moctezuma Mine, Moctezuma, Sonora, Mexico

R. V. Gaines, 1965. Moctezumite, a New Lead Uranyl Tellurite. *American Mineralogist,* 50: 1158–1163.

(R. V. Gaines, 1974)

Monetite NMNH 123822 Mona and Moneta Islands, West Indies

C. U. Shepard, 1882. On Two New Minerals, Monetite and Monite, with a Notice of Pyroclasite. *American Journal of Science,* (3)23: 400–405.

(C. .U Shepard Collection, 1929)

Monetite NMNH 128714 Mona and Moneta Islands, West Indies

See reference above.

(C. U. Shepard Collection, 1929)

Monite (discredited, =Carbonate-hydroxyl-apatite) NMNH 128715 Mona and Moneta Islands, West Indies

C. U. Shepard, 1882. On Two New Minerals, Monetite and Monite, with a Notice of Pyroclasite. *American Journal of Science,* (3)23: 400–405.

(C. U. Shepard Collection, 1929)

Montroseite NMNH 106897 Bitter Creek Mine, Montrose County, Colorado

A. D. Weeks, E. A. Cisney and A. M. Sherwood, 1950. Hummerite and Montroseite, Two Vanadium Minerals from Montrose County, Colorado. Paper presented at the 31st Annual Meeting of the Mineralogical Society of America, 1950. Abst: *American Mineralogist,* 36:326–327, 1951.

(U.S. Geological Survey, 1954)

Montroydite NMNH 86637 and 86638 Terlingua, Texas

A. J. Moses, 1903. Eglestonite, Terlinguaite and Montroydite, New Mercury Minerals from Terlingua, Texas. *American Journal of Science,* (4)16:253–263.

(U.S. Geological Survey, through F. W. Clarke, 1910)

Montroydite NMNH 87483 Terlingua, Texas

See reference above.

(U.S. Geological Survey, 1915)

Mooihoekite (with type Haycockite) NMNH 124965 Mooihoek Farm, Transvaal, Republic of South Africa

L. J. Cabri and S. R. Hall, 1972. Mooihoekite and Haycockite, Two New Copper-Iron Sulfides, and Their Relationship to Chalcopyrite and Talnakhite. *American Mineralogist,* 57: 689–708.

(Ontario Department of Energy, Mines, and Resources, through L. J. Cabri, 1972)

Mooreite NMNH 95985 Sterling Hill, New Jersey

L. H. Bauer and H. Berman, 1928. On a New Basic Sulphate and Two Borates of Magnesium from Sterling Hill and Franklin, New Jersey. Paper presented at the 9th Annual Meeting of the Mineralogical Society of America, 1928. Abst: *American Mineralogist,* 14:103, 1929.
(Harvard University, 1929)

Moraesite NMNH 106577 Sapucaia Pegmatite, Minas Gerais, Brazil
M. L. Lindberg, W. T. Pecora and A. L. de M. Barbosa, 1953. Moraesite, New Hydrous Beryllium Phosphate from Minas Gerais, Brazil. *American Mineralogist,* 38:1126–1133.
(W. T. Pecora, 1954)

Mordenite NMNH R4062 Morden, Kings County, Nova Scotia, Canada
D. C. L. How, 1864. On Mordenite, a New Mineral from the Trap of Nova Scotia. *Journal of the Chemical Society, London,* 17:100–104. Abst: *Dana,* 6:573.
(Roebling Collection, 1927)

Morencite (discredited, =Nontronite) NMNH 86033 Arizona Central Mine, Morenci, Arizona
W. Lindgren and W. F. Hillebrand, 1904. Minerals from the Clifton-Morenci District, Arizona. *American Journal of Science* (4)18:448–460. Abst: *Mineralogical Magazine,* 14:404, 1907.
(U.S. Geological Survey, W. Lindgren collection, 1905)

Mosesite NMNH 93292 Terlingua, Texas
F. A. Canfield and W. F. Hillebrand, 1910. Mosesite, a New Mineral from Terlingua, Texas. *American Journal of Science,* (4)30:202–208.
(W. F. Hillebrand, 1917)

Mosesite NMNH C870 Terlingua, Texas
See reference above.
(Canfield Collection, 1927)

Mountainite NMNH 114792 Bultfontein Mine, Kimberley, Republic of South Africa
J. A. Gard, H. F. W. Taylor and R. A. Chalmers, 1957. An Investigation of Two New Minerals: Rhodesite and Mountainite. *Mineralogical Magazine,* 31:611–623.
(E. D. Mountain, 1960)

Mourite NMNH 127972 U.S.S.R.
E. V. Kopchenova, K. V. Skvortsova, N. I. Silantieva, G. A. Siderenko and L. V. Mikhailova, 1962. Mourite, a New Supergene Uranium-Molybdenum Mineral. *Vserossiikoe Mineralogicheskoe Obshchestvo, Leningrad,* 91 (1): 67–71. Abst: *American Mineralogist,* 47:1217, 1962.
(U.S. Geological Survey, 1973)

Murataite NMNH 133319, 133320 and 133321 St. Peter's Dome, El Paso County, Colorado
J. W. Adams, T. Botinelly, W. N. Sharp and K. Robinson, 1974. Murataite, a New Complex Oxide from El Paso County, Colorado. *American Mineralogist,* 59:172–176.
(U.S. Geological Survey, through J. W. Adams, 1974)

Napalite (discredited, =a mixture) NMNH 79184 Etna Mine, Napa County, California
G. F. Becker, 1888. Geology of the Quicksilver Deposits of the Pacific Slope. *United States Geological Survey Monograph* 13:372–373. Abst: *Zeitschrift für Krystallographie und Mineralogie,* 20:498, 1892.
(W. H. Melville, 1891)

Natramblygonite, see Natromontebrasite

Natrojarosite NMNH 86932 Soda Springs Valley, Esmeralda County, Nevada
W. F. Hillebrand and S. L. Penfield, 1902. Some Additions to the Alunite-Jarosite Group of Minerals. *American Journal of Science,* (4) 14:211–220. Abst: *Mineralogical Magazine,* 13: 373, 1903.
(U.S. Geological Survey, 1911)

Natrojarosite NMNH R6307 Soda Springs Valley, Esmeralda County, Nevada
See reference above.
(Roebling Collection, 1927)

Natromontebrasite NMNH 86843 and 87490 Canon City, Colorado
W. T. Schaller, 1911. Natramblygonite, a New Mineral. *American Journal of Science,* (4)31: 48–50. [Identical with natromontebrasite; see F. Gonnard, 1913. *Bulletin de la Société Française de Mineralogie et de Cristallographie,* 36:119–121.]
(U.S. Geological Survey, 1911)

Naujakasite NMNH 97479 Naujakasik, Greenland
O. B. Bøggild, 1933. Igalikite and Naujakasite, Two New Minerals from South Greenland. *Meddelelser om Grønland,* 92:1–12. Abst: *American Mineralogist,* 20:138, 1935.
(Mineralogiske og Geologiske Museum, through O. B. Bøggild, 1935)

Neighborite NMNH 115216 Eocene Green River Formation of South Ouray, Uintah County, Utah.

E. C. T. Chao, H. T. Evans, Jr., B. J. Skinner and C. Milton, 1961. Neighborite, $NaMgF_3$, a New Mineral from the Green River Formation, South Ouray, Utah. *American Mineralogist,* 46:379–393.

(U.S. Geological Survey, 1962)

Nekoite NMNH 95637 Wet Weather Quarry, Crestmore, California

J. A. Gard and H. F. W. Taylor, 1956. Okenite and Nekoite (a New Mineral). *Mineralogical Magazine,* 31:5–20.

(W. F. Foshag, 1927)

Neomesselite (discredited, =Messelite) NMNH 106915 Palermo Pegmatite, North Groton, New Hampshire

C. Frondel, 1955. Neomesselite and Beta-Roselite: Two New Members of the Fairfieldite Group. *American Mineralogist,* 40:828–833.

(Harvard University, 1954)

Niccochromite (discredited, =doubtful species) NMNH 128716 New Texas, Lancaster County, Pennsylvania

C. U. Shepard, 1877. Niccochromite. *Contributions to Mineralogy,* 1877, page 6.

(C. U. Shepard Collection, 1929)

Ningyoite NMNH 113822 Ningyo-toge Mine, Tottori Prefecture, Japan

T. Muto, R. Meyrowitz, A. M. Pommer and T. Murano, 1959. Ningyoite, a New Uranous Phosphate Mineral from Japan. *American Mineralogist,* 44:633–650.

(U.S. Geological Survey, 1959)

Ningyoite NMNH 115885 Ningyo-toge Mine, Tottori Prefecture, Japan

See reference above.

(U.S. Geological Survey, 1963)

Nitromagnesite NMNH 128717 Niccojack Cave, Tennessee

C. U. Shepard, 1835. Nitro-magnesite. *Treatise on Mineralogy,* 2nd Edition, Part 2, Volume 2, page 85.

(C. U. Shepard Collection, 1929)

Nolanite NMNH 112965 Beaverlodge, Saskatchewan, Canada

S. C. Robinson, H. T. Evans, Jr., W. T. Schaller and J. J. Fahey, 1957. Nolanite, a New Iron-Vanadium Mineral from Beaverlodge, Saskatchewan. *American Mineralogist,* 42:619–628.

(U.S. Geological Survey, through T. B. Nolan, 1958)

Noonkanbahite (discredited, =variety of Shcherbakovite) NMNH 119787 Wolgidee Hills, West Kimberly District, Western Australia, Australia

R. T. Prider, 1965. Noonkanbahite, a Potassic Batisite from the Lamproites of Western Australia. *Mineralogical Magazine,* 34:403–405.

