Introduction

Cornwall's mining history stretches back 2,000 years; its mineralogy dates from comparatively recent times. In his Alphabetum Minerale (Truro, 1682) Becher wrote that he knew of no place on earth that surpassed Cornwall in the number and variety of its minerals. Hogg's 'Manual of Mineralogy' (Truro 1825) is subtitled 'in which [sic] is shown how much Cornwall contributes to the illustration of the science', although the manual is not exclusively based on Cornish minerals. It was Garby (TRGSC, 1848) who was the first to offer a systematic list of Cornish species, with locations in his 'Catalogue of Minerals'. Garby was followed twenty-three years later by Collins' A Handbook to the Mineralogy of Cornwall and Devon' (1871; 1892 with addenda, the latter being reprinted by Bradford Barton of Truro in 1969). Collins followed this with a supplement in 1911. (JRIC Vol. xvii, pt.2.). Finally the torch was taken up by Robson in 1944 in the form of his 'Cornish Mineral Index' (TRGSC Vol. xvii), his amendments and additions were published in the same Transactions in 1952. All these sources are well known, but the next to appear is regrettably much less so. it would never the less be only just to mention Purser's 'Minerals and locations in S.W. England' (1974). The work was never published, although there is a copy in the Royal Institution of Cornwall's Library at Truro, and is worthy of mention here as a tribute to that gentleman's colossal industry in researching its contents. Finally in 1984, appeared 'A Cornish Mineral Miscellany' by one of the present writers - PG. (published privately). No locations were given, but addenda have been compiled with some regularity ever since!

The present work represents an up-to-date list of the minerals known to be found in Cornwall together with a reference for the occurrence of each species within the County. In a very few cases recourse has had to be made to personal communications, all of which have been verified. The entries listed in bold type are those whose occurrence in the county is beyond doubt. entries not in bold type, have been reported but are either of questionable occurrence, or require further analysis. The species are listed in capitals. a few minerals which were accepted as distinct species in the original editions of Hey (1950) or the supplements (1963 and 1974) but which no longer hold species status have been included. where appropriate, lower case. A total of 424 species are recorded as occurring in the county of which 36 were first recorded from Cornwall and 136 whose first British recorded occurrence was in Cornwall, a further 52 species are listed whose occurrence within the county requires confirmation. One mineral listed. Abhurite. occurs off the north coast of Cornwall.

It was decided at an early stage to restrict the number of localities cited in the case of the more common species, the selection has been a personal one, the number of localities cited for the commoner species should not therefore be looked upon as a reflection of the frequency of occurrence of the minerals involved.

The writers' gratitude is due to a great number of collectors whose information has been of great value and interest, special thanks are due to Barry Gamble, Maurice Grigg, Nick Elton Vincent Holyer, Jeremy Hooper, Mike Merry and Colin Sparrow. Thanks are also due to the late Mrs. J. Newport, Honorary Librarian of
the Royal Geological Society of Cornwall, who was most helpful and enthusiastic in assisting in the locating of references and also to the librarians of the Camborne School of Mines Library and The Cornish Studies Library, Redruth, who have enthusiastically assisted in reference searches. Particular thanks are due to Paul Lowe who suggested that the researches of the authors should be combined into this work and for his encouragement over the months that it has been in preparation. The authors are also greatly indebted to Dr. George Ryback for checking the original proof and for his many constructive suggestions.

Early in the preface reference was made to Garby; his charming apologia for what he omitted from his catalogue will more than suffice for the present work: 'That it is not very defective, the writer has not the presumption to hope' The present writers would greatly appreciate having any errors, omissions or new finds drawn to their attention.

Peter Golley  Richard Williams
Okehampton,    Camborne,
Devon Cornwall,
Main References and Abbreviations

CASSITERITE species whose occurrence in Cornwall is without doubt.
SEMSEYITE species whose occurrence in Cornwall is reported but requires confirmation
Likasite mineral not listed in Hey 3 as a species
TL Type locality (first described from this locality)
BI First recorded in the British Isles at this site.
BM(NH) British Museum (Natural History)
JRIC Journal of the Royal Institution of Cornwall
TRGSC Transactions of the Royal Geological Society of Cornwall
Am.Min. American Mineralogical Magazine
Can.Min. Canadian Mineralogist
Min.Abstr. Mineralogical Abstracts
Mineral.Mag. Mineralogical Magazine
Min.Rec. Mineralogical Record
UKJMM UK Journal of Mines and Minerals
Proc.Ussher Soc. Proceedings of the Ussher Society
J.Russell Soc. Journal of the Russell Society
CSM Camborne School of Mines, University of Exeter
J.H.Collins (1911) JRIC 18, 425-461. A list of minerals found in Cornwall with notes supplementary to the author's handbook.
J.Garby (1848) TRGSC 7, 72-92. A catalogue of the minerals found in Cornwall with their localities.


M.H.Klaproth (1804) Vol.2. London (translated)


W.Phillips (1819) An Elementary Introduction to Mineralogy. London. 2nd ed.


SLBM8  G.Ryback and P.Tandy (1992) Min.Mag. 56, 261-275. Eighth supplementary list of British Isles Minerals (English)
ABHURITE
Sn₃O(OH)₂Cl₂.
X-rd by Dr. D. Green, Manchester University Museum No. Manch: Xrd 196. April 1995. B. Gamble specimen from encrustations coating ingots of refined Cornish tin. From the wreck of the SS Cheerful, 18 miles NNW of St. Ives. BI

ACANTHITE
Ag₅S.
F. W. Rudler (1905) Handb. Collect. Mins. Brit. Isles 56. No record of naturally occurring acanthite in Cornwall is known to the authors, all localities given are for acanthite pseudomorphous after argentite.
Wheal. Ludcott, St Ive
New Trelawny Mine, St Ive
Wheal Herland, Gwinear
Wheal Ann, Phillack
Wheal Brothers\Wh. Duchy, Calstock
Wheal Mexico, Perranzabuloe
Wheal Basset\South Wh. Basset, Illogan
Dolcoath Mine\North Dolcoath, Camborne
Wheal Langford, Calstock
Mount Mine, Perranuthnoe
Greystone Quarry, Lezant (on silver)

Achroite, a colourless variety of tourmaline (Hey 3), a variety or synonym of elbaite (EM and N&N). J. H. Collins (1876) Mineral Mag., 1, 55.
Roscommon Cliff, St. Just
Stenna Gwyn Mine, St. Stephen in-Brannel
Rock Hill Tin Works, St. Austell
Gunheath China Clay Pit, St. Austell
Goonbarrow China Clay Pit, St. Austell

ACTINOLITE
Ca₂(Mg,Fe²⁺)₃Si₈O₂₂(OH)₂.
W. Phillips (1819) 55-6.
Carrick Du Quarry, St Ives
Botallack
Mullion Coverack Cadgwith
Dolcoath Mine, Camborne
Wh. Maudlin, Lanlivery
Clicker Tor Quarry, Menheniot
Gt. Retallack Mine, Perranzabuloe
Delabole Slate Quarry

ADAMITE
Zn₂AsO₄(OH).
Penberthy Croft Mine, St Hilary
Wheal Carpenter, Gwinear
Pengenna Mine, St Kew
Adularia, variety of Orthoclase q.v.

AEGIRINE
NaFe$^{3+}$Si$_2$O$_6$.
Wolf Rock BI

AERUGITE
Ni$_6$AS$_3$O$_{16}$.
South Terras Mine, St Stephen-in-Brannel BI

Agardite
(Nd,Ca)Cu$_6$(AsO$_4$)$_3$(OH)$_6$.3H$_2$O.
Wheal Alfred, Phillack BI

Agardite-(Ca)
An incompletely characterised member of the mixite group.
X-rd by S. Weiss Munich University.
Penberthy Croft Mine, St. Hilary BI
Croft Gothel Mine, St. Hilary

Agardite-(Ce)
An incompletely characterised member of the mixite group.
Penberthy Croft Mine, St.Hilary BI
Wheal Alfred, Gwinear Agnesite see Bismutite
Wheal Coates St.Agnes TL

AHEYLITE
(Fe$^{2+}$.Zn)Al$_6$(PO$_4$)$_4$(OH)$_4$.4H$_2$O.
Goonbarrow China Clay Pit, St.Austell

AKAGANEITE
β-Fe$^{3+}$O(OH).
Gravel Hill Mine, Perranzabuloe

ALABANDITE
MnS.
3SLBM (1958) C.E. Tilley. 1944. (Private Comm.).
Tintagel BI
Bodmin Wheal Mary
**ALBITE**
NaAlSi$_3$O$_8$.
Greg and Lettsom (1858) 113.
Lanterdan Quarry, Tintagel
Geevor Mine, St.Just
Trewavas Head, Breage
Tremearne Pegmatite, Breage

**ALLANITE** - (orthite)
J.S.Flett and J.B.Hill (1946) Geol. of the Lizard and Meneage, 59 and 112.
Man of War Gniess, The Lizard
Enys Head, The Lizard Kennack, Lizard

**ALLANTITE-(Ce)**
(Ce,Ca,Y)$_2$(Al,Fe$_3^+$)$_3$(SiO$_4$)$_3$OH.

**ALLOCLASITE**
(Co,Fe)AsS.

**ALLOPHANE**
xA$_2$O$_3$.YSiO$_2$.zH$_2$O. (N&N)
Phoenix Mine, Linkinhome
Garras Mine, St Erme (Schrötterite)
Port Quin Mine, St.Endellion
Hawkswood Mine, North Hill
Wheal Hazard, St.Just

**ALLUAUDITE**
(NaCa)Fe$_{2+}$(Mn,Fe$_{2+}$,Mg)$_2$(PO$_4$)$_3$.
Tremearne Pegmatite, Breage BI

**ALMANDINE**
Fe$_{2+}$.Al$_3$(SiO$_4$)$_3$.
Chycornish Carn, St.Just
Botallack, St.Just
Troon, Camborne

**ALUMINOCOPIAPITE**
(Al,Mg)Fe$_3^+$.SO$_4$.O(OH).20H$_2$O.
CSM specimen erroneously labelled Coquimbite. Specimen X-rd by N.Elton and J.Hooper 1993
Dolcoath Mine, Camborne BI
ALUNOGEN
\[ \text{Al}_2 (\text{SO}_4)_3 \cdot 17\text{H}_2\text{O} \]
Wherry Mine, Newlyn
Dolcoath Mine, Camborne (BM 1915,186)

AMBLYGONITE \((\text{Li,Na})\text{Al(PO}_4\text{)(F,OH)}\).
Rinsey Head, Breage

ANALCIME
\[ \text{NaAlSi}_2\text{O}_6 \cdot \text{H}_2\text{O} \]
J. H. Collins (1871) Pt2, 5. Occurrence doubtful, 'said to have been found'.
Dean Quarry, St Keverne
Porthoustock Quarry, St Keverne
Holseer, The Lizard (altered to orthoclase)
Parc Bean Cove, Mullion Predannack Head, The Lizard
Pol Cornick, The Lizard
Kildown, The Lizard
Holseer Cove, The Lizard
Carn Barrow, The Lizard
Porthkerris Quarry, The Lizard
Botallack, St. Just

ANATASE
\[ \text{TiO}_2 \]
W. Phillips (1823) 258. ('Comte de Bournon cites a crystal on granite from Cornwall as being in his own collection'. Cornwall

Hingston Down Quarry, Calstock
Wheat Zion, Calstock
Prince of Wales Quarry, Tintagel
Wheat Remfry, St Austell
Delabole Slate Quarry
Looe Mills Quarry
Prince of Wales Mine, Calstock

ANDALUSITE
\[ \text{Al}_2\text{SiO}_3 \]
C. Le N. Foster (1876) Mineral. Mag. 1, 73. (chiastolite)
Bosworgey Mine, St. Erth
Cligga Head, Perranzabuloe
Wheat Coates, St Agnes
Roskear Mine, Camborne Cheesewring Quarry, Linkinhorne
Roughtor, Camelford

ANDERSONITE
\[ \text{Na,CaUO}_2(\text{CO}_3)_3 \cdot 6\text{H}_2\text{O} \]
No 17 Level, Peeth Lode, Geevor Mine, St. Just
Andesine
(Na Ca)(Si,Al)₄O₈.
Polkernogo
In the Kennack gneiss

**ANDRADITE**
Ca₃Fe³⁺₂Si₃O₁₂.
Treurlan Manganese Mine, Altarnun
South Terras Mine, St Stephen-in-Brannel
Tretoil Mine, Lanivet
Botallack, St-Just (Hydro-andradite)

**ANGLESITE**
PbSO₄.
W.Philips (1819) 258-9. (sulphate of lead)
Trevinnick Mine, St Kew
Greystone Quarry, Lezant
Mellanoweth Mine, Hayle
Wheat Carpenter, Gwinear
Wheat Rose, Sithney
Wheat Penrose, Sithney
West Wheal Chiverton, Perranzabuloe
Pentire Glaze Mine, St.Minver
Polzeath Consols, St.Minver
Wheat Speed (BI radian anglesite)

Andrewsite, a discredited specie.
Phoenix United Mines, Linkinhorne

**ANKERTTE**
Ca(Fe,Mg,Mn)CO₃₂.
Russell ms. BM(NH) 1949.
Tolpetherwin Mine, South Petherwin
Wheat Boys, Endellion
Herodsfoot Mine, Lanreath
Eastern Cliff, Kennack
Trebulet Mine, Lezant
Port Quin Mine, Endellion
Tresungers Mine, Endellion
ANNABERGITE
Ni$_3$(AsO$_4$)$_2$.8H$_2$O.
W. Phillips (1819) 212. (Nickel ochre)
Fowey Consols/Lanescot, Tywardreath
Pengelly Mine, St Ewe Wheal Chance, St Ewe
Wheal Jane, Kea
St Austell Consols
South Terras Mine, St Stephen-in-Brannel

ANORTHITE
CaAl$_2$Si$_2$O$_8$.
E.H. Adye (1907) Modern Lithology, W.&A.K. Johnson Ltd. Edinburgh and
London. 47. (feldspar when fresh was probably anorthite)
Clicker Tor Quarry, Menheniot.

ANTHOPHYLLITE
(Mg,Fe$^{2+}$)$_7$Si$_8$O$_{22}$(OH)$_2$.
Pen Voose, The Lizard
Pistil Ogo, The Lizard
Polkernого, The Lizard
Kenidjack Cliff, St Just
Botallack, St Just

ANTIGORITE
(Mg,Fe$^{2+}$)$_3$Si$_2$O$_5$(OH)$_4$.
X-rd confirmed BM(NH)
Countybridge Quarry, The Lizard
Clicker Tor Quarry, Menheniot

ANTIMONPEARCEITE
(Ag,Cu)$_{16}$(Sb,As)$_2$S$_{11}$.
Pentire vein system, St Minver BI

ANTIMONY
Sb.
Pengenna Mine, St Kew BI

Antimony ochres
W. Phillips (1823) 332. (antimonial ochre) see bindheirmite and stibiconite
Wheal Boys, St Endellion BI
Trenute and Trebullet Mines, Lezant
**ANTLERITE**
\[ \text{Cu}_3\text{SO}_4(\text{OH})_4 \].
Old Gunnislake Mine, Calstock **BI**
Tresavean Mine, Gwennap
Wheal Hazard, St. Just
Botallack Cliff, St. Just

Apatite, in modern usage a group name, most, if not all, Cornish apatites are probably fluorapatite (q.v.).

**APOPHYLLITE**
\[ \text{KCa}_4\text{Si}_8\text{O}_{20}(\text{F,OH}).8\text{H}_2\text{O} \].
A. Russell (1910) Mineral. Mag. 15, 382. (apophyllite, found 1907)
Terrace Hill Quarry, Lostwithiel
Levant Mine, St. Just
Treбurland Mine, Altarnun

**ARAGONITE**
\[ \text{CaCO}_3 \].
T. Hogg (1825) 125.
Levant Mine, St. Just
Greystone Quarry, Lezant
Geevor Mine, St. Just
Trematon Quarry, Saltash
Strangles Beach, Crackington Haven
Mawnan Cliffs, Falmouth
Port Isaac and Tintagel Cliffs
Wheal Owles, St. Just
Wheal Edward, St Just

Arfvedsonite see potassium magnesioarfvedsonite.

Argentite see Acanthite - most, if not all Cornish natural silver sulphide specimens are pseudomorphs of acanthite after argentite.

**ARGENTOJAROSITE**
\[ \text{AgFe}^{3+}_3(\text{SO}_4)_2(\text{OH})_6 \].
Treore Mine, St Teath
Wheal Ludcott, St Ive

**ARSENIC**
As.
A.S. Cragoe (1924) Mining Mag. 30, 344. (First confirmed record)
Burranon Combe Quarry, St. Stephensby-Saltash **BI**
Dolcoath Mine, Camborne
Geevor Mine, St. Just
Chiverton Mine, Perranzabuloe
Tolgos New Shaft, Illogan
Botallack Mine, St. Just (Allan's Shaft)
Wheal Cock, St. Just

**ARSENIOSIDERITE**
Ca$_3$Fe$^{3+}$(AsO$_4$)$_4$(OH)$_6$. 3H$_2$O.
Penberthy Croft Mine, St. Hilary
Arsenite synonym of arsenolite q.v.

**ARSENOLITE**
As$_2$O$_3$.
Wheal Sparnon, Redruth
Burra ton Combe Quarry, Saltash **BI**
Phoenix United Mines, Linkinhorne
Dolcoath Mine, Cambome (Came Collection specimen)

**ARSENOPYRITE**
FeAsS.
W. Phillips (1819) 163-4. (arsenical iron. mispickel)
Botallack Mine, St Just
Wherry Mine, Newlyn
Levant Mine, St. Just
Wheal Providence, Lelant (argentiferous)
Wheal Maudlin, Lanlivery
Dolcoath Mine, Cambome
Holmbush Mine, Callington
Wheal Penrose, Sithney
Hingston Down Quarry, Calstock
Barratt's Zawn, Endellion
Trebarwith Quarry, Tintagel
Gunheath China Clay Pit, St. Austell
Blackpool china clay Pit, St. Austell

**ARTHURITE**
CuFe$_3$$^{+}$(AsO$_4$PO$_4$SO$_4$)$_2$(OH)$_2$.4H$_2$O.
Hingston Down Consols Mine, Calstock **TL**
Hingston Down Quarry, Calstock
Gunheath China Clay Pit, St. Austell Cligga Head Mine, Perranzabuloe

**ASBOLANE**
(Co,Ni)$_{1-y}$(Mn$^{4+}$O$_2$)$_{2-2y}$(OH)$_{2y-2n}$H$_2$O.
W. Phillips (1819) 209-10. (Earthy cobalt)
South Terras Mine, St Stephen-in-Brannel
St Austell Consols
Wheal Gorland, Gwennap
Wheal Unity, Gwennap
Roscommon Cliff, St Just

ATACAMITE
\( \text{Cu}_2\text{Cl} \left( \text{OH} \right)_3 \).
Penberth Croft Mine, St Hilary
Botallack, St. Just

AUGITE
\((\text{Ca, Mg, Fe})_2\text{SiO}_4\).
J.H. Collins (1871) pt. 2, 84-5. (pyroxene, var. augite.) Botallack
Wheat Cock, St Just
In the Lizard gabbro, eg. Coverack Clicker Tor Quarry, Menheniot Chyandour
St Minver, in "minverite" (Titanaugite)

AURICHALCITE
\((\text{Zn, Cu})_5(\text{CO}_3)_2(\text{OH})_6\).
Penberth Croft Mine, St Hilary
Greystone Quarry, Lezant

AUTUNITE
\( \text{Ca}_3(\text{UO}_2)_2(\text{PO}_4)_2 \cdot 10-12\text{H}_2\text{O} \).
W. Gregor (1805) Phil. Trans. R. Soc. Lond. 95, 33-48.
Stenna Gwyn Mine, St Stephen-in-Brannel
South Terras Mine, St Stephen-in-Brannel
Wheat Edward, St Just
Old Gunnislake Mine, Calstock
South Wheal Basset, Illogan
South Tolcame Mine, Camborne

AXINTTE
\( \text{Ca}_2\text{Fe}^{2+}\text{Al}_2\text{BSi}_4\text{O}_{16}(\text{OH}) \).
W. Phillips (1819) 33.
Botallack Mine, St Just B1
Roscommon Cliff, St Just
Terrace Hill Quarry, Lostwithiel
Trebrurland Manganese Mine, Altarnun
Bodmin Wheat Betsy, Laniver
Wheal Ding, Lanivet
Trevascus Mine, Gwinear
South Terras Mine, St Stephen-in-Brannel

Axinite - in modern usage a group name, most specimens obtained in Cornwall were probably Ferroaxinite.

