

References for, and updating of, L. J. Spencer's first and second supplementary lists of British minerals

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L. J. SPENCER (1898, 1931) compiled lists of British minerals supplementary to those listed in Greg and Lettsom's *Manual of the Mineralogy of Great Britain and Ireland* (1858). These lists were published in the Reports of the British Association for the Advancement of Science, and reprinted in *Mineralogical Magazine*, 31, 806-10 (1958), to accompany Spencer's third supplementary list of British minerals.

In his first two lists Spencer arranged his mineral names alphabetically along with the first observer and date wherever possible; in other cases the earliest found reference was given. However, the name of the periodical, or other source for the reference, was not given. This lack of full references was a serious omission because it is clear that few, if any, mineralogists used or checked out Spencer's mineral entries. Also Spencer never attempted the necessary updating of his lists.

The purpose of this paper is to supply the missing references, to reassess the status of the minerals, and to enumerate (within the individual entries) all the many changes occasioned by the passage of time, or made apparent with hindsight.

The procedure adopted was this: almost every reference was tracked down and personally checked by the author. From the data given in these references a reassessment of the status of each mineral (species or non-species) was attempted. This was not always easy, e.g. if the determinative data were non-existent or meagre, or confusing in some way. In these cases a search was made through subsequent literature (mainly *Mineralogical Magazine* and *Mineralogical Abstracts*) to find confirmatory data. In doing this it was found that some of Spencer's minerals have only recently been properly identified (e.g. aenigmatite, botallackite, collyrite, freieslebenite, lettsomite, morenosite, phlogopite, polytelite, and wittichenite). A small number (twenty) of the original specimens (mainly Scottish) were tracked down and checked with modern analytical methods. A number of queries

were dealt with through personal correspondence with other mineralogists and geologists.

The results, mainly of a statistical nature, but interesting for all that, are now given.

Distribution of the references in the literature: of the 287 mineral names listed in Spencer's two lists, 209 were culled from 22 British periodicals (*Mineralogical Magazine* alone yielding 99 names); 16 from 11 foreign periodicals; 44 from 18 British and foreign textbooks, handbooks, etc. Of the remaining 18 minerals, 7 were referred to two museums, 8 had no references (for example, bastite and beekite), and 3 references could not be found (alunogen, bauxite, and hercynite).

The most fruitful observer source for Spencer was M. F. Heddle whose work supplied 80 of the 287 names listed.

Numbers of species and non-species: of the 287 names listed by Spencer, 157 are here classed as non-species, while 130 are classed as species.

The 157 non-species are made up of: 35 varietal names; 30 synonyms; 18 whose status is uncertain; 18 mixtures; 16 requiring confirmation; 14 wrongly identified; 13 names recommended for extinction (mainly amphiboles and chlorite); 7 organic minerals; 4 pseudomorphs; and 2 rock names. The details are incorporated in the individual entries in the following combined 1898 and 1931 lists, here reprinted in expanded and modified form. These non-species mineral names are printed in ordinary type. In many cases a reference to Hey's *Chemical Index of Minerals* is given—but note the information given in this way is valid only if Spencer's mineral is actually what its name says it is. This may not always be the case.

The names of the 130 species are printed in italics. Of these, 21 are species which were first discovered in the British Isles (14 from Cornwall; 2 from Somerset; 1 from Cheshire; 2 from Scotland; and 2 from Ireland).

Geographical distribution of the minerals: of the 287 minerals listed, 121 are from Scotland; 116

from England (75 of which are from Cornwall); 28 from Ireland; and 10 from Wales. (The remaining 12 minerals are those with no references or for which data could not be found.)

However, when the numbers of species only are considered a different geographical distribution pattern emerges. Thus, of the 130 species, 64 are from England (48 from Cornwall); 35 from Scotland; 19 from Ireland; and 7 from Wales. The remaining 5 are simply British (for example, chrysotile and microcline).

In conclusion, it is hoped that this partial updating of Spencer's first and second supplementary lists—helping to provide references in an unbroken chain back from the fifth supplementary list (Livingstone and Macpherson, 1983) to Greg and Lettsom's work of 1858—will pave the way for a new A-Z compilation of British minerals. We simply do not know precisely which mineral species occur in Britain! We need to track down many of the original specimens (especially the early mentioned ones) and check out their credentials with modern analytical methods. Most of the specimens probably reside in the mineral collections of public museums, or are held privately. Because, however, the records of many such collections are out-of-date, meagre or even non-existent, the search for 'type' specimens will not always be easy—read about the horrendous state of some geological collections in UK museums (Doughty, 1982). We should also expand the references for each mineral beyond that of the first observer, to include those giving fuller descriptive and analytical data as well as those detailing different parageneses.

Many people can help here: mineral curators, mineral collectors, mineral dealers, petrologists, geologists, chemists—especially those who possess or have access to modern analytical equipment. The task of compiling a definitive A-Z list of British minerals could be split up, if necessary or desirable, into compiling regional lists as, for example, for SW England, Pennines and northern England, Wales, Ireland, Scotland, etc. When this has been done the way ahead will be clear for the writing of a new British Mineralogy—something that is more possible to attain now than Spencer seemed to think a long time ago (see for example Spencer, 1958, p. 787).

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M. F. Heddle 1879, *Mineral. Mag.* **3**, 61. Abriachan, Inverness-shire. [Heddle's Abriachanite analysis = Magnesianriebeckite, as defined in Amph. (1978), 556, 19.4.]
- Achroite** (Collins, 1876)
J. H. Collins 1876, *Mineral. Mag.* **1**, 55. Rock Hill, St. Austell, Cornwall. [Achroite = var. of Elbaite (Fleischer, 1980).]
- Aegirine-augite** (Tyrell, 1909)
J. J. H. Teall 1907, in A. Geikie (ed.), *The Geological Structure of the North-West Highlands of Scotland*. *Mem. Geol. Surv. G.B.* 456. Ledbeg, Sutherlandshire. [Analysis given of green pyroxene = Aegirine-augite. Spencer's reference is to G. W. Tyrell 1909, *Trans. Geol. Soc. Glasgow*, **13**, 306: this gives no chemical or optical data.]
- Aegirite** (Teall, 1888) [*Aegirine*]
J. J. H. Teall 1888, *Br. Petrogr.* 368. Wolf Rock, SW of Land's End, Cornwall.
- Aenigmatite** (Heddle, 1901) [*Julgoldite*]
M. F. Heddle 1901, *Mineral. Scotland*, **2**, 43. [XRD of Heddle's Aenigmatite = Julgoldite (A. Livingstone 1976, *Mineral. Mag.* **40**, 761).]
- Afwillite** (Tilley, 1930)
C. E. Tilley 1930, *Geol. Mag.* **67**, 168-9. Scawt Hill, Co. Antrim.
- Aikinite** (Museum Pract. Geol.)
The Aikinite referred to by Spencer 1898 is probably the Aikinite (of Levy) = wolframite pseudomorphous after scheelite, from Wheal Maudlin, Lanlivery, Cornwall. The first authenticated account of Aikinite, PbCuBiS₃, from Britain Grainsgill, Carrock Fell, Cumberland) is by A. W. G. Kingsbury and J. Hartley 1953, *Mineral. Mag.* **31**, 296-7.
- Albertite** (Morrison, 1884)
W. Morrison 1884, *Mineral. Mag.* **6**, 101. Strathpeffer, Ross-shire. [Albertite = a pitchy body of the Asphaltite group (Hey, 2nd edn., 307, 33.9.5).]
- Altaite** (Des Cloizeaux, 1893)
A. Des Cloizeaux 1893, *Man. Mineral.* **2**, 306. Bontddu, Merionethshire. [No determinative data for this occurrence given; requires confirmation.]
- Alunogen** (Smithe, 1882)
Spencer's reference could not be found. Requires confirmation.
- Amazon stone** (Heddle, 1877)
M. F. Heddle 1877, *Trans. R. Soc. Edinburgh*, **28**, 216. Ben Loyal, Sutherlandshire. [Amazon stone = var. of Microcline (Hey, 2nd edn., 326).]
- Amblystegite** (Judd, 1885)
J. W. Judd 1885, *Geol. Mag.* **2**, 173. In various igneous rocks of British Isles. [Amblystegite = var. of Hypersthene (Hey, 2nd edn., 326).]
- Andesine** (Heddle, 1877)
M. F. Heddle 1877, *Trans. R. Soc. Edinburgh*, **28**, 246-51. Various Scottish localities.
- Andrewsite** (Maskelyne, 1871)
N. S. Maskelyne 1871, *Rep. Br. Assoc. Adv. Sci.* 1871, 75 (1872). Also *Chem. News*, **24**, 99 (1871). Cornwall. [Chemical analysis published in *J. Chem. Soc. London*, **28**, 586 (1875).]
- Anorthite** (Haughton, 1856)
S. Haughton 1856, *Q. J. Geol. Soc.* **12**, 196. Carlingford, Co. Lough.
- Anorthoclase** (Heddle, 1901)
M. F. Heddle 1901, *Mineral. Scotland*, **2**, 199 (Soda-Microcline). Elie and St. Monance, Fife. [Soda-microcline = syn. of Anorthoclase (Hey, 2nd edn., 603).]
- Antigorite** (Heddle, 1878)
M. F. Heddle 1878, *Mineral. Mag.* **2**, 32. Balta, Unst, Shetland. [Heddle's analysis is inconclusive, but antigorite has been confirmed from this locality.]
- Antimony(?)** (Garby, 1848)
J. Garby 1848, *Trans. R. Geol. Soc. Cornwall*, **7**, 90. Cornwall. [This recording is doubtful, 'said to have been found'. Requires confirmation.]
- Arfvedsonite(?)** (Seymour, 1900)
H. J. Seymour 1900, *Geol. Mag.* **7**, 260. South Bay, Co. Down. [Optical determination.]
- Atacamite** (Church, 1865)
A. H. Church 1865, *J. Chem. Soc.* **18**, 80, 82. St. Just, Cornwall. [All 'Atacamite' specimens from St. Just are, in fact, Paratacamite and not Atacamite. Atacamite has, however, been confirmed at Penberthy Croft, Cornwall (A. W. G. Kingsbury 1954, *Trans. R. Geol. Soc. Cornwall*, **18**, 400-1).]
- Balvraidite** (Heddle, 1880)
M. F. Heddle 1880, *Mineral. Mag.* **4**, 117. Balvraid, Glen Beg, Inverness-shire. [A thin section of Heddle's Balvraidite shows it to be a