(R. T. Prider, 1966)

Nordstrandite NMNH 117275 Gunony Kapor, Bau, Sarawak

J. R. D. Wall, E. B. Wolfenden, E. H. Beard and T. Deans, 1962. Nordstrandite in Soil from West Sarawak, Borneo. *Nature,* 196:265–266.

(J. Patrick, 1964)

Novacekite NMNH R5686 Schneeberg, Saxony, Germany

C. Frondel, 1951. Studies of Uranium Minerals (IX): Saléeite and Novacekite. *American Mineralogist,* 36:680–686.

(Roebling Collection, 1927)

Novakite NMNH 116992 Cerny Dul, Giant Mountains, Krkonose, Czechoslovakia

Z. Johan and J. Hak, 1961. Novákite, $(Cu,Ag)_4As_3$, a New Mineral. *American Mineralogist,* 46: 885–891.

(J. Hak, 1963)

Oborite (with type Beiyinite) NMNH R7709 Beiyin-Obo, north of Paoto, Suiyuan, China

T. L. Ho, 1935. Note on Some Rare Earth Minerals from Beiyin Obo, Suiyuan. *Bulletin of the Geological Society of China,* 14:279–282.

(T. L. Ho, 1936)

Ontariolite (discredited, =Wernerite) NMNH 128718 Galway, Ontario, Canada

C. U. Shepard, 1880. Mineralogical Notes, 1: A Peculiar Member of the Scapolite Family. *American Journal of Science,* (3)20:54–57.

(C. U. Shepard Collection, 1929)

Ontariolite (discredited, =Wernerite) NMNH R3573 Ontario County, Canada

See reference above.

(Roebling Collection, 1927)

Ordoñezite NMNH R9127 El Santin Mine, Mesa de la Fajas, Sierra Gorda, near Santa Catarina, Guanajuato, Mexico

G. Switzer and W. F. Foshag, 1953. Ordoñezite,

Zinc Antimonate, a New Mineral from Guanajuato, Mexico. Paper given at the 34th Annual Meeting of the Mineralogical Society of America, 1953. Abst: *American Mineralogist,* 39: 346, 1954.
(Diaz collection, through the Roebling Collection, 1953)

Orientite NMNH 93819 Oriente Province, Cuba
D. F. Hewett and E. V. Shannon, 1920. Orientite, a New Hydrous Silicate of Calcium and Manganese from Cuba. Paper presented at the 1st Annual Meeting of the Mineralogical Society of America, 1920. Abst: *American Mineralogist,* 6:38, 1921; 6:132, 1921.
(D. F. Hewett, 1920)

Osarsite NMNH 123218 Gold Bluff, Humboldt County, California
K. G. Snetsinger, 1972. Osarsite, a New Osmium-Ruthenium Sulfarsenide from California. *American Mineralogist,* 57:1029–1036.
(NASA Ames Research Center, through K. G. Snetsinger, 1972)

Ottemannite (with type Berndtite) NMNH 114486 Maria Teresa Mine, Huari, Bolivia
G. H. Moh and F. Berndt, 1964. Two New Natural Tin Sulfides Sn_2S and SnS_2. *Neues Jahrbuch für Mineralogie, Geologie, und Paleontologie,* 3:94–95. Abst: *American Mineralogist,* 50:2107, 1965; (name) *American Mineralogist,* 51:1551, 1966.
(F. Ahlfeld Collection, through Ward's Natural Science Establishment, 1960)

Ottemannite (with type Berndtite) NMNH C5354 Maria Teresa Mine, Huari, Bolivia
See reference above.
(Canfield Collection, 1935)

Owyheeite NMNH 94054 Poorman Mine, Silver City District, Owyhee County, Idaho
E. V. Shannon, 1921. Owyheeite. *American Mineralogist,* 6:82–83.
(Found in the collections, 1920)

Oyamalite (discredited, =Zircon, Phosphatian) NMNH 105581 Oyama, Iyo Province, Japan
K. Kimura, 1925. The Chemical Investigations of Japanese Minerals Containing the Rare Elements, Part V. *Japanese Journal of Chemistry,* 2:81–85. Abst: *American Mineralogist,* 11:137–138, 1926.
(F. A. Rapp, 1947)

Oyamalite (discredited, =Zircon, Phosphatian) NMNH 106322 Oyama, Iyo Province, Japan
See reference above.
(F. A. Rapp, 1951)

p-Veatchite, see Veatchite

Paigeite NMNH 86789 Ear Mountain, Alaska
A. Knopf and W. T. Schaller, 1908. Two New Boron Minerals of Contact-Metamorphic Origin. *American Journal of Science,* (4)25:323–331. Abst.: *Mineralogical Magazine,* 15:426–427, 1910.
(U.S. Geological Survey, through A. Knopf, 1910)

Paigeite NMNH 86988 Ear Mountain, Seward Peninsula, Alaska
See reference above.
(U.S. Geological Survey, through A. Knopf, 1911)

Palaite (discredited, =Hureaulite) NMNH 93655 Pala, San Diego County, California
W. T. Schaller, 1912. New Manganese Phosphates from the Gem Tourmaline Field of Southern California. *Journal of the Washington Academy of Sciences,* 2:143–145.
(U.S. Geological Survey, 1919)

Palaite (discredited, =Hureaulite) NMNH R5550 Stewart Mine, Pala, San Diego County, California
See reference above.
(Roebling Collection, 1927)

Parabutlerite NMNH 115159 Chuquicamata, Chile
M. C. Bandy, 1938. Mineralogy of Three Sulphate Deposits in Northern Chile. *American Mineralogist,* 23:669–760.
(M. C. Bandy, 1961)

Paradamite NMNH 112518 Mapimi, Durango, Mexico
G. Switzer, 1956. Paradamite, a New Zinc Arsenate from Mexico. *Science,* 123:1039. Abst: *American Mineralogist,* 41:958, 1956.
(G. Burnham, 1955)

Paradocrasite NMNH R419 Broken Hill, New South Wales, Australia
B. F. Leonard, C. W. Mead and J. J. Finney, 1971. Paradocrasite, $Sb_2(Sb,As)_2$, a New Mineral. *American Mineralogist,* 56:1127–1146.
(Roebling Collection, 1927)

Paramelaconite NMNH R1820 Copper Queen Mine, Bisbee, Arizona
C. Frondel, 1941. Paramelaconite: a Tetragonal

Oxide of Copper. *American Mineralogist,* 26: 657–672.
(Roebling Collection, 1927)

Paratellurite NMNH R18129 Moctezuma, Sonora, Mexico
G. Switzer and H. E. Swanson, 1950. Paratellurite, a New Mineral from Mexico. *American Mineralogist,* 45:1272–1274.
(E. R. Swoboda, through the Roebling Collection, 1952)

Paratellurite NMNH C5995 Moctezuma, Sonora, Mexico
See reference above.
(Minerals Unlimited, through the Canfield Collection, 1951)

Paravauxite NMNH 112735 Llallagua, Bolivia
S. G. Gordon, 1922. Preliminary Notes on Vauxite and Paravauxite, Two New Minerals from Llallagua, Bolivia. Paper presented at the meeting of the Philadelphia Mineralogical Society, 14 April 1922. Abst: *American Mineralogist,* 7:107–108, 1922.
(S. A. Gordon, 1957)

Paravauxite NMNH R5647 Llallagua, Bolivia
See reference above.
(Roebling Collection, 1927)

Parawollastonite (discredited, =Wollastonite, 2M) NMNH 13651 Monte Somma, Vesuvius, Italy
M. A. Peacock, 1935. On Wollastonite and Parawollastonite. *American Journal of Science,* (5)30:495–529.
(T. Schuchardt, 1883)

Partridgeite (discredited =Bixbyite) NMNH 105141 Postmasburg Manganese Deposits, Cape Province, South Africa
J. E. de Villiers, 1943. A Preliminary Description of the New Mineral Partridgeite. *American Mineralogist,* 28:336–338.
(U.S. Geological Survey, through M. Fleischer, 1945)

Parwelite NMNH 120065 Långban, Sweden
P. B. Moore, 1967. Eleven New Minerals from Långban, Sweden. Paper presented before the Twelfth Annual Meeting of the Mineralogical Association of Canada, 1967. Abst: *Canadian Mineralogist,* 9:301, 1967.
(P. B. Moore, 1967)

Pascoite NMNH 87662 Minasragra, Peru
W. F. Hillebrand, H. E. Merwin and F. E. Wright, 1914. Hewettite, Metahewettite and Pascoite, Hydrous Calcium Vanadates. *Proceedings of the American Philosophical Society of Philadelphia,* 53:31–54. Abst: *Mineralogical Magazine,* 17:355, 1916.
(U.S. Geological Survey, through D. F. Hewett, 1912)

Pascoite NMNH 93297 Minasragra, Peru
See reference above.
(W. F. Hillebrand, 1917)

Pecoraite NMNH 128111 Wolf Creek Meteorite Crater, Western Australia, Australia
G. T. Faust, J. J. Fahey, B. Mason and E. J. Dwornik, 1969. Pecoraite, $Ni_6Si_4O_{10}(OH)_8$, Nickel Analog of Clinochrysotile, Formed in the Wolk Creek Meteorite. *Science,* 165:59–60.
(B. Mason and E. P. Henderson, 1968)

Pelhamine (discredited, =an altered Chrysotile) NMNH 128720 Pelham, Massachusetts
C. U. Shepard quoted in E. S. Dana, 1876. New Minerals. *American Journal of Science,* (3) 12:231.
(C. U. Shepard Collection, 1929)