AZURITE
\( \text{Cu}_3(\text{CO}_3)_2(\text{OH})_2 \).
W. Phillips (1819) 230-1. (blue copper)
Wheal Gorland, Gwennap
Wheal Unity, Gwennap
Wheal Virgin, Gwennap
Ting Tang Mine, Gwennap
Carharrack Mine, Gwennap
Wheal Basset, Illogan
Phoenix United Mines, Linkinhorne
South Caradon Mine, St Cleer
Old Gunnislake Mine, Calstock
Gunheath China Clay Pit, St.Austell
**BARBOSALITE**
Fe$^{2+}$Fe$^{3+}$_2(PO$_4$)$_2$(OH)$_2$.
Phoenix United Mines (Stowe's Section), Linkinhorne B1 as constituent of
"andrewsite" q.v.

**BARIUM-PHARMACOSIDERITE**
BaFe$^{3+}$8(AsO$_4$)$_6$(OH)$_8$.14H$_2$O
"Cornwall" B1

**BARSTOWITE**
3PbCl$_2$.PbCO$_3$.H$_2$O.
Bounds Cliff, Endellion TL

**BARYTE**
BaSO$_4$.
W.Philips (1819) 142.
Ale and Cakes Mine, Gwennap
Mount Wellington Mine, Gwennap
Herodsfoot Mine, Lanreath
Wheat Mary Ann, Menheniot
Wheat Trelawny, Menheniot
Restormel Royal Iron Mine, Lanlivery
Wheat Ludcott, St Ive
St Austell Consols
Gravel Hill Mine, Perranzabuloe
Wheat Drea, StJust
Wheat Bassett, Illogan (radian and strontian)

**BASSETITE**
Fe$^{2+}$(UO$_2$)$_2$(PO$_4$)$_2$.8H$_2$O.
Wheat Basset, Illogan TL
South Terras Mine, St Stephen-in-Brannel

**BAYLDONITE**
Cu$_3$Pb(AsO$_4$)$_2$(OH)$_2$.
Cornwall TL
Penberthy Croft Mine, St Hilary (TL?)
Wheat Carpenter, Gwinear
Wheat Gorland, Gwennap
Wheat Alfred, Phillack
**BEAVERITE**
Pb(Cu,Fe$^{3+}$,Al)$_3$(SO$_4$)$_2$(OH)$_6$.
Penberthy Croft Mine, St Hilary

**BECQUERELITE**
Ca(UO$_2$)$_6$O$_4$(OH)$_6$.8H$_2$O.
Geevor Mine, St.Just
Wheal Edward, St.Just 'near becquerelite' BM(NH) X-rd 5507F proved to be compregnacite q.v..
West Wheal Owles, St.Just (Cargodna Lode) reported but not confirmed.

**BEMENTITE**
Mn$_5$Si$_4$O$_{10}$(OH)$_6$.
.Treburland Manganese Mine, Altarnun BI

**BERAUNITE**
Fe$^{2+}$Fe$^{3+}$$_5$(PO$_4$)$_4$(OH)$_5$.6H$_2$O.
Gravel Hill Mine, Perranzabuloe
Phoenix United Mines, Linkinhorne
Penberthy Croft Mine, St Hilary

**BERTHIERTTE**
FeSb$_2$S$_4$.
8SLBM BM(NH) identification, R.W.Barstow specimen.
Wheal Prosper, St Ewe BI
Wheal Boys, Endellion
Tresungers Mine, St.Kew

**BERTRANDITE**
Be$_2$Si$_2$O$_7$(OH)$_2$.
Gold-diggings Quarry, St Cleer
Kit Hill Great Consols, Stokeclimsland
Wheal Metal,
Breage Maen Quarry, Constantine
Hingston Down Quarry, Calstock
Trolvis Quarry, Longdowns
Kessle Quarry, Longdowns

**BERYL**
Be$_3$Al$_2$Si$_6$O$_{18}$.
St Michael's Mount
Mabe, Constantine
Wheal Castle, St Just
Swit Quarry, Bodmin Moor
New Consols Mine, Luckett
Hawkswood Mine, North Hill
Goonbarrow China Clay Pit, St Austell
Gunheath China Clay Pit, St Austell

**BEUDANTTTE**
PbFe$^{3+}$(AsO$_4$)(SO$_4$)(OH)$_6$.
Penberthy Croft Mine, St Hilary
Wheal Gorland, Gwennap
Treore Mine, St Teath Old Treburgett, St Teath
Trewethen Mine, St Kew
Wheal Carpenter, Gwinear
Trevaskus Mine, Gwinear

**BIEBERITE**
CoSO$_4$.7H$_2$O.
J. Robson (1949) TRGSC 17, pt. 8 (for 1948), 472. (previously mistaken for erythrite.)
Penberthy Croft Mine, St Hilary **BI**
Wheal Alfred, Phillack **BI**

**BINDIEIMITE**
Pb$_2$Sb$_2$O$_6$(O,OH).
Greg and Lettsom (1858) 373-4. (bleinierite)
Wheal Boys, Endellion
Greystone Quarry, Lezant
New Porth Beach, Falmouth
Pengenna Mine, St Kew
Trevinnick Mine, St Kew
Bodannon Mine, Endellion
Treore Mine, St Teath
Poltreworgey Mine, Endellion

**BIOTITE**
K(Mg,Fe$^{2+}$)$_3$(Al,Fe$^{3+}$)Si$_3$O$_{10}$(OH,F)$_2$.
Trelavour Down, St Dennis
Gunheath China Clay Pit, St Austell and throughout the Cornish granites
Carn Bosavenn, St Just (lepidomelane)

**BIRNESSITE**
Na$_3$Mn$_{14}$O$_{27}$-9H$_2$O.
Treburland Manganese Mine, Altarnun **BI**
Penberthy Croft Mine, St Hilary
Greystone Quarry, Lezant (near birnessite or manjiroite)

**BISMUTH**

Bi.
Mr. Beauchamp’s Cobalt Mine, Gwennap (Pengreep) **BI**
Botallack Mine, St Just
Penlee Quarry, Newlyn
Hingston Down Quarry, Calstock
St Ives Consols
Wheal Herland, Gwinear
Wheal Sparnon, Redruth
Dolcoath Mine, Camborne
Trugo Mine, St Columb
St Austell Consols,

**Bismuth ochres**

Bi₂O₃.
T. Hogg (1825) 25. (oxide of bismuth) The name was applied to both oxides and carbonates of bismuth.
Cost all lost Mine, Roche
Botallack Mine, St Just
Levant Mine, St Just
Wheal Owles, St Just
Restormel Iron Mine, Lanlivery
Wheal Herland, Gwinear

**BISMUTHINTTE**

Bi₂S₃.
W. Phillips (1819) 203-4. (Sulphuret of bismuth)
Botallack Mine, St Just **BI**
Levant Mine, St Just
Fowey Consols Mine, Tywardreath
Dolcoath Mine, Camborne
South Crofty Mine, Camborne
Wheal Sparnon, Redruth
Trugo Mine, St Columb
Wheal Herland, Gwinear
Wheal Cock, St Just
Penlee Quarry, Newlyn

**BISMUTITE**

(BiO)₂CO₃.
Wheal Coates, St Agnes (TL of "agnesite" q.v.)
Wheal Owles, St Just

**BISMUTOFERRITE**

BiFe³⁺₂(SiO₄)₂OH.
Bleinierte, synonym of bindheimite q.v.

BOLÉITE
Pb_{26}Ag_{10}Cu_{24}Cl_{62}(OH)_{48}.3H_2O.
8 SLBM. V.A.D.Holyer specimen, (Tolcarne Beach) National Museum of Wales, identified 1983. Also identified on BM(NH) specimen (Newporth Beach).
Tolcarne Beach, Newquay BI
New Porth Beach, Falmouth
Padstow Consols,
Porthilley Mine, St.Minver

BORNITE
Cu_5FeS_4.
W.Phillips (1819) 222-3. (Buntkupfererz/purple copper)
Carn Brea Mine, Illogan
Dolcoath Mine, Camborne
Tincroft Mine, Illogan
Cook's Kitchen Mine, Illogan
Tresavean Mine, Gwennap
Botallack Mine, St Just
Penneance Consols Mine, Gwennap
Levant Mine, St. Just
St Ives Consols

BOTALLACKITE
Cu_2Cl(OH)_3.
A.W.G.Kingsbury (1964) RGSC 150th Annv. 250.
Wheal Cock, St Just TL
Levant Mine, St.Just
Geevor Mine, St.Just
Cligga Mine, Perranzabuloe
Hanover Cove, Perranzabuloe
West Wheal Owles, St Just
Botallack Head, St Just
Padstow Consols Mine
Loe Warren, St.Just

Botryolite, variety of Datolite (q.v.) found in botryoidal form.

BOULANGERITE
Pb_3Sb_4S_11.
Wheal Boys, Endellion BI
Pengenna Mine, St Kew
Old Treburgett, St Teath
Trevinnick Mine, St Kew
Tresungers Mine, Endellion
Treore Mine, St Teath
Poltreworgey Mine, Endellion

BOURNONITE
PbCuSbS$_3$.
P.Rashleigh (1797) pl.19, p. 34
Wheal Boys, St. Endellion TL
Herodsfoot Mine, Lanreath
New Porth Beach, Falmouth
Credis Mine, Padstow
Treore Mine, St Teath
Pengenna Mine, St Kew
Tresungers Mine, Endellion
Swanpool Mine, Falmouth

BRAUNITE
Mn$^{2+}$Mn$^{3+}$SiO$_3$.
J.H.Collins (1871) pt.2, 19. 'it is said to have been found in the manganese mines near Launceston'.
Reported from manganese mines near Launceston

BROCHANTITE
Cu$_4$SO$_4$(OH)$_6$.
Phoenix United Mines, Linkinhome
Sharptor Mine, Linkinhome
United Mines, Gwennap
Wheal Gorland, Gwennap
Gerrans Bay
Fowey Consols Mine, Tywardreath
Drakewalls Mine, Calstock
Penberthy Croft Mine, St Hilary
Gunheath China Clay Pit, St.Austell
Geevor Mine, St.Just
Levant Mine, St.Just

Bromian Chlorargyrite see Embolite

Bromite, synonym of Enstatite q.v..

BROOKITE
TiO$_2$.
W.A.Richardson (1923) QJGS 79,547-76. (in the St.Austell granite)
Lanterdan Quarry, Tintagel
Prince of Wales Quarry, Trebarwith
Hingston Down Quarry, Calstock
BRUCITE
Mg(OH)$_2$.
The Lizard

BRUSHITE
CaHPO$_4$.2H$_2$O.
Wheal Cock, St Just

BUSTAMITE
(Mn,Ca)SiO$_3$.
Treburland Manganese Mine, Altarnun BI

BUTTGENBACHITE
Cu$_{19}$Cl$_4$(NO$_3$)$_2$(OH)$_{32}$.2H$_2$O
Botallack Mine, St Just

BYTOWNITE
(NaSi,CaAl)AlSi$_2$O$_6$.
J.S. Flett and J.B. Hill (1946) The Lizard and Meneage Survey, 75. (mineral near Bytownite)
The Rill, The Lizard
CACOXENITE
\((\text{Fe}^{3+},\text{Al})_2\text{(PO}_4\text{)}_3\text{O}_6\text{(OH)}_2\cdot 17\text{H}_2\text{O}\)
7 SLBM. BM(NH) specimens. collected by A. Russell in 1939.
Castle-an-Dinas Mine, St Columb
Phoenix United Mines, Linkinhorne
Greystone Quarry, Lezant
Gunheath China Clay Pit, St Austell
Wheal Jane, Kea (doubtful)

Calamine, synonym of smithsonite q.v..

CALCITE
\(\text{CaCO}_3\).
W. Phillips (1819) 113.
Levant Mine, St. Just (including manganocalcite)
Botallack Mine, St Just
Wheal Owles, St Just
Wheal Wrey, St Ives
Wheal Mary Ann, Menheniot
Delabole Slate Quarry
Greystone Quarry, Lezant
Port Quin Mine, St. Endellion
Porthoustock Quarry, St Keverne
Dean Quarry, St Keverne
Herodsfoot Mine, Lanreath

CALEDONITE
\(\text{Cu}_2\text{Pb}_5\text{(SO}_4\text{)}_3\text{CO}_3\text{(OH)}_6\).
Penberthy Croft Mine, St Hilary
Greystone Quarry, Lezant

Campylite, variety of mimetite (q.v.) named for its crystal shape.

CANCRINITE
\(\text{Na}_6\text{Ca}_2\text{Al}_6\text{Si}_6\text{O}_{24}\text{(CO}_3\text{)}_2\).
Geol. Mag. 114, 249-64.
Wolf Rock BI

CARBONATE-FLUORAPATITE
\((\text{Francolite})\)
\(\text{Ca}_5\text{(PO}_4\text{,CO}_3\text{)}_3\text{F}\).
Greg and Lettsom (1858) 76-8, 473. (apatite, var. francolite)
Fowey Consols Mine, Tywardreath
Holmbush Mine, Stoke Climsland (incl. "tavistockite" form)
Cargoll Mine, Newlyn
East Levant Mine, St. Just Gunnislake
Clitters Mine, Calstock
Old Gunnislake Mine, Calstock
East Gunnislake Mine, Calstock
Crinnis Mine, St Austell
Wheal Maudlin, Lanlivery
Wheal Cock, St. Just
Wheal Edward, St. Just

**CARMINITE**
PbFe$_2$-(AsO$_4$)$_2$(OH)$_2$.
Hingston Down Consols, Calstock **BI**
Penberthy Croft Mine, St Hilary
Wheal Carpenter, Gwinear
Wheal Gorland, Gwennap
Treore Mine, St Teath Old Treburgett, St Teath
Pengenna Mine, St Kew
Gravel Hill Mine, Perranzabuloe

**CARNOTITE**
K$_2$(UO$_2$)$_2$(VO$_4$)$_2$. 3H$_2$O.
C. Gramaccioli. (1955) Natura (Milano), **46**, 30-2. (data insufficient to identify as carnotite)
South Terras Mine, St Stephen-in-Brannel **BI**

**CARPHOLITE**
MnAl$_2$Si$_2$O$_6$(OH)$_4$.
Kit Hill Consols, Stokeclimsland
Hingston Down Consols, Calstock
Stenna Gwynn Mine, St Stephen-in-Brannel

**CASSITERITE**
SnO$_2$.
Botallack Mine, St Just
Wheal Providence, St Ives
St Ives Consols
Great Wheal Vor, Breage
Wherry Mine, Newlyn
Dolcoath Mine, Camborne
Relistian Mine, Gwinear
Trevaunance Mine, St Agnes
Old Beam Mine, Bugle
Drakewalls Mine, Calstock

Dolcoath Mine, Camborne
Pednandrea Mine, Redruth
Wheal Owles, St Just
Phoenix United Mines, Linkinhorne
Wheal Gorland, Gwennap
Wherry Mine, Newlyn
Ventonwyn, St Stephen-in-Brannel
St Ives Consols
Hanover Cove, Perranzabuloe
Egloshellen Mine, St Stephen-in-Brannel

CASSITERITE, "wood" & "toads-eye" tin
Stream Works of Cornwall Garth Mine, Sancreed
Bojewan placers, Sancreed
Geevor Mine, St. Just
Great Wheal Vor, Breage
Wheal Metal, Breage West
Wheal Kitty, St Agnes
Wheal Coates, St Agnes
Rostowrack China Clay Pit, St Austell
Redmoor placers, Lanlivery
Gunheath China Clay Pit, St.Austell Melbur China Clay Pit, St.Austell

CASSITERITE, others
"Quilted tin"
Seal Hole Mine, St Agnes (Rashleigh collection)
"Sealing-wax tin"
Rosehill Mine, St Ives
"Dog-tooth tin"
Garth Mine, Sancreed
"Ruby tin"
West Wheal Kitty, St Agnes.
Wheal Pendarves, Camborne
"Bird's Eve tin"
Redmoor placers, Lanlivery
"Dough tin"
Nancegollan Mine, Crowan
Pseudomorph after orthoclase Wh. Coates, St Agnes.
Balleswidden Mine, St Just

CELESTINE
SrSO₄.
J.Garby (1848) TRGSC 7, 81. Binner Downs Mine, Helston

CERULÈITE
Cu₂Al₃(AsO₄)₄(OH)₁₃·11·5H₂O.
Wheal Gorland, Gwennap BI
Wheal Maid, Gwennap
Penberthy Croft Mine, St Hilary

**CERUSSITE**
PbCO₃.
W. Phillips (1819) 253-5. (acicular carbonate of lead).
Pentire Glaze Mine, St Minver
Wheal Rose, Sithney
Wheal Penrose, Sithney
Wheal Rose, Newlyn
Wheal Mary Ann, Menheniot
Port Quin Beach, St. Endellion
Greystone Quarry, Lezant
Trevinnick Mine, St Kew
Wheal Confidence, Newquay
Polzeath Consols, St. Minver
Penberthy Croft Mine, St. Hilary

**CHABAZITE**
CaAl₂SiO₄·6H₂O.
Colcerrow Quarry, Luxulyan
Dean Quarry, St Keveme (incl. variety phacolite)

**CHALCANTHITE**
CuSO₄·5H₂O.
W. Phillips (1823) 313. (sulphate of copper)
Geevor Mine, St. Just
Wheal Owles, St Just
Ting-Tang Mine, Gwennap
Wheal Jane, Kea
Botallack Mine, St Just
St Ives Consols, St. Ives
Phoenix United Mines, Linkinhorne

**CHALCOALUNUTE**
CuAl₄(SO₄)(OH)₁₂·3H₂O.
8SLBM BM(NH) identification, 1985, D. Clough specimen.
Penberthy Croft Mine, St Hilary