- (symplectic?) mixture of Calcite, altered Scapolite, Mica, and much ill-defined fibrous mineral matter (RSM 1981).]
- Baricalcite** (Breithaupt, 1841)
A. Breithaupt 1841, *Handb. Mineral.* **2**, 313 (Rhombohedral Barytocalcite); Dana, 6th edn., 269 (Baricalcite). Cumberland. [Variety of Calcite. Syn. Neotype (Hey, 2nd edn., 78, 11.5.8).]
- Barkevikite** (Busz, 1900)
K. Busz 1900, *Geol. Mag.* **7**, 439, 440. Kilchoan, Ardnamurchan. [No chemical data given. The name Barkevikite has been recommended for extinction (Amph. (1978), 558).]
- Barytocelestite** (Collie, 1878)
J. N. Collie 1878, *Mineral. Mag.* **2**, 220. Clifton, Bristol. [Barytocelestite is synonym of Barytocelestine = var. of Celestine (Hey, 2nd edn., 346, 279, 25.4.17).]
- Bassetite** (Hallimond, 1915)
A. F. Hallimond 1915, *Mineral. Mag.* **17**, 222-30. Basset mines, Redruth, Cornwall. [For an analysis of bassetite see C. Frondel 1954, *Mineral. Mag.* **30**, 347.]
- Bastite**
[Bastite is Serpentine resulting from the alteration of Mg-rich orthopyroxene.]
- Bathvillite** (Williams, 1863)
C. G. Williams 1863, *Chem. News*, **7**, 133. Torbanehill, W. Lothian. [Bathvillite = a woody resin (Hey, 2nd edn., 304, 33.4.3).]
- Bauxite** (Sutherland, 1870)
[Spencer's reference could not be found.]
- Bayldonite** (Church, 1865)
A. H. Church 1865, *J. Chem. Soc.* **18**, 265. Cornwall.
- Beekite**
[Beekite = a variety of Chalcedony (Hey, 2nd edn., 347). See also, T. M. M. Hughes 1889, *Mineral. Mag.* **8**, 265-71.]
- Beraunite** (Greg, 1860)
R. P. Greg 1860, *Phil. Mag.* **19**, 14. Wheal Jane, Truro, Cornwall. [Greg's beraunite is really a variety of hisingerite (A. H. Church 1870, *J. Chem. Soc. London*, **23**, 3. Beraunite recorded from Roury mine, Glandore, Co. Cork (A. Russell 1923, *Mineral. Mag.* **21**, 274).]
- Bertrandite** (Bowman, 1911)
H. L. Bowman 1910, *Mineral. Mag.* **16**, 47. Cheesewring Quarry, Liskeard, Cornwall.
- Bhreckite** (Heddle, 1879)
M. F. Heddle 1879, *Mineral. Mag.* **3**, 57. 'Ben Bhreck', Beinn Bhreac, Sutherlandshire. [Is an aluminosilicate of Ca, Mg, and Fe³⁺ (Hey, 2nd edn., 200, 16.23.14). The RSM has no specimens of Bhreckite.]
- Botallackite** (Church, 1865)
A. H. Church 1865, *J. Chem. Soc.* **18**, 213. Botallack Mine, Cornwall. [A distinct mineral, but requires further examination (Hey, 2nd edn., 62, 8.2.6).]
- Botryolite** (McLintock, 1910)
W. F. P. McIntock 1910, *Mineral. Mag.* **15**, 413. Lizard district, Cornwall. [Botryolite = var. of Datolite (Hey, 2nd edn., 359).]
- Bowlingite** (Hannay, 1877)
J. B. Hannay 1877, *Mineral. Mag.* **1**, 154. Bowling Quarry, Dunbartonshire. [Bowlingite = syn. of Saponite (Hey, 2nd edn., 359).]
- Braunite(?)** (Collins, 1871)
J. H. Collins 1871, *Handb. Mineral. Cornwall Devon*, 19. Launceston, Cornwall. [Collins says, 'it is said to have been found in the manganese mines near Launceston'. Requires confirmation.]
- Bruiachite** (Macadam, 1886)
W. I. Macadam 1886, *Mineral. Mag.* **7**, 42. Loch Bhruithaich, Inverness-shire. [Is syn. of Fluorite (Hey, 2nd edn., 362).]
- Bytownite** (Teall, 1884)
J. J. H. Teall 1883, *Geol. Mag.* **10**, 258-9. Stichill, Roxburghshire.
- Calciopalpygorskite** (Fersman, 1908)
A. E. Fersman 1908, *Bull. Acad. Sci. St. Petersburg*, **2**, 270, 274. Strontian, Argyllshire. [Aluminosilicate of Mg and Ca (Hey, 2nd edn., 170, 16.11.14).]
- Cantonite** (Davies, 1877)
T. Davies 1877, *Mineral. Mag.* **1**, 112. Wheal Falmouth, Cornwall. [Cantonite = pseudomorphs of Covelline after Galena (Hey, 2nd edn., 369).]
- Carminite** (Russell, 1910)
A. Russell 1908, *Mineral. Mag.* **15**, 285. Hingston Down Consols Mine, Calstock, Cornwall.
- Cathkinite** (Glen and Young, 1882)
D. C. Glen and J. Young 1882, *Trans. Geol. Soc. Glasgow*, **7**, 171. Also, J. J. Dobbie 1883, *Mineral. Mag.* **5**, 131. Cathkin Quarry, Lanarkshire. [XRD of analysed Cathkinite in Scottish Mineral Collection = Saponite (A. Livingstone 1981, pers. comm.).]
- Cebollite** (Tilley, 1931)
C. E. Tilley and H. F. Harwood 1931, *Mineral. Mag.* **22**, 455. Scawt Hill, Co. Antrim.
- Celadonite** (Heddle, 1879)
M. F. Heddle 1879, *Trans. R. Soc. Edinburgh*,

- 29**, 102-4. Giant's Causeway; Scur Mor, Rhum; Tayport, Fife.
- Celsian* (Russell, 1911)
A. Russell 1911, *Nature*, **86**, 180. Benallt manganese mine, Caernarvonshire. See also, L. J. Spencer 1942, *Mineral. Mag.* **26**, 231.
- Centrallassite* (How, 1878)
H. How 1878, *Mineral. Mag.* **2**, 135. Skye, Inverness-shire. [Is syn. of Gyrolite (Hey, 2nd edn., 373).]
- Chalcosiderite* (Maskelyne, 1875)
N. S. Maskelyne 1875, *J. Chem. Soc.* **28**, 586-91. West Phoenix Mine, Cornwall. [The locality is more accurately called 'Western Wheal Phoenix' (A. W. G. Kingsbury 1954, *Trans. R. Geol. Soc. Cornwall*, **18**, 362).]
- Chamosite* (Rudler, 1905)
F. W. Rudler 1905, *Handb. Mineral. British Islands*, 192. Rosedale Abbey, Yorkshire.
- Chenevixite* (Adam, 1866)
Monsieur Adam and F. Pisani 1866, *C. R. Acad. Sci. Paris*, **62**, 690. Cornwall.
- Chloanthite* (Russell, 1922)
A. Russell 1922, *Nature*, **109**, 126. Kingswood Mine, Buckfastleigh, Devon. [No determinative data are given: this mineral should be confirmed.]
- Chloritoid* (Heddle, 1879)
M. F. Heddle 1879, *Trans. R. Soc. Edinburgh*, **29**, 76; and, *Mineral. Mag.* **3**, 28. 'Vanlup', Vannlip, Hillswickness, Shetland.
- Chloropal* (Church, 1866) [*Nontronite*]
A. H. Church 1866, *Chem. News*, **14**, 71. Carclase, Cornwall. [Chloropal is syn. of Nontronite (Hey, 2nd edn., 1st append. 96). Mineral identified by comparison, 'like gramenite'. Recorded from Carnmoney Hill, Antrim by S. I. Tomkeieff in 1934 (*Geol. Mag.* **71**, 507, anal. 3).]
- Chlorophyllite* (Heddle, 1882)
M. F. Heddle 1882, *Mineral. Mag.* **5**, 18. Buck of the Cabrach, Aberdeenshire. [Chlorophyllite is an aluminosilicate of Fe³⁺ and Mg. Pseudomorphous after Cordierite (Hey, 2nd edn., 189, 16.19.21).]
- Chloroxiphite* (Spencer, 1923)
L. J. Spencer 1923, *Mineral. Mag.* **20**, 75. Mendip Hills, Somerset.
- Chonicrite* (Heddle, 1901)
M. F. Heddle 1901, *Mineral. Scotland*, **2**, 151. Near Colmonell and Lendalfoot, Ayrshire. [A thin section of Heddle's Chonicrite shows it to be a fine-grained mixture of a mineral (showing anomalous blue interference colours) with another impure and unidentified mineral (RSM 1981).]
- Christophite* (Collins, 1879)
J. H. Collins 1879, *Mineral. Mag.* **3**, 91. St. Agnes, Cornwall. [Christophite = variety of Sphalerite (Blende) (Hey, 2nd edn., 12, 3.4.8).]
- Chrome-diopside* (Teall, 1888)
J. J. H. Teall 1888, *Mineral. Mag.* **8**, 116. Coverak, Cornwall. [Chrome-diopside is a variety of Diopside (Hey, 2nd edn., 111, 14.15.5).]
- Chrysoberyl* (Haughton, 1856)
S. Haughton 1856, *Q. J. Geol. Soc.* **12**, 191. Mourne granite, N. Ireland. [No determinative data are given. Requires confirmation.]
- Chrysotile*
[Spencer gave no original reference. The mineral is known to occur in the British Isles.]
- Churchite* (Church, 1865)
A. H. Church 1865, *J. Chem. Soc.* **18**, 259-63 (Hydrous Cerous Phosphate); C. G. Williams 1865, *Chem. News*, **12**, 183 (Churchite). Cornwall (probably Tretoil mine, Lostwithiel: see A. W. G. Kingsbury 1956, *Mineral. Mag.* **31**, 282). [Churchite is essentially a yttrium phosphate, and contains very little cerium (G. F. Claringbull and M. H. Hey 1952, *Mineral. Mag.* **30**, 211-17).]
- Claudetite* (Hintze, 1904)
C. Hintze 1904, *Handb. Mineral.* **1**(2), 1229, 1233. Huel Sparnon, Cornwall. [No determinative data are given; this occurrence requires confirmation.]
- Cleavelandite* (Heddle, 1877)
M. F. Heddle 1877, *Trans. R. Soc. Edinburgh*, **28**, 236. 'Ben Bhreck', Beinn Bhreac, Sutherlandshire. [Cleavelandite (of Brooke) = syn. of Albite (Hey, 2nd edn., 386).]
- Clinochlore* (British Museum)
Probably specimen BM 41759, from Taymouth Castle, Perthshire (P. G. Embrey 1981, pers. comm.).
- Clinozoisite* (Thomson, 1908)
J. A. Thomson 1908, *Q. J. Geol. Soc.* **64**, 483. Glendalough, Co. Wicklow.
- Cloustonite* (Heddle, 1880)
M. F. Heddle 1880, *Mineral. Mag.* **3**, 222. Mainland, Orkney. [Is an unanalysed pitchy mineral (Hey, 2nd edn., 310, 33.13.9).]
- Coccolite* (Heddle, 1877)
M. F. Heddle 1877, *Trans. R. Soc. Edinburgh*, **28**, 462. Gruagach Cliff, Loch Ailsh, Ross-shire. [Coccolite = var. of Diopside (Hey, 2nd edn., 389).]