Pendletonite (discredited, =Karpatite) NMNH 119545 Picachos Mine, San Benito County, California
J. Murdoch and T. A. Geissman, 1967. Pendletonite, a New Hydrocarbon Mineral from California. *American Mineralogist,* 52:611–616.
(J. Murdoch, 1966)

Pennantite NMNH 105855 Ty Canol Incline, Benallt Mine, Rhiw, Carnarvonshire, England
W. C. Smith, F. A. Bannister and M. H. Hey, 1946. Pennantite, a New Manganese-rich Chlorite from Benallt Mine, Rhiw, Carnarvonshire. *Mineralogical Magazine,* 27:217–220.
(British Museum (Natural History), 1949)

Penroseite NMNH 95302 Colquechaca, Bolivia
S. G. Gordon, 1925. Penroseite and Trudellite, Two New Minerals. Paper presented to the Philadelphia Mineralogical Society, 12 November 1925. Abst: *American Mineralogist,* 11: 41–42, 1926.
(Academy of Natural Sciences, Philadelphia, 1925)

Penroseite NMNH R7247 Colquechaca, Bolivia
See reference above.
(Roebling Collection, 1933)

Pentagonite (with Cavansite) NMNH 122769 Owyhee Dam, Malheur County, Oregon
L. W. Staples, H. T. Evans, Jr., and J. R. Lind-

say, 1973. Cavansite and Pentagonite, New Dimorphous Calcium Vanadium Silicate Minerals from Oregon. *American Mineralogist,* 58: 405–411.
(Mrs. F. S. Zimmerman (?), 1970)

Phosphochromite (discredited, =an invalid species) NMNH 128746 Elroque Island, West Indies
C. U. Shepard, 1877. Phosphochromite. *Contributions to Mineralogy,* 1877:7.
(C. U. Shepard Collection, 1929)

Pinchite NMNH 128440 Terlingua, Texas
B. D. Sturman and J. A. Mandarino, 1974. Pinchite, a New Mercury Oxychloride from Terlingua, Texas. *Canadian Mineralogist,* 12: 417–418.
(W. W. Pinch, 1974)

Pinchite NMNH 132391 Terlingua, Texas
See reference above.
(W. W. Pinch, 1975)

Pintadoite NMNH 93657 Canyon Pintado, San Juan County, Utah
F. L. Hess and W. T. Schaller, 1916. Pintadoite and Uvanite, Two New Uranium Minerals from Utah: A Preliminary Note. *Journal of the Washington Academy of Sciences,* 4:576–579. Abst: *Mineralogical Magazine,* 17:355, 1916.
(U.S. Geological Survey, 1919)

Pintadoite NMNH R5714 Frisco #2 Claim, Canyon Pintado, San Juan County, Utah
See reference above.
(Roebling Collection, 1927)

Plazolite (discredited, =Hydrogrossular) NMNH 94024 Commercial Quarry, Crestmore, Riverside, California
W. F. Foshag, 1920. Plazolite, a New Mineral. *American Mineralogist,* 5:183–185.
(W. F. Foshag, 1920)

Plumbojarosite NMNH 86551 Cooks Peak, New Mexico
W. F. Hillebrand and S. L. Penfield, 1902. Some Additions to the Alunite-Jarosite Group of Minerals. *American Journal of Science,* (4) 14:211–220.
(Source not known, 1909)

Plumbojarosite NMNH R6308 Cooks Peak, New Mexico
See reference above.
(Roebling Collection, 1927)

Plumbosynadelphite (discredited, =Synadelphite, var. Plumboan) NMNH 84331 Nordmark, Sweden
C. S. Hurlbut, Jr., 1937. On Synadelphite and Plumbosynadelphite. *American Mineralogist,* 22:526–533.
(G. L. English & Company, purchase, 1898)

Potarite NMNH 95350 Amu Creek, tributary of Essequites River, Guyana
L. J. Spencer, 1928. Potarite, a New Mineral Discovered by the Late Sir John Harrison in British Guiana. *Mineralogical Magazine,* 21: 397–406.
(Government of Guyana, through J. Harrison, 1926)

Poughite NMNH 128388 Moctezuma Mine, Moctezuma, Sonora, Mexico
R. V. Gaines, 1968. Poughite, a New Tellurite Mineral from Mexico and Honduras. *American Mineralogist,* 53:1075–1080.
(R. V. Gaines, 1974)

Powellite NMNH 80674 Peacock Lode, Seven Devils District, Idaho
W. H. Melville, 1891. Powellite—Calcium Molybdate: a New Mineral Species. *American Journal of Science,* (3)41:138–141.
(W. H. Melville, 1892)

Prehnitoid discredited, =Mizzonite) NMNH R3581 Solberget, near Vaxjo, Sweden
C. W. Blomstrand, 1854. Nagra Bidrag Till Svergis Mineral-geografi. *Ofversigt af Svenska Vetenskapsakademien Forhandingar,* 11:296–302. Abst: *Dana* 6:471.
(Roebling Collection, 1927)

Ptilolite (discredited, =Mordenite) NMNH 83281, 83282, 83283 and 83285 Northeast Slope of Green Mountain, Jefferson County, Colorado
W. Cross and L. G. Eakins, 1886. On Ptilolite, a New Mineral. *American Journal of Science,* (3)32:117–121.
(U.S. Geological Survey, 1894)

Pumpellyite NMNH 95279, 95280, 95281 and 95282 Kearsage Lode, 81st level, C. & H. Mine, Superior, Michigan
C. Palache and H. E. Vassar, 1925. Some Minerals of the Keweenawan Copper Deposits: Pumpellyite, a New Mineral; Sericite, Saponite. *American Mineralogist,* 10:412–418.
(Harvard University, 1925)

Purpurite NMNH 93883 Faires Tin Mine, Kings Mountain, Gaston County, North Carolina

L. C. Graton and W. T. Schaller, 1905. Purpurite, a New Mineral. *American Journal of Science,* (4)20:146–151. Abst: *Mineralogical Magazine,* 14:408, 1907.
(U.S Geological Survey, 1920)

Pyroclasite (discredited, =Apatite) NMNH 112737 Mong's Island, West Indies
C. U. Shepard, 1856. Five New Mineral Species. *American Journal of Science,* (2)22:96–99.
(C. U. Shepard Collection, 1929)

Pyroiodesine (discredited, =Serpentine?) NMNH 128721 De Regla, near Havana, Cuba
C. U. Shepard, 1872. Pyroidesine. *Catalog of the Meteroic Collection of Charles Upham Shepard,* page 7.
(C. U. Shepard Collection, 1929)

Pyromelane (discredited, =Brookite) NMNH 128750 McDowell County, North Carolina
C. U. Shepard, 1856. Five New Mineral Species. *American Journal of Science,* (2)22:96–99.
(C. U. Shepard Collection, 1929)

Quetzalcoatlite NMNH 135055 Mina Bambollita, Moctezuma, Sonora, Mexico
S. A. Williams, 1973. Quetzalcoatlite, $Cu_4Zn_8(TeO_3)_3(OH)_{18}$. *Mineralogical Magazine,* 39: 261–263.
(S. A. Williams, 1976)

Rabbittite NMNH 112741 Lucky Strike #2 Mine, Emery County, Utah
M. E. Thompson, A. D. Weeks and A. M. Sherwood, 1954. Rabbittite, a New Uranyl Carbonate from Utah. *United States Geological Survey Trace Element Investigation Report,* 405: 12 pages.
A. D. Weeks and M. E. Thompson, 1954. Identification and Occurrence of Uranium and Vanadium Minerals from the Colorado Plateaus. *United States Geological Survey Bulletin,* 1009-B:13–62. Abst: *American Mineralogist,* 39:1037, 1954.
(U.S. Geological Survey, 1957)

Racewinite (discredited, =Beidellite?) NMNH R4759 Bingham, Utah
A. N. Winchell, 1918. Racewinite: A Peculiar Mineral from Ore Deposits in Utah. *Economic Geology,* 13:611–615.
(Roebling Collection, 1927)

Ramdohrite NMNH R6595 Guadeloupe Mine, Chocaya la vieja, Nor Chichas, Potosi, Bolivia
F. Ahlfeld, 1930. Ramdohrit, ein Neues Mineral aus Bolivien. *Centralblat für Mineralogie, Geologie, und Paleontologie, Abt. A* (8):365–367. Abst: *American Mineralogist,* 16:132, 1931.
(F. Ahlfeld, through the Roebling Collection, 1930)

Ransomite NMNH 95955 United Verde Mine, Jerome, Arizona
C. Lausen, 1928. Hydrous Sulphates Formed under Fumerolic Conditions at the United Verde Mine. *American Mineralogist,* 13:203–229.
(C. Lausen, 1929)

Rauvite NMNH 95060 Temple Mountain, Emery County, Utah
F. L. Hess, 1922. Uranium-bearing Asphaltite Sediments of Utah. *Engineering and Mining Journal of New York,* 114:272–276. Abst: *American Mineralogist,* 8:187, 1923.
(U.S. Geological Survey, 1925)

Rauvite NMNH R5715 Temple Mountain, San Rafael Swell, Emery County Utah
See reference above.
(Roebling Collection, 1927)

Redledgeite (also see card under Chromrutile) NMNH 95846 Red Ledge Mine, Washington District, Nevada County, California
H. Strunz, 1961. Chromrutile von der Red Ledge Mine ist Kein Rutil. Redledgeit. *Neues Jahrbuch für Mineralogie, Geologie, und Paleontologie, Monatsh,* 1961:107–111. Abst: *American Mineralogist,* 46:1201, 1961.
(Philadelphia Academy of Sciences, 1928)

Redondite (discredited, =Variscite, Ferrian) NMNH 130872 Redonda Island, near Antigua, West Indies
C. U. Shepard, 1869. On a New Mineral Phosphate from the Island of Redonda, W. I. *American Journal of Science,* (2)47:428–429.
(C. U. Shepard Collection, 1929)

Reedmergnerite NMNH 106865 Green River Formation, Utah
C. Milton, J. M. Axelrod and F. S. Grimaldi, 1954. New Minerals, Reedmergnerite ($Na_2O \cdot B_2O_3 \cdot 6SiO_2$) and Eitelite ($Na_2O \cdot MgO \cdot 2CO_2$) Associated with Leucosphenite, Shortite, Searlesite, and Crocidolite in the Green River Formation, Utah. Paper given at the 35th Annual Meeting of the Mineralogical Society

of America. 1954. Abst: *American Mineralogist,* 40:326, 1955.