**CHALCOCITE**
Cu₂S.
Wheal Crenver, Crowan
Wheal Abraham, Crowan
Tresavean Mine, Gwennap
Levant Mine, St. Just
Geevor Mine, St. Just
Botallack Mine, St Just
Cook's Kitchen Mine, Illogan
Dolcoath Mine, Camborne
Spearn Moor Mine, St Just
Cam Brea Mine, Illogan

**CHALCOMENITE**
CuSeO$_3$.2H$_2$O.
Botallack Mine (Wheal Hen section), St.Just

**CHALCOPHYLLITE**
Cu$_8$Al$_2$(AsO$_4$)$_3$(SO$_4$)$_3$(OH)$_{27.33}$H$_2$O.
W. Phillips (1819) 236-7. (hexahedral arsenate of copper known only from Cornwall)
Wheal Gorland, Gwennap
Wheal Muttrel, Gwennap
Wheal Unity, Gwennap
Ting-Tang Mine, Gwennap
Old Gunnislake Mine,
Calstock West Caradon Mine, St Cleer
Mulberry Mine, Lanivet
Penberthry Croft, St Hilary
Wheal Hazard, St.Just
Hingston Down Consols, Calstock
South Wheal Basset, Illogan

**CHALCOPYRITE**
CuFeS$_2$.
M.H. Klaproth (1787) 27.
East Pool Mine, Illogan
Carn Brea Mine, Illogan
Dolcoath Mine, Camborne
Tincroft Mine, Illogan
Wheal Buller, Redruth
Wheal Towan, St Agnes
Levant Mine, St. Just
Geevor Mine, St. Just
Herodsfoot Mine, Lanreath

**CHALCOPYRITE**
*var. Blister Copper*
North Roskear Mine, Camborne
Tincroft Mine, Illogan
Wheal Basset, Illogan
Cook's Kitchen Mine, Illogan
Dolcoath Mine, Camborne
Levant Mine, St. Just
Geevor Mine, St. Just
Boscaswell Downs Mine, St Just
Phoenix United Mines,
Linkinhorne South Crofty Mine, Illogan
CHALCOSIDERITE
CuFe$^{3+}$$_6$(PO$_4$)$_4$OH$$_8$ .41-10.
Phoenix United Mines, Linkinhorne (Stowe's section) BI
Gunheath China Clay Pit, St Austell

CHAMOSITE
(Fe$^{2+}$,Mg,Fe$^{3+}$)$_5$Al$_5$(Si$_3$Al)O$_{10}$(OH,O)$_2$.
G. Tschermak (1891) Sitzungsber. Akad. Wiss. Wien. 100, Abt. 1, 38. (Daphnite)
Penzance, Cornwall (TL of Daphnite - magnesian chamosite.)
Geevor Mine, St. Just (Thuringite - ferrian chamosite)
Phoenix United Mines, Linkinhorne

CHENEVIXITE
Cu$_2$Fe$^{2+}$$_2$(AsO$_4$)$_2$(OH)$_4$H$_2$O.
Wheal Gorland, Gwennap (probable TL)
Wheal Unity, Gwennap
Phoenix United Mines, Linkinhorne
Old Gunnislake Mine, Calstock

Chiastolite, variety of andalusite (q.v.) containing carbonaceous inclusions which impart a cross like pattern on sectioned crystals.

CHILDRENITE
(Fe,Mn)Al(PO$_4$)(OH)$_2$.H$_2$O.
Crinnis Mine, St. Austell
Drakewalls Mine, Calstock
Prince of Wales Mine, Calstock
Redmoor Mine, Kelly Bray
Okeltor Mine, Calstock
Lady Ashburton Mine, Callington

Chloanthite arsenic deficient variety of nickel - skutterudite, see skutterudite.

CHLORARGYRITE
AgCl.
J. Sowerby (1809) Brit. Mineralogy vol. 3, tab. ccxliv
Wheal Mexico, Perranzabuloe BI
Wheal Herland, Gwinear
Wheal Alfred, Phillack
Wheal Duchy, Calstock
Wheal St Vincent, Calstock
Wheal Mexico, Calstock
North Dolcoath Mine, Camborne, (South Entral Lode)
Dolcoath Mine, Camborne, (Bromian, see embolite.)
Perran Silver Mine, Perranuthnoe, (Bromian, see embolite.)
Botallack Mine, St Just
Levant Mine, St Just

Chloropal, synonym of nontronte q.v.

**CHONDRODITE**
\[(\text{Mg,Fe}^{2+})_5(\text{SiO}_4)_2(\text{F,OH})_2]\.
J.H.Collins (1871) pt.2, 32-3. (it is said to have been found)
Wheal Druid, Redruth

Chrome diopside, a chromian variety of diopside (q.v.).

**CHROMITE**
\[\text{Fe}^{3+}\text{Cr}_2\text{O}_4\].
Kennenack Sands and elsewhere in the Lizard Serpentine

**CHRYSOCCOLLA**
\[(\text{Cu,Al})_2\text{H}_2\text{Si}_2\text{O}_5(\text{OH})_4 \cdot n\text{H}_2\text{O}\].
W. Phillips (1819) 232-3.
Wheal Edward, St Just
Wheal Gorland, Gwennap
Wheal Unity, Gwennap
Ting-Tang Mine, Gwennap
Ghostcroft Mine, Mullion
Craddock Moor Mine, St Cleer
Phoenix United Mines, Linkinhorne
Sharptor Mine, Linkinhorne
Old Gunnislake Mine, Calstock

**CHRYSTOTILE**
\[\text{Mg}_3\text{Si}_2\text{O}_5(\text{OH})_4\].
Pentreath Beach, The Lizard
Gwendreath Quarry, Kennack, The Lizard
Countybridge Quarry, The Lizard

Churchite, see Churchite-Y.

**CHURCHITE-Y**
\[\text{YPO}_4 \cdot 2\text{H}_2\text{O}\].
G.F.Claringbull and M.H.Hey (1953) Mineral.Mag. 30,211-17. (proved churchite to be a yttrium phosphate)
Cornwall TL
Tretoil Mine, Lanivet (probable TL)
Wheal Pendarves, Camborne

**CLAUDETITE**
\[\text{As}_2\text{O}_3\]
Wheal Sparnon, Redruth BI

**CLINOCHLOR**
Mg,Fe$_5$A$_1$Si$_3$A$_1$O$_{10}$(OH)$_8$.
J.H.Collins (1871) pt.2, 31. (Chlorite/Prochlorite)
The Lizard District
Penlee Quarry, Newlyn
Wheal Jane, Kea (ripidolite)

**CLINOCLASE**
Cu$_3$(AsO$_4$)(OH)$_3$.
W.Phillips (1823) 318. (Oblique prismatic arsenate)
Wheat Gorland, Gwennap TL
Wheal Unity, Gwennap
Ting Tang Mine, Gwennap
Wheal Muttrell, Gwennap
Providence Mine, Lelant
Wheal Hazard, St.Just

**CLINOZOISITE**
Ca$_2$A$_1$S$_1$O$_{12}$(OH)$_2$.
J.Robson (1948) TRGSC 17, 468.
Camelford, in epidiorite

**COBALTIE**
CoAsS.
Greg and Lettsom (1858) 302-3 (first noticed in this country by Rashleigh, spec. in Greg's collection)
Wherry Mine, Newlyn BI
Wheal Cock, St Just
Botallack Mine, St Just

**COERULEOLACTITE**
(CaCu)A$_1$$_4$(PO$_4$)$_4$(OH)$_8$.4-5H$_2$O.
Phoenix United Mines, Linkinhorne BI

**COFFINETE**
U(SiO$_4$)$_{3-x}$(OH)$_x$.
Roskrow United Mine, Ponsanooth BI
Geevor Mine, St Just
South Terras Mine, St Stephen-inBrannel

**COMPREIGNACITE**
K$_2$(UO$_2$)O$_6$.8H$_2$O.
Wheal Owles, St.Just

Condurrite, a mixture of domeykite or 13 - domeykite with cuprite or melaconite.
CONICHALCTTE
CaCuAsO$_4$OH
Pers. comm. J.Fuller BM(NH) 30/8/79 to P.Golley.
Wheal Kendall, St Hilary (R.W.Barstow spec:)
Hingston Down Quarry, Calstock

CONNELLITE
Cu$_{19}$Cl$_4$SO$_4$(OH)$_{32}$.3H$_2$O
Cornwall TL
Wheal Gorland, Gwennap (probable TL)
Wheal Providence (Rashleigh 1802 Vol.2)
South Tolcarne Mine, Cambome
Geevor Mine, St Just
Levant Mine, St Just
Wheal Hen, St Just
Wheal Edward, St Just
Botallack Mine, St Just
Wheal Unity, Gwennap
Marke Valley Mine, Linkinhorne
Old Gunnislake Mine, Calstock
Gunheath China Clay Pit, St.Austell
Penberthy Croft Mine, St.Hilary

COPIAPITE
Fe$^{2+}$Fe$^{3+}$_4(SO$_4$)$_6$(OH)$_2$.20H$_2$O.
copiapite group of unknown composition)
Mount Wellington Mine, Gwennap

COPPER
Cu.
F.Hitchen and S.Drew (1824) Hist.Cornwall 2, 503. (found by chance about 1720.)
Ghostcroft Mine, Mullion
Botallack Mine, St Just
Levant Mine, St Just
Wheal Gorland, Gwennap
Wheal Unity, Gwennap
Tresavean Mine, Gwennap
Crinnis Mine, St Austell
Fowey Consols, Tywardreath
Phoenix United Mine, Linkinhorne
Geevor Mine, St Just
Wheal Cock, St.Just
Gunheath China Clay Pit, St.Austell

CORDIERITE
(Mg,Fe)$_2$A$_1$$_4$Si$_5$O$_{18}$.
C.E.Tilley and J.S.Flett (1930) summary of Progress, Geol.Surv. of Great Britain 24-40.
Kenidjack, St. Just
Botallack Head, St. Just
St Michael's Mount, Marazion
Porthcurno,
Lizard Praa Elvan, (altered to pinite')
Tresayes Quarry, Roche, (altered to pinite')

CORKITE
\( \text{PbFe}^{3+}_3\text{PO}_4\text{SO}_4(\text{OH})_6. \)
G.S. Camm and M. Merry (1991) UKJMM 9, 11.
Penberthy Croft Mine, St Hilary
Gravel Hill Mine, Perranzabuloe
Wheat Unity, Gwennap

CORNUBITE
\( \text{Cu}_3(\text{AsO}_4)_2(\text{OH})_4. \)
Wheat Carpenter, Gwinear TL
Wheat Gorland, Gwennap
Wheat Muttrell, Gwennap
Phoenix United Mines, Linkinhorne
Penberthy Croft Mine, St Hilary
Wheat Cock, St. Just (Skip Shaft)
East Gunnislake Mine, Calstock
Botallack Mine, St. Just

CORNWALLITE
\( \text{Cu}_3(\text{AsO}_4)_2(\text{OH})_4. \)
Cornwall TL
Wheat Gorland, Gwennap
Wheat Unity, Gwennap
Wheat Carpenter, Gwinear
Penberthy Croft Mine, St Hilary
Phoenix United Mines, Linkinhorne
Wheat Cock, St. Just (Skip Shaft)
East Gunnislake Mine, Calstock
Botallack Mine, St. Just

CORUNDUM
\( \text{Al}_2\text{O}_3. \)
C. Reid and J. S. Flett (1907) The Geology of the Land's End District. 25.
Gunheath China Clay Pit, St Austell
Kenidjack, St Just
Knill Quarry, St Ives
Carbis Bay sands. (Sapphire)
COTUNNITE
PbCl$_2$.
A. Russell (1920) Mineral. Mag. 19, 64.
Falmouth Harbour (wreck of the fireship 'Firebrand') **BI**

COVELLITE
CuS.
Greg and Lettsom (1858) 332-3.
Cam Brea Mine, Illogan
Mulberry Mine, Lanivet
Geevor Mine, St Just
Phoenix United Mines, Linkinhorne
Wheat Kine, St Agnes
Wheat Maudlin, Lanlivery
Mount Wellington Mine, Gwennap
Gunheath China Clay Pit, St. Austell
Penberthy Croft Mine, St. Hilary

CRANDALLITE
CaAl$_3$(PO$_4$)$_2$(OH)$_5$.H$_2$O.
(1988) 'Mineral News' UK JMM. 5, 10. No author. (Camborne School of Mines sem photograph, specimen and photograph in the RIC collection, Truro.)
Wheat Jane, Kea

CRISTOBALITE
SiO$_2$.
Melbur China Clay Pit, St. Austell

Crandallite / Goyazite intermediate, see Goyazite.

CROCOITE
PbCrO$_4$.
D. Lloyd specimen, analysed by P. Tandy BM(NH) 1989.
Newsletter (SW) No. 3, 7.
Greystone Quarry, Lezant

CRONSTEDTITE
Fee$^++$Fe$^{3+}$ $(SiFe^{3+})O_2$(OH)$_4$.
Anon., (1824) Edinb. J. Sci. 1, 380. (Cronstedtite from Wheal Maudlin, Cornwall, in the cabinet of Mr. Allan.) T. Hogg (1825) 60.
Wheat Maudlin, Lanlivery
Wheat Jane, Kea
Penlee Quarry, Newlyn

CRONSTEDTITE Polytypes E.H. Nickel and M.C. Nichols 1991
CRONSTEDTITE 1M Wheat Jane, Kea **TL**
CRONSTEDTITE 2H Wheat Maudlin, Lanlivery **TL**
CRONSTEDTITE 2M Wheat Maudlin, Lanlivery **TL**
CRONSTEDTITE 6R  Wheal Maudlin, Lanlivery TL

CUBANITE
CuFe₂S₂.
East Pool Mine, Illogan BI

CUMENGÉITE
Pb₄Cu₄Cl₆(OH)₈·H₂O.
Newporth Beach, Falmouth BI
Tolcarne Beach, Newquay
Great Western Beach, Newquay
Watergate Bay, Newquay
Padstow Consols
Porthilly Mine, St. Minver

CUMMINGTONITE
((Mg,Fe²⁺,Mn)₇Si₈O₂₂(OH)₂.
Kenidjack, St. Just
Botallack, St. Just (in dolerite hornfels)

CUPRITE
Cu₂O.
Phoenix United Mines, Linkinhorne
Wheal Unity, Gwennap
Wheal Gorland, Gwennap
Fowey Consols, Tywardreath
Old Gunnislake Mine, Calstock
Dolcoath Mine, Camborne
Wheal Buller, Redruth
Wheal Basset, Illogan South
Wheal Francis, Illogan
South Caradon Mine, St. Cleer

CUPRITE var. Chalcotrichite
South Wheal Francis, Illogan
West Wheal Basset, Illogan
Unity, Gwennap
Wheal Gorland, Gwennap
Ting-Tang Mine, Gwennap
Wheal Pendarves, Camborne
Phoenix United Mine, Linkinhorne
Fowey Consols, Tywardreath
Old Gunnislake Mine,
Calstock Penberthy Croft Mine, St. Hilary
Gunheath China Clay Pit, St. Austell
Hingston Down Quarry, Calstock
CUPROSKLODOWSKITE
$\text{Cu(UO}_2\text{)}_2(\text{SiO}_3\text{OH})_2 \cdot 6\text{H}_2\text{O}$.
8SLBM D. Hudson specimen, BM(NH) identification.
West Wheal Owles, St Just BI
Geevor Mine, St.Just (No. 17 Level, Peeth lode)

CUPROTUNGSTITE
$\text{Cu}_2\text{WO}_4(\text{OH})_2$.
8SLBM BM(NH) specimen, collected by A.W.G.Kingsbury in 1955.
Wheal Gorland, Gwennap BI
Old Gunnislake Mine, Calstock
Gunheath China Clay Pit, St.Austell

CYANOTRICHITE
$\text{Cu}_4\text{Al}_2\text{SO}_4(\text{OH})_{12} \cdot 2\text{H}_2\text{O}$.
Wheat Gorland, St Day BI
Phoenix United Mine (Stowe's Section), Linkinhome
Basset Mine, Redruth
Mulberry Mine, Lanivet
East Pool Mine, Illogan
Wheal Hazard, St.Just
Tresavean Mine, Gwennap

CYRILOVITE
$\text{NaFe}^{3+}_3(\text{PO}_4)_2(\text{OH})_4 \cdot 2\text{H}_2\text{O}$.
Gunheath China Clay Pit, St Austell BI
DANALITE
Fe\(^{2+}\)Be\(_3\)(SiO\(_4\))\(_3\)S.
"Redruth" **BI**
New Tolgus Mine, Redruth
Levant Mine, St Just
Trestoil Mine, Lanivet
Wheal Maudlin, Lanlivery
Wheal Clinton, Falmouth
Botallack Head, St Just

DANBURITE
CaBe\(_3\)(SiO\(_4\))\(_2\).
4SLBM A.W.G.Kingsbury specimen, collected 1951-2 BM(NH) spec.
Cheesewring Quarry, Linkinhorne **BI**

Daphnite, a magnesian chamosite, up to Mg: (Fe\(^{2+}\)Mg) = 0.2 and Si = 2.5 - 2.8. See chamosite.

DATOLITE
CaBSiO\(_4\)OH.
Parc Bean Cove, Mullion (includes var. botryolite)
Clicker Tor Quarry, Menheniot

DELAFOSSITE
Cu+Fe\(^{3+}\)O\(_2\).
Cornwall **BI**
Tolvadden Mine, Marazion

DESCLOIZITE
Pb(Zn,Cu)VO\(_4\)OH.
Greystone Quarry, Lezant

DEVLLLINE
CaCu\(_4\)(SO\(_4\))\(_2\)(OH)\(_n\).3H\(_2\)O.
Cornwall **TL**
Penberthy Croft Mine, St Hilary
Wheal Providence, Gwinear
Wheal Tremayne, Gwinear
Ennis Wheal Virgin, St Hilary
Fowey Consols, Tywardreath
Geevor Mine, St Just
Perran Great St George Mine, Perranzabuloe
Wheal Hazard, St Just
DIABOLÉITE
Pb₂CuCl₂(OH)₄
M. Merry specimen, collected 1994. Identification reported by R.S.W. Braithwaite, UMIST. Padstow Consols, Padstow

DIADOCHTTE
Fe³⁺PO₄SO₄OH.5H₂O.
C. Sparrow (1989) R.S. Newsletter (SW) No.3
Gravel Hill Mine, Perranzabuloe Diallogite, synonym of rhodochrosite q.v..