- Colliete** (Brown, 1927)
R. Brown 1926, *Trans. Dumfriesshire Galloway Nat. Hist. Antiq. Soc.* **13**, 72. Wanlockhead, Dumfriesshire. [Is a var. of Pyromorphite (Hey, 2nd edn., 265, 22.2.16).]
- Collyrite** (Gladstone, 1862)
J. H. Gladstone and G. Gladstone 1862, *Phil. Mag.* **23**, 461. Hove, Brighton. [Collyrite from Hove is a mixture of gibbsite and allophane (S. E. Hollingworth and F. A. Bannister 1949, *Mineral. Mag.* **29**, 12).]
- Cotterite** (Harkness, 1878)
R. Harkness 1878, *Mineral. Mag.* **2**, 82. Rockforest, Co. Cork. [Is a var. of Quartz (Hey, 2nd edn., 393).]
- Cotunnite** (Russell, 1920)
A. Russell 1920, *Mineral. Mag.* **19**, 64. Falmouth Harbour, Cornwall.
- Craigtonite** (Heddle, 1882)
M. F. Heddle 1882, *Mineral. Mag.* **5**, 30. Craigton, Hill of Fare, Aberdeenshire. [Is a mixture of Fe and Mn oxides (Hey, 2nd edn., 394). The RSM has no specimens of Craigtonite.]
- Crednerite** (Spencer, 1923)
L. J. Spencer 1923, *Mineral. Mag.* **20**, 86. Mendip Hills, Somerset.
- Crocalite** (Heddle, 1901)
M. F. Heddle 1901, *Mineral. Scotland*, **2**, 105. Various Scottish localities. [Crocalite = var. of Natrolite (Hey, 2nd edn., 395, 349).]
- Crocidolite** (Heddle, 1879) [*Magnesoriebeckite*]
M. F. Heddle 1879, *Mineral. Mag.* **3**, 61. Localities in Inverness-shire. [Heddle's analysis of Crocidolite = Magnesoriebeckite as defined in Amph. (1978), 556, 19.4. The name Crocidolite has been recommended for extinction, Amph. (1978), 559.]
- Crocoite** (Brown, 1927)
R. Brown 1926, *Trans. Dumfriesshire Galloway Nat. Hist. Antiq. Soc.* **13**, 74. Hopeful Vein, Wanlockhead, Dumfriesshire.
- Cryptolite** (Church, 1872)
A. H. Church 1872, *Chem. News*, **26**, 130. Cornwall. [Cryptolite = syn. of Monazite (Hey, 2nd edn., 395). In his paper Church says: 'The occurrence of cryptolite in certain British, as well as foreign, specimens of apatite has been ascertained'. Church, however, offers no supportive data for this statement; and it was H. A. Miers, in 1885, who first reported Monazite in the British Isles (*Mineral. Mag.* **6**, 164).]
- Cumingtonite** (Teall, 1907)
J. J. H. Teall 1907, in A. Geikie (ed.), *The Geological Structure of the North-West Highlands of Scotland. Mem. Geol. Surv. G.B.* **84**. Loch Bad-na-Sgalaig, Ross and Cromarty. [The analysis given = manganoan Cumingtonite.]
- Danalite** (Miers and Prior, 1892)
H. A. Miers and G. T. Prior 1891, *Mineral. Mag.* **10**, 10. Cornwall.
- Daphnite** (Tschermak, 1891)
G. Tschermak 1891, *Sitzungsber. Akad. Wiss. Wien* **100**, Abt. 1, 38. Penzance, Cornwall. [Daphnite = magnesian Chamosite (Fleischer, 1980). The name Daphnite should now be discarded.]
- Dechenite(?)** (Heddle, 1901)
M. F. Heddle 1901, *Mineral. Scotland*, **2**, 162. Wanlockhead, Dumfriesshire. [Dechenite is a var. of Descloizite (Hey, 2nd edn., 260, 21.3.8).]
- Delessite** (Heddle, 1879)
M. F. Heddle 1879, *Trans. R. Soc. Edinburgh*, **29**, 81-4. Various Scottish localities. [Delessite is magnesian Chamosite (Fleischer, 1980); the name Delessite should now be discarded.]
- Demidoffite** (Greg, 1860)
R. P. Greg 1860, *Phil. Mag.* **19**, 14. Cornwall and Cumberland. [Demidoffite = silicate and phosphate of Cu (Hey, 2nd edn., 214, 17.6.2).]
- Descloizite** (Frenzel, 1875)
A. Frenzel 1875, *Neues Jahrb. Mineral. Geol. Palaeontol.* **674**. Wanlockhead, Dumfriesshire. [Frenzel's Descloizite = Mottramite (F. A. Bannister 1933, *Mineral. Mag.* **23**, 378, 385). Descloizite has been recorded from Pim Hill, Shropshire (*Mineral. Mag.* **23**, 385, anal. 5).]
- Devilline** (Pisani, 1864)
M. F. Pisani 1864, *C. R. Acad. Sci. Paris*, **59**, 813. Cornwall. [There has been uncertainty about the status of Devilline as a Cornish mineral, but its definite occurrence, at several localities, has now been established (A. W. G. Kingsbury 1952, *Trans. R. Geol. Soc. Cornwall*, **18**, 392).]
- Diabantite** (Garnett, 1923)
C. S. Garnett 1923, *Mineral. Mag.* **20**, 152. 'The Peak District', Derbyshire. [Diabantite = ferroan Clinocllore (Fleischer, 1980). The name Diabantite should now be discarded.]
- Diaboleite** (Spencer, 1923)
L. J. Spencer 1923, *Mineral. Mag.* **20**, 78. Mendip Hills, Somerset.
- Diamond(?)** (Heddle, 1901)
M. F. Heddle 1901, *Mineral. Scotland*, **2**, 193. Ben Hope, Sutherland. [Very doubtful, (RSM).]
- Diaspore** (Tilley, 1927)
C. E. Tilley and J. S. Flett 1929, *Summ. Prog.*