(U.S. Geological Survey, through C. Milton, 1954)

Reevesite (with type Cassidyite) NMNH 119553 and 119554 Wolf Creek Meteorite, Western Australia, Australia

J. S. White, Jr., E. P. Henderson and B. Mason, 1967. Secondary Minerals Produced by Weathering of the Wolf Creek Meteorite. *American Mineralogist,* 52:1190–1197.

(Division of Meteorites, Smithsonian Institution, 1966)

Revoredite (discredited, =doubtful species) NMNH 113100 Cerro de Pasco, Peru

G. C. Amstutz, P. Ramdohr and F. de las Casas, 1957. A New Low Temperature Mineral of Hydrothermal Origin from Cerro de Pasco. *Boletín Sociedad Geológia del Peru,* 32:25–33. Abst: *American Mineralogist,* 43:794, 1958.

(U.S. Geological Survey, 1959)

Rhodesite NMNH 114793 Bultfontein Mine, Kimberley, Republic of South Africa

E. D. Mountain, 1957. Rhodesite, a New Mineral from the Bultfontein Mine, Kimberley. *Mineralogical Magazine,* 31:607–610.

J. A. Gard, H. F. W. Taylor and R. A. Chalmers, 1957. An Investigation of Two New Minerals: Rhodesite and Mountainite. *Mineralogical Magazine,* 31:611–623.

(E. D. Mountain, 1960)

Rilandite (discredited, =impure Chromium Oxide?) NMNH 96808 J. I. Riland Claims, Coal Creek, 13 miles northeast of Meeker, Colorado

E. P. Henderson and F. L. Hess, 1933. Corvusite and Rilandite, New Minerals from the Utah-Colorado Carnotite Region. *American Mineralogist,* 18:195–205.

(U.S. Geological Survey, through F. L. Hess, 1932)

Riversideite NMNH 93416 Crestmore, Riverside County, California

A. S. Eakle, 1917. Minerals Associated with the Crystalline Limestone at Crestmore, Riverside County, California. *Bulletin of the Department of Geology, University of California,* 10 (19):327–361. Abst: *American Mineralogist,* 3:19, 1918.

(W. F. Foshag, 1918)

Robertsite NMNH 127151 Tip Top Pegmatite, Custer, South Dakota

P. B. Moore, 1974. I, Jahnsite, Segelerite, and Robertsite, Three New Transition Metal Phosphate Species. *American Mineralogist,* 59:48–49.

(P. B. Moore, 1973)

Robinsonite NMNH 106568 Red Bird Mine, Pershing County, Nevada

L. G. Berry, J. Fahey, and E. H. Bailey, 1951. Robinsonite, a New Lead Antimony Sulfide. Paper given at the 32nd Annual Meeting of the Mineralogical Society of America. 1951. Abst: *American Mineralogist,* 37:285, 1952; 37:438–446, 1952.

(U.S. Geological Survey, 1953)

Roeblingite NMNH 124351 Franklin Furnace, New Jersey

S. L. Penfield and H. W. Foote, 1897. On Roeblingite, a New Silicate from Franklin Furnace, N. J., Containing Sulphur Dioxide and Lead. *American Journal of Science,* (4)3: 413–415.

(U.S. Geological Survey, through W. T. Schaller, 1972)

Roeblingite NMNH R8824 Franklin Furnace, New Jersey

See reference above.

(Roebling Collection, 1952)

Roentgenite NMNH R2609, R2613 and R2615 Narsarsuk, Greenland

G. Donnay, 1953. Roentgenite, $3CeFCO_3 \cdot 2CaCO_3$, a New Mineral from Greenland. *American Mineralogist,* 38:868–870; 932–963.

(Roebling Collection, 1927)

Roggianite NMNH 122280 Orcesco, Commune of Druogno, Val Vigezzo, Novara, Italy

E. Passaglia, 1969. Roggianite, a New Silicate Mineral. *Clay Minerals,* 8:107–111.

(E. Passaglia, 1970)

Rooseveltite NMNH 115317 Santiaguilla, near Maragua, Potosi, Bolivia

R. Herzenberg, 1946. Nuevos Minerales de Bolivia. *Boletin Technico Fac. Nac. Ingenieria, Univ. Tecnica, Oruro,* 1:10. Abst: *American Mineralogist,* 32:372, 1947.

(Harvard University, 1962)

Rosenhahnite NMNH 120124 Russian River, Mendocino County, California

A. Pabst, E. B. Gross and J. T. Alfors, 1967. Rosenhahnite, a New Hydrous Calcium Silicate

from Mendocino County, California. *American Mineralogist,* 52:336–351.
(J. T. Alfors, 1967)

Rosenhahnite NMNH 134526 Russian River, Mendocino County, California
See reference above.
(A. Pabst, 1975)

Rossite NMNH 95331 Wm. O'Neill's Claim, Bull Pen Canyon, 8 miles northeast of Stevens Cabin, Dolores River, Colorado
F. L. Hess and W. F. Foshag, 1925. Carnotite from Colorado; and Rossite, a New Calcium Vanadate from Utah. Paper given at the 6th Annual Meeting of the Mineralogical Society of America. 1925. Abst: *American Mineralogist,* 11:66, 1926; 13:160, 1928.
(U.S. Geological Survey, 1925)

Rossite NMNH R5707 Bull Pen Canyon, Colorado (near Summit Post Office, Utah)
See reference above.
(Roebling Collection, 1927)

Roweite NMNH 105493 Franklin, New Jersey
H. Berman and F. A. Gonyer, 1937. Roweite, a New Mineral from Franklin, New Jersey. *American Mineralogist,* 22:301–303.
(H. A. Ford, 1947)

Roweite NMNH C6291 Franklin, New Jersey
See reference above.
(H. A. Ford, through the Canfield Collection, 1955)

Rustumite NMNH 119427, 119428 and 119429 ¾ mile north of Hotel, Kilchoan, Ardnamurchan, Scotland
S. O. Agrell, 1965. Polythermal Metamorphism of Limestones at Kilchoan, Ardnamurchan. *Mineralogical Magazine,* 34:1–15.
(S. O. Agrell, 1966)

Rutherfordine NMNH 93291 Uruguru Mountains, Tanzania
W. Marckwald, 1906. Über Uranerze aus Deutsch-Ostafrika. *Centralblat für Mineralogie, Geologie, und Paleontologie,* 1906:761–764. Abst: *Mineralogical Magazine,* 14:409, 1907.
(W. F. Hillebrand, 1917)

Sabugalite NMNH 106335, 106336 and 106337 Mina da Quarta, Siera, Sabugal, Portugal
C. Frondel, 1951. Studies of Uranium Minerals (VIII): Sabugalite, an Aluminum-Autunite. *American Mineralogist,* 36:671–679.
(Harvard University, 1951)

Sahamalite NMNH 106901 Mountain Pass, California
H. W. Jaffe, R. Meyrowitz and H. T. Evans, Jr., 1953. Sahamalite, a New Rare Earth Carbonate Mineral. *American Mineralogist,* 38:741–754.
(U.S. Geological Survey, 1954)

Salmoite (discredited, =Tarbuttite) (with type Spencerite and type Hibbenite) NMNH 121566 Hudson Bay Zinc Mine, about 5 miles east of Salmo, near Nelson, West Kootenay District, British Columbia, Canada
A. H. Phillips, 1916. New Zinc Phosphates from Salmo, British Columbia. *American Journal of Science,* (4)42:275–278.
(U.S. Geological Survey, through E. S. Larsen, 1969)

Salmonsite NMNH 93654 Stewart Mine, Pala, San Diego County, California
W. T. Schaller, 1912. New Manganese Phosphates from the Gem Tourmaline Field of Southern California. *Journal of the Washington Academy of Sciences,* 2:143–145. Abst: *Zeitschrift für Krystallographie und Mineralogie,* 55:404–405, 1916.
(U.S. Geological Survey, 1919)

Salmonsite NMNH R5643 Stewart Mine, Pala, San Diego County, California
See reference above.
(Roebling Collection, 1927)

Samuelsonite NMNH 128071 Palermo #1 Mine, North Groton, New Hampshire
P. B. Moore and T. Araki, 1975. Samuelsonite, (Ba,Hole) $(Ca,Hole)_2(Fe^{+2},Mn^{+2},Na_4)_4Ca_8Al_2(OH)_2(PO_4)_{10}$, a Fragmented Apatite Structure, and Some Novel Insights in the Apatite Structure Type. *Geological Society of America Abstracts* 7 (6):825–826.
(P. B. Moore, 1974)

Sanmartinite NMNH 105681 Los Corrillos, 7 km west of San Martin, San Luis, Argentina
V. Angelelli and S. G. Gordon, 1948. Sanmartinite, a New Zinc Tungstate from Argentina. *Academy of Natural Science of Philadelphia Notulae Naturae,* 205:7 pages. Abst: *American Mineralogist,* 33:653, 1948.
(S. G. Gordon, 1948)