DIASPORE
Al₂O(OH).
Kenidjack Castle, St. Just

DICKITE
Al₂Si₂O₅(OH)₄.
Trenite/Trebullett Antimony Mines, Lezant
Dizzard Mine, Poundstock
Wheal Leigh, Pillaton
Tredinnick Mine, St Erney
Millook Beach, St Gennys

DIGENITE
Cu₁₈S.
Cornwall BI
Botallack Mine, St Just
Wheal Hen, St Just
Gunheath China Clay Pit, St Austell

DIOPSIDE
MgCaSi₂O₆.
Mineral Mag 27, 1946 (Russell)
Treburland Mn. Mine, Altarnun
Spernic Cove, Gwenter (malacolite in granulitic gabbro)
Bodmin Wheal Betsy, Lanivet, (variety Sahlite, Serjeant collection)
Coverack, The Lizard (Chrome diopside)

DJURLEITE
near Cu₁₉S.
Cornwall BI
Wheal Owles, St Just
Dean Quarry, St Keverne
DOLOMITE
CaMg(CO₃)₂
W.Phillips (1819) 127. (pearl spar)
Botallack Mine, St Just
Geevor Mine, St Just
Trevascus Mine, Gwinear
North Roskear Mine, Camborne
West Chiverton Mine, Perranzabuloe
Greystone Quarry, Lezant
Eastern Cliff, The Lizard
Carleon Cove, The Lizard
Pentreath Beach, The Lizard
South Crofty Mine, Illogan (mangandolomite q.v.)

DOMEYKITE α and β
Cu₃As.
(constituents of 'condurrrite' q.v.) Greg and Lettsom (1858) 328-9. P.G.Embrey
(1958) Mineral.Mag. 31, 979-80
Condurrow Mine, Camborne
Wheal Druid, Redruth

DRAVITE
NaMg₃Al₆(BO₃)₃Sr₆O₁₈(OH)₄.
S.O.Årell (1941) Mineral Mag. 26, 81-93.
Dines Head, Padstow
Gunheath China Clay Pit, St.Austell

DUFRENITE
Fe²⁺Fe³⁺₄(PO₄)₃(OH)₅·2H₂O.
Phoenix United Mines (Stowe's section) BI
Gunheath China Clay Pit, St.Austell

DUFRENOYSITE
Pb₂As₂S₅
X-rd by Dr. Nelson. Tiny needles in a vugh'
Wheal Boys, St. Endellion. BI

DUFTITE
PbCuAsO₄OH.
Penberthy Croft Mine, St Hilary

DUMORTIERITE
(Al₄Fe)₄BO₃(SiO₄)₂O₃
A.W.Groves (1928) Mineral.Mag. 21,
In the St.Austell granites
DUNDASITE
PbAl₂(CO₃)₂(OH)₄.H₂O.
Wheal Rose, Sithney
Wheal Penrose, Sithney
Trevinnick Mine, St Kew
Greystone Quarry, Lezant
Port Quin Mine, Endellion
Padstow Consols,
Pengenna Mine, St Kew

Duporthite
Aluminosilicate of Mg and Fe²⁺
Hey 3. An asbestiform mineral requiring re-examination.
Duporth, St. Austell TL

DURANGITE
NaAl₆AsO₄F.
4SLBM BM(NH) spec. collected 1958 by A. W. G. Kingsbury.
Cheesewring Quarry, Linkinhorne BI

DYSCRASITE
Ag₃Sb.
Included in John Purser (1974) manuscript, RIC library, Truro. Dolcoath
Mine, Camborne
EMBOLITE
\[ Ag(C1,Br) \].
Dolcoath Mine, Camborne
Perran Silver Mine, Perranuthnoe

ENARGITE
\[ Cu_3AsS_4 \].
C. Scheding spec. confirmed BM(NH) 1989.
South Crofty Mine, Illogan (415fm level)

ENSTATITE
\[ Mg_2Si_2O_6 \].
J. Garby (1848) TRGSC 7, 72-79. (bronzite)
In the Lizard serpentinite Dean Quarry, St Keverne

Enysite
Near \[ Cu_2Al_6SO_4(OH)_{20} \].
Probably a mixture.
Trevaunance Cave, St. Agnes TL

EPIDOTE
\[ Ca_2(Al,Fe^{3+})_3(SiO_4)_3(OH) \].
W. Phillips (1819) 34.
Crown's Rock, Botallack
South Tresavean Mine, Gwennap
Landewednack, The Lizard
Porthkerris Quarry, The Lizard
Pen Olver, Lizard
Tuckingmill, Camborne
Tolpetherwin Quarry, South Petherwin
The Crowns, Botallack (BI var. Stannian)

EPSOMITE
\[ MgSO_4.7H_2O \].
J. Robson (1949) TRGSC 17, 472.
Dolcoath Mine, Camborne

ERYTHRITE
\[ Co_3(AsO_4)_{2.8}H_2O \].
W. Phillips (1817) 210.
Botallack Mine, St Just
Wherry Mine, Newlyn
Dolcoath Mine, Camborne
East Pool Mine, Illogan
Wheal Sparnon, Redruth
Polgooth Mine, St Austell
South Terras Mine, St Stephen-in-Brannel
Penberthy Croft Mine, St Hilary
Ennys Wheal Virgin, St Hilary
St Austell Consols
Pentireglaze Mine, St.Minver
Roscommon Cliff, St.Just
Cligga Mine, Perranzabuloe

**ETTRINGITE**
Ca$_6$Al$_2$(SO$_4$)$_3$(OH)$_{12}$.$26$H$_2$O.
Tresavean Mine, Gwennap

**EUCLASE**
BeAlSiO$_4$OH.
Cligga Head BI

**EULYTINE**
Bi$_5$(SiO$_4$)$_3$OH
Restormel Mine, Lanlivery
Wheal Coates, St. Agnes
Falilore, synonym of tetrahedrite q.v..

**FAUSTITE**
(Zn,Cu)Al₆(PO₄)₄(OH)₈·4H₂O.
Phoenix United Mines, Linkinhorne Bi

**FERBERITE**
Fe⁺²WO₄.
Penhale Mine, St Cleer
Wheal Arthur and Wheal Edward, Calstock
Calstock Consols, Calstock
North Herodsfoot Mine, Lanreath
Guiheath China Clay Pit, St.Austell
Hingston Downs Quarry, Calstock
See also Wolframite.

Ferrian turquoise see Turquoise.

**FERRIMOLYBDITE**
Fe₉(MoO₄)₃·7H₂O.
Kit Hill Consols, Stokeclimsland
Hingston Down Quarry, Calstock

**FERRITUNGSTITE**
(W,Fe³⁺)(O,OH)₃.
Hingston Downs Quarry, Calstock Bi

**FERRO-HORBLENDE**
Ca₂Fe²⁺₄Al₁₂Si₂₀₂₂(OH)₂.
J.Garby (1848) TRGSC 7, 77.
Botallack, St.Just

**FERROOXINITE** - see axinite Most Cornish axinites are probably ferroaxinite

**Ferroberaunite**
(Analysed by S.Weiss, Munich University, not yet accepted as a species.)
Gravel Hill Mine, Perranzabuloe

**FERROCOLUMBITE**
Fe₂Nb₂O₆.
Gunlieath China Clay Pit, St.Austell Bi
FERROKESTERITE
Cu₂(Fe,Zn)SnS₄.
Cligga Mine, Perranzabuloe. TL

FERROSTRUNZITE
Fe²⁺Fe³⁺₂(PO₄),.₆H₂O.
Gravel Hill Mine, Perranzabuloe B1

Florencite (type ?)
(La,Ce,Th,Sc,Ca) A1₃ (PO₄)₂(OH)₆
Gunheath China Clay Pit, St. Austell

FLUCELLITE
Al₂PO₄F₂(OH),7H₂O.
Stenna Gwynn Mine, St Stephen-in-Brannel TL
Goonvean China Clay Pit, St Austell

FLUORAPATITE
Ca₅(PO₄)₃F.
W. Phillips (1819) 128-9. (apatite, phosphate of lime)
Botallack Mine, St Just
Gravel Hill Mine, Perranzabuloe
Gunheath China Clay Pit, St. Austell
Goonbarrow China Clay Pit, St. Austell
Old Gunnislake Mine, Calstock
St Michael's Mount, Marazion
Tremearne Pegmatite, Breage
Halvosso Quarry, Longdowns
Stenna Gwyn Mine, St Stephen-in-Brannel
Colcerrow Quarry, Luxulyan
Tregargus Quarry, St Stephen-in-Brannel
Megilligar Rocks, Porthleven (Manganapaite)
Trelavour Downs, St Dennis (Manganapatite)
Trolvis Quarry, Longdowns
Kessle Quarry, Longdowns

FLUORITE
CaF₂.
W. Phillips (1819) 129-32. (fluor)
South Crofty Mine, Illogan
East Pool, Illogan
Wheat Jane, Kea
Pednandrea Mine, Redruth
Carn Brea Mine, Illogan
South Crofty Mine, Illogan
Wheal Gorland, Gwennap
Wheal Unity, Gwennap
Wheal Mary Ann, Menheniot
Wheal Trelawny, Menheniot
South and West Caradon mines, St Cleer
Trevaunance Mine, St Agnes
Cam Brea Mines, Illogan
Gunheath China Clay Pit, St.Austell
Hingston Down Quarry, Calstock
Wheal Buller, Redruth

**FRANCEVILLITE**
\[(\text{Ba},\text{Pb})(\text{UO}_2)_2(\text{VO}_4)_{2.5}\text{H}_2\text{O}].
4SLBM BM(NH) specimen, from V.P. Aspland (1936).
South Terras Mine, St Stephen-in-Brannel BI

Francolite synonym of carbonate-fluorapatite q.v..

**FRANKLINITE**
\[(\text{Zn},\text{Mn},\text{Fe})(\text{Fe},\text{Mn})_2\text{O}_4\]
W.A.E.Ussher, G.Barrow and D.A.MacAlister, with J.S.Flett (1909) Geology of the country around Bodmin and St.Austell.
Bodmin Wheal Mary, Lanivet

**FREIBERGITE**
\[(\text{Ag},\text{Cu},\text{Fe})_{12}(\text{Sb},\text{As})_4\text{S}_{13}].
J.H.Collins (1871) pt.2, 45. (as polytelite, old unanalysed specimens are probably argentian tetrahedrite)
Wheal Sampson, Endellion
Old Treburgett Mine, St Teath
Silver Vein Mine, St Winnow
GALENA
PbS.
M.H.Klaproth (1787) 30.
Wheal Penrose, Sithney
Penberthy Croft Mine, St Hilary
Tresavean Mine, Gwennap
Poldice Mine, Gwennap
Wheal Mary Ann, Menheniot
Herodsfoot Mine, Lanreath
East Wheal Rose, Newlyn East
Greystone Quarry, Lezant
Greystone Mine, Lezant
Wheal Hope, Perranzabuloe, (also pseudomorphous after pyromorphite)
Chiverton Mines, Perranzabuloe

GALENOBISMUTITE
PbBi₂S₄.
R.Sparks specimen collected 1971, X-rd analysis by BM(NH)
Wheal Penrose, Sithney

GENTHELVITE
Zn₄Be₃Si₃O₁₂S.
Treburland Manganese Mine, Altarnun

GEOCRONITE
Pb₁₄(Sb,As)₆S₂₃.
Treore Mine, St.Teath

GERSDORFFITE
NiAsS.
South Terras Mine, St Stephen-in-Brannel

GIBBSITE
Al(OH)₃.
Wheal Gorland, St. Day

GLAUCONITE
(K,Na)(Fe³⁺,Al,Mg)₂(SrAl)₄O₁₀(OH)₂.
Wheal Coates, St Agnes
**GOETHITE**
FeO(OH).
Greg and Lettsom (1858) 251-2.
Botallack Mine, St Just
Parknoweth Mine, St Just
Carn Brea Mine, Illogan
Wheal Druid, Illogan
Wheal Beauchamp, Redruth
Wheal Buller, Redruth
Phoenix United Mines, Linkinhorne
Kernick Iron Lode, St Austell
Restormel Royal Iron Mine, Lanlivery
Wheal Cock, St. Just
Polzeath Consols, St. Minver

**GOLD**
Au.
W. Phillips (1819) 240-2.
Carnon Valley placers
Ladock placers
Redmoor placers,
Lanlivery St Ewe
Mudian Vean, Meneage
Wheal Gorland, Gwennap
Perran Gt. St George Mine, Perranzabuloe
Treore Mine, St Teath
Wheal Sparnon, Redruth
Botallack, St. Just
(Wheal Jane, Kea, reported occurrence a hoax.)

**GOSLARITE**
ZnSO₄·7H₂O.
W. Phillips (1819) 266. (Sulphate of zinc, white vitriol) Greg and Lettsom (1858) 429.
Tresavean Mine, Gwennap
Trehallan Mine, Gwennap
Wheal Castle, St Just
West Caradon Mine, St Cleer

Gunheath China Clay Pit, St. Austell

**GRAPHITE**
C.
Greg and Lettsom (1858) 1-2.
Wherry Mine, Newlyn
Wheal Alfred, Phillack
Tuckingmill
Kergilliack Quarry, Penryn
Wheal Jane, Kea
Dinas Head, Padstow
Botallack, St. Just

**GREIGITE**
$\text{Fe}^{2+}\text{Fe}^{3+}\text{S}_4$.
Treore Mine, St Teath **BI**

**GROSSULAR**
$\text{Ca}_3\text{Al}_2(\text{SiO}_4)_3$.
Zawn a Bal, St. Just
Tuckingmill, Camborne

**GROSSULAR** variety Stannoan
The Crowns, Botallack, St. Just **BI**

**GRUNERITE**
$(\text{Fe}^{2+},\text{Mg})_7\text{Si}_8\text{O}_{22}(\text{OH})_2$.
C.E. Tilley and J.S. Flett (1930) Summary of Progress, Geol. Surv. of Great Britain, 24-40.
Botallack, St. Just

**GYPSUM**
$\text{CaSO}_4.2\text{H}_2\text{O}$.
J. Carne (1841) TRGSC. 6, 48.
South Crofty Mine, Illogan
Geevor Mine, St Just
Wheal Mary Ann, Menheniot
Levant Mine, St. Just
HALITE
NaCl.
Penberthy Croft Mine, St. Hilary

HALLOYSITE
A12Si2O5(OH)4.2H2O.
J. Robson (1947) TRGSC 17, 467. (probably halloysite)
Cook’s Kitchen Mine, Illogan
Phoenix United Mines, Linkinhorne
St. Austell Granite

HASTINGSITE
NaCa2(Fe2+,Mg)4Fe3+(Si6Al2)O22(OH)2.
Wheatle Cock, St. Just. (Potassian magnesian)

HAUYNE
(Na, Ca)4-8AlSi6(O, S)24(SO4, Cl)1-2.
Wolf Rock

HEDENBERGITE
CaFe2+Si2O6.
J. S. Flett (1906) Mem. Geol. Surv., Geol. of Newquay (sheet 346) 27.
Great Retallack Mine, Perranzabuloe
Treurland Manganese Mine, Altarnun
Tregullan Mine, Bodmin
Treurland Manganese Mine, Altarnun (Manganhedenbergite)

HELVINE
Mg4Be3(SO4)3S.
Bodmin Wheal Mary, (Wheal Ding section) Lanivet BI
Levant Mine, St Just
Wheatle Cock, St Just
Bodmin Wheal Betsy, Lanivet

HEMATITE
Fe2O3.
W. Phillips (1819) 169-72.
Restormel Royal Iron Mine, Lanlivery
Wheatle Ruby, St. Austell
Shallowater Mine, Bodmin Moor
Tincroft, Illogan
East Pool Mine, Illogan
South Crofty Mine, Illogan
Boscaswell Mine, St Just
Geevor Mine, St Just
HEMIMORPHITE
Zn₄Si₂O₇(OH)₂·H₂O.
H.G. Dines (1956)
Fowey Consols, Tywardreath
Greystone Quarry, Lezant
Wheal Herland, Gwinear

HENTSCHELITE
Cu₂Fe₂(PO₄)₂(OH)₂.
Phoenix United Mines (Stowe's section) BI

Henwoodite, ferrian turquoise, see turquoise.

HERCYNITE
Fe²⁺Al₂O₄
T.G. Bonney (1877) QJGS. 33, 884-928.
Goonhilly Downs, The Lizard
In the Lizard serpentinite The Lizard (var. Picotite in dunite)

HERDERITE
CaBePO₄(F,OH).
Wheal Cock, St Just
Colcerrow Quarry, Luxulyan

HERZENBERGITE
SnS
Dr. A. Bromley, Pers. com. Associated with stokesite. Literature reference not yet located.
Halvasso Quarry, Longdowns BI

HETAEROLITE
ZnMn₃⁺₂O₄.
Eastern Cliff, Kennack Sands, The Lizard BI

HETEROMORPHITE
Pb₇Sb₈S₁₉.
4SLBM (recorded by W. Nevill in the printed catalogue of his collection, p20 1872, requires confirmation.) Russel MS (NHM) 1949
Wheal Boys, Endellion BI
HEULANDITE
(Na,Ca)_{2-3}Al_{3}(Al,Si)_{2}Sr_{13}O_{36}.12H_{2}O.
Levant Mine, St Just
Wheat Hazard, St Just
Carrick Du Mine, St Ives
Dean Quarry, St Keverne

HIDALGOITE
PbA_{13}AsO_{4}SO_{4}(OH)_{6}.
R.J. Davis and M.H. Hey (1964) Mineral.Mag. 33, 937. (X-rd near hidalgoite, requires confirmation)
Hingston Down Consols, Calstock **BI**

HISINGERITE
Fe_{3+}^{2}Si_{2}O_{5}(OH)_{4}.2H_{2}O.
Wheal Jane, Kea **BI**
Wheat Gorland, Gwennap
Phoenix United Mines, Linkinhorne
Penlee Quarry, Newlyn

HORNBLENDE
Ca_{2}(Mg,Fe^{2+})_{4}AlSi_{7}A_{1}O_{22}(OH)_{2}.
W. Phillips (1819) 53-4.
Landewednack, The Lizard
Cadgwith, The Lizard
Housel Bay, The Lizard
Porthoustock, The Lizard
Dean Quarry, St Keverne
Mullion, The Lizard
St Terras Mine, St Stephen-in-Brannel
Great Retallack Mine, Perranzabuloe
Botallack, St Just
Penberthy Croft Mine, St Hilary

HÚBNERITE
MnWO_{4}.
Kingsbury collection BM(NH)
Wheat Gorland, Gwennap, (from the north dumps)
Hingston Down Quarry, Calstock

HUMBOLDTINE
Fe^{2+}C_{2}O_{4}.2H_{2}O.
8SLBM BH(NH) identification 1986 on D. Baker specimen.
Pendarves BH(NH) identification 1986 on D. Baker specimen.
Pendarves Mine, Camborne **BI**

Hydro-andradite, hydrous andradite, (replacement of SiO_{4} by (OH)_{4}.) see Andradite.
HYDROZINCITE
\[ \text{Zn}_5(\text{CO}_3)_2(\text{OH})_6. \]
(1992) P. Golley visual identification using ultra violet, on sphalerite from Greystones Quarry, Lezant
Old Treburgett Mine, St Teath

Hypersthene synonym of Enstatite q.v.
Idocrase synonymn of Vesuvuanite q.v.

**Illite**

near

\((K, H_2O)A1, Mg, Fe)\((Si, Al)O_10[OH, H_2O]\).


Holseer Cove, Lizard

In the St. Austell Clays

**ILMENITE**

FeTiO_3.


Tregonwell Mill Stream, Manaccan BI

Porthallow, The Lizard Gwendra, The Lizard

Buttern Hill Placers, Altarnun

Wheal Vincent,

Altarnun Downgate Mine, Callington

Dinas Head, Padstow

**ILMENORUTILE**

\(Fe_x(Nb, Ta)_yTi_{1-x}O_2\).