- Geol. Surv. G.B.* part 2, 28 (1930). Kenidjack Castle, Cornwall. [Spencer's reference of 1927 could not be found.]
- Diatomite** (Macadam, 1884)
W. I. Macadam 1884, *Mineral. Mag.* **6**, 87. In Aberdeenshire and Sutherlandshire. [Diatomite is an opaline silica: diatomaceous earth (Hey, 2nd edn., 403, 630 (Tripolite).]
- Dolianite** (Des Cloizeaux, 1862)
A. Des Cloizeaux 1862, *Man. Mineral.* **1**, 435. Knock Station, Ayrshire. [Dolianite is an aluminosilicate of Ca (Hey, 2nd edn., 161, 16.9.22). The locality could not be found.]
- Dopplerite** (Moss, 1903)
R. J. Moss 1903, *Sci. Proc. R. Dublin Soc.* **10**, 93; also, *Irish Nat.* **12**, 201. Sluggan Bog, Co. Antrim. [Dopplerite (of Haidinger) is the Ca-salt of a humic acid (Hey, 2nd edn., 309, 33.12.1).]
- Dudgeonite** (Heddle, 1889)
M. F. Heddle 1889, *Mineral. Mag.* **8**, 200. Pibble Mine, Creetown, Kirkcudbrightshire. [Dudgeonite = var. of Annabergite (Hey, 2nd edn., 258, 20.10.11).]
- Dufrenite** (Kinch and Butler, 1886)
E. Kinch and F. H. Butler 1886, *Mineral. Mag.* **7**, 65. E. Cornwall. [Western Wheal Phoenix, according to A. W. G. Kingsbury, *Trans. R. Geol. Soc. Cornwall*, **18**, 405 (1954).]
- Dumortierite** (Mackie, 1924)
W. Mackie 1923, *Trans. Edinburgh Geol. Soc.* **11**, 352. Localities in Aberdeenshire and Banffshire.
- Dundasite** (Prior, 1906)
G. T. Prior 1905, *Mineral. Mag.* **14**, 167. Welsh Foxdale Mine, Caernarvonshire.
- Duporthite** (Collins, 1877)
J. H. Collins 1877, *Mineral. Mag.* **1**, 226. Duporth, St. Austell, Cornwall. [Is an aluminosilicate of Mg and Fe²⁺ (Hey, 2nd edn., 190, 16.19.32).]
- Edenite** (Heddle, 1878)
M. F. Heddle 1878, *Trans. R. Soc. Edinburgh*, **28**, 509. Milltown, Glen Urquhart, Invernessshire. [Heddle's analyses, recalculated, do not fit definition of Edenite given in *Amph.* (1978), 552, 11.13.]
- Electrum** (Forbes, 1867)
D. Forbes 1867, *Phil. Mag.* **34**, 340. Clogau Quartz Lode, Dolgellau, Merionethshire. [The word Electrum is not used in the paper, but the word alloy is.]
- Ellonite** (Heddle, 1882)
M. F. Heddle 1880, *Mineral. Mag.* **5**, 30. Ellon, Aberdeenshire. [Near MgSi₂O₄(OH)₂ (Hey, 2nd edn., 95, 14.4.37). The RSM has no specimens of Ellonite.]
- Embolite** (Prior and Spencer, 1902) [*bromian Chlorargyrite*]
G. T. Prior and L. J. Spencer 1902, *Mineral. Mag.* **13**, 177. Dolcoath Mine, Cornwall. (Analysis given indicates this Embolite to be bromian Chlorargyrite.)
- Enstatite**
[Spencer gave no original reference. The mineral is known to occur in the British Isles.]
- Enysite** (Collins, 1876)
J. H. Collins 1876, *Mineral. Mag.* **1**, 14. St. Agnes, Cornwall. [Near Cu₂Al₂SO₄(OH)₂₀ (Hey, 2nd edn., 275, 25.2.23).]
- Eosite** (Schrauf, 1871)
A. Schrauf 1871, *Sitzungsber. Akad. Wiss. Wien* **63**, Abt. 1, 176; also, S. A. Williams 1974, *Bull. Br. Mus. (Nat. Hist.)*, *Mineral.* **2**, 400. Leadhills. [The status of this mineral is uncertain.]
- Epichlorite** (Garnett, 1923)
C. S. Garnett 1923, *Mineral. Mag.* **20**, 63. Ible, Derbyshire. [Epichlorite is near (Mg,Fe,Al)₁₂Si₈O₂₀(O,OH)₁₆. Chlorite group? (Hey, 2nd edn., 191, 16.19.54).]
- Ettringite** (Tilley, 1931)
C. E. Tilley and H. F. Harwood 1930, *Mineral. Mag.* **22**, 443. Scawt Hill, Co. Antrim. [No determinative data are given. Confirmed by chemical and X-ray methods (F. A. Bannister and M. H. Hey 1935, *Mineral. Mag.* **24**, 324-9).]
- Eulytite** (Collins, 1881)
J. H. Collins 1881, *Cat. Miner. Mus. R. Inst. Cornwall*, Div. 2-Met. Restormel Mine (specimen no. 1588); Wheal Coates, St. Agnes (specimen no. 1589), Cornwall. [Neither of these specimens contains any eulytine (P. G. Embrey, pers. comm.). Eulytite is synonym of Eulytine (Hey, 2nd edn., 418).]
- Evansite** (Woodward 1884)
A. S. Woodward 1883, *Mineral. Mag.* **5**, 333. Ratcliff Wood, Macclesfield, Cheshire. [Identified by qualitative analysis and by comparison.]
- Ferrite** (Heddle, 1882)
M. F. Heddle 1880, *Mineral. Mag.* **5**, 28. Gleniffer Braes, Renfrewshire. (XRD of the Ferrites in the Scottish Mineral Collection shows them to be mixtures yielding patterns of the Smectite Group plus Hematite (A. Livingstone 1981, pers. comm.).]
- Fibrolite** (Heddle, 1882) [*Sillimanite*]
M. F. Heddle 1882, *Mineral. Mag.* **5**, 2. 'Pressendye Hill', Cushnie Hill, Tarland, Aberdeenshire.

- Fichtelite** (Macadam, 1889)
I. Macadam 1888, *Mineral. Mag.* **8**, 137. Handforth, Cheshire; and Shielding, Ross-shire. [Fichtelite is a crystalline hydrocarbon (Hey, 2nd edn., 300, 33.1.16).]
- Forsterite** (Clough and Pollard, 1899)
C. T. Clough and W. Pollard 1899, *Q. J. Geol. Soc.* **55**, 372. Glenelg, Inverness-shire.
- Freieslebenite** (Museum Pract. Geol.)
Three specimens presented by P. N. Johnston to the Geol. Mus. of the Inst. Geol. Sci. London, and registered in 1921 as Freieslebenite (from Island of Sark), were loaned to RSM, by E. A. Jobbins, for examination. [XRD and XRF studies could not detect this mineral on the specimens supplied; only galena was detected, along with a trace of antimony (A. Livingstone 1982, pers. comm.).]
- Fuchsite** (Heddle, 1901)
M. F. Heddle 1901, *Mineral. Scotland*, **2**, 115, 209. Argyllshire, and some Highland counties. [Fuchsite = chromian Muscovite (Fleischer, 1980).]
- Funkite** (Heddle, 1882)
M. F. Heddle 1882, *Mineral. Mag.* **5**, 96. Shiness, Sutherlandshire. [Funkite = var. of Diopside (Hey, 2nd edn., 432).]
- Genthite** (Heddle, 1878)
M. F. Heddle 1878, *Mineral. Mag.* **2**, 23. Hagdale Quarry, Unst, Shetland. [XRD of Heddle's Genthite = Zaratite (A. Livingstone 1981, pers. comm.).]
- Geocronite** (Prior, 1902)
G. T. Prior 1902, *Mineral. Mag.* **13**, 187. Kilbricken Mine, Co. Clare.
- Gersdorffite** (Forbes, 1868)
D. Forbes 1868, *Phil. Mag.* **35**, 181. Craigmuir Mine, Inverary, Argyllshire.
- Gibbsite** (British Museum)
Specimens from Clifton Hill, Brighton, Sussex; and from Wheal Gorland, Cornwall, are shown to be gibbsite by F. A. Bannister's X-ray diffraction work (P. Embrey 1981, pers. comm.). [See Bannister 1950, *Mineral. Mag.* **29**, 12.]
- Gigantolite** (Heddle, 1882)
M. F. Heddle 1882, *Mineral. Mag.* **5**, 17. Torry, Aberdeen. [Gigantolite = a mixture of Muscovite and Biotite; Pinite group (Hey, 2nd edn., 437).]
- Gilpinite** (Larsen and Brown, 1917)
E. S. Larsen and G. V. Brown 1917, *Am. Mineral.* **2**, 75. Cornwall. [Gilpinite = Johannite (Fleischer, 1980).]
- Glaucophane** (Blake, 1888) [*Magnesio-arfvedsonite*]
J. F. Blake 1888, *Geol. Mag.* **5**, 125. Anglesey Monument, Anglesey. [An analysis of this amphibole was made by N. Holgate in 1951 who claimed that it was really a Crossite (*Mineral. Mag.* **29**, 795). However, a reinterpretation of this same analysis, using Amph. (1978) as a yardstick, yields a Magnesio-arfvedsonite.]
- Glockerite** (Dana, 1899)
Dana 6th edn., 1st append. 1899, 29. Parys Mount, Anglesey. [Is Hydroglockerite (Dana 7th edn., **2**, 588). Glockerite = Lepidocrocite (Fleischer abstract in *Am. Mineral.* **62**, 599-600 (1977).]
- Gramenite** (Collins, 1877)
J. H. Collins 1877, *Mineral. Mag.* **1**, 67. Smallacombe, near Bovey Tracey, Devon. [Gramenite = var. of Chloropal (Hey, 2nd edn., 182, 16.17.21. Chloropal = syn. of Nontronite (Hey, 2nd edn., 1st append., 96).]
- Grastite** (Heddle, 1878)
M. F. Heddle 1878, *Mineral. Mag.* **2**, 23. Hagdale Quarry, Unst, Shetland. [Grastite = syn. of Clinocllore (Hey, 2nd edn., 441).]
- Grossular** (Heddle, 1878)
M. F. Heddle 1878, *Trans. R. Soc. Edinburgh*, **28**, 299. Creag Mhòr, Balmoral, Aberdeenshire.
- Grünlingite** (Muthmann and Schröder, 1897)
W. Muthmann and E. Schröder 1897, *Z. Krystallogr. Mineral.* **29**, 144. Carrocks Fells, Cumberland. [Now discredited, see *Am. Mineral.* **67**, 855 (1982), under Ingodite.]
- Halloysite** (Heddle, 1882)
M. F. Heddle 1882, *Mineral. Mag.* **5**, 1. Hospital Quarry, Elgin, Morayshire. [Confirmed as Halloysite (7 Å) by X-ray diffraction and electron microscopy (RSM; and R. C. Mackenzie 1978, pers. comm.).]
- Hastingsite(?)** (Tilley, 1931)
C. E. Tilley and H. F. Harwood 1930, *Mineral. Mag.* **22**, 453. Scawt Hill, Co. Antrim. [Tilley actually says, 'this amphibole belongs to the Hastingsite group': an optical determination.]
- Haughtonite** (Heddle, 1879)
M. F. Heddle 1879, *Trans. R. Soc. Edinburgh*, **29**, 21. Various Scottish localities. [Haughtonite = var. of Biotite (Hey, 2nd edn., 194, 16.20.13).]
- Hausmannite** (Goodchild, 1875)
J. G. Goodchild 1875, *Geol. Mag.* **2**, 566. Cleator Moor, Cumberland. [No determinative data are given; this occurrence requires confirmation.]
- Henwoodite** (Collins, 1876) [*Turquoise*]
J. H. Collins 1876, *Mineral. Mag.* **1**, 11. West