Santafeite NMNH 115882 Near Grants, McKinley County, New Mexico
M. Sun and R. H. Weber, 1958. Santafeite, a

New Hydrated Vanadate from New Mexico. *American Mineralogist,* 43:677–687.
(U.S. Geological Survey, 1963)

Santafeite NMNH 121957 Grants District, McKinley County, New Mexico
See reference above.
(U.S. Geological Survey, 1969)

Schairerite NMNH 96437 and 96439 Well G 75, Searles Lake, California
W. F. Foshag, 1931. Schairerite, a New Mineral from Searles Lake, California. *American Mineralogist,* 16:133–139.
(U.S. Geological Survey, 1931)

Schairerite NMNH 112736 Searles Lake, California
See reference above.
(W. F. Foshag, 1957)

Schallerite NMNH R6610 Franklin Furnace, New Jersey
R. B. Gage, E. S. Larsen and H. E. Vassar, 1925. Schallerite, a New Arseno-Silicate Mineral from Franklin Furnace, New Jersey. *American Mineralogist,* 10:9–11.
(R. B. Gage, through the Roebling Collection, 1930)

Schmitterite NMNH 120247 Moctezuma Mine, Moctezuma, Sonora, Mexico
R. V. Gaines, 1971. Schmitterite—a New Uranyl Tellurite from Moctezuma, Sonora. *American Mineralogist,* 56:411–415.
(R. V. Gaines, 1967)

Schmitterite NMNH 122475 Moctezuma Mine, Moctezuma, Sonora, Mexico
See reference above.
(R. V. Gaines, 1971)

Scholzite NMNH 106411 Hagendorf-nord, near Pleystein, Oberfalz, Germany
H. Strunz, 1948. Scholzit, ein Neue Mineralart. *Fortschritte der Mineralogie, Kristallographie, und Petrographie,* 27:31. Abst: *American Mineralogist,* 36:382, 1951.
(H. Strunz, 1952)

Schorlomite (discredited, =a Garnet) NMNH 128705 Magnet Cove, Arkansas
C. U. Shepard, 1846. On Three New Mineral Species from Arkansas, and the Discovery of the Diamond in North Carolina. *American Journal of Science,* (2)2:249–254.
(C. U. Shepard Collection, 1929)

Schuetteite NMNH 117725 Oceanic Mine Dump, San Luis Obispo County, California
E. H. Bailey, F. A. Hillebrand, C. L. Christ and J. J. Fahey, 1959. Schuetteite, a New Supergene Mercury Mineral. *American Mineralogist,* 44:1026–1038.
(U.S. Geological Survey, 1965)

Schultenite NMNH 106356 Tsumeb, Southwest Africa
L. J. Spencer and E. D. Mountain, 1926. Schultenite, a New Mineral from South-West Africa. *Mineralogical Magazine,* 21:149–155.
(British Museum (Natural History), 1951)

Scorzalite NMNH C5862 Minas Gerais, Brazil
W. T. Pecora and J. J. Fahey, 1947. Scorzalite and Souzalite, Two New Phosphate Minerals Associated with Brazilianite, Minas Gerais, Brazil. Paper given at the 28th Annual Meeting of the Mineralogical Society of America, 1947. Abst: *American Mineralogist,* 33:205, 1948; 34:83–93, 1949
(E. R. Swoboda, 1948)

Searlesite NMNH 93270 Searles Lake, California
E. S. Larsen and W. B. Hicks, 1914. Preliminary Note on Searlesite, a New Mineral. *Journal of the Washington Academy of Sciences,* 4:397–398. Abst: *Mineralogical Magazine,* 17:357, 1916.
(U.S. Geological Survey, 1917)

Searlesite NMNH 94734 Searles Lake, California
See reference above.
(U.S. Geological Survey, through E. S. Larsen, 1923)

Searlesite NMNH 124352 Searles Lake, California
See reference above.
(W. T. Schaller, 1972)

Searlesite NMNH R6457 Searles Lake, California
See reference above.
(Roebling Collection, 1927)

Segelerite NMNH 127154 Tip Top Pegmatite, Custer, South Dakota
P. B. Moore, 1974. I, Jahnsite, Segelerite, and Robertsite, Three New Transition Metal Phosphate Species. *American Mineralogist,* 59: 48–59.
(P. B. Moore, 1973)

Selencuprite (discredited, =Berzelianite) NMNH 128706 Långban, Sweden
C. U. Shepard, 1835. Selencuprite. *Treatise on Mineralogy,* Part 2, Volume 2, pages, 177–178.
(C. U. Shepard Collection, 1929)

Senaite NMNH R7241 Diamond-bearing sands of Diamantina, Minas Gerais, Brazil
E. Hussak and G. T. Prior, 1898. On Senaite, a New Mineral Belonging to the Ilmenite Group from Brazil. *Mineralogical Magazine,* 12:30–32.
(E. Hussak, through the Roebling Collection, 1933)

Shattuckite (with type Bisbeeite) NMNH 87447 Shattuck Arizona Copper Company's Mine, Bisbee, Arizona
W. T. Schaller, 1915. Four New Minerals. *Journal of the Washington Academy of Sciences,* 5:7.
(U.S. Geological Survey, 1914)

Shattuckite (with type Bisbeeite) NMNH 93891 Bisbee, Arizona
See reference above.
(U.S. Geological Survey, 1920)

Shattuckite (with type Bisbeeite) NMNH 95727 Shattuck Mine, Bisbee, Arizona
See reference above.
(J. Walker, 1927)

Shattuckite (with type Bisbeeite) NMNH R4871 through R4874 Shattuck Mine, Bisbee, Arizona
See reference above.
(Roebling Collection, 1927)

Sherwoodite NMNH 115883 Peanut Mine, Montrose County, Colorado
M. E. Thompson, C. H. Roach and R. Meyrowitz, 1958. Sherwoodite, a Mixed Vanadium (IV)–Vanadium (V) Mineral from the Colorado Plateau. *American Mineralogist,* 43: 749–755.
(U.S. Geological Survey, 1963)

Sherwoodite NMNH 121951 Peanut Mine, Montrose County, Colorado
See reference above.
(U.S. Geological Survey, 1969)

Sicklerite NMNH 93653 Naylor Vanderberg Mine, Pala, San Diego County, California
W. T. Schaller, 1912. New Manganese Phosphates from the Gem Tourmaline Field of Southern California. *Journal of the Washington Academy of Sciences,* 2:143–145.
(U.S. Geological Survey, 1919)

Sigloite NMNH 115320 Llallagua, Bolivia
C. S. Hurlbut, Jr. and R. Honea, 1962. Sigloite, a New Mineral from Llallagua, Bolivia. *American Mineralogist,* 47:1–8.
(Harvard University, 1962)

Silhydrite NMNH 125042 Quarry about 6 miles east of Trinity Center, Bonanza King Quadrangle, Trinity County, California
A. J. Gude and R. A. Sheppard, 1972. Silhydrite, $3SiO_2 \cdot H_2O$, a New Mineral from Trinity County, California. *American Mineralogist,* 57:1053–1065.
(U.S. Geological Survey, through R. A. Sheppard, 1972)

Simplotite NMNH 115881 Peanut Mine, Montrose County, Colorado
M. E. Thompson, C. H. Roach and R. Meyrowitz, 1958. Simplotite, a New Quadrivalent Vanadium Mineral from the Colorado Plateau. *American Mineralogist,* 43:16–24.
(U.S. Geological Survey, 1963)

Sincosite NMNH 95056 Sincos, Peru
W. T. Schaller, 1922. Sincosite, a New Mineral (Preliminary Note). *Journal of the Washington Academy of Sciences,* 12:195. Abst: *American Mineralogist,* 7:163–164, 1922.
(U.S. Geological Survey, through S. Hutchinson, 1925)

Smythite NMNH 112704 Bloomington Crushed Stone Quarry, Bloomington, Indiana
R. C. Erd and H. T. Evans, Jr., 1956. The Compound Fe_3S_4 (Smythite) Found in Nature. *Journal of the American Chemical Society,* 78: 2017; also *American Mineralogist,* 42:309–333, 1957.
(U.S. Geological Survey, 1957)

Sonoraite NMNH 119271 La Moctezuma Mine, Moctezuma, Sonora, Mexico
R. V. Gaines, G. Donnay and M. H. Hey, 1968. Sonoraite. *American Mineralogist,* 53:1828–1832.
(R. V. Gaines, 1966)

Souzalite NMNH C5863 Minas Gerais, Brazil
W. T. Pecora and J. J. Fahey, 1947. Scorzalite and Souzalite, Two New Phosphate Minerals Associated with Brazilianite, Minas Gerais, Brazil. Paper given at the 28th Annual Meeting of the Mineralogical Society of America, 1947. Abst: *American Mineralogist,* 33:205, 1948; 34:83–93, 1949.
(E. R. Swoboda, through the Canfield Collection, 1948)

Spangolite NMNH 83512 Globe District, near Tombstone, Arizona

S. L. Penfield, 1890. On Spangolite, a New Copper Mineral. *American Journal of Science,* (3)39:370–378.

(S. L. Penfield, 1895)

Spencerite (with type Hibbenite and type Salmoite) NMNH 121566 Hudson Bay Zinc Mine, about 5 miles east of Salmo, near Nelson, West Kootenay District, British Columbia, Canada

A. H. Phillips, 1916. New Zinc Phosphates from Salmo, British Columbia. *American Journal of Science,* (4)42:275–278.

T. L. Walker, 1916. Spencerite, a New Zinc Phosphate from British Columbia. *Mineralogical Magazine,* 18:76–81.

(U.S. Geological Survey, through E. S. Larsen)

Spencite NMNH 106358 Pickens Prospect, Cardiff Township, Haliburton County, Ontario, Canada

C. Frondel, 1961. Two Yttrium Minerals: Spencite and Rowlandite. *Canadian Mineralogist,* 6:576–581.

(Harvard University, 1951)

Spurrite NMNH 86532 Velardeña, Durango, Mexico

F. E. Wright, 1908. On Three Contact Minerals from Velardeña, Durango, Mexico [Gehlenite, Spurrite and Hillebrandite]. *American Journal of Science,* (4)26:545–554.