Gun Heath China Clay Pit, St. Austell

**ILVAITE**

\(CaFe^{2+}Fe^{3+}(SiO_4)OH\).

4SLBM BM(NH) specimen collected by A.W.G. Kingsbury.

Wheal Messer, Lanivet BI

**Indicolite**, variety of tourmaline of a blue or bluish black colour. T.G.Bonney (1877) Mineral Mag., 1, 219.

Luxulyan in 'luxullianite'

Wheal Kitty, St. Agnes

Widespread in 'peach' capels

Isopyre, a supposed new mineral, later shown to be impure opal q.v.

**IXIOLITE**

\((Ta,Nb,Sn,Fe, Mn)_4O_8\).

8SLBM BM(NH) identification 1987, X-rd pattern identical with or close to that of ixiolite, requires chemical confirmation. N. Talbot specimen.

Tremearne Pegmatite, Breage BI
JAMESONITE
Pb$_2$Fe$_3$Sb$_6$S$_{14}$.
W. Haidinger (1825) in F. Mohs, Treat. Min. 1, 451 and 3, 26.
The type locality is Cornwall, however an earlier description of the mineral was made on material from a Hungarian locality.

Cornwall TL
Wheal Boys, Endellion
Bodannon Mine,
Endellion Treore Mine, St Teath
Pendogget Mine, St Kew
Trevinnick Mine, St Kew
Pengenna Mine, St Kew
Tolpetherwin Quarry, South
Petherwin Linnick, South Petherwin
Port Quin Mine and Beach, Endellion

JAROSITE
KFe$_2$$^{3+}$(SO$_4$)$_2$(OH)$_6$.

Gravel Hill Mine, Perranzabuloe
Botallack Cliff, St. Just
Wheal Hazard, St. Just
Wheal Cock, St. Just (Skip Shaft)

JOHANNITE
Cu(UO$_2$)$_2$(SO$_4$)$_2$(OH)$_2$.8H$_2$O.
J. Garby (1848) TRGSC 7, 86.

South Wheal Basset, Mogan BI
Geevor Mine, St Just. (Peeth lode no. 17 level)

JORDANITE
Pb$_4$As$_n$Sb$_{6-n}$S$_{23}$.

Penberthy Croft Mine, St Hilary

JOSÉITE
Bi$_4$TeS$_2$.
Kingsbury collection BM(NH) (confirmed 26/1/1988 by R. F. Symes per. comm. to P. Golley)
Penlee Quarry, Newlyn

JOSÉITE-B
Bi$_4$Te$_2$S.
Kingsbury collection BM(NH) (confirmed 26/1/1988 by R. F. Symes per. comm. to P. Golley) Penlee Quarry, Newlyn
KAERSUTITE
NaCa$_2$(Mg,Fe$^{2+}$)$_4$TiAl$_2$Si$_6$(O,OH)$_{24}$.
In "minverite", St.Minver

KRANKITE
FeAsO$_4$.3.5H$_2$O
8SLBM BM(NH) identification 1984 A.L.Ellis specimen.
South Terras Mine, St Stephen-in Brannel

KAOLNITE
Al$_2$Si$_2$O$_5$(OH)$_4$.
W.Phillips (1819) 44. (porcelain clay)
Widespread in the areas of St Austell
St. Just
Breage

KASOLITE
PbUO$_2$SiO$_4$.H$_2$O.
Loe Warren, St Just

KERMESITE
Sb$_2$S$_3$.O.
Russell ms 1949 BM(NH) Identified by colour only, requires confirmation.
Wheat Prosper, St Ewe
Tredinnick Mine, St Erney
Wheat Leigh, Pillaton
Poltreworgey Mine, Endellion
Cutlinworth Farm, Landrake
Port Quin Beach, St.Endellion
Trebullet Mine, Lezant

KESTERITE
Cu$_2$(Zn,Fe)SnS$_4$.
St Michael's Mount BI
Cligga Mine, Perranzabuloe

KIDWELLITE
NaFe$^{3+}$(PO$_4$)$_6$(OH)$_{10}$.5H$_2$O.
Phoenix United Mines, Linkinhorne BI

KRÖHNKITE
Na$_2$Cu(SO$_4$)$_2$.2H$_2$O.
Wheal Hazard, St.Just

Kupfernickel, synonym of nickeline q. v.
KURAMITE
Cu₃SnS₄.
Gunheath China Clay Pit, St Austell BI

KYANITE
Al₂SiO₅.
St.Erth.
Polkemogo, with sillimanite in cordierite rock
Pistil Ogo, with sillimanite and staurolite
**Labradorite**
(Ca,Na)(SiAl)₄O₈. (N&N)
Man O'war Gneiss, The Lizard
Dean Quarry, St Keverne
Coverack Cove, The Lizard

**LANARKITE**
Pb₂(SO)₄O
Gravel Hill Mine, Perranzabuloe

**LANGITE**
Cu₄SO₄(OH)₆.2H₂O.
N.S. Maskelyne (1864) Phil.Mag., ser.4, 27, 316.
Cornwall TL
Fowey Consols Mine, Tywardreath
Drakewalls Mine, Calstock
Wheal Edward, Calstock
Copper Hill Mine, Redruth
Wheal Bassett, Redruth
East Pool Mine, Illogan
Dolcoath Mine, Camborne
Geevor Mine, St. Just
Phoenix United Mines, Linkinhorne
Sharptor Mine, Linkinhorne

**LAUMONTITE**
Ca₁₂Si₄O₁₆.₄H₂O.
BM(NH) X-rd 7593F, very near laumontite, from Geevor Mine, G.Ryback pers.comm. to the authors.
Geevor Mine, St. Just

**LAURIONITE**
PbClOH.
A. Russell and A. Hutchinson (1922) Geol.Mag. 59, 182.
Wheal Rose, Sithney BI

**LAVENDULAN**
NaCaCu₃(AsO₄)₃Cl.5H₂O.
N. Hubbard specimen, collected 1988/9
Cligga Mine, Perranzabuloe
Pentire Glaze Mine, St Minver

**LEADHILLITE**
Pb₄SO₄(CO₃)₂(OH)₂.
Wreck of the fireship 'Firebrand', Falmouth Harbour
Greystone Quarry, Lezant
LEPIDOCROCITE
$\gamma$-Fe$_3$O(OH).
Great Retallack Mine, Perranzabuloe
Gravel Hill Mine, Perranzabuloe
Trewethen Mine, St Kew

LEPIDOLITE
$K(Li,Al)_3(Si,Al)_4O_{10}(F,OH)_2$.
Greg and Lettsom (1858) 223-5.
Tremearne Pegmatite, Breage
St Michael's Mount
Tregonning Hill, Breage
Lanarth, Redruth
Gunheath China Clay Pit, St Austell

Lepidomelane variety of biotite (q.v.), ferrian biotite.

LEUCOPHOSPHITE
$KFe^{3+}_2(PO_4)_2OH.2H_2O$.
X-rd 14/6/86 M.Price Oxford University Museum, M. Grigg spec, also BM(NH) X-rd 6103F (1986) from Gunheath, D.Lloyd spec.?.
Gunheath China Clay Pit, St Austell,
Wheal Gorland, Gwennap

Leucopyrite, synonym of löllingite q.v..

LIBETHENITE
$Cu_2PO_4OH$.
W. Phillips (1819) 235. (phosphate of copper)
Old Gunnislake Mine, Calstock BI
East Gunnislake Mine, Calstock (arsenatian var)
Phoenix United Mine, Linkinhorne
Gunheath China Clay Pit, St Austell
South Wheal Frances, Illogan
Basset Mines, Illogan
Penberthy Croft Mine, St Hilary
Pentireglaze Mine, St Minver
Wheat Cock, St. Just (Skip Shaft)

LIEBIGITE
$Ca_2UO_2(CO_3)_3.11H_2O$.
Wheal Basset, Redruth BI
LIKASITE
Cu$_3$(NO$_3$)(OH)$_5$.2H$_2$O
Barry Gamble specimen, confirmed BM(NH) September 1993.
Hingston Down Quarry, Calstock BI

LINARITE
PbCuSO$_4$(OH)$_2$.
J.H.Collins (1871) pt.2, 64. (found in 1866)
Wheat Penrose, Sithney
Garras Mine, St.Erme
Penhale Mine, Perranzabuloe
Pentire Glaze Mine, St Minver
Greystone Quarry, Lezant
Wheat Carpenter, Gwinear
Penberthy Croft Mine, St Hilary
Polzeath Consols, St.Minver

LIROCONITE
Cu$_2$AlAsO$_4$(OH)$_4$. 4H$_2$O.
J.L.de Bournon (1801) Phil.Trans., 169-91.
Cornwall TL
Wheat Muttrell, Gwennap
Wheat Gorland, Gwennap
Ting Tang Mine, Gwennap
Wheat Unity, Gwennap
Wheat Cock, St.Just (Skip Shaft)

LISKEARDITE
(Al,Fe$^{3+}$)$_3$AsO$_4$(OH)$_6$.5H$_2$O.
N.S.Maskelyne (1878) Nature. 18, 426. Liskeard,
Cornwall TL
Marke Valley Mine,
Linkinhome Penberthy Croft Mine, St Hilary

LIZARDITE
Mg$_3$Si$_2$O$_5$(OH)$_4$.
Kennack Sands, The Lizard TL
Common in the Lizard seipentinite

LÖLLINGITE
FeAs$_2$.
Castle-an-Dinas Mine, St Columb
Penlee Quarry, Newlyn
Cligga Head Mine, Perranzabuloe.
Trimeame Pegmatite, Breage
Lonchidite, arsenical marcasite, see marcasite.
**Ludlamiite**

\[(\text{Fe}^{2+},\text{Mn},\text{Mg})_3(\text{PO}_4)_2.4\text{H}_2\text{O}].

F. Field and N.S. Maskelyne (1877) Phil.Mag. 3, 52-7.

Wheal Jane, Kea **TL**

Lunnite, synonym of pseudomalachite q.v..
MACKINAWITE
(Fe,Ni)$_9$S$_8$.
The Rill, Kynance Cove BI

MAGNESITE
MgCO$_3$.
J.Garby (1863) TRGSC 7, 81.
The Rill, Kynance Cliff, The Lizard
The Lizard area, in serpentinite
Wheal Grambler, Gwennap

MAGNETITE
Fe$^{3+}_2$O$_4$.
Botallack Mine, St Just
The Lizard
Gwenter
Treluswell, Penryn
Wheal Jane, Kea
Tregurtha Downs Mine, St Hilary
South Terras Mine, St Stephen-in-Brannel
Tretoil Mine, Lanivet
Trewen Quarry, South Petherwin
Polyphant Quarry, South Petherwin
Dean Quarry, St Keverne (Titanian magnetite)

MAHMOODITE
FeZr(PO$_4$)$_2$H$_2$O.
Mineral Mag. 59, 166-168.
Kerriack Cove, Illogan BI (2nd world occurrence)

MALACHITE
Cu$_2$CO$_3$(OH)$_2$.
W.Phillips (1819) 231-2. (green copper/malachite)
Wheal Gorland, Gwennap
Wheal Unity, Gwennap
Ting-Tang Mine, Gwennap
Carharrack Mine, Gwennap
Dolcoath Mine, Camborne
Wheal Buller, Redruth
Wheal Basset, Illlogan
South Caradon Mine, St Cleer
Phoenix United Mines, Linkinhorne
Old Gunnislake Mine, Calstock
Polzeath Consols, St.Minver
Gunheath China Clay Pit, St.Austell

Malacolite, Synonym of diopside q.v..
MALAYAITE
CaSnSiO₅.
The Crowns, Botallack

Manganapatite, variety of fluorapatite (q.v.), original occurrence contained 6.7% MnO.

Mangandolomite, variety of dolomite (q.v.), a manganiferous dolomite.

Manganhedenbergite, variety of hedenbergite (q.v.), manganoan hedenbergite (6.5% MnO).

MANGANITE
Mn³⁺O(OH).
W.Philips (1819) 183. (Grey oxide of manganese)
Botallack Mine, St Just
Wheat Bucketts, Redruth
Lidcott Mine, Laneast
Trevena Mine, Tintagel
Restormel Royal Iron Mine, Lanlivery
Ruthers Mine, St Columb
Wheat Cock, St-Just (Skip Shaft)
Manganocalcite, variety of calcite (q.v.) with over 30% MnCO₃.

MANGANOCOLUMBITE
(Mn,Fe²⁺)(Nb,Ta),O₆
Gunheath China Clay Pit, St.Austell

MANSFIELDITE
AlAsO₄.2H₂O.
pers.conmi. D.Clough. to P.J.Golley, identified BM(NH).
Penberthy Croft Mine, St Hilary

MARCASITE
FeS₂.
W.Philips (1819) 165-7. (radiated iron pyrites/white iron pyrites)
Cooks Kitchen Mine, Illogan
Tincroft Mine, Illogan
South Crofty Mine, Illogan
Wheat Clifford, Gwennap
Wheat Unity, Gwennap
Fowey Consols, Tywardreath
Wheat Jane. Kea
Mount Wellington Mine, Gwenmap
Wheat Mary Ann. Meiheniot
Hingston Downs Quarry, Calstock
Cook's Kitchen Mine, Illogan (Lonchidite)
Tincroft Mine, Illogan (Lonchidite)
Mannatite, iron rich variety of sphalerite q.v..

MAWSONITE
Cu₆Fe,SnS₄.
Gunheath China Clay Pit, St Austell BI

MELANTERITE
FeSO₄.7H₂O.
J.Garby (1848) TRGSC 7, 84. (sulphate of iron, green vitriol)
South Crofty Mine, Illogan
Wheal Jane, Kea
Fowey Consols, Tywardreath
Ting-Tang Mine, Gwennap
United Mines, Gwennap
Geevor Mine, St. Just
Wheal Jane, Kea (pisaneite)
Wheal Coates, St Agnes (pisaneite)

Menackenite, synonym of ilmenite q.v..

MENEGHINITE
Pb₁₃CuSb₇S₂₄.
Pengemia Mine, St Kew BI
Pentire vein system, St Minver
Portquin vein system, Endellion

MESOLITE
Na₂Ca₂Al₆Si₉O₃₀.8H₂O.
T.M.Hall (1868) The Mineralogist's Directory. 43.
The Cliffs between Botallack and Wheal Cock, St.Just

METANOVÁCEKITE
Mg(UO₂)(AsO₄)₂ .4-8H₂O.
by dehydration of novácekite subsequent to collection'
West Wheal Owles, St.Just BI

Meta-Saléeite
Mg(UO₂)₃(PO₄)₂,8H₂O.
(the lower hydrate of saléeite) P.J.Golley specimen, identified by optical
South Terras Mine, St Stephen-in-Brannel BI
Wheal Edward, St.Just
**METASIDERONATRITE**
\[Na_2Fe^{3+}_2(SO_4)_4(OH)_2\cdot 3H_2O.\]
8SLBM BM(NH) identification 1985, R.E.Starkey specimen.
Trerubies Cove, near Delabole

**METATORBERNITE**
\[Cu(UO_2)_2(PO_4)_2\cdot 8H_2O.\]
A.Hallimond (1920) Mineral Mag. 19, 43.
Most specimens labelled torbernite (q.v.) are metatorbernite.
Old Gunnislake Mine, Calstock (natural metatorbernite)

**METAVOLTINE**
\[Na_6K_2Fe^{2+}_2Fe^{3+}_6(SO_4)_{12}O_2\cdot 18H_2O.\]
8SLBM BM(NH) identification 1981, G.Ryback specimen.
Wheal Edward, St Just

**METAZEUNERITE**
\[Cu(UO_2)_2(AsO_4)_2\cdot 8H_2O.\]
A.W.G.Kingsbury (1952) TRGSC, 18, 386.
Wheal Gorland, Gwennap
Geevor Mine, St Just
Wheal Edward, St Just

**MICROLINE**
\[KAlSi_3O_8\]
W.A.Richardson (1923) QJGS 79, 547-76.
in the St.Austell Granite
In biotite granite, Lands End
In biotite granite, Tregonning Hill

**MILARITE**
\[K_2Ca_4Al_2Be_4Si_{12}O_{60}\cdot H_2\]
Cheesewring Quarry, Linkinhome

**MILLERITE**
NiS.
J.Garby (1848) TRGSC 7, 72-92. (sulphuret of nickel)
St Austell Consols
Gerrans Bay
Fowey Consols, Tywardreath
Pengelly Mine, St Ewe
Wheal Chance, St Austell
Wheal Spamon, Redruth
Greystone Quarry, Lezant

**MIMETITE**
\[Pb_5(AsO_4)_3Cl\]
MINNESOTAITE
(Fe^{2+},Mg)_3Si_4O_{10}(OH)_2.
The Lizard

MITRIDATITE
Ca_2Fe^{3+}_3(PO_4)_3O_2.3H_2O.
Gunheath China Clay Pit, St.Austell

MIXTTE
BiCu_6(AsO_4)_3(OH)_6.3H_2O.
4SLBM BM(NH) specimen collected by A. W.G.Kingsbury.
Wheal Owles, St Just BI
Wheal Edward, St Just
Penberthry Croft Mine, St Hilary
Wheal Carpenter, Gwinear
South Terras Mine, St. Stephen-in-Brannel
Old Gunnislake Mine, Calstock

MOLYBDENITE
MOS_2
W.Philips (1819) 185-6. (sulphuret of molybdena)
Wheal Unity, Gwennap
Wheal Gorland, Gwennap
Wheal Unity, Gwinear
Wheal Mary, Lelant
Penlee Quarry, Newlyn
Kit Hill Mine, Stokeclimsland
Prince of Wales Mine, Calstock
Hingston Down Quarry, Calstock
Drakewalls Mine, Calstock
Cligga Mine, Perranzabuloe
MONAZITE-(Ce)
(Ce,La,Nd,Th)PO₄.
H.A. Miers (1885) Mineral. Mag. 6, 164.
Lanterdan Quarry, Tintagel B1
Hingston Down Quarry, Calstock
Carnmenellis granite (accessory)
Prince of Wales Quarry, Tintagel

MONTMORILLONITE
(Na,Ca)₀·₃₃(A₁,Mg)₂Si₄O₁₀(OH)₂·nH₂O.
J. Garby (1848) TRGSC 7, 76. (fullers earth)
Great Retallack Mine, Perranzabuloe B1
Dean Quarry, St Keverne

MORINITE
NaCa₂₂Al₂(PO₄)₂(F,OH)₅·2H₂O.
Gunheath China Clay Pit, St. Austell

MOTTRAMITE
Pb(Cu,Zn)VO₄OH.
G.S. Camm and M. Merry (1991) UKJMM. 9, 13. (Mottramite - Duftite intermediate)
Penberthy Croft Mine, St Hilary
N.J. Hooper X-rd. of V.A.D. Holyer specimen.- mottramite.
Dean Quarry, St. Keverne

MPOOROROITE
WA1O₃(OH)₃·2H₂O.
Hingston Down Quarry, Calstock B1

MUSCOVITE
KAl₂(Si₃Al)O₁₀(OH)₂.
Greg and Lettsom (1858) 114-7.
Common throughout the Cornish granite
Gunheath China Clay Pit, St Austell
Trelavour Down, St Dennis
NADORITE
PbSbO₂Cl.
Bodannon Mine, St Endellion BI
Trevinnick Mine, St Kew
Portquin Beach, St Endellion
Treore Mine, St Teath
Wheal Leigh, Pillaton