- Phoenix Mine, Cornwall. [Henwoodite = syn. of Turquoise (Hey, 2nd edn., 449).]
- Hercynite*(?) (Teall, 1897)
[Spencer's reference could not be found.]
- Hibbertite* (Heddle, 1878)
M. F. Heddle 1878, *Mineral. Mag.* **2**, 25. Hagdale Quarry, Unst, Shetland. [XRD of Heddle's Hibbertite = mixture of Calcite, Dolomite, and Pyroaurite/Sjögrenite (A. Livingstone, 1981, pers. comm.).]
- Hisingerite* (Church, 1870)
A. H. Church 1869, *J. Chem. Soc.* **23**, 3. Lostwithiel, Cornwall.
- Hitchcockite* (Miers and Hartley, 1900)
H. A. Miers and E. G. J. Hartley 1900, *Mineral. Mag.* **12**, 239. Roughten Gill, Cumberland. (Hitchcockite = syn. of Plumbogummite (Hey, 2nd edn., 452).]
- Hovite* (Gladstone, 1862)
J. H. and G. Gladstone 1862, *Phil. Mag.* **23**, 465. Hove, Brighton, E. Sussex. [Is a carbonate of Ca and Al(?). Silica may perhaps be an essential constituent (Hey, 2nd edn., 79, 11.7.5).]
- Hullite* (Hardman, 1878)
E. T. Hardman 1878, *Rep. Br. Assoc. Adv. Sci.* 542; *Proc. R. Irish Acad.* **3**, 161. Carnmoney Hill, Co. Antrim. [Is an aluminosilicate of Fe⁺³, Mg, Ca, and alkalis. Perhaps identical with Chlorophaeite (Hey, 2nd edn., 201, 16.24.6).]
- Hydrated labradorite* (Heddle, 1880)
M. F. Heddle 1880, *Mineral. Mag.* **4**, 118. Balvraid, Glen Beg, Inverness-shire. [XRD of Heddle's Hydrated labradorite = a Scapolite. (A. Livingstone 1981, pers. comm.). Is Dipyre from optics.]
- Hydrocerussite* (Heddle, 1889)
M. F. Heddle 1889, *Mineral. Mag.* **8**, 202. Wanlockhead, Dumfriesshire.
- Hydronephelite* (Tilley, 1931)
C. E. Tilley and H. F. Harwood 1930, *Mineral. Mag.* **22**, 452. Scawt Hill, Co. Antrim. [Hydronephelite is an aluminosilicate of Na. Probably a mixture of Natrolite, or Nepheline, or both, with Diaspore or Gibbsite (Hey, 2nd edn., 142, 16.2.27).]
- Hydrophilite* (Dana, 1892)
Dana 6th edn., 161. Also, J. Spiller 1876, *J. Chem. Soc.* **1** (n.s.), 154 (Calcium Chloride). Guy's Cliff, Warwickshire. [The status of this mineral is doubtful (Hey, 2nd edn., 64, 8.4.16).]
- Hydroplumbite* (Heddle, 1889)
M. F. Heddle 1889, *Mineral. Mag.* **8**, 201. Cumberland or Leadhills. [A hydrated oxide of Pb. Very doubtful; probably really Hydrocerussite (Hey, 2nd edn., 48, 7.11.8).]
- Hydrozincite* (Goodchild, 1883)
J. G. Goodchild 1883, *Trans. Cumberland Assoc. Adv. Lit. Sci.* **8**, 202. Alston, Cumberland.
- Iddingsite*(?) (Arnold-Bemrose, 1894)
H. H. Arnold-Bemrose 1894, *Q. J. Geol. Soc.* **50**, 617. Peak Forest, Derbyshire. ['Iddingsite' is a fine-grained aggregate containing goethite and some combination of smectite, chlorite, silica, calcite, talc, and periclase (W. R. Phillips and D. T. Griffen 1981, *Optical Mineralogy*, San Francisco, 107).]
- Igelströmite* (Heddle, 1878)
M. F. Heddle 1878, *Mineral. Mag.* **2**, 108. Haaf Grunay and Hagdale, Unst, Shetland. [Igelströmite (of Heddle) = syn. of Pyroaurite (Hey, 2nd edn., 463).]
- Inverarite* (Heddle, 1883)
M. F. Heddle 1883, *Encycl. Britannica*, 9th edn., **16**, 392, 430. Inverary, Argyllshire. [Is a mixture of pentlandite, pyrrhotine, and pyrite (RSM).]
- Jarrowite* (Lebour, 1887)
G. A. Lebour 1887, *Rep. Br. Assoc. Adv. Sci.*, 700 (1888). Jarrow, River Tyne, Durham. [Is syn. of Thinolite, *Mineral. Mag.* **11**, 328 (Hey, 2nd edn., 470).]
- Johannite* (Garby, 1848)
J. Garby 1848, *Trans. R. Geol. Soc. Cornwall*, **7**, 86. South Hull Basset, Cornwall. [Johannite is listed in J. Robson's Cornish Mineral Index (*Trans. R. Geol. Soc. Cornwall*, **17**, 472 (1948), as occurring at Basset and S. Terras.)]
- Keilhauite* (Heddle, 1901)
M. F. Heddle 1901, *Mineral. Scotland*, **2**, 157. Cnoc Dubh, Sutherlandshire. [XRD of Heddle's Keilhauite = Sphene (A. Livingstone 1981, pers. comm.).]
- Kilmacooite* (Tichborne, 1885)
C. R. C. Tichborne 1885, *Sci. Proc. R. Dublin Soc.* **4**, 300. East Ovaca, Co. Wicklow. [Is a sulphide of Zn and Pb. Probably a mixture (Hey, 2nd edn., 14, 3.6.12).]
- Langite* (Maskelyne, 1864)
N. S. Maskelyne 1864, *Phil. Mag.* **27**, 316. Also *Phil. Mag.* **29**, 473 (1865). Cornwall.
- Larnite* (Tilley, 1929)
C. E. Tilley 1927, *Mineral. Mag.* **22**, 79. Scawt Hill, Co. Antrim.

- Latrobite** (Heddle, 1877)
M. F. Heddle 1877, *Trans. R. Soc. Edinburgh*, **28**, 262. Delnabo, Glengairn, Aberdeenshire. [Latrobite = syn. of Anorthite (Hey, 2nd edn., 491).]
- Laurionite** (Russell and Hutchinson, 1922)
A. Russell and A. Hutchinson 1922, *Geol. Mag.* **59**, 182. Wheal Penrose, Cornwall. Also *Mineral. Mag.* **21**, 221-4 (1927).
- Lepidocrocite** (Heddle, 1901)
M. F. Heddle 1901, *Mineral. Scotland*, **1**, 105, 107. Sandlodge Mine, Shetland. [Heddle's Lepidocrocite requires confirmation (RSM).]
- Lepidomelane** (Haughton, 1859)
S. Haughton 1858, *Q. J. Geol. Soc.* **15**, 129. Co. Leinster and Co. Donegal. [Lepidomelane = ferrian Biotite (Fleischer, 1980).]
- Lettsomite** (British Museum) [*Cyanotrichite*]
Lettsomite (syn. of Cyanotrichite) was in L. J. Spencer's 1898 list, but a recent search has not yet found a definite British Lettsomite of this date in the collections of the BM(NH) (P. G. Embrey 1981, pers. comm.). [A mineral collected from dumps near the main shaft at Wheal Gorland, St. Day, Redruth, Cornwall, has been identified by XRD as Cyanotrichite, in 1948 (A. W. G. Kingsbury 1952, *Trans. R. Geol. Soc. Cornwall*, **18**, 389).]
- Leuchtenbergite** (Glen and Young, 1876)
D. C. Glen and J. Young 1876, in J. Armstrong *et al.* (eds.) *Cat. West. Scottish Fossils. Br. Assoc. Adv. Sci.* 159. Inverary, Argyllshire; and Perthshire. [Leuchtenbergite is a Clinocllore but the name should now be discarded (P. Bayliss 1975, *Can. Mineral.* **13**, 178).]
- Leucoxene** (Geikie, 1879)
A. Geikie 1879, *Trans. R. Soc. Edinburgh*, **29**, 489. Carboniferous rocks, Basin of Firth of Forth. [Leucoxene is an alteration product of minerals high in Ti (ilmenite, perovskite, sphene) and consists mainly of rutile, less commonly, anatase.]
- Limnite** (Church, 1865)
A. H. Church 1865, *J. Chem. Soc.* **18**, 215. Botallack Mine, Cornwall. [Limnite = var. of Limonite (Hey, 2nd edn., 498).]
- Linnaeite** (Terrill and Des Cloizeaux, 1880) [*Siegenite*]
A. Terrill and A. Des Cloizeaux 1880, *Bull. Soc. Minéral. Fr.* **3**, 170. Rhonda Valley, Glamorgan. ['Linnaeite' from Glamorgan has been analysed by electron probe microanalysis at BM(NH) and shown to be Siegenite. A. Dean, 1982, pers. comm.]
- Liskeardite** (Maskelyne, 1878)
N. S. Maskelyne 1878, *Nature*, **18**, 426. Liskeard, Cornwall (probably West Phoenix Mine). [For an analysis, see Flight, *J. Chem. Soc. Lond.* **43**, 140 (1883).]
- Loganite** (Harkness, 1866)
R. Harkness 1866, *Q. J. Geol. Soc.* **22**, 507. Lisoughter, Galway. [Loganite = a pseudomorph of Pennine after Amphibole (Hey, 2nd edn., 500).]
- Löllingite** (Collins, 1871)
J. H. Collins 1871, *Handb. Mineral. Cornwall Devon*, 62 (Leucopyrite). [Collins description is inconclusive. Confirmed by X-ray diffraction (P. G. Embrey 1953, *Mineral. Mag.* **30**, 261).]
- Ludlamite** (Field, 1877)
F. Field and N. S. Maskelyne 1876, *Phil. Mag.* **3**, 52-7. Wheal Jane, Cornwall.
- Lussatite** (Mallard, 1890)
F. E. Mallard 1890, *Bull. Soc. Minéral. Fr.* **13**, 63. Cornwall. [Lussatite = fibrous cristobalite.]
- Lyellite** (Maskelyne, 1864)
N. S. Maskelyne 1864, *Chem. News*, **10**, 263. Cornwall. [Lyellite = syn. of Devilline (Hey, 2nd edn., 503).]
- Magnesite** (Heddle, 1901)
M. F. Heddle 1901, *Mineral. Scotland*, **1**, 139. Bay Vein, Wanlockhead, Dumfriesshire.
- Magnesium-diopside** (Rosenbusch, 1905)
H. Rosenbusch 1905, *Mikrosk. Physiq.* **1**, part 2, 200, 206 (Magnesiumdiopsid). Carboniferous rocks, N. England. [Magnesium-diopside = var. of Clinoenstatite (Hey, 2nd edn., 505, 102, 14.6.10).]
- Marmatite** (Rudler, 1905)
F. W. Rudler 1905, *Handb. Mineral. British Islands*, 58. St. Agnes, Cornwall. [Marmatite = var. of Sphalerite ('Blende') (Hey, 2nd edn., 12).]
- Marmolite** (Heddle, 1878)
M. F. Heddle 1878, *Mineral. Mag.* **2**, 108. Haaf Grunay, Shetland. [Marmolite = var. of Chrysotile (Hey, 2nd edn., 93, 14.4.11).]
- Martite** (Heddle, 1882)
M. F. Heddle 1882, *Mineral. Mag.* **5**, 3. Island of Bute. [Martite = Hematite pseudomorphous after Magnetite (Hey, 2nd edn., 515).]
- Massicot(?)** (Collins, 1871)
J. H. Collins 1871, *Handb. Mineral. Cornwall Devon*, 78 (Plumbic ochre). Huel Mexico, Perranzabuloe, Cornwall. [Plumbic ochre = syn. of Massicot and of Litharge (Hey, 2nd edn., 562). The anal. given in Collins, however, is not an anal. of a lead monoxide but is apparently