(F. E. Wright, 1908)

Stannoidite NMNH 121005 Konjo Mine, Mito-cho, Aida-gun, Okayama Prefecture, Japan

A. Kato, 1969. Stannoidite, $Cu_5(Fe,Zn)_2SnS_8$, a New Stannite-like Mineral from the Konjo Mine, Okayama Prefecture, Japan. *Bulletin of the Natural Science Museum* (Tokyo), 12: 165–172. Abst: *American Mineralogist,* 54: 1495–1496, 1969.

(K. Sakurai, 1968)

Starkeyite NMNH 105610 Starkey Mine, Madison County, Missouri

O. R. Grawe, 1945. Pyrite Deposits of Missouri. *Missouri Geological Survey and Water Resources,* 30:209–210.

(U.S. Geological Survey, 1947)

Steigerite NMNH C5108 Sullivan Brothers Claim, north wall of Gypsum Valley, San Miguel County, Colorado

E. P. Henderson, 1935. Steigerite, a New Vanadium Mineral. *American Mineralogist,* 20: 769–772.

(W. Sullivan, through the Canfield Collection, 1933)

Stenhuggarite NMNH 120066 Långban, Sweden

P. B. Moore, 1967. Eleven New Minerals from Långban, Sweden. Paper presented to the 12th Annual Meeting of the Mineralogical Association of Canada, 1967. Abst: *Canadian Mineralogist,* 9:301, 1967.

(P. B. Moore, 1967)

Stetefeldite (neotype) NMNH 104763 Highbridge Mine, Belmont Mining District, Belmont, Nye County, Nevada

B. Mason and C. J. Vitaliano, 1953. The Mineralogy of the Antimony Oxides and Antimonates. *Mineralogical Magazine,* 30:100–112.

(F. W. Horton, 1943)

Stewartite NMNH 93656 Stewart Mine, Pala, San Diego County, California

W. T. Schaller, 1912. New Manganese Phosphates from the Gem Tourmaline Field of Southern California. *Journal of the Washington Academy of Sciences,* 2:143–145. Abst: *Mineralogical Magazine,* 16:372, 1913.

(U.S. Geological Survey, 1919)

Stibianite (discredited =Stibiconite) NMNH R1768 Victoria, Australia

E. Goldsmith, 1878. Stibianite, a New Mineral. *Proceedings of the Academy of Natural Sciences of Philadelphia,* 30:154–155. Abst: *Zeitschrift für Krystallographie und Mineralogie,* 3:596, 1879.

(Roebling Collection, 1927)

Stillwellite NMNH 113038 Mary Kathleen Lease, east of Mt. Isa, Queensland, Australia

J. McAndrew and T. R. Scott, 1955. Stillwellite, a New Rare-Earth Mineral from Queensland. *Nature,* 176:509–510.

(University of Melbourne, through F. E. Ingerson, 1959)

Stringhamite NMNH 128031 Bawana Mine, Beaver County, Utah

J. R. Hindman, 1976. Stringhamite, a New Hydrous Copper Calcium Silicate from Utah. *American Mineralogist,* 61:189–192.

(J. R. Hindman, 1974)

Strontioginorite NMNH 114168 Reyerhausen, near Göttingen, Germany

O. Braitsch, 1959. Über Strontioginorite, ein Neue Ginorite-Varietät aus dem Zechsteinsalz. *Beiträge zur Mineralogie und Petrologie,* 6:

366–370. Abst: *American Mineralogist,* 45:478, 1960.

(H. Beil, 1960)

Strontiohilgardite (discredited, =Hilgardite, Strontian) NMNH 117888 Königshall-Hindenburg IIK Mine, Reyershausen, Germany

O. Braitsch, 1959. Strontiohilgardit, $(Ca,Sr)_2[B_5O_8(OH)_2Cl]$ und Seine Stellung in der Hilgarditgruppe $X_2[B_5O_8(OH)_2Cl]$. *Beiträge zur Mineralogie und Petrologie,* 6:233–247. Abst: *American Mineralogist,* 44:1102–1103, 1959.

(O. Braitsch, 1965)

Sussexite NMNH 124356 Mine Hill, Franklin Furnace, New Jersey

G. J. Brush, 1868. On Sussexite, a New Borate from Mine Hill, Franklin Furnace, Sussex County, New Jersey. *American Journal of Science,* (2)46:140; 240–243.

(U.S. Geological Survey, through W. T. Schaller, 1972)

Swartzite NMNH 106107 and 106108 Hillside Mine, Yavapai County, Arizona

J. Axelrod, F. Grimaldi, C. Milton and K. J. Murata, 1948. Uranium Minerals from the Hillside Mine, Yavapai County, Arizona. Paper given at the 29th Annual Meeting of the Mineralogical Society of America, 1948. Abst: *American Mineralogist,* 34:274, 1949.

(U.S. Geological Survey, 1950)

Swinefordite NMNH 126826 Foote Mineral Company Spodumene Mine, Kings Mountain, North Carolina

P. L. Tien, P. B. Leavens and J. A. Nelen, 1975. Swinefordite, a Dioctahedral-Trioctahedral Li-rich Member of the Smectite Group from Kings Mountain, North Carolina. *American Mineralogist,* 60:540–547.

(P. B. Leavens, 1973)

Switzerite NMNH 119777 Foote Mineral Company Spodumene Mine, Kings Mountain, North Carolina

P. B. Leavens and J. S. White, Jr., 1967. Switzerite, $(Mn,Fe)_3(PO_4)_2 \cdot 4H_2O$, a New Mineral. *American Mineralogist,* 52:1595–1602.

(J. W. Eaker, 1966)

Switzerite NMNH 120230 Foote Mineral Company Spodumene Mine, Kings Mountain North Carolina

See reference above.

(Mrs. F. O. Drummond, 1967)

Syhedrite (discredited, =impure Stilbite) NMNH 128708 Thore-Ghat, Syhedree Mountains, near Bombay, India

C. U. Shepard, 1865. Mineral Notes, 1: Syhedrite. *American Journal of Sciences,* (2)40:110–113.

(C. U. Shepard Collection, 1929)

Talnakhite NMNH 121944 Noril'sk, western Siberia, U.S.S.R.

L. J. Cabri, 1967. A New Copper-Iron Sulfide. *Economic Geology,* 62:910–925.

(L. J. Cabri, 1969)

Tavorite (with type Barbosalite) NMNH 106842 Sapucaia Pegmatite, Minas Gerais, Brazil

M. L. Lindberg and W. T. Pecora, 1954. Tavorite and Barbosalite, Two New Phosphate Minerals from Minas Gerais, Brazil. *Science,* 119: 739.

(U.S. Geological Survey, through W. T. Pecora, 1954)

Teepleite NMNH 97449 Borax Lake, Lake County, California

W. A. Gale, W. F. Foshag and M. Vonsen, 1939. Teepleite, a New Mineral from Borax Lake, California. *American Mineralogist,* 24:48–52.

(M. Vonsen, 1935)

Temiskamite (discredited, =Maucherite) NMNH 94561 Moose Horn Mine, Elk Lake, Ontario, Canada

T. L. Walker, 1914. Temiskamite, a New Nickel Arsenide from Ontario. *American Journal of Science,* (4)37:170–172.

(Royal Ontario Museum, 1922)

Tetrawickmanite NMNH 120239 Foote Mineral Company Spodumene Mine, near Kings Mountain, North Carolina

J. S. White, Jr. and J. A. Nelen, 1973. Tetrawickmanite, Tetragonal $MnSn(OH)_6$, a New Mineral from North Carolina, and the Stottite Group. *Mineralogical Record,* 4:24–29.

(E. Heard, 1967)

Tetrawickmanite NMNH 121265 Foote Mineral Company Spodumene Mine, near Kings Mountain, North Carolina

See reference above.