NANTOKITE
CuCl.
P. Seroka specimen, purchased 1963. Also reported by R. W. Barstow.
Levant Mine, St Just

NATROLITE
Na₂Al₂Si₃O₁₀·2H₂O.
J. Carne (1846) TRGSC 6, 48. (needlestone)
Chynalls Point, St Keverne
Parc Bean Cove, Mullion
Pol Cornick, The Lizard
George's Cove, The Lizard
Potstone Point, The Lizard
Dean Quarry, St. Keverne

NATROMONTEBRASITE
(Na,Li)AlPO₄(OH,F).
Tremearne Pegmatite, Breage BI

NATRON
Na₂CO₃·10H₂O.
Botallack, St Just

NEOTOCITE
(Mn,Fe,Mg)SiO₃·H₂O.
Wheal Owles, St Just BI (penwithite)
Geevor Mine, St. Just

NEPHELINE
(Na,K)AlSiO₄.
S. Allport (1871) Geol. Mag. 8, 247.
Wolf Rock BI

NICKELINE
NiAs.
W. Phillips (1819) 211. (Kupfernickel)
Wheal Chance, Tywardreath
Pengelly Mine, St Ewe
Fowey Consols, Tywardreath  
St Austell Consols  
Roskrow United Mine, Ponsanooth

**NICKEL-SKUTTERUDITE**  
(chloanthite)  
NiAs$_2$$_3$  
Wheal Ann, Phillack (RIC spec.)  
St Austell Consols  
Fowey Consols, Tywardreath  
Dolcoath Mine, Camborne

**NONTRONITE** (Chloropal)  
Na$_{0.3}$Fe$^{3+}$$_2$$_2$(Si,Al)$_4$O$_{10}$(OH)$_2$.nH$_2$O.  
Carclaze China Clay Pit, St Austell  
Carn Grey, Breage  
Tremearne Pegmatite, Breage

**NOSEAN**  
Na$_8$Al$_6$Si$_6$O$_{24}$(SO$_4$).  
S. Allport (1874) Geol. Mag. **1**, 462. also, QJGS. **30**, 529.  
Wolf Rock **BI**

**NOVÁCEKITE**  
Mg(UO$_2$)$_2$(AsO$_4$)$_2$.12(?)H$_2$O.  
Wheal Owles, St. Just **BI**  
see also Unnamed Hydrated Uranyl Arsenate.
Oligoclase \((\text{Na, Ca})\text{Si, Al})_4\text{O}_8\),
In the Cornish "greenstones" In biotite-granite

**OLIVENITE**
\(\text{Cu}_2\text{AsO}_4\cdot\text{OH}\).
M. H. Klaproth (1787) 29.
Wheal Gorland, Gwennap **TL**
Wheal Unity, Gwennap
Ting-Tang Mine, Gwennap
Carharrack Mine, Gwennap Phoenix
United Mines, Linkinhorne
Marke Valley Mine, Linkinhorne
Old Gunnislake Mine, Calstock
South Terras Mine, St Stephen-in-Brannel
Penberthy Croft Mine, St Hilary
Pentire Glaze Mine, St Minver

**OLIVINE**
\((\text{Mg, Fe})\text{SiO}_4\).
J. H. Collins (1911) JRIC 18, 2, 451.
In the Meneage serpentine The Lizard

**OPAL**
\(\text{SiO}_2\cdot n\text{H}_2\text{O}\).
W. Phillips (1819) 9. (A specimen of fire opal from High Rosewame Mine was in WP's collection raised about 1780.)
Rosewarne Mine, Gwinear
Carclaze China Clay Pit, St. Austell
Slip China-stone Quarry, St Dennis
Gunheath China Clay Pit, St Austell
Botallack Mine, St Just
Wheal Gorland, Gwennap
Wheal Damsel, Gwennap
Wheal Maudlin, Lanlivery
Wheal Buller, Redruth
Stenna Gwynn Mine, St Stephen-in-Brannel
Rocks China Clay Pit, St. Austell
Wheal Carne, St Just (TL of Isopyre)

**ORPIMENT**
\(\text{As}_2\text{S}_3\).
J. Sowerby (1819) British Mineralogy No. 547.
Perraranworthal (Gregor specimen)
Burraton Coombe Quarry, Saltash (Sir A. Russell specimen)

Orthite, synonym of allanite q. v..
ORTHoclase
KAISi₃O₈
W.Phillips (1819) 89. (adularia)
Trewavas Head, Breage
Botallack Mine, St Just
Balleswidden Mine, St Just
St. Michael's Mount
Kynance Cove, The Lizard
United Mines, Gwennap
Tresayes Quarry, Roche (the "Glass Mine")
Wheal Coates, St Agnes
Colcerrow Quarry,
Luxulyan Gunheath China Clay Pit, St Austell

OTTRELITE
(Mn,Fe²⁺,Mg)₂Al₄Si₂O₁₀(OH)₄.
Tintagel (In the Woolgarden phyllites)
Palygorskite, see pilolite, many but not all pilolites are palygorskite.

PARACOSTBITE
CoSbS.
Minerals. 2nd. issue. BM(NH) Lond. (specimen analysed was from the Kingsbury
collection BM(NH) and may be from another locality, requires confirmation)
Wheal Cock, St Just **BI**

PARALAURIONITE
PbClOH.
Wheal Rose, Sithney **BI**
Daymer Bay, Padstow

PARATACAMITE
Cu$_2$(OH)$_3$Cl.
Botallack Mine, St Just
Levant Mine, St.Just
Geevor Mine, St.Just
West Wheal Owles, St Just
Wheal Cock, St Just
Cligga Head, Perranzabuloe
Penberthy Croft Mine, St Hilary
Wheal Hazard, St.Just
Botallack Cliff, St.Just

PARGASITE
NaCa$_2$(Mg,Fe$_2^+$)$_4$A1(Si$_6$A1$_2$)O$_{22}$(OH)$_2$.
D.H.Green (1964) 150th Ann. RGSC, 100.
Kildown Point, The Lizard
Wheal Cock, St.Just
Botallack, St.Just

PARNAUITE
Cu$_9$(AsO$_4$)$_2$SO$_4$(OH)$_{10}$.7H$_2$O.
8SLBM BM(NH) identification 1981
A. Russell collection specimen BM(NH).
Wheal Gorland, Gwennap **BI**
Penberthy Croft Mine, St Hilary
Wheal Unity, Gwennap
South Tolcarne Mine, Camborne
Mulberry Stockworks, Lanivet
Marke Valley Mine, Linkinhorne

PECTOLITE
NaCa$_2$Si$_3$O$_8$OH.
Dean Quarry, St Keverne
Porthoustock Quarry, St Keverne

**PENTLANDITE**
(Fe,Ni)₉S₈.
Greg and Lettsom (1858) 296-7. (Eisennickelkies)
Wheal Jane, Kea
Wheal Falmouth, Kea

Penwithite, synonym of neotocite q.v..

Phacolite, a habit variety of chabazite Q.V..

**PHARMACOSIDERITE**
KFe⁴⁺(AsO₄)₃(OH)₄·6-7H₂O.
W.Phillips (1811) Trans.Geol.Soc.Lond. 1, 23-37 + figs. (araseiate of iron)
Cornwall TL
Carharrack Mine, Gwennap
Wheal Gorland, Gwennap
Wheal Unity, Gwennap
Terras Iron Mine, St Stephen-in-Brannel
Penberthy Croft Mine, St Hilary
Old Gunnislake Mine, Calstock
Carn Brea Mine, Illogan
Old Beam Mine, Bugle
Botallack Mine, St Just
Phoenix United Mine, Linkinhorne
Gunheath China Clay Pit, St.Austell

**PHENAKITE**
Be₂SiO₄.
J.Sowerby (1809) vol.4, 53-4. p1.331. (white tourmaline, said to be found in a mine at St.Just)
Cheesewring Quarry, Linkinhorne BI
South Phoenix Mine, Linkinhorne
South Crofty Mine, Illogan
Wheal Gorland, Gwennap
Wheal Cock, St Just
Wheal Edward, St Just
Wheal Kitty, St Agnes

**PHILIPSBURGITE**
(Cu,Zn)₆[(As,P)O₄]₂(OH)₆.H₂O.
8SLBM BM(NH) identification 1989, N.Hubbard specimen.
Wheal Carpenter, Gwinear
Penberthy Croft Mine, St Hilary

**PHLOGOPITE**
KMg₃Al₃Si₃O₁₀(F,OH)₂.
Castle-an-Dins Mine,  
St Columb Pendennis, Falmouth

**PHOSGENITE**

\[
Pb_2CO_3Cl_2.\]

Greg and Lettsom (1858) 421-3.

Wheal Confidence, Perranzabuloe (A.Russell considered this specimen to be from  
Wheal Rose, Sithney)

Wheal Rose, Sithney

Penberthy Croft Mine,  
St Hilary Bounds Cliff, Endellion

Tolcarne Beach, Newquay

Tregardock Beach, Newquay

Daymer Bay, Padstow

Newporth Beach, Falmouth

Wheal Golden, Perranzabuloe

Padstow Consols

**PHOSPHOSIDERITE**

\[
Fe^{3+} PO_4.2H_2O
\]


Gravel Hill Mine, Perranzabuloe

**PHOSPHURANYLITE**

\[
Ca(UO_2)_3(Po_4)_2(OH)_2.6H_2O.
\]

8SSLBM BM(NH) specimen, collected by R.W.Barstow. X-rd pattern near that of phosphuranylite, chemical confirmation required.

Wheal Edward, St Just BI

Picotite, magnesium chromian hercynite.

Picrolite, synonym of antigorite q.v..

**PIGEONITE**

\[
(Mg,Fe^{2+},Ca)_2Si_2O_6.
\]


In the adinoles at Dinas Head, St.Merryn

**Pigotite**

An Al bearing organic compound. J.F.W.Johnston (1840) Phil.Mag. 3rd. ser., 17, 382. Said to be have been formed by the action of wet vegetation on granite. see Hey 3.

Cornwall TL

Cripp's Cove, Treen

Piper's Hole, St.Mary's, Isles of Scilly

Pilolite (palygorskite ?) near Mg_4Al_2Si_10O_27.15H_2O

Oxford University specimen collected by A. W.G.Kingsbury.

Tolpetherwin Quarry, South Petherwin
Pisanite, variety of melanterite (q.v.), cuprian melanterite.

Pitchblende, variety of uraninite, name given to massive uraninite (q.v.).

**PITTCICITE**
Amorphous Fe$^{3+}$ hydrous arsenate sulphate
Greg and Lettsom (1858) 277-8.
Wheat Sparnon, Redruth
Penberthy Croft Mine, St Hilary
Botallack Mine, St Just
Dolcoath Mine, Camborne

**PLAGIONITE**
Pb$_5$Sb$_8$S$_{17}$
Bounds Cliff vein system, Endellion.

**PLANCHEITE**
Cu$_5$Si$_3$O$_{22}$(OH)$_4$.H$_2$O.
8 SLBM BM(NH) specimen collected by A.W.G.Kingsbury 1958.
Gunheath China Clay Pit, St Austell

**PLATINUM**
Pt.
G.McPherson and T.Lamb (1921) Geol.Mag. 58, 512-14.
Manaccan, The Lizard
Kynance Cove, The Lizard

**PLUMBOGUMMITE**
PbAl$_3$(PO$_4$)$_2$(OH)$_5$.H$_2$O.
Wheat Gorland, Gwennap
Penberthy Croft Mine, St Hilary
Buttern Hill Placers, Altarnun
Wheat Alfred, Gwinear

**PLUMBOJAROSITE**
PbFe$^{3+}$_6(SO$_4$)$_4$(OH)$_{12}$
Penberthy Croft Mine, St Hilary
Wheat Carpenter, Gwinear

**POLYBASITE**
(Ag,Cu)$_{16}$Sb$_2$S$_{11}$.
Pentire vein system, St Minver
Polytelite, synonym of freibergite q.v..

**POSNJAKITE**
Cu₄SO₄(OH)₆.H₂O.
Drakewalls Mine, Calstock **BI**
Fowey Consols Mine, Tywardreath
Greystone Quarry, Lezant

**Potassium magnesio-arfvedsonite**
Described in 8SLBM as a new amphibole, no record found of acceptance as a species, no reference in Hey 3.
Pendennis Point, Falmouth

**PREHNITE**
Ca₂Al₂Sr₃O₁₀(OH)₂.
J.Carne (1822) TRGSC. 2, 310.
Porthoustock Quarry, St Keverne
Dean Quarry, St Keverne
Ghostcroft Mine, Mullion
Roscommon Cliff, St Just
Predannack Head, The Lizard area
Ogo Dour, The Lizard area
Prochlorite, synonym of ripidolite, variety of clinochlore (q.v.)

Protolithionite, lithium iron variety of zinnwaldite q.v..

**PROUSTITE**
Ag₃AsS₃.
Wheal Ludcott, St Ive **BI**

Przibramite, variety of sphalerite (q.v.), with up to 2% Cd.

**PSEUDOBOLÉITE**
Pb₅Cu₄Cl₁₀(OH)₈.2H₂O
Tolcarne Beach, Newquay **BI**

**PSEUDOMALACHITE**
Cu₅(PO₄)₂(OH)₄.H₂O.
M.F.Heddle (1855) Phil.Mag. 10, 39. (lunnite)
Cornwall **BI**
Old Gunnislake Mine, Calstock
East Gunnislake Mine, Calstock
Wheal Carpenter, Gwinear
South Tolcarne Mine, Camborne
Phoenix United Mine, Linkinhorne
Penberthy Croft Mine, St Hilary
Wheal Providence, Gwinear
Gunheath China Clay Pit, St.Austell

Psilomelane a group name for hard massive black manganese oxides. J.H.Collins (1871) pt.2, 82.
Wheal Bucketts, Redruth
Pednandrrea Mine, Redruth
Wheal Tolgus, Redruth

PUMPELLYITE - (Mg)
Ca$_2$MgAl$_2$SiO$_4$Si$_2$O$_7$(OH)$_2$.H$_2$O.
Great Penhaver Point, Roseland
Penlee Quarry, Newlyn

PYRARGYRITE
Ag$_3$SbS$_3$.
W.Phillips (1819) 217-18. (Red silver)
Wheal Ludcott, St Ive
Wheal Herland, Gwinear
North Dolcoath Mine, Camborne
Dolcoath Mine, Camborne
Wheal Mexico, Perranzabuloe
Holmbush Mine, Stokeclimsland
Wheal Duchy, Calstock
Wheal Alfred, Phillack
Silver Vein Mine, St Winnow
Harrowbarrow Mine, St Mellion
Herodsfoot Mine, Lanreath

PYRITE
FeS$_2$.
W.Phillips (1819) 164-6.
Botallack Mine, St Just
Levant Mine, St Just
Great Wheal Fortune, Breage
Great Wheal Vor, Breage
Wheal Prospidnick, Sithney
Dolcoath Mine, Camborne
Tincroft Mine, Illogan
Wheal Jane, Kea
Wheal Unity, Gwennap
Wheal Kitty, St Agnes
PYROLUSITE
MnO₂.
J.Garby (1848) TRGSC 7, 84.
Restormel Royal Iron Mine, Lanlivery
Trebelland Manganese Mine, Altarnun
Pencrebar Mine, Callington
Lidcott Mine, Laneast
Wheal Truscott, Launceston
Greystone Quarry, Lezant
Tremore Quarry, Lanivet

PYROMORPHITE
Pb₃(PO₄)₃Cl.
W.Philips (1819) 256-7. (phosphate of lead)
Wheal Alfred, Phillack
Wheal Hope, Perranzabuloe
Penberth Croft Mine, St Hilary
Wheal Rose, Sithney
Wheal Penrose, Sithney
Wheal Helston
Garras Mine, St Erme
Trevinnick Mine, St Kew
Pentire Glaze Mine, St Minver
Watergate Bay, Newquay
Whipsiderry Beach adits, Newquay
Gunheath China Clay Pit, St.Austell

PYROPHYLITE
Al₃Si₄O₁₀(OH)₂.
Bude - Newquay coast.
The Lizard (BM(NH) specimen)

PYROSALMITE
(Fe²⁺,Mn)₈S₁₆O₁₅(OH,Cl)₉₋₁₀.
Trebelland Manganese Mine, Altamun

PYROSTILPNITE
Ag₃SbS₃.
8SLBM BM(NH) identification and specimen, collected by A.W.G.Kingsbury 1959.
St Teath BI

PYRRHOTITE
FeS.
East Pool Mine, Illogan
Botallack Mine, St Just
Wheal Jane, Kea
Wheal Kine, St Agnes
St Austell Consols
Wheal Maudlin, Lanlivery
Great Onslow Consols, St Breward
QUARTZ
SiO₂.
Jars (1781) 3, 86.
(Wheal Sparnon, Redruth, cuttable quality)

QUARTZ Rock Crystal
SiO₂.
Botallack Mine, St Just
Wheal Diamond, St Just
St Michael's Mount
Wheal Alfred, Phillack
Dolcoath Mine, Camborne
North Roskear Mine, Camborne
Wheal Sparnon, Redruth
Wheal Mary Ann, Menheniot
Lanterdan Quarry, Tintagel
Delabole Slate Quarry

QUARTZ Citrine
SiO₂:
Botallack Mine, St Just
St. Michael's Mount
Carn Gloose, St Just
Wheal Jane, Kea
Wheal Buller, Redruth
Restormel Royal Iron Mines, Lanlivery

QUARTZ Smoky Quartz
SiO₂.
Trewellard, St. Just
North Roskear Mine, Camborne
Wheal Buller, Redruth
Rostowrack China Clay Pit, St Austell
South Terras Mine, St Stephen-in-Brannel
Colcerrow Quarry, Luxulyan

QUARTZ
Rose Quartz
SiO₂.
St. Michael's Mount
Wheal Bucketts, Redruth

QUARTZ Green quartz
SiO₂.
Rostowrack China Clay Pit, St Austell
Restormel Royal Iron Mine, Lanlivery

QUARTZ Blue Quartz
SiO₂.
North Roskear Mine, Camborne
QUARTZ
Rutilated Quartz Lanterdan Quarry,
Tintagel Delabole Slate Quarry

QUARTZ
pseudomorphs after Beta Quartz
SiO$_2$.
Wheal Coates, St Agnes
Belowda Beacon,
Roche Belowda China Clay Pit, Roche

QUARTZ
Hacked Quartz
Rostowrack China Clay Pit, St Austell
Wheal Trelawny, Menheniot
Wheal Ludcott, St Ive
East Pool Mine, Illogan

QUARTZ Amethyst
SiO$_2$.
Wheal Bellon, St Just
Wheal Uny, Redruth
Wheal Jane, Kea
Rostowrack China Clay Pit, St Austell
Goonbarrow China Clay Pit, St Austell
Wheal Buller, Redruth

QUARTZ Milky Quartz
SiO$_2$.
"passim"

QUARTZ "Tiger Eye"
SiO$_2$.
P.J.Golley specimen, collected by V.A.D.Holyer
Kynance Cove, The Lizard

QUARTZ Orange Quartz
SiO$_2$.
Wheal Buller, Redruth

QUARTZ "Floatstone"
SiO$_2$.
Wheal Alfred, Phillack
Pednandrea Mine, Redruth
Relistian Mine, Gwinear

QUARTZ Babel Quartz
SiO$_2$. 
Great Work Mine, Breage

QUARTZ
Cryptocrystalline (chalcedony, jasper, flint)
Trevascus Mine, Gwinear
Pednandrea Mine, Redruth
Botallack Mine, St Just
Wheal Maudlin, Lanlivery
Penlee Quarry, Newlyn
Marazion Beach Portreath Beach
Loe Bar, Helston
Rinsey Head, Breage
North Roskear Mine, Camborne (including "Haytorite")
RAMMELSBERGITE
NiAs₂.
South Terras Mine, St Stephen-in-Brannel
Roskrow United Mine, Ponsanooth

Rashleighite, an intermediate between turquoise and chalcosiderite.
Castle-an-Dinas Mine, St Columb Major TL
Bunny Mine, St. Austell TL
Gunheath China Clay Pit, St Austell

REALGAR
AsS.
Burraton Coombe Quarry, Saltash BI

Redondite, messbach-type variscite, q.v.

REICHERNBAHITE
Cu₅(PO₄)₂(OH)₄.
8SLBM R.S.W. Braithwaite and G. Ryback, Mineral. Mag. in press. Old
Gunnislake Mine, Calstock BI

Restormelite
Hey 3, 591. A doubtful or unidentified mineral.
Restormel Royal Iron Mine, Lanlivery TT

Rhabdophane
(Ce, La)PO₄·H₂O.
also (1878) Phil. Mag. 13, 527.
Cornwall TL

Rhabdophane-(Nd)
(La, Ce)PO₄·H₂O.
Fowey Consols Mine, Tywardreath

Rhodochrosite
MnCO₃.
J.H. Collins (1871) pt. 2, 41. (diallogite)
Botallack Mine, St Just
Wheal Owles, St Just
Levant Mine, St. Just
Trebelland Manganese Mine, Altarnun
Lidcott Mine, Laneast
Simm's Lode, Geevor Mine, St Just
Trebarwith Strand, Tintagel
**RHODONITE**  
\[ \text{Mn}^2+\text{SiO}_3 \]
Treburland Manganese Mine, Altarnun 
Pencrebar Mine, Callington 
Lidcott Mine, Laneast 
Atway Mine, Launceston 
Greystone Wood Mine, Lezant 
Tor Wood Mine, Pillaton 
Greystone Quarry, Lezant

**RIEBECKITE**  
\[ \text{Na}_2(\text{Fe}^{2+},\text{Mg})\text{Fe}_3^{3+}\text{Si}_2\text{O}_22(\text{OH})_2 \]
Pendennis Dyke, Falmouth

Ripidolite, variety of clinochlore (q.v.), ferroan clinohlore.

**ROCKBRIDGETTE**  
\[ (\text{Fe}^{2+}\text{Mn}^2)^+\text{Fe}^{3+}\text{PO}_4\text{3(OH)}_5 \]
Phoenix United Mines, Linkinhome B1 
Gravel Hill Mine, Perranzabuloe

**Rockbridgeite / Frondelite**  
Gunheath China Clay Pit, St.Austell

**ROMÉITE**  
\[ (\text{Ca,Fe,Mn,Na})_2(\text{Sb},\text{Ti})_2\text{O}_6(\text{O},\text{OH},\text{F}) \]
B.Gamble specimen, X-rd. BM(NH) 1994 - a member of the stibiconiteromdite group. 
Hingston Down Quarry, Calstock

**ROQUESITE**  
\[ \text{CuInS}_2 \]
Geevor Mine, St.Just B1

**ROSASITE**  
\[ (\text{Cu,Zn})_2\text{CO}_3(\text{OH})_2 \]
Penberthy Croft Mine, St Hilary

**ROSCHERITE**  
\[ \text{Ca}(\text{Mn,Fe}^{2+})_2\text{Be}_3(\text{PO}_4)_3(\text{OH})_3.2\text{H}_2\text{O} \]
A.M.Clark, E.E.Fejer, A.G.Couper, O.von Knorring, R.W.Turner and
Rubellite, variety of tourmaline of a pink colour, substantially free from Fe or Mg (Hey 3), variety of elbaite (EM). J.Purser (1974) RIC Library, Truro.
Wheal Harmony, Redruth

RUSSELLITE
Bi$_2$WO$_6$.
Castle-an-Dinas Mine, St Columb TL
Hingston Down Quarry, Calstock

RUTHERFORDINE
(UO$_2$)CO$_3$.
C.C.James (1947) TRGSC. 17, 256-68.
South Terras Mine, St Stephen-in-Brannel

RUTILE
TiO$_2$.
J.H.Collins (1871) pt.2, 89. Lanterdan Quarry, Tintagel (var. Sagenite q.v.)
Lanterden Quarry, Tintagel
Delabole Slate Quarry
Dinas Head, Padstow
Greystone Quarry, Lezant
SADANAGAITE
(K,Na)Ca₂(Fe²⁺,Mg,A1,Fe³⁺,Ti)₅(Si,Al)₈O₂₂(OH)₂
Botallack Mine, St-Just B1

SAFFLORITE
(Co,Fe)As₂.
1820 Specimen X-rd by Dr. S. Weiss, Munich University
Wheal Spamon, Redruth

Sagenite, variety of rutile (q.v.), name given to complex reticulated twinned intergrowths of acicular rutile crystals.

SALÉEITE
Mg(UO₂)₂(PO₄)₂,10H₂O.
Confirmed by X-rd on P.J. Golley specimen from South Terras Mine by D. Atkin, Institute of Geological Sciences 17/3/70. Listed in 8SLBM on other specimens as incompletely characterised.
South Terras Mine, St Stephen-in-Brannel B1
Wheal Edward, St Just
Wheal Bassett, Illogan
Roughtor Consols, St Clether

SANIDINE
KA₁Si₃O₈.
Wolf Rock

Sahlite, synonym of salite, Fe bearing variety of diopside q.v..

SAPONITE
Ca₀.₂₅(Mg,Fe)₃(Si,Al)₄O₁₀(OH)₂,nH₂O.
The Lizard B1
Kynance Cove

Scapolite - Wernerite ?
J. Robson (1964) RGSC 150th Annv. 124.
Tater-Du greenstones with zoisite and axinite.

SCHEELEITE
CaWO₄.
W. Phillips (1819) 191-2.
Pengelley Croft Mine, Breage B1
Wheal Cock, St Just
Levant Mine, St Just
Carrick Dhu Mine, St Ives
Wheal Maudlin, Lanlivery
Penhale Mine, St Cleer
Old Gunnislake Mine, Calstock
Hingston Down Quarry, Calstock
Hawkswood Mine, North Hill
Treurland Mine, Altamun

**SCHMIEDERTTE**
Pb$_3$Cu$_2$(Se$_4^+$O$_3$)Se$_6^+$O$_4$)(OH)$_4$.
Newsletter (SW) No. 6, 17.
Greystone Quarry, Lezant

**SCHORL**
NaFe$_{2+3}$Al$_6$(BO$_3$)$_3$Si$_6$O$_{18}$(OH)$_4$.
W. Phillips (1819) 96.
Logan Rock, Land's End
Roche Rock, St. Dennis
and throughout the Cornish granites.

**SCHRÖCKINGERITE**
NaCa$_3$(UO$_2$)(CO$_3$)$_3$(SO$_4$)$_2$.F.10H$_2$O.
No. 17 level, Peeth Lode, Geevor Mine, St. Just B1
Schröterite, variety of allophane much richer in Al than normal allophane

**SCHULENBERGITE**
(Cu,Zn)$_7$(SO$_4$CO$_3$)$_2$(OH)$_{10}$.3H$_2$O
8SLBM BM(NH) identification, J. Betterton specimen.
Prince of Wales Mine, Calstock

**SCOLECITE**
CaAl$_2$Si$_3$O$_{10}$.3H$_2$O.
Dean Quarry, St Keverne

**SCORODITE**
Fe$_{3+}$ AsO$_4$.2H$_2$O.
W. Phillips (1819) 239-10. (martial arseniate of copper)
Carharrack Mine, Gwennap
Wheal Muttrell, Gwennap
Wheal Unity, Gwennap
Wheal Gorland, Gwennap
Tincroft Mine, Illogan
Crinnis Mine, St Austell
South Terras Mine, St Stephen-in-Brannel
Hingston Down Consols and Quarry, Calstock
Penberthy Croft Mine, St Hilary
Old Gunnislake Mine, Calstock
Gunheath China Clay Pit, St. Austell
**SEGNITITE**
PbFe₃H(AsO₄)₂(OH)₆.
X-rd identification, M. Merry specimen, by S. Weiss, Munich University 1993.
Penberthy Croft Mine, St Hilary BI

**SEMSEYITE**
Pb₃Sb₈S₂₁.
Sir A. Russell mss 1949 BM(NH), also B.V. Cooper specimen in P.J. Golley collection.
Wheal Boys, Endellion

**SENARMONTITE**
Sb₂O₃.
T. Davies (1867) Geol. Mag. 4, 192. (visual identification)
Endellion, BI
Treore Mine, St Teath
Port Quin Mine, St. Endellion
Bodannon Mine, Endellion
Bounds Cliff, Endellion
East Wheal Leigh, Pillaton

**SEPIOLITE**
Mg₄Si₆O₁₅(OH)₂.₆H₂O.
Kennack Sands, The Lizard

**SERPIERTTE**
Ca(Cu, Zn)₄(SO₄)₂(OH)₆₃H₂O.
C. Sparrow pers. comm.
Penberthy Croft Mine, St. Hilary

**SHATTUCKITE**
Cu₅(SiO₃)₄(OH)₂
Reported with ceruléite.
Wheal Maid Decline, Gwennap

**SIDERITE**
FeCO₃.
W. Phillips (1819) 178-9. (Spathose iron) + figs
Wheal Maudlin, Lanlivery
Great Onslow Consols, St Breward
Crinnis Mine, St Austell
Fowey Consols, Tywardreath
Dolcoath Mine, Camborne
Tincroft Mine, Illogan
South Crofty Mine, Illogan
Strangles Beach, St Gennys
Old Treburgett Mine, St Teath
Trewethen Mine, St Kew
Wheal Drea, St. Just
Greystone Quarry Lezant

**SIDERONATRITE**
Na₂Fe³⁺(SO₄)₂·OH·3H₂O
8SLBM BM(NH) identification 1985. R.E. Starkey specimen.
Trerubies Cliff, near Delabole

**SILLIMANITE**
Al₂SiO₅.
C.E. Tilley (1937) Geo. Mag. 74, 14 (in schist), 143 (in granite).
Polkemogo, The Lizard
Cheesewring Quarry, Linkinhorne
Pistil Ogo Cove, The Lizard

**SILVER**
Ag.
M. Hitchens (1801) Phil. Trans. Roy. Soc. Lond. 91, 159-64., also Phil. Mag. 10, 77-80.
Levant Mine, St. Just
Botallack Mine, St Just
Wheal Herland, Gwinear
Wheal Alfred, Phillack
Wheal Ann, Phillack
Dolcoath Mine, Camborne
Wheal Mexico, Perranzabuloe
Crinnis Mine, St Austell
Wheal Ludcott, St Ive
Wheal Spamon, Redruth
Penberthy Croft Mine, St. Hilary
Wheal Duchy, Calstock
Wheal Maid Decline, Gwennap

**SKUTTERUDITE**
(Fe,Co,Ni)As₂₋₃
Wheal Herland, Gwinear
Roskrow United Mine, Ponsanooth
Wheal Spamon, Redruth
East Pool Mine, Illogan
Dolcoath Mine, Camborne
St Austell Consols
Polgoth Mine, St Austell
Wheal Trugo, St Columb
South Terras Mine, St Stephen-in-Brannel
Wheal Ann, Phillack (RIC spec.) (Chloanthite)
St Austell Consols (Chloanthite)
Fowey Consols, Tywardreath (Chloanthite)
Dolcoath Mine, Camborne (Chloanthite)
Smaltite, arsenic deficient variety of skutterudite q.v..

**SMITHSONITE**
ZnCO₃.
J.H.Collins (1871) Pt.2 21. (calamine)
Fowey Consols, Tywardreath
Wheal Mary, Lelant
Perran Great St George Mine, Perranzabuloe
Greystone Quarry, Lezant

**SODIUM-ZIPPEITE**
Na₄(UO₂)₆(SO₄)₃(OH)₁₀.4H₂O
8SLBM N.J.Elton and J.J.Hooper (1993) Mineral.Mag. 57, 352-54. All specimens of 'zippeite' examined by the above authors so far have proved to be sodium zippeite.
Geevor Mine, St.Just BI

**SPANGOLITE**
Cu₆Al₂SO₄(OH)₁₂.C1.3H₂O.
Wheal Gorland, Gwennap BI
West Caradon Mine, St.Cleer

Spathose iron, synonym of siderite q.v..

**SPESSARTINE**
Mn₃Al₂(SiO₄)₃.
Treverbland Manganese Mine, Altarnun

**SPHALERITE**
(Zn,Fe)S.
M.H.Klaproth (1778) 31.
Wheal Jane, Kea
Wheal Boys, Endellion
Greystone Quarry, Lezant
Trevuanance Mine, St Agnes
Fowey Consols Mine, Tywardreath (cadmiferous - Przibramite)
Wheal Brothers, Calstock
Wheal Rose, Sithney
Wheal Penrose, Sithney
Botallack Mine, St Just
Wheal Alfred, Phillack
Great Wheal Chiverton, Perranzabuloe (Marmatite)
Wheat Jane, Kea (Marmatite)

Sphene, synonym of titanite q.v..
**SPINEL**
MgAl₂O₄.
Kenidjack, St Just

**STANNITE**
Cu₂FeSnS₄.
Wheat Rock, St Agnes TL
Botallack Mine, St Just
Carn Brea Mine, Illogan
East Pool Mine, Illogan
Wheat Jane, Kea
Stenna Gwynn Mine, St Stephen-in-Brannel
Bunny Mine, St Austell
Mulberry Mine, Lanivet
Holmbush Mine, Stokeclimsland
Wheat Primrose, St Agnes
Killifreth Mine, Kenwyn
Hingston Down Quarry, Calstock

**STANNOIDITE**
Cu₃(Fe, Zn)₅Sn₂S₁₂.
Gunheath China Clay Pit, St Austell BI
St. Michael's Mount
Cligga Head Mine, Perranzabuloe

**STAUROLITE**
(Fe²⁺Mg, Zn)₂Al₆(Si, Al)₄O₂₂(OH)₂.
Pistil Ogo Cove, The Lizard

**STEPHANITE**
Ag₅SbS₄.
Wheat Ludcott, St Ive BI
Wheat Boys, St Endellion
Wheat Newton, Calstock

**STEVENSITE**
(Ca, Na)ₓMg₃Si₄O₁₀(OH)₂.
Dean Quarry, St. Keverne Trevassack. The Lizard

**STIBICONITE**
Sb³⁺+Sb⁵⁺₀₆(OH)₆.
A. Russell (1949) mss. BM(NH)
Wheat Boys, Endellion
Wheal Prosper, St Ewe
Trenute Mine, Lezant
Trebullet Mine, Lezant
Wheal Leigh, Pillaton
Hatt Trial, Botus Fleming
Cutlinwith Farm, Landrake see also romtéite.

**STIBNITE**
Sb$_2$S$_3$.
Wheal Boys, Endellion
Poltreworgey Mine, Endellion
Dizzard Mine, Poundstock
Wheal Prosper, St Ewe
Wheal Leigh, Pillaton
Hatt Trial, Botus Fleming
Tredinnick Mine, St Erney
Cutlinwith Farm, Landrake
Trenute Mine, Lezant
Trebullet Mine, Lezant

**STILBITE**
NaCa$_2$Al$_3$Si$_3$O$_{36}$.14H$_2$O.
J.Carne (1822) TRGSC 2, 310.
The cliffs between Wheal Cock and the Crowns Rock, St Just
Dean Quarry, St Keverne
Colcerrow Quarry, Luxulyan
Parc Bean Cove, Mullion

**STILPNOMELANE**
K(Fe$^{2+}$,Mg,Fe$^{3+}$)$_8$(Si,Al)$_{12}$(O,OH)$_{27}$.
D.H.Green (1964 ) RGSC 150th Annv. 99.
Mullion Island Cove, Mullion

**STOKESITE**
CaSnSi$_3$O$_{6}$.2H$_2$O.
A. Hutchinson (1899) Phil.Mag., sec.5, 48,480.
Roscommon Cliff, St Just **TL**
Halvosso Quarry, Longdowns

**STOLZITE**
PbWO$_4$.
University Museum.
Hingston Downs Quarry, Calstock

**STRASHIIMIRITE**
Cu$_6$(AsO$_4$)$_4$(OH)$_{4}$.5H$_2$.
8SLBM BM(NH) identification 1985, D.Lloyd specimen.
Wheal Gorland, Gwennap **BI**
Wheal Unity, Gwennap

**STRENGITE**
Fe$^{3+}$PO$_4$.2H$_2$O.
8SLBM BM(NH) specimens collected by A.G.W.Kingsbury and exhibited at the Min.Soc. meeting in 1962, Mineral.Mag., 33, lxiv.
Phoenix United Mines, Linkinhorne **BI**
Gravel Hill Mine, Perranzabuloe

**STRUNZITE**
Mn$^{2+}$Fe$^{3+}$2(PO$_4$)$_2$(OH)$_2$.8H$_2$O.
8SLBM BM(NH) identification 198697, M.Merry and C.Sparrow specimens.
Gravel Hill Mine, Perranzabuloe **BI**

**STRÜVERITE**
(Ti,Ta,Fe$^{3+}$) O$_2$
pers. comm. C. Sparrow reported BM(NH) identification
Tremearne Pegmatite, Breage

**SULPHUR**
S.
W.Borlase (1758) Native in a mass of antimony from a mine in St. Kew Parish'
Carnon Valley
Lambriggan Mine, Perranzabuloe
Port Isaac Cliffs
Gravel Hill Mine, Perranzabuloe
Pentire Glaze Mine, St.Minver

**SVANBERGITE**
SrAl$_2$PO$_4$SO$_4$(OH)$_6$.
Wheal Coates, St Agnes **BI**
**TALC**
Mg$_3$Si$_4$O$_{10}$(OH)$_2$.
W.Phillips (1819) 92P
Pentreath Beach, The Lizard
Kynance Cove, The Lizard
Devil's Frying-pan, The Lizard
Kennack, The Lizard

Tallingite, discredited species, see A.W.G.Kingsbury (1950) Mineral Mag. 29, 280-6. Established that tallingite and connellite were the same species.

Tavistockite, discredited species, see P.G.Embrey and E.E.Fejer (1969) Mineral Mag., 37, 123-7. Proved to be a mixture of kaolin and carbonate fluorapatite (q.v.). Stenna Gwyn 'tavistockite' is wavellite.

**TANTALITE**
Fe$^{2+}$Ta$_2$O$_6$
Also on M.Grigg specimen, N.J.Elton EDX and XRD.
Gunheath China Clay Pit, St.Austell

**TENNANTITE**
(Cu,Fe)$_{12}$As$_4$S$_{13}$.
Cornwall TL
Dolcoath Mine, Camborne
North Roskear Mine, Camborne
Cook's Kitchen Mine, Illogan
Tincroft Mine, Illogan
Wheal Jewell, Gwennap
Tresavean Mine, Gwennap
Trevaseus Mine, Gwinear
Relistian Mine, Gwinear
Carn Brea Mine, Illogan
Wheal Jane, Kea
Levant Mine, St.Just
Geevor Mine, St.Just
Hingston Down Quarry, Calstock

**TENORITE**
CuO.
W.Philips (1819) 230. (black copper)
Wheal Trefusis, Redruth
Botallack Mine, St Just
Great Wheal Fortune, Breage
Relistian Mine, Gwinear
Wheal Gorland, Gwennap
Ting-Tang Mine, Gwennap
Dolcoath Mine, Camborne
East Crinnis Mine, St Austell
Fowey Consols Mine, Tywardreath
Phoenix United Mines, Linkinhorne
Old Gunnislake Mine, Calstock

**TEPHROITE**
\[ \text{Mn}^{2+}\text{SiO}_4 \]

Treburland Manganese Mine, Altamun

**TETRAHEDRITE**
\[ (\text{Cu,Fe})_{12}\text{Sb}_4\text{S}_{13} \]

Herodsfoot Mine, Lanreath
Poldice Mine, Gwennap
Crinnis Mine, St Austell
Trevaseus Mine, Gwinear
Botallack Mine, St Just
Levant Mine, St Just
Tresavean Mine, Gwennap
Padstow Consols
Wheat Anna Maria, Constantine
Trelill Quarry, St Kew
Pengenna Mine, St Kew

Tetrahedrite, argentian , see freibergite

Thuringite, a variety of chamosite (q.v.), ferrian chamosite.

**TIN**
\[ \text{Sn} \]
The only known specimen of tin from Cornwall is No. 100 in the copper ores section of the Rashleigh collection, RIC, Truro. It contains both tin metal and native copper, however it is doubted whether the tin is of natural occurrence.

Killifreth Mine, Kenwyn

Titanaugite variety of augite (q.v.), titanian augite, occasionally Al may be absent.

**TITANITE**
\[ \text{CaTiSiO}_5 \]

Grylls Bunny, Botallack, St. Just
Land's End Greenstone
Trelissick Dyke, Falmouth
Pendennis Dyke, Falmouth
Botallack (stannian)

Titanomagnetite variety of magnetite (q.v.), titaniferous magnetite.
TOPAZ
$\text{Al}_2\text{SiO}_4(\text{F,OH})_2$.
P.Rashleigh (1797) Spec. of Brit. Mins. select. from the Cabinet of P.R. pt. 1, pl. 5, fig.2.
St Michael's Mount
Cligga Head, Perranzabuloe
Tremearne Pegmatite, Breage
Great Wheal Fortune, Breage
Wheal Kitty, St Agnes
Polberro Mine, St Agnes
Castle-an-Dinas Mine, St Columb
Beam Mine, St Austell
Goonbarrow China Clay Pit, St Austell
Gunheath China Clay Pit, St Austell
St Mewan Mine, St Mewan
Belowda China Clay Pit, St.Austell

TORBERNITE
Most Cornish specimens are metatorbetnite q.v.
$\text{Cu(UO}_2\text{)}_2(\text{PO}_4)_2.8\text{-}12\text{H}_2\text{O}$.
Stenna Gwynn, St.Stephen
Wheal Edward, St Just
Gunheath China Clay Pit, St.Austell
Wheal Trenwith, St Ives
Wheal Basset, Illogan
Wheal Buller, Redruth
Wheal Gorland, Gwennap
Wheal Unity, Gwennap
Fowey Consols, Tywardreath
Blackpool China Clay Pit, St Austell
South Terras Mine, St Stephen-in-Brannel
West Wheal Owles, St.Just

Tourmaline
Previously a species, now a group name, the following locations are recorded for tourmaline, and probably refer to the mineral schorl. See also the tourmaline group minerals and varieties Achorite, Dravite, Indicolite, Rubellite, Schorl and Verdelite.
$(\text{Na},\text{Ca})\text{Li,Mg,Fe}^{2+},\text{Al})_3(\text{Al,Fe}^{3+})_6\text{B}_3\text{Si}_6\text{O}_{27}(\text{O,OH,F})_4$
W.Philips (1819) 35-7.
Roscommon Cliff, St Just
Botallack Mine, St Just
Ding-Dong Mine, Madron
St Michael's Mount
Great Work Mine, Breage
Tremearne Pegmatite, Breage
Luxulyan (in Luxullianite)
Gunheath Chin Clay Pit, St Austell
Carclaze China Clay Pit, St Austell
Dorothy China Clay Pit, St Austell
TREMOLITE
$\text{Ca}_2(\text{Mg,Fe}^{2+})_5\text{Si}_8\text{O}_{22}(\text{OH})_2$.
W. Phillips (1819) 49-50.
Goonhilly, The Lizard Mullion, The Lizard
Predannack Head, The Lizard
Kynance Cove, The Lizard
Duporth Beach, St Austell

TRIDYMITE
$\text{SiO}_2$.
H. Fox (1895) TRGSC 11, 687-724.
In rhyolitic pumice in the metamorphic aureole of granite (Falmouth)
Dinas Head, Padstow

TRIPHYLITE
$\text{LiFe}^{2+}\text{PO}_4$.
Tremeame Pegmatite, Breage BI

TRIPLITE
$(\text{Mn}^{2+},\text{Fe}^{2+},\text{Mg},\text{Ca})_2(\text{PO}_4)(\text{F,OH})$.
Tremeame Pegmatite, Breage BI

TRIPLOIDITE
$(\text{Mn}^{2+},\text{Fe}^{2+})_2\text{PO}_4(\text{F,OH})$.
Wheal Owles, St Just BI

TRISTRAMITE
$(\text{Ca},\text{U}^{4+},\text{Fe}^{3+})(\text{PO}_4,\text{SO}_4).2\text{H}_2\text{O}$.
Wheal Trewavas, Breage TL
Treceen
Wheal Buller, Redruth
Wheal Damsel, Gwennap
Wheal Providence, Lelant
Wheal Alice, Lelant

TRÖGERITE
$(\text{UO}_2)_3(\text{AsO}_4)_2.12\text{H}_2\text{O}$.
South Terras Mine, St Stephen-in-Brannel BI

Tungstic Ochre
East Pool Mine, Illogan
South Crofty Mine, Illogan
Poldice Mine, Gwennap
Tolvadden Mine, Illoghan

TURQUOISE
CuAl₆(PO₄)₄(OH)₈.5H₂O.
A.Russell (1952) Mineral Mag. 29, 909-12.
Gunheath China Clay Pit, St Austell
Castle-an-Dinas Mine, St Columb Major
Bunny Mine, St.Austell
Phoenix United Mines, (Stowe's Section), Linkinhorne - "henwoodite"

TYROLITE
CaCu₃(AsO₄)₂CO₃(OH)₄.6H₂O.
BM(NH) X-rd 1984, confirmed 24/10/84 by J.Fuller.
Old Gunnislake Mine, Calstock
Penberthy Croft Mine, St Hilary
Carn Brea Mine, Illoghan

TYUYAMUNITE
Ca(UO₂)₂V₂O₈.5-8H₂)
X-rd BM(NH)9053F and energydispersive X-ray, occurs with zeunerite and uranophane.
Cargodna Section, West Wheal Owles, St.Just BI
Unnamed - hydrated uranyl arsenate
Wheal Bray, Altarnun.

Unnamed copper analogue of canfieldite.
Cu₅SnS₆.
Gunheath China Clay Pit, St.Austell

Unnamed copper aluminium phosphate
South Caradon Mine Adit, St.Cleer

Unnamed Iron sulphide (fibrous)
Pol Cornick, Mullion, The Lizard (occurs with valleriite)

URANINITE
UO₂.
W.Phillips (1819) 201.
Wheal Edward, St Just
Botallack Mine, St Just
Geevor Mine, St,Just
Wheal Trenwith, St Ives
Dolcoath Mine, Camborne
East Pool Mine, Illogan
Roskrow United Mine, Ponsanooth
Wheal Bray, Altamun
South Terras Mine, St Stephen-in-Brannel
Old Gunnislake Mine, Calstock

URANOPHANE
Ca(UO₂)₂[SiO₃(OH)]₂.5H₂O
N.Elton confirmed occurrence at West Wheal Owles in pers. comm. to the authors.
P.Oldfield specimen,
Wheal Edward, BM(NH) X-rd near uranophane (+).
West Wheal Owles, St Just
Wheal Edward, St Just

URANOPILITE
(UO₂)₆SO₄(OH)₁₀.12H₂O.
C.Frondel (1952) Am.Min. 37, Cornwall BI
Wheal Owles, St,Just
Wheal Edward, St Just
Geevor Mine, St. Just (No. 17 Level, Peeth Lode)
**URANOSPATHITE**

$\text{HAl(UO}_2)_2(\text{PO}_4)_4.4\text{H}_2\text{O}$.  
Wheal Basset, Illogan TL

**URANOSPINTTE**  
Visually identified specimens from Wheal Edward, St. Just and Wheal Basset, Illogan analysed by X-rd. by N.J. Elton have proved to be metatorbernite
VALENTINITE
Sb$_2$O$_3$.
Trevinnick Mine, St.Kew
Wheal Leigh, Pillaton
Port Quin Beach, Endellion
Bodannon Mine, Endellion
Treore Mine, St Teath

VALLENIETTE
4(Fe,Cu)S.3(Mg,Al)(OH)$_2$.
Pol Cornick, Mullion, The Lizard
The Rill, Kynance Cliff, The Lizard

VANADINITE
Pb$_5$(VO$_4$)$_3$Cl.
Penberthy Croft Mine, St Hilary

VANDENBRANDEITE
CuUO$_2$(OH)$_4$.
Wheal Edward, St Just

VARISCITE
AlPO$_4$.2H$_2$O.
Gunheath China Clay Pit, St Austell
Hensbarrow China Clay Pit, St Austell
Treore Mine, St Teath (Redondite, q.v.)

VARLAMOFFITE
(HEY 3, considers this a variety of cassiterite, although other authorities do not agree.)
(Sn,Fe)(O,OH)$_2$.
A.Russell and E.A.Vincent (1952) Mineral.Mag. 29, 817-26.(the mineral, now known as varlamoffite, was first noticed by Russell at Cligga Head Mine, Perranzabuloe in 1906, and mentioned in a paper read to Mineral.Soc. 1937)
Cligga Mine, Perranzabuloe BI
Penberthy Croft Mine, St Hilary
Wheat Rock, St Agnes
Bunny Mine, St Austell
Mulberry Mine, Lanivet
Kit Hill Mine, Stokeclimsland
Hingston Down Quarry, Calstock
Gunheath China Clay Pit, St.Austell
Verdelite, variety of tourmaline of a green colour.
J.H.Collins (1911) JRIC, 18, 159-60.
Wheal Unity, Gwennap
Dorothy China Clay Pit, St.Austell

VESUVIANITE
Ca_{10}(Mg,Fe)_2Al_4SiO_{34}(OH)_{4}.
J.Robson (1948) TRGSC. 17, 466.48
Treburland Mn. Mine, Altarnun
Botallack

VIVIANITE
Fe^{2+}_3(PO_4)_2 \cdot 8H_2O.
St.Agnes, Cornwall TL (almost certainly Wheal Kine)
Wheal Kine, St Agnes
Parknoweth Mine, St.Just
Botallack Mine, St Just
Wheal Edward, St Just
Wheal Owles, St Just
Wheal Jane, Kea
Wheal Falmouth, Kea
Wheal Gorland, Gwennap

VOCHTENITE
(Fe^{2+},Mg)Fe^{3+}[(UO_2)(PO_4)]_{4 \cdot 12-13}H_2O.
Wheal Basset, Illogan TL

Voltzite
E.S.Dana (1868) 5th edn. 50. C.Fondel (1967) Amer.Min. 52, 617. Shown to be a
mixture of sphalerite or wurtzite and an organometallic compound of zinc.
Cornwall, probably at Redruth.
**WAVELLITE**
$\text{Al}_3(\text{PO}_4)_2(\text{OH,F})_3\cdot 5\text{H}_2\text{O}$.
Stenna Gwynn Mine, St Stephen-in-Brannel
Castle-an-Dinas Mine, St Columb
Gunheath China Clay Pit, St Austell
Old Beam Mine, Bugle
Wheal Remfry China Clay Pit, St Austell

**WAYLANDITE**
$(\text{Bi,Ca})\text{Al}_3[(\text{P,Si})\text{O}_4]_2\cdot (\text{OH})_6$.
Restormel Royal Iron Mine, Lanlivery B1
Phoenix United Mines (Stowe's section), Linkinhorne (a mineral near waylandite)
Wheal Owles, St Just
Gunheath China Clay Pit, St Austell

**WEILERITE**
$\text{BaAl}_3\text{AsO}_4\text{SO}_4(\text{OH})_6$.
R.W. Barstow collected BM(NH) specimen BM 1975, 42, X-rd identification 'near weilerite', requires chemical examination. Wheal Unity, Gwennap

**WHITMOREITE**
$\text{Fe}^{2+} \cdot \text{Fe}^{3+}2(\text{PO}_4)_2(\text{OH})_2\cdot 4\text{H}_2\text{O}$.
Gravel Hill Mine, Perranzabuloe B1

**WICKMANITE**
$\text{MnSn(OH)}_6$.
Wheal Cock Zawn, St Just B1

**WITTICHENITE**
$\text{Cu}_3\text{BiS}_3$
C. Scheding specimen identified by P. Tandy BM(NH).
Geevor Mine, St Just

**WOLFRAMITE**
$(\text{Mn,Fe})\text{WO}_4$.
W. Phillips (1819) 190-1.
An intermediate member of the hubernite-ferberite. series, frequently used as a group name, Hey 3. Cornish wolframite is probably Ferberite q.v..
St Michael's Mount
Wheal Fanny, Redruth
Cligga Mine, Perranzabuloe
Wheal Jane, Kea
Drakewalls Mine, Calstock
East Pool Mine, Illogan
Pednandrea Mine, Redruth
Dolcoath Mine, Camborne
Cook's Kitchen Mine, Illogan
Goonbarrow China Clay Pit, St.Austell
pseudomorphous after scheelite at Wheal Maudlin Mine, Lanlivery and recently at Hingston Down Quarry, Calstock

**WOLLASTONITE**
CaSiO$_3$.
J.H.Collins (1911) JRIC, 18, 460. 'recorded by Mr. A.Russell in greenstone with blende'.
North Roskear Mine, Camborne
Clicker Tor Quarry, Menheniot
Treбurland Manganese Mine, Altarnun Bodmin
Wheal Mary, Lanivet

**WOODWARDITE**
Cu$_4$A1$_2$SO$_4$(OH)$_{12}$ .2-4H$_2$O.
Cornwall TL
South Caradon Mine, St Cleer
Wheal Cock, St Just
Wheal Hazard, St Just

**WROEWOLFEITE**
Cu$_4$SO$_4$(OH)$_6$.2H$_2$O.
Penberthy Croft Mine, St Hilary
East Gunnislake Mine, Calstock

**WULFENITE**
PbMoO$_4$.
Oxford University X-rd 1992
Greystone Quarry, Lezant
Wheal Golden, Perranzabuloe
Garras Mine, St Erme
Redmoor Mine, Callington
Polzeath Consols, St.Minver
Wheal Mary Ann, Menheniot

**WURTZITE**
(Zn,Fe)S.
Liskeard BI
Wheal Unity, St.Day BI
Gunheath China Clay Pit, St.Austell
Wheal Ellen, St.Agnes
XANHTHSITE
Ni$_3$(AsO$_4$)$_2$.
R.J. Davis, M.H. Hey and
South Terras Mine, St Stephen-in-Brannel BI

XENOTIME-(Y)
YPO$_4$.
Carnmenellis granite, inclusions in biotite
In beach sand, Carbis Bay, St. Ives
**ZEUNERITE**
\[ \text{Cu(UO}_2\text{)}_2(\text{AsO}_4\text{)}_2 \cdot 10-16\text{H}_2\text{O} \].
C.C. James (1947) TRGSC. 256-268.
Wheal Gorland, Gwennap **BI**
South Terras Mine, St Stephen-in-Brannel
Roughtor Mine, St.Clether
Wheal Maid, Gwennap
Wheal Edward, St.Just

**ZINKENITE**
\[ \text{Pb}_9\text{Sb}_2\text{S}_4\text{2} \].
R.W.Barstow specimen in BM(NH) incompletely identified.
Poltreworgy Mine, St.Endellion

**ZINNWALDITE**
\[ \text{KLiFe}^{2+}\text{Al(AlSi}_3\text{)}\text{O}_{10}(\text{F,OH})_2 \].
F. Sandberger (1885) Unters. uber Erzange, Zweites Heft. 168-69. (Protolithionite)
Hensbarrow Clay Pit, St.Austell (Protolithionite)
Great Work, St Just
Gunheath China Clay Pit, St Austell

**ZIPPEITE**
\[ \text{K}_4(\text{UO}_2\text{)}_6(\text{SO}_4\text{)}_3(\text{OH})_{10-4}\text{H}_2\text{O} \].
Old Gunnislake Mine, Calstock
South Terras Mine, St Stephen-in-Brannel
Carharrack Mine, St Day
Wheal Buller, Redruth
Wheal Edward, St.Just

**ZIRCON**
\[ \text{ZrSiO}_4 \].
As a microscopic accessory in the Carnmenellis granite
Carbis Bay
Micro crystals in Delabole slate

**ZOISITE**
\[ \text{Ca}_2\text{A}_3(\text{SiO}_4\text{)}_3(\text{OH}) \].
J.Robson.(1948) TRGSC. 17. 466.
Warren's Quarry, Camelford
Tolpetherwin Quarry, South Petherwin
Dinas Head, Padstow

**ZWIESELITE**
\[ (\text{Fe}^{2+},\text{Mn}^{2+})_2\text{PO}_4\text{F} \].
8SLBM BM(NH) identification 1987, N.Talbot specimen.
Tremearne Pegmatite, Breage **BI**
Bitumens / Hydrocarbons

**Anthracite**
Average composition C 92-94%, H 34%, O 3-4.5%, N up to 1%. J.H.Collins (1871) Pt. 2, 35. (coal) Widemouth Bay
High Cliff, St Gennys
Pednandrea Mine, Redruth
Roscrow United Mine, Ponsanooth
Wheal Jane, Kea (found in thin joints in killas 1971)
Wheal Duchy & Peru, Perranzabuloe

**Bitumens**
Wheal Jewell, Gwennap
Wheal Unity, Gwennap
Carharrack Mine, St Day
North Treskerby Mine, Redruth
North Roskear Mine, Camborne
South Crofty Mine, Camborne
Poldice Mine, Gwennap
Cook's Kitchen Mine, Illogan

Wheal Speed.