- that of a mixture containing Pb, Fe, Ag, Si, and O.]
- Melanite** (Teall, 1892)
J. Horne and J. J. H. Teall 1892, *Trans. R. Soc. Edinburgh*, **37**, 171, 173. Cnoc-na-Sroine, Loch Borolan, Sutherlandshire. [Melanite = titanian Andradite (Fleischer, 1980).]
- Melilite** (Flett, 1900)
J. S. Flett 1899, *Trans. R. Soc. Edinburgh*, **39**, 896–7. Long Geo, Holm, Orkney. [Flett's Melilite = Apatite (Flett 1935, *Geology of the Orkneys. Mem. Geol. Surv. Scotland*, 185). Melilite has been recorded from Scawt Hill, Antrim by C. E. Tilley in 1929 (*Geol. Mag.* **66**, 348, *anal.* 1, 2).]
- Merwinite** (Tilley, 1927)
C. E. Tilley 1927, *Mineral. Mag.* **22**, 84. Scawt Hill, Co. Antrim.
- Meta-torbernite** (Hallimond, 1920)
A. Hallimond 1920, *Mineral. Mag.* **19**, 43. Gunnislake, Cornwall.
- Microcline**
[Spencer gave no original reference. The mineral is known to occur in the British Isles.]
- Mirabilite** (Glen and Young, 1876)
D. C. Glen and J. Young 1876, in J. Armstrong *et al.* (eds.), *Cat. West. Scottish Fossils. Br. Assoc. Adv. Sci.* 160. Hurlet near Paisley, Renfrewshire. [This occurrence requires confirmation (RSM). Occurs at Kirkby Thore, Westmorland (C. O. Trechmann 1901, *Mineral. Mag.* **13**, 73).]
- Monazite** (Miers, 1885)
H. A. Miers 1885, *Mineral. Mag.* **6**, 164. Cornwall. [Identified by goniometry.]
- Montmorillonite** (Collins, 1878)
J. H. Collins 1878, *Mineral. Mag.* **2**, 92. Great Retallack Mine, Perranzabuloe, Cornwall.
- Morenosite** (Heddle, 1901)
M. F. Heddle 1901, *Mineral. Scotland*, **2**, 180; **1**, 24 (see under Millerite). Morven, Argyllshire. [This occurrence requires confirmation. R. J. King and A. M. Evans 1963, have recorded morenosite from Avoca, Co. Wicklow (*Mineral. Mag.* **33**, 1110).]
- Mottramite** (Roscoe, 1876)
H. E. Roscoe 1876, *Proc. R. Soc.* **25**, 111. Alderley Edge, and Mottram St. Andrew, Cheshire. [A. W. G. Kingsbury and J. Hartley 1954, suggest that the original locality for mottramite was at Pim Hill and not Mottram St. Andrew (*Mineral. Mag.* **31**, 295).]
- Mountain silk, etc.** (Heddle, 1879)
M. F. Heddle 1878, *Trans. R. Soc. Edinburgh*, **28**, 529. 'Parton Craig', Tayport, Fife. [XRD of Heddle's Mountain silk = Palgorskite (A. Livingstone 1981, *pers. comm.*).]
- Mullite** (Bowen *et al.*, 1924)
N. L. Bowen, J. W. Greig, and E. G. Zies 1924, *J. Washington Acad. Sci.* **14**, 184. Mull, Argyllshire.
- Nadorite** (Russell, 1923)
A. Russell 1923, *Mineral. Mag.* **21**, 272. Bodannon Mine, St. Endellion, Cornwall. [Data published in 1927, but read in 1923.]
- Necronite** (Heddle, 1877)
M. F. Heddle 1877, *Trans. R. Soc. Edinburgh*, **28**, 221. Balvraid, Glen Beg, Glenelg, Invernessshire. [Necronite = var. of Orthoclase (Hey, 2nd edn., 535).]
- Neotype** (Breithaupt, 1841)
A. Breithaupt 1841, *Handb. Mineral.* **2**, 313 (Neotyp). Cumberland. [Neotype = syn. of Baricalcite (Hey, 2nd edn., 536).]
- Nephelite** (Allport, 1871) [*Nepheline*]
S. Allport 1871, *Geol. Mag.* **8**, 247. Wolf Rock, Land's End, Cornwall.
- Nephrite** (Heddle, 1878)
M. F. Heddle 1878, *Trans. R. Soc. Edinburgh*, **28**, 504. Doo's Geo, Balta, Shetland. [Nephrite = Actinolite is now an obsolete name (Amph. (1978), 560).]
- Nigrine** (Reynolds, 1871)
J. E. Reynolds 1868, *J. R. Geol. Soc. Ireland*, **12**, 165 (1871). Clew Bay, Co. Mayo. [Nigrine = var. of Rutile (Hey, 2nd edn., 46, 7.9.17).]
- Nosean** (Allport, 1874)
S. Allport 1874, *Geol. Mag.* **1**, 462. Also, *Q. J. Geol. Soc.* **30**, 529. Wolf Rock, Land's End, Cornwall.
- Okenite** (Glen and Young, 1876)
D. C. Glen and J. Young 1876, in J. Armstrong *et al.* (eds.), *Cat. West Scottish Fossils. Br. Assoc. Adv. Sci.* 160. Carleton Castle, Ayrshire. [This occurrence requires confirmation (RSM).]
- Oligoclase** (Haughton, 1862)
S. Haughton 1862, *Q. J. Geol. Soc.* **18**, 410, 412. Co. Donegal.
- Omphacite** (Teall, 1891)
J. J. H. Teall 1891, *Mineral. Mag.* **9**, 217. 'Totig', Totaig Ferry, Loch Duich, Ross and Cromarty. [See also, A. R. Alderman 1935, *Q. J. Geol. Soc. London*, **92**, 488–530.]
- Orangite** (Heddle, 1883)
M. F. Heddle 1883, *Mineral. Mag.* **5**, 149. 'Ben Bhreck', Beinn Bhreac, Tongue, Sutherlandshire.

- [Orangite = var. of Thorite (Hey, 2nd edn., 545).]
- Orpiment** (Gages, 1860)
A. Gages 1860, *J. Geol. Soc. Dublin*, **8**, 243; also, *Nat. Hist. Rev.* **7**, 264. Silvermines, Co. Tipperary. [Very doubtful—see, A. Russell 1944, *Mineral. Mag.* **27**, 3. Russell also records the occurrence of orpiment from Clevedon, Somerset.]
- Ottrelite(?)** (Hutchings, 1889)
W. M. Hutchings 1889, *Geol. Mag.* **6**, 214. Tintagel, N. Cornwall. [Optical determination; this mineral should be analysed.]
- Paralaurionite** (Russell and Hutchinson, 1922)
A. Russell and A. Hutchinson 1922, *Geol. Mag.* **59**, 182. Wheal Penrose, Cornwall. Also, *Mineral. Mag.* **21**, 221–4 (1927).
- Pargasite** (Heddle, 1878)
M. F. Heddle 1878, *Trans. R. Soc. Edinburgh*, **28**, 510. Mount Errins, near Tarbet, Kintyre. [Heddle's analysis = Actinolite, when recalculated using guide-lines of Amph. (1978).]
- Passyite** (Rudler, 1905)
F. W. Rudler 1905, *Handb. Mineral. Br. Isles*, 199. Litchfield, Hampshire. [Passyite = impure silica. Probably a siliceous sinter (var. of opal), (Hey, 2nd edn., 44, 7.8.11).]
- Penninite** (Heddle, 1878)
M. F. Heddle 1878, *Mineral. Mag.* **2**, 23; also *Trans. R. Soc. Edinburgh*, **29**, 60–2 (1879). Hagdale Quarry, Unst, Shetland. [Penninite is a var. of Clinocllore (Fleischer, 1980). The name should now be discarded.]
- Penwithite** (Collins, 1878) [*Neotocite*]
J. H. Collins 1878, *Mineral. Mag.* **2**, 91; also, *Mineral. Mag.* **3**, 89 (1879). Wheal Owles, Penwith, Cornwall. [New data given in A. M. Clark *et al.* 1978, *Mineral. Mag.* **42**, 279–80, M26–30, show that the name Penwithite should be discarded and Neotocite used instead.]
- Perovskite** (Elsden, 1904)
J. V. Elsden 1904, *Q. J. Geol. Soc.* **60**, 380, 388. Llyn-Padarn, Caernarvonshire. [An optical determination, 'presumably perovskite'.]
- Perthite** (Heddle, 1883)
M. F. Heddle 1883, *Mineral. Mag.* **5**, 174. Harris. [Perthite = a lamellar intergrowth of Feldspars, especially of Orthoclase and Plagioclase (Hey, 2nd edn., 554).]
- Petalite** (McLintock, 1923)
W. F. P. McIntock 1923, *Mineral. Mag.* **20**, 140. Meldon aplite, Okehampton, Devonshire.
- Phenakite** (Russell, 1911)
A. Russell 1910, *Mineral. Mag.* **16**, 55. Cornwall (several localities).
- Phlogopite** (Heddle, 1878)
M. F. Heddle 1879, *Trans. R. Soc. Edinburgh*, **29**, 14. Glen Elg, Inverness-shire. [Confirmed by X-ray diffraction (A. Livingstone 1981, pers. comm.).]
- Pickeringite** (British Museum)
Probably specimen BM 77226, from Newtyle Hill, Perthshire (P. G. Embrey 1981, pers. comm.).
- Picotite** (Bonney, 1877)
T. G. Bonney 1877, *Q. J. Geol. Soc.* **33**, 919. Goonhilly Downs, Lizard, Cornwall. [Picotite = var. of Hercynite (Hey, 2nd edn., 51, 7.14.18).]
- Picrolite** (Heddle, 1878)
M. F. Heddle 1878, *Mineral. Mag.* **2**, 168. Pundy Geo, Fethaland, Mainland, Shetland. [Picrolite = var. of Antigorite (Hey, 2nd edn., 93, 14.4.13).]
- Piedmontite** (Dana, 1892) [*Piemontite*]
Dana 6th edn., 520 (1892). England. [The Withamite of Glen Coe, Argyllshire = Piemontite (Deer *et al.* 1962, **1**, 200, anal. 1).]
- Pihlite** (Heddle, 1879)
M. F. Heddle 1879, *Trans. R. Soc. Edinburgh*, **29**, 45. Glen Clova, Angus. [XRD of Heddle's Pihlite = mixture of Quartz, Muscovite, and a mineral with a 7 Å line (A. Livingstone, pers. comm.).]
- Pilolite** (Heddle, 1879) [*Palygorskite*]
M. F. Heddle 1878, *Mineral. Mag.* **2**, 206. Various Scottish localities. [Many but not all Pilolites = Palygorskite (Hey, 2nd edn., 155, 16.7.31).]
- Pimelite(?)** (Heddle, 1901)
M. F. Heddle 1901, *Mineral. Scotland*, **2**, 135. Blackford Hill, Edinburgh; Comrie, Perthshire. [XRD of Heddle's Pimelites = Malachite or Celadonite (A. Livingstone 1981, pers. comm.).]
- Plumboaragonite** (Collie, 1889)
N. Collie 1889, *J. Chem. Soc.* **55**, 95. Leadhills. [Plumboaragonite = syn. of Tarnowitzite (Hey, 2nd edn., 562).]
- Plumbogummite** (Dana, 1850)
Dana 3rd edn., 506 (1850). Roughten Gill, Cumberland. ['Plumbogummite' from Roughten Gill is probably a carbonate-bearing mix-crystal of plumbogummite, hinsdalite, and hidalgoite (E. B. Förtsch 1967, *Mineral. Mag.* **36**, 530–8).]
- Plumbonacrite** (Heddle, 1889)
M. F. Heddle 1889, *Mineral. Mag.* **8**, 202. Wanlockhead, Dumfriesshire. [Is syn. of Hydrocerusite (Hey, 2nd edn., 563).]
- Polybasite** (Joy, 1860)
C. A. Joy 1853 [*Misc. Chem. Res. Gottingen*, 21]; *Doelter Handb. Mineralchemie*, **4**(i), 270 (1926).