(J. W. Eaker, 1968)

Tilleyite NMNH 97246 Crestmore, California

E. S. Larsen and K. C. Durham, 1933. Tilleyite, a New Mineral from the Contact Zone at

Crestmore, California. *American Mineralogist,* 18:469–473.
(Harvard University, through E. S. Larsen, 1934)

Tinticite NMNH 105407 Tintic Mining District, Utah
B. Stringham, 1946. Tinticite, a New Mineral from Utah. *American Mineralogist,* 31:395–400.
(B. Stringham, 1947)

Tinticite NMNH 105609 Tintic Standard Mine, Tintic District, Utah
See reference above.
(U.S. Geological Survey, 1947)

Tlalocite NMNH 135057 Mina Bambollita, Moctezuma, Sonora, Mexico
S. A. Williams, 1975. Xocomecatlite, $Cu_3TeO_4(OH)_4$, and Tlalocite, $Cu_{10}Zn_6(TeO_4)_2Cl(OH)_{25}27H_2O$, Two New Minerals from Moctezuma, Sonora, Mexico. *Mineralogical Magazine,* 40:221–226.
(S. A. Williams, 1976)

Tobermorite (14 Å) NMNH 119008 Crestmore, California
M. F. Heddle, 1880. Preliminary Notice of Substances Which May Prove to be New Minerals. *Mineralogical Magazine,* 4:117–123.
(H. F. W. Taylor, 1966)

Tritomite NMNH R12970 Lamö Island, near Brevig, Norway
P. B. Weibye, N. J. Berlin, K. A. Sjogren and J. B. von Borck, 1850. Neue Mineralien aus Norwegen. *Annalen der Physik* (Leipzig), 79:299–301.
(C. L. Frazier, through the Roebling Collection, 1962)

Troostite (discredited, =Willemite, Manganoan) NMNH 128709 and 128710 Sterling Hill, New Jersey
C. U. Shepard, 1832. Troostite. *Treatise on Mineralogy,* Part 1, Volume 2, page 154.
(C. U. Shepard Collection, 1929)

Trudellite (discredited, =mixture of Natroalunite and Chloralunite) NMNH 95301 Cerro Pintados, 80 km southeast of Iquique, Tarapaca Province, Chile
S. G. Gordon, 1925. Penroseite and Trudellite, Two New Minerals. *Proceedings of the Academy of Natural Sciences, Philadelphia,* 77: 317–324. Abst: *American Mineralogist,* 11:42, 1926.
(Philadelphia Academy of Natural Sciences, 1925)

Tuhualite NMNH 96879 and 96880 Mayor Island, New Zealand
P. Marshall, 1932. Notes on some Volcanic Rocks of the North Island of New Zealand. *New Zealand Journal of Science and Technology,* 13:198–202.
(P. Marshall, 1933)

Tuhualite NMNH 103053 Mayor Island, New Zealand
See reference above.
(P. Marshall, 1937)

Tulameenite NMNH 128460 Semilkaneen River, British Columbia, Canada
L. J. Cabri, D. R. Owens and J. H. Giles Laflamme, 1973. Tulameenite, a New Platinum-Iron-Copper Mineral from Placers in the Tulameen River, Area, British Columbia. *Canadian Mineralogist,* 12:21–25.
(L. J. Cabri, 1974)

Tunellite NMNH 123928 U.S. Borax and Chemical Company Open Pit, Boron, California
R. C. Erd, V. Morgan and J. R. Clark, 1961. Tunellite, a New Hydrous Strontium Borate from the Kramer Borate District, California. *United States Geological Survey Professional Paper* 424–C:294–297.
(U.S. Geological Survey, through W. T. Schaller, 1972)

Tungstenite NMNH 94490 Emma Mine, Little Cottonwood District, Salt Lake County, Utah
R. C. Wells and B. S. Butler, 1917. Tungstenite, a New Mineral. *Journal of the Washington Academy of Sciences,* 7:596–602. Abst: *Mineralogical Magazine,* 18:388, 1919.
(U.S. Geological Survey, 1922)

Uvanite NMNH 87512 Emery County, Utah
F. L. Hess and W. T. Schaller, 1914. Pintadoite and Uvanite, Two New Vanadium Minerals from Utah; a Preliminary Note. *Journal of the Washington Academy of Sciences,* 4:576–579. Abst: *Mineralogical Magazine,* 17:359, 1916.
(C. C. Lynn, through F. L. Hess, 1915)

Uvanite NMNH R5708 Temple Rock, San Rafael Swell, Emery County, Utah
See reference above.

(Roebling Collection, 1927)

Vanoxite NMNH 95059 Bill Brian Claim, Wild Steer Canyon, south side of Paradox Valley, Colorado

F. L. Hess, 1924. *Vanoxite,* a New Vanadium Mineral. *United States Geological Survey Bulletin,* 750D:63–67.

(U.S. Geological Survey, 1925)

Vanuxemite (discredited, =impure Hemimorphite) NMNH 128711 Sterling Hill, New Jersey

C. U. Shepard quoted in E. S. Dana, 1876. New Minerals. *American Journal of Science,* (3) 12:231.

(C. U. Shepard Collection, 1929)

Vauxite NMNH 103542 Llallagua, Bolivia

S. G. Gordon, 1922. Preliminary Notes on Vauxite and Paravauxite, Two New Minerals from Llallagua, Bolivia. Paper given at the Philadelphia Mineralogical Society Meeting, 14 April, 1922. Abst: *American Mineralogist,* 7: 108, 1922.

(S. G. Gordon, through E. V. Shannon, 1939)

Vauxite NMNH 97561 Llallagua, Bolivia

See reference above.

(E. V. Shannon, 1930)

Väyrynenite NMNH R11807 Viitaniemi, Erajarvi, Finland

A. Volborth, 1954. Väyrynenite. *Geologi* (Finland), 6:7. Abst: *American Mineralogist,* 39: 848, 1954.

(A. Volborth, 1960)

Veatchite NMNH 105697 Lang, Los Angeles County, California

G. Switzer, 1938. Veatchite, a New Calcium Borate from Lang, California. *American Mineralogist,* 23:409–411.

(G. Switzer, 1948)

p-Veatchite NMNH 113264 Königshall-Hindenburg Mine, Reyershausen, near Göttingen, Germany

O. Braitsch, 1959. Über p-Veatchite, eine Neue Veatchite-Varietät aus dem Zechstein Salz. *Beitrage zur Mineralogie und Petrologie,* 6: 352–356.

(O. Braitsch, exchange with Mineralogisch Anstalten, 1959)

Vegasite (discredited, =undetermined) NMNH 93182 Yellow Pine District, Nevada

A. J. Knopf, 1915. Plumbojarosite and Other Basic Lead-ferric Sulphates from the Yellow Pine District, Nevada. *Journal of the Washington Academy of Sciences,* 5:497–503. Abst: *American Mineralogist,* 17:359, 1916.

(U.S. Geological Survey, 1917)

Vegasite (discredited, =undetermined) NMNH R6313 Yellow Pine District, Nevada

See reference above.

(Roebling Collection, 1927)

Velardeñite (discredited, =Gehlenite) NMNH 93644 Velardeña, Mexico

W. T. Schaller, 1916. Velardeñite, a New Member of the Melilite Group. *United States Geological Survey Bulletin,* 610:106–126.

(U.S. Geological Survey, 1919)

Viseite NMNH 106364 Visé, Belgium

J. Mélon, 1943. La Viséite, Nouvelle Espèce Minérale. *Annales Société Géologique de Belgique,* 66:53–56. Abst: *American Mineralogist,* 30:548, 1945.

(D. McConnell, 1952)

Vrbaite NMNH R939 Allchar, Macedonia, Yugoslavia

B. Ježek, 1912. Vrbait, ein Neues Thalliummineral von Allchar in Macedonien. *Zeitschrift für Krystallographie und Mineralogie,* 51:365–378.

(F. Zambonini, through the Roebling Collection, 1927)

Vulcanite NMNH 85136 Good Hope Mine, Vulcan, Colorado

E. N. Cameron and I. M. Threadgold, 1961. Vulcanite, a New Copper Telluride from Colorado, with Notes on Certain Associated Minerals. *American Mineralogist,* 46:258–268.

(L. Weiss, 1903)

Wairauite NMNH 110667 Red Hill, New Zealand

G. A. Challis and J. V. P. Long, 1964. Wairauite —a New Cobalt-Iron Mineral. *Mineralogical Magazine,* 33:942–948.

(G. A. Challis, 1966)

Wakabayashilite NMNH 94600 White Caps Mine, Manhattan, Nevada

A. Kato, 1970. In *Introduction to Japanese Minerals,* pages 92–93. Kawasaki: Geological Survey of Japan.

(H. G. Clinton, 1923)

Wakabayashilite NMNH 98012 White Caps Mine, Manhattan, Nevada

See reference above.
(H. G. Clinton, 1933)

Wakabayashilite NMNH C252 White Caps Mine, Manhattan, Nevada
See reference above.
(Canfield Collection, 1927)

Warrenite (discredited, =Jamesonite) NMNH 48412 Domingo Mine, Ridge between Dark Canyon and Baxter Basin, Gunnison County, Colorado
L. G. Eakins, 1888. Two Sulphantimonites from Colorado. *American Journal of Science,* (3) 36:450–453.
(U.S. Geological Survey, collected by L. G. Eakins, 1889)

Warwickite NMNH 128712 Warwick, Orange County, New York
C. U. Shepard, 1838. Notice of Warwickite, a New Mineral Species. *American Journal of Science,* (1)34:313–315.
(C. U. Shepard Collection, 1929)

Washingtonite (discredited, =Ilmenite) NMNH 128713 Litchfield, Connecticut
C. U. Shepard, 1842. On Washingtonite (a New Mineral), the Discovery of Euclase in Connecticut, and Additional Notices of the Supposed Phenakite of Goshen, and Calstronbaryte of Schohaire, N. Y. *American Journal of Science,* (1)43:364–366.
(C. U. Shepard Collection, 1929)

Weeksite NMNH 114570 Autunite No. 8 Claim, Thomas Range, Juab County, Utah
W. F. Outerbridge, M. H. Staatz, R. Meyrowitz and A. M. Pommer, 1960. Weeksite, a New Uranium Silicate from the Thomas Range, Juab County, Utah. *American Mineralogist,* 45:39–52.
(U.S. Geological Survey, 1960)

Weeksite NMNH 115886 Autunite No. 8 Claim, Thomas Range, Juab County, Utah
See reference above.
(U.S. Geological Survey, 1963)

Weeksite NMNH 121949 Thomas Range, Juab County, Utah
See reference above.
(U.S. Geological Survey, 1969)

