homogeneous should approximate the temperature of formation of the enclosing crystal. This might be true of some igneous minerals that have crystallized from an essentially anhydrous magma, but even then only for certain rare cases. It will not be true of vein and other hydrothermal minerals, which are the great bulk of those studied by the inclusion method. The reviewer has heated quartz crystals containing such inclusions to temperatures that were certainly above that at which the quartz grew, yet the inclusions showed no observable change.

The method suggested on page 111, of determining temperature and pressure by varying these factors until a perfect "fit" of crystal inclusions is obtained is ingenious but would be extremely difficult, if not impossible, experimentally.

There is a short index under the heading "Bibliography (Subjects)." Many important subjects, such as "critical phenomena," "supercritical phenomena," and "critical temperature" are omitted entirely. Others are very inadequately treated. For example, there are no individual mineral names in the index. If one wants information on liquid inclusions in quartz he must look up all the references to "Pegmatitic minerals, inclusions in," of which there are 55 and all the references under "Vein minerals, inclusions in," of which there are 82.

The book was produced by the photo offset method from typed copy, but it is on good paper so that it is quite as easy to read as most printing. It is by far the most complete summary that has appeared on inclusions in minerals as clues to their temperatures of formation. It will be the starting point for researchers in this field for years to come.

Earl Ingerson,

NEW MINERAL NAMES

Latiumite


White to glassy material, massive and in elongated tabular crystals occurred in two ejected blocks of the Alban Hills, associated with hedenbergitic pyroxene, grossularite-andradite, melilite, leucite, haiynne, and in one specimen also with kaliophilite. Sp. gr. = 2.93, H. = 5–6. Analysis by J. H. Scoon (combination of 2 partial analyses) gave SiO₂ 28.33, Al₂O₃ 24.67, Fe₂O₃ 0.50, FeO 0.55, MnO 0.02, MgO 0.76, CaO 29.41, Na₂O 1.11, K₂O 7.20, H₂O none, H₂O⁺ 0.27, SO₃ 5.42, CO₂ 1.60, Cl 0.14; sum 99.98 – (O:Cl) 0.03 = 99.95%.

Further chemical and x-ray data are needed to determine the formula; two possibilities are X₃Y₃Z₄O₁₂(SO₄) with X = 5.91 Ca, 0.40 Na, 1.73 K, Y = 0.76 Al, 0.16 Fe, 0.21 Mg, Z = 5.31 Si, 4.69 Al, SO₄ 0.76, 0.40 CO₂, 0.02 Cl; or X₄Y₂Z₂O₁₃(SO₄) where X and SO₄ are as above, Y = 3.76 Al, 0.16 Fe, 0.21 Mg, and Z = 5.31 Si, 1.69 Al.

The first would be a sheet structure, the second perhaps one of mixed groups (SiO₄)(Si₂O₇).

Latiumite is decomposed by weak acids leaving a silica pseudomorph. It fuses before the blowpipe and the resulting glass partly devitrifies at a low red heat to a fine-grained product that gave an x-ray powder photograph similar to that of melilite.

Latiumite is monoclinic. Weissenberg and oscillation photographs gave a = 12.12, b = 5.13, c = 10.80 Å, beta 108°. G. calcld. 2.93. X-ray powder data are given. There is a perfect cleavage (100) and this is also the twin plane. The mineral is variable optically, indices recorded being α = 1.600, β = 1.606, γ = 1.614, also α = 1.603, β = 1.609, γ = 1.615. Mottled extinction is characteristic, with α:ε ranging from 16° to 28° and 2 V from 83° (+) to 72° (–). Presumably the variation in optical properties is due to variation in composition...
of a solid solution. The optic axial plane is perpendicular to (010). Dispersion is marked $r > v$.

The name is for the locality.

**Cheralite**


Dark- to pale-green masses up to two inches across occur in a kaolinized pegmatite dike at Kuttakuzhi in Halkulam taluk (parish), Travancore, southern India, associated with black tourmaline, chrysoberyl, dark zircon, and smoky quartz. It also occurs sparsely in the adjacent wall-rock (kaolinized granite-gneiss) and in surface wash.