- Cornwall. [This occurrence requires confirmation.]
- Polytelite** (Forbes, 1867) [*Freibergite*]
D. Forbes 1867, *Phil. Mag.* **34**, 350. Isle of Man. [The original specimen, on loan from Manchester Museum, was identified as freibergite by XRD and XRF. A. Livingstone 1982, pers. comm.]
- Prasilite** (Thomson, 1840)
T. Thomson 1840, *Phil. Mag.* **17**, 416. Kilpatrick Hills, near Glasgow. [Is an aluminosilicate of Mg and Fe (Hey, 2nd edn., 191, 16.19.57). Thomson used the word Prasolite, not Prasilite.]
- Prochlorite** (Heddle, 1892)
M. F. Heddle 1879, *Trans. R. Soc. Edinburgh*, **29**, 74-5 (Chlorite). Various Scottish localities. [Anals. given for Lude, Portsoy, and Girdleness are reinterpreted in Dana 6th edn., 654 (1892), as Prochlorite. The name Prochlorite (syn. of Ripidolite) should now be discarded (P. Bayliss 1975, *Can. Mineral.* **13**, 178).]
- Protolithionite** (Sandberger, 1885)
F. Sandberger 1885, *Unters. über Erzgänge, Zweites Heft*, 168-70. Cornwall, and Mourne Mountains. [Protolithionite = var. of Zinnwaldite (Hey, 2nd edn., 208, 17.2.9).]
- Proustite** (British Museum)
Specimen BM 36442, from Wheal Ludcott, Cornwall (P. G. Embrey 1981, pers. comm.).
- Pseudo-hypersthene, etc.** (Heddle, 1878)
M. F. Heddle 1878, *Trans. R. Soc. Edinburgh*, **28**, 478. Skye. [Heddle's Pseudo-hypersthene is syn. of Diallage (Hey, 2nd edn., 569).]
- Pseudophite** (Heddle, 1879)
M. F. Heddle 1879, *Trans. R. Soc. Edinburgh*, **29**, 63. Beauty Hill, Aberdeenshire. [Heddle's anal. = Pennine = var. of Clinocllore. The term Pennine should be discarded.]
- Ptilolite** (Boggild, 1922) [*Mordenite*]
O. B. Boggild 1922, *K. Dan. Vidensk. Selsk. Math.-Fys. Medd.* **4**(8), 26. Dumbarton, Dumbartonshire. [Ptilolite = syn. of Mordenite (Hey, 2nd edn., 570).]
- Pyroaurite** (Heddle, 1878)
M. F. Heddle 1878, *Mineral. Mag.* **2**, 107. Haaf Grunay, Shetland.
- Pyrophyllite** (Foster, 1876)
C. Le Neve Foster 1876, *Mineral. Mag.* **1**, 8. Brookwood Mine, Devon.
- Pyrosclerite** (Heddle, 1879)
M. F. Heddle 1879, *Trans. R. Soc. Edinburgh*, **29**, 64. Beauty Hill, Aberdeenshire. [Pyrosclerite is Pennine pseudomorphous after pyroxene (Hey, 2nd edn., 573). The name should now be discarded (P. Bayliss 1975, *Can. Mineral.* **13**, 178).]
- Rammelsbergite** (Heddle, 1901)
M. F. Heddle 1901, *Mineral. Scotland*, **2**, 195. 'Menimuir Burn, Cassencarrie', Kirkcudbrightshire. [Confirmed by X-ray diffraction, and ore microscopy (RSM).]
- Reichite** (Breithaupt, 1865)
A. Breithaupt 1865, *Berg-und Huettenmaenn. Ztg.* **24**, 311. Alston Moor, Cumberland. [Reichite = syn. of Calcite (Hey, 2nd edn., 577).]
- Restormelite** (Church, 1870)
A. H. Church 1870, *J. Chem. Soc.* **23**, 165. Restormel Iron Mine, Cornwall. [Is an aluminosilicate of Na and K (Hey, 2nd edn., 149, 16.4.14).]
- Rhabdophane** (Lettsom, 1878)
W. G. Lettsom 1878, *Phil. Mag.* **13**, 527. Cornwall.
- Riebeckite** (Harker, 1888)
A. Harker 1888, *Geol. Mag.* **5**, 456. Mynydd Mawr, near Snowdon, Caernarvonshire.
- Rock silk, etc.** (Heddle, 1879)
M. F. Heddle 1878, *Mineral. Mag.* **2**, 215; also *Trans. R. Soc. Edinburgh*, **28**, 536. 'Parton Craig', Tayport, Fife. [Rock silk = Mountain silk, q.v.]
- Rubislite** (Heddle, 1879)
M. F. Heddle 1879, *Trans. R. Soc. Edinburgh*, **29**, 112. Rubislaw, Aberdeen. [XRD of Heddle's analysed Rubislite = Fe-rich Saponite (A. Livingstone 1981, pers. comm.)]
- Sanidine**
[Spencer gave no original reference. The mineral is known to occur in the British Isles.]
- Scapolite** (Ormerod, 1869)
G. W. Ormerod 1869, *Trans. Devonshire Assoc. Adv. Sci.* **3**, 80. Chagford, Devonshire. [No compositional data are given; this occurrence requires confirmation, although scapolite is known to occur in the metamorphic aureole of the northern part of the Dartmoor granite (*Mem. Geol. Surv. G.B. Sheet* 324, 129 (1968).)]
- Scawtite** (Tilley, 1929)
C. E. Tilley 1929, *Mineral. Mag.* **22**, 222. Scawt Hill, Co. Antrim.
- Schraufite(?)** (Thomson, 1887)
J. S. Thomson 1887, *Mineral. Mag.* **7**, 215. Fauldhouse, Midlothian. [Schraufite is a resin high in O (18%); the formula $C_{11}H_{16}O_2$ has been given (Hey, 2nd edn., 303, 33.3.18).]