Wegscheiderite NMNH 117710 Perkins Well #1, depth 1069′8″, Sweetwater County, Wyoming
J. J. Fahey and K. P. Yorks, 1963. Wegscheiderite ($Na_2CO_3 \cdot 3NaHCO_3$), a New Saline Mineral from the Green River Formation, Wyoming. *American Mineralogist,* 48:400–403.
(U.S. Geological Survey, 1965)

Weissite NMNH 95782 Good Hope Mine, Vulcan, Gunnison County, Colorado
W. P. Crawford, 1927. Weissite, a New Mineral. *American Journal of Science,* (5)13:345–346.
(W. P. Crawford, 1928)

Welinite NMNH 120067 Långban, Sweden
P. B. Moore, 1967. Eleven New Minerals from Sweden. Paper given at the 12th Annual Meeting of the Mineralogical Association of Canada, 1967. Abst: *Canadian Mineralogist,* 9:301, 1967.
(P. B. Moore, 1967)

Wellsite NMNH 84472 Cullakanee Mine, Buck Creek, Clay County, North Carolina
J. H. Pratt and H. W. Foote, 1897. On Wellsite, a New Mineral. *American Journal of Science,* (4)3:443–448.
(J. H. Pratt, 1899)

Wernerite NMNH R3573 Ontario County, Canada
B. J. d'Andrada, 1800. Wernerite. *Journal de Physique,* 51:244. Abst: *Dana,* 6:468.
(Roebling Collection, 1927)

Wherryite NMNH 106567 Mammoth Mine, Arizona
J. J. Fahey, E. B. Daggett and S. G. Gordon, 1950. Wherryite, a New Mineral from the Mammoth Mine, Arizona. *American Mineralogist,* 35:93–98.
(U.S. Geological Survey, 1953)

Wherryite NMNH 117723 Mammoth Mine, Pinal County, Arizona
See reference above.
(U.S. Geological Survey, 1965)

Whitmoreite NMNH 128069 Palermo #1 Mine, North Groton, New Hampshire
P. B. Moore, A. R. Kampf and A. J. Irving, 1974. Whitmoreite, $Fe^{2+}Fe^{3+}{}_2(OH)_2(H_2O)_4[PO_4]_2$, a New Species: Its Description and Atomic Arrangement. *American Mineralogist,* 59:900–905.
(P. B. Moore, 1974)

Wickenburgite NMNH 122875 near Wickenberg, Maricopa County, Arizona
S. A. Williams, 1968. Wickenburgite, a New Mineral from Arizona. *American Mineralogist,* 53:1433–1438.
(S. A. Williams, 1971)

Wickmanite NMNH 120068 Långban, Sweden

P. B. Moore, 1967. Eleven New Minerals from Sweden. Paper given at the 12th Annual Meeting of the Mineralogical Association of Canada, 1967. Abst: *Canadian Mineralogist,* 9:301, 1967.

(P. B. Moore, 1967)

Wilkeite NMNH 94463 Crestmore, near Riverside, California

A. S. Eakle and A. F. Rogers, 1914. Wilkeite, a New Mineral of the Apatite Group, and Okenite, its Alteration Product, from southern California. *American Journal of Science,* (4) 37:262–267. Abst: *Mineralogical Magazine,* 17: 360, 1916.

(University of California, through A. S. Eakle 1922)

Wilkeite NMNH 95685 Crestmore, near Riverside, California

See reference above.

(A. S. Eakle, 1927)

Williamsite (discredited, =Antigorite) NMNH 128704 New Texas, Lancaster County, Pennsylvania

C. U. Shepard, 1848. On New Minerals from Texas, Lancaster Co., Penn. *American Journal of Science,* (2)6:249–250.

(C. U. Shepard Collection, 1929)

Willyamite (with type Costibite) NMNH R849 A. B. H. Consols Mine, Broken Hill, New South Wales, Australia

E. F. Pittman, 1893. Note on the Occurrence of a New Mineral at Broken Hill. *Proceedings of the Royal Society of New South Wales,* 27: 366–375.

(Roebling Collection, 1927)

Wroewolfeite NMNH 127329 Loudville Lead Mine, Loudville, Hampden County, Massachusetts

P. J. Dunn, R. C. Rouse and J. A. Nelen, 1975. Wroewolfeite, a New Copper Sulfate Hydroxide Hydrate. *Mineralogical Magazine,* 40:1–5.

(P. J. Dunn, 1973)

Wyllieite NMNH 126318 Victory Mine, Custer, South Dakota

P. B. Moore and J. Ito, 1973. Wyllieite, $Na_2Fe_2{}^{+2}Al(PO_4)_3$, a New Species. *Mineralogical Record,* 4:131–136.

(P. B. Moore, 1973)

Xanthitane (discredited, =altered Titanite) NMNH 128703 Green River, Henderson Co., North Carolina

C. U. Shepard, 1856. Five New Mineral Species. *American Journal of Science,* (2)22:96–99.

(C. U. Shepard Collection, 1929)

Xocomecatlite NMNH 135059 Mina Bambollita, Moctezuma, Sonora, Mexico

S. A. Williams, 1975. Xocomecatlite, $Cu_3TeO_4(OH)_4$, and Tlalocite, $Cu_{10}Zn_6(TeO_4)_2Cl(OH)_{25}27H_2O$, Two New Minerals from Moctezuma, Sonora, Mexico. *Mineralogical Magazine,* 40:221–226.

(S. A. Williams, 1976)

Yamaguchilite (discredited, =Zircon, Phosphatian) NMNH 106324 Yamaguchi, Nagano, Japan

K. Kimura and Y. Hironaka, 1936. Chemical Investigations on Japanese Minerals Containing Rarer Elements, XXIII: On Yamagutilite [sic], a Phosphorus-bearing Variety of Zircon, Found at Yamaguti Village, Nagano Prefecture. *Journal of the Chemical Society of Japan* 57:1195–1199. Abst: *American Mineralogist,* 25:439, 1940.

(F. A. Rapp, 1951)

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C. Palache, L. H. Bauer and H. Berman, 1938. Yeatmanite, a New Mineral, and Sarkinite from Franklin, New Jersey. *American Mineralogist,* 23:527–530.

(L. H. Bauer collection, through the Canfield Collection, 1955)

Yedlinite NMNH R8171 Mammoth Mine, Tiger, Arizona

W. J. McLean, R. A. Bideaux and R. W. Thomssen, 1974. Yedlinite, a New Mineral from the Mammoth Mine, Tiger, Arizona. *American Mineralogist,* 59:1157–1159.

(Roebling Collection, 1942)

Yoshimuraite NMNH 107416 Misago Ore Body, Noda-Tamagawa Mine, Iwate Prefecture, Japan

T. Watanabe, 1959. The Minerals of the Noda-Tamagawa Mine, Iwate Prefecture, Japan. *Mineralogical Journal* (Japan), 2:408–421. Abst: *American Mineralogist,* 45:479, 1960; 46:1515–1516, 1961.

(T. Watanabe, 1955)

Yttrocrasite NMNH 119841 Burnet County, Texas

W. E. Hidden and C. H. Warren, 1906. On

Yttrocrasite, a New Yttrium-Thorium-Uranium Titanate. *American Journal of Science,* (4)22:515–519. Abst: *Mineralogical Magazine,* 14:413, 1907.

(C. H. Warren, through E. S. Larsen, 1966)

Yukonite (discredited, =Arseniosiderite) NMNH R5783 Tagish Lake, Yukon Territory, Alaska

J. B. Tyrrell and R. P. D. Graham, 1913. Yukonite. *Transactions of the Royal Society of Canada,* 7:13, 1913. Abst: *Mineralogical Magazine,* 17:360, 1916.

(J. B. Tyrrell, through the Roebling Collection, 1927)

Zapatalite NMNH 135060 Cerro Morita, Naco, Sonora, Mexico

S. A. Williams, 1972. Zapatalite, a New Mineral from Sonora, Mexico. *Mineralogical Magazine,* 38:541–544.

(S. A. Williams, 1976)

Zellerite NMNH 112827 Wyoming

R. G. Coleman, D. R. Ross and R. Meyrowitz, 1966. Zellerite and Metazellerite, New Uranyl Carbonates. *American Mineralogist,* 51:1567–1578.

(U.S. Geological Survey, 1957)

Zemannite NMNH 128390 Moctezuma Mine, Moctezuma, Sonora, Mexico

J. A. Mandarino, E. Matzat and S. J. Williams, 1967. Zemannite, a New Tellurite Mineral from Moctezuma, Sonora, Mexico. Paper given to the joint convention at the University of Montreal, June, 1967. Abst: *Canadian Mineralogist,* 10:139–140, 1969.

(R. V. Gaines, 1974)

Zinc-Melanterite NMNH 93244 Good Hope and Vulcan Mines, Vulcan, Colorado

E. S. Larsen and M. L. Glenn, 1920. Some Minerals of the Melanterite and Chalcanthite Groups with Optical Data on the Hydrous Sulphates of Manganese and Cobalt. *American Journal of Science,* 50:225–233.

(U.S. Geological Survey, 1917)

Zircarbite (discredited, =invalid species) NMNH 128702 Rockport, Massachusetts

C. U. Shepard, 1876. Zircarbite. *Catalog of Minerals from within About 75 Miles of Amherst College,* page 3.

(C. U. Shepard Collection, 1929)

Zunyite NMNH 49082 Zuni Mine, Anvil Mountain, near Silverton, Colorado

W. F. Hillebrand, 1884. On Zunyite and Guitermanite, Two New Minerals from Colorado. *Proceedings of the Colorado Scientific Society,* 1:124–132.

(U.S. Geological Survey, through W. F. Hillebrand, 1890)

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