Hardness = 5, sp. gr. (pyknometer in CCl$_4$) = 5.3 ± 0.1. Luster resinosus to vitreous, fracture uneven, brittle. Optically biaxial, positive with indices $\alpha = 1.779$, $\beta = 1.780$, $\gamma = 1.816$. 2V measured 17.4 to 19.0°. Pale green in thin section; pleochroism faint, $\alpha$ and $\beta$ green, $\gamma$ green with a yellow tinge. Dispersion not perceptible. Cleavages and optical directions (tentative since crystal faces have not been identified certainly): cleavage (010) distinct, (100) difficult, parting on (001) poor, $\alpha:b$, $\beta:c:7^\circ$.

A sample purified by electromagnetic separation and immersion in hot dilute HCl was analyzed by the Radiochemical Division, Chemical Research Laboratory, Teddington, giving $P_2O_5$ 26.80, $SiO_2$ 2.10, $TlO$ 31.50, $UO_2$ 4.05, $Ce_2O_3$ 14.21, $La_2O_3$ etc. 13.35, $Fe_2O_3$ trace, $Al_2O_3$ trace, $CaO$ 6.30, $PbO$ 0.92, $H_2O$ 0.06; sum 99.97%. The $La_2O_3$ etc., contained major $La$, $Pr$, $Nd$, minor $Gd$, $Sm$, $Y$. This gives $Ca_6O_7(T_{1.14}U_{0.14} getFile: /home/catalog/2023.10.14/Obituaries/Obituaries.pdf

**Görgeyite**


The mineral occurs with glauberite and minor halite and polyhalite in the Leopold horizon, Ischl salt deposit, Austria. Thin tabular crystals with $c(100)$ dominant, also $a(100)$, $s(111)$, and $m(110)$. Luster vitreous, colorless to yellowish, $H$ = to or greater than that of anhydrite (3½). $G$ = 2.75 monoclinal-prismatic, $C_{3h}-2/m$, $a:b:c=2.53:1:2.70$, beta $113^\circ 14'$. Cleavage (100) district, fracture splintery.

The mineral is biaxial, positive, $ns$ ($Na$) $\alpha = 1.560$, $\beta = 1.569$, $\gamma = 1.584$, 2V = 79°. Analysis by W. Zuricker gave: $SO_4$ 54.08, $Cl$ 0.06, $CaO$ 30.04, $K_2O$ 10.82, $Na_2O$ 1.77, $Rb_2O$ 0.18, $H_2O$ 0.34, $H_2O^+$ 2.82, gangue 0.08; sum 100.9%. This corresponds to $K_2SO_4:5CaSO_4:1\frac{1}{2}H_2O$, after deducting a little NaCl. Na may replace Ca or may be present as glauberite. The mineral loses little or no weight when boiled in water, but the surface becomes rough.

The name is for R. Görgey, who published many papers on the petrography of Austrian salt deposits.
Discussion: The compound $K_2SO_4\cdot 5CaSO_4\cdot H_2O$ has been reported as a phase in the system $K_2SO_4-CaSO_4-H_2O$; see A. E. Hill, *J. Am. Chem. Soc.*, 56, 1071–1078 (1934).

M. F.

**Huntite**


**Faheyite**


**Sahamalite**


**Manganpyromalite**


**Hydrohausmannite**


**Woodruffite**


**Roentgenite**


**Faustite**


**Moraesite**


**Burbankite**


**Calkinsite**


**Hidalgoite**


**Montroseite**


M. F.
NEW MINERAL NAMES

DISCREDITED MINERALS

Magnalumoride (=Spinel)


The material described by Bobkov and Kazitsyn (see Am. Mineral., 37, 360 (1952)) as a solid solution of Mg(Al, Fe)O₄ was re-examined. Three new chemical analyses are given including one from the Gon River; all give RO:R₂O₄ very nearly 1:1 and the optical and x-ray data correspond in every way to spinel. The analysis cited by Bobkov and Kazitsyn, which gave FeO 0.99, Fe₂O₃ 11.37, was apparently in error, the new analysis from Gon River giving FeO 8.23, Fe₂O₃ 3.28%.

N. EFREMOV

Crestmoreite, Riversideite (=mixtures of Tobermorite and Wilkeite)


X-ray study and a new chemical analysis, made on type materials, show that both crestmoreite and riversideite are submicroscopic intergrowths of tobermorite (CaSiO₄·nH₂O) and wilkeite.

MICHAEL FLEISCHER

Belyankite (=Creedite)


A new analysis, x-ray powder data and optical data, and differential thermal analysis show that belyankite is identical with creedite. Compare Am. Mineral., 37, 785–790 (1952).