- Schröterite** (Dana, 1868)
Dana 5th edn., 421 (1868). Cornwall. [Schröterite = var. of Allophane (Hey, 2nd edn., 134, 15.7).]
- Semseyite** (Smith, 1919)
G. F. Herbert Smith 1918, *Mineral. Mag.* **18**, 354. Glendinning, Dumfriesshire.
- Senarmontite** (Davies, 1867)
T. Davies 1867, *Geol. Mag.* **4**, 192. Endellion, Cornwall. [Identification based on visual appearance.]
- Sericite**
[Spencer gave no original reference. The mineral is known to occur in the British Isles.]
- Serpierite** (Russell, 1927)
A. Russell 1927, *Mineral. Mag.* **21**, 386. Ross Island Mine, Killarney, Co. Kerry.
- Sideroplesite** (Heddle, 1901)
M. F. Heddle 1901, *Mineral. Scotland*, **1**, 141. Sandlodge Mine, Shetland. [Sideroplesite = var. of Siderite.]
- Spangolite** (Miers, 1893)
H. A. Miers 1893, *Mineral. Mag.* **10**, 274. St. Day, Redruth, Cornwall.
- Spessartite** (Heddle, 1878) [*Spessartine*]
M. F. Heddle 1878, *Mineral. Mag.* **2**, 85–7. Ross-shire and Argyllshire. [Reported by Heddle as manganese garnet. It is not Spessartine. Occurs in South Harris, Inverness-shire (O. von Knorring and R. Dearnley 1959, *Mineral. Mag.* **32**, 366).]
- Spurrite** (Tilley, 1929)
C. E. Tilley 1927, *Mineral. Mag.* **22**, 78. Scawt Hill, Co. Antrim.
- Stephanite** (Davies, 1866)
T. Davies 1866, *Geol. Mag.* **3**, 432. Wheal Ludcott, Liskeard, Cornwall.
- Stilpnomelane** (Hallimond, 1924)
A. F. Hallimond 1923, *Mineral. Mag.* **20**, 193. Pen-y-rallt iron mine, Penrhyndreudraeth, Merionethshire.
- Stokesite** (Hutchinson, 1899)
A. Hutchinson 1899, *Mineral. Mag.* **12**, 274. St. Just, Cornwall. [New data and confirmation of type locality are given in A. G. Couper and A. M. Clark, 1977, *Mineral. Mag.* **41**, 411–14.]
- Tallingite** (Church, 1865)
A. H. Church 1865, *J. Chem. Soc.* **18**, 77–82, 213. Botallack Mine, Cornwall. [Is syn. of Connellite (Hey, 2nd edn., 618).]
- Tavistockite** (Church, 1865)
A. H. Church 1865, *J. Chem. Soc.* **18**, 263 (hydrated calcium-aluminic phosphate). Tavistock, Devon. [Is Apatite (Hey, 2nd edn., 2nd append., 149). The name Tavistockite first appears in Dana 5th edn., 582 (1868).]
- Thorite** (Heddle, 1883)
M. F. Heddle 1883, *Mineral. Mag.* **5**, 149, 230. 'Ben Bhreck', Beinn Bhreac, and Ben Loyal, Sutherlandshire.
- Titanaugite** (Tyrell, 1909)
G. W. Tyrell 1909, *Nature*, **82**, 189. Howford Bridge, Mauchline, Ayrshire. [Titanaugite = var. of Augite (Hey, 2nd edn., 175, 16.14.7).]
- Tobermorite** (Heddle, 1880)
M. F. Heddle 1880, *Mineral. Mag.* **4**, 119. Tobermory, Mull.
- Totaigite** (Heddle, 1878)
M. F. Heddle 1878, *Trans. R. Soc. Edinburgh*, **28**, 497. Totaig, Ross-shire. [XRD of Heddle's specimens of Totaigite = mixtures of Olivine and Serpentine (A. Livingstone 1981, pers. comm.).]
- Tridymite** (Lasaulx, 1876)
A. von Lasaulx 1877, *J. R. Geol. Soc. Ireland*, **14**, 227. Tardree Mountain, Co. Antrim. [Communicated by E. Hull in 1877. Tridymite from Tardree has been confirmed by X-ray powder diffraction on BM(NH) specimen BM 63051, A. M. Clark, 1982, pers. comm.]
- Tschermigite** (Shand, 1910)
S. J. Shand 1910, *Mineral. Mag.* **15**, 404. Emily Coal Pit, Arniston, Midlothian. [Shand's data is inconclusive: this mineral occurrence requires substantiation.]
- Turgite** (Heddle, 1882)
M. F. Heddle 1882, *Mineral. Mag.* **5**, 3. Island of Kerrera, Argyllshire. [Turgite = syn. of Hydrohematite (Hey, 2nd edn., 632).]
- Tyreeite** (Heddle, 1881)
M. F. Heddle 1881, *Mineral. Mag.* **4**, 189. Tyree, Argyllshire. [XRD of Heddle's Tyreeite = a mixture of Talc, Mica, and Hematite (A. Livingstone, pers. comm.).]
- Uigite** (Heddle, 1856)
M. F. Heddle 1856, *Proc. R. Phys. Soc. Edinburgh*, **1**, 57. Uig, Skye. [Is a mixture of Thomsonite and Gyrolite (Hey, 2nd edn., 1st append., 128).]
- Ullmannite** (Spencer, 1910)
L. J. Spencer 1909, *Mineral. Mag.* **15**, 302, 306. New Brancepeth Colliery, Durham.
- Uralite**
[The name Uralite = actinolite pseudomorph has been recommended for extinction. Amph. (1978), 561.]

- Uranospathite** (Hallimond, 1915)
A. F. Hallimond 1915, *Mineral. Mag.* **17**, 230. Redruth, Cornwall. ['Uranospathite is an aluminium uranyl phosphate belonging to the Torbernite series' (K. Walenta 1978, *Mineral. Mag.* **42**, 117).]
- Urpethite** (Dana, 1868)
J. F. W. Johnston 1838, *Phil. Mag.* **12**, 389; Dana 5th edn., 731 (1868). Urpeth Colliery, Newcastle upon Tyne, Northumberland. [Is a variety of Ozocerite, a paraffin wax (Hey, 2nd edn., 299, 33.1.5).]
- Valentinite** (Hall, 1868)
T. M. Hall 1868, *Mineral. Dir.* 27. [Except for the name no data are given. Occurs at Glendinning, Dumfriesshire (M. F. Heddle 1901, *Mineral. Scotland*, **1**, 85).]
- Vauquelinite** (Davies, 1877)
T. Davies 1877, *Mineral. Mag.* **1**, 112. Leadhills and Wanlockhead. [Davies 'Vauquelinite' = Mottramite (F. A. Bannister 1933, *Mineral. Mag.* **23**, 377, 385). No reference to an authentic British Vauquelinite has been found.]
- Vermiculite** (Parke, 1877)
G. H. Parke 1877, *Proc. Geol. Polytech. Soc. Yorks.* 254, 256. Walney Island, near Barrow, Lancashire. [Chemical analysis given does not indicate a Vermiculite.]
- Voltzite** (Dana, 1868)
Dana 5th edn., 50 (1868). Cornwall, probably at Redruth [Voltzite = Wurtzite mixed with an organometallic zinc compound (Fleischer 1980).]
- Walkerite** (Heddle, 1880)
M. F. Heddle 1880, *Mineral. Mag.* **4**, 121. Corstorphine Hill, Edinburgh. [Is a var. of Pectolite, or a mixture of Pectolite and Stevensite (Hey, 2nd edn., 102, 14.6.17).]
- Waringtonite** (Maskelyne, 1864)
N. S. Maskelyne 1864, *Chem. News*, **10**, 263; also, *Phil. Mag.* **29**, 475 (1865). Cornwall. [Is syn. of Brochantite (Hey, 2nd edn., 642).]
- Wicklowite** (D'Achiardi, 1883)
A. D'Achiardi 1883, *I Met. loro Miner. e Min.* 1883, **2**, 568 (Vichlovite). [Apparently the mineral mentioned in T. Thomson's *Outlines of Mineralogy*, **1**, 573 (1836) as said to have come from Co. Wicklow (Dana 6th edn., 792).]
- Willemite** (Glen and Young, 1876)
D. C. Glen and J. Young 1876, in J. Armstrong *et al.* (eds.), *Cat. West Scottish Fossils. Br. Assoc. Adv. Sci.* 162. Wanlockhead, Dumfriesshire. [Very doubtful occurrence. Willemite is not listed by Heddle (1901). Not in Rudler (1905).]
- Wittichenite** (Collins, 1871)
J. H. Collins 1871, *Handb. Mineral. Cornwall Devon*, 106. Cornwall. [Very doubtful (A. W. G. Kingsbury 1954, *Trans. R. Geol. Soc. Cornwall*, **18**, 405). Wittichenite occurs at Seathwaite Tarn, near Coniston, Lancashire (C. J. Stanley and A. J. Criddle 1979, *Mineral. Mag.* **43**, 103).]
- Woodwardite** (Church, 1866)
A. H. Church 1866, *J. Chem. Soc.* **19**, 131. Cornwall. [For new data on Woodwardite see, E. H. Nickel 1976, *Mineral. Mag.* **40**, 644.]
- Wurtzite** (Noelting, 1887)
J. Nölting 1887 [Inaug. Diss, Kiel, 21.] Abstract in *Z. Krystallogr. Mineral.* **17**, 220 (1890). Liskeard, Cornwall.
- Xanthochroite** (Rogers, 1917)
A. F. Rogers 1917, *J. Geol. Chicago*, **25**, 524. Scotland. [Xanthochroite = syn. of Greenockite (Hey, 2nd edn., 648).]
- Xantholite** (Heddle, 1879)
M. F. Heddle 1879, *Mineral. Mag.* **3**, 59. 'Milltown', Millton, Glen Urquhart, Inverness-shire. [Is impure Kyanite (Hey, 2nd edn., 648).]
- Xanthosiderite** (Haughton, 1866)
S. Haughton 1866, *Phil. Mag.* **32**, 220 (Pitchy ore). Kilbride, Co. Wicklow. [Xanthosiderite (of Schmid) = syn. of Goethite (Hey, 2nd edn., 648).]
- Xenotime** (Gilligan, 1920)
A. Gilligan 1919, *Q. J. Geol. Soc.* **75**, 273. Millstone Grit, Yorkshire. [The evidence presented for xenotime is insufficient; yttrium should be determined.]
- Xonaltite** (Heddle, 1882) [*Xonotlite*]
M. F. Heddle 1880, *Mineral. Mag.* **4**, 120. Loch 'Screden', Scridain, Mull. Also, *Mineral. Mag.* **5**, 4 (1882). Gribun, Mull. [Xonaltite is the original spelling of Xonotlite. Spencer used the word Xonotlite in his 1957 mineral list (*Mineral. Mag.* **31**, 806 (1958), but Heddle had already used this word in 1901 (*Mineral. Scotland*, **2**, 82).]
- Yttrotantalite(?)** (Heddle, 1901)
M. F. Heddle 1901, *Mineral. Scotland*, **2**, 158. Beinn Bhreac, Tongue, Sutherlandshire. [XRD of Heddle's Yttrotantalite = Allanite (A. Livingstone, pers. comm.).]
- Zeunerite** (Weisbach, 1872)
The original reference to Zeunerite is A. Weisbach 1872, *Neues Jahrb. Mineral.* 206-8, but this contains no reference to a British locality. [Occurred at Gorland, Cornwall (J. Robson 1948, *Trans. R. Geol. Soc. Cornwall*, **17**, 471).]