M. F.

Arequipite (=Bindheimite)


Arequipite, described in 1878 by Raimondi as a silicoantimonate of lead, is found by optical and x-ray study of type material to be a mixture of bindheimite and quartz.

M. F.

Coronguite (=argentian Bindheimite)

B. MASON and C. J. VITALIANO, op. cit.

Coronguite, described in 1878 by Raimondi as an antimonate of lead and silver, gave an x-ray powder photograph identical with that of bindheimite and is presumably an argentian variety, perhaps intermediate between bindheimite and stetefeldtite.

M. F.

Flajolotite (=Triphylite)

B. MASON and C. J. VITALIANO, op. cit.

X-ray study shows that flajolotite (Lacroix, 1910) is identical with triphylite (Hussock and Prior, 1897). Since triphylite is found to be isostructural with bystromite, the formula FeSbO₄ is more probable than Fe₂Sb₂O₇.

M. F.
Chlorastrolite (= Pumpellyite)


The light bluish-green pebbles from Isle Royale, Lake Superior, named chlorastrolite by Whitney in 1847, had previously been referred to thomsonite and to prehnite, but are shown to be pumpellyite by optical, x-ray, and chemical study.

M. F.

Buszite (= Bastnaesite)


Buszite, described in 1929 as a rare earth silicate from Khan, S. W. Africa, is shown by chemical analysis, optical and x-ray study, goniometric measurements, and differential thermal analysis to be bastnaesite.

M. F.

Apoanalcite (= Natrolite)


This supposedly new zeolite (Offedahl, 1947) is shown by optical and x-ray study to consist mainly of natrolite with a small amount of another mineral, perhaps hydronephelite.

M. F.

Zebedassite (= Saponite)


Chemical analysis, x-ray powder data, differential thermal analysis, and base exchange determinations show zebedassite to be a saponite.

M. F.

Cryptomorphite (= Ginorite)


X-ray, optical, and chemical data show that cryptomorphite (How, 1861) is a mixture of sodium sulfate and ginorite (D’Achiardi, 1934). The name cryptomorphite should be dropped.

M. F.

Belyankite (= Creedite)


Cervantite, Stibianite, Volgerite, Hydronomeite (all = Stibiconite)


Arsenostibite (= Arsenian stibiconite)

Vitaliano and Mason, loc. cit.

Stibioferrite (= Mixture of bindheimite and jarosite)

Vitaliano and Mason, loc. cit.
Rivotite (Mixture of stibiconite and malachite)  
VITALIANO AND MASON, loc. cit.

Barcenite (Mixture of stibiconite and cinnabar)  
VITALIANO AND MASON, loc. cit.

Guadarramite (Mixture of ilmenite and monazite)  

Ferroschallerite (Ferroan friedelite)  

Christensenite (Tridymite)  

Duplexite (Bavenite)  

Nicolayite, Hydrothorite, Maitlandite, Mackintoshite, Hyblite  
(all = thorogummite)  

Tinzenite (Manganoan axinite)  

NEW DATA

Tobermorite  

A new analysis of tobermorite (Heddle, 1880) by D. I. Bothwell gave SiO₂ 46.17, Al₂O₃ 4.26, FeO 0.15, MgO trace, CaO 35.15, Na₂O 0.56, K₂O 0.25, H₂O 13.47; sum 100.01%. G. = 2.458, mean n 1.558. X-ray powder data show the mineral to be distinct from gyrolite and to be close to synthetic hydrated calcium silicate. The composition is regarded as CaSiO₃·H₂O with replacement of 3Ca by 2Al and of Ca by (Na, K)₂.

Partzite  

X-ray study of type material (Arents, 1867) showed it to be mainly composed of a bindheinite-like mineral, with quartz and limonite present. Considerable variations in index of refraction (1.61 to 1.82) and specific gravity (2.98 to 3.96) were observed; spectro-
graphic determinations showed variations, but Cu and Sb were dominant in all specimens, with some Fe and Ag present, and Ca ranging from a trace to several per cent. Partzite may be regarded as the copper analogue of bindheimite.

M.F.

Stetefeldtite


X-ray study of type material from Belmont, Nevada (Riotte, 1867) showed that it consisted of a bindheimite-like mineral with chalcocite and pyrite. Spectrographic analysis showed that silver and antimony were the major metallic elements. Recalculation of the original analysis gives per unit cell Ag₃.₅Sb₁₁.₄(O, OH, H₂O)₆₀.₆. Stetefeldtite is therefore the silver analogue of bindheimite.

M